Implementation Research: Taking Results Based Financing from scheme to system

National Diffusion of a Policy: The Experience of Rwanda with Exploiting, Extending, and Sustaining the Performance-based Financing for Better Health Outcomes (2005-2015)

Research Report

Rwanda

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Acronyms

AHPSR	Alliance for Health Policy and Systems Research
BTC	Belgian Technical Cooperation
CAAC	*Cellule d'Appui à l'Approche Contractuelle*
CHSP	Community Health Strategic Plan (2012-2018)
CHW	Community Health Workers
CHWC	Community Health Workers Cooperatives
cPBF	Community Performance-Based Financing
CBHI	Community-Based Health Insurance
DHS	Demographic Health and Survey
DA	Development Assistance
DP	Development Partners
DHMT	District Health Management Teams
EDPRS	Economic Development and Poverty Reduction Strategy
EU	European Union
GTZ	German Technical Cooperation
GoR	Government of Rwanda
GDP	Gross Domestic Product
HSSP III	Health Sector Strategic Plan III
HIV/AIDS	Human Immune virus /Acquired Immunodeficiency Syndrome
HIV	Human Immunovirus
ITM	Institute of Tropical Medicine
KII	Key Informants Interviews
MSH	Management Science for Health
MBB	Marginal Budgeting for Bottlenecks
MCH	Maternal and Child Health
MDGs	Millennium Development Goals
MoF	Ministry of Finance and Economic Planning
MoH	Ministry of Health
MPPD/RBC	Medical Procurement and Production Division/Rwanda Biomedical Center
ODA	Official Development Assistance
P4R	Pay-for-Reporting
PBF	Performance-Based Financing
PPP	Public-Private Partnership
RBF	Results-Based Financing
UNICEF	United Nations International Children Fund
USAID	United States Agency for International Development
UR/CMHC/SPH	University of Rwanda/College of Medicine and Health Sciences/School of Public Health
VUP	Vision 2020 *Umurenge* Program
WB	World Bank

EXECUTIVE SUMMARY

1. Background

During the last decade, Rwanda like many other developing countries has been trying to improve health indicators in order to achieve national and international development goals. In search for strategies to motivate further health providers to achieve those goals, Performance-Based Financing (PBF) appeared to be the best practices with evidence available from both developed and developing countries. From the year 2000 to 2006, Rwanda had pilot projects that played an important role in demonstrating that rapid scale-up was possible at national level (Canavan, 2008). In 2006, PBF gathered momentum in term of generating evidences and by the end of 2006; facility-based PBF had been scaled up in all health facilities across the country (Basinga, 2010; Canavan, 2008; Meessen, 2004). However, the lack of performance was observed some indicators for which the providers had little control but for which the community had more control (Basinga, 2010). This informed MoH decision makers and DPs to think of alternative strategies in order to address the community-level underperformance and one possible strategy was to offer to community health workers (CHW) financial incentives based on services delivered. The underperformance at the community level contributed to the discussions the finally lead to the establishment of the Community-based PPBF (cPBF).

This study is aimed at sharing the experience of Rwanda in exploiting, extending, and sustaining the performance-based financing (PBF) during the period 2005 and 2015. Specifically, the study tries to: understand the policy actors, content, context, and processes that led to the expansion of the PBF policy from health facilities to the community. The present study also assesses the resilience of PBF after scale-up by exploring the opportunities and challenges faced by PBF in Rwanda, identifies institutional reforms inspired by PBF after scale up and tries to understand how policy makers and other stakeholders envision the future of the PBF implementation in Rwanda. Finally, the study draws recommendations for the health policy makers in Rwanda to ensure further progress is made and for other countries in similar contexts willing to implement the cPBF model.

2. Methodology

The present study is a retrospective policy analysis focusing on the understanding of how PBF policy was expanded from health facilities to the community level. A thorough review of the literature was made focusing on policies and strategy documents, peer-reviewed papers related to PBF in Rwanda and key informants interview. We employed Walt and Gilson's conceptual framework (1994) for policy analysis to understand how actors, contents, and context shaped the process of expanding PBF policy from health facilities to the community. Key informants (KI) were identified using a snowball sampling technique during a consultative meeting with research team at School of Public Health (SPH) and relevant staff at the MoH. An interview guide was prepared and reviewed to guide the process of conducting interviews. Because most pioneers of PBF had left the MoH and were working either within Rwanda or overseas, appointments were made either through phone calls or emails. 25 participants were proposed and contacted to participate in the interview, but only 20 KI were available to participate in the interviews. For different reasons, the remaining 5 could not be available for interviews. Consent and standard ethical procedures were observed throughout the data collection process and reporting. The analysis was done manually: audio recordings from interviews were transcribed and a thorough reading of the transcripts was made; emerging ideas were considered as themes and organized as sub-titles of each study question/objective. A nother round of literature review was made to

complement emerging ideas from the interviews for triangulation of information to inform the process of writing the report. The current report benefitted from comments and suggestions coming from MoH advisors, senior researchers at the School of Public Health, the WHO, and ITM experts.

3. Key Findings

3.1 The actors, content, context, and processes for expanding PBF policy from health facilities to the community

The expansion of PBF policy from health facilities to the community was mainly influenced by the Government of Rwanda (GoR) with the support of the World Bank and USAID/ Management Sciences for Health (MSH). The data collected suggest that the successful expansion of PBF from facilities to the community was driven by three main factors: (1) the enthusiasm of policy makers for quick results in order to attain national and international development targets, (2) the great success of facility PBF and its endorsement in the wide community of practice, and (3) availability and commitment of DP that contributed in shaping the process of diffusing the PBF policy from health facilities to the community through direct funding and expertise.

The Policy actors: The actors in the expansion of PBF from health facilities to the community benefited from good collaboration amongst GoR institutions, DP's and private sectors. There were two main groups of actors: national and international actors; national actors include the Ministries of: finance, health and local government, the University of Rwanda/School of Public Health and the private sector. The international actors include the World Bank as the main player due to the greater role (finance and technical expertise) they played during facility-based PBF scale up in 2006, USAID funding through MSH, etc. It noteworthy that, generally, the community and facility PBF did not have clear opponents during implementation for couple of reasons: (1) once the GoR policy makers believes that the strategy has the potential to generate intended results, all key stakeholders are coordinated effectively to ensure harmony, consistence and a common vision towards implementing that strategy; (2) policy makers are results driven. They are not afraid to implement new and more effective strategies and drop the non-effective ones, if proven; and (3) in relation to this study, the policy makers agreed with the World Bank to avail resources to start cPBF in order to: improve service delivery at community level, but also to share Rwandan best practices with other countries through cPBF IE study.

The Policy content: The main contents during the expansion of PBF from facility to the community were identified via the review of literature, evolution of cPBF and through KII. The establishment of the CHWs system, the development of minimum package of activities, organizing CHWs into cooperatives, and the availability of resources was central to extending PBF policy from facilities to the community. The cPBF was designed with goal, principles, vision, indicators and a feasible business and management model that allowed resources to trickle down to CHWC for capital investments. The core approach to the design was to strengthen community health system built on an effective community information system for community data reporting and feedback on key MCH, HIV, and TB services with strong consideration of income generating activities to ensure technical and financial sustainability.

The policy context: From 2005 and 2010, Rwanda provided excellent environment for rolling out innovations. First, the leadership, the fiscal decentralization that came with capacity building at sub-national level. These created an enabling framework for implementing national program agendas with clears goals and target oriented. This environment was also favorable for DP

willing to invest their resources because there were transparent accountability mechanisms. The contribution from other sectors like the MoF and Local Government in creating such contextual environments cannot be underestimated (e.g. the MoF aid policy of 2006 and decentralization policy were both critical in creating an enabling environment for scaling up innovations).

The policy process: The process (informed by timeline analysis) involved broader multi-stakeholder consultations. As said before, the GoR and World Bank were main actors and also the main driver of the process. The initial period (2005-2009) was characterized by negotiation of grants between the MoF, MoF and WB. A share of the grant was supposed to be invested in the cPBF (cPBF pilot, cPBF IE and capacity building). By 2008 the GF and WB were offering financial incentive CHWs based and quality of reporting (not performance-based). During 2009, GoR and WB convened more meetings to discuss cPBF pilot, nest, cPBF IE, discuss capacity building issues, etc. From 2010-2015, the cPBF pilot was rolled out, IE completed, and disseminated. Through consultative meetings with DPs, PBF funds were directly transferred to CHWC and CHWs paid based on individual performance.

3.2 Institutional reforms/changes

The cPBF came as one of the important reforms that benefited from the scale up of facility-based PBF. PBF in Rwanda has made impact on several key area: (1) Greater accountability at facility and community levels due to decentralization from central ministries to district and sector levels; (2) Improved joint management and greater coordination of financial resources for both health and non-health stakeholders at the district level; (3) Initiation of PBF for MoH central administrative staff. Acknowledging its dependence on DPs money and already moving towards strengthening grassroots communities, the government pushed towards the creation of community health workers cooperatives (CHWC) as a sustainability strategy for cCPBF. PBF continues to impact health and non-health programs such as the introduction of the accreditation system based on setting standards across health facilities and motivating those facilities to achieve set standards. The non-health reforms include introduction PBF in the Ministry of Education's high education (MoE)—also known in the MoE as "Performance-based aid"; the introduction of "community facilitators" in the Ministry of Agriculture (MoA), through what they (MoA) call "Community extension models"; and the recent introduction of PBF in the School of Public Health (2010-2014).

3.3 The resilience of facility PBF after scale-up (2006-2015)

Using payment based on performance gained popularity among implementers and development partners in Rwanda. Our findings suggest that the PBF was resilient over time due to several reasons: (1) PBF was seen as a best practice within the global community of practice and over time positioned itself as a policy worth implementing, (2) The 2006-2008 GoR-World Bank facility-based PBF study showed positive results and convinced the policy makers that it was a tool for greater and rapid results, (3) The GoR and DPs succeeded at integrating the implementation of the PBF strategy within the health system while also aligning the health-financing unit based on the MoF Aid policy of 2006. The ownership by the GoR beyond MoH made it difficult for anyone with intention of pushing it back, (4) PBF in Rwanda had external funding which was initially independent from the Government; upon the GoR recognizing the quick benefits, contributed relatively high share of the budget line, currently estimated at 60%, and designed CHWC to ensure long term use of development partner funding for future survival.

3.4 The future of PBF in Rwanda as perceived by respondents

Most participants believed that Rwanda could continue to draw on existing domestic and DPs funding streams as well as available evidences from IE studies to sustain the PBF strategy. Most, participants think that the decrease in development partner funding should be seen as "*an opportunity rather than a challenge because every institution (including PBF) should work at ensuring auto-sustainability*". In addition, senior staff from the MoF emphasized that the "*MoF funds priorities set by different ministries including that of MoH, so it is up to the health sector to set out its priorities clearly*". The large majority of respondents believed that PBF achieved what it was meant to do in Rwanda namely providing incentives to improve health indicators and driving Rwanda towards the MDGs. These responses are in line with the Health Financing Sustainability Policy (2014) and the views of the GoR, which raised the point that more resources should be channeled in form of PBF. But the main question remains to see PBF will shape in the changing future contexts.

To ensure sustainability, however; participants think the PBF sustainability remains a challenge and recommend more research in providing feasible options. Participants acknowledged efforts of the government in making PBF more sustainable by increasing its share of domestic resources. However the health financing sustainability policy recommends further studies to assess the costs and fiscal space for the sustainability of PBF. Respondents affirm that sustainability of PBF in Rwanda is on track because currently significant amount of money currently comes from domestic budget to support PBF operations. In an effort to implement PBF in a resource-constrained setting, most participants emphasized the increase in efficient use of resources. During early PBF scale-up, there was a limited involvement of the private sector and for sustainable results; the private health sector needs to be more involved, particularly through insurance schemes to assume the role of purchasing.

Although not applies to cPBF only, the following issues raised by participants have a potential to hinder the implementation of cPBF if not corrected: (1) the inadequate capacity and resources for: supervision, coordination, training and equipment hinders the implementation of CPBF, (2) The isolated cases of misuse of PBF to sanction for issues not linked with performance indicators. These may deviate the principle of PBF and may have unintended impact, (3) the separation of functions among agencies that provide policy guidance, implement, purchase and evaluate PBF at central, district, health center and community levels. Clear separation creates more accountability and avoids potential for conflicts of interest, (4) The last but not least issue was that participants thought PBF in general may divert attention towards paid indicators and neglect non-incentivized services. However, this can be addressed by frequent change of indicators based on the changing priorities, (5) Participants expressed support for the associating accreditation and PBF but they suggest that care should be taken. Whereas, the intention is good, and the process is very possible; the two strategies have different focus and thus merging the two needs more deep examination to ascertain possible shortfalls.

4. Recommendations

4.1 **Recommendations for Rwanda**

The main actors expansion of PBF policy from the facilities to the community were: GoR (MoF, MoH, and MoL) and WB. Other stakeholders included: USAID/MSH, UN agencies (UNICEF and WHO), BTC, GIZ and Swiss Cooperation. The GoR and the WB drove process, which involved consultations. GoR was interested in key health indicator while the WB was mainly interested in IE to generate evidence, as there were many developing countries piloting PBF. There was no real opposition to this move. With favorable political environment and no clear opposition to the move, all key decisions become easier to endorse by policy makers. The evidence from facility-based PBF IE evaluation made the process much easier. Clear indicators and data systems were already in place and what was missing capacity building, which was done progressively.

Below, we provide key recommendations in order to sustain a strong and successful PBF financing strategy: (1) On the financing and evaluation side: The GoR needs to increase domestic budget for health and allocate a fair share of spending on health to cPBF, without compromising quality of other services. The public-private partnership needs to be strengthened to finance PBF with domestic resources and enable other sectors to learn from what the MoH has done. To ensure alignment of the PBF principles, the findings suggest a clear a provider-purchaser-evaluator split to enable the three agents to function separately; these roles and responsibilities should be shared between institutions within the government and between the government and private sector. The diversion effect of cPBF can be solved through dynamic design involving a mix of indicators, (2) On the organization and management side of cPBF, there is need to strengthen the capacity of the community health chain from central to community levels: staffing, equipment, and training. Additionally, the GoR needs to strengthen community health workers cooperatives through training and designing a clear description of workload for community health services and cooperatives.

4.2 **Recommendations for other countries in similar context as Rwanda**

For other countries to emulate Rwanda's experience in the implementing of PBF, it is important to learn from best practices and challenges, and consider country specific contexts:

1. Countries should expect some resistance to change because PBF brings a new mindset—a new way of doing business; for people used to inputs-based financing, the RBF may be challenging and bring a feeling of panic;
2. Countries need effective development partner coordination and efficient use of resources through resource pooling mechanisms from both development partners and government to achieve set targets;
3. Strong national development agenda driven by national programs and willingness to use PBF as a strategy to achieve national and international development goals;
4. Leadership committed to results, stewardship in monitoring data and indicators are key to achieve performance;
5. Support for health systems in general (human resource, financing, equipment, supply chain, etc.) and regular internal and external evaluations to identify best practices and pick early warning signs and act on them timely;
6. Countries with limited resources need to learn how to do basic things themselves without waiting for an external technical assistance. Simple policies written in few pages may be

enough to start implementation—and this accelerates the process of ownership and accountability;

7. Countries should avoid making PBF a vertical program as most donors opt; it should be mainstreamed within the rest of health financing system to ensure sustainability in the future.

1. INTRODUCTION

Over the last decade, dramatic changes in health financing reforms were observed in the low and middle-income countries in order to accelerate the attainment of national and international goals such as the millennium development goals (MDGs). The reforms included among others were the Results-Based Financing (RBF) and universal health coverage. Experts have defined RBF as the "*transfer of money or material goods conditional upon taking a measurable action or achieving a predetermined target*" (Eichler, 2006). RBF holds different names according to the actors that are incentivized by the scheme; performance-based financing refers to RBF schemes focused on rewarding health facilities. The concept of paying for results in health was brought to Rwanda in 2000 when the first knowledge brokers, mainly the World Bank came with funding and ideas about PBF to Rwanda (Canavan, 2008). The first PBF pilot in Rwanda were implemented in three different sites from 2000 to 2006 and in 2006 PBF had gathered momentum in terms of generating evidence for scale-up. By the end of 2006, PBF was scaled in all health facilities and across the country (Basinga, 2010; Canavan, 2008; Meessen, 2004) .[1]

As Rwanda was implementing the facility-based PBF, indicators on which health providers had control over improved significantly whereas those over which the providers had little control, i.e. those that depended on decisions made at household and community levels did not improve as well. Some of the community and households health indicators are the number of deliveries, immunization, etc. (Basinga, 2011). Shortly after the scale up, the World Bank and GoR were interested in the implementation of high impact interventions at community level, the kind of interventions that could dramatically reduce poverty at the community level. Among other interventions, PBF at community level was an idea that the World Bank and the MoH thought could be rapidly transformative for indicators depending on community and households decision. In 2008, with the evidence from facility PBF, the MoH endorsed the move towards the implementation of the cPBF that was implemented by community cadres known as CHW with a clear focus on strengthening maternal and child health. The Global Fund and USAID stepped in to improve indicators related to HIV/AIDS, Malaria and tuberculosis. At this level 2006/2007, the program provided financial incentives to the CHWs based quality of the report (reporting on time, completeness, and accuracy—it was not performance based).

Through complex processes, the cPBF policy was formulated (based on performance on pre-determined indicators) to address the delivery of quality and quantity health services at the community level. This study aims at documenting the actors, the content, the context and the process of expanding PBF policy from health facilities to the community, and ten years down the road implementing the facility PBF, this study would like to understand the Institutional reforms inspired by the PBF in general. With the PBF still depending on DPs, we attempt to also examine the future of Rwanda PBF based on MoH and stakeholders.

[1] A paper by Bruno *Meessen* et al. is being developed to document the early experience of PBF in Rwanda from 2000-2006 and how that experience and the knowledge it generated was transformed into a formal government policy.

2. BACKGROUND

2.1 General description of Rwanda

Rwanda borders with Uganda in the North, the Democratic Republic of Congo in the West, Tanzania in the East, and Burundi in the South (See map). In 1994, Rwanda experienced war and genocide that claimed about a million people. Since then the country made great strides in socioeconomic transformation and the nation has achieved the health related Millennium Development Goals (MDGs) (UNICEF, 2012; WB, 2004). Based on the Rwanda National Institute of Statistics, the population is estimated at 11,262,564 (NISR, 2015). In the last decade, the economy improved dramatically, Rwanda was ranked the 10th fastest growing economy in the world, with an average annual GDP growth of 8.2% and a GDP per capita increase from US$ 200 in 1994 to US$ 595 in 2012 (MINECOFIN, 2013). The success of Rwanda in making progress to achieve national and international commitments has built on increasing flexibilities to implement innovative strategies and the availability of external funding and readiness by the Government to co-finance from domestic sources. Several scholars have identified innovative policy reforms in health financing including PBF and community-based health financing (CBHI) as the contributors of the progress within the health sector (Lu, 2012; Makaka, 2012; MoH, 2011; WHO, 2013). The present study focuses on the PBF within the Rwandan health sector.

Figure I: The Map of Rwanda showing international boundaries

Source: http://www.nationsonline.org/oneworld/map/rwanda_map2.htm

2.2 PBF within the Rwanda health financing framework and its impact

The mission of Rwanda's health sector strategic plan (2012-2018)[2] is to « *provide and continually improve affordable promotive, preventive, curative and rehabilitative health care services of highest quality, thereby contributing to the reduction of poverty and enhancing the general well-being of the population.* » The vision of the Rwanda's Health Financing and Sustainability Policy (2015) is that: « *Every person living in Rwanda has financial access to quality health services in an equitable and efficient manner through a self-sustaining health financing system*». Health Financing is one of the core health systems support mechanisms laid out in the Health Sector Strategic Plan and Health Sector Policy[3]. As part of its support to health financing, Rwanda has met the 2001 Abuja commitment aimed at providing at least 15% of national annual budgets for health. To ensure efficient and ownership of health programs among other sectors, the GoR through MoF developed an aid policy in 2006 and an aid manual of procedure in 2015. According to the HSSP III, the total health expenditure has grown from around USD 10 per capita in 1998 to almost USD 40 per capita in 2010. However, most of this growth is due to an increase in funding from development partners, which represented 61% of total health expenditure in 2014. The table below shows the projected progress of the GoR for resources allocation in health.

Table I. Baseline and targets in GoR Health Financing of HSSP III

Expected Outputs / Outcomes	Baseline 2011	Targets 2015	Targets 2018
% GOR budget allocated to Health	11.5	12	15
Per capita total annual expenditure on health	$ 39.1	$ 42	$ 45
Per capita allocation to PBF (USD)	1.8	2.0	TBD
% Population covered by CBHI	91	91	TBD

During the last couple of years, there has been a reduction in development partner external funding prompting the MoH to develop a health financing sustainability policy in 2015 (MoH, 2015) aimed at "*ensuring that Rwandans have universal financial access to quality health services in an equitable, efficient and sustainable manner*." Private health expenditure largely remained higher than public health expenditure during these years, with the former being USD 8.2 per capita in 2010, while public expenditure was at USD 6.25 per capita. Whereas the sustainability of PBF has been questionable, the health financing strategy reports that for the financial year 2012/2013, the GoR covered a big share of the cost of PBF at 60%, followed by Global Fund at 30% and US Government through USAID with 10%. It is worth noting that the health financing is skewed to fit development partner targets with HIV/AIDS services accounting for 27% of the total PBF expenditures. The contents of the financing strategy suggest that it is possible for all sources of funding to be allocated by output-based payment systems and create more value for money for health (Health Sector Financing Policy, 2014).

2.3 Management and implementation of PBF in Rwanda

The management of PBF strategy in Rwanda has three levels: central, district and community. The active involvement of the MoH at central level started in 2005 and was aimed at providing expertise to districts, hospitals and health centers through a special support unit or CAAC (*Cellule d'Appui à l'Approche Contractuelle*). In 2009 when the cPBF started, it was considered

[2] Health Sector Policy 2015

[3] Health Sector Strategic Plan III, 2012-2018

[4] (I) Impact evaluation of PBF-Rwanda School of Public Health and Berkeley's University, 2010; (ii) Can innovative health financing policies increase access to MDG-related services? Evidence from Rwanda, Health Policy and Planning 2011; (iii) Reduced premature mortality in Rwanda: lessons from success, BMJ 2013; (iv) Do insurance mechanisms improve population health? Lancet 2012.

as a component of the community health department and was not coordinated under the CAAC, but the two units had regular consultative meetings. In 2012, the CAAC was merged with the Directorate of Planning, Health Financing and Information system in the MoH. In 2014 the facility-based PBF was merged with the planning department and this constituted the MoH Directorate General of Planning, Health Financing and Information System (PHFIS) and in early 2015, the cPBF also joined the DG/PHFIS. The Directorate General oversees the running of the day-to-day activities related to the implementation of the PBF countrywide such as the development and updating of operational guidelines, indicators and contracts, monitoring of the use of guidelines, assessment of the accuracy of the district hospitals evaluation of health centers' performance, expediting payment processes, and manage PBF resources and data counter-verification.

At decentralized level, the district steering committee provides a wide-range of technical assistance including supervision to ensure that quality data at hospital and health center level is collected, ensures smooth running of PBF related activities and creates a crucial role in the decentralized institutional setup, signs performance contract with district mayors, provides technical assistance through the district hospital supervision and data verification of health centers and prison dispensaries (MoH, 2010). At the community level, CHW receive incentives based on the quality and quantity of the report and the performance level of predetermined maternal and child health indicators. Based on the existing network of CHW, cooperatives were created as a way of easing payment transfers and later on sustaining the financing of the cPBF strategy through income generating activities. Health centers acts as the administrative unit for cPBF implementation. To ensure sustainability of the CHWC after external funding has stopped, 30% of the community-based PBF payment is allocated directly to the CHWs based on individual performance while 70% goes to the CHWC to boost cooperative capital investment. A sector steering committee at the level of the health center verifies, approves community reported data and advises on the performance levels required. The details are discussed under results sections below.

2.4 Population and services covered

PBF covers the entire country and all population groups by targeting district hospitals, health centers, and community health workers with a particular focus on maternal and child health. As far as health facilities are concerned, PBF covers clinical services at district hospital and health center levels, including curative and preventive care. PBF also covers personnel (bonuses payment based on performance levels), capacity building and support to the management of the supply chain for consumables (supportive supervision and on-the-job training). The curative and preventive care components include: (1) the detection and management of tuberculosis from the community to health centers using specific PBF indicators. (2) The screening and management of HIV and AIDS including the prevention of the mother-to-child transmission (PMTCT), antiretroviral (ARVs) treatment and management of opportunistic infections, (3) maternal and child health focusing on antenatal and postnatal care, facility delivery, caesarian section for complicated deliveries, family planning, and monitoring of nutrition status for under 5 children. Preventive care covers community initiatives such as Voluntary Counseling and Testing (VCT), behavior change and communication as well as promotional activities included in the cPBF.

3. AIM AND OBJECTIVES

3.1 Aim

The aim of this study is to document the evolution of the PBF with a particular focus on community-based Performance Financing strategy from 2005 to 2015 and explore the future of the Performance-based Financing strategy in Rwanda.

3.2 The study Objectives

To respond to the above study aim, the following objectives were formulated:

1. To explore the policy by understanding the actors, the contents of policy making, the context, and processes that led to the expansion of the PBF policy from health facilities to the community;
2. To examine how the PBF strategy evolved after scale-up by exploring the opportunities and challenges faced by PBF in Rwanda;
3. To identify institutional reforms/changes inspired by the PBF after scale up;
4. To understand how policy makers and other stakeholders envision the future of the PBF implementation in Rwanda; and
5. To draw policy implications for health policy makers in Rwanda and for other countries in similar contexts.

Based on the above objectives, the following research questions were formulated:

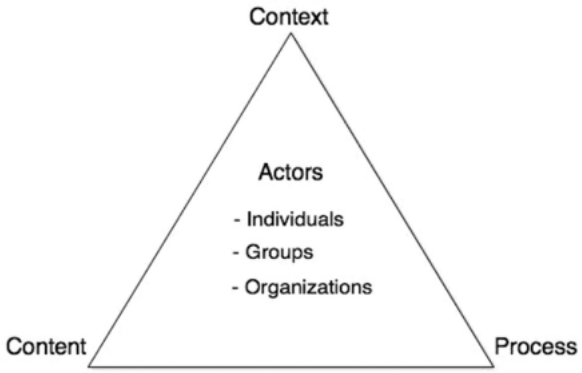
1 What factors shaped the decision to expand PBF policy from facility to community level? Who were the actors, and what were the contents, contexts, that shaped the process during the period 2005-2015?
2 What institutional changes/ reforms within or beyond the health sector have taken place following the scale up of PBF in Rwanda, during the period 2005 to 2015?
3 What factors have contributed to the resilience and success of PBF in Rwanda?
4 What are the policy makers' and stakeholders' views on the future of PBF strategy following its scale in Rwanda?
5 What policy recommendations can be drawn for Rwanda and other countries in similar context?

4. METHODOLOGY

4.1 Research design

This study is a retrospective policy analysis that focuses on the expansion of PBF from facilities to the community levels. To achieve all the study's objectives and respond to its questions, a review of policy documents, reports and peer-reviewed articles was done and this was completed with in-depth interviews. The first research question inspired the use of a policy analysis tool that focuses on the critical understanding of the relationships among the actors, context, content and process. The Walt & Gilson framework (1994) for Health Policy Analysis seemed most appropriate to inspire our approach to this analysis (See figure II). Guided by Walt and Gilson's framework, an effort to identify the extent to which different components of the framework interrelate was done: knowledge and evidence *(policy_content)*, key stakeholders involved (*policy actors*) in the expansion process (*policy process*) of the PBF strategy for conceptualization, design, implementation, and/or the environment (*policy context*) where PBF policy was expanded from clinics to the community level.

Figure II: Walt & Gilson's Policy Analysis Framework (1994)



Walt and Gilson (1994): A model for Health Policy Analysis

4.2 Data collection

This research used three major data sources: (1) a literature review of documents on the Rwandan PBF and CPBF. (2) The principal investigator own experience as having co-lead the design of community-based PBF program as a World Bank consultant supporting the MoH and later as evaluator when he joined the University of Rwanda as a lecturer. (3) Interviews with key informants, using an interview guide (Annex 3) that was pre-tested to ensure quality, consistency and timing. Interviews were the main source of data. Key Informants were identified through a consultative meeting with current MoH staff who served the ministry for long time. A stakeholder mapping was created with the KI grouped into two major categories: state and non-state actors. Non-state actors included: academics, local and international implementing organizations, development partners, and independent researchers and practitioners. Some KI involved in early implementation of PBF had left the country or were in the country but working for other organizations than the MoH, thus a snowball sampling method was used to track and contact them for the interview.

The data collection tools were developed in English, which served as the reference language for this study. All researchers were trained before data collection: three senior interviewers and three-experienced note takers were trained for three days. Except for one interview, two people conducted each interview: an interviewer and a note taker. Upon receiving participant's agreement to be contacted for interview, appointments were made by phone or email. Before the interview, participants received all information about the study objectives and methodology, and a consent form was signed before the interview. For the participants who were to be interviewed on phone or Skype, information sheet and consent form was sent by email prior to the interview, which took place only after receiving back signed informed consent. Participants were asked if they could be tape-recorded during the interview process using a standard tape recorder and except one, all other participants' interviews were tape-recorded. Participants were informed that the data was going to be cleaned in order to protect their identity and that contexts could be altered during the provision of findings to ensure confidentiality.

Overall, 25 potential KI were identified but only 20 interviews were conducted; five KI could not be reached: three nationals and two international experts. Most interviews were done face-to-face (11) and others were conducted through Skype (9). From the total 20 interviews done, 16 were conducted in English, 2 in Kinyarwanda and the last 2 in French. All interviews were transcribed verbatim and those conducted in French and Kinyarwanda were subsequently transcribed and later translated in English. On average each interview took an hour and

participants chose the location and time of the interview. The face-to-face interviews were conducted largely in the participants' office and only two were conducted in a hotel. Participants were informed they will not review the transcripts or comment on the report but will get the final version of the report (See table II summary of KI and there profile].

4.3 Data Analysis

The data collected was analyzed manually as the interviews were being conducted. The analysis was grounded in the data and maximized the varying views from voices of respondents. The analysis of the interviews also involved triangulating with other sources of the data. Using the Excel spreadsheet, a time-line analysis for the expansion PBF from the health facilities to the Community 2005-2015 was developed and a table describing the dimensions and the chronological evolutions of events for PBF expansion from the facilities to the community level was laid out (See Annex 4 for time-line and chronology of events and time).

4.3.1 Interviews Analysis

The following steps were the basis for the analysis of interview:

- A table was made with two columns and several rows; the first column was showing research questions and the second contained quotes. One question had several rows with different quotes from several interviews (See table II).

Table II: Showing analysis of interviews

Research questions	Participants quotes
Research question 1	Quote 1
	Quote 2, 3, etc.
Research question 2	Quote 1
	Quote 2, 3, etc.
Research question 3	Quote 1
	Quote 2, 3, etc.
Research question 4	Research question 3
	Research question 3

- To gain time, the analysis was done simultaneously with the data collection and started with the five first interviews and the data was organized as shown in the above table. For each question, relevant participants' quotes were identified, copied and pasted alongside the research question of interest. After identification of all necessary quotes, different words documents were made for each research question. A thorough reading of the text was made and emerging ideas were considered as codes, related codes were organized into themes. Each theme constituted a titles and codes constituted sub-titles. Later on, all documents were merged and constituted the result chapter. The analysis of the subsequent 15 interviews followed the same process: after a careful reading, compelling quotes were exported in the merged draft result chapter document. Whenever necessary new themes were created while others were merged.

4.3.2 Timeline Analysis

Using excel spreadsheet, we performed timeline analysis to explain the evolution of major events overtime in the process of expanding PBF from the health facilities to the community. The events were identified during the review of relevant documents, such as policy and strategic plans, MoU and financing agreements with main DPs, procedure manual, empirical and concept papers. Timeline analysis is defined as an exhibition of key events within a particular historical

period, often consisting of illustrative visual material accompanied by a written commentary and arranged chronologically[5]. Inspired by the generic conceptual framework from the ITM, we were able to construct a multi-dimensional account to demonstrate the process of expanding PBF from health facilities to the community (See Figure III that highlights the time-line and evolution of events along the time-line).

4.4 Quality assurance

To assure the quality of the data collected, experienced researchers were selected from the SPH: three senior researchers and three notes takers conducted the interviews, including the Principal Investigator. Similarities and differences in opinion was crosschecked amongst respondents and views from participants working from different organizations were considered to assess the extent of actors and their relative involvement.. Interviews and documents were compared for the timeline analysis and different views from respondents according to their experience with community and facility-based PBF presented the actors, the context, and the content of CPBF over time. For the purpose of quality and consistency in the Rwandan context, the document was also shared with relevant staff at the MoH (policy and implementers) and senior research at the School of Public Health for their inputs.

[5] http://intl520-ddot.blogspot.com

5. RESULTS

The result section presents findings from participants' opinion, complimented with information from the literature and researcher's awn analysis.. It was observed that once participants were assured of confidentiality, their opinions in general were more convergent and complementary than diverging. Whether you consider state or non-state actors, national and international experts, views were not really divergent. To protect participants' origin while giving necessary information for policy analysis, each quote was introduced by whether a participant is is: a ministry official or staff with a specification of whether it is the ministry of health or ministry of finance, whether the academician, an independent researcher, PBF expert working in the private sector, a Rwandan working in development partner organization. For the participants who are not Rwandans, they are called international expert in this report. For those who worked in Rwanda for long, they were referred to as: international PBF experts with Rwandan experience.

5.1 The Actors, content, context, and process for expanding PBF from facilities to the community

5.1.1 The actors

The actors involved in the expansion of PBF from health facilities to the community exploited the good collaboration amongst GoR institutions, DP's and private sector. Below we present stakeholders into two main groups: national and international actors; national actors include the ministries of finance, health and local government, the University of Rwanda/School of Public Health and the private sector. The international actors include mainly the World Bank who were in a good position as they were playing an important role in the technical and financial expertise during the scale up of the facility-based PBF, USAID through the MSH. Other key DP's actors included: BTC, GIZ, Swiss Cooperation, GF, UN (UNICEF and WHO).

It is worth to note that, generally, the community and facility PBF did not have clear opponents during its implementation for reasons below: (1) once the policy makers believes that a given strategy works and has a potential to drive the country's development agenda forward and after securing resources, the concerned ministries take charge of coordinating key stakeholders for implementation, (2) Rwanda leadership is results oriented. Policy makers are not afraid to implement new and more effective strategies and drop those that are non-effective, if proven, (3) in relation to this study, the MoF agreed with the World Bank to avail resources to start cPBF in order to: improve service delivery at community level, but also to share Rwandan best practices with countries. The health services delivery at the community had another strong indirect benefit for the Ministry of Local Government of broadening the investment in social protection at the community level.

a. National Actors

<u>The continous search for improved performance</u>:

Several KI thought the country's readiness for PBF program in general and community-based PBF in particular is unique compared to other developing countries because of a vision driven government with clear development agenda that enabled PBF to be a success inspiring further developments. This is highlighted in several documents whereby the country is seen marching towards key results to achieve national and international goals such as the MDGs. Below we present the perceptions from different respondents reflecting country's leadership and

ownership. A Rwandan working with a development aid organization showed how the GoR attributed to PBF even before cPBF was introduced:

> "*It is not only for PBF, there was already a national community health policy but there was also the national community health strategic plan. But on top of all of those, the performance issue was also specified in the Economic Development and Poverty Reduction Strategy (EDPRS-2). That is to say that performance was not really a new idea. It was a matter of studying how performance policies can be implemented all over the country, including within the community...*".

A Rwandan academician suggested that although Rwanda many technical assistance, performance was embedded within the Rwandan culture and so PBF got a positive response, especially when it serves national development targets:

> "*I think, you know performance is kind of embedded now within the Rwandan culture… our President (Head of State) is actually giving much importance to performance and I think this is also something that supported somehow the policy to be taken from the health facility level to the community…"*

A Rwandan public health expert working for an international development organization said that for Rwanda to achieve the national and international goals in health, it was critical to address the community level gap and start the cPBF:

> "*Health facilities were getting five dollars per woman who comes to deliver and we saw that some facility were willing to give some incentives to women who come to deliver at their facility. Incentives given to mothers were multiple like giving them some clothes and they approached some traditional attendants and give them like one or two dollars if they bring a woman to deliver at health facility. So it was requiring a lot of effort and cost to reach the community and cPBF came to bridge that gap making the performance of health centers much easier to achieve.*"

What the respondent said was in line with the findings from different studies showing that due to expected incentives, CHW were innovatively reaching out to the community to increase the use of maternal health services and in return get paid for their performance (National Community Health Strategic Plan, 2012-2018)

The MoF was very important actor among the national actors. During the expansion of PBF from health facilities to the community, MoF played an important role during the negotiations for cPBF pilot and the impact evaluation study grants. The MoF lead the delegation for the negotiations with the WB on behalf of the GoR. A portion of the grant was meant to support the health sector in implementing the cPBF pilot and other social protection activities in the Ministry of local Government. The Ministry of Local Government was mainly concerns because part of the funding for the pilot was invested in the social protection investments in the poorest sectors at the community level. The Local Government was also in charge of organization and mobilization of the community join the network of the CHWs (WB Aide Memoire, 2009, 2010, 2011).

b. <u>International actors:</u>

During the interviews, it was difficult for respondents to talk about community-based PBF without discussing extensively about facility-based PBF. While talking about the actors involved

in expanding PBF from facilities to the community, respondents talked a lot about the birth of the facility-based PBF as the starting point of all PBF interventions in Rwanda; the following quote illustrates a collaborative framework of national and international experts (supported by WB) that enabled first the facility-based PBF to expand and inspired the community-based PBF. These experts created a kind of informal network committed at implementing high impact policies and programs to spearhead Rwanda's national development agenda and achieve the MDGs. An international PBF expert recalled this:

> *"…The founding fathers of PBF in Rwanda were Rwandan experts and a few foreigners, it was an informal network, we knew each other well with connections established with the senior officials at the ministry of health and district hospitals, researchers at the school of public health and senior staff at the World Bank..."*

Respondents gave brief chronology of the facility PBF implementation in Rwanda: Belgium, Germany, and Dutch governments supported the first three pilot PBF projects, early 2000. The Butare pilot was funded with SIDA money (Swedish Aid Agency) and the implementation was a Dutch NGO HealthNet International and later GIZ. Mainly the Dutch Government funded the Cyangugu pilot project and Belgium Technical Cooperation funded the Kigali pilot.

After the successful scale-up of the facility-based PBF, the Suisse cooperation and WHO were interested with some kind of financing provided at community level; however, it was the World Bank together with the GoR that expressed the idea of investing in the CHW and reward their performance by improving indicators that can't be easily incentivized at facility level. There was extensive discussion between the World Bank and GoR (MoF, the MoH) and other development partners on how the new idea can be developed and shaped into a formal program with potential to spearhead country's development. When it came to the expansion of the PBF policy from health facilities to the community, the GoR through the MoF did lead the negotiation. Ministries of Health and Local government were invited as the beneficiary sectors. Other key development partners: the World Bank, The Global Fund to fight HIV, Malaria and Tuberculosis, the United States Government (USG), through it's implementing partner MSH.

c. <u>The specific role of the World Bank in the PBF expansion from health facilities to the community</u>

Participants underscored the role of key senior officials at the World Bank Rwanda office who used the MBB tool in health financing for evidence-based planning for high impact interventions and the potential of providing financial incentives to CHWs in form of PBF was mentioned. An international PBF expert reported the following:

> *"A World Bank senior officials [name withheld] and MoH policy makers were concerned that there were no enough high impact activities at community level and at household and community levels then for them the shortcoming of PBF in Rwanda was that PBF was not supporting enough households and communities directly. So they made advocacy for something to happen".*

As said previously, the results on facility PBF impact evaluation were released in 2008, which among other things, showed a gap in community led health indicators.

We cannot underestimate the role of USAID/MSH in the capacity building (developing tools, assisting building data systems, selecting and costing indicators, etc). BTC and Swiss Cooperation, GTZ were actively in the TWGs, but passive actors in the process.

5.1.2 The content

This sub-chapter presents the main contents, firstly by the historical evolution of the cPBF according to KI, secondly from the review policy documents on the CHWs: program content (goal, vision, indicators) and finally the CHWC management model that has been central the establishment of the cPBF.

The Community PBF: A MoH and World Bank Journey: The cPBF was designed as an original approach on which the MoH and the World Bank wanted the scheme to succeed. A Rwandan academician and researcher recalled that the cPBF benefited a lot from DP's presence and from the country's readiness to reach the MDGs but also the vision 2020 trough the Village *Umurenge* Program (VUP).

> "*First, there was money from the World Bank, second the trigger was the VUP*[6] *to reduce poverty and address the need to increase the supply and demand of services, and the need for sustaining cPBF after the World Bank funding, and finally, the Global Fund application has influenced the program as well..."*

Alongside the VUP, many changes were happening in the country. As GoR strategy, groups of people were creating cooperatives to get loans from the banks to run cooperatives and also expertise to reduce poverty levels. With GoR willing to co-finance and with the World Bank and the Global Fund ready to provide technical support, the CHWs moved quickly to create community health workers cooperatives (CHWC) to take the advantage and benefit from the available funding. In addition, the WB accelerated the creation of CHWC for all CHW because it was a funding requirement for the MoH to first group all CHWs into cooperatives before the WB could disburse additional funds. Astaff at MoH explained it this way:

> "…*We decided to group them (CHW) not in associations but in cooperatives they are more businesses oriented and thus represented a sustainability strategy…it was a condition or target for MoH to create more legal CHWC for WB to disabuse additional resources for community-based PBF payments. It was clearly spelt out in the financing agreements between MoF and WB…*"

An existing network of CHWs: by early 2000, Rwanda had already a decentralized network CHW's in all villages[7]. The CHWs were operating on volunteers. Therefore building on the existing CHWs network made it easy to expand the rapidly. These CHWs earn respect and consideration in their communities; for their goodwill; however, CHW were also performing with limited resources, and there was a feeling that if provided financial incentives, they would even perform more. The link of accountability they had was the Local Government. This was discussed by a Rwandan working for DP organization and involved in early community-based PBF development:

> "*Rwanda has approximately 15,000 villages and within each village, there is a management committee that elect CHWs. The community system in the health sector was not a standalone island; they were based on local governance arrangement…*"

A staff at MoH reported that community-based PBF came at the right time as CHWs were strained, because they were requested to deliver services without compensation:

[6] VUP stands for Village Umurenge Program: an intensive poverty reduction development program that targets the poorest population in the poorest sectors.

[7] A village is the lowest administrative unit of the country. A village is made up of between 100 to 150 households.

> "…*CHW were faced with a lot of logistical and communication challenges, that was a strong demotivating factor. Additionally, CHW had their regular work and were supposed to feed their families and needed incentives to allocate more time to their community health work*…"

The views of KI were shared by the MoH national community health policy of 2015. Indeed the CHW required shifting from free labor to incentivized services because as the document states, the global development of CHWs was an international move due to the expansion of HIV, Tuberculosis and Malaria funding that required extensive labor when in fact there was scarce qualified health workers. So, the development of the CHW was rather a pragmatic than an ideological move (MoH, 2015, community health policy).

The System of CHWs and CHWs cooperatives: The idea of putting CHW together into cooperatives started in 2006 (CHD strategic plan, 2013) with the aim of organizing all the CHW in each health center under one umbrella. By June 2012, there were 450 CHW cooperatives (corresponding to the number of health centers) countrywide working closely with health centers with two objectives: generating and investing funds from the cooperatives and working on health activities to achieve certain targets. According to the cPBF regulations, the CHWs receive 30% from the total amount transferred by the central MoH while 70% goes to the CHWC for capital investment and contribute to income generation activities. The profits generated by cooperatives were shared among cooperative members depending on the internal rules and regulations governing individual cooperatives. It was assumed that overtime that CHW cooperatives will grow and become self-sustaining. According to the cPBF user guide (2008), the following quote was taken:

> "*The community PBF is not for individual performance remuneration. The purpose of the incentive is for community health workers to increase the capital of their cooperatives. The cooperatives on their turn will then start income generating activities to the benefit of the individual members. The remuneration of individual community health workers will be from the profit of the cooperative activities."*

The Community health program is a cross cutting intervention that serve the end beneficiaries at community level. A mix of services (immunization, family planning, nutrition, tuberculosis, malaria, mental health, etc.). All villages in Rwanda now have three CHW each: two called the "Binome, (one man and one woman) are trained to provide care and treatment of the three main diseases (Malaria, Pneumonia and Diarrhea), a third CHW is responsible for mother and child/newborn health, making sure that women go to the HC for ANC/other health care services and delivery in time. There is also a 'social worker', trained on prevention, nutrition and environmental health, working at village level but not part of the CHW team. According to the Health Sector Strategic Plan III 2013-2018[8], there were 44.511 CHW in 2013. The cPBF addresses the compensation of these CHW through contribution of money to a total of 445 cooperatives in which they participate as members. Their technical performance is evaluated every quarter to determine their payment from cPBF. Provision of training and user kits to CHW also motivates them to continue their community service delivery.

Goal of the cPBF: The goal of the national CPBF program is to "*create a community-level governing structure that will allow community-based PBF funds to flow from the central*

[8] Health Sector Strategic Plan III 2013-2018

government and development partners to grassroots community health workers to support existing efforts to achieve MDGs and Rwanda's Vision 2020"[9].

Principles of the cPBF: In 2008, several technical working groups agreed on some basic principles of a workable community-based PBF model. The following were suggested:

1. Decentralization of the community-based PBF funds to sectors, health centers, and community.
2. Verification committee formed at sector level with contracts, data collection tools.
3. Performance to be assessed based on a mix of quantitative and quality measures: HC earnings = Quantity *% Quality.

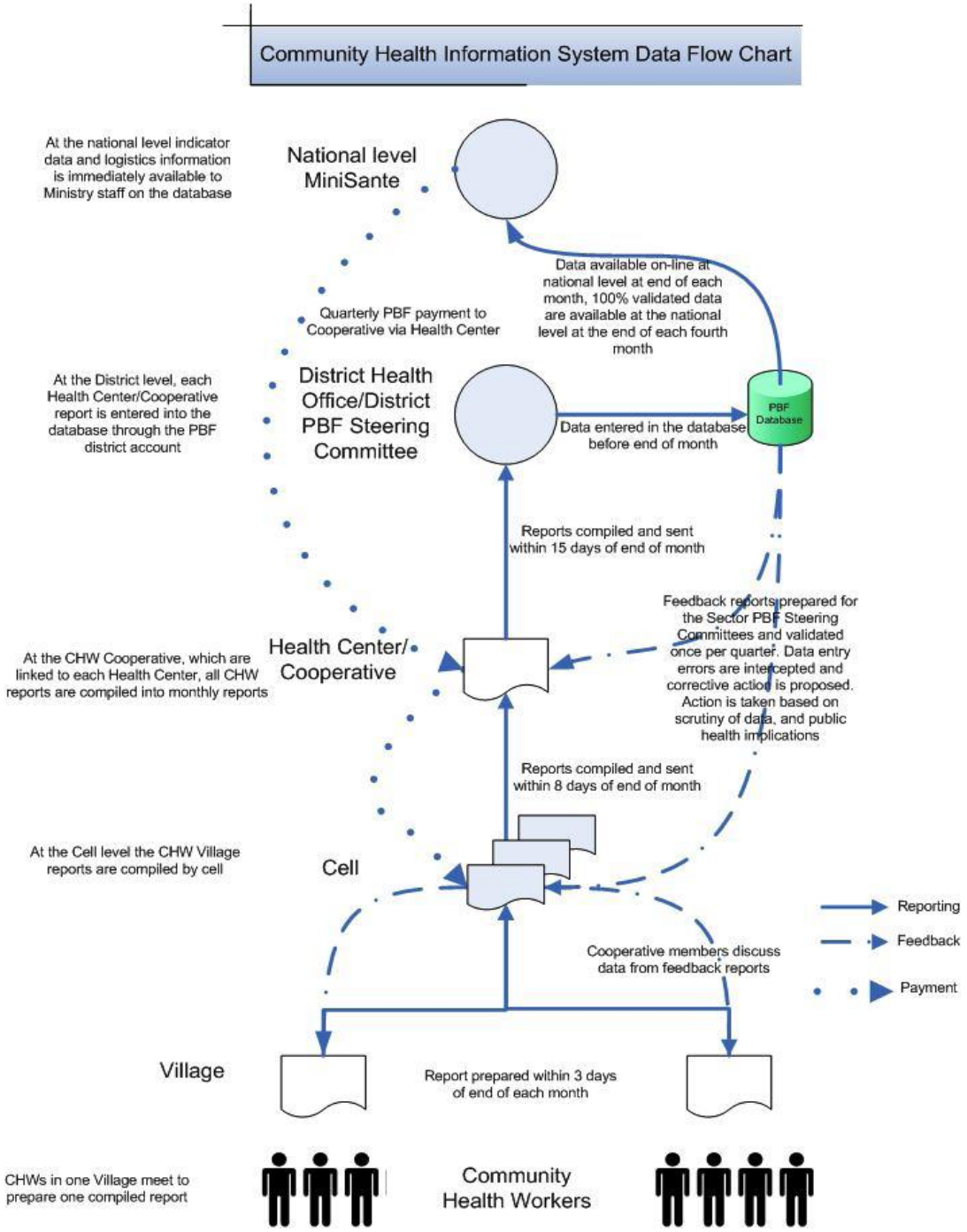
Indicators: In 2008, six community health indicators were selected (Annex 5) :

1. The CBHI enrollment
2. Deliveries at health centers
3. Use of insecticide treated bed nets
4. Management of dehydration due to diarrhea among under-fives
5. Personal hygiene
6. Reporting

Health Information System: According to the 2013 community development strategic plan[10] the recording of the data in the community health information system is demonstrated step by step below. Data flows from the CHW cooperatives to the health center and from there to the district (entered in web-based application) and finally to central level. The following figure shows the flow of information (See Fifure VI shows the details:

[9] National Community PBF, Implementation manual, 2011
[10] Community development strategic plan, 2013

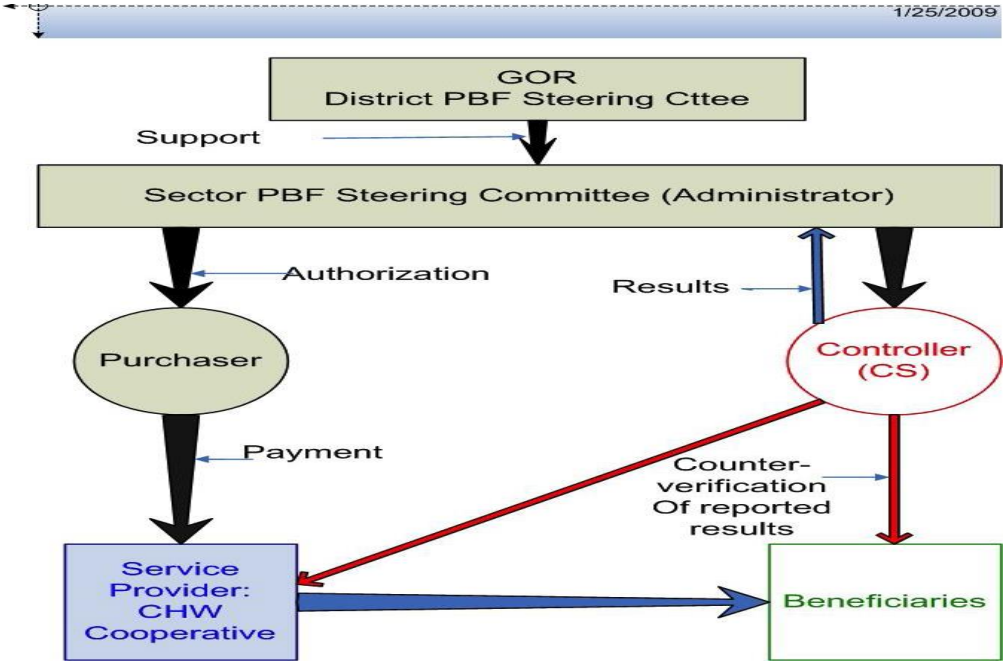
Figure III. Administrative Information Flow from Community to the Central Level



Source: Diagram showing health data flows from the village to central level, from the Community PBF Guidebook 2009

Financing and Management: Through the GoR general budget line, the Global Fund provides money and the World Bank through Norwegian grant monies for cPBF. The role of the MoH as a central body has been to oversee the coordination and management of the cPBF program initially through the community health desk at the division of maternal and child health (MCH) which was responsible for supervision, monitoring, and evaluation of cPBF activities (National Community Health Strategic Plan, 2013).

Figure V: The Community PBF Administrative Model



Source: Community Guidebook 2008

Since 2008, the community health data has been reported from the community through the health center and district to the financing unit of the community health desk at the MCH department. Health centers had a special bank account for community health. On quarterly basis, the data from the community was compiled and verified through the 'sector PBF committees' and submitted to the district level for review by district level controllers. After review and verification at the district level, data is then entered into web-based system and submitted electronically to the central, where an invoice is automatically generated showing the level of performance and corresponding payment levels. Then MoH recommends to the MoF, which also directs Central Bank to release the payment. The payment from the central level used to go straight to health center accounts, created specifically for the Community-based PBF payments.

Since 2009 the MoH designed two contracts for the cPBF Model: The first was an agreement between the Mayor, represented by the Local Sector Administration, and each Sector PBF Steering Committee. This agreement established the rules, which govern the Sector PBF Steering Committee. Members of the Sector Committee were drawn from different organization to avoid conflict of interest. The second contract was the Purchase Contract signed between the Local Sector Administration and the CHWC. The Sector PBF Steering Committee governs the Contract. Payments, after approval in the Sector PBF Steering Committee, are made from the central level to the CHWC.

The automated reporting and payment system for the community health program has been working like that for the last 5 years; but recently there has been slight change. As mentioned before, community-based PBF payment allocate 30% to individual community health workers while remaining 70% goes for capital investment in cooperatives. The 30% used to be shared equally among CHWs based on the internal rules for individual cooperative. Starting 2015, the payment system has been adjusted, where the CHWs share the 30% based on individual CHW performance. Because CHWs report on the community health indicators using the system of cellphones technology (RapidSMS), which also automatically generate reports and calculates the individual level of payment based. At the start of 2015, the Global Fund now pays the 30%

while the GoR via MoF covers the remaining 70% for cooperative capital investment. Since 2008, the indicators and payment modelaties has been changing according to the table below V below. However, the contractural processes and approval mechanisms has not changed.

Evolution of CPBF indicators and payment modalities: 2007-2015

Table V: "Pay for Reporting (P4R)" Model CHW Indicators: 2007-2009

	Item		Payment (Max)
1	Timeliness	If all three monthly reports submitted to the HC prior or on the 10th of the month = 1 (40%), if one report is delayed = ½ (20%), if two or more reports delayed = ¼ (10%)	40% of available budget
2	Completeness	If all three monthly reports, including its monthly cell reports submitted to the HC are complete = 1 (40%), if one report (including one or any of its cell reports) is incomplete or absent = ½ (20%), if two or more reports (including any of its cell reports) are incomplete or absent = ¼ (10%)	40% of available budget
3	Accuracy	If internal logic in all three monthly reports submitted to the HC are correct = 1 (20%), if one report is faulty = ½ (10%), if two or more reports are faulty = ¼ (5%)	20% of available budget
		Total	**100%**

Source: Community Guidebook 2008

Table V: "Pay for Performance" (cPBF) Model: 2010-2014

Indicator	Baseline (%)	Projected (%)	Unit Fee	Payment Frequency
Nutrition Monitoring: Number of children monitored for nutritional status (6–59 months)	19	100	100 RWF /visit	Quarterly
Antenatal Care: Number of women accompanied to HC for prenatal care within first 4 months of pregnancy	22	85	1300 RWF	Quarterly
Institutional Delivery: Number of women accompanied to HC for assisted deliveries	63	85	1600 RWF	Quarterly
FP: Number of new family planning users referred by CHWs cooperatives to the health center	51	85	1700 RWF	Quarterly
FP: Number of regular users of modern contraceptives at the health center	16.3	85	100 RWF	Quarterly
TB: Number of TB patients followed at home in the Community DOTS program		--	4,500 RWF/ month	Quarterly
TB: number of "real" TB suspects referred to the health center		--	26,550 RWF	Quarterly

Source: MoH/ CPBF implementation manual, 2010

Table VI: Revised CPBF indicators Payment modalities via Rapid SMS system: 2014-2015

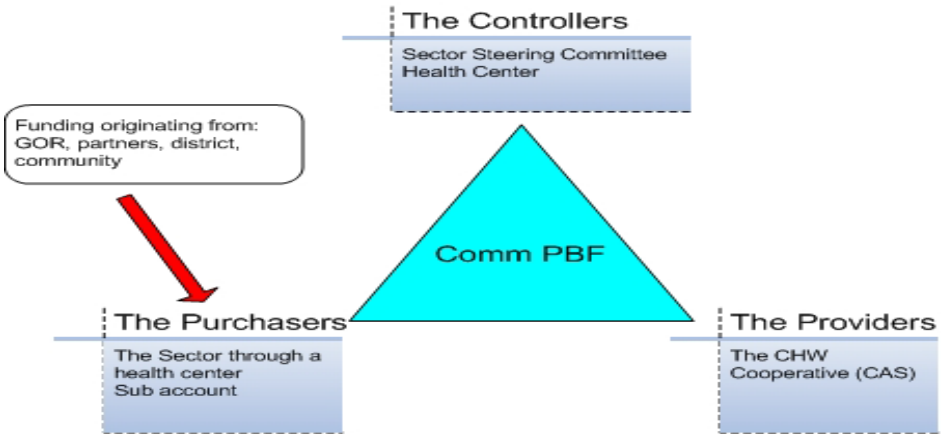
Indicators	Numerators/Denominator
Qualitative indicators: 1. Proportion of binomes who submitted reports in RapidSMS (paid to entire cooperative) Target: 100%	▪ Numerator: Number of binomes with at least 6 RapidSMS message/quarter (RapidSMS) ▪ Denominator: Number of Binomes (SIScom)
2. Proportion of children followed by CHWs after treatment (Individual payment and cooperative level budget) Target: 100%	▪ Numerator: Number of children with at least 1 treatment follow up visits reported in RapidSMS ▪ Denominator: Number of children treated reported in RapidSM
3. Proportion of pregnant women reported in RapidSMS (paid to entire cooperative) 80%.	▪ Numerator: Number of pregnant women reported in RapidSMS ▪ Denominator: Number of expected pregnancies from HMIS (Pop* 2.9%)
4. Proportion of new born visited by CHWs (individual payment + cooperative level budget) Target: 100%	▪ Numerator: Number of newborn visits reported in RapidSMS/3 ▪ Denominator: Number of deliveries reported in RapidSMS
5. Proportion of CHWs with stock cards for all products where the balance on the stock card matches the physical inventory (cell coordinator) Target: 90%	▪ Numerator: number of CHWs with stock cards for all products where the balance matches physical inventory (SIScom new module) ▪ Denominator: number of CHWs in the cell (SIScom new module)
6. Proportion of supervisors made to CHWs by cell coordinator (individual payments to cell coordinators and overall cooperative performance) Target: 100%	▪ Numerator: number of CHWs Supervised during the quarter (SIScom new module) ▪ Denominator: number of CHWs in the cell (SIScom new module)
7. Proportion of <5 children weighed to determine nutrition status (cooperative level indicator) Target 100%	▪ Numerator: Number of children <5 years red/yellow/green weight for age/3 (SIScom) ▪ Denominator: Number of children <5 years (population total * 16% HMIS)
Quantitative indicators	
1. Number of women accompanied/referred to HC for assisted deliveries (SIScom)	
2. Number of new users referred by CHWs for modern family planning method (SIScom)	
3. Number of new presumptive cases of TB referred by CHW to the HC for diagnosis (eTB quarterly reports)	
4. Number of TB cases followed at home by CHW for Community DOTS (eTB quarterly reports)	

MoH Concept note, 2014

Provider and purchaser split: The 2009 user guide on cPBF manual proposed the following roles; however, an analysis of roles show already some potential conflict of interest between the sector PBF steering committee that purchases and controls:

- The Purchaser(s): the 'sector PBF steering committee' composed by the staff in charge of social affairs in the sector and the health center delegate, other public institutions, teachers, civil society (local NGO's, Faith based organizations, etc.) on behalf of GoR and its Partners. The budget is transferred in a health center sub-account.
- The Provider: the Community Health Workers Cooperatives
- The Controller(s): the health center under guidance from the 'sector PBF steering committee.

Figure VIII: Purchaser-Provider split



Source: Community PBF User Guide, January 2009

5.1.3 The context

The context in which the expansion of the PBF policy from health facilities to the community was dominated by national and international contextual factors. Both the development partners and national stakeholders were very committed to initiating promising ideas and committed to the needed resources.

a) **Fiscal decentralization benefited the cPBF**

Most participants believe that the decentralization and devolution in Rwanda benefited a lot towards expanding PBF to the community. By empowering districts and sectors to own their budgets and understanding their roles and responsibilities achieve greater performance. A senior MoH staff explained the early decentralization process:

> "*In 2008, we started fiscal decentralization with direct transfer of salaries from MoF to health centers; it was the first time in Rwanda that communities were empower to such a greater extent. I visited other African countries and did not see this level of decentralization; CPBF at central level did not monitor receipts, rather they cared more results.*"

Fiscal decentralization reduced central level bureaucracy by allowing MoF to directly send MoH budgets to districts' accounts; this in turn increased the confidence and a sense of responsibility at lower levels to reach targets. An independent Rwandan researcher explained this:

"*Without fiscal decentralization, health facilities wouldn't have been able to produce the results they were expected to produce. But now at the community level, innovative ideas owned by implementers always come up; for example the decision of CHW of using some of their own PBF money to produce give incentives to women and show results. Fiscal decentralization has been so important to achieve current performance.*"

The Ministry of Local Government oversees entire fiscal decentralization of lower structures. This with strong monitoring for results both by MoH and by the directly. Coupled with the mayors' performance-based contracts that mayors sign yearly with the office of the Prime Minister.. A Rwandan academician discussed how decentralization facilitated the expansion of PBF to the community: "*I think cPBF shows a good example of the role of the central government: it is to develop policies and let other lower level implement, you develop different package of services to be provided by hospitals, health centers and communities and those levels should be empowered to deliver based on national policies".*

Even though decentralization has benefited implementation of the several public strategic programs (including cPBF), it should be noted that this comes with massive investment in terms of capacity building at the decentralized level.

Despite all efforts, decentralization meant the transfer of resources and capacity and transferring power and resources doesn't come without resistance because ministries of finances and labor automatically lose their social power and perceived importance. At the beginning, these ministries did not believe lower levels had the capacity to manage payment funds but this has dramatically changed because mismanagement are overseen by the office of the auditor general. The CPBF benefited from the already existing decentralization that was given to health centers. The fact that health centers managed already their funds gave hope that even CHW could do just the same; even more if grouped in form of well regulated cooperatives.

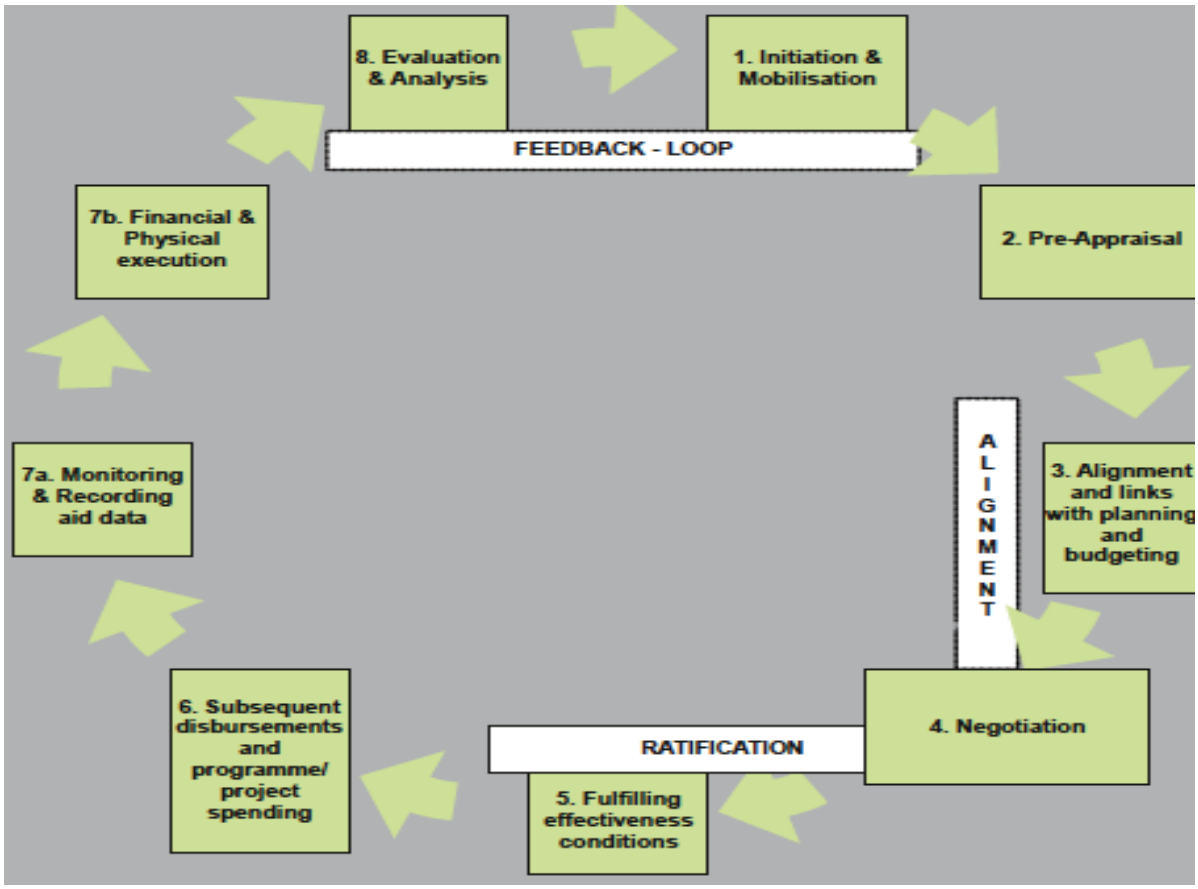
b) **Improved accountability mechanisms:**

One of the Rwandan academician and researchers involved in the study thought that accountability mechanisms have allowed fiscal decentralization to be a reality because each level of decision-making knows there is a control and accountability for resources disbursed: "*There must be accountability mechanism in place and the will of zero tolerance to corruption I think that also facilitated this fiscal …"*

c) **Well coordinated and DPs committed to funding:**

Rwanda has effectively coordinated development partners allowing the country to align external resources to the national development agenda according to the country aid policy. The figure below emphasizes alignment of development partners to national priorities. This figure justifies why there were limited opponetnts for the cPBF because the model was aligned with the national objective of rural development

Figure VI: Rwanda Aid Cycle



Source: MoF aide policy

Besides the willingness to fight corruption, most respondents (staff who left Rwandan MoH, current MoH staff, development partners, and researchers from academic institutions) acknowledged the contribution of external financing in implementing cPBF policy in Rwanda. One of them said: "*... if there was no external financial support we could have possibly implemented PBF policy with limitation*."*…." the development partners we had were as well very engaged to contribute, I don't know if it is when you start showing signs of success that people say really these people can make a change let's be part of it…*"

Although at conceptual level, there were no opponents for the cPPBF, there were minor controversies at the beginning when it came to implementation. For example, at some point the PBF policy brought polarized opinions but the GoR maintained an effective coordination approach. Not all development partners had a common view on the expanding PBF policy from the facilities to the community, this was revealed by a former MoH staff:

> "*Some development partners were supportive of expanding PBF some were skeptical and were not in agreement but you know Rwanda is a special country because we don't necessary go the way partners want us to go. Once we understand that an intervention is yielding results, we roll out it everywhere. Some were advising that we expand progressively a district after another but we felt: "why wait?" We decided to scale the program nationally because we had sufficient funding...*"

Participants however made caution that external resources was not the whole ingredient to the successful implementation of PBF because the country had set a development pace that was already on track, according to a MoH staff and PBF expert:

> "*DPs money was the starting point for community PBF but already we had started our own development agenda… we had to achieve the MDGs, achieve our targets and were encouraged by the results of demographic health surveys."*

In emphasizing the role of national commitment towards development vis-à-vis development partners, one respondent said that:

> "*… many things done by the ministry of health were not dictated by DPs. Development partners used to follow us in innovations. Once we start doing something and improve it further, then yes development partners came in and helped us reach another level in improving whatever we had started…*"

Additionally, the strong coordination of DPs resources was laid out in the 2006 when Rwanda was moving from post emergency humanitarian to a sustainable development path. In 2006, the GoR developed an aid policy with clear objectives aimed at reducing and avoiding parallel projects implementation units and aligning aid flows on national strategies. The GoR stated clearly that it is a concern "*that whilst vertical funds – that is, large volumes of external finance that are delivered in structures parallel to that of the government – can provide important assistance in the implementation of programs, they may hinder the effective allocation of resources to priority areas, undermine government ownership, and in the worst cases create distortions in service delivery*." An Aid Policy Implementation Committee was to be mandated by Cabinet to oversee the effective implementation of this policy, the chair reporting to Cabinet on a regular basis on the progress made in implementation.

Influencing Factors at national level

a) A post-genocide country with a strong leadership determined to move forward

Rwanda was engaged into a development process with a Vision 2020 National Agenda that was seeking to transform the nation into a middle-income country by the year 2020. Rwanda was also committed to reaching the Millennium Development Goals (MDGs) by 2015. With the country's Vision 2020 and the MDGs, the country developed its Economic and Poverty Reduction Strategy. Government[11] retreats have been the driving force behind the quest for performance and achievement in general and in the health sector in particular. In 2003, there was the first government retreat where the President of Rwanda made it clear that new solutions had to be found. So, there was strong momentum across all leadership levels to bypass systemic hurdles to achieve quick results. This was well explained by a MoH staff:

With most of its infrastructure destroyed and competent people dead or refugees outside the country, Rwanda had no money but a clear survival instinct. Rwandans felt compelled to ensure their country is not a failed state as said by a former MoH senior staff:

> " *… from the end of the genocide up to now, we want to prove to the world that Rwanda does not only portray the image of the genocide, people are committed to show a better image.*" This commitment was mentioned several times by respondents:

[11] Every year, Government's officials take three days away from media to discuss key directions for the country.

> "*… I remember the country after 2000 but we were still looking for a direction, because you know the system had been completely destroyed. So we were not in administrative routine; we were looking for a way…*"

A Rwandan PBF senior staff linked the innovative spirit of leaders to the strong presence of the development partner community: "*[After the genocide], all innovations were welcome and there was flexibility from policy makers, this was one of the opportunities, the flexibility… But also at that period we have enough funds from development partners …*"

> "*The President asked the ministers who were complaining of long ministerial bureaucracies whether the processes were made by ministries which they are not capable to change them…. Around 2004-2005, the President repeated that he doesn't want to see that we did not perform because of procedures and from there we decided to focus on results not much on the procedures.*"

It is important to analyze a country's leadership structure to understand its performance as suggested by a former MoH staff now working in a development partner funded program: "*people are more focused on results and often forget the importance of leadership in leading development processes."* Participants shared their views on the trust Rwandese population grant to their leaders when it comes to development strategies: *"… I've realized that Rwandese, especially those working in the health sector, immediately follow through and adopt new interventions, and you get things done… in comparing the impact of resources versus leadership, my experience is that things work well where there is strong leadership even when there is less resources which is our case… so leadership matters...*"

PBF is only one factor amongst many that improved performance in Rwanda's health sector. A senior MoH official highlighted that there was already a speedy development within the health sector before resources from PBF were availed:

> "*..I remember in 2007, when we had a mini demographic health survey, just two years after the major DHS 2005. It was the only time ever a mini DHS was done in a developing country. Development partners were seeing the positive trends and approached the ministry of health and said: "based on our information, health indicators are improving quickly, we can't wait five years for another DHS. In only two years impact indicators improved significantly. While in other countries they were saying that to improve maternal impact indicators, it can take them 20 years! But Rwanda improved maternal and child health indicators within two years...*"

b) <u>Convincing evidence and gaps from the facility PBF impact evaluation:</u>

As said before, the results from the facility PBF showed a great impact on clinical services for which providers had the greatest influence such as the increased in facility deliveries including transfers for c-sections. However, for indicators that depended mainly on patients' decision such as prenatal care and family planning services, little progress was made. This was explained by a Rwandan PBF academician:

> "*The discussions to initiate the CPBF started around 2008 with early results from facility PBF evaluation when we realized that facility PBF had a huge impact … health facilities could easily control for example the number of deliveries … but we did not see any impact on indicators that were not under the provider's control, those behavior-*

based indicators such as the number of prenatal care consultations and family planning visits. We understood we needed someone to boost care from homes…"

Indeed, whereas the supply of services was great, the demand for services was not at desirable levels despite the existence of CBHI and free services for prenatal and family planning services. It was thus felt that some push was needed from community side; this and the World Bank experts' understanding of high impact programs was instrumental to making happen the CPBF. Below are cited some of the key quotes discussing the importance of facility PBF on the existence of CPBF. This was emphasised by a Rwandan MoH staff:

"*Facility PBF addressed the supply side, rewarding health workers and facilities, you know … the people in the health sector are underpaid. So, while PBF brought the challenge of heavier workload, it was also viewed as an opportunity to gain money and a window for improvement. Unfortunately, it was not addressing the demand-side of health services. The new element in the community PBF was to address also the demand-side and to motivate mothers to come and deliver at facilities, I remember that there was in-kind reward to the users.*"

c) Expanding PBF to the community, a strategy to achieve the MDGs:

Once convinced that community PBF presented a possibility to boost the health sector performance and after securing resources, recalling the events, a senior MoH staff said there were divergent views on the implementation pathways:

"*… When it came to community PBF rollout process, some people said that we had to conduct several pilot projects in every district and prove their effectiveness. We realized that this process would take us 20-25 years yet we were supposed to show results by 2015 for the MDGs evaluation. Then we decided to have a pragmatic view of the implementation in Rwanda and thus were forced to go quickly to scale for us to achieve the MDGs because resources were not an issue. We decided to call all the health centers in Kigali and to discuss the feasibility; all had the same message to implement the community PBF. With effective monitoring and coordination, we have a feeling we did a good job…"*

d) Rwanda's comparative advantage: size, culture and infrastructure

Rwanda is a relatively small monoculture country with a population that speaks the same language. All the administrative units are connected with a relatively good road networks and transportation systems. While some bigger countries may be affected by cultural difference, Rwanda with one culture makes it easier to implement programs (where also more than 70% are Catholics). These are key contributory factors for the success of cPBF as highlighted by some respondents. The country's leadership with a slogan of "zero tolerance to corruption" allowed development partners to trust the decentralized structures and their ownership of the community-based PBF process by channeling resources directly from the central level to the community. The health system followed the overall national decentralization and devolution process that empowered sub-national levels. This was well explained by a former staff at MoH: *"Rwanda is a relatively small country, we speak the same language while in many countries languages and culture may be a barrier in communication…*"

Respondents across different groups also believed that the country's well organized and coordinated administrative and infrastructures from central and decentralized levels made it easy to rollout a community initiative such as the community-based PBF policy. For example, a

Rwandan PBF researcher and academician insisted on the infrastructure as a key input for a successful PBF implementation "… *another opportunity is that we had a good infrastructure system -you know- when you go in different African countries, you find that it is not easy to get to health centers and when you get there what they call health centers do not meet a minimum standard to be called health centers…"*

e) <u>Existing PBF pilot and CBHI facilitated the expansion of PBF to the community</u>

The existing PBF pilots and the facilitation to expand them to the community was highlighted by senor staff from the MoH, who explained that the intention to expand PBF to the community was built on existing PBF pilots that allowed sharing best practices. Additionally, the internal routine data collection process has overtime reassured external funders of the country capacity to track indicator-based data. Finally, the presence of CBHI was a driving force behind the country's adoption and expansion of PBF from facilities to the community level. The role of the CBHI as demand driver for seeking health care was emphasized both by senior staff at MoH and independent Rwandan researchers. The senior MoH staff said that in these terms:

> "*The development of CBHI in the country together with PBF was seen as a good combination, because once you try to address the demand, it is important to motivate people who produce services… and* then, *you see, we have to improve things anyway, and there was money that you can't access alone if you don't fulfill certain requirements, there was thus no reason for not performing further with additional money only allocated for PBF*."

The expansion of the PBF policy to the community was discussed two years after scaling-up the CBHI. PBF at the health centers and community levels presented itself as a recipe to address the supply side for health services. This was explained by a Rwandan academician and researcher on PBF: *"… there was mutuelle de santé or CBHI already which was another innovation almost at the same time; CBHI was boosting the demand side so we needed to reinforce the supply side and PBF came just on time…"* Figure 2 and table 1 show the time-line analysis and illustrate when events evolved in the PBF scaling-up process; a comprehensive time-line is attached as annex 5.

Influencing Factors at international level

a) **<u>PBF—an accountability mechanism for aid money</u>:**

Internationally, respondents acknowledged that Dps no longer want to give resources without a clear accountability mechanism that tie money to results. With Rwanda showing improved accountability with the facility PBF, expanding the PBF strategy to the community level proved even much easier according to a Rwandan PBF researcher:

> "*Of course, we know that development partners have been pushing to use results-based financing as aid mechanism to developing countries because development partner community must also be accountable to their citizen and need to show that the money invested in form of aid is translated in tangible development results. I think that is also another element that is pushing the system to still consider PBF as a strategy …*"

b) **<u>The drive towards the MDGs:</u>**

There was strong international commitment towards assisting countries to reach the MDGs, according to previous MoH staff: "*Around 2005, it was a peak period when all development partners were very engaged to have countries to achieve MDGs...*" With no economic crisis at

that time, the world was more inclined at finding new solutions to existing problems in developing countries but this can go both ways as the saying goes, "*necessity is the mother of innovation*" by aiming at reaching the MDGs, Rwanda and its development partners had to bring new ideas on how to improve rapidly the health sector.

5.1.4 The Process

The time-line analysis and the chronology of events

Guided by the time-line analysis, we describe the chronology for expanding PBF from health facilities to the community from 2005 to 2015. To understand the process of evolution of events overtime, we divide the period 2005 to 2015 into two: from 2005, when the idea to expand PBF from health facilities to the community was born to 2009 when there was a major shift in the community-based PBF design; and the second period from 2010 to 2015, when the said community-based PBF model was implemented plus events that followed thereafter (figure VI).

Period I: 2005-2009

The idea to give financial incentives to CHWs was generated in 2005 by the MoH in collaboration with WB.. The idea came about as a result of the presence of the Marginal Budgeting for Bottleneck (MBB) tool, which had been developed before to help countries develop their own evidence-based strategic and costed plans, by taking into account the most effective interventions. The Health Sector Strategic Plan for the Ministry of Health (HSSP II, 2005-2009) used the MBB tool to inform planning and budgeting (HSSP II, 2005-2009). Additionally, the MBB tool was considered as inspiring tool necessary to guide investing in high impact activities not only in health facilities but also at community level. With the network of CHWs already in place across the country and with the Government's total support coupled with the WB's readiness to provide financial incentive to the CHWs, the idea to start cPBF in Rwanda become easier to endorse.

Many respondents share the views of the role of the World Bank's support and the MoH as the driver for PBF policy in general and for cPBF in particular. A former senior MoH staff and now international PBF expert explained:

> "*I recall quite well in 2005. The senior staff from the MoF, MoH and WB had several rounds of discussions and I think at some point, the top leadership somehow got involved until the consensus was reached. This was the starting point for introducing financial incentives [PBF] for CHWs and current improvements have since been build on those ideas…"*

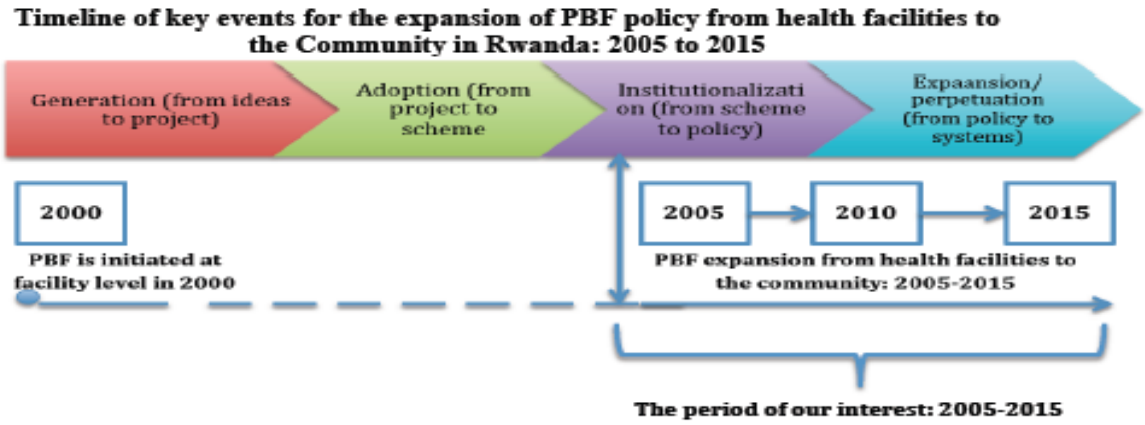
Another international PBF expert explained that during the analysis of the MBB tool, cPBF was seen as the best way to empower community health interventions through CHWs:

> *"…Analyzing bottle necks in funding health activities, the World Bank and UNICEF were concerned that significant funding was not being invested in high impact interventions at community level; after realizing that the facility-based PBF was living some gaps and that the community could play a role in improving performance by providing incentives to CHWs. The identification of PBF at community level was thus considered a high impact activity at community and household level…"*

This period presented to Rwanda with massive opportunity during which the country benefited

hugely from the global financing organization, such as the World Bank; Global Fund to fight HIV/AIDS, TB, and Malaria; Presidential Emergency Plan for Aids Relief (PEPFAR); UN Agencies, US Government, etc. During this period, Rwanda positioned itself well with clear policies and strategies as well as putting in place a strong national coordination mechanism to ensure that the influx of funding was well managed and effectively put into use in various strategic health initiatives. Here we mention the national scale up of the key health services from pilots where PBF was used as financing mechanism during the expansion process. Later, as the demand for more health services evolved, PBF was further expanded to the community to drive the momentum for health service delivery at the community level.

Figure IX: Time-line



2005-2009

- **< 2005** the CHWs exist as community volunteers
- **2005**: Idea to give financial incentives to CHWs is born. MoH & WB leads all stakeholders.
- **2006**: HF PBF IE suggests specific incentivized indicators could improve at community level.
- **2007**: Guided by above IE results, available WB & other donor funds PBF for CHWs starts as Pay for reporting (P4R)
- **2007**: creation C-HMIS that & is linked with national HMIS
- **2007**: HIV indicators compensated based on quality of report (P4R)
- **2007**: Integrating cPBF budgeting process with other health sector activities
- **2008** MoH, MoF and WB agree on enhancing P4R and agree on tech contents of improved "PBF model (cPBF)". MoF and WB sign Grant
- **Early 2009**: CoP creates forum for sharing ideas and best practice
- **Late 2009**: MoH and WB organize Inter'l workshop. 11 countries
- **2009**: HIV, TB, and MCH indicators are added to the scheme

2010-2015

- **2010**: WB disburses funds for new cPBF Pilots & IE start. P4R is transformed into cPBF
- **2010**: Training sub-national staff on cPBF model
- **2010**: 7 additional indicators on HIV, TB, and MCH covered through cPBF
- **2011**: RapidSMS automated reporting and feedback system start
- **2011**: GoR commits more domestic funds to the cPBF
- **2012** cPBF is visible in policies and strategies
- **2011/12**: All CHWs are organized into cooperatives by the GoR
- **2012/13**: Demand-side pilot is dropped & Supply-side C-PBF scaled nationwide
- **2013**: All population receive CHWs health services based on PBF
- **2014**: MoH and DP discuss idea to pay CHWs PBF using Mobile Money (MM) technology-idea still in discussion
- **March 2015**: CPBF IE results are disseminated. Impact is seen on demand-side and not on supply-side PBF.
- **June 2015**: upon MoH request, a study on cost and feasibility to use MM tech. to pay PBF CHWs starts.

In 2006, there was breakthrough when impact evaluation generated new evidence to suggest that most incentivized maternal and child health indicators at facility level had improved due to PBF. The study recommended the scale up of PBF to all the health centers in the country. With the Government's support and DPs funds available, the scale up became eminent. The idea to provide financial incentives to CHWs were extensively discussed in various levels of DPs with the Ministry of Health in the driver's seat. With the experience of the facility-based PBF already still roaming in the minds of many, reaching the agreement did not constitute much discussion (Implementation Manual, 2008). Taking the decision to expand PBF from facilities to the community did not take lots of time to discuss. The challenges appeared to relate to how the design of the community PBF system that would track data; ensure the quality, and how to resources can be channeled down to the community. A former World Bank consultant said:

> *"…In Rwanda taking the decision to introduce community PBF at that time was not a big issue. After taking the decision, then—so technically what next? After having money we had to develop the Standard Operating Procedures or the Operational Manual to ensure all key design elements were captured…"*

In 2007, the design of the P$R model was completed. At this point, the MoF and the World Bank were convinced that if finance incentives could be offered to CHWs in return for key health services delivered at the community level, Rwanda would experience greater impact of resources invested. The MoH and USAID with technical and financial support via its implementing agency MSH played fundamental role in the design and operationalization of the of the community PBF where CHW were to be paid on quarterly basis based on the quality of the report rather than performance—this was termed as "Pay for Reporting". A national PBF expert narrated this:

> *"…So in terms of actors, MoH was driving the process with the MSH playing a key role in terms of technical capacity building because they had a grant from the US government/ USAID to support health system strengthening in Rwanda…"*

As discussed in the content section, the key design elements included: development of the Community health information systems to support data collection and tracking system, indicators related to: maternal and child health, HIV, and Malaria were mainly to be reported on at the community level.

With this new evidence from facility IE, an improved form of community PBF was suggested as a solution to address the challenge by providing incentives to the CHWs based on performance rather reporting. According to PBF concept note (20010), this suggestion was envisioned to achieve greater results and MDGs. Several participants who participated in the process shared the similar narrative; one of them put this way:

> *"…. Whereas the CHWs were given a lump sum of money every 3 month for reporting on the status on maternal and child health indicators, HIV and tuberculosis, the P$R model did not consider performance-based payment because CHWs were paid based on quality of reports regardless of whether indicators improved or not...".*

In 2008, the WB signed grant with the Rwandan Ministry of Finance to fund the cPBF pilot and nested an IE within the proposed cPBF pilot. The MoH understood the idea and the benefit clearly and lead the process to develop it. Other key development partners, such as: GF, USAID, BTC, and UNICEF maintained their support but remained passive in the process. A former

senior MoH staff stressed the point:

> *"…Once the MoH policy makers clearly understood well the idea and had resources at disposal, it (MoH) did not waste time in the discussion with all the other actors…at that time, the MoF and World Bank were enjoying cordial relationship…"*

Another national PBF expert recalled that a very good relationship between the World Bank and the Government of Rwanda stemmed from the clarity of the Rwanda's leadership vision and readiness to implement interventions. Based on this trust, Rwanda was seen as the best place to initiate such a program in Africa:

> *"Around 2008-09, the World Bank was really negotiating with countries and that time it was really about the facility PBF and they wanted Rwanda to be part of the community PBF because Rwanda had already a lot of experience..."*

in 2009, the momentum for the expanding the PBF policy to the community kept pace. The WB and MoH organized an international workshop in Kigali, where 11 countries were hosted. It is important to note that countries, which were invited for the workshop, had also been offered the WB funding to pilot PBF schemes in their respective countries. In the same year, the MoH developed Community PBF policy tools and communicated them to all the districts and health centers to guide implementation. The development and distribution of these tools demonstrated the extent to which the MoH was moving towards ownership of the cPBF program. By end of 2009, the Community PBF design had been completed and a Standard Operation Manual had been developed (See CPBF Implementation Manual, 2009). The design included three intervention arms: Supply-side (giving financial incentives to CHWs based on performance on pre-determined indicators); demand-side (offering in-kind incentives to mothers conditioned on using key maternal and child health services); and demand-side + supply-side (combining the two incentive intervention anticipating multiplicative effects).

Period II: 2010-2015

This period represent the operationalization of new Community PBF model from the P4R to a more performance-based. This period was also characterized by extensive capacity building at the decentralized (district, health center, and community) level in order to handle the implementation demand of the new Community PBF pilot that was rolled out in October 2010 with an impact evaluation nested in the design. Another remarkable process during the period 2010-2015 was the decrease in external financial support to the health sector; a critical period when key intervention had been scaled up. Below we provide detailed account of how these events evolved chronologically.

In 2010, the events were mainly characterized by extensive multi-stakeholder consultation aimed at operationalizing the new cPBF model. The MoH was the driver of the process, with strong financial and technical support from the World Bank and USAID/MSH. Other development partners, such as: BTC, GTZ, Swiss Cooperation, and UN agencies were passively involved in the process, but kept a close eye on how the whole process will materialize.

The capacity building at the decentralized was organized by the MoH, Rwanda School of Public Health, with technical support World Bank and USAID/MSH. The training was focused on the new cPBF model (new indicators, data collection and verification, and payment processes). During the training, additional implementation tools were also disseminated. At this point Global Fund became a key player in the process as additional indicators related to TB and HIV

was included in the design. To better manage the CHWs and their activities, all CHWs across the country were organized into the cooperatives, known as Community Health Workers Cooperatives (CHWC)—i.e. each health center catchment zone organized its own CHWs into a cooperative. The acts of capacity building at decentralized levels, the development and communication of implementation tools, and organizing CHWs into cooperatives strongly signals the country ownership and integration of the new model into the overall health system.

In 2011, the MoH through the Community Health Desk commenced the process of developing National Community Health Strategic Plan 2012-2018. In this strategic plan, the new cPBF model was cited as a promising strategy to achieve health outcomes. However, in 2011, the World Bank funding to the health sector (specifically PBF) was stopped and allocated to other sectors such as: energy, infrastructure and social protection. At the same time, funding from key DPs to the health sector also began to decline. Despite all this, the GoR decided to scale-up the supply-side cPBF and dropped demand-side before the impact evaluation study results were out. As a result, the MoF has stepped financing to MoH, specifically improving allocation to PBF. Currently, the MoF allocates more than 60% of the financial resources to both facility and cPBF. A participant from the MoF explained the main factors for allocation of domestic resources:

> *"…the support to public sectors has been growing as GDP grows. The level of support depends, in part, on how well the MoH present their priorities and backed by evidence for the investment case and how it will contribute to overall socioeconomic transformation. MoF is ready to do what is possible to support proven interventions (MoH or other sector) even when the development partner stop…"*

In 2011/2012, the processes were characterized by demonstrated efforts by the GoR to own the cPBF strategy—by scaling up the strategy in the wake of diminishing external resources. This signaled Government's conviction and how well the sector concerned may be prepared to carry on with interventions with or without the external support. This could suggest that once policy makers in public sectors, like health, believe in the idea and participate in its translation through to the project and then to the scheme, it becomes less difficulty to integration into the health systems and country ownership.

By 2013, the main funder of the cPBF was Global Fund and the MoF. But the USAID through MSH's Rwanda Health Systems Strengthening Activity Project is still providing significant financial and technical support especially in capacity building areas. BTC among few development partners providing sector budget support while UN (especially UNICEF and WHO) is supporting in capacity building for health system strengthening. Since 2011, the MoH with the support of development partners (UNICEF and USAID/MSH) developed the RapidSMS system for real time reporting on life threatening conditions of the mothers and newborn in the community. The CHWs send RapidSMS to the health center which assess and determine the real time response, for example if a woman in the community is bleeding, an ambulance from the health center can be dispatched to transport her to the health facility for appropriate care.

In early 2015, the MoH worked with development partners (mainly the UNICEF) to expand the potential of RapidSMS application to use it for individual CHWs reporting and remuneration. In March 2015, the results from the cPBF impact evaluation study, which had started in 2010 was disseminated to the wider audience. The striking observation from impact evaluation results was that most impact was observed from the demand-side PBF intervention and limited impact on supply-side PBF and apparently a qualitative study is being carried out to explain what could

have happened during implementation.

Currently, the MoH, MSH, and School of Public Health are proposing a study to "examine the cost and logistical feasibility of providing CHW payments via one or more mobile money transfer services and compare with different provider options, and conduct follow-up with CHWs on ease of use and perception of mobile money versus cash payments". According to the author of the study, the assessment will shed more light to the policy makers (MoH and MoF) on the cost and feasibility of transitioning from cash to mobile money payments for the CHWs. The study may also be a catalyst to use mobile money transfer elsewhere in the health system.

5.2 Facility PBF and its resilience after scale-up

For the last 10 years PBF in Rwanda has been implemented without interruption or any discussion so far about its relevance. PBF has been a the key pillars of the health system financing strategy by fulfilling different functions as a policy instrument that sets strategies for financing health care to health facilities and personnel and becomes an entry point for reforms within the health sector and beyond. However, the recent trends in the reduction of aid money, the too much institutionalization of PBF to the point of becoming a "routinization" of PBF, the lack of Rwanda's PBF experts in the global arena, the limited financing capacity of Rwanda threatens the capacity of PBF to resist in the future[12]. However, through the health financing sustainability policy of 2015, the MoH has set clear strategies for its sustainability, those are elaborated further in the recommendations for the sustainability of PBF in Rwanda. Below we are presenting the reasons for PBF resilience in Rwanda over the past ten years and discuss the challenges that threaten its sustainability and finally provide recommendations for further improvements.

5.2.1 PBF endorsed politically as a best practice within the global community

Over the last decade, the GoR changed ministers of health and finance but PBF has been maintained because it has positioned itself as a policy worth implementing. One of the main reasons for PBF resilience as discussed by respondents is its endorsement by the global community of practice; this endorsement encouraged policy makers to pilot and scale, according to a Rwandan working in a development partner organization: "*… behind PBF resistance are multiple factors but for me the most important are the support from the global community of practices and political commitment. Technical, viability, feasibility comes next but governance, leadership in the country comes first."* Political commitment has been important as confirmed by several respondents: "*Leadership is key in all new interventions, in driving changes, from the smallest to the highest level of program implementation and that is what happened in Rwanda.*"

5.2.2 DPs funding and PBF institutionalization key factors for resilience

The facility-based PBF was introduced in Rwanda in 2000 as pilot projects and was quickly scaled to cover all health facilities (district hospitals and health centers). The scale-up of the facility-based PBF policy through expanding service and geographical coverage as ell as sequentially integrating the strategy in the general health system, e.g. incorporation in the national policies and strategies with increased political and stakeholders' support, lead to quick country itself lead to country ownership. Several respondents suggested that facility-based PBF

[12] Bruno Meessen, 2004:

resisted and got support from ministers of health and finance because those who were skeptical at the beginning saw its effectiveness and the backing of the top leadership they moved to it. A Rwandan working in DP organization explained more:

> "*… to the best of our analysis, they [policy makers] saw that it [PBF policy] had no harm: technically and politically and financially more important because they were not injecting domestic resources.*" At district level, a former district team leader suggested that: "*At my level, the financial addition wasn't zero, but it wasn't also commensurate to the workload involved but, I mean, you look at the bigger picture which is the mission of it, and as I said, that natural receptivity of high level policy that was expected or that we exercised, we were happy to implement it…*"

Over years, PBF became a tool for inducing the change wanted by policy makers and DPs to improve performance and thus the strategy gained popularity among practitioners. With PBF budget secured every year as part of the health system's budget, the monitoring of results being part of the MoH routine, the results monitored both at decentralized and centralized level, the integration was complete and Rwanda government owned fully the strategy and this was in line with what development partners wanted because otherwise the strategy would only be development partner driven and once the budget reduces, PBF would stop. Within this framework, it was and it is difficult for anyone with the idea or intention to stop PBF strategy to succeed because PBF has proven its effectiveness and is seen as strategy worth investing in.

5.2.3 Strong development partner coordination in Rwanda

An important aspect of Rwanda's leadership and success in general and in the health sector in particular is a strong coordination of development partners and their money. Because one would expect that development partners have their own agenda, their own interest in funding a particular development program, having them all aligned towards shared goals and principles has never been easy for developing countries; Rwanda faced this kind of challenges and managed to aligned development partners to achieve targets. Overall, the process was difficult at the beginning because DPs were used to drive programs in other African countries but once Rwanda's capacity to implement programs and monitor results gained development partners' trust, there was a feeling that the Government listens to development partners but also makes clear their points on what they want to achieve and how they want things to be done. The DPs felt Rwanda knew what to do and with strong collaboration, they were able to reach their goal as well. It is also important to mention that DPs who were against CPBF did not show resistance to the scale up of PBF because once the government of Rwanda has decided to implement a policy, it presents the rationale and most often, DPs align.

A senior MoH staff and PBF expert recalls an event that showed the strength of the GoR when it comes to coordinating partners because sometimes, each one competes for their individual interest which may not necessarily be the national interest:

> "*Another reform concerned the management of DPs. We had a problem with partners who used to choose where to intervene and they would have all their NGOs concentrated in a specific area whereas parts of the country would be underserved. Then, we said: 'this is not the way things should be done, we do not want specialization of development partners in areas they choose to operate, we want each district to be supported by one partner…It was another struggled but we won and it happened. There was great outcome because then partners were competing to*

perform better in their assigned districts and were eager to learn from one another by organizing study tours in successful districts to ensure they are not the worst partners on the list when it comes to evaluating district health indicators specifically the maternal and child health indicators, HIV, Malaria and Tuberculosis…"

5.3 Institutional reforms/changes inspired after scaling up facility-based PBF

A former MoH staff and District official summarized what all respondents agreed on, that overall PBF achieved its core objective and went beyond to inspire the polical leaders of Rwanda: "*… by and large, it [PBF] really achieved its impact in one way or the other; clinically, financially, administratively, management wise, or even politically…*" Several changes have been inspired by the success of the facility-based PBF policy; amongst them the community PBF.

5.3.1 Institutional reforms/changes in health

5.3.1.1 The community PBF:

As explained earler, the cPBF has been the most important institutional reform resulting from scaled up of the facility PBF.

5.3.1.2 More ownership of resources, greater performance at community level:

The PBF at facility and community levels inspired greater accountability and power shift in favor of the lowest level of health service delivery. The management of PBF funds and the absolute need for results requested greater coordination of local leaders both in health and non-health stakeholders at district level. That is how the PBF steering committee was created and was the first decentralized coordination entity to gather local leaders around shared performance goals in the health sector. The steering committee was later renamed the District Health Management Team (DHMT). A former MoH staff and district health leader explained what was the aim of the reforms at their level: "We felt *the best way to finance care was to create a market for results, yes to buy results… the system shifted from giving inputs. You give people resources and let them organize it best to achieve results and you avoid audits but keep people focused on results.*"

After the experience of greater ownership, it was clear that autonomous health facilities are quicker to respond to local needs and this has been at the heart of Rwanda's success in reaching the MDGs as recalled by a Rwandan working in international DPs organization and a senior researcher; he compares Rwanda with other African countries were resources are centrally controlled but results are expected at local level:

"At the beginning it was like a test to send money to the health facilities' account directly from the MoF. The previous PBF pilots were not sufficiently empowering health facilities, they were supporting like 20 or 25 health facilities and were sending money to districts and from the district to health facilities but facilities couldn't know what was happening, how much money was given initially... I am coming from a West African country, in a very rural district and was surprised by the fact that everything is so much centrally controlled with the capital city being 10 hours drive from districts but they can't transfer money directly to health facilities. Health facilities have a bank account but no one can use it, so they have to send funds to regions, each region will then transfer money to districts, etc. It is such a long process! Then I

asked my colleagues from West Africa: "why do you do this? Why can't you just send money to health facilities?" They told me: "Do you send money directly to health facilities? Are you crazy? the money will disappear…"

5.3.1.3 PBF inspiring performance at MoH administration:

As briefly said in the previous sections, the MoH central administration started offering financial performance to it's staff in 2006 as a strategy to harmonize staff salaries as well as a retention strategy because during this period there was high turnover of MoH staff running to the NGO where there was a better working conditions and remuneration. During that period, the GF was willing to provide a big share of the money to what was called basket funding. With external funding available, it did not present any threat to either the MoF or MoH because non of the sector was committing domestic resources. A former MoH staff recalled that the MoH leadership thought of improving its own staff performance by providing financial incentives to its administrative staff: "*there is PBF at the MoH central level, staff have quarterly targets to achieve and are paid based on the level of their performance, performance measured against set targets….*"

Implementing performance-based payments at the central did not present with any difficulty because target are set at the central level and are evaluated against routine performance on quarterly basis. That said, a closer observation of the way the scheme is implemented gives impression that the principle of split of functions is not well observed.

5.3.1.4 Accreditation of health facilities:

The Ministry of Health has been the main actor in promoting the accreditation of health facilities with the support of the Management Sciences for Health (MSH), under USAID funding. The accreditation considers setting standards across the health facilities. It considers inputs and processes so closely and was felt to be the best way to improve the overall quality of health services in health facilities; according to a Rwandan PBF expert, the link between the accreditation and PBF could be used to the maximum:

"*…The linkage between accreditation and PBF is that policy makers said if you are highly accredited then you will be paid accordingly. Accreditation puts things back and forth PBF, it aims at achieving standards and in the accreditation process, you focus on the inputs such as infrastructures, equipment, materials, buildings, staff, protocols and so on. With PBF you care less about the number of staff, qualification of staff. It means if you do not have required doctors, nurses, technicians, etc. you are lower grades and you are paid less for PBF. It means that PBF will really be used to improving the quality of care...*"

The accreditation process was initiated for two main reasons:

(1) After improving the quantity of health services, health care providers are judged by the quality of care they provide. As reported by the Rwandan key informants, the accreditation process, by improving quality of health care seemed the logical next step that will strengthen the improvement in the quantity of services that was boosted by facility and community PBF. The question the accreditation process is trying to answer is how can the sector use the money available to get the best quality of health services as said by a Rwandan PBF expert working for a DP organization that provides technical support to the MoH: "… *The accreditation process in Rwanda was inspired by the facility PBF because leaders hoped to link the accreditation process with PBF after realizing that quantity was improving faster than quality. You know with PBF, people started opening their eyes and embracing a different way of working. Before this,*

people were used to supervision,supportive supervision but could never embrace evaluations where you talk about reaching targets."

(2) Facility PBF had this adverse effect of focusing the attention of health workers only on paid mainly quantity indicators, limiting the focus for quality. According to key Rwandan informants, accreditation will put quality processes ahead of paid indicators and will ensure the health system is not biased towards key indicators. A senior MoH staff observed that accreditation will allow for checking areas not covered by PBF: "*When people know that they are going to be evaluated on a certain set of indicators, they mainly focus on those paid indicators without considering the rest of indicators. That is why there is need to link accreditation with PBF.*"

Several participants think that because the accreditation process goes beyond indicators, some facilities will surely need heavy investments to provide agreed-on quality services; a Rwandan academician and researcher said: "… *Quality of care is a very complex concept; it depends on the definition of the targets set…. If for instance you want health facilities to move from quality level A to level B, there is need for resources to produce better results; maybe a certain facility needs one additional doctor and should be able to pay him or her…*" Besides the heavy investment that is much needed, accreditation according to respondents, will ensure that the targets are met within agreed-on standards because PBF was more looking more on end results or indicators; for example, whether staff are over stretched was not a concern of PBF according to a Rwandan former MoH staff at district level and currently working in development partner organization: "*PBF increased workload which is a negative effect on staff, I mean people were overwhelmed but it came with money and so we hired more staff. Additionally, health workers needed more knowledge, so we provided more training to meet expectation…*"

5.3.2 Non-health institutional changes due to PBF

5.3.2.1 Mayor's Performance Contracts (Imihigo)

In the Rwandan culture, commitments to ideals were made in front of leaders and elders and were aimed at achieving specific goals whether in time of war or peace, they were made in public in front of the community and were called *imihigo* (from the verb *guhiga*). As defined by the Ministry of Local Government or Minaloc (managers of the imihigo program), the concept is defined as "*a cultural practice in the ancient tradition of Rwanda where an individual would set himself/herself targets to be achieved within a specific period of time and to do so by following some principles and having determination to overcome the possible challenges*" (Minaloc, 2012). With the drive to achieve the MDGs by 2015 and the Rwanda's vision 2020, the success of PBF in health inspired to improve the design a country-level financing model based on results and reward districts out of performance. A Rwandan former district health leader expressed the accountability quest as follow: "… *The demand for accountability of local leaders was high; there was an incredible sustained pressure on the local administration to deliver, to provide data on all sectors development path… that is how the Imihigo was initiated. I can confidently say that health sector PBF informed Imihigo and added value to Imihigo so that it is one way, not a two way...*"

A MoH senior PBF expert explained that the "*imihigo*" concept is not purely PBF because for it goes with "carrots and sticks" as reported by one respondent but PBF has strengthened the idea that rewarding for performance is important in driving change: "*I can say that the spirit behind the Imihigo was inspired by the PBF in health. The only difference is that PBF in health was*

accompanied by rewards whereas Imihigo goes with sanctions; when local leaders do not achieve agreed-on targets, they are sacked. So in health there are carrots and for politicians there are sticks."

5.3.2.2 PBF in the education sector

There are ongoing efforts and discussions, based on the success of PBF in health, to introduce PBF in the broad education sector. On 16th December 2014, the Hon. Ministers of Education, Prof. Silas Lwakabamba invited a team of PBF experts including the: Principal Investigator and Dr. Robert Soeters (from Healthnet) to share the insights of PBF experiences with the senior technical staff of the Ministry of Education. Later, the exciting discussion shifted to the feasibility of starting the PBF pilot project in higher education. The day-long meeting (also attended by the Hon. Minister), ended with a shared view that PBF pilot in higher education needs to start with 10 out of 30 districts (5 from each rural and urban districts; from each district, 10 Schools were chosen based on how they are funded: 4 public, 3 GVT aided Schools, and 3 private).

The scope of the PBF pilot, which was planned for 2-3 years, focused on: teaching, research, and community outreach with clearly defined outcome indicators. According to the Hon. Minister, the resources to run the PBF pilot and possibly later to scale was not a big challenge as long as the strategy generated intended results. A policy maker from the Ministry of education emphasized this "*It is time to seek for results…the health sector has done quite well and the results are there for everyone to see…why not in the Education sector*..?"

In addition, the School of Public Health/ College of Medicine and Health Sciences/ University of Rwanda, has been using PBF strategy to provide incentives to its academic and administrative staff for the past 5 years. The incentives, which were part of the CDC funding, were tiered to the deliverables. For example for academic staff, deliverable which were aimed at staff development included; publication in peer-reviewed journals, completing teaching and handing in students marks on time, etc. Respondents confirmed the move, a Rwandan academician and researcher reported:

> *"… I was among the team of experts invited by the Ministry of Education to discuss the philosophy and feasibility for introducing PBF in the education sector. My understanding is that now a PBF pilot in education is on-going in Rwanda… but already, we [SPH] use PBF as a strategy to improve staff development through publication and marking, preparing workload, and make sure that you mark and submit the student's marks on time…*"

5.3.2.3 "Community Facilitators" for Agricultural Sector

The lessons learned from community-based PBF and the community health policy were powerful in inspiring the use community-based cadres for advancing National Agricultural agenda; Since 2014, inspired by MoH's CHWs policy approach, the Ministry of Agriculture through what it's policy makers termed as "Community Extension Model" organized a network of community workers called "community facilitators" to help Ministry of Agriculture to advance it's community-based agenda. A participant from the district level shared his observation:

> "*CHWs have been trained, they are known at their community level and I can say that from health now we have various community workers in different sectors due to the fact that the*

CHWs have been inspirational. Other ministries have been inspired; we have community workers in agriculture, water management; in all social sectors at community level."

We could not get any supporting policy document to ascertain the design of the "community extension model". Nonetheless, a phone call with a senior policy maker in the Ministry of Agriculture revealed that the scope of work for the "Community Facilitators" revolves around delivering agricultural-based services and advises to the local population on farm production. Unlike the CHWs who receive financial incentives for the delivering targeted health services, the "Community Facilitators", who are engaged in delivering agricultural related activities, do not receive financial incentives but rather in-kind performance rewards such as bicycles, raincoats, cows, goats, etc. by the Ministry of Agriculture through decentralized entities operating. The policy makers are studying from the cPBF strategy feasibility of moving from in-kind to financial-based incentives.

5.3 Discussing the future of PBF in Rwanda

5.4.1 Challenges and Opportunities for sustaining PBF in the Rwandan

a) Decreasing external funding, an opportunity to rethink PBF

Many participants acknowledged PBF's high dependency on DPs and thus thought that the sustainability of PBF in Rwanda is still a challenge because of the magnitude of DPs financial and technical support received. Some other respondents insisted that PBF was more of DPs supported and were happy to see that the MoH is starting to consider the sustainability of PBF and think the discussion is overdue. A Rwandan working for DPs organization and assisted the MoH during early CPBF scale-up process said:

> "*Whether you like or not, PBF resources are decreasing because it [PBF] was mainly externally funded….it is good that the government has started initiating some sustainability strategies around it through mobilizing more resources.. ...*"

Participants thought that the decrease in development partner funding is a reality worldwide and should be seen as an opportunity rather than a challenge because every institution should work at ensuring its auto-sustainability. Fortunately, some respondents working in health financing unit at the MoF said that they fund priorities set by the sectors, including those in health, so it up to the health sector to set out its priorities and defend them well in the MoF. A MoH senior official thought that the decreasing funding can be seen as an opportunity: *"The decrease of funds from partners is an opportunity because it shows us that we must change the way we do business, we must be cost effective and set strategies to get rid with development partner dependency for everything in the health sector…."*

Indeed, the literature review reveals that the GoR is now funding 61% of the PBF expenditure (MoH Sustainability Strategic Plan), which a great move. However, in his report to the USAID/MSH on "Programmatic and financial sustainability analysis of the performance based financing in the Health sector in Rwanda", Prof Meessen advises that the sustainability of PBF lies mostly not only in the funding but in remaining a relevant tool in the Rwandan environment that encourage the programs that seem to work.

b) PBF gains must convince stakeholders to address its sustainability:

The concept of sustaining PBF strategy started way back in 2009 because the impact had been visible to many. The concept was well demonstrated in the Health Sector Strategic Plan of 2009-2012, where the plan explicitly requested for the government to increase PBF financing from USD 1.20 (2009) to USD 2.90 per capita by 2013. Although, the HSSP II (2009) request was directed at the MoF to tap from domestic revenues, it also raised issues of lack of real cost data on the strategy as well as how efficiency can be improved in the delivery of health service (HSSP II, 2009). The MoH senior staff during early initiation of PBF thought that:

> *"… One of the impacts of PBF has been the changing of people's mindset. For example, more and more policy makers think of allocating resources per indicator, per capita. The notion of indicator has been strengthened thanks to PBF and everybody is thinking in terms of achieving results. Additionally, PBF brought more transparency and accountability…we are more and more gathering data on how best we could serve better clients..."*

The large majority of participants believed that PBF has reached its target of improving health indicators and has contributed to driving Rwanda towards the MDGs. Rwanda could use the evidence generated by the facility impact evaluation and the current community-based PBF evaluation to reflect on the PBF sustainability. Respondents recognized the irreplaceable need for strong advocacy because without policy makers and technicians who believe in PBF, the strategy may be difficult to maintain. They underscored the critical role of policy makers in particular to address the sustainability challenges for PBF as a strategy that has proven to work and generate the tangible results: A MoH district health leader insisted on the PBF gains so far amassed: "… *I think Rwanda have achieved a lot in primary health care. Rwanda can't be compared with other Sub-Saharan Nations... I think PBF is good for us and it should be really strengthened*…"

A Rwandan researcher and academician respondent believed that the impact of PBF on the Rwanda's health sector can't be questioned and that it is time for Government and DPs to improve and sustain PBF in Rwanda: "Current *evidence shows that under certain circumstances, PBF is a strategy that can be used to improve health outcomes. Rwanda has produced enough evidence but after ten years, it is time for the Government and DPs to reflect and see how they can learn from current challenges and improve PBF further…*"

c) PBF sustainability requires government's ownership:

In general, respondents were positive that PBF could be sustained in Rwanda if policy makers are determined to own it; a Rwandan working in a DPs organization supporting PBF at MoH level suggested that:

> "*It just needs more advocacy from the ministry of health because… I believe PBF is very easy to sustain. Tto implement PBF you don't need additional resources, you just need to change the way you finance health care services. The MoH can allocate 15% of government budget for health to PBF but for this, MoF needs to be convinced..*."

A KI from the MoF reported that the MoF officials acknowledged the importance of PBF in the health sector and showed that by principle, they provide funding what ministries consider priorities: *"... We are aware that PBF is among the proven strategies in the MoH to improve health service delivery… If the MoH considers PBF (facility and community) as a priority and request for funding, then the MoF will fund it definitively, but not to the scale of development partners and this means they (MoH) have to improve efficiency and maximize PBF benefits…"*

With the DPs recognition and willingness of the Finance ministry, the health sector has an opportunity to sustain PBF over time.

Governments implementing staff are keen to implement PBF, however, they suggest to focus on convincing policy makers on the steps required for PBF to be locally owned, this was clearly expressed by a Senior MoH staff: *"… If a policy maker believes in a strategy, we as implementers will look at how to make things happen ... But if I know that the policy makers does not believe in it then I am not going also to do much to make it work..."* They went further to suggest that PBF can be sustainable if it is institutionalized so that it is integrated in the general health financing system to be become permanent strategy: "*PBF is institutionalized as a rewarding system… In my views, PBF in future should cover all core services; all the services performed should be financed through PBF because a lot is lost in inputs. I would like to see PBF as a financing mechanism to improve efficiency and get best value for the money invested in the health sector…*

Several participants at both MoF and MoH level were opportunistic about the sustainability of PBF in Rwanda because according to them, significant amount of money currently comes from the Government's budget to support health activities, and PBF in particular. Several respondents said that on the view of the success of PBF and the diminishing DPs funding being, the government of Rwanda can and should adopt PBF as a strategic financing mechanism. Although the government funding may not get to the level of DP's but this can be attained progressively, one MoF staff reported that sustained increase of Government's budget for health increase is a positive signal although more should be done: "*Sometimes back, PBF represented around 15% of the entire budget for health sent to health facilities. The amount needs to be increased to influence providers, in order to make PBF matter at facility level, one can increase its share of health facility funding at 50% and this can impact change.*"

The MoH key informants thought that it is critical for the MoH and MoF to open up a discussion on the sustainability of PBF by involving health facilities and ministries officials; they think can contribute to the debate. One of them gave his thoughts in showing that facilities could be self sustained and provide PBF bonuses: *"One strategy to make PBF sustainable is to increase hospitals' income so they can pay themselves PBF through contracts with their staff. This can be a progressive process and the government may continue for sometime to support PBF while health facilities work at improving their management and increasing revenues. Then PBF can be sustainable and have a future as long as resources are internally generated, not depending on the outside world."* However, with this view PBF is seen more as a bonus and may represent a biased opinion of what PBF is by principle [is a third party payment system after an independent assessment has been done], the sustainability lies in the hands of the ministry of finance because they allocate resources coming from domestic revenues.

The literature review revealed the sustainability of PBF is already at an advanced stage with domestic public funds. The expansion of PBF as a purchaser payment mechanism for providers, including other domestic resources, will further increase its sustainability. Further evolutions and increasing sustainability should include clarifying relationships between PBF and health purchasing mechanisms for other sources of funds. There is also a need to have better integration of the PBF in the broader health financing system as part of a gradual process to improve or better align pooling and purchasing arrangements for all funding sources. In addition to information systems, the role of purchasing from PBF could be made complementary to the role of purchasing from the government budget and insurances (e.g. PBF could enhance payment for quality, while the insurances pays for quantity). Other options for better synergy between PBF and the broader health financing system are also possible and over time stronger

linkages and integration between all health purchasing mechanisms can occur (Health Financing Strategy Plan, 2014).

d) The role of the private sector and insurances in sustaining PBF

Contrary to pilot PBF schemes in which Cordaid was involved, the overall initiation and scale-up process of the PBF strategy at facility and community levels lacked sufficient engagement of the private sector and this is considered unfortunate by respondents working in the private sector as PBF evaluators. A PBF private evaluator reported that both public and "agréés"[13] hospitals and health centers are the only ones benefitting from facility-based PBF: *"... At the beginning of PBF, there was no involvement of the private sector, initial pilot projects benefited from the involvement of Cordaid and at that time, Cordaid was pushing for more consideration of the private sector including private clinics or dispensary. From Cordaid's understanding, whoever was involved in the service delivery should have been part of the PBF strategy. But this was not the understanding of other stakeholders..."*

However, during the implementation of the community-based PBF, the participants praised a more private sector involvement through organizing the CHW into cooperatives. The CHW cooperatives get expertise and follow-up from the Government but there are private entities, involved in routine management of the functioning of CHWC. The CHWC are considered an important partnership between public and private sectors; the PBF private evaluator appreciated the creation of CHWC as part of a limited but existing collaboration with the government:

> *"... If you look at cooperatives of CHW, they are actually private institutions. A private institution receiving public funds is a positive reform and I think that was really very important..."*

To sustain PBF, the respondents hoped that a much greater public-private partnership could be attempted to fill the funding gap. Private insurance companies according to respondents could also play an important role along side the government to sustain the PBF gains ; however, the Government will need to continue its role of leadership and stewardship. A Rwandan expert working in development partner organization said:

> "… *As you rightly know, currently the* official development assistance *has reduced by 33 % on average; there is an urgent need for the private sector to play a bigger role in sustaining health sector activities. Currently, private sector investment in health sector as a share of GoR GDP is only around 1.7%; however, internationally the benchmark is set at around 5% to be achieved by 2020. Moving from 1.7 to 5 % of private sector investment in health will allow us to generate 50% of the resources needed to achieve HSSP III goals...*"

Several respondents have underscored the insurance companies' role in designing a payment mechanism that fit the ideals of rewarding for performance. A Rwandan senior MoH staff working as district health leader suggested:

> "*Insurance companies could have greater role as financial assistance is reducing financing gaps. I think this is now the time for all stakeholders to go on a drawing board and look at how to shift the finances, how to shift the management aspects and*

[13] Agréés means in French approved, meaning owned by religious organization but operating under government's guidelines, rules and regulations and receiving government's subsidies.

cover the PBF financing gap. Because, in the end, anyway, it was known that these resources won't keep coming in. This requires strong oversight, it requires political leadership and competent technicians…"

The same senior MoH staff continued in suggesting that learning from private facilities may also be beneficial from government owned facilities because some forms of PBF are applied in private clinics: "*I know of some forms of informal PBF done in private clinics. People are paid based on the proportion of patients received; if you see 30 patients, you are paid according to the number of people you treated, it is like a consultant...*"

"… PBF in first place is not there to manage outside resources, let us start using it for internal resources, or using our own resources, and this on both supply and demand sides, because today we have CBHI which can perfectly use PBF to better manage their limited resources. The government that is injecting money in the health sector, we can use government resources as PBF and always-set indicators without going beyond the available budget. So, for me the factor that the funding from outside is reducing should not stop us thinking on how best to use PBF based on domestic resources and try to be as efficient as we can…"

e) Improving the efficient use of available resources in the health sector:

There are three levels of efficiency that respondents thought needs improvements in order to adapt to the current resource constrained situation. According to national respondent working in a development partner organization:

"…One, is the boosting of allocative efficiency by investing resources first on high impact interventions that would bring significant results, two is the improvement of technical efficiency by improving the skills of staff and providing them with resource saving technologies and three is the provision of the right set of incentives for resource generation or auto financing at facility level. It is important for sustainability that facilities start to operate like business entities while insuring quality and equity..."

5.4.2 Challenges to be addressed to sustain the PBF strategy in Rwanda

This section will merge the information from the literature review and KI views and Authors analysis and suggestions to provide a wide variety of opinions and evidence on the challenges met by the PBF in general and the CPBF in particular. The literature-reviewed, especially the health sector strategic plan of 2013[14] presented the challenges for cPBF as part of the overall community health program. Respondents believed that as much as both facility and community PBF have several favorable factors to be sustained in Rwanda, they also have several challenges. Some of the most important are highlighted below:

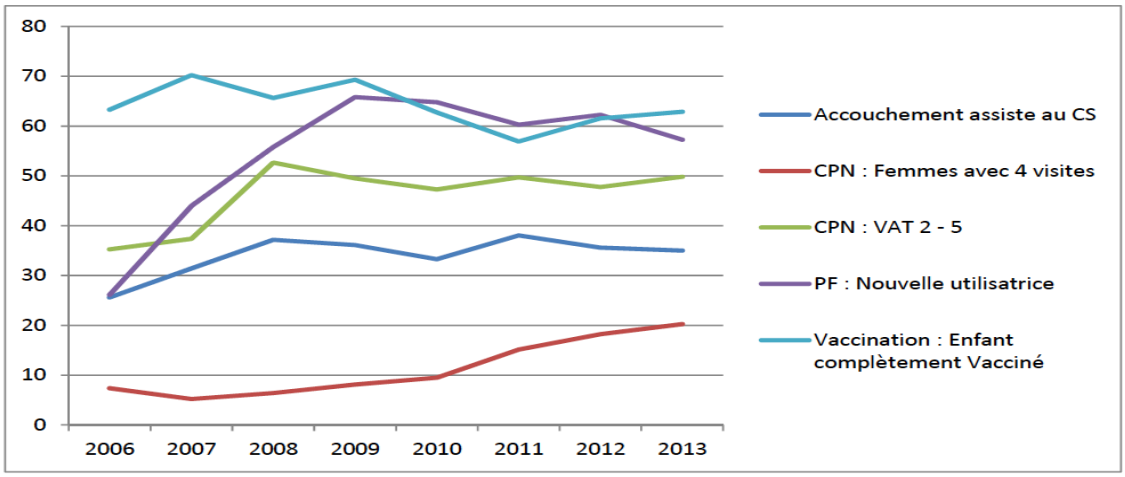
(1) Strengthening the MoH Financing unit to fulfill its mission of advocacy, analysis and strategic purchasing

The MoH staff at the health-financing unit need to continuously develop their capacity for advocacy to keep the momentum for improving the PBF strategy to ensure that it remain more dynamically relevant to both national and international stakeholders in the face of multiple priorities with limited resources. In his report to the MSH, Prof. Meessen presents the factors that we thought might be relevant for the MoH financing unit to consider: "..to promote PBF as a Rwanda made flagship instrument for accountability for results.." and "…to permanently analyze data in order to improve the purchasing strategy, including the contractual arrangement,

[14] Health sector strategic plan, 2013

the indicators to pay for and the prices to practice". The fact that several indicators paid by the PBF system are plateauing (See figure VIII) may require a rethink of PBF in a more dynamic way. Indeed, the documents reviewed show that there is an increasing antenatal care and deliveries coverage with outputs indicators that are reached quickly due to the reduction of fertility (DHS, 2015) thanks to the success of family planning programs. Thus the payment of indicators for antenatal care might drop, without meaning that CHW are not doing a good job, and those of family planning are rising and these should motivate a more dynamic community-based PBF indicators.

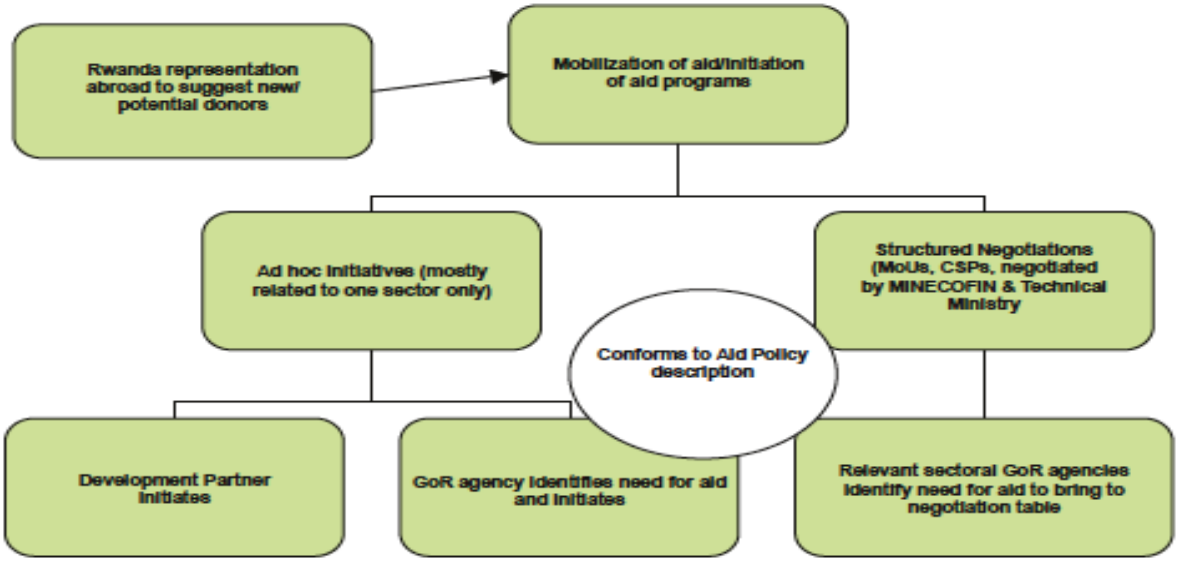
Figure VIII: Evolution of Some PBF Indicators at Health Center



Source : Messeen report, 2004

Keeping the MoH financing unit ahead in ensuring PBF flexibility, as a reform strategy is key to maintaining Rwanda's leadership within the international PBF community of practice. This has the potential to generate more resources for new initiatives. As the Rwanda Aid manual of procedure highlights (Figure IX), Rwanda needs to keep an aid mobilization strategy as advised by the MoF. (MINECOFIN Aid Policy Manual of Procedure, 2011,).

Figure IX: Aid Mobilization and Initiation Cycle



Source: MINECOFIN, 2011: Rwanda Aid Policy Manual of Procedures

(2) Challenges in estimating target indicators

As suggested in early PBF documents of 2007, the cPBF indicators should account for specific regional burden of disease, poverty levels, etc. but this has not been the case so far. The National Community Health Strategic Plan expressed the concern in the estimation process of indicators: "*… issues with numbers have been continuous: target population not always accurate, some targets unreasonably high*" (National Community Health Strategic Plan, 2013)." The interviews on their side revealed that all participants appreciated the results reached so far by PBF and suggested that dynamism is required after ten years of implementation, PBF tools need to be continuously reviewed to remain relevant to the current context; additionally, they emphasized the unique role of the MoH to impact the needed changes. This section had very important quotes each emphasizing a part of the discussion needed to improve the dynamism of PBF. A former district health leader and now working for a local NGO said that: *"The idea was about creating change, improving the quality of services; improvements need to be continuous and monitored, indicators need to be revised and new targets set …"*

Explaining further, another Rwandan working for DPs organization said: "*If the MoH wants to continue having success in PBF, the system must be dynamic. The ministry needs to keep updating the skills of its staff because they can't say we are used to PBF, everyone can implement it. Routine refresh courses are important.*"

With accreditation as an important step, there is need to focus on equity issues and part of the dynamism required from PBF is to change indicators, make them regional, time and income sensitive as said by some respondents. A Rwandan PBF expert working for development partner organization said: "*PBF needs to be dynamic and be continuously improved based on a continuous evaluation of indicators, assessment of improvements and challenges. For some indicators where performance is around 90%, you can set strategies to maintain that level, and for others that do not improve, what will you do with them? You may wish to increase payment for those indicators or develop other strategies. That is why PBF must be dynamic and needs to be visited regularly, there is need to visit statistics and indicators and see what can be done....*"

Some respondents said there is certainly a positive effect of having the PBF strategy owned by Rwanda because they are the ones implementing it through the MoH. He underscore the challenge of PBF in considering all health centers equal and capable to produce the same results: A Rwandan academician and PBF researcher said: *"I think the plus is that there is a nationally run program with strong structures of supervision, data collection, and agreed-on indicators, etc. Now it is time for the government to focus more on quality and equity issues. One of the big mistakes we made at the beginning of PBF is that we considered all facilities to be the same regardless of where the facility is located, available resources, etc. I think those are the challenges but also the opportunities that Rwanda can look at differently...*"

Another Rwandan working in the private sector insisted on the inadequate PBF dynamism to fit local contexts: *"PBF should target specific problems across all regions; for instance, if the western region is prone to malaria, PBF should focus on malaria related indicators. Equity should be considered by taking account differences in socio-economic, geographical settings where health centers are located..."*

(3) **Challenges with staffing: capacity and brain drain**

At the beginning, the PBF program in Rwanda had lots of technical experts funded by various organizations, such as: World Bank, USAID funded projects and other DP. Although overtime, Rwandan became experts in the area, there were persistent challenges of internal and external brain drain calling for continuous efforts to sustain the capacity building in the area.

The 2013-2018 National Community Health Strategic Plan discussed the issues with what it called the systemic insufficient staff and capacity from central to the village level (including the NGOs), where issues of inadequate capacity and changing CHWs is a challenge. There are also issues around training new CHW. The document goes further to document issues of knowledge gaps and retention of trained CHW: "*The lack of knowledge hinders CHW to represent their constituencies in local decision-making bodies. There are also issues of trained CHW who are moving out of cooperatives….*"

A Rwandan working for a DPs agency regretted the brain drain: "*There is a problem… for example Rwanda is known to be successful in implementing PBF strategy; however, when there are guests coming for study tours, there are few staff at the ministry who can explain well the experience of the country in implementing PBF over years...*" DPs who have worked for years in Rwanda have regretted the unstable move of staff outside the country: *"…All international and senior staff at the MoH PBF support unit left Rwanda and are now consultants in other countries; many staff working for PBF left, so there was really a brain drain of PBF experts…"*

As long as there can be maintained collaboration, leaving your country would represent minor strategic problem for the human resource, the problem seems to be two fold: (1) the loss of relationship of those early experts with the MoH as suggested by both national and international experts. An international PBF expert lamented the brain drain: *"I think that as the brain drain was occurring, when a few but key persons left, there was also a loss of relationship between the first PBF senior staff and the MoH…"* (2) The limited capacity in term of sufficient experience and knowledge to run PBF for those hired. This was suggested by an international expert who worked for PBF: "*What is striking is when you go to Rwanda, you are in front of quite young experts who were not very aware of the reform agenda of PBF, and they are operating PBF as a program and not realizing that PBF was a reform agenda. I realized that there are capacity issues to be addressed…*"

The findings on brain drain were the same for both international and international experts; the main problem being that those leaving did not transfer capacity to new experts and the current turnover of staff in the health sector makes it hard to maintain the quality of the PBF strategy because continuous presence of less experienced staff may jeopardize the process of quality improvement. One suggestion from a Rwandan senior MoH staff working at district level insisted on the negative impact of a high staff turnover: "*Increasing the payment per indicator that comes with PBF is important because that would solve this natural challenge about the turnover of staff, that sense of really being underpaid in health sector … you train staff, you go back six months later and you find new faces … and you have to train and train that vicious cycle of training and retraining because of this turnover is not sustainable…*"

National and international respondents proposed some suggestions on how the staff turnover could be addressed. The most important suggestion was to rethink PBF both at community and facility level. The MoH seems to face challenges in maintaining staff and improving further the design and implementation of PBF, respondents suggested that the best way to have more light is to make systematic evaluations on PBF and assess what works so it could be strengthened based on what does not work so well to be improved, a Rwandan PBF expert suggested:

"…The academicians such as the school of public health need to support the MoH with evaluations and evidence to improve the current PBF practice..." In the same line of thought, an international PBF expert with extensive experience of Rwanda said: "*It is about 10 years of PBF in Rwanda, let's be ready to look at what is going on well and not so well in health financing… Rwanda may miss the opportunities to re-visit and renew the PBF philosophy. There is a need for MoH to consider itself as a learning organization to keep improving the PBF strategy.*"

(4) Capacity issues for CHW to deliver on community-based PBF

CHWs have done a commendable job, but face challenges in delivering the services and the community PBF is endangered by the issues of capacity faced; below are reported key highlights from the national community health strategic plan 2013-2018:

- **Equipment and supply:** Gaps are still existent with the forecasts of supplies between health centers and communities. The CHW reported in the community policy document that they lack education material for the community. The technical supervisor (nurse at the HC) sometimes lacks adequate transport means to supervise and support CHW.
- **Resource, supervision and coordination issues**: issues of insufficient supervision of CHW have been highlighted and insufficient resources to coordinate meetings related to implementation of the community health activities have been reported. Ineffective documentation of the best practices. Inadequate coordination often lead to delayed collecting and compiling of health data. There are inadequate dissemination meetings amongst members and partners due to inadequate coordination.
- **Stigma and harmful traditional beliefs and practices**: CHW reported difficulties to reach out to some members of the community with HIV due to the culture of hiding their conditions. Also, not clear strategies laid out to address issues of traditional practices that affect maternal and child health in the communities.
- **Misunderstandings and mismanagement**: Some local leaders at district and sector level are not supporting enough the CHW cooperatives saying this task should be given to the MoH. HSSP III reports Mismanagement of cooperatives funds by committees or other stakeholders like community health supervisors at health center level.
- **Issues with workload and balance between cooperatives and health work:** the national community health policy of 2015 is based on an assessment that highlights that to achieve all that is required for CHW, there is imbalance between workload and the payment received. Extra caution is needed to avoid CHW spending more of their time on income projects over their mandated health activities because the income-generating activities of these cooperatives could eventually compete with the CHW health activities.

(5) **Initial separation of facility and community PBF:**

When the community-based PBF was initiated in 2009, its funding was logically expected to be coordinated and supported from the facility-based PBF unit at MoH. However, the community-based PBF was located in the department of maternal and child health which was also running the community health desk programs. This was because CHWs needed to be first trained, organized and continuously monitored for the performance for other activities. Our respondent working in a private PBF evaluating agency reported that: "*Initially, PBF at community level was not seen as separate from the facility PBF but was later separated by the policy makers due to the nature of PBF in community level. The community interventions were seen as part of the overall community-based PBF and the involvement of CHW was seen as contributing to the improvements of public health interventions often managed at health center level.*"

However, keeping the community-based PBF under the same organizing department was creating a kind of conflict of interest because the payers were also the owners of the community health processes. There could have been better coordination within the same PBF pilot committee and more lessons shared with a unified health-financing unit at that time. Thanks to recent efforts to unify both the facility and community PBF under one roof; where currently, as explained before, community and facility-based PBF are now coordinated under one Directorate General of Policy Health Financing Information System (DG/PHFIS).

(6) Challenges in linking Accreditation and PBF with irregular payments:

Several respondents (on the implementers' side) have challenge in implementing the combined PBF and accreditation and emphasized that policy makers should consider differential capacities of health facilities to deliver quality services. A Rwandan working for a development partner agency insisted on first improving basic infrastructure of health facilities before accreditation: *"When it comes to accreditation, you can understand that any improvement of indicators will reach a certain limit due to infrastructure, human resource and so on… Think about an old hospital with old equipment, few staff and mostly unqualified… there are things that you may improve with internal improvement process but there are others that you need more investment, otherwise you surely reach a certain limit due different factors…"*

Another MoH staff expressed challenge in linking PBF and accreditation due to limited funding for health facilities. He suggests improved investment in infrastructure and equipment to ensure that all health centers meet the same basic standard to be compared. PBF may not have those resources: "*I think the money allocated to PBF hasn't increased and you know when you want to increase quality, you must invest in many things. For example, there may be equipment you need to buy or more staff to be recruited because you need one more nurse for night shifts, etc… The process of quality improvement needs investment in health to meet services quality and quantity requirements. Unfortunately, PBF funding is staying the same, it was supposed to increase the income of health facilities but behind the scenes, we all know that payments are not regular and that mutuelles are not capable to pay because they have debts and can't even meet the monthly price of services delivered to its members. Sometimes PBF pay once after three months or even ten months! Managing this kind of situation is complex…"*

(7) Challenges related to separation of PBF functions:

In 2009, the CPBF user guide anticipated potential conflicts of interests and worked early at providing preventive measures to avoid them. It said: "*When paying for performance, and assessing results, a 'separation of functions' is necessary. This is a 'purchaser-provider split'. In the 'separation of functions' attention is given to avoiding potential or easy to avoid conflict of interest situations, such as may occur when the controlling agency is also a provider agency (in which case it should not control itself) or when the purchaser is the provider, or on a slightly different take: when the Quality regulator (the district hospital) is also fulfilling the Quantity Control function and could possibly be 'too close' to the health center service provider leading to situations of conflict of interest and fraud. Issues of moral hazard from the controller might creep in, when the controller has sole authority to certify performance whilst he is not the one paying for performance*." (cPBF User guide, 2009). This did not seem to be fully implemented because you find somehow district level officials controlling health centers and validating data from health centers and at the same time allowing funds transfer up to CHWC.

As participants discuss the challenges of CPBF, they immediately talked about PBF in general. The most important PBF challenge has been the PBF implementation because according to respondents, PBF still lacks core principles of financing in general. According one respondents

from DP organization, "*there is need for separating different functions that are currently under the sole umbrella of the government institutions: the roles of the provider, purchaser and evaluator are all under one MoH. This definitely leads to conflicts of interest—contrary to the core principle of PBF; supervisions are done for MoH routine monitoring activities while evaluations are done for PBF payment*".

Finally, a Rwandan working for a private PBF evaluation program raised the unfairness of not considering the rest of the health system in evaluating for PBF for the MoH. He suggests that while evaluating for PBF, a systemic perspective should be included. If a mistake is not part of one's responsibility, its consequence should not be considered when assessing. However, this needs to be considered with caution because people need to be proactive to address systemic failures that affect them: "*The devil is in the details*": "*If you do not make an appropriate assessment of the context in which PBF is operating, you might fail to plan accordingly. An important element is the external factors that PBF alone cannot control but with a systemic approach, different approaches could work together. For example, if I am a health provider and supposed to get drugs from MPPD/RBC to improve my indicators and in case MPPD/RBC is not doing its job, an evaluation might say that I am not producing the results expected yet I can't influence what is done at MPPD/RBC's level. As a matter of fact, if one needs to succeed, there is need to think at systemic level and involve all stakeholders*."

(8) Other issues raised: selective focus and decreasing unit price delays in payment:

Several respondents said that PBF has the potential of distorting the health system by focusing the attention of providers towards paid indicators rather than improving the overall health system just like other vertically funded programs. Additionally, they said that while the number of health facilities is increasing, the PBF overall budget nationwide is not increasing in relative terms, thus PBF is decreasing per health center with the risk of impacting negatively on paid indicators and bringing back health service delivery system. The strategy and policy documents suggest to increase the payment to CHW: "*… there is need to increase from 30% to at least 40%), some CHW because cooperatives take too long to generate profits, which is in part, a disincentive to the CHW.*"

Finally, payment delays seem to play against PBF overall because when funds are not released on time, PBF becomes a disincentive, this was well laid out by a Rwandan working with a development partner organization: "*… You know the issue is that people tend to focus more on indicators that are paid than those which are not and this may not serve our health system, as it should. So attention is needed to regularly review and change the indicators. Also, the PBF assigned budget doesn't increase while the number of heath facilities is increasing, finally a big challenge is that PBF funds are not regularly released; there are many delays affecting staff morale."* The review of the literature confirmed and explained further two delays in money transfer for PBF: (a) delay in transferring funds from central to CHW cooperatives. (2) There was also a delay in data verification at the community and cell levels before reaching sector levels. With these two delays and the pressure to spend budget, data analysis becomes a bit difficult for generating timely payments orders and calculating payment for indicators (National Community Health Strategic Plan 2013-2018). The MoH noticed that this overall played against the principle of PBF and thus corrective action were needed. It was against the above background, that from 2014, corrective measures were taken where the Ministry of Finance, currently, if directly by the MoH, transfers community-based PBF funds directly to CHWC accounts.

(9) Inadequate external evaluations of PBF in Rwanda:

Compared to other African countries, Rwanda has done commendable work in terms attempting to generate evidence for the PBF interventions. However, every policy, program and strategy has potential unintended consequences; continuous internal and external evaluations should enable to redirect the course of the program whenever some unintended event happens. Respondents believed that the idea behind PBF needs to be closely monitored to avoid the loss of momentum. Most respondents said the PBF evaluations done so far are not sufficient to shed light on what works and what does not work so well. An Rwandan PBF expert working with development partner organization reported that: "*... Internal and external evaluations have not been sufficient; we had only two key PBF evaluations supported by the GoR and the World Bank, nothing else after that. External evaluations should be done by someone outside implementing structures to call it really external…"*

A Rwandan PBF expert said that unintended consequences may always be seen but their impact may be limited by knowing them as early as possible and as accurately as possible: "*I think* unintended consequences *are unavoidable. But one can reduce their impact by making the system evaluated fairly, regularly enough so that issues can be raised as they occur and this is best done during evaluations. Evaluations results then inform the needed changes such as the payment processes and the setting of indicators. PBF has to be revisited often, so that what is unavoidable can be dealt with …*"

A government staff revealed that internal evaluations are done but are focusing on making the MoH pay services rather than really rethinking the progress of PBF: "…*Normally the objectives of performance are: quality, utilization, etc. it seems to me that internal evaluations are not doing that! No audits, no satisfactions of communities are done and lots of things are missing"* Some respondents thought that third party evaluations are not the only ingredient for PBF success and a caution has been made to not confuse third party evaluation and performance because in some countries third parties' evaluations did not improved further PBF in their countries because of the design issues; the most telling story discusses the limitation of external evaluations but agrees that having them is better than nothing. A Rwandan previously working as health district leader expressed his concerns about external evaluations: "*I am not sure external evaluations in some African countries really support the improvement of PBF because researchers sample facilities and so it still has some weaknesses due to the lack of personalized improvement suggestions but overall it is better than nothing and major trends can be observed in a good representative sample with a focus on variations..."*

A Rwandan working in a development partner organization said that evaluations and data verification are important but attaining good quality can also expensive. However, they acknowledged that it is worth investing in building these systems to guide the implementation and continuous improvement because data verification is a core part of the PBF strategy. A Rwandan academician and PBF expert suggested that investing in PBF means investing in data verification with both external and internal: "*Data verification is the pillar of the PBF strategy and I am not sure it is well done! If you cannot trust your verification mechanism, then you are doing nothing; Data verification represents one of the most important criticisms of PBF worldwide. If you are committed to results, I think you need first a strong data verification mechanism...*"

The value of external or independent evaluations has been continuously emphasized on several times; it is the opinion of all respondents that without independent evaluations, without knowing the pitfalls of the PBF strategy, people will be working in ignorance of what works and what

does not work so well and this may put the PBF strategy at risk according to one an academician and researcher: *"It is very important for financing mechanisms to be evaluated by independent external evaluators; this gives the true picture of programs and strategies and provide appropriate recommendations; however, it is important to keep in mind that being independent doesn't mean always best, I think the ideal is to confront internal and external evaluations."*

However, we need to also take note that standard evaluation studies can be expansive to carry out. They are time and labor consuming, and often extremely difficult to conduct due to the fact that most strategies are implemented in complex environment making it hard for the researchers to isolate the intended program effects. A good example was the recently concluded Community PBF impact evaluation study, which needed additional qualitative study to explain some unexpected observations that happened during the pilot implementation. Oftentimes, most funders are reluctant to invest in evaluations if they have no anticipation of benefits in the end.

One respondent reported that internal evaluations are being done but they are not complete in providing some key information such as staff satisfaction, etc. While acknowledging the plus of peer evaluations, another respondent criticized its unintended consequence. Considering internal and external evaluations as complementary is the advice from the Rwandan academician expert in health financing: "*Internal evaluations are happening but I see some challenge because they are done by a committee at the sector level but it seems like it has become a routine process, it's somehow diluted; evaluators and those to be evaluated meet every month and become friends, there is thus no need to reduce the PBF payment of a friend…*"

A former district health coordinator and now international expert reported that: *"Peer evaluation between health facilities was a good strategy because it was going beyond evaluation but also sharing best practices, they would not only evaluate but learn from one facility to another and that is a good thing but the downside of it is that payment evaluation have been very unfair because they learn to protected each other… Thus study tours should be separated with objective evaluations."*

After examining the advantages and disadvantages of these peer evaluations, the Ministry of Health decided to stop the practice in 2012. Even though peer evaluations had good some sides as expressed by respondents, since 2012, the Ministry of Health decided to halt the practice of peer evaluations between health facilities due to in part, issues raised above by several respondent.

(10) Incidents of diverging PBF principles by some:

Some respondents revealed of events whereby PBF can be misused as "sanctions rather incentive" for the health workers. Some participants said PBF has often been wrongly perceived when it come comes to PBF principle. A former MoH staff and district leader reported: *"I remember I had problems with the management team at my hospital, the decision was made to stop our PBF…. this spirit may transform PBF into something else not linked to performance. Another example was to cut PBF because of someone did not attend a meeting when there were genuine reasons. This brought confusion because people started seeing PBF differently."*

Whereas the above quote may appear as isolated incidents, it may potentially divert the principles of strategic purchasing of PBF, making some people to behave unfriendly to the strategy. Therefore, the MoH policy makers need to be on the lookout for such unintended acts by the implementers of PBF.

5.4.3 The future or sustainability of PBF in Rwanda

Long term financing of PBF is still a challenge. The 2015 health financing sustainability strategy laid out several strategies including increasing resources and efficiency for health. It also recommended a study on costing CPBF and possibly having CBHI supporting community activities. According to the HSSP III 2012-2018, the Sustainability of the CHWC is highly dependent on the functioning of the cooperatives. The community health desk at MoH is tasked at monitoring the situation and develops strategies to address shortcomings as they arise. Respondents however were not as optimistic as the 2015 policy and strategies at MoH and believed that to be sustainable, PBF requires informed decision by policy makers. A Rwandan PBF implementer working for development partner organization said: "*I think PBF in Rwanda is at a tipping point, some big decisions from political leaders need to be made because everyone knows that is a good strategy, it has increased performance at all levels...*"

Participants feared that the reliance on DP funding might affect PBF sustainability; they are already discussing the reduction of payment per indicators signaling that this may affect performance. Additionally, the current government funding for PBF is low and limits the design of indicators outside those paid by DP. This may have potential of diverting care providers' attention to only funded indicators as said previously. An independent PBF expert thought that for PBF sustainability, there is need for greater government investment for health and better allocation to PBF. Unfortunately, several participants believed that the MoH focuses more on the great things achieved so far and less at improving further its processes: *"I think the first critical issue for PBF is to get trained staff working for the PBF strategy and second is already doing it but I think it should continue, is mobilizing and investing more in health; not only in health in terms of providing more money but it's more money but managed the PBF way, results-oriented. So, I think those what I can imagine that can really contribute a lot to sustain PBF."*

An independent researcher expressed his warning for Rwanda to be over confident and not cease learning opportunities: *"We should try to work on applying best practices and avoid what is not working instead….I think in general we tend to think: "we are doing good"; while I think we should always continue to challenge ourselves and learn from others…".*

6. Discussion

The present evaluation has been generally well received by all stakeholders, and generally all respondents felt confortable in sharing their views with the hope for further PBF improvements and further success. Based on the data collected, PBF in health has yielded tremendous positive results in Rwanda and has contributed to making the country amongst those on track to achieve the MDGs. The implementation of PBF in Rwanda has benefited from the commitment of several actors operating within a specific leadership context. The World Bank was the first Development Partner to support the idea from the Government of Rwanda for expanding PBF policy from health facilities to the community. The GoR implemented the idea, which it thought, would likely speed the country's progress towards the MDGs under a well DPs coordination mechanism. Other important players have been the United States Government and the other DPs supporting the Rwandan health sector. The DPs have been supportive and open to new ideas and decisions from the Government of Rwanda. Finally, important players have been all Rwandans working in the health sectors: administrators, health care providers and last but not least the community health workers; all have been enthusiastic in spearheading the country's development and lift the country from poverty and sad memories from the genocide tragedy.

Facility-based PBF has resisted systemic and leadership changes and according to respondents, this is due to the fact that PBF was not only providing the necessary incentives to improve health indicators but it also brought money that did not come from government's budget. These two elements have been important in sustaining PBF over time. Facility PBF has inspired and is still inspiring tremendous institutional changes both in health and non-health sector, the most important being the community PBF. The CPBF in Rwanda has benefited from Rwanda's strong decentralization process and the already existing and network of CHW. The government of Rwanda should be commended to have thought of sustaining the CPBF through cooperatives. These cooperatives have inspired the agriculture and education sectors at the community level.

Despite these gains however, PBF in Rwanda is faced with a sustainability challenge as DP funding is reducing. The funding has so far been coming from the World Bank, signaling an issue of limited integration with the rest of the health system funding and ownership. The CPBF can still survive with the existing resources within their cooperatives; however they require strong political and technical support. The facility PBF will require strong decisions from the government of Rwanda on how to get finances, the MoH will need to maintain its advocacy and leadership whereas the MoF will need to hopefully allocate government funding for PBF: this can be done through increasing the budget for health and or reallocating existing budget through a PBF mechanism. The accreditation of health facilities aimed at improving the quality of care is seen as one avenue to secure and sustain PBF in Rwanda.

The success of PBF in Rwanda had some implementation challenges worth noting to ensure future improvements; one of the important changes needed in the implementation process is to ensure independence of the institutions providing care, those paying for performance, and those evaluating. External evaluations are important for PBF to learn early warning signs and be strengthened for further success. PBF needs to keep its mandate of paying for performance and not providing a salary top-up, this requires that dynamic indicators be set and payment be linked with those indicators through an independent and transparent evaluation system. PBF will have greater benefit from improved staff capacity and a much more stable staff with improved retention mechanisms and less turnover in the health sector, thus the MoH will need to align financial and non financial incentives to reduce staff turnover. The MoH may need to recruit more experienced technicians to deliver quality services and train new staff. From the respondent's perspective, there is a need for policy makers to improve the use of PBF "as policy instrument of reform" through incentivizing and strictly adhering to its [PBF] philosophy and

practise. PBF should be delivered on time to keep its role as an incentive for present performance. If these do not change, PBF may play against its own survival.

The challenges faced by facility PBF and CPBF in Rwanda are predictable such as staff instability to easily address. The MoH by attempting to make an equalization mechanism may lead to more stable staffing but at the cost of somewhat dulling incentives, which work against the active, drive to competition that is the ideal of the PBF concept. This is in fact an unintended consequence that may need a strategic and dynamic approach to correct, working as control knobs or mechanisms that can alternate in action whenever stability impacts negatively on performance or when performance impacts negatively on stability.

7. The study limitations

In this study, key informants were selected in a balanced manner from the MoH, NGOs, development partners and researchers both nationally and internationally. We did not meet any considerable limitation to this study because the sample reached a satisfactory number of key informants, the interviewers were independents and those who are working for the MoH expressed their views trusting the investigators of this study to ensure their anonymity. However, there were specific limitations related to tracking key informants, recalling of events on what happened 10 years ago, limited literature on community-based interventions, and scope of study. Below we provide specific limitations.

1. The research question 1 related to exploring the policy actors, the content, context and process for expanding PBF policy from health facilities to the community required tracking key actors that participated in the discussion, design, and rolling out of the PBF from health facilities to the community, from 2005 to 2015. Tracing all informants was a challenge even after employing snowball technique. However, most key informants were found and were enthusiastic to contribute and those who were absent had their previous colleagues already amongst the respondents.

2. Because the study is retrospective (2005-2015), going back to about 10 years was often difficult for some interviewees to recall what happened. Although they recalled the main events, there were instances in which it was a bit difficult to recall especially events that were not documented or partly achieved. To mitigate this, we employed triangulation technique to consult other sources of information (minutes, retrieving email correspondences, aide memoires, etc.) to recall some events.

3. Due to limited funding, the scope of the study was limited to the policy makers, development partners, private, and academicians. While the main research question focused on the how PBF policy was expanded from health facilities to the community, it could have been fully complete if we looked at how the policy was also implemented by extending interviews to the health centers and community level. However, another study is exploring this scope and we expect the two studies to complete each other.

4. There is limited literature on community health, specifically cPBF. This is a limitation because we did not have much literature from peer-reviewed papers related to the community-based PBF. Thus, this study calls for more funding for community health.

8. Conclusions and Recommendations

Rwanda has been a case study for successfully implementing the PBF in health, to improve further, the country needs to correct what seems like implementation pitfalls and set a new sustainable path for PBF in Rwanda. Other countries can learn from Rwanda, however it is important to consider the political and social context that enabled to make such a big impact from PBF, several countries have tried with limited success. Below we present key recommendations for Rwanda and for other countries willing to learn from Rwanda:

8.1 Recommendations for Rwanda:

(1) **Maintaining Rwanda's leadership on PBF**: according to evolution and respondent's views, Rwanda needs to continue its visibility as a best practice worldwide when it comes to PBF.

(2) **Capacity building:** continuous capacity building is necessary both at central, and decentralized levels. Need for improvement of retention and evaluation mechanisms for CHWs and their cooperatives. Routine audits can inform needs to be addressed.

(3) **Better coordination:** needs for continuous improvement in community health service delivery at the local and national levels. This will require more resources that need to be increased for a well performing community-based PBF program.

(4) **PBF Sustainability:** To sustain a strong and successful PBF financing strategy, the government of Rwanda has really done well to allocate domestic resources to PBF. We recommend to progressively improve the allocation of government spending on health and for PBF.

(5) **Purchaser-provider split**: To improve functioning of the PBF, it is important to involve relevant institutions such as MoF, universities, and the private sector to support MoH carry out other function and leave MoH as provider of health services.

(6) **Strengthening a public-private partnership:** To enable quick dissemination of best practices from MoH to other public and private sectors; there is a need to improve the on-going public-private partnership.

(7) **PBF dynamism:** There is need to continuously inject more dynamism in the PBF strategy. One suggestion would be to design a changing mix of incentives that allows the whole health sector development. However, this has to be balanced against the cost and process of changing indicators.

(8) **Evaluations**: Reflecting on the past ten years of PBF in Rwanda, routine internal and external evaluations are needed to share the best practices with other countries while also addressing challenges to continuously improve practice.

8.2 Recommendations for other countries:

Rwanda has strong and effective governance structures that are deeply rooted in the decentralized entities. Through prolonged and sustained capacity building at decentralized levels, improved processes as well as accountability mechanisms were observed overtime. For other countries to emulate Rwanda, critical conditions are needed to improve the PBF implementation:

(1) **Committed leadership**: committed leadership is central in initiating and scaling up innovations, such as PBF. PBF initiators may need to have a committed political champion for it to succeed despite challenges.

(2) **Clear development agenda**: Development targets should be set with relevant stakeholders. National governments should effectively guide development partner interventions for equity and alignment to the national development agenda.

(3) **National ownership and coordination:** Development should be mainly country driven. The country's vision should be owned at national, regional and if possible community levels. Ownership goes with empowerment of sub-national levels for quick decision-making process. Ownership also means that a sustainability plan needs to go along with development partner funding and when resources shrink, countries would be equipped for the transition. National budgets should contribute to PBF resources .

(4) **Transparency and accountability**: Countries need to set transparent mechanisms for money transfer to avoid misuse of funds. The management of funds should be owned at the lowest level of implementation, and audits done regularly to done.

(5) **Managing resistance:** Countries need to expect some resistance to change because PBF brings a new mindset, a new way of doing business; people used to inputs based financing, may be challenged with the out-based financing because PBF may bring a feeling of panic if not well prepared.

(6) **Evaluations:** There is need to set up systems that allow regular evaluations and monitoring systems to get early warning signs that needs immediate action and share best practices.

(7) **Integration for efficiency:** Scaling up PBF is possible even with limited resources. Countries with limited resource should do basic things using local human and financial resources; for example, the MoH can develop policies guidelines using locally available experts without waiting for expensive foreign consultants

(8) Countries should avoid making PBF a vertical program and mainstream it within the rest of health financing system so as to get the support of existing strategies and in return benefit to the overall health system.

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Annexes

Annex 1: Profile of Key Informants

1. International expert on Health Financing (PBF) and Professor
2. Private NGO supporting PBF program in the Rwanda (Country Manager)
3. Former MoH Policy Maker and consultant at the WB. He oversaw PBF scale process. Currently private consultant in Rwanda
4. Ex MOH district hospital director, now Chief of Party of an NGO in Rwanda
5. Private NGO supporting PBF program in the Rwanda (TA for PBF)
6. Health Financing expert and a lecture at the University of Rwanda
7. Policy Maker in the MoH
8. Former MoH policy maker and currently technical director of an NGO
9. Former PBF expert in MoH and currently has another portfolio at the MoH
10. Former expert of PBF unit in the MoH, international consultant
11. USAID development partner representative
12. Former Prof at the University of Rwanda, international financing expert
13. Expert in PBF working for a foreign NGO in the Rwanda
14. Technical health financing expert working for a USAID
15. Scholar in USA, former policy makers in MoH and private researcher
16. Longer term field expert on PBF (more than 15 years experience)
17. Longer term expert of the PBF. Currently works for MoH
18. International expert. Oversaw PBF scale in Rwanda, currently at WB
19. Ministry of Finance (policy maker): National Budget
20. Ministry of Finance (policy maker): Planning and Research

Annexes 2: Informed Consent Form

Copy of Informed Consent Form

College of Medicine and Health Sciences School of Public Health
P.O. Box: 5229 Kigali, Rwanda, Tel: +250 585 166,
E-mail: infosph@nursph.org

Informed Consent Form for Policy Makers and Development partners involved in the planning, implementation and funding of the Performance-Based Payment in Rwanda's Health Sector

Principle Investigator:	Dr. James Humuza
Organization:	University of Rwanda-College of Medicine and Health Science/ School of Public Health,
Sponsor:	Alliance for Health Policy and Health Systems Research, World Health Organization
Name of Project:	National diffusion of a policy: the experience of Rwanda with extending, sustaining and exploiting Performance Based Financing for better health outcomes (2006-2014)

This Informed Consent Form has two parts:
• Information Sheet (to share information about the study with you)
• Certificate of Consent (for signatures if you choose to participate**)**

You will be given a copy of the full Informed Consent Form

Part I: Information Sheet

Introduction
I am Dr. James Humuza, a lecturer at the School of Public Health of the University of Rwanda. I am doing a research aimed at assessing processes, factors, and actors that saw performance based-contract (PBF) being implemented in Rwanda, supported the program beyond the original facility concept and inspired the community PBF. We shall also examine the institutional changes that have been happening as a result of the PBF health program in Rwanda, during period from 2006 to 2014. This consent form may contain words that you do not understand. Please ask me to stop as we go through the information and I will take time to explain. If you have questions later, you can ask me or another researcher related to this study.

Purpose of the research
PBF has changed health service delivery significantly in Rwanda by creating new mindset focused on results and performance and continuous improvements in daily processes. PBF has also moved the attention of both policy makers and implementers from financing input towards financing output or results. Different countries have varied PBF experiences; this study wants to document the unique experience of Rwanda. The study will focus on how the country after successfully scaling up PBF in all health facilities to motivate providers to improve both the quantity and quality of services, decided to expand PBF to the

community—thus creating the community PBF. Moreover, the concept inspired further programs and policies and this is a unique opportunity to assess what happened, how and why those changes took place.

Reason for Selection and Voluntary Participation

You have been selected to participate in this study because you have been actively involved in the processes such as planning, implementation, evaluation, financing and scale-up of the PBF in Rwanda. We feel that your experience as a key stakeholder can contribute much to our understanding and knowledge of the scale up of the PBF program beyond its original clinical target. Your participation in this research is entirely voluntary. You do not have to decide today whether or not you will participate in the research. Before you decide, you can talk to anyone you feel comfortable with about the research. You may change your mind later and stop participating even if you did agreed earlier to participate. You also have the right to decline to answer any question and you may also withdraw at any time of this study if you wish to do so. Your choosing to participate or not will not have any bearing on your job or your job-related evaluations.

Type of Research Intervention and Procedures

If you agree to participate in this study, Dr. James Humuza and his colleagues will interview you through questions or requests of your opinion, at a time and place of your convenience, for approximately one hour. This will be audio-recorded if you agree but we may also not record but only take notes of key ideas you mention. It is your right to ask any questions regarding the research at any time before, during or afterwards.

During the interview, I or another interviewer will sit down with you in a comfortable place at the centre. If it is better for you, the interview can take place in your home or a friend's home. If you do not wish to answer any of the questions during the interview, you may say so and the interviewer will move on to the next question. No one else but the interviewer will be present unless you would like someone else to be there. The information recorded is confidential, and no one else except the research team will have access to the information documented during your interview. In case you agree for the interview to be tape-recorded, no one will be identified by name on the tape. The tape will be kept in locked safe places in my office. The tapes will be destroyed after three years.

Place and Duration of The Interviews

The interviews will be conducted face to face or by phone for those participants whom we can not reach. For face to face, interviews will be conducted at the most convenient and secure for you. It may be conducted at your office, a restaurant, a cafee, a garden, etc. the most important thing to consider is that the place should be secure and quiet enough to allow for recording the interview. The interview will last about one hours. The research will take seven months in total but interviews or data collection will take only a month to be completed. During the seven months, the study team may contact the participant again to request for a second interview, and only then, and after agreeing on date and time, visit the participant. The participant will agree or decline to participate in a second interview.

Confidentiality

This research will be done amongst policy makers and development partners in Rwanda; we will not be sharing information about you to anyone outside of the research team. The information that we collect from this research project will be kept private. Any information about you will have a number on it instead of your name. I will be the sole owner of the list of names and numbers and I will lock that information up with a lock and key; It will not be

shared with or given to anyone. In addition, pseudonyms will be used to enhance the privacy of any information you volunteer, thus, names and identifying characteristics will be altered in any document that will result from the study.

Risks and Benefits

Because we are going to talk about a program that overall has been successfully implemented in Rwanda, there are no major risks foreseen in advance; however, there is a risk that you may share information that may be confidential and a reader may be able to understand where that information comes from. Please, feel free to inform Dr. Humuza and his/her colleague about potential risks that may arise from the information you volunteer. You should be reassured that all measures will be taken to protect your confidential information as explained above.

The researchers will use an interview guide meant solely to guide the interview and help Dr. Humuza and his colleagues to refocus on the interview and fulfill the goals of the study. Because this study is assessing the role of actors involved in health policies, it is necessary to identify respondents. Important measures to preserve your anonymity have been taken: there will be no names on any report or document, however, your professional positions (past and present) must be identified in order to analyze your power, position and degree of influence on the policies under investigation. Information collected on your qualification and professional positions of respondents will not be directly linked with your identity in the same database. A separate spreadsheet with your names will be kept in a secured location and destroyed a year after the study report would have been submitted.

Some of the benefits of the study are your contribution to a better understanding of the PBF scaling up processes in Rwanda. You will also be able to share your concerns that will hopefully be addressed for improved policymaking and implementation processes. Because development partners mainly fund the policies discussed, another benefit is being the provision of more evidence for their sustainability in case development partner countries or development partner institutions decide to stop their funding. There will be no compensation for your participation in this study; in case the interview is done in a coffee shop, I will be able to pay for the drinks taken during the interview.

Sharing the Results

Nothing that you tell us will be shared with anybody outside the research team, and nothing will be attributed to you by name as discussed above. The knowledge that we get from this research will be shared back to you and broadly through publications and conferences to provide knowledge and evidence for people interested to learn from Rwanda and for policy makers who need to hear from researchers on improvements needed so far.

Right to Refuse or Withdraw

You do not have to take part in this research if you do not wish to do so, and choosing to participate will not affect your job or job-related evaluations in any way. You may stop participating in the interview at any time that you wish without your job or reputation being affected. I will give you an opportunity at the end of the interview/discussion to review your remarks, and you can ask to modify or remove portions of those, if you do not agree with my notes or if I did not understand you correctly.

Who to Contact

If you have any questions, you can ask them now or later. If you wish to ask questions later, you may contact me at the following address: Dr. James Humuza; Tel: +250 78830 7858; Email: jhumuza@nursph.org; humuzajames@gmail.com. This proposal was presented and approved in the CMHS, IRB, which is a committee whose task is to make sure that research participants are protected from harm. If you wish to find about more about the IRB, contact its chair Prof. Kato Njunwa.

Part II: Certificate of Consent

I have been invited to participate in research about assessing the evolution of PBF beyond its original clinical concept, with a focus on the community PBF as well as examining the institutional changes that have evolved from the PBF health program in Rwanda, from 2001-2014 with a focus on the period from 2006-2014. I have read the foregoing information and have had the opportunity to ask questions about it and any questions I have asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study. I can also choose to not be a participant for the second interview when I am contacted.

Print Name of Participant_____

Signature of Participant _____

Date _____
Day/month/year

Statement by the researcher/person taking consent

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands the following:

1. An interview will be conducted to collect information about the topic of interest.
2. He/she is free to participate or not in the study, free also to withdraw at any time without any effect on his/her job or reputation.
3. There is no compensation in participating to the study other than the satisfaction to have contributed to sharing his/her experience and improve evidence on what has been working well and what needs improvements in scaling-up PBF in Rwanda.

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A copy of this ICF has been provided to the participant.

Print Name of Researcher/person taking the consent_____

Signature of Researcher /person taking the consent_____

Date _____
Day/month/year

Annex 3: Interview Guide

Case Study Open-ended Interview Guide
National diffusion of a policy: the experience of Rwanda with exploiting, extending, and sustaining Performance Based Financing for better health outcomes (2005-2014)

Principal Investigator: Dr. James Humuza

University of Rwanda-College of Medicine and Health Sciences/ School of Public Health, Kigali, Rwanda

General topics to be discussed in the interview are grouped under 4 themes

I. Policy: Actors, content, context, and processes that led to the expansion of the facility PBF policy from clinics to communities

1. Who were the actors that participated in the discussion to expand PBF from the clinical setting to community? What was your specific role?

Probe: Think of Ministry of Health departments and specific staff and officials that were involved. Think also of specific development partners, private sectors, etc. that were involved and there respective roles.

2. What policy content shaped the adoption (facilitated the expansion) of the facility PBF from clinical setting to communities?

Probe: think of policy contents like the available evidence from research such as positive results of facility-based PBF, lack of sufficient performance that inspired an action in the community, the need to address a newly identified health problem, availability of development partner funding, committed leadership to meet national and international goals (MDG document).

3. What contextual factors shaped diffusion of the PBF policy from clinical settings to the community?

Probe: Think of major factors such as: systemic, structural, cultural, internal (within outside MoH), international, macroeconomic situation, political environment, social values, etc.

4. What policy processes were put in place to scale-up PBF from clinics to communities? What steps and how did they evolve?

Probe: Think of detailed steps (may be documented or not) that took from the start of implementing CPBF. If possible, give time-line as well as interactive discussions of stakeholders involved in the scale up of PBF from clinics to communities.

II. Identifying institutional reforms (spillover effects) inspired by the success of the clinical PBF after scale up within and beyond health sector

1. What institutional reforms or changes have been inspired due to the successes of the PBF in the health sector?

Probe: Think of changes that happened as result of PBF, e.g. proposed accreditation of the district hospitals, financial reforms, improved hospital management, improved accountability, etc.

2. What are other non-health programs or innovations that started due to the success of PBF in the health sector?

Probe: success outside health sector inspired by PBF success in the health sector. E.g. proposed PBF in education, accreditation of district health facilities, etc.)?

3. Are there substantial evaluations (internal and external) for the PBF? If yes, are programs estimated to be positively meeting their objectives? If the answer is no, what are the general perception?

III. Opportunities, challenges and PBF systemic resilience after scale-up

1. What factors and/or opportunities could have contributed to the resilience of clinical PBF after scale up (2006-2014)

Probe: Think of factors that could have contributed to the resilience of PBF in face of: global economic crisis, changes in policy makers in the MoH, global PBF critics, etc.

2. What current opportunities can be exploited to improve PBF strategy in Rwanda
3. What are the challenges associated with facility PBF after national scale-up from pilot in Rwanda?

Probe: Issues of strategic purchasing versus perceived salary top up? What were systemic challenges associated with PBF and how were they addressed?

IV. The future and improvements needed for PBF in Rwanda

1. Based on the past and current trends, what is your perspective about the future of PBF in Rwanda? Probe: try to link fundamental philosophy of PBF versus current practice.
2. What do you think are policy makers' expectations about PBF in Rwanda?

Probe: Consider expectations of PBF in the context of current and past policy makers. What is their opinion for the future of PBF, such as sustainability in the context of the current financing trends?

4. What are the PBF implementers' expectations from policy makers when it comes to the future of PBF in Rwanda?

Probe: Map key PBF stakeholders, consider current and past stakeholders: MoH, MoF, and development partners organization; what is their opinion and expectation on PBF?

5. How is the PBF functioning currently?

Probe: Think of how PBF should function in theory and how it is functioning in practice? Are 3 key agents well separated: the payer, the evaluator, and the provider? Are all agents independent and functioning as expected?

6. What current opportunities can be exploited to improve PBF in Rwanda and what sort of critical improve and sustain PBF are needed

V. Policy implications for Rwanda and for countries in similar contexts

1. What PBF lessons can be learned first in the MoH and other non-health sector as well as countries in similar contexts?

Probe: Think of all <u>best practices</u> provided by PBF in terms it's: <u>successes and challenges</u>, <u>unintended consequences</u>.

<u>Closing</u>

1. Thank you very much for taking your precious time to discuss with us
2. Is there any information you would like to share with me that did not get covered in this interview?
3. I may be in touch again in case there is need for clarification or ask about something that was not discussed or emerged as important during transcription and analysis of the data.
4. Thank you so much for agreeing to follow-up.

Respondent Information

1. Name:
2. Organization:
3. Title (describe his/her role):……...
   ……
   ……
   ……
4. Gender:
5. Level of education:
6. Past and present positions:
7. Organizations where s/he worked:
8. Number of years at Experience at each organization:

Annex 5: Community Health Workers Priority Indicators

Proposed Community Health Worker Priority Indicators

	Indicator	Definition	Primary data source
	Child Health/IMCI		
1.	Number of children< 5 years screened for nutritional status	Number of children <5 years screened for nutritional status using MUAC or baby scale during the past month.	Child Vaccination/Nutrition register
2.	Number of malnourished children (in yellow or red zone during screening) who were treated or referred	Number of children screened for nutrition status during the last month whose MUAC scores or weights for age were in the yellow or red zones.	Child Vaccination/Nutrition register
3.	Vaccination defaulters: Number of children between 9 and 12 months whose vaccination status is not up to date.	Number of children aged between 9 and 12 months who had not yet been completely immunized during the past month.	Child Vaccination/Nutrition register
4.	Number of children 2-59 months treated for Pneumonia	Number of children aged 2 to 59 months, with a suspicion of Pneumonia, treated according to protocol, during the past month.	IMCI Register
5.	Number of children 2-59 months treated for diarrhea	Number of children aged 2 to 59 months with diarrhea treated with ORS and Zinc during the past month.	IMCI Register
6.	Number of children 2-59 months with fever treated within 24 hours of the onset of fever	Number of children aged 2 to 59 months with fever who were treated by the CHW with an anti-malarial drug within 24 hours of the onset of their fever.	IMCI Register
7.	Number of children 2-59 months with fever treated more than 24 hours after the onset of fever.	Number of children aged 2 to 59 months with fever who were treated by the CHW with an anti-malarial drug more than 24 hours after the onset of fever	IMCI Register
	Maternal Health		
8.	New: Number of home deliveries recorded by CHW.	Number of home deliveries recorded in the CHW's maternal health register by type.	Maternal Health Register
9.	Number of women and child pairs who delivered at home and were referred to the Health Center	Number of women and child-pairs who delivered at home and were referred to the Health Center <7 days after delivery, during the past month. This is a transitional indicator, once FOSA deliveries increase beyond 90%, the numbers should be quite small and it may no longer be relevant.	Maternal Health Register
10.	Number of women accompanied for delivery at the Health Center	Number of women who have been accompanied to deliver in a health center during the past month.	Maternal Health Register
11.	Number of pregnant women accompanied to FOSA due to specific risk factors.	Number of pregnant women accompanied to FOSA due to specific risk factors (including miscarriage, spotting, ...)	Maternal Health Register
12.	Number of New Family Planning users sent to the Health Center	Number of new Family Planning Clients who reached the Health Center during the past month. New client defined as using any FP method for the first time (modern or cycle beads)	Maternal Health Register
13.	Number FP methods distributed during the past month by type (condom, pills, injectables, cycle beads)	Number of FP methods distributed during the past month by type (condom, pills, injectables, cycle beads). Used to calculate the CYP at FOSA and national level, and for stock management purposes.	Maternal Health Register
14.	Number of couples accompanied to the Health Center for PMTCT	The value of this indicator should be exactly the same as the next indicator since PMTCT is a routine part of ANC visits. It is not clear why it should be collected again.	
15.	Number of women accompanied to the Health Center for ANC within first 4 months of pregnancy.	Number of women accompanied to the Health Center for ANC within first 4 months of pregnancy.	Maternal Health Register
	Surveillance/IEC		
16.	Number of IEC sessions	Number of Information, Education and Communication sessions with large groups (mass) with preparation that were held in the community by either the CHW and/or the local leader, during the past month. Comments: for instance add type of 'mass meeting' e.g. Umuganda, district campaigns, Umudugudu meeting'	Minutes of Umudugugu meetings or CHW agenda/calendar
17.	Number of suspected cases of TB referred to the health center	Number of suspected cases of TB referred to the Health Center by the CHW during the past month. Comment: add to definition something like 'A suspect case is somebody who has been coughing for over three weeks.'	Referral – Counter-referral forms
18.	Number of suspected cases of polio (AFP) or measles referred to the Health Center	Number of suspected cases of polio (acute flaccid paralysis) or measles referred to the Health Center during the past month.	Referral – Counter-referral forms
19.	Number of child deaths < 5 years declared in the community	All child deaths < 5 years declared in the community during the past month.	IMCI Register – Children who died without seeking CHW care will be entered as a new line on this register with only the identification, age and death columns filled in.
20.	Number of maternal deaths (related to pregnancy or delivery) in the community	Number of maternal deaths >2 months after conception to one month after delivery declared in the community during the past month.	Maternal Health Register – Women who died without seeking CHW ANC care will be entered as a new line on this register with only the identification, age and maternal death columns filled in.
21.	Number of new TB cases followed in the community	All new TB cases who started their treatment in the community during the past month	CHW TB register
22.	Number of households referred to the health center for voluntary HIV/AIDS counseling and testing (VCT)	All households to which the CHW has provided a Referral –counter-referral form to go to the health center for VCT testing	Referral – Counter-referral forms

Annex 6: Flow of information for CHW data and payment

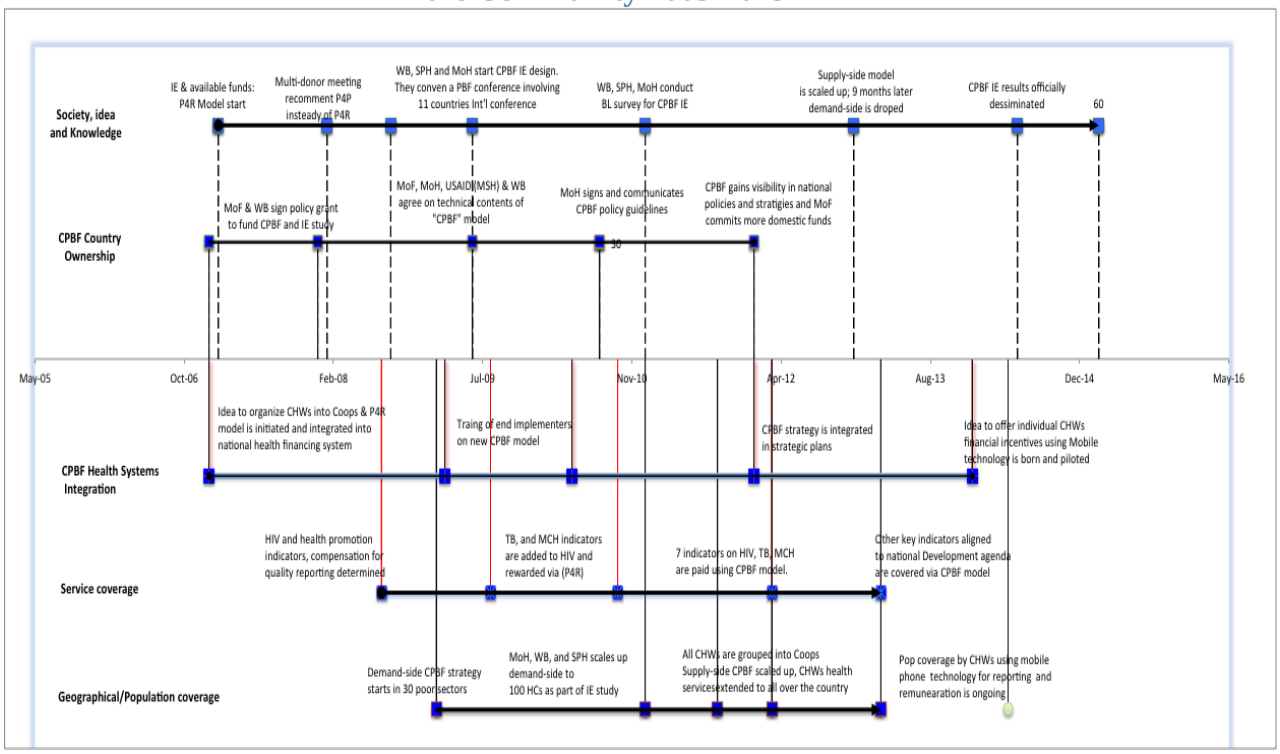
1. CHW collect data on population, vital events, sanitation, immunization and family planning service coverage on an annual basis. This data is aggregated at the village level using the Household Survey Tally sheet to provide population denominator data and measure other health program performance. This data is reported to the DHSO using the Village Level Household Survey Summary Form every year by 15th of March.
2. Community Health workers (ASC) provide services to the community during household visits and when they assist Nurses providing vaccinations and pre-natal services through Outreach Clinics within the FOSA"s target zone. These encounters are recorded in registers (Maternal, Vaccination/Nutrition, IMCI register) and on cards maintained by the client/patient. Separate registers are maintained by each ASC.
3. At the end of each month, the ASCs who work together in the same village, meet to consolidate data from their individual registers and fill out a village level ASC Monthly report form.
4. This information is transferred to the cell level by the 3rd day of the month, where the ACS monthly reports from each village are compiled into a cell level report and sent to the FOSA responsible for health services in that cell by the 8th day of the month.
5. The ACS supervisor at the FOSA compiles all of the Cell level reports together and sends a FOSA level monthly report form to the District Hospital by the 15th day of the month.
6. At the District level, the DHSO, DMO and (if available) the Statistical Officer, review the reports submitted from each health facility. They also maintain a report submission register to monitor the completeness, timely arrival and dispatch of reports. If reports are missing after the due date, they contact the health facilities concerned to remind them that reports are due. If there are errors in the reports, they also follow up with the ASC supervisors at the health facilities who in turn follow up with the cells and individual ASCs.
7. Before the end of each month the Data manager at the District Hospital enters each FOSA-level consolidated monthly report form into their computers where it joins the regular electronic data submission process of the GESIS.
8. At least twice a year, the District Level Data Manager and Supervisor analyse the performance of all ACS cooperatives and prepare written feedback reports that are sent to each health facility. (Note: Once the computer system is in place, most of the content for these feedback reports can be produced automatically). Before each supervisory tour, the district supervisor and FOSA-level ACS supervisors should also review data from the SISCom to help determine the performance of the cells and individual agents scheduled to be visited. This information should be discussed with staff during the visits.
9. In each district, all FOSA in-charges and ASC supervisors should meet once a year for an Annual District Health planning meeting. During this meeting, health workers should analyse their data, interpret key trends, plan priority activities and set targets for the following year. District-level staff from other sectors (e.g. Rural Water Supply & Sanitation, Education) should also participate in this meeting.
10. The National SIS Unit, merges the data from all districts and maintains a national database of health statistics. This database is used to prepare the Annual Health Bulletin and to respond to ad hoc requests for information from health program staff, other Ministry of Health Departments and development partners. Staff within the Health Department use this data to monitor disease trends and for planning purposes.

Annex 7: Objectives of the National Aid Policy, 2006

(a)	**Operational development strategies**	There are clear linkages between the Poverty Reduction Strategy (PRS), sector strategies, budget, Medium Term Expenditure Frameworks (MTEFs), and district development plans, facilitating donor alignment to government priorities.
(b)	**Reliable country systems**	Rwanda's public financial management (PFM), procurement, and reporting systems are strengthened.
(c)	**Alignment of aid flows on national strategies**	All aid flows are reported on the Government's budget and in line with strategic plans.
(d)	**Strengthening of local capacities by co-ordinated support**	Technical assistance is focussed on knowledge transfer through coordinated programmes consistent with Rwanda's priorities.
(e)	**Use of country systems**	All assistance is delivered through Rwanda's PFM and procurement systems.
(f)	**Avoiding parallel PIUs**	The stock of parallel project implementation units (PIUs) is reduced.
(g)	**Aid is more predictable**	Assistance to Rwanda is disbursed as scheduled, and medium term projections are reliable.
(h)	**Aid is untied**	Reduction in the volume of assistance to Rwanda that is tied.[2]
(i)	**Use of common arrangements**	Significant increase in the proportion of assistance delivered in the context of sector-wide approaches.
(j)	**Joint missions and analysis**	Joint missions and analytical work between donors becomes increasingly prevalent.
(k)	**Results-oriented frameworks**	Harmonisation of conditionalities is achieved and performance indicators are commonly defined.
(l)	**Mutual accountability**	Independent monitoring mechanism in place.

Source: Rwanda Aid Policy, Ministry of Finance, 2006

Annex 4: The time-line and table of events for PBF expansion from health facilities to the Community 2005-2015



Dimensions and events for PBF scale-up process

Process Dimension	Major events
▪ Society, Ideas, and Knowledge	▪ 2007: PBF IE results provide evidence to initiate discuss on introducing CPBF. ▪ 2009: MoH and WB hold PBF international workshop for 11 countries ▪ 2014: CPBF blogs on community of practice ▪ 2015: CPBF IE show impact for demand and not supply-side PBF
▪ Country Ownership	▪ 2007: Financing agreement negotiation: GoR and WB ▪ 2008: A Policy Grant to fund CPBF scheme and IE is signed ▪ 2009: MoF, MoH, and WB agree on technical contents of CPBF model ▪ 2010: Ministerial guidelines signed and communicated ▪ 2011: GoR commits more domestic resources to finance CPBF ▪ 2012: Visibility of CPBF in health policies and all strategic plans ▪ 2011: All CHW organized into cooperatives
▪ CPBF Health System Integration	▪ 2007: Financing CHW using P4R ▪ 2009: MoH develops CPBF policy tools ▪ 2010: Training decentralized staff on CPBF model ▪ 2012: CPBF integrated in strategic plans ▪ 2014: MoH thinking of paying CHW using Mobile Money technology
▪ Service coverage	▪ 2008: HIV indicators, compensation for quality reporting ▪ 2009: HIV, TB, and MCH indicators are added under P4R ▪ 2010: 7 indicators on HIV, TB, MCH added ▪ 2012: All key MCH indicators covered ▪ 2012/13: Supply-side CPBF fully scaled up
▪ Geographical/population coverage	▪ 2009: A demand-side pilot start in the 30 poorest ▪ 2011: MoH scales up demand-side to 100 HCs as part of IE study. ▪ 2012: Supply-side CPBF is fully scaled up to the whole country ▪ 2013: All population receive CHW health services ▪ 2014: Mobile technology infusion (reporting and remuneration)