Performance Based Financing

A Synthesis Report

Drawing lessons from country study reports
On Cordaid experiences in PBF pilot projects in:

Democratic Republic of Congo
Tanzania
Zambia
Burundi

Work in Progress

This report has been prepared for a workshop at KIT Amsterdam, 15 December 2008.
The results of the discussions will be used to improve this report.

Your additional comments are highly appreciated.
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AIDS  Acquired Immunodeficiency Syndrome  
ANC  Ante Natal Consultation  
BPHS  Basic Package of Health Services  
BTC/CTB  Belgian Technical Cooperation/Coopération Technique Belge  
CAAC  Cellule d’Appui a l’Approche Contractuelle; performance-based financing Department of the Rwandan Ministry of Health  
COSA  Comité de santé; community health committees  
Cordaid  Dutch Non-Governmental Organization; a conglomeration of three Dutch NGO’s: Memisa, Mensen in Nood, and Vastenaktie  
CSO  Civil Society Organisation  
DFID  Department for International Development (United Kingdom)  
DRC  Democratic Republic of the Congo  
EC  European Commission  
ECHO  European Commission Humanitarian Aid  
EDF  European Development Fund  
EU  European Union  
FHA  Fund Holder Agency  
FP  Family Planning  
FBOs  Faith-Based Organisations  
GFATM  Global Fund for HIV/AIDS, TB & Malaria  
GTZ  
HealthNet  HealthNet International; a Dutch Non-Governmental Organization  
IDA  International Development Association  
INGO  International Non-Governmental Organisation  
M&E  Monitoring & Evaluation  
MoH  Ministry of Health  
MSH  Management Sciences for Health  
MoPH  Ministry of Public Health  
MTE  Mid-Term Evaluation  
NGO  Non-Governmental Organisation  
PBF  Performance Based Financing  
PEPFAR  President’s Emergency Plan for AIDS Relief; a project of the American government  
PHC  Primary Healthcare  
P4P  Payment for Performance  
PMR  Project Monitoring & Review  
PPCC  The Provincial Piloting Committee for Contracting  
RCH  Reproductive and Child Health  
SC  Steering Committee  
TA  Technical Assistance  
UN  United Nations  
UNDP  United Nation Development Programme  
UNFPA  United Nations Population Fund  
UNHCR  United Nations High Commissioner for Refugees
USG    United States Government
VCT    Voluntary Counselling and Testing
WB     World Bank
WHO    World Health Organization
[Level 1] Executive summary

Cordaid, a Dutch NGO, has been actively involved since 2002 in developing an innovative approach in health system strengthening in different Low Income Countries (LIC): Performance Based Financing (PBF), which is also called Pay for Performance (P4P) or Results Based Financing (RBF). Cordaid has invited KIT, in association with WHO-Geneva, to carry out a formative evaluation to learn lessons about PBF, in order to understand if PBF is consistent with their development objectives and the perspectives of beneficiaries, and how the implementation of this approach may be improved.

To answer these questions, first a desk study was carried out to analyse the existing literature on PBF. This study gave input to the survey instruments used in country case studies. The case studies were carried out in DRC, Burundi, Tanzania and Zambia by a team of national and international consultants. Interviews were held with key stakeholders at the central and operational levels, health data were collected from the routine information available in facilities that worked in the context of the PBF approach. The same information was collected in facilities where PBF had not yet been introduced. The two sets of data were used to compare what would have happened if PBF had not been introduced – while understanding that this is not a longitudinal case-control study. As all projects listed above were pilot projects, Rwanda was also visited to study scaling-up from pilot projects to a national program.

All country studies have been discussed with the key stakeholders in those countries, and this already resulted in action taken based on the findings. This synthesis report does not include all of the findings, instead it aims to present lessons learned based on the evidence collected in these country reports. As such, this executive summary will summarise the main lessons learned, instead of the classical summary that provides the scope of an evaluation carried out for accountability reasons.

[Level 3] Some general lessons learned on the PBF approach

PBF continues to be an approach of interest not only to stable countries but in fact is gaining even greater attention in the context of post-conflict health system recovery. Unfortunately, it is not a magic bullet to boost health worker performance, nor is it a ready-made solution to resolve a fragmented health system. However, having considered the contextual factors, the confounding factors, and the reliability of the available information, we may conclude that in general PBF indeed may be instrumental in achieving better results in the health sector if compared to the traditional input financing approach.

Even after this evaluation, there is still much to be studied for PBF to become mature – this study brings up a number of questions. This report maps out what still requires serious in-depth studies – the topics are mentioned in the last part of the conclusion chapter. PBF is still young and needs more thorough critical analysis than is available at this moment before being implemented at a large scale.

[Level 3] Lessons learned on the relevance and appropriateness of the PBF approach

As PBF is about an important change in funding health activities at the operational level, it needs a change in the distribution of tasks and responsibilities between the different actors, and consequently in the institutional framework of the health sector at the operational level.

As PBF is, actually, about payment for results, checks and balances are needed; a split of responsibilities between providers, purchaser and regulator is needed, too. But the distribution of responsibilities should be appropriate – e.g. performance contracts need to
be established between the local fund holder and the providers, not between the funding agency and the local fund holder.

For providers to be able to attain better results they need space to be creative, to be responsive to local needs and demand. Hence a high level of autonomy is needed for the actors at the operational level (purchaser and providers). Decentralisation may prove to be as important in PBF as the financial incentives in coming to better results.

Incentives given for better performance have been predominantly financial. There are different types of incentives known to motivate health workers to perform better. It is needed to amplify the types of incentives in the PBF and to focus on internal incentives as well.

It has often been stated that preconditions in fragile states do not allow for introducing PBF. Here, the most important successes of PBF were found in (former) ‘fragile states’, provided that the very minimal preconditions (equipment, human resources) were in place. In these fragile states, it was easier to build ‘new’ institutions needed for PBF. The institutional changes may prove to be an important challenge in more stable states. This is certainly true for finding a place for the local fund holder within existing institutions, for community involvement and for decentralisation within the MoH.

For performance in terms of utilisation and quality of health services to increase, services need to be responsive to community’s needs and wants – so community involvement represents a key aspect in PBF. Community involvement in the PBF approach is not well conceived, yet, and needs further exploration.

It is important not to limit contracting to purchaser and providers only. There is a need for contracts between all different actors in the chain purchaser, provider and regulator at different levels to stipulate mandate, expected results and consequences.

The contracts between purchaser and providers lead to contracts between the facility and its health workers, stipulating an appropriate and equitable distribution of incentives between them to avoid de-motivation of health workers.

The scope of the indicators is most often limited to the important programs for mother and child care, or HIV/AIDS. A broader scope (e.g. disease control, promotional activities) and adaptation to local priorities instead of global or donor priorities are needed.

**[Level 3] Lessons learned on the efficiency of the PBF approach**

It is still difficult to judge the efficiency of the approach – this study reveals that costs are high: costs for the administration of PBF vary between 15-30% of the per capita health expenditure. For a thorough study more information is needed on the costs for the country to invest while scaling up to a national program, the efficiency gains made, the costs of a comparable approach (probably the ‘input planning’ approach) and the related additional results. This is only possible in a prospective study carried out in a clearly delimited area, where it is possible to find comparable control areas and to study only the variable indicators.

**Lessons learned on the effectiveness of the PBF approach**

Performance in terms of productivity increased in general, if compared to the situation before introducing PBF. However, results between PBF facilities varied strongly, similar results were found in non-PBF facilities, improvements had started already before introducing PBF and confounding factors (e.g. insurance, lower fees, improved social-economical conditions and stability) could often also explain better results. A more critical analysis of attribution of results to PBF is needed.

Health workers in PBF facilities appeared to be more creative and motivated to increase their performance, provided that they had sufficient autonomy, management capacities, and understanding of the PBF concepts. For this reason, results varied between facilities. Quality of care improved in some cases: where clear standards were set and monitored, and results of monitoring had clear consequences (in terms of incentives). Also, some
providers improved quality as they expected that utilisation (hence there bonus) would then increase. However, there is still a need in PBF for approaches on improving quality and for monitoring the quality of care that was provided.

So far, the influence of PBF on the health sector as a whole is at operational level only. When pushing for scaling-up there is also a change needed at central level.

To judge if increased outputs indeed lead to improvement of the outcome was difficult, as expected before this study started. Still, in theory, if outputs in ‘input planning’ result in outcome, than PBF would have results in the same way, as both approaches address the same health interventions. This will not be the case if PBF addresses only a limited number of health interventions, which is the case now, as other interventions important for outcome will receive less attention.

As community involvement in PBF is nascent, the effect of the approach on empowering the local population is still limited. However, PBF holds a strong promise here through the involvement of the community in the steering committees and in contracting agencies. The impact on poverty reduction is impossible to estimate here, although the equity funds and decrease in fees seem to have increased financial accessibility. Still, this does not necessarily mean that the poor indeed used the services more.

Lessons learned on the sustainability of the PBF approach

After the last decade with the new architecture of aid, discussions on health system strengthening have been ‘swapped’ increasingly to policy development upstream – PBF brings the attention back downstream, to the operational level, where the end results need to be produced for the ultimate beneficiaries.

Emphasis has so far been put on the PBF model as it has been presented here with purchaser, provider and regulator; contracting; and financial incentives being the basic elements. In the end it is about improving the performance at service delivery level. For the approach to become sustainable, it is important to test different approaches around these issues.

To enable the embedding of the PBF approach in the national health policy, the central level of the MoH should participate from the start in piloting the approach. It is necessary that the scale-up proceed at an appropriate pace if the approach is to retain the basic decentralised principles of PBF. The process of introducing PBF needs to be incremental, not only while extending PBF on the surface of the country, but also a phased approach when introducing in a district: the actors need to understand their new roles.

The place of a local NGO in the process is in accompanying local actors, helping to establish structures, instruments and local capacities of each of the stakeholders. It should have from the start an exit strategy, and not take the sole responsibility on important institutions for PBF like the local fund holder.

PBF still relies strongly on financial donor support. It is possible that the national treasury will co-finance costs related to the approach. In case necessary reforms (like true decentralisation, budget reforms etc.) are introduced, it is possible that the costs for PBF will not be (much) higher. Still, investments for introducing PBF in a country, for piloting PBF, for capacity building, for creating necessary preconditions as investments will need external funding. To reach high quality care in these countries, external funding will still be needed for an important period of time.

The ‘new’ institutions (like the Fund Holder Agencies) created for PBF create a challenge in fragile states for scaling-up to a national approach. These FHA provide an important additional cost and need to be integrated in the national governance structures.

Overall, this study shows that PBF is a promising approach, but that more research and critical reflection are necessary to continue to adapt PBF to its contexts and evaluate if it is the most effective funding mechanism.
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1 [Level 1] Introduction

1.1 [Level 2] Background on PBF Synthesis

For decades, efforts by international development agencies focused on investing resources (input financing) to invigorate poorly functioning health systems in developing countries, with variable success. Public providers who have to work within resource constrained health facilities and cope with a low government salary have little incentive to provide more or better healthcare. Empowerment of providers and users of health services is viewed as an important prerequisite for sustainable improvement in access to and quality of healthcare received. This has inspired new approaches and innovations to boost health system functioning, through adoption of performance targets that are closely tied to incentives for individual health facilities and for health providers.

There are various terms used to describe the levels of incentives and performance rewards, whether organizationally or individually focused. These include: RBF, "results based performance"; P4P, "payment for performance"; and PBF, "performance based financing". For the purpose of this paper, we will adopt the latter, "performance based financing" as the working terminology. Performance Based Financing (PBF) is predicated on the assumption that linking incentives to performance will contribute to improvements in access, quality and equity of service outputs.

Financial incentives are aimed to influence providers’ behaviour1 in order to improve the delivery of services in both quantitative and qualitative terms, which will ultimately affect health-seeking behaviour on the demand side; this in turn can result in improved health care delivery. The advent of results based approaches to financing of health care is in contrast to the traditional input based financing approach that is still deployed. Attention to innovative ways of boosting health service delivery has resulted in increased interest in such approaches and in their effects on health providers.

This paper has its origins in an enquiry initiated by Cordaid2 on the potential influence of PBF on poverty alleviation through an assumed increase in health service productivity and quality of health care rendered by skilled health workers. Secondly, and of equal interest, is PBF’s potential to exercise enhanced equity through regulation of user fees and thus minimising out of pocket expenses for the poor and vulnerable users. Thirdly, it is assumed that with opportunities for increased community involvement in monitoring of health care delivery and quality, users can exercise greater influence over the choices of preventive and curative healthcare available to them. The collective experiences and lessons from the diverse PBF project locations are expected to provide invaluable insights into these hypotheses; they thereby inspired the design and delivery of this multi country study.

1.2 [Level 2] Methodology

The study was called a formative evaluation, meaning that the purpose was not accountability of the programs studied, but rather learning lessons on how to perform better, what the added value for Cordaid was in terms of development and how the results could be used through active stakeholder involvement throughout the entire process. The

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1 Newbrander, W. et al (1992). Hospital economics and financing in developing countries. WHO.
2 The enquiry is part of a Cordaid linking and learning approach whereby the interventions are studied not only with a view to accountability but foremost for the opportunity to study the lessons emanating from a dual goal of poverty reduction and civil society strengthening.
multi country review was conducted using a phased approach, whereby all stages involved the KIT consultants in collaboration with Cordaid head office program staff and a WHO health systems advisor, who also participated in the field visits.

The selection of countries visited is based on the opportunity to study PBF projects supported by Cordaid and HealthNet, which in some cases were early stage pilots while others were at a more mature stage of integration within the national health system. The following countries and associated projects were selected for the study:

- **Burundi**, where Cordaid initiated PBF in the Provinces of Cankuzo and Bubanza and HealthNet did so in the district of Kibuye in the Province of Gitega, since November 2006. In February 2008, two additional Cordaid projects started in the district of Nyanza-Lac (province of Makamba) and the district of Rumonge (province of Bururi). The review team visited all project areas where PBF is currently being implemented.

- **DR Congo**, where Cordaid currently supports two projects in Kasai (initiated June 2007) and South Kivu (2006), while HealthNet supports the North Kivu project (2006).

- More recently, Cordaid evolved its support to diocesan health services in **Tanzania** Nov (Jan 2006) and **Zambia** (July 2007) from input based financing and output financing through the introduction of a results based approach to health service delivery. These continue as pilot projects.

The generic terms of reference was co-written by Cordaid and KIT and tailored to each country context in consultation with local partners. For the purpose of the multi country studies, standardised data collection instruments and semi-structured questionnaires were developed and later adapted in line with country context characteristics. Some of the key questions identified and common to all countries included:

- To what extent have factors such as stakeholder analysis and alignment with national policies been taken into account in the situation analysis at time of defining the program’s priority problems? In relation to this, what has been the relevance and appropriateness of the interventions chosen from the perspectives of government, donor, implementers and beneficiaries?

- To what extent does PBF give results that are compatible with the development objectives of an organization like Cordaid?

- What can be said about the actual input versus outputs and performance of health services?

- What is the outlook for the sustainability of the current PBF approach?

The review and multi country study included: (i) a desk study on performance based financing in order to take stock of the current global status and identify relevant lessons and outcomes from the various country initiatives; (ii) review of PBF in four countries (Burundi, DRC [Kassai, Sud Kivu and N.Kivu], Tanzania and Zambia) and a national level retrospective enquiry in Rwanda, followed by development of individual country reports that were shared with the respective country partner agencies and Cordaid HQ; and (iii) a synthesis of the findings based on distilling of the major lessons and experiences from the countries studied.
As indicated, this study also provided an opportunity to undertake a review of the successes and challenges encountered in Rwanda’s approach to the scale up of PBF. Rwanda’s national PBF approach has now superseded the original pilot projects that were first initiated in 2002, as supported by Cordaid, HealthNet and a third scheme by BTC introduced in 2005.

To summarise, the methodology was adapted in line with opportunities to develop an analysis of “before and after PBF”, while it also includes a comparison of PBF supported health facilities with non-PBF supported health facilities, best described as a “with and with-out study”. The non-PBF is not regarded as a “control”, as such statistical testing of hypotheses is not feasible within the context of output financing. It should also be noted that the evidence of the results are presented in the country study reports. This synthesis report is therefore only intended to present a meta analysis of those results and indicate the major lessons learned based on the evidence collated. The information gathered largely derives from the facility-based studies in the programs that were supported by Cordaid and HealthNet and in consultation with national governments and local partners in the respective projects.

1.1. [Level 2] History of PBF and lessons learned

Prior to undertaking the multi country study of PBF for Cordaid, a desk based literature review was undertaken with the objectives: (i) to identify the institutional approaches (largely by NGOs) that have been deployed in collaboration with country level stakeholders; (ii) to explore the results that have been reported including both quantitative and qualitative effects on health service delivery and health worker performance; and (iii) to establish what, if any, results are emerging on issues such as capacity building and sustainability.

The review, though not exhaustive in terms of existing global performance based financing initiatives, include the following country programs:

i. Afghanistan, where the government decided to contract out health service delivery to private providers post-conflict in 2002. Funded by World Bank, EU and USAID, the country was geographically stratified based on donor investment where NGOs became the dominant supplier of basic health services. The donors, in collaboration with the Afghanistan MoPH, decided to have performance linked contracts for improved results and accountability.

ii. Great Lakes region, where performance based financing was first introduced in Rwanda in 1998 by HealthNet and Cordaid, and later scaled up to the national level in 2002 as adopted by the MoH. DR Congo had a number of project focused performance based projects by NGOs, and more recently in 2002, World Bank introduced PBF in 85 health zones as part of a contracting approach.

iii. “Paying for performance in Haiti” is part of a package of interventions in a USAID funded bilateral health project that commenced in 1999 and was scaled up from five to twenty-five NGOs in 2000 based on the initial successes of PBF.

a. [Level 3] Results of PBF

There is wide variation in the architecture (structures, stakeholders, contract negotiation, implementation and monitoring) of the above programs and projects, contingent on

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3 Country reports will be available on the KIT and Cordaid websites from January 2009 for DRC, Burundi, Zambia and Rwanda, as will the final PBF synthesis report.

4 Other countries have selected to use supply and/or demand side incentives often tailored to vertical programs (Global Fund, EPI).
geographic scale, baseline context and drivers of the approach. Common to all contexts however is the choice to use output indicators as a means of measuring progress against the baseline, which in turn are linked to incentives for performance. More specifically, PBF results show improvements in health indicators and enhanced quality of health provider performance. Such encouraging results have been noted in diverse settings (DRC, Rwanda, Burundi, Haiti, and Afghanistan). For example, in the Rwandan projects actual improvements in health outputs (2002-2005) were notable with increases in key health indicators (utilization from 0.33 to 0.57 contacts per inhabitant per year), and institutional deliveries increased in Cyangugu from 27% to 62% within a three year period. The DR Congo World Bank project results across 85 supported health zones show outpatient consultations increase from a baseline of 0.06 (2002) to 0.30 (2007) with assisted deliveries rising from 25% to 74%. The studies did not define comparable service indicator trends for non-supported projects or use controls to study the unique effects of the interventions.

Equally positive in its findings is the “Paying for performance in Haiti” project, part of a package of interventions in a USAID funded bilateral health project. Program evaluations reported that a shift from reimbursement for expenditures (input based financing) to payment determined by meeting performance targets demonstrated remarkable improvements in key health indicators (utilization, ANC, assisted deliveries by trained providers, EPI). This was achieved for a target population of 2.7m, over the seven-year period commencing in 1999, whereby indicators in some instances were twice that of the national average.

Another important result articulated in project evaluations is equity of access and affordability of services. For example, consumers paid less out of pocket in the HealthNet supported project in Butare and in Cordaid’s project in Cyangugu in comparison to the non-contracting provinces, due in part to incentives to reduce fees in order to attract more patients. Out of pocket payment for services in Cyangugu province decreased by 62% with user fee reduction from 2.5% to 0.7% (2002-05). Another example is provided in DRC, where the burden on households was significantly reduced through reducing user fees; it is encouraging to note that the average consultation fee reduced from $4 to $2 in the target areas over the first two years of the program. The studies do not undertake an analysis of concurrent health systems and financing developments within the same program area, and thus do not extend to an analysis of confounding factors, but do allude to their possible existence.

In terms of the adverse effects of PBF, the debate in selective literature on PBF focuses on the risks to quantity and quality of healthcare, highlighting real or potential perverse effects or distortions as a function of the application of financial incentives. Concerns are expressed that health workers may avail of the opportunity to focus only on activities that are incentivised while neglecting other healthcare interventions. Of equal concern is the potential to inflate records for remunerated activities in order to meet the pre-agreed targets. Evidence of such perverse effects was not identified in the literature due to the difficulty of attribution.

Several studies, however, have pointed to the investments in more rigorous health information management that are built into the PBF approach in order to prevent such potential adverse effects. Such advances in M&E include: (i) a balanced scorecard in Afghanistan whereby qualitative measures are integrated within the routine monitoring system.

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5 Sources for results include; project reports and meta analysis as conducted by NGO hired consultants, by academic institutions and by donors as part of an accountability evaluation.

system; (ii) quality of care metrics introduced within HealthNet projects; and more recently (iii) quality of care indicators built into the Rwanda national PBF system. These instruments combined with regular community feedback are intended to stimulate improved quality of health care by providers, and to increase the accuracy of reported figures.

b. [Level 3] Impact of PBF on health worker and organizational performance

The impact of PBF on health worker performance is of great significance and studies have paid due attention to the effects both on the organization and on the individual health providers with three notable positive findings extrapolated from a number of studies.

(i) Health worker performance does improve with the introduction of PBF.
The shift in organizational culture to a more results-oriented way of working has demonstrated increased levels of staff motivation (self reported and via direct observation) and has in many instances promoted innovations in service delivery such as subcontracting community groups or private sector providers, and the opening of health posts to increase primary healthcare coverage. Following the introduction of PBF, improvements were noted among NGO and government staff in Haiti and Rwanda studies including: (i) opportunity for flexibility and more autonomy in management at service level; (ii) enhanced opportunities for professional development and capacity building; (iii) improved and less frequent reporting requirements; and (iv) opportunities for staff innovation led to higher motivation in their work. Questions remain about whether such positive results are indeed an artefact of intrinsic motivators or the explicit result of extrinsic financial rewards, which in turn perpetuate organizational and health worker motivation.

(ii) PBF can enhance health sector institutional strengthening.
PBF is also seen to play an important role in wider institutional development. This has manifested in improvements in existing health functions (HMIS, monitoring) and integration of new functions (fund holding at local level, verification and provider/community participation) with potential for more autonomy at local level and increased transparency. It is notable that PBF provided opportunities to stimulate consultative processes and transparency between central and local government, as well as between district level managers, the providers and the community.

(iii) PBF has potential to strengthen capacities of health providers and their managers.
New systems are required for monitoring and verification of outputs, development of contracts with the health providers, data collection and periodic audits. While these requirements imply a major upscale in organizational demands, it also implies new skill requirements from all levels of the system. PBF proved to be a catalyst in many contexts to ensuring appropriate technical assistance to respond to gaps in the skill levels. Some reports are critical of the variable quality of capacity building with no systematic approach to technical assistance required to deliver PBF. The documentation on the level of

8 PBF calls for a “black box approach” whereby health facility managers have the autonomy to shape the services and create an entrepreneurial spirit among the team which will foster independence and non-reliance on central authorities. Hiring and firing of staff is therefore devolved to local provider/manager level while also encouraging sub-contracting of services to private providers when appropriate.
10 Soeters et al (2006), Ibid.
resources invested in TA and the specific outcomes is unclear as inferences are made in line with the positive and/or negative effects on PBF.

c. **[Level 3] Cost of delivering PBF**

The challenge in determining the cost of delivering PBF is based in the difficulty of extrapolate the cost allocation for PBF, as agencies use different incentive levels while not disaggregating operational costs from incentive packages in their reports. Costs reported have ranged from US$0.3 per capita in Butare (HealthNet), to US$2 per capita in Cyangugu (Cordaid) which includes the additional costs for staff incentives and the top-up of government inputs. In DR Congo, World Bank funded contracts to ten NGOs for health service delivery with coverage of 85 health zones. These had an average cost of $0.25 per capita for NGO budget allocation to health worker incentives, but this does not refer to actual operational costs and possibly other donor inputs.

Concerns have been raised about the cost of administering a labour intensive approach to boosting health service delivery. Donors advocate that administrative costs should be kept within a ceiling (ideally <25% of budget costs). Rwanda project overheads were 25% of the total budget but such costs are contingent on population target, range of interventions and operational costs in terms of geographic access, infrastructure, staffing costs and possible co-financing arrangements. Experience in Rwanda as in other countries shows that fund holder organizations may require 4-7 qualified staff to manage a PBF project with a target population of 300,000 – 700,000 inhabitants.\(^{11}\) The variation in costs across projects and countries mirrors the wide disparities in operational costs that also equate with non-PBF based health system programming.

d. **[Level 3] Issues of sustainability and PBF**

Discussions about sustainability in the context of post-conflict countries are somewhat anathema to the principles of long-term engagement and reconstruction of health systems. Concerns expressed by Lovensohn (2005) in the context of Afghanistan include: (i) feasibility of scaling up; (ii) overhead or transaction costs that are higher than governments can afford; and (iii) governments may have limited capacity to manage such complex approaches, which are by implication unsustainable.

To date there is a limited body of evidence that PBF or payment for performance can actually be sustained beyond the initial pilot and scale up period. Evidence from Rwanda suggests that efforts to mainstream PBF at the early stages of its design and implementation produced a greater sense of ownership, which enabled a smooth transition to nationalising the model. While the approach has been nationalised in Rwanda, the MoH continues to rely on international aid to augment government revenue through bilateral budget support and project aid as channelled through NGOs and faith based organisations. The technical sustainability is of equal concern, whereby a shortage of skilled health workers and the absence of appropriate training will continue to challenge the ability of health providers to perform and render the quality of health care demanded.

Overall, the review of selected PBF literature from developing country contexts shows that the early results of using such approaches are promising and demonstrate potential for improvement in health service utilization and quality of healthcare. However, the question remains if PBF is the panacea or does if it creates distortions and unexpected effects within relatively nascent health systems. Blanchett (2003) argues that PBF impact will vary as a function of organizational, demographic and provider characteristics including volume of activity, local competition, acceptance of salary supplements and trust in the rationale

behind PBF. This synthesis hopes to address some of these key determinants that influence the results and longer term impact of performance financing approaches.

1.2. [Level 2] Layout of this PBF synthesis document;

In this paper, we will explore the uptake and effects of financial incentives in the form of performance based financing in the health sector, as supported in Sub-Saharan Africa by Cordaid and HealthNet.

This chapter provides an introduction to PBF including brief descriptions of the pilot projects included in this study and findings with reference to the effects of PBF, impact on health workers, costs and sustainability based on the literature review and the studies synthesised here. Part Two explores the results of both the quantitative and qualitative effects on health service delivery and on the quality of care provided as informed by the PBF supported and non-PBF health facilities visited. It also addresses the cost of PBF and effects on health service organization. Part Three includes the discussion and conclusions of the report, where we provide a synthesis of the seminal findings and address gaps and synergies, as evidenced in the results from the respective countries. The results in turn inform the conclusions and recommendations made, which include attention to a research agenda.

2 [Level 1] Findings
In this chapter, the findings of the country studies are synthesised, first in relation to the relevance and appropriateness of PBF and then through an analysis of changes in performance.

2.1 [Level 2] Implementation of PBF

2.1.1 [Level 3] Institutional framework and set-up of PBF
A shift from traditional financing to alternative approaches has been demonstrated to have the potential to elicit improvements in health service performance in developing country contexts. The basic principle is “the money follows the patient”; if health facilities attract more patients and provide quality services, they will receive more subsidies and incentive payments on a scheduled basis (monthly, quarterly or bi-annual). Some key objectives of payment schemes include:

- Increase equity, accessibility, and quality of health care
- Efficient organisation of services

PBF is deployed as a modality to incentivise public and private providers by making links between motivation and incentives or sanctions. It is informed by the principles of (i) autonomy in management and planning by service providers with separation of functions of regulation, financing, and service provision; (ii) involvement of the community in management of the services; and (iii) use of standardised instruments including business plans, contracts, verification and monitoring tools. It promotes autonomy of the health provider as a pre-condition, with enhanced participation through a consultative process among the fund holder, regulator and health providers. The inputs, outputs and processes are subsequently articulated in a business plan.

Since the PBF approach is about changing from funding “input planning” to funding “results”, it is generally assumed that there is a need to change the institutional framework to implement the approach. Below a generic structure is shown, based on the different experiences studied, which will be used to discuss and compare the differences in these experiences. The diagram (Figure 1) illustrates the “new” roles and responsibilities:

**Figure 1: Basic structure in Performance Based Financing**
One of the basic assumptions is that a *split of responsibilities* is needed. Usually the roles in this figure are distributed between the regulator (usually the MoH), the funding agencies (donors or Ministry of Finance), the local fund holder (often an NGO, sometimes the donor), the health providers (public and private) and the community involved.

In general, the “rules of the game” are defined as follows. The health provider (be it public or private sector) develops a plan for the facility (in PBF terms known as a “business plan”) guided by national policies, norms and standards, describing how it aims to attain its specific objectives for its curative and preventive and promotional services. This plan will be negotiated with the purchaser of care, the local fund holder to establish expected results and a mutual agreed contract regarding the resources (financial, human, physical, time) needed to attain these results. The plan is approved by a steering committee, in which the different stakeholders (regulator, purchaser, and community) are represented. To ensure that the contract is respected, verification activities at the household level are often contracted out by the local fund holder to a local NGO, village health committees or students. Verification at the facility level is usually carried out by the MoH, at district or at intermediate level.

The business plan describes the steps for delivery of pre-determined performance targets with measurable results. The output financing approach is thereby expected to improve productivity and quality of care, through creation of more conducive conditions for the health providers, with direction from the regulator (MoH) and sustained resources from the fund holder.

Verification is needed to see if: (i) standards for quality care are in place; (ii) patients are treated according to (national, MoH, program) norms; (iii) the number of consultations and vaccinations that were reported for the financial incentives are to be found in the books; and (iv) the patients who are noted in the books indeed have received the services. Verification is needed thus at different levels, particularly since financial incentives are at stake.

We will explore here in more depth the set up for PBF in Rwanda, Burundi, DR Congo, Zambia and Tanzania with a focus on how it has been adjusted to respond to the local context. Contextual adaptations from the classical output financing modality as illustrated
in Figure 1 show how PBF can be successfully adapted to a particular context, and conversely what happens if this adaptation is not made.

**Democratic Republic of Congo**

The context for delivery of health services in DR Congo is mixed due to chronic crises in the country. The eastern part of DRC, where Cordaid and HealthNet pilots were situated, were most affected, while other areas benefit from more stability and opportunities for the reconstruction of the health system. The limited governmental resources and capacity to support the peripheral level means that provincial and zonal health offices work semi-autonomously.\(^1\) It should be noted that this is a relative issue, with stewardship being a major capacity challenge for the DRC MoH: the provinces in DRC are as big as the countries of Rwanda and Burundi.

Various modalities evolved for PBF funding arrangements; the local fund holder in all cases started as an NGO, but with various levels of autonomy.

(a) In South Kivu, Cordaid channelled funds through the health departments of the local diocesan offices who are now in transition towards establishing an independent Fund Holder Agency (FHA - Agence d'Achat) office.

(b) In the Kasaï region a "project unit" was put in place, which assumed responsibility for all financial and administrative functions. The unit still relies on Cordaid funding and is supported by a Cordaid Technical Advisor. Transformation into an already set-up autonomous organization (EUP - *Establissemment d'Utilité Publique*) is waiting for the European Development Fund (EDF) funding for the FASS (*Fonds d'Achat de Services de Santé*) project to be fully implemented: Cordaid bridged the funding gap for the EDF.

(c) HealthNet has a third type of approach that consists of contracting a local NGO to serve in the capacity of fund holder, carrying out verification and capacity building.

These arrangements suggest a move towards increased responsibility at local level, usually residing with a local NGO. The difference between the Cordaid and HealthNet approach is essentially the relative levels of autonomy and support to the local NGO acting as fund holder. In both cases, the local NGO has been functioning as a mediator to set up the institutional framework between purchasers, providers and clients. This has also increased the interface with the regulator, and thus improved relations at this level of operation.

The central level of the MoH currently has two departments that are responsible for setting up a national approach for contracting and PBF, which are supported by GTZ. However, in line with the general health system decentralization and weak central level governance by MoH in DRC, the *regulatory* function in fact lies with the provincial health bureau with limited engagement of the central level MoH. DRC has decided to establish an MoH in each province, but these are not yet functional, so there is currently a vacuum during the transitional phase. There is a provincial piloting committee, which functions as an oversight body with the role of regulation and monitoring of all health matters in the province. It is a multi stakeholder institution with participants from the National Assembly, provincial government, civil society and development partners. In reality this body exists in the three provinces, but its actual role in the PBF projects is limited because of lacking infrastructure; the exception being the Kasaï Province where the Provincial Piloting

\(^{13}\) Currently 515 health zones out of a total of 583 have support from international donors and direct NGO support through project aid. Health zones are therefore reliant on external aid and cost recovery through user fees to run their health facilities.
Committee is functional and where it does collaborate with the PBF FHA unit by participating in the choice of indicators and in the writing of contracts.

Essentially, the local fund holder role in DRC is similar to that of Burundi, whereby they undertake the finance and administration functions while interfacing with the providers to perform the monitoring functions, including reporting to the donor. They contract out the verification to different type of organisations: village health committees, NGOs and students from the university. Verification is undertaken at district level in collaboration with the provincial health office or health zonal office.

In DRC, community involvement at health facility level is through the Health Committees (COSA - Comité de santé) which are constituted of members elected among the population. They are administrative bodies that work with the facility management on operational management. Concerning the PBF the COSA are implicated through the business plans which the facility management and the COSA elaborate jointly. The donor has, in some cases, addressed gaps in capacities by investing resources in the revitalization and training of the COSA.

With the advent of a new World Bank IDA health sector project in DRC (2007-2010), PBF has the potential for increasing national coverage and embedding within a national policy framework. The new project is covering 89 health zones with total population coverage of 10 million, and has adopted a performance based contract on two levels (NGO and health worker). Ten percent of the project budget is earmarked for incentives, equivalent to $0.40 per capita with rigorous spot-checking and verification of data by an independent evaluation firm to measure both health zone and facility level performance. Also EDF and GTZ are setting up programs that will use a variant of the PBF approach which will come under the auspices of the GTZ supported PBF department at central MoH level.

Burundi

Following the results in the initial PBF pilot projects in 2006 of Cordaid and HealthNet, a process approach has been followed with input from the MoH in the development of PBF. This was facilitated by the fact that the Burundi National Health Policy (2006-2010) encourages contractual arrangements to increase performance. Existing structures have been utilised in Burundi as much as possible, most of which were revitalised due to their non-functioning at the time of PBF implementation. However, new structures were also developed to accompany the change from input to output financing, namely the fund holder, the steering committee and processes for verification of performance.

The local Fund Holder Agency is a new autonomous administrative structure with staffing of 10-12 persons (about 50% are qualified staff). It is not part of the government structure, and different types of stakeholders (CSO, NGO, civil administration) are participating. The responsibilities of the fund holder vary, depending on the implementing NGO (Cordaid or HealthNet):
- For the HealthNet project (Gitega), the fund holder is responsible for incentive payments, verification and general administration of the funds awarded to the provider. Hence, negotiation occurred between the provider and the fund holder at decentralised level. The FHA is funded directly by HealthNet in The Netherlands.
- Cordaid as a funding agency finances a similar type of FHA directly from the capital, Bujumbura, and as such is more directly involved in the management of the FHA.

In Burundi, the provincial level plays an important role in the PBF implementation. The Provincial Health Committee (COPROSA) is the chief regulatory committee for provincial
health affairs, having full jurisdiction for the entire provincial health system. Health financing initiatives are overseen by the committee within the context of health financing regulation. The provincial health bureau provides the regulatory function for PBF, mainly through its responsibility for the quality control of the health facilities in the province. The Provincial Piloting Committee for Contracting (PPCC) has oversight responsibility for the implementation of the PBF projects. The PPCC is a MoH linked body which is furthermore mandated to oversee harmonization of the different contractual approaches and alignment with the national policy. However, it is not necessarily clear how the PPCC is going to fulfil this mandate. In practice, the PPCC is the body that consolidates the different invoices and performance payments, while also having mediating responsibility in the event of conflict of interests.

The PBF steering committees (SC) have resulted in increased participation by local health care providers (both public and private non-profit agencies). The considerable involvement of civil society and NGOs at the local fund holder level (and to a lesser extent at the health facility level) is significant because it ensures participation, information sharing and promotes joint decision making. Such community participation by the SC in the management of the health facility is new in the Burundi health sector and has been established specifically for PBF; it has been replicated in several districts now, but it is not yet clear how this will be operationalised when PBF is scaled up to a national level.

In Burundi the verification is contracted out to local NGOs, with the agreement of the steering committee. Indicators selected to assess performance include both curative and preventative care. The number of indicators monitored for PBF is higher than in the other country experiences, especially in Gitega (supported by HealthNet). Household surveys are done yearly in Gitega, to verify findings and assess client perceptions from a general quality perspective. Following verification, the funds are disbursed to the health facilities based on their performance against the indicator.

### Tanzania and Zambia

Tanzania witnessed the introduction of payment for performance (P4P) in 2006, after studying the Rwanda model of PBF. Cordaid supported the introduction of the new financing scheme, focused on “output based financing” instead of the previous “input based financing”, covering five dioceses with a total target population of 2.25 million. This same model was subsequently introduced to the five diocesan supported hospitals in Zambia in July 2007 with extension of support to health centres initiated recently.

In Zambia and Tanzania there was virtually no stakeholder involvement by the MoH, neither at central nor peripheral levels, by WHO, WB or other donors, or by the Christian umbrella organisations. Hence, there was no dialogue on the approach, its suitability for the local context, issues of scale up and adaptation to the institutional arrangements within the MoH structures. Nevertheless, PBF as an approach is part of current national priorities in these countries. In Tanzania, discussions between the MoH, UN agencies and donors are in progress to launch PBF at all health facilities, while service agreements are being introduced between FBOs and the government. Zambia is to commence a PBF pilot in nine districts with support from the World Bank. This marks the launch of PBF by the MoH and raises the question of how to align the current PBF project arrangements by Cordaid with the national plans. With the introduction of PBF, it is also critical to build on prior experiences and lessons learned; Tanzania has experience with various approaches and modalities of health financing, some of which were focused on performance based bonuses, while Zambia has previous experience with contracting in the health sector which ended 10 years ago.
In both Tanzania and Zambia, differing from the other countries, PBF is implemented by Cordaid to support individual faith based health facilities, remaining within the confines of diocesan support. There were no criteria used for selection of participating facilities, rather it was determined by Cordaid-affiliated diocesan areas in both countries.

Cordaid, as a funding agency, has assigned the role of local fund holder with intermediate functions of administration, finances and monitoring to the diocesan health offices. The diocesan health offices are responsible for communication and coordination, which relies heavily on the competencies of the local health coordinator. In both countries, the contract has not been established between the fund holder and the relevant health facilities responsible for results, but rather, between the funding agency and the diocese as the local fund holder. This excludes the health facilities from direct participation and negotiation of the allocation for base and incentive funds, as well as selection of targets and indicators.

The regulatory responsibility allegedly lies with the MoH in Tanzania and Zambia, and decentralized responsibility with the district health authorities. District health authorities have not been involved and have limited knowledge of PBF, and consequently have not been in a position to take on this regulatory role. Nevertheless, they are motivated to take on this function provided there is increased transparency in Cordaid’s PBF programs.

In Tanzania, verification is undertaken by one Cordaid appointed consultant and there is no community verification undertaken. At the time of the evaluation, no verification had been carried out in Zambia but plans to introduce it were in line with the set up in Tanzania.

In most cases community participation was limited or ad hoc as non-functioning health centre committees were not revived in Tanzania and Zambia, while there are also no PBF steering committees.

**Rwanda**

PBF in Rwanda has not been subject to a country study like the other countries: it has been visited to study specific questions about scaling up a PBF pilot to national policy. Rwanda is the only country so far that has scaled a number of pilot projects up to the national policy level. It has done so astonishingly quickly, in less than 2 years. The Rwanda PBF programme is now a recognised national program aligned with national policies and strategies for health system strengthening, but still not in coherence with other decentralized innovations such as mutuelles (community prepayment health insurance schemes). In fact, one could describe PBF as a priority programme like TB, inside the MoH, next to the others, with its own management unit. Harmonisation of all supporting agencies has been notable, and many of the lessons from pilot experiences have been scaled up with resources from NGOs and donors, including approaches to setting of targets, verification and involvement of community representatives. The program has adopted the essential principles of PBF with sustained investment by government and donors, which has made it success story for the Rwandan health system.

The oversight of national PBF funds is currently held by CAAC (Cellule d’Appui a l’Approche Contractuelle), a central level body under the jurisdiction of the MOH with both BTC (for the Belgian Government) and MSH (for the USG) as donors who are fund holders operating under the mandate of CAAC. Hence, there is no real local fund holder that negotiates contracts with the local providers; rather it is decided at central level. This arrangement indicates that the separation of functions such as payer - provider is not adhering to the PBF principles, with MoH assuming both regulator and fund holder
responsibilities, while also providing most of the services. The CAAC represents a management unit of the PBF ‘Project’ at the central level. In Rwanda, the national PBF approach has yet to consolidate its place in the decentralized environment and there are limited decentralized dimensions to it. In the current situation, the PBF approach is in the hands of the central government and of major supporting donors. Within the parameters as guided by central level, health facilities are autonomous to ensure it will improve its results.

Regulation including setting norms and standards, policies and strategies, contracting the verification and control, all find place within the different levels of the MoH. The government choice of a steering committee for operational oversight of PBF at district level includes representation of health providers, which form the "Comité de Pilotage". In this Committee, civil society and local government both have only one seat with voice, no vote.

The contracting approach in Rwanda has a clear structure and a contract is established between each level and each type of stakeholder:

- between MOH and the Comité de Pilotage, regulating decentralised financing
- between the Comité de Pilotage and the health committee of the facility, about their remuneration
- the specific contracts for ‘buying’ the HIV/AIDS indicators by US NGOs
- between the Comité de Gestion and the health workers.

Verification is conducted under the auspices of the MoH using data generated by the national HMIS and HIV/AIDS database. District authorities are responsible for verifying the validity of the reported data while the quality of care is verified by a local NGO. An example is HDP, a Rwandan NGO at central level, derived from the former Cordaid project office in Rwanda, which gained significant experience during the setting up of PBF by Cordaid. Monitoring at the health centre level is ensured by specific assigned “monitors”, usually from the hospital level. Hospitals, in turn, are evaluated by a peer-to-peer approach between district hospitals, carrying out their task in teams of two, with a separation of the productivity and quality of care monitoring. This choice of verification and monitoring using a peer approach enables hospitals to take a supervisory lead in overall monitoring of both quantity and quality of services delivered. On the other hand, such peer reviewing could potentially be susceptible to fraud in two ways, either safeguarding friendly peers or punishing competing facilities: both types of fraud are found.

Notable is the nature of community participation in Rwanda: community members do have official representation on the steering committee but they have no decision making powers. Originally, when Cordaid initiated the approach in Rwanda in 2002, there was a health committee in each health centre with a management committee including community representatives; this principle has been lost when scaling-up. Furthermore, the system is now more centralised (contracting, decision making on pricing of the bonuses) and standardised (the indicators are nation wide), leaving little space for local entrepreneurship and adapting the national policies and approach to needs and demand at local level.

2.1.2 [Level 2] Strategies and approaches

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14 The Steering Committee validate bills and send them to the Ministry of Health which verifies and approve quarterly district payments and authorizes the Ministry of Finance to make payments directly into health center bank accounts.
A number of features of the Rwanda PBF have evolved from the original piloting by Cordaid and HealthNet to a more institutionalised framework that is now under the auspices of the MOH. In the original design of the national PBF model, the fund holder was intended to be a district level body: the comité de pilotage (CP). However, this did not happen, notably because of a lack of capacities at the district level. No alternative local fund holder was designed or organised. Currently the CAAC act (temporarily) as the fund holder for the entire country. In addition, both MSH and BTC/CTB act as fund-holder at central level, albeit under the mandate of CAAC. This means that there is little negotiation on the contract at the decentralised level.

A variety of contracts may be signed between the each of the different levels; by central to Steering Committee, SC to Agency, Agency to facility, facility to health workers. Each contract is standardised and contains the devolved mandate, and the expected results. A ‘Business Plan’ usually stipulates the strategies of the facility to increase its performance; they were not developed in Rwanda initially. Recently, the introduction of business plans forms part of the contract with provision of the strategies, objectives and resources required by the facility. This plan is the basis for negotiation of the PBF-contract.

In Tanzania and Zambia there was an immediate transition from input based to output financing for the same faith based health facilities as previously supported, using the same personnel and administrative structures (namely the diocese). In both countries, the contract has not been between the fund-holder and the relevant health facilities responsible for results, but between Cordaid and the diocese. The diocesan health offices are responsible for communication and coordination. There is no contract between the diocese and the individual health facilities. This arrangement leads to a more ad hoc approach and relies heavily on the competencies of the local health coordinator in correspondence with the health providers. Moreover, funding provided to the health facilities contained certain maximum levels on expenditure items set by Cordaid, i.e. 40-60% for staff motivation, 20-30% on equipment. Consequently, it limits entrepreneurship and empowerment, as they have no direct involvement in contractual arrangements.

Health facilities submitted separate PBF activity plans to Cordaid based on these expenditure criteria; which were not included in the MoH activity plans. Although decentralization of planning and management to district level health authorities has offered scope for collaboration on local level. Given that in Zambia the diocesan health facilities are considered part of the government system, many MoH staff expressed concern that Cordaid’s provision of additional funds was creating significant disparity between the faith-based and government facilities. It needs to be recognised though that district health authorities may provide less funds to faith based facilities under the assumption that additional funding will be provided by other donors.

In DRC and Burundi, Cordaid fund holders function as intermediaries between the health care providers and Cordaid HQ, thus are managerial units that do not have the final say in general strategic choices which are largely made at HQ level. There are Provincial Piloting Committees in place which are to oversee the contracting but in practice their role is limited. The exception being Kasaï Province where the Committee is functional and collaborates with the PBF FHA unit by participating in the choice of indicators, in the writing of the contracts, etc. The fact that the committee is geographically close to the FHA (in the same locality) has been a factor that has increased its role regarding the PBF project.

**[Level 3] Indicators and pay for performance**
In Rwanda, the indicators for both the conditions for quality of care and the productivity are nation-wide indicators as set at central level. The *barème* (price of the indicator) is also set at central level by MOH in collaboration with donors; payments are built on equitiation between the two types of indicators. The 14 P4P Indicators for productivity are partly based on the Basic Package (all are Reproductive Health indicators) and partly on the 13 HIV/AIDS indicators. The indicator sheet gives the criteria, the valid quantities and the maximum score to calculate the bonus. There are no real quality indicators but ‘conditions for being able to provide quality services’ are monitored during the 3 monthly visits. A total of fifty-two activities are monitored using a range of between 3-12 criteria for each activity at district hospital level, for example for the indicator “coordination meetings” there are 11 criteria to be followed up. The technical quality is measured against norms established by the regulator. The payment for the quantitative indicators is influenced directly by the quality score, according to a proportional relationship: 100% meeting quality criteria means 100% payment of the score attained through the quantitative (productivity) indicators. The revenues of the facility will then be (quantity * proportion given by quality indicators). The indicators are uploaded on a web-site (www.pbfrwanda.org.rw) – this way each facility can compare its results obtained against other, comparable, facilities.

In Burundi and DRC quality of care is monitored in the facilities by the Intermediate level of the MOH. In the DRC, the Provincial level is contracted by the FHA to carry out the supervision. DRC has enough human resources to carry out this activity, it has even relatively an excess of staff based on productivity ratios. Even so, supervision is not carried out according to plan, because the Provincial level, it was explained, lacks sufficient infrastructure in terms of transport and ICT. In the PBF areas in Burundi and DRC, supported by HNI, an attempt has been made to develop an M&E system to monitor quality of the service delivery provided. It contains indicators (like in Rwanda) on the conditions to provide quality care (incl minimum staff levels), but it also contains ex post indicators to monitor quality of care like continuity of care. In addition, verification in the community is linked to a survey on client satisfaction and healthy behaviour. In DRC and Burundi performance payments are not based on targets but pricing of the number of services provided. Pricing has been done in a differentiated manner, but the price for each indicator is the same in all the facilities.

There are a limited number of indicators selected in Zambia (four) and Tanzania (five): supervised deliveries, VCT user rate, availability of essential (tracer) drug, inpatient turnover and OPD utilisation. These indicators were decided by the donor, with consequently limited ownership by the health facilities. The corresponding indicator targets were uniform for all the facilities, regardless of baseline and health facility circumstances such as resources available and location. Consequently, pay for performance was not equitable as some health facilities needed to perform much harder to receive similar amounts. The selected targets may be in line with MoH policy but concerns have been raised that the focus is more on supply side services rather than integrated health care which also includes prevention and promotion.

According to the original principles of PBF, the *choice of targets* for performance measurement should be developed within the context of the local health system priorities and based on disease burden, utilization and quality of care. The issue of target setting during the planning phase of PBF was largely a non-consultative process in Tanzania, Zambia and Rwanda– while in DRC and Burundi indicators were more locally determined (although coming to the same indicators).

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15 OPD utilisation is not used as indicator in Zambia
So, how does the *performance bonus operate* within the respective projects? The health facilities are eligible to a performance bonus every six months (in HNI facilities: 3 months) upon achieving the bonus in relation to the number of health services that was provided. Health facilities should therefore be in receipt of the bonus payments on a six (3) monthly basis, according to the official contracts. Currently, the reporting of both performance and financial systems remains parallel. NGOs (Cordaid and HNI) require separate financial and performance reports before the release of funds, not merely providing information which is already collected but a separate report on the PBF project implementation is requested.

The performance bonus is considered as a facility based allocation based on achievement of agreed targets. Transfer of the appropriate allocation is made by the fund holder to the individual health facility account. In most cases, the health workers underline the changes in the working environment (i.e. improvements to the kitchen or availability of drugs) positively affecting the quality of care provided and consequently the motivation of staff.

In Katana (Burundi), the health workers linked these improvements with the business plan, most likely as it has brought a clear planning and financing tool that has led to the positive actions.

In the PBF programs it was often found that the individual staff performance, while appreciated, is seen as a top-up which is not always directly associated with improved performance. Consequently the particular effect of the individual incentive on staff motivation is likely limited. This appeared to be different in Minga hospital (Zambia), where individual performance incentives were determined through a scoring that weighs elements like attitude, initiative and discipline. It was noted though, that while such an individual system can be very motivating, there are also concerns about it being applied in a fair and transparent manner. In fact, the distribution of the bonus payments between personnel, as well as between facilities, was found to be an issue in several PBF programs (e.g. Burundi, Zambia).

However, in Burundi there is clear evidence that PBF has had a retention effect. Moreover, there has been a migration towards the PBF provinces (in Bubanza (PBF) the personnel has gone from 100 to 360 in total. There is even a "competition" between the provinces since the indicators and their price vary from one PBF district to another (in Bubanza a consultation is paid 0.2$ while in Makamba it is 0.15$). On the other hand, substantial cuts in the price of indicators because there was a danger of going over budget in DRC (Kasai) has, as expected, negatively influenced the motivation of the staff as reported from the interviews.

**[Level 3] Preconditions and confounding factors for PBF**

Findings from this multi-country study reveal once again that context is a major determinant in terms of influencing the institutional set up and ultimately the results of PBF.

Overall, the challenges of health system reconstruction (post conflict) from a situation where health infrastructure (in some cases) is partially or completely destroyed and where health workers are limited and largely unskilled imply significantly greater investments and longer term commitments. This is certainly true for the Kivu’s more than for Kassai, but not as acute in Burundi, Rwanda, and more stable countries (Tanzania and Zambia) where improvements to health service delivery are in operation.

The issue of human resource gaps is common, due to migration of skilled health workers across Africa and not only applicable to countries emerging from conflict. Typically, we observed acute shortfalls in essential staff with Zambia reporting 50% gap against the MOH HR norms, while Tanzania reported >40% shortfall in essential cadres of staff.
(especially midwives and doctors). Human resource gaps are even more acute in post conflict contests where acute shortages are in evidence in DRC health facilities but as noted in DRC staff ratios for service productivity can be high, due to flux in utilization.

Health services requires at least a minimum level of staffing in order to perform well. With gaps in staff levels, both in terms of number as of skills required it may prove to be a great challenge for hospitals in particular to deliver its essential package of health services. In many of the SSA countries, facilities do not count with the right skills-mix and right-size of health staff, amongst others caused by an inequitable and in-appropriate distribution of staff, migration: retention of health workers and high attrition rates represent a major problem to provide quality care. It is to be seen if this is different for classical input funding than for a PBF approach.

Another important precondition for the successful implementation of PBF is the autonomy for decision making to enable health managers and providers to come up with innovative approaches to achieve performance. In Zambia, Staff in the HF is all employed by MoH, with the HF having limited/no authority to recruit complicates this. In addition, delegation of planning and management to district level in both Zambia and Tanzania has offered scope for collaboration on local level planning by the health management in both public and private health services. In practice, there are constraints to the level of partnership that currently exits but Tanzania for example is moving to service agreements between government and faith based service organizations which will foster joint planning and management functions.

With reference to conditions for scale up of PBF, in Rwanda, Cordaid, HNI, BTC have fully supported development of guidelines, training materials, standard forms, criteria for quality care were developed before nation-wide scaling-up of the approach. A total of eight training teams were set up of 3-5 trainers who dedicate 2-4 days per health facility for PBF induction for all staff. A detailed trainer’s manual was developed. Following the initial training, the national MOH body; CAAC has different technical working groups that discuss the different proposed instruments (the guidelines), human resource issues, content (related to the selected indicators) and the PBF approach itself.

In Burundi and DRC, capacity building for PBF is largely at the discretion of the supporting NGOs and priority programs (TB, malaria and HIV/AIDS) that provide the resources for training and capacity building. In DRC the diocesan offices provide technical support and on-the-job training through its NGO (BDOM) to the FHAs and providers. However the country report underlines that there are big disparities in these efforts from one region to another. For each of the programs the necessary instruments (guidelines, training materials, standard forms, criteria for quality care, standard financial-administrative materials, etc) have been developed and ready for use. In Burundi there is, besides support from Cordaid and HNI, also some support from the central and peripheral governments. This support is linked to the general contracting policy framework in Burundi. In Tanzania and Zambia no formal technical assistance for capacity building was provided. In Zambia, the Diocese (which receives 20% of PBF funds for coordination and training) do not have the required skills, knowledge or resources to take on this role. In Tanzania, capacity building is limited to a small number of training workshops in each diocese as decided by the individual health facilities in collaboration with the diocesan health office; examples were given of training in use of MTUHA HIS records.

An important precondition is represented by the working conditions. In the more stable states, but increasingly in Rwanda and Burundi, too, constructions and a minimal package of medical equipment are available in the facilities of these countries. In DRC, and certainly in N Kivu this situation is below each standard. In each of the interviews more and better equipment was demanded by providers and by the representatives of the
population. Important to note is that providers used the money of their bonuses to improve their working conditions, for buying stethoscopes and delivery tables to provide more and better services, to increase the utilisation of their services, hence their bonus. Thus, HNI increased the bonus for attaining results where working conditions were weak.
2.2 [Level 2] Performance

The concept behind PBF originates from the idea that even though resources are limited in LIC/MIC, it should be possible to improve the effectiveness in the health sector by increasing the performance – in terms of both productivity as well as quality of services. Therefore, some of the key issues for this review focus on questions to confirm findings from previous studies such as (i) did performance indeed increase (ii) to what extent was this attributable to PBF approach (iii) were there confounding factors that could explain the effects, (iv) were there issues within the PBF approach or model that may have influenced the results (In a positive or a negative way) and (v) if there were effects, are these likely to be sustainable.

Here we present selective evidence on productivity, performance and quality of care to address the above questions. Particular attention is focused on the issue of attribution using comparison with non-PBF areas and the before and after data to isolate variables that can be associated with PBF, however attention to confounding variables is ever present.

2.2.1 [Level 3] Performance, in terms of productivity

When appreciating the table below it must be said that the results, after implementing the PBF approach 1 year in the Province in Kassaï, do look very impressive:

Table 1: performance and accessibility indicators in DRC (Kassaï) 2007-2008

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<tr>
<th>Indicators</th>
<th>Baseline</th>
<th>Expected results (objectives)</th>
<th>Results of this evaluation</th>
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<td><strong>Performance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilization OPD</td>
<td>0.14</td>
<td>0.35</td>
<td>0.44</td>
</tr>
<tr>
<td>Assisted deliveries</td>
<td>0.45</td>
<td>0.60</td>
<td>0.81</td>
</tr>
<tr>
<td>Cesarean sections</td>
<td>0.18</td>
<td>0.40</td>
<td>0.54</td>
</tr>
<tr>
<td>Referral received at Regional level</td>
<td>0.15</td>
<td>0.20</td>
<td>0.6</td>
</tr>
<tr>
<td>Meetings Health Committees realised</td>
<td>0.6</td>
<td>0.8</td>
<td>0.83</td>
</tr>
<tr>
<td><strong>Accessibility</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% subsidy received</td>
<td>ND</td>
<td>0.5</td>
<td>0.9</td>
</tr>
<tr>
<td>DTP3 coverage</td>
<td>0.7</td>
<td>0.8</td>
<td>0.87</td>
</tr>
<tr>
<td>ANC coverage</td>
<td>0.7</td>
<td>0.8</td>
<td>0.96</td>
</tr>
<tr>
<td>FP coverage</td>
<td>0.1</td>
<td>2</td>
<td>0.19</td>
</tr>
<tr>
<td>Availability Essential Drugs</td>
<td>0.75</td>
<td>0.9</td>
<td>0.98</td>
</tr>
</tbody>
</table>


This table result is from aggregate data extrapolated from a household survey, by the team of Soeters et al (2004). One can say that as a whole, all indicators (as shown in the table) have increased, not only while comparing with their baseline data, but even when comparing with the ambitious objectives that were set at the start of the PBF program. OPD consultations have tripled while assisted deliveries almost doubled with referral rates exceeding the target set. Most meetings of the health committees took place according to planning, about 90% of the committed bonuses indeed were paid to the health workers. As a consequence of increased performance, it seems, the coverage of completely vaccinated
<1 children and the coverage of family planning methods increased. Were these effects attributable to PBF? If we take only the OPD consultancies deriving from our facility based study in the same Province of Kassai, we see that indeed in the three PBF areas (Mkalayi, Tshikula, and Bukonde), the utilisation increased after introduction of PBF in July ’07, as may be read from the figure below:

![Figure 2: the evolution of the attendance of external consultancies over time](image)

This figure not only shows that there is a difference between ‘before/ after’ the introduction of PBF, it also shows that this is not the same for each of the three. One area (Mkalayi) shows a continuous growth that didn’t stop (yet) at the time our team collected the utilisation data, while the other two PBF-areas were already going towards a (lower) steady state.

The indicators for other performance indicators in the country report on the area of Kassai, such as assisted deliveries, EPI and family planning services show the same tendencies over time. Certainly the considerable increase (three- to four-folds) in family planning utilisation is remarkable, as this indicator is usually regarded by many to be strongly related to population determinants (culture, beliefs, gender-power relations), rather than to provider determinants (motivation, professional perception of quality of care, e.g.). In the areas where no PBF was introduced these trends were not found.

Contrary to assumptions about perverse effects where it is assumed that staff may keep patients at the their level health facility, because of financial incentives, in fact referral rates to the regional hospitals has increased from virtually zero to 100-300 cases per month, while there was no change in non-PBF area. At the same time, admissions in PBF hospitals have increased – even for emergencies; utilization had increased, although results varied. Skilled attendance of normal deliveries in two out of three hospitals improved while in the third PBF hospital (Bukonde) utilisation figures for skilled attended deliveries decreased to almost zero after an initial increase. This increase in hospitals did not take place at the expense of deliveries in the health centres (where utilisation of deliveries by skilled personnel had increased too). The number of caesareans in all three hospitals also increased initially but reduced to almost zero after a few months only. This event shows the risk of drawing conclusions at the early stages of introducing the PBF.

Based on this evidence, we can conclude that indeed PBF, in general, gives quite a strong positive impulse to the performance of health services, although some facilities showed remarkably better performance if compared to other PBF supported HFs.
In the **Sud-Kivu** Province, also in the DRC, where PBF was introduced in June 2006, results are good, but in general less impressive than in the Kasai Province. The utilisation of OPD services did increase in the island of Idjwi (zone PBF), but also in Kalehe (non-PBF), with similar trends found for utilisation of services of ANC and assisted deliveries. Although the internal evaluation (*household survey*) in the area seems to come to more positive conclusions, the *service data* from this study, unfortunately, can underpin these conclusions only partially.

**Table 2: performance indicators in Sud Kivu, compared with base-line**

<table>
<thead>
<tr>
<th>INDICATEURS</th>
<th>Base Line ‘05</th>
<th>May 2008</th>
<th>Targets of the project (‘09)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skilled attendance deliveries</td>
<td>71 %</td>
<td>79 %</td>
<td>70%</td>
</tr>
<tr>
<td>Prevalence FP women in repro. age</td>
<td>4.6 %</td>
<td>8.8 %</td>
<td>20%</td>
</tr>
<tr>
<td>% pregnant women having had at least 3 ANC controls</td>
<td>97 %</td>
<td>99 %</td>
<td>90 %</td>
</tr>
<tr>
<td>% completed vaccinated &lt;1 children</td>
<td>58 %</td>
<td>77 %</td>
<td>80%</td>
</tr>
<tr>
<td>Utilization OPD</td>
<td>40%</td>
<td>57 %</td>
<td>90%</td>
</tr>
<tr>
<td>Proportion of HC supervised by the BCZS.</td>
<td>ND</td>
<td>82 %</td>
<td>90%</td>
</tr>
<tr>
<td>% households using an impregnated bed net</td>
<td>19%</td>
<td>28.1%</td>
<td>60%</td>
</tr>
</tbody>
</table>

We may conclude from the table above that the (aggregated) figures have improved some in the PBF facilities, but less if compared with what was expected, less than in Kasai. Almost all pregnant women are attending ANC but the coverage was also high pre-PBF. Despite the high ANC coverage, attendance of their delivery by skilled attendants increased only modestly. Again the utilisation of FP uptake exceeded the target, while EPI also shows an increase.

**Figure 3: deliveries attended by skilled personnel in Sud Kivu in PBF areas and in non-PBF areas**

As a whole we found, (like for attended deliveries in the figure above), that on the island of Idjwi the results improved, but in Katana there is no improvement. Also, in non-PBF areas, like in Kalehe some of the results had improved. So, not all positive effects in Sud Kivu may be attributed to PBF, although Idjwi did better in almost all indicators than non-PBF areas.
It has to be underlined that production performance is always dependent on the general (micro) context. In the Nord-Kivu area (where PBF was introduced in November 2005), results were again less impressive, as can be read from the figure below:

**Figure 4: evolution of coverage of antenatal care, vaccination, OPD and deliveries in N Kivu**

All indicators in N Kivu (PBF area) show a status quo, even a decline in trends, over time as if PBF didn’t have any effect. However, in Katwa (non-PBF area) although the data remained at the same level between 2006 and 2008, we note a decrease in the year 2007 that did not occur in Butembo, so perhaps PBF has ‘saved’ Butembo despite not achieving its targets.

In Butembo and more generally in the region of North Kivu, the politico-economic situation is still particularly fragile (unlike Burundi and Rwanda) with a large destruction of infrastructure and huge gaps in critical health system elements such as drug supply networks. In this type of context it is quite obvious that even the most generous performance incentive programme will have struggle to make a difference, at least in the short term, since it is materially impossible to increase the production. The difficult situation in North Kivu has been taken into account by the donor (HNI) who has also been allocating resources through input financing with an objective to reconstruct the health system.

**Figure 5: utilisation of curative care in N Kivu, PBF and non-PBF areas**
It is quite clear that the result mirrors more a general contextual situation than a difference between PBF and non-PBF facilities. There are no clear tendency differences between PBF and non PBF health areas as well between the performances of individual health centres. With the exception of curative consultation between 2007 and 2008 where the facilities in the non-PBF zone (Katwa) seem to have a positive tendency while the studied health centres in the PBF zone (Butembo) show even a negative tendency.

In Burundi the indicators are again more positive – regardless which NGO (HNI in Gitega and Cordaid in the Provinces of Cankuzo and Bubanza, and in the districts of Nyazan-Lac and Rumongue) had provided support. The fact that in the DRC the results in the PBF-area of Butembo were less impressive than those in the Kassai region could lead to the conclusion that this had to do with the NGO that supported the area. In Burundi we don’t see a significant difference between the results in the PBF areas supported by the two NGOs. The figures below show that the tendencies (assisted deliveries) and in the PBF area of Bubanza already break through the ‘cible’ (the target set by the national level for the total of the country, regardless if PBF was introduced or not) in less than 1 year – see figure below:

![Figure 6: positive tendencies in PBF areas in Burundi deliveries assisted by skilled personnel](image)

In the same figure one can compare the tendency in Bubanza with another PBF-area (Cankuzo) to understand that the tendency in Cankuzo is positive, but slower, and it’s still far away from the target: not all PBF areas perform equally in the same period. To compare, we looked at areas where PBF had not been introduced. We can’t pretend that these are ‘control areas’ (as it could not be a prospective study, and as we could not control for variables for a quasi-experimental design), it is not appropriate to use a counterfactual approach to attribute health sector results to health system changes. The evidence at any rate provides us with an idea what could have happened when PBF had not been introduced.

If we then compare with the non-PBF area (Karusi, see figure 7 below) we note that the same indicator in the same period at first does not increase as in the PBF areas, but later on starts to compare with the PBF area, even more than in Bubanza, as a consequence of increased input funding from a donor that provided support to Karusi following the exit of a relief NGO who were supporting emergency health operations.
We have found similar positive results in terms of vaccination coverage and OPD consultancies, but here Chankuzo (PBF) is doing better than Bubanza (also PBF). In ANC and family planning, the results are clearly better in both PBF areas if compared to non-PBF area. This illustrates that although output funding has the ability to show improvements in outputs, input funding if well organized can have the same effect. There is also notable discrepancies between provinces. As the analysis for this synthesis report is at a higher aggregation level, it will certainly hide differences between the individual health facilities, as we can see in the figure below:

Indeed, as an indication: there are facilities that don't change much after introducing PBF, while others take the opportunity to undertake initiatives and make fast progress, much of the PBF success will depend on individuals and entrepreneurship of the managers in the facilities.

So, results may improve in PBF areas in important way, although not always in the same way. These examples all come from pilot projects and can therefore be considered as islands of excellence, as all conditionalities are under control of a supporting NGO.

The critical issues of scale up and sustainability arise in this instance, what will happen if these NGO experiences would be scaled up to national programs? The experience by excellence is of course Rwanda: after two year PBF as national policy the total of all types of consultations continue to increase.
All indicators deriving from the basic package of activities (namely mother and child care indicators) and of the HIV/AIDS program had improved considerably. Two indicators may be mentioned specifically here: ANC and Family Planning. The nation-wide increase of FP coverage is extraordinary: the average number of new users at the end of the month increased from '06 to '07 from 4.27% of the target group for oral contraceptives and injections as to 7.89% in 2007. This varied by district from 1.30% in one district to even 14.1% in another. This is remarkable, and the evidence points at attribution to PBF. Understandable, as the bonus is relatively high in Rwanda for FP. Faith based organizations who in principle do not advocate modern methods of FP actually set up stalls beside the health facility in order to ensure compliance with the target indicator.

In Rwanda we observe that most of the indicators increased with the exception of ANC coverage which decreased by 35%, according to the annual report of the PBF-coordinating committee in the MOH (CAAC), supported by international TA in BTC/CTB and MSH.

One of the difficulties the evaluation team faced during the different country studies was the absence of information on the situation prior to the introduction of PBF, whereby the data was not readily accessible. The lack of such data, also has implications for the reliability of the existing H/MIS systems, one of the pillars PBF relies upon. In Rwanda, scaling-up PBF from a few pilot projects (initiated by Cordaid and HNI) to the entire country happened in two phases to reach all 30 districts by 2006. Group 1 of districts the PBF approach was introduced first; later in Group 2 exactly the same approach was followed. BTC/CTB (Dr Werner Van den Bulke et al) had also collected data in the years before introducing PBF:
In the figure it may be noted that the increase of the number of institutional deliveries already started in Rwanda before the scaling up of the PBF-pilot. Remarkable is that in the Group 2 districts, where PBF was introduced later than in Group 1 districts, immediately catches up with Group 1 values at the time PBF was introduced. So, probably utilisation had increased anyway before introducing PBF in the same way as in Group 1.

This positive trend, even without PBF influence, is understandable seen the conditions Rwanda post conflict was more favourable for improved access to services. The positive attitude of the population towards health care seems certainly to be a co-founding factor in attributing the good results in these areas in our non-PBF zones in these countries we often found positive trends too, although often less than in PBF areas.

Another source of bias in Rwanda is presented by the introduction of health insurance. This increased the utilisation figures in such an important way that hospitals even fear for their financial sustainability. This important co-founding factor requires more attention and careful analysis of the progression and interaction with PBF.

Population perception of the quantitative performance

The quantitative figures above derive from routine data collection in the health facilities. The evaluation also assessed the quantitative results as seen from the client’s side. In Kasai e.g., the population expressed to be overall satisfied with the production of services, however they do think that there are services that are not produced in adequate quantities: like laboratory, nutrition, x-ray and anti venom serum treatment.

There is of course no evidence that the perceived underproduction of these services would be caused by PBF, it is still interesting to note that the services mentioned are not targeted by the PBF performance indicators, but are perceived as such by the population. It also seems to indicate that there are needs of the population that are not met because the incentive structure does not motivate to provide these services. The provision of these services is uniquely dependent on input funding. None of the studied PBF projects has incorporated this type of customer feedback concerning the services provided which means that the production "choices" are most likely influenced by the direct incentives linked to a set of remunerative indicators.

2.2.2 [Level 3] Performance in terms of quality of care

Quality of care is not rigorously monitored within the areas reviewed but attention is focused on conditions available to provide quality care, and the patient’s perception of quality of care as expressed in the household surveys undertaken by Soeters et al. in DRC, Rwanda and Burundi. These studies present the baseline and one follow-up study which is positive as such, but it doesn’t show what happens before, in between and after the second study. It may be that the perceived quality of care first increased to be followed by a decrease due to the initial boost to motivation and attention to performance.

Recent initiatives to monitor quality of care indicators on a regular base commenced in the areas in the DRC (n Kivu) and Burundi (Gitega) supported by HNI, but its too early to report the results as its only established for a few months.

16 It should be noted that indicators on “quality of care provided” are not monitored in any of the programs that were studied.
A serious attempt to ensure quality of care as determinant of performance is undertaken in Rwanda, based on experiences set-up in coordination with BTC/CTB. For each of the priority health interventions (ANC, PF, EPI, <5 growth monitoring, institutional deliveries and new OPD consultations), quality criteria have been established (about 5-11 for each indicator) that all are monitored each 3 months. It must be said, with remarkable results:

In this figure it is shown that in 20 districts the quality indicators have increased considerably and all follow the same impressive positive pattern. The reason why is understandable: the incentives for the quantitative indicators will only be paid at a same rate (percentage) that quality standards are met. To illustrate the impact of PBF in the field, one hospital director stated "since the introduction of clear and transparent targets, we know what is expected and also because the results are published” The directors understand this as competition, and want their hospital to have a high ranking on the list, compared to other hospitals.

Quality standards are controlled for without prior announcement by a team of peer reviewers from other hospitals in case of a hospital, or by the referral hospital in case of health centres. As indicated in Chapter Two under PBF set up, its evident that this can create perverse effects based on opportunity to sanction or promote their competitors.

2.2.3 [Level 3] Quality of care, as perceived by the clients of health services

In the context of the country studies, qualitative methods (focus group discussions, in-depth discussions with key informants) were used to understand what the ultimate beneficiaries perceived as the changes in quality of care as a consequence of the introduction of the PBF approach. These were the opinions of representatives of the population, which does not mean that these opinions are representative of the population in statistical terms: a population based study was not in the scope of this study.

17Source: BTC/CTB Werner van den Bulke et al, 2008, not yet published
In Tanzania and Zambia, the population has never been involved in one of the phases of setting-up PBF initiative, they are not aware of the approach, they don’t have an understanding, while the providers have limited insight, so we could not expect that the population would have a real insight in PBF issues.

In Tanzania, however, in the Bukoba District an extensive household study was undertaken in 2007 to assess quality of care and satisfaction levels of the client. Clients in Cordaid supported HF’s were in general more (84%) satisfied than in non-Cordaid HF’s (74%). Meaning that in these FBO-facilities quality is perceived to be better than in government facilities: this is probably not a PBF effect. This was confirmed in this evaluation’s exit interviews, but government hospitals were more popular due to the lower or exempted fees. Determining factors like waiting times, perceived staff’s competency were the same for PBF and non PBF HF’s. Differences existed for efficiency of patient flow and adequate numbers of clinicians on duty. In our focus group discussions, participants noted the commitment of the health workers to ensuring healthcare; they also noted the limited resources available but were not happy with the high user fee rates, shortage of staff, drugs and medical supplies.

In Zambia, too, client satisfaction was evaluated through group discussions with out-patients and in-patients. As to be expected there was in general no difference between PBF and non-PBF HF’s – the content and package of services provided was perceived to be adequate and a marked improvement in the availability of drugs was noted. On the other hand, all were dissatisfied with the time spent in facilities and with the fact that all the facilities rarely changed sheets and they were not happy with the fees being charged. But these perceptions could not be attributed to the PBF approach. In the end, no multi-stakeholder participation had taken place – direct contact on PBF took place between Cordaid The Hague and the Diocese: not with the providers, nor with the community.

In Burundi, the population expressed that before introducing PBF they received services of poor quality from unmotivated health workers who were frequently absent. Actually, after introducing PBF they say, health workers are in time, they give a correct follow-up to patients, there is continuity of care. Women say that they have their delivery attended now in the health facilities due to improved quality of care.

Other factors that are expressed as favourable due to PBF include, (buildings, ambulances and medical equipment and more transparent administration. They only think that the indigence is not well organised and represent a barrier for financial accessibility even so they prefer not to introduce exemptions or decrease fees for reasons of sustainability.

In the DRC, Kasaï, we noted that women represented more than 50% of the members in the steering committee and PBF-agency. In other pilots this was less. Here, too, the community members thought that PBF had improved the conditions for the health services both working conditions and living conditions, and for that reason they think quality of services improved, too: people come now from far away. They say this is before all the effect of the friendly and respectful way they are treated now and the continuity of care (24/24 hours): more people are cured now. The representatives are happy with the improved availability of drugs and the prices for drugs and consultancies that have decreased. Even so, contrary to Burundi, they think that their participation in planning and monitoring the health services is very limited, and that they need training in PBF. They appreciate the equity fund that serves to exempt the poor from payments they think that it should not be limited to PHC services, but also apply for ‘emergencies’ such as referral to hospitals.
In Nord Kivu the population doesn’t see any advantage in PBF, they didn’t notice any difference. Although in Nord Kivu the general idea is that the population isn’t implicated in the implementation of PBF, their representative’s acclaim that they see that the health workers work with more enthusiasm, although they haven’t noticed that this has led to an increase in attendance rates. Here, too, the household surveys of Soeters et al show small improvements. They found a difference in PBF area (65% overall client satisfaction) against non-PBF area (39%) – however, they also found 53% of qualified personnel in the PBF area, against 17% in the non-PBF area.

2.2.4 [Level 3] Performance, in terms of health service organisation

- Health system changes from a national perspective

When comparing Rwanda to the other countries studied, the major difference lies in the fact that in Rwanda the PBF approach is a national programme while in the four countries PBF implementation is only at project level (16% of the population targeted by PBF in Zambia, 18% in Burundi and much less in DRC) The immediate implication of this is of course that we should not look for any major changes in the health service organization at a national level. Moreover, as the PBF is implemented in these countries more as a change in the way of remunerating the health workers and of the way health is financed (based on outputs, rather than on financing budget plans), it is clear that the objective of the project has not been to induce a wide spread reform to the health system.

This most certainly true for Zambia and Tanzania where there is little knowledge about the PBF project at the national or even at the local administration level. What is interesting is that both in Tanzania and Zambia, there are now performance contracting initiatives which have potential for a wider implementation objective and which are already being planned, within the MoH planning framework.

In DRC it has to be underlined that the HNI and Cordaid PBF interventions are at least a thousand of kilometres away from the capital Kinshasa and the MoH, this minimizes the interactions between the central policy level and the PBF projects. Moreover, as the DRC can be considered as a fragile state, it is more likely that there is less interaction between the peripheral level and the central health administration, so the information does not often circulate even within the public administration. Taken this in account, it is surprising that there is knowledge about the Cordaid/HN PBF projects at the central level of the MoH. There is a unit dedicated to contracting at the MoH, This unit provides a channel also for the Cordaid/HN PBF projects to have an interaction with the central administration. However, the understanding of the program is limited. Actually, the MOH is preparing the decision on scaling-up PBF to a national approach as supported by GTZ and World Bank.

In Burundi the link between the PBF projects and the central level is clearer than in DRC. In Burundi the PBF projects are closely linked with the health sector plans and they come under a National Policy on Contracting. There is actually a will to roll out, like in Rwanda, from using the Cordaid/HN models, a national PBF programme. However, the MOH is still debating how to introduce the PBF approach at national level.

- Health system changes from the peripheral perspective

Taking into account the conclusions above, it is obvious that we have to look for the impact of PBF in the health system organization at a restricted peripheral level and more clearly at the health facility level.
In Tanzania and Zambia, one of the most marked changes have happened at the Dioceses which are no longer remunerated with fixed incomes, but output-based. In the design chapter before, it has already been explained that expected outputs were decided in The Hague, that the Local fund-holder (the Diocese) not the facilities were held accountable on the results, there is no contractual relation between facility and the DO, that in the facilities nobody, including the managers didn’t always even understand the PBF mechanisms. So, no major changes in health system organisation may be expected from PBF here. However, sparked by PBF, there were some initiatives in the facilities to remunerate the personnel according to individual performances.

The most important change in the health system organization in DRC and Burundi comes from the addition of an institutional element in the health system - the local fund holder agency. This agency has multiple roles; besides contracting one of its major roles is the verification of the indicators coming from the health facilities. This activity yields as a side effect a consolidation of the general information gathering. However, this is confined to the PBF zones and there is no strengthening of the information system that would be spilled out from the PBF projects to non-PBF zones till PBF will be scaled up to a national program, like what happened in Rwanda. The FHAs have an important capacity building and TA role that can be seen as a general effect on the health system organization through the revitalization of the health facility management.

In Burundi the PBF project includes explicitly the revitalization of the COSAs (Comités de Santé - health committees), which are the administrative bodies for health facilities, as a major objective of the intervention. There are for example performance bonuses paid for the number of meetings held, for accomplished sensitization activities, etc. In both countries a results is that supervision by the intermediate level was carried out more frequently – in Rwanda it was found that this was a lasting improvement, health facilities demanded to be supervised! The latter being probably an effect of not receiving the bonus if the results were not verified.

In the qualitative interviews, health care providers at the operational level in the DRC and Burundi have explained that they see the approach as very positive and that it indeed motivates them to perform well – the question is to what extent this will prove to be a long-lasting effect. A risk here is that the health workers complain if payment of bonuses is delayed, or not at the same level like in other facilities (because other results need to be achieved there): this way paying bonuses may even have a negative effect on the health workers, as was explained by some health workers.

- Monitoring results in the context of PBF

Important in PBF, if not the backbone is the information provided by different sources. This study has clearly shown that the health information is more reliable in PBF areas than in non-PBF areas. But we also came to a not expected phenomenon, which is shown in the figure below. For one and the same indicator ("assisted deliveries") over the same period, in the same area, the different sources of information provide different figures:
Figure 12: information bias: different results by different sources, same indicator

An explanation, however, is possible, and does show important lessons learned. Differences between the first two columns are understandable which represent the results of the household survey undertaken by Soeters et al. resp. the baseline and follow-up studies, so at introducing PBF and after a period of time. Provided that the two studies are comparable (which is partly true), there has been a small increase of women using deliveries attended by skilled personnel – *quod erat demonstrandum*.

It is more significant that data deriving from service level as collected by our team differ. The service data derive from the regulator (“DPS” in the figure: the regional level of the MOH), from the purchaser agency (“AAP” in the figure) and the organisation for verification (“BDOM” in the figure). We would expect that the data at verification level (BDOM) should be the most credible; as it is the task of the BDOM to verify if services found in the books indeed took place. But that would lead to the awkward conclusion that the purchaser (AAP) did not adapt its data according to the information deriving from the verification efforts – neither the data of the DPS, nor of the BDOM. So, verification may not have the effect we would hope for.

There was a difference between data presented by this evaluation and the HHD surveys. All sources at service level give results lower than the household surveys. This is not that awkward as it may seem. It may be due to typical sources of bias in household studies: selection bias (the sample shows a geographical bias, e.g.), interviewer bias (the interviewer expects a positive effect and is then prone to fill forms in a positive way), interviews not well filled out, or memory bias (the interviewee does not recall the event very well – although not very likely in case of a delivery). In some cases it is unlikely that utilisation figures in household studies would be higher than at service delivery level: it is difficult to believe that women in the village have had more deliveries attended by professional level than noted in the facilities – and such a large difference after verification.

The positive conclusions in the HH study concerning quantitative indicators is also linked to the fact that the study’s focus was on indicators such as fully immunized children, bed net coverage rate and pregnant women fully immunized against tetanus. For these indicators we see a clear increase throughout the households in the province, both in PBF and non-PBF zones, with a slightly more prominent increase in the PBF zones. The increase in these indicators is of course not only related to health facilities: during the three years that have passed between the 2005 baseline and 2008, there have been different interventions for immunization or bed net distribution that have not been carried out by the health facilities. Indeed, the HH study mentions that the Roll Back malaria initiative has been active in distributing bed nets in the region.
Hence the difference between the HH study and the service data is due to the fact that they often do not refer to a same set of indicators. The HH study finds positive results by concentrating on indicators that are not necessarily outcomes of PBF and PBF health facilities.

The difference between HH studies and service studies highlighted here is something that should be kept in mind when analysing the impact of PBF - the population does get (preventive) health services also from other sources than the health facilities and thus the general health status of a population in a given region is not only determined by the performance of the (official) health facilities of that catchment area (in Rwanda the PBF approach includes also community health workers that offer preventive services to the population). Finally, there is finally little data on quantitative measures of services delivery in the Katana HH study.

Are differences attributable to the support provided by different NGO’s? In Kassaï and Sud Kivu support was provided by Cordaid, in Nord Kivu by HealthNet International (HNI). First of all it should be said that the PBF-model does not differ much as the same consultant did the work for both NGO’s – so, a methodological difference is not to be expected. It must be said that it is difficult to judge the effects of PBF in this Province, as no reliable ‘before’ data could be found, so we rely on data in the beginning of the PBF introduction with those at the moment of the study: hardly 1,5 year. In fact the same period like in Kassaï. Results are quite different as shown for the vaccination coverage, assisted deliveries did increase (more than in the non-PBF area).

2.2.5 [Level 3] Performance in terms of financing health care

- Administrative cost

To estimate the cost of setting up and running an intervention a lot of assumptions have to be made on which cost to take into account, from whose point of view are this cost calculated from, etc. To appreciate the administrative (not transaction) costs in PBF, we will concentrate on costs that are reported at the country level and which are related to the administrative costs derived from the running of the PBF interventions. One of the underlying reasons for this choice is the assumption that the current PBF projects could (and should) one day be taken over by the national public authorities; in this case it is justifiable for our analysis purpose here to leave out the original TA costs and other "investment" costs that are/were paid for by the donors.

It has to be cleared out that we are not referring in this section to transaction costs. Transaction costs are those that are related to classical contracting situation. Even if the PBF approach can in one sense be described as a contractual approach it is clear that the situation is not the same as for example when there is a private-public partnership contract for constructing a hospital. The PBF type contracting could be considered as a relational type contracting which uses incomplete contracts that are not real purchasing contracts nor do they take into account possible litigious situations: it is a system of bonus, not of malus.

In principle, the costs related to the PBF intervention can be divided in two different costs categories: the performance payments and the administrative costs that derive from all the necessary work that has to be done to assure that the performance (output) financing arrives accurately at the facilities.. In this section we focus on the programme costs which can be defined as costs that are "associated with the development and administration of an intervention, outside the point of delivery"18 (as stated above, the development costs are to be left out of the analysis here)

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18 WHO, Guide to Cost-Effectiveness Analysis
After adding all the above, we can draw the conclusion that what we must analyse in this section are the costs linked to the general administration of the PBF intervention we shall refer to these costs as administrative cost.

The first type of costs that is different from the classical 'input' funding mechanism is the payment of the bonus for results. Secondly, the administrative cost are composed thus of verification, reporting and finance managing activities - but also of different kind of technical support, capacity building and social mobilizing activities that have as objective to "smoothen out" the implementation.

- FHA costs

As we have already seen, between the four countries and even inside the countries there are substantial differences in the implementation methods for PBF. In Burundi and DRC the PBF works through independent Fund Holder Agencies which are often put in place as ad hoc bodies that manage the PBF approach at the peripheral level. On the other hand in Tanzania and Zambia there are distinctive "fund holders" for the PBF; in these countries the existing Diocesan Offices which act as local "fund holders" also for other type of funding (MOH, donors) that is channelled to the mission health facilities; they also provide technical assistance and they act as a supervision and monitoring bodies fro the mission health facilities: their role does not change because of PBF – they way it is organised now – the only additional cost is one person verifying all data once a year(?!). there is no use in a cost estimate for Tanzania/ Zambia, as the program design was not appropriate, so the cost estimate will not be, too.

In DRC, in the South Kivu region, the FHA body is an independent organization that has grown out of the Provincial Diocesan Office (Bureau Diocésain des Œuvres Médicales - BDOM). This organization has an autonomous legal status with identified governing bodies such as an Administrative Board and a Supervisory Council. The organizations employs five qualified staff and some support staff. The main tasks of the organization is to negotiate, establish and uphold contractual relations with the local public administration, with the health facilities and with local organizations and individuals (school teachers) for performing quality assessment and verification studies among the population; in addition the FHA verifies the performance reports from facilities, calculates the payments and organizes the financial transactions.

In the table below the administrative costs are presented as a percentage of the total costs (total cost is defined as costs for administration plus the performance payments to facilities).The administrative costs for this South Kivu FHA unit are estimated as follows:

<table>
<thead>
<tr>
<th>Table 3: evolution of administrative costs for PBF in S. Kivu</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>Average 2006-2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Kivu : FHA recurrent cost</td>
<td>18 %</td>
<td>22,5 %</td>
<td>19,8 %</td>
<td>20,1 %</td>
</tr>
<tr>
<td>South Kivu : FHA costs including capital costs</td>
<td>37 %</td>
<td>27,5 %</td>
<td>20 %</td>
<td>28,2 %</td>
</tr>
</tbody>
</table>

It is most purposeful to concentrate here on the recurrent costs. We can observe that in average the recurrent costs represent 20% of the total cost of the project. This figure is higher in the Kasai region where the recurrent administration costs represent 28% of the total costs. This difference is, at least partially, due to the fact that there is an expatriate

19 The major contractual relation in the Case 1 type of intervention relies on the performance contracts between the FHA and the facilities.
coordinator at the FHA in Kasai - this of course raises the human resources costs. In Burundi, where the modus operandi relies also on autonomous FHAs the administrative costs are 13% for the Bururi FHA, for Bubanza and Cankuzo this cost is at 18% and for Gitega 34%.

- Regulation cost

There is also a cost to the PBF programme which is related to the regulation and monitoring function. In many cases, the FHAs are the de facto regulators and monitors of the programme, but there are also some other institutions that bear costs related to these functions. Most often it is the local health administration that has to support these costs.

In Burundi and DRC the local health administration is more involved in the PBF programme, this of course involves a cost to the health administration. There are now costing measures done at the health administration level, however in DRC there is so called "prime de régulation" which is a contractual payment to the Provincial Health Inspection Bureau. In DRC this "prime" varies between 6 and 14% - even if the regulation job is not done.

In general, there is some debate on which kind of costs should be regarded as additional PBF related costs for the public regulator. It is clear that some of the work and effort of the public regulator that originates from PBF interventions is related to activities that they should be performing anyway. Moreover, there are also (corollary) benefices to the PBF regulation that are not accountable only for the PBF but more largely to the whole are where the regulation gets a "boost".

In Rwanda there is only partial information available on the overhead cost of the entire PBF system. According to the 2007 PBF budget the total overhead costs would reach 23% of the total PBF funding.

From a study on a provincial PBF pilot project in Rwanda we can see that this project was funded at the level of 1.011.767€ during its last year of existence in 2005 (all cost items included: performance bonuses and administrative costs, TA, training)\textsuperscript{20}. This represents a cost of 1.6€ or 2.0$\textsuperscript{21} per capita – which is close to the costs calculated in Kasai.

For the year 2007, which is the second year of the Rwanda roll out and during which 23 of the countries 30 districts were incorporated in the PBF programme (in January 2006), the cost for the whole PBF programme was 1.38$ per capita (1.06$ for performance bonuses (disbursement figure) and 0.32$ for administrative costs (budgeted)\textsuperscript{22}. The CAAC report indicates that the total amount from which the per capita cost is calculated is 12,710,000$. This means that the denominator used by CAAC is the whole population of Rwanda; if only the target population in the rolled out districts would of have been used, the per capita cost would be quite near to 2$\textsuperscript{23}.

\textsuperscript{21}Average exchange rate for the year 2005 : 1€ = 1.251$
\textsuperscript{22}CAAC, 2007,
\textsuperscript{23}It has to be added that in the national PBF setup there are a lot of costs that are not integrated in the CAAC report. These costs relate to several administrative and opportunity costs that will materialise at different organizations and institutions, public or private.
3 [Level 1] Discussion and conclusions

This chapter articulates a meta analysis of the experiences and lessons learned based on the multi country study conducted. Much of this discussion is informed by multiple sources including health information data which is triangulated with the perceptions of the government, donors, NGOs, local community and most importantly the views of the health providers on the role of PBF in invigorating their health services.

The discussion is presented here according to the major areas of enquiry as stipulated originally in the Terms of Reference, which address the following issues:

1. Relevance and appropriateness of PBF initiatives
2. Effectiveness of PBF
3. Efficiency in relation to PBF
4. Sustainability of PBF efforts

3.1 [Level 2] Relevance and appropriateness of PBF initiatives

[Level 3] Institutional set up of PBF

We explored the institutional set up of PBF within Burundi, DRC, Tanzania, Zambia and Rwanda. Different institutional set ups and structures were identified both inter and intra country and project levels. The set up of PBF needs to take stock of the development of the organizational structures at all levels whereby the role of each entity is to be clearly defined and decided upon with the input of a wide range of stakeholders. This does not necessarily mean that all stakeholders should be represented in every managerial body of PBF as this may negatively affect its effectiveness and its efficiency.

While acknowledging the principle of “starting with context” to build appropriate systems and structures, PBF also encourages the separation of purchaser and provider which has indeed manifested in the existence of independent fund holders. In the majority of cases, NGOs assume this role with INGOs initiating the pilots in Rwanda and Burundi and local NGOs taking up the role in DRC, with varying levels of autonomy and responsibility observed. Sustainability comes into question when considering the longevity of international support to this role and if equivalent capacities can be acquired by local entities (NGOs, district councils, other) with a defined exit strategy for INGOs.

Another key question is that of the autonomy of the local fund holder to ensure the PBF implementation is not donor driven, which undermines the adaptation to local context, and that powers of decision making reside with the appointed agency. Equally, independence of the fund holder from the MoH is warranted to ensure separation of functions between regulator/provider and purchaser. Results of this review point to the existence of hybrids with a range of autonomy. In Rwanda, following scale up of the pilot to national level, the MoH has taken a more central role in the PBF implementation, which has made the purchaser-provider distinction less clear as the fund holder unit is based in the MoH which also provides the services. The high level of centralisation in Rwanda has resulted in the use of national standardised processes and instruments. In contrast, provincial or district level (Burundi, DRC) fund holders enabled increased specificity for development of local level processes and instruments.

With the advent of scale up and harmonisation of approaches to decentralization of health systems, dialogue is currently in progress in several countries on the feasibility of
nominating national level institutions as fund holders; e.g. district health councils (Tanzania), and exploring potential for collaboration with the “mutuelles” in Rwanda.

The “regulator” function lies with the MoH in line with central level jurisdiction over the health system, as both stewards and as regulators, with extension of the role to the operational level for health service provision, in collaboration with private providers. The issue of where the regulatory functions are located depends on the scale and density of operations, allowing for optimal proximity of the regulator and the provider. Given that a province in DRC is bigger than the country of Rwanda or Burundi, the regulator’s current position at provincial level in DRC may be better placed at district level.

Where PBF was established as a parallel program with elements of verticality in its implementation and monitoring (Tanzania and Zambia), the MoH was found to have a marginal or absent role at both central and district levels. This marginalisation did not allow for embedding of the PBF approach within the mainstream health structures and thereby diluted the opportunity for the MoH to assume its regulatory functions for PBF. Where PBF became central to the priorities of the MoH at central and provincial level (Rwanda and Burundi), it strengthened the regulatory role and this acted as a stimulus to harmonise the health financing and health performance approaches. Attention not only to the compliance with functions but to the interface between the various entities requires more formative research to determine the chain of decision making and how this contributes to or undermines the results of PBF.

With respect to verification, separation of functions is important to guarantee checks and balances between different types of interests. For that reason, verification should be the responsibility of the purchaser and not the provider. Verification has assumed many different forms across the projects reviewed, with local NGOs assuming responsibility for validity of the data reported (DRC, Burundi), while district health authorities assume responsibility in Rwanda, whereby district hospitals monitor health centres with peer review between hospital management staff and management. In Rwanda the principle of separating responsibilities has also been extended to verification of quality and quantity of services as carried out by separate organisations. This arrangement inevitably implies increased costs and potentially fragments health service components that call for greater integration.

More important is that both types of information are checked by different types of stakeholders: representatives of providers for verification from a professional perspective and representatives of clients to ensure their satisfaction is considered. The latter can be facilitated by involvement of the Steering Committees in the contracting out of the verification process, as in Burundi. Similarly, this may be solved by contracting the village health committee to carry out this type of verification, which would have as an additional benefit of increased community involvement.

In PBF programs community involvement (if included) was often limited to satisfaction with healthcare provided and not extending to a role in decision making on resource allocation and accountability. For the services to become more responsive in order to increase utilisation and quality of care, community involvement should become more active, as witnessed in Burundi and initially in Rwanda. However, it is essential that such committees are representative and that decision making powers are not only with the health care providers (Rwanda) but that civil society and local government also have a vote to allow information sharing and joint decision making, as done in Burundi. Such an approach should also be actively promoted at health facility level, as in DRC where the community is involved in the planning and management of the health facilities. Conceptualisation of ‘community participation’ was lacking in all programs and this
requires further piloting and exploration on issues like representation and gender balance as well as requiring capacity building support.

To reiterate, PBF principles promote a separation of functions between purchaser and provider; and a separation between regulator and those responsible for verification was found to be beneficial. In designing PBF, it is therefore advised that the corresponding roles of the regulator, fund holder, verifier and provider are defined by the local existing structures and capacity of both government and civil society to assume the responsibilities, with the provision of relevant capacity building where needed. Further piloting to explore the pros and cons of different divisions of roles and agents is needed in order to explore the opportunities for embedding within local structures.

[Level 3] PBF and National policy context

Context is indeed a major determinant in terms of influencing the results of health system interventions (including PBF) with attention to the importance for decentralization and promoting autonomy. Factors such as upstream willingness and capacity of government (MoH and other departments) and donor behaviour, and downstream availability and status of health infrastructure and of human resources, coupled with the level of civil society engagement, are all critical not only to the immediate results but to the longer term embedding within the national establishment.

Progress on development of health policies and strategies that guide implementation of PBF in health services is variable across countries studied. We did not find evolved strategies for PBF implementation in stable contexts like Tanzania and Zambia. PBF was recently adopted as a mechanism for increasing health worker performance in Tanzania as supported by the Norwegian partnership with the MoH. Despite the commencement of the project, there is no implementation framework developed to deliver the “bonus for results”. A number of previous initiatives for supply side incentives that were in operation, including one by the Global Fund and the Cordaid pay for performance to diocesan health services as reviewed in this study, are by nature vertical in approach. Equally, in Zambia, the MoH in collaboration with the World Bank has initiated a PBF pilot in nine districts which will pave the way for future national scale up. This displays a tendency to drive the approach from a donor perspective with the imposition of new project management units that may result in lack of mainstreaming of the PBF approach.

The question whether PBF will comply and cohere with the strategies that have been articulated by a given health sector will depend on a number of factors including the status of governance, strength of institutional structures and processes and existence of policies and strategies that will guide the health service delivery. Historically, PBF has stemmed largely from fragile states where a policy vacuum exists, (e.g. Cambodia, Afghanistan, DRC, Rwanda, Burundi) and where governments are unable to fulfil service delivery functions due to poor capacities.

Rwanda has made strides with inclusion of PBF within its national policy as early as 2002, based on strong political commitment at central level. Rwanda scale up of PBF was unprecedented in both speed and mobilization of resources to reach all districts. The scale up was underpinned by political willingness of the government to develop innovative efforts to resolve the historic crises of health worker motivation and performance. Projects supported by HealthNet and Cordaid were already laying the foundations for a national PBF approach from 1998 onwards. Inclusion in the national policy has resulted in streamlining of the approach in all districts, but risks creating an overly centralized approach to PBF, probably due to the high speed of introducing PBF. The MoH has assumed direct responsibility for both regulation and verification with a sub-national entity as fund holder (CAAC) and with donor input in managing PBF at central level, in the absence of a local fund holder. Such practices are indeed contrary to PBF principles and to Rwanda’s
decentralized efforts, and counter to aligning with other national health initiatives such as the introduction of the “mutuelles” (health insurance).

Burundi has prioritized the development of a National Contracting Policy which now guides the set up and implementation of all contracting arrangements within its health sector. Burundi National Health Policy (2006-2010) thereby encourages contractual arrangements to increase performance. The existence of a central policy level combined with a highly decentralised model is favourable to aligning PBF with existing strategies. In practice, the focus of PBF operations is at district level with a phased approach that allows for testing of PBF, and innovation on how to adapt it to the local context. This in turn informs the national level policy and strategy, thus opting for an incremental approach to systems building.

In DRC projects are built on a switch from input based financing by an NGO (HealthNet North Kivu and Cordaid Kasai and Katana projects) in line with the transition from relief to development approaches. This in turn presents challenges to harmonisation of approach and alignment with national policies and strategies. The delay in achieving coherence is most notable at the operational level where health providers are not guided in their compliance, as support and supervision from the authorities is limited given the fragile context. PBF checks and balances between autonomy of health facilities and coherence with national norms and policies require a rethink of the roles and responsibilities of each actor and the interface that is appropriate to that given context. With variance in the PBF approaches across projects, there is a call for support to central and peripheral levels for more coherence, leading to the development of a national approach.

**Scaling up to national level**

The origins of PBF as we have shown invariably lie in piloting through a project approach as supported by NGOs and funded by external aid, this in turn risking degrees of verticality. The architecture of the project approach will differ significantly from what is required to embed PBF within a national system. Moving from project based service delivery to instituting national systems calls for a rethink on resource mobilisation and allocation, organizational reform and management of change. We will examine some of the key issues evident from the review here to illustrate the challenges and opportunities for scale up of PBF.

Scaling up requires new institutional arrangements at both central and local level which has implications for compatibility with existing structures and for transaction costs. While the MoH have assumed a lead role in the national implementation framework, it is evident that reliance on external aid is necessary to support building these additional operational structures. The question of “building on” or “building back better” implies that where post-conflict health system recovery is concerned, it is likely that new structures and systems will be required as in Rwanda and Burundi, or existing ones will need to be adapted to PBF requirements in countries that are stable for longer period.

Examples of requirements for new institutional arrangements are: (a) structures for fund holding; (b) structures for community participation; (c) institutions for accountability and transparency; (d) concurrent administration and finance; and (e) agencies to carry out the verification efforts. The required labor implies additional costs, as evidenced in Burundi where they are currently faced with the challenge of supporting an institutional framework for each district. If based on the Rwanda model, the reflex could opt for ‘centralisation’, but it may be more advisable to reflect on how the decentralised model could be rendered more efficient, and/or to optimise the potential capacities within existing institutions.
PBF scale up therefore has major implications for organizational change and a call for reform of outdated management systems including financial and administrative systems. This review demonstrates selective changes that are required in the form of separation of functions between purchaser/provider and ideally between regulator and verification. Such splits in functions will be reflected in the need for: (i) reform of roles and responsibilities within each level of the system; (ii) efficiency in use of existing information systems (HMIS); and (iii) closer collaboration between public and private organizations for delivery of functions related to independent verification. Decentralisation in terms of devolution (transfer of responsibilities) instead of the actual deconcentration (delegation of tasks) is a key issue here and in reality may prove to be a major challenge.

Scale up also requires attention the pace and timing in order to adjust to local level developments and ensure upward and downward accountability through appropriate adjustments to governance structures. While each situation merits analysis, it is evident from the experiences in Rwanda that decentralizing PBF is a major challenge where national and local authorities have to assume new tasks and responsibilities (also from donors and NGOs in supporting the operational level) and where buy-in may not be equal at the various levels of the system. In other words, imposition of PBF by central level for adoption by district level will lead to lack of ownership.

**[Level 3] Does PBF have an influence on the health system as a whole?**

Given the nascent stage of PBF developments, one cannot expect a remarkable contribution to or impact on sector wide development. While Rwanda has already adopted PBF as part of the national policy, other countries are still in the piloting stages. In Burundi and DRC effects of PBF are felt on health systems at the local level while in Tanzania and Zambia the PBF understandably had no direct effect on the health system due to the parallel approach.

The existence of political will and capacity which induced a strong national level decision was responsible for the delivery of a national PBF approach in Rwanda, where piloting in three districts expanded to reach thirty districts within a five year period. The existence of NGO-led successful pilots (Cordaid, HNI, BTC and USG supported NGOs) played a major role in establishing the appropriate framework and structures, thereby exercising strategic influence based on lessons learned. NGOs worked in full partnership with the MoH to build on experience and evolve the approach incrementally. In Burundi expansion is at a slower pace than in Rwanda and supported by Cordaid, who have been instrumental in the set up at district level. The major challenge presented to the Burundi government and partners is how to scale up to national level while sustaining the decentralised nature of PBF.

In the DRC, the pilots have been set-up at the operational level (provincial, district and health zone) with limited involvement of the central level. DRC is thereby presented with a challenge to its fragmented approach to health systems, not only to PBF. The results of the current World Bank supported PBF across 85 health zones may offer new insights in how going to scale can be achieved in such a complex context.

**3.1.1 [Level 2] The effectiveness of PBF**

Given the level of investment in PBF, we explore here what the major effects on health service productivity and quality are in the context of low income countries. PBF is founded on the principle of boosting health service delivery with equal attention to both quantity and quality of selected services.
In general, it may be stated that performance indeed did increase in several of the country studies\textsuperscript{24} with important differences noted between “before and after” introduction of the PBF approach. For example, remarkable results were observed in utilization trends for institutional deliveries, family planning and coverage for antenatal services. For general consultation services, an upward trend was noted in some projects (Kasai, Burundi) but in other contexts, PBF did not appear to have a positive effect on utilization (N & S Kivu). Another interesting example is presented by the increase in minor surgery in Burundi in PBF facilities, more than in non-PBF areas, while in PBF area fees were double. Such findings are in line with those of previous studies where the primary effect of PBF is evident in health service performance and in particular in the MCH services; (ANC, deliveries assisted by skilled personnel, vaccinations, <5 growth monitoring) and at the secondary hospital referral level where services for emergency obstetrics and surgeries improved.

The influence of confounding factors on positive or negative trends should not be discounted in all contexts studied. In some cases it was found that in non-PBF areas similar improvements were found, thus attribution to PBF comes into question. Of equal importance is the issue of wide disparities in results across PBF projects, which was most notable in DRC; here the Kassai area results were better than the PBF program in South Kivu, and the one of South Kivu again better than in North Kivu (where hardly any change could be noted). Also, inside these geographic areas, some facilities performed better than others, and finally also results (and bonuses) differed between health workers.

A more comprehensive analysis of these disparities identified across health zones and health facilities could help to predict which facilities will be able to use PBF for better performance, how one could influence the extent of the effect at service level. Further exploration of some factors that influence the success of PBF will be explored here.

\textbf{[Level 3] How did the context differ?}

The context of fragility as seen in DRC raises a number of issues in the light of exploring effects of PBF and wider health system recovery. Currently, the prevailing conflict in the Kivu’s gives rise to chronic insecurity which has influenced access and scope to deliver basic health services, where health workers cope with uncertainty, leaving health facilities under utilized and sometimes abandoned. Introduction of PBF in such unstable settings will inevitably present challenges to achieving targets, yet it was seen as an opportunity to incentivise poorly paid and unsupported health workers. Clearly, there is evidence of some momentum taking root in PBF zones if compared to non-PBF, based on the results of selected projects in DRC. This may suggest that PBF can indeed play a role even in unstable contexts in order to encourage commitment to delivery of essential services.

By contrast, transitional contexts such as Rwanda and Burundi enjoy the benefits of improved governance post-conflict and thus access to health services has increased even prior to PBF. Adversity was transformed to opportunity in such settings where the government perceived PBF as a chance to stimulate growth in health service productivity and community involvement. Contexts also differ in terms of the conditions that prevailed before introduction of PBF with Rwanda having greater levels of donor investment, strong partnerships with INGOs and thus advancing in its development prior to PBF. Burundi demonstrates the opportunity to solidify provincial level efforts for service delivery while also developing a locally tailored approach to PBF. It is significant that the most formative results have been found in fragile contexts, which may lead us to conclude that

\textsuperscript{24} See PBF country reviews for Burundi, DRC, Tanzania and Zambia.
opportunities may be seen to grow more readily where a vacuum in policy and services exists.

On the contrary, in more stable states such as Tanzania and Zambia, performance in PBF facilities was not improving commensurate with investments, and where improvements were identified, similar trends were observed in non-PBF areas. Reasons for this included absence of negotiated performance contracts with the providers, limited understanding of the principles of PBF that existed, and finally use of input budgets to attain PBF indicators was observed, with limited verification taking place.

In more stable states different challenges prevail; established stakeholder interests exist that are not always conducive to institutional change and innovation, or innovative processes meet with resistance at the central level, where the power is traditionally located. This leaves limited space for autonomy at operational level to inspire entrepreneurship and management for results in PBF. In fragile states ‘new’ institutions have been set-up for the contracting mechanisms, so the question remains how we can deliver PBF within existing institutional arrangements in more stable contexts, rather than superimposing new structures.

**[Level 3] Pre-conditions for PBF – are they essential?**

Well functioning health systems require sustained resources with adequate supplies of personnel, infrastructure and commodities to ensure quality healthcare. Examples of preconditions highlighted in previous studies include: human resources in terms of right size and right skills-mix, working conditions and management capacity to run the facilities. There is scepticism that PBF can actually achieve results in contexts where such pre-conditions are not met. On the contrary, our findings show better results in ‘fragile states’ than in more stable states, with the inference that it is not appropriate to wait for the ideal conditions and standards to be in place before introduction of performance based incentives. Indeed, we confirm that introducing an individual or collective performance reward system can prove to be an impetus towards overall health systems improvement.

Findings demonstrate that PBF can induce creativity in how the financial bonuses are deployed, whereby health managers invested in supplies and decreased user fees to attract patients. In other cases, we find that decisions were made to enhance the conditions of the health facility or purchase staff uniforms that motivate staff and improve clinic standards for the users. The key issue here may be to invest in management & planning capacities at facility level, to ensure that managers at that level have an entrepreneur mentality and know to use the opportunities offered by PBF to optimize performance of services.

Where autonomy of health providers has been compromised, it is evident that hierarchical processes undermine local level decision making and can potentially be counterproductive to the aims of PBF. The shift from input based financing whereby investment is expected to achieve outputs to one of creating conditions where staff can utilize the resources at their disposal with relative autonomy is undoubtedly entrepreneurial by nature. Such opportunities will only be optimized if health workers feel empowered to make choices and negotiate the contractual obligations. Findings here are in line with this assumption and demonstrate more positive results in the presence of local level autonomy, while not in isolation from supervisors and regulators.

The most challenging issue is that of the human resource crises which remains unresolved. In most cases, ratios were not in line with the national MoH norms for any cadres of health staff. In Zambia and Tanzania, average shortfalls were 40% of total with acute gaps in
essential clinical cadres for nurses, midwives and medical doctors. In addition, health facilities need to improve their own internal HR management with the aim of best practice towards finding and keeping staff with appropriate skills levels.

Efforts to redress the HR shortages in Rwanda and Burundi included task reallocation and incentives for remote postings, which are funded largely by other donors (Global Fund, USAID). DRC relies on NGO support to health facilities, frequently with top up to staff salaries. PBF therefore can often be seen as additional “salary top up” where individual health providers are rewarded with bonuses. This resonates with findings from the World Bank DRC review where management anticipated that health staff run the risk of adjusting to PBF bonuses as remuneration without linking the bonus with performance.

HMIS, though not regarded as an essential pre-requisite for PBF, is linked to the need for health service data to report on agreed targets and measure agreed performance indicators. Tracking of results initially proved problematic, but has equally been shown to be a stimulus to invest further resources in improving HMIS. The risk here is to focus only on performance measures, which fragments the national system and denies the opportunity for a systems strengthening initiative. A strong health information system is therefore a priority but not necessarily a pre-requisite.

**[Level 3] Does the performance bonus influence staff motivation?**

Some reviews suggest a gap in the conceptual link between performance and the applied bonus. This is contingent on whether the approach is introduced adequately to health workers and how management view the opportunity to introduce PBF. To illustrate, different country studies revealed that the bonus can be used to provide individual incentives; other type of bonuses such as training, housing or transport for the workers; or to improve the working conditions and the quality of care provided. The form of the incentive award (e.g. intrinsic versus extrinsic), and the manner that it is concretised appeared to have a direct impact on the effect of the incentive bonus.

It was shown to be important that staff in the health facility are involved in determining how to utilise the funds, instead of the funding agency (Zambia and Tanzania) or central level (Rwanda) deciding or placing limits. In some cases guidance was asked on how best to determine allocation at the operational level including (a) distributing the performance bonuses according to an internal score for each worker; (b) a vote between all the workers; or (c) for incentives to express sector priorities that included personnel and interventions. Such guidance was mostly asked for because disparities between what a medical doctor gets and what other category workers get seemed to create dissatisfaction (Burundi and Zambia), while reductions in incentives were seen to lead to decreased staff motivation, which brings to the fore issues of sustainability. It may appear in the end that the intrinsic value has a higher impact on the staff motivation than the extrinsic value. What did become evident is the need for transparency, predictability and a clear connection between the bonus and improved performance to ensure paying for performance leads to increased staff motivation.

Important issue in the design in Rwanda, not found elsewhere, is a contract between each of the different levels, including from central to Steering Committee, SC to Agency, Agency to facility, and facility to health workers. Each contract contains the devolved mandate and the expected results. Currently these contracts are standardised, but ideally they would be negotiated between the levels concerned. Where health workers had no direct involvement in contract negotiation (Tanzania and Zambia) it proved difficult for health providers to feel responsible for achieving performance. Similarly, there was found to be limited ownership and motivation to perform if the indicators were uniform and decided upon solely by the
funding agency, regardless of baseline and health facility circumstances such as resources available and location.

**[Level 3] Did quality of care improve as a consequence of introducing PBF?**

Overall, PBF assumes that quality of care will improve as a consequence of appropriate investment in organizational functioning, leading to improved health worker motivation. In Rwanda, according to providers, the MoH by introducing PBF had provided clear and explicit norms for quality of care, monitored these and set consequences for compliance (or not) to these norms. Results demonstrate improved quality of care based on standardised quality assurance measures.

Other projects report improved quality of care based on anecdotal reports and provider observations. In fact, most projects do not routinely monitor quality of care (ex post) and focus solely on whether conditions are met to provide quality of care (ex ante system), such as provision of equipment and supplies.

Based on interviews with users of health facilities, criteria for improved quality including patient waiting times and attitudes of clinicians had improved in some cases with notable improvement in patient satisfaction levels reported in Rwanda and Burundi, based on interviews at community level. In other contexts such as DRC, there was no noticeable difference in patient satisfaction levels as levels and quality of service fluctuated.

**[Level 3] To what extent are improvements in PBF-areas attributable to PBF?**

In the study in some cases it was seen that in non-PBF areas positive trends could be traced, although not always at the same pace or level; and that in non-PBF areas often conditions were not the same, but in some cases were even better than in selected PBF facilities. External determinants also influence the outcomes whereby socioeconomic status of the population (South Kivu) was shown to improve the number of human resources available in PBF zones compared to non-PBF areas. Despite availability of household survey results in the case of DRC and Burundi, knowledge of extraneous variables and their degree of influence is still missing, while what was reported is a particular status of the population which does not allow for dynamic flux of population.

Attributing positive results to PBF also proved to be difficult due changes in wider policy and governance. In Rwanda concurrent developments and changes in national policy for health insurance resulted in remarkable increases in utilization of health facilities. The co-existence of PBF parallel to such developments within a given district health system can confound the contribution of PBF. Still, comparison of areas with PBF and areas without PBF in the same situation (e.g. with mutuelles) showed that there were differences that *probably* are attributable to PBF, and which require further analysis.

User fees also represented a confounding factor in attributing results to PBF. For example in Katana, the results were better in zones where the user fees were reduced, thus making services more affordable for the poor. Utilisation was higher than in zones where user fees had not decreased. One could state that this represents a confounding factor; but on the other hand it was introduced as part of the PBF approach.

Finally, the “piloting effect” in the context of PBF is central to the issue of attribution. As with other piloting initiatives, extraordinary resources are invested with concomitant attention to the opportunity to prove that the approach will work. Pilot projects are thereby often viewed as ‘islands of excellence’, as they receive extra attention from donors.
(internal or external financing agencies) and all conditionalities are under control by the NGO. So, it remains a question how much (if at all) of the resulting ‘good performance’ is due to additional attention paid during piloting and how much is due to PBF. This question remains unanswered but the results of the comparison study (in the absence of controls) suggest that (a) PBF is instrumental in achieving results that are unlikely to be found in the context of traditional input financing projects and (b) that results have sustained in projects where the MoH and NGOs were committed to improving performance. Scale up in Rwanda also reassures that even with less resources at their disposal, the MoH succeeded in achieving 100% coverage with PBF.

3.1.2 [Level 2] Efficiency

Efficiency in a health system context can be understood in different ways. In general two distinctive ways of approaching efficiency are used, which are allocative efficiency and technical efficiency. Technical efficiency is about producing a maximum of results with available resources. Here we are mainly interested in the allocative efficiency from a country’s perspective. This leads us to consider PBF as a specific health system intervention that is in "competition" with other interventions that have the same global health system strengthening objectives.

For the purpose of this evaluation, a comparative cost-effectiveness study would have meant identifying any "input" intervention that would permit a meaningful comparison with the PBF projects. A robust prospective comparative study between input and output financing interventions would be needed, which addresses the question: Does PBF give more results if compared to input planning, directly related to the additional resources needed? Due to time limitations and resource constraints, this approach was not used for the purpose of investigating allocative efficiency; however, it is recommended as an future research option in line with longer term analysis of PBF.

In this study it was found that the per capita cost in Kasai of the program was circa $US 2. A study is needed to estimate per capita costs in a comparable health zone supported by ‘input planning’, as comparable in terms of demand, health needs, working conditions available (infrastructure, staffing level), management and supervision, cost recovery. In addition, the administrative burden or transaction costs are difficult to extrapolate from project reports, due to different categories included under administration and the nature of the accounting systems used. Estimations reported for DRC and Burundi however suggest that administrative over heads are usually in the range of 15-25% of total budget.

To determine true costs, program managers would need to isolate budget lines that pertain to PBF including bonuses paid for performance, the verification exercise and the costs of maintaining the local fund holder. Other costs like strengthening the M&E system, improved supervision, improved quality control and community involvement, should be in line with input financing costs. This method of estimation would yield a reasonably accurate total transaction cost for a given PBF project.

The cost structure is important to define; for example, it should be decided if costs such as the local regulatory quality control visits should be included. It should also be clearly defined what the benefits are that are attributable to the health system interventions studied. Some of the PBF projects have a large impact on the health system in general by interacting with the local level regulatory structures and by mobilizing and channelling community participation; it is important that the benefits for these types of actions are factored in because they are indeed an explicit objective of the projects.

3.1.3 [Level 3] Capacity building for PBF
Capacity building as implied within the context of delivering PBF includes: (i) capacities of the regulator to provide efficient and effective oversight; (ii) capacity of the local fund holder to plan, manage and monitor PBF; (iii) capacities of the health facilities to develop business plans and execute the delivery of services in line with the agreed plan; and (iv) capacity of the community to interact with the provider who will enable community representation. In addition, consideration for capacity to scale up and support the technical capacities required at national level should be integrated within the longer term strategy for PBF.

As indicated in our findings, a systemic approach to capacity building is desirable and invariably produces optimal results. Examples include development of standardized PBF guidelines and manuals in Rwanda, where they initially (2006) developed a training manual for PBF, which was adopted as the national manual and used by all participating agencies. Rwanda’s success in working within a defined framework was guided by the use of several instruments and supported by donors and technical agencies (MSH, BTC, Cordaid, HealthNet). Plans and resources are now available to develop a PBF toolkit which will encompass a “how to guide” as well as a detailed implementation strategy as experienced in the Rwanda context, useful for other countries. Other contexts have not witnessed standard approaches, with capacity building taking shape in an ad hoc fashion as determined by unpredictable donor resources. Adaptation of the approach employed in Rwanda may not be totally appropriate but the framework would undoubtedly prove useful for other countries, especially within the Great Lakes region.

Ideally, the locus for capacity building can be shared between the fund holder and the MoH as regulator. The NGOs have limited resources available for training and mentorship, which denies the health providers sufficient support in augmenting their capacities for PBF. Such gaps would require significant resources and ideally would fall in line with wider health system strengthening including HMIS, monitoring and administrative skills.

It is surprising that there seems to be a common understanding how PBF should be approached and designed. For bringing PBF to national scale, joint donor work on a program approach is needed. One option could be to jointly develop a number of potential approaches for PBF, to jointly field-test, follow and monitor these and then agree on the best practice to become ’the’ national approach. This is compatible with Paris OECD/ DAC ideas on alignment and harmonisation through providing policy support to strengthen national policies.

3.1.4 [Level 2] Sustainability of the approach

The sustainability of PBF projects can be seen from a short to medium term perspective or medium to longer term. Long term sustainability is partly linked with an exit strategy of the current donors and a plan for how PBF can evolve from its current project form to a more integrated component of the health system. Sustainability can also relate to the way that PBF has or has not changed the ways of doing things at different levels.

Sustainability addresses a number of sub-issues that are of course interrelated but that have their own logic. Hence, we are looking at three different aspects of the sustainability issue:

- Financial sustainability; is the current financing level predictable and sustainable? Is there a need to mobilize additional resources? What are the options for the future concerning the financing?
- Institutional sustainability; what is the actual level of institutionalization of the PBF programmes within the national health system at different levels?
• Technical sustainability; are capacities sufficiently built for the program to sustain after withdrawal of technical support such as management at different levels and the use the instruments developed?

[Level 3] Financial sustainability

When addressing financial sustainability of PBF, the concern is the financial sustainability of PBF projects or programmes. This means that we are referring to an “approach” that has a set of objectives, rules and institutional elements that form a coherent entity. Thus, we are talking about the sustainability of concrete contextual interventions and not about the sustainability of performance based financing as such. In this perspective, financial sustainability is in fact highly context specific and it depends largely on what type of PBF approach is being analysed. Moreover, as the sustainability question is by definition a forecasting of the future, other concurrent variables are concerned, both internal and external to the health system, including levels of external aid, governance and political commitment to public sector investment.

Dependency on external aid continues to prevail. Most PBF projects in this study are entirely dependent on external financial support, with funding from NGOs and donors. Continuous NGO support is irrelevant from the sustainability aspect, since the essence of the sustainability question does not lie in the willingness and capacity of donors to commit resources on their projects but on the extent to which there is a shift of funding towards domestic resources or a mix of funding sources (Kutzin et al, 1997). We concur with this view, as the expectation that an exit strategy will conclude donor support in the medium term is unrealistic in most contexts. Commitment therefore to long term investment is required to ensure scale up.

Another scenario for consideration is that the PBF projects will need to grow to be national programmes that will be funded either entirely by the government or co-funded by the government and donors. The main question is what elements need to be taken into account when the objective is to scale up the PBF approach into a nationally owned and financed programme? The national scale up can refer to a situation where the PBF approach becomes fully implemented in the whole country, as in Rwanda. But the national "scale up" could also be seen as a more restricted programme that would be implemented selectively but within a national health system. This could be for example the case in a country like DRC where scaling up into a national level is very challenging.

The current national PBF programme in Rwanda is financed by the government (60% of the total funding), by US government aid like PEPFAR (30%), by the BTC-CTB (9%) and by some international NGOs (CORDAID, HNI, etc. around 1% for technical assistance). The government funding largely has its origin in a designated World Bank grant for PBF; no figures exist on the PBF funding coming from domestic resources, and it seems like the true PBF elements are largely externally funded, which brings up sustainability questions.

From the CAAC reports it derives that the costs for PBF in Rwanda are comparable to those in the Kassaï region in DRC, which is estimated at $US 2 per capita or Kananga at $US 1,78. It should be noted that these are only the costs directly related to PBF. It seems appropriate for that reason to make a (bold) hypothesis: when scaling up a PBF project the need for financing per capita will stay equal or at least there will not be a radical change in the per capita cost due to economies of scale.
In DRC in the Kananga PBF project, the total cost per capita is $US 1,782\textsuperscript{25}. In 2006 the total per capita health spending in DRC was around $US 6 per capita per year. In line with the hypothesis, this would mean an increase by 30% in order to implement the national PBF programme. In Burundi in the Bubanza province the cost of the PBF project is at $US 0.75 per capita. The total health spending in Burundi is at $US 4 per capita, which indicates that the national PBF programme would need require a 19% increase in the total health spending.

All of the above is more a simulation than evidence. It is clear that it is impossible to replicate the Rwanda experience as the $US 2 per capita PBF programme was possible only because of a general increase in health spending, as this represents only 4% of the total health spending. Comparisons are also difficult due to different starting points (the project pilot "to be scaled up"), the end point (the national PBF programme) and all the elements in the middle (political, social, cultural, economical factors). However, the figures that are put to the fore tend to point out that it is difficult to imagine a national PBF programme in countries like DRC and Burundi where the health spending is low.

We can also evoke the question of administrative cost. In Rwanda, the national PBF programme reports a 20% administrative cost. The pilot project PBF had an administrative cost of 25% (when the external TA and donor HQ work is not counted). It is thus likely that the administrative costs will decrease with a larger scale intervention. This will of course be an argument for the scaling up of the current PBF projects, which actually have administrative costs around 15-30%.

We may conclude that a national level, sustainably financed, PBF programme will need a well-financed health sector and most probably there would also require additional resources especially targeted at the PBF approach.

[Level 3] Institutional sustainability

The institutional sustainability can only be guaranteed if there are clear divisions between the various entities involved in the PBF. Roles and responsibilities of the regulator, fund holder and provider should be discussed with all stakeholders and written into contracts, thereby fostering complementary relationships and improved partnerships. Omission of this process has far reaching implications on its potential for acceptance, ownership and sustainability in the longer term.

First, national ownership is essential to achieving institutional sustainability of a programme. National ownership translates a project into a programme that is linked with the national policies and planning methods, that is integrated into general budgeting modalities and strategies and that is managed by the public administration. The case of Rwanda shows that strong leadership (both government and non-government) is critical to the success of the approach. A donor driven approach to PBF however can dilute the potential for local ownership and alienate health providers who are not invited to negotiate on the business plan and related performance targets.

Second, the split of roles between a fund holder, regulator and provider underpins the fundamental approach of PBF. The sustainability of this organizational approach is also

\textsuperscript{25} The administrative costs in this total cost are estimations and the performance payments costs are derived from actual disbursement data.
determined by the way that the different actors, occupying their respective functions, are interrelating through contracting and form a systemic and formalized whole.

In Tanzania and Zambia if the objective is to have a sustainable PBF setup, then it is advised to consider a change in the strategy that would allow for a shift from the existing parallel approach towards a more systemic approach. This would necessitate involving the central level in developing the pilot from the start, and by supporting a functional unit of the MoH, like the district as a whole. Because this is not (yet) the case, it is stated that the institutional embedding is absent. The same scenario applies in the Zambia context which is a prototype of the Tanzania PBF approach. However, the opportunities in both countries to harmonise the planning and financing with concurrent national PBF developments could provide the opportunity for change. In both countries the MoH is embarking on PBF through a decentralized contract between a district level purchaser and providers. This means that there is a window of opportunity opening for institutionally embedding the Cordaid PBF experience. The role of Cordaid could then be transformed into a (silent) donor that would finance the PBF programme through basket funding. Cordaid could assume a technical assistance role in this scenario which would complement the district health councils and local fund holders roles.

There are several different organizational setups in Burundi and DRC, but they all have in common a systemic approach which is characterized by the creation of new specific organizational structures. We specially refer here to the local fund holder (l’Agence d’Achat) which manages the contractual relationships with the providers and the (public) regulator. Even if there are differences between the different project setups in these countries, it should be noted that there is an organizational structure in place. However its sustainability is in question, as the fund holder is not integrated within any national structure per se but is an independent organisation, either hierarchically or contractually linked to the international NGO. However, the FHs are embedded in the local structures through a contracting approach with the regulatory public bodies. In some cases (Burundi) the FH even participates in the meetings of the peripheral and regional level committees that supervise health matters at these levels.

This regional and peripheral level implantation of the FH, and by consequence of the whole PBF project, could potentially represent an important element of institutional sustainability when taken up by the national policy. Furthermore the institutional sustainability in Burundi is promising as the National Policy of Contracting has been adopted, which is about embarking on PBF.

Links with the national level are less evident in DRC but there are promising prospects with the advent of a three-year World Bank results based financing project. To arrive at institutional sustainability the MoH should be supported by the donor community (notably WB and EU) to come to a strategic choice on how it will approach PBF in the country. This would open new channels to anchor the PBF projects in the national policies and strategies.

[Level 3] Technical sustainability

In order to be sustainable, PBF needs to address the technical and managerial capacity in the health facilities, at different levels of public health administration and at the level of civil society. This would mean building a critical mass of capacities that will institutionalize the approach at the health facilities, throughout hierarchical levels and among the different types of stakeholders. This would also lower the marginal costs for a PBF programme, which will thus become more effective and more efficient.

The PBF approach is linked with the process of turning health facilities into more autonomous organizational entities. In essence, according to the basic PBF logic, the
health facilities should be responsible for elaborating their development plans, making managerial decisions and administering finances.

The stimulus behind these organizational changes lies in the method of financing; the main rationale in PBF is that the health facilities will have to rethink and reorganize their work to be more "result oriented", in order to maximize the revenues that are directly linked to results. The change in the financing system needs to be accompanied by capacity building efforts to assure that the technical and managerial capacity needed for effective PBF implementation exists at the health facilities. Only then we can expect PBF to foster sustainable results. Capacity building activities should not be limited to the health facilities but extend to community representatives in the steering committees and local fund holders.

Despite the low investment in TA in most contexts with the exception of Rwanda, there have been some positive experiences that were catalysed by PBF, though not resourced directly by the fund holder.

3.2 [Level 2] Conclusions

Conclusions are drawn from the findings and based primarily on what are considered to be the more pertinent issues raised in the preceding discussion. The early results of PBF as reviewed in the desk study showed promise in the results from pilots and demonstrated potential for improvement in health service utilization and quality of healthcare. The ambiguity among health system professionals regarding the extent of attribution of success however has not diminished. This review therefore provides some clarifications on issues previously addressed, but equally raises many questions that can be translated into an agenda for future formative research.

PBF continues to be an approach of interest not only to stable countries but in fact is gaining even greater attention in context of health system recovery post conflict. As previously stated, it is not a magic bullet to boost health worker performance, nor is it a ready made solution to reform a fragmented health system. However, having considered the contextual factors, the confounding factors, and the reliability of the available information, we may conclude that in general PBF indeed may be instrumental in achieving better results in the health sector if compared to the traditional input financing approach. This evaluation provides several elements of each of the components of a classic evaluation, which are all addressed in this report: relevance, appropriateness, efficiency, effectiveness, impact and sustainability. Ultimately, the enquiry leads us to the question of whether PBF is a viable opportunity and if it should be adopted as a national approach for performance improvement of health systems.

Almost all indicators in this study had improved if compared to ‘before’ introducing PBF. Only in a few cases did the outputs remain at the same level, in difficult conditions as shown in North Kivu, but this could in itself indicate a success. The study did not reveal certain types of indicators that specifically did better than others in PBF areas except perhaps for Family Planning services and institutional deliveries, which sometimes showed 200% increase against baseline measures. Also, the HIV/AIDS indicators often increased faster than the others, though this may be attributed to the fact that other donors (Global Fund) also provided financial incentives to promote these programs. It should be noted that the scope of the indicators was quite limited whereby the majority were focused on MCH, in some cases on curative care only (in Zambia and Tanzania), but seldom addressed a more comprehensive basket of indicators, including for example priority programs or disease control programs.
Performance is not only about healthcare outputs, as it is also intended to improve the quality of care for the user. Most commonly, quality of care focused on provision of the conditions (equipment, drugs, and infection control) which assumes improved quality of care, but this is a limited definition of QC that does not take into account the patient-provider interface and quality of consultation. Hence, only in some cases quality of care showed measurable improvement; quality still needs more attention in the PBF approach. In those cases patients (or their representatives) expressed that in their perception quality had improved after introducing PBF, but due to lack of standardized tools for measuring QC, this was frequently anecdotal and ad hoc. However, with the introduction of client satisfaction surveys and more community oriented feedback efforts, it is anticipated that quality of care will gain more attention in future PBF initiatives.

If quality had improved in the PBF context, then what were the drivers of change? Frequently, the providers in PBF facilities explained that they had already anticipated to improve quality of care, as they expected that this would raise utilization, hence their bonus. In the case of Rwanda and part of Burundi can one judge only if conditions are met to provide quality of care, not if the care provided was of good quality. Hereto, M&E systems need to be adapted, but first clear concepts on how to improve quality of care need to be developed for the context of PBF.

Did PBF do better than other approaches? In terms of productivity the study shows that in some places it was likely that PBF had led to better results if compared to areas where PBF had not been introduced. To prove attribution of the results to the PBF approach, more research needs to be undertaken. This study brings up several issues for future research in line with the need for more rigorous attention to the progression of PBF and concurrent indices in relation to the wider determinants associated with health service outcomes. We are faced with multiple confounding factors that could explain the ‘good’ results, even in non-PBF areas, such as insurance (Rwanda), or decreasing fees (DRC, Rwanda, Tanzania, Zambia), installation of equity funds (some places in DRC) or simply because socioeconomic conditions and the safety of the environment had improved.

It may have been expected that PBF would have less effect in fragile states, as preconditions (such as human resources, equipment, etc) are not always in place. Surprisingly, the most impressive results of PBF in this study were found in fragile states, where many of the preconditions did not originally exist at the time of PBF inception. It should be noted that in Rwanda (and in Burundi to a lesser extent) many indicators showed already a positive trend before introducing PBF, probably related to the post-conflict return to normal life and improved access to health facilities. However there are outliers within the fragile state contexts that do not produce expected results. In North Kivu, most basic conditions were not in place and results had not improved.

The gaps in minimum conditions and standards raises the issue of how this can be resolved in order for health workers to perform. The question of whether these should be addressed via input financing as is most often the case, points to the need for continued input financing while output financing can address the performance incentives.

Decentralisation in terms of devolution (transfer of responsibilities) instead of the actual deconcentration (delegation of tasks) is central to PBF and may prove to be a major challenge in more stable states, which in turn could adversely effect the results. As evidenced in Zambia and Tanzania, results had not (much) improved, certainly not more than in comparable non-PBF facilities. This was exclusively attributable to the PBF set-up (no negotiated contract with providers and limited knowledge of PBF). It shows that some basic principles of PBF really need to be adhered to in order to foster success. In other
contexts, only some PBF principles have been taken into account, thus limiting the potential success of PBF.

Ultimately, this study is not about proving if 'PBF' is working better than 'input planning', it is about what we can learn about how PBF can make health services perform (better). This study reveals a number of issues to answer this question.

Firstly, a results driven approach seems to elicit more positive outcomes, contingent on clarity of purpose regarding the results expected, autonomy of providers to develop their own strategies to attain the agreed targets and thereby holding them accountable for delivering the performance. This process will yield incentives that are directly linked to the degree of success in achieving the results.

Secondly, success relies on the set up being achieved in a predictable and systematic way and clearly expressed in a business plan or contract, as agreed between the fund holder and the health providers, and most importantly in compliance with a split of responsibility functions to ensure that judgment on the results and deciding on the incentives are impartial.

Thirdly, this leads to an important condition *sine qua non*: a high degree of autonomy at the operational level is needed. This is of course is easier in (former) fragile states than in 'more stable states', as here different hierarchical levels are not (yet) fully operational. Important issues to be mentioned here include: (i) the presence of an autonomous local fund holder that has the mandate to purchase services; (ii) contract providers to obtain expected results; and (iii) to decide on rewards in case of attaining good results.

It is argued here that PBF contracts are relational, whereby the parties involved negotiate the terms and conditions including performance indicators. This offers greater autonomy to the health providers and ensures adaptation of the contract to local conditions. Hence, PBF is not merely a matter of financing. It is about holding people responsible for the results they obtain, making sure that providers are autonomous in decision making at the operational level and ensuring that providers are accountable to the clients.

Does that mean that providers should be completely autonomous in their decision making at the operational level? Boundaries are given by the national stewardship and monitored by the regulator where a split of functions is needed. The study revealed, not surprisingly, that the providers themselves understood that they needed to be (more) responsive to the needs of the clients when they were designing their strategies to increase utilization (hence incentives). Hereto, it is imperative that the population (or its representatives) has voice *and vote* in managing the facility's health interventions. There is potential in PBF to enhance involvement of the community, but the PBF approach still lacks a clear concept of community involvement in health services.

PBF is essentially a change in the funding mechanism from input based financing to output financing whereby the locus of control and accountability devolves to the health providers through adoption of a results based approach to working. This provides a vehicle for real decentralization to take place at local level with enhanced mechanisms of transparency and improved provider to client interface. It may even be hypothesized that real decentralization may be more important in the PBF approach than the financial incentives.

Thus, the question arises: are the financial incentives in fact the most important aspect of this approach? They do undoubtedly play an important role, but perhaps staff would also become more motivated and improve their performance based on enhanced autonomy and
opportunities for empowerment in their work. There has been relatively little testing of if other types of incentives could be added to the PBF approach, or could receive more attention. One could think of other extrinsic incentives such as offering a diploma course or improved working conditions, medical equipment or intrinsic incentives, such as performance having an effect on the career, or showing one’s improved performance if compared to others, like in Rwanda between facilities.

When it comes to the question of institutional development, what contribution has PBF made and what is its potential in the future? Changing the institutional framework has been instrumental, when addressing a split of functions and decentralization, in improving results. In other words – the approach needs reforms and institutional changes, but more operational research is needed to test different options.

PBF did indeed bring some important changes to the health system, mainly at peripheral level. Improvements include strengthening of the M&E system including in some contexts improved HMIS as reflected in the finding that health information from PBF facilities was more reliable than in non-PBF facilities. This makes comparison with non-PBF facilities in this type of study difficult. The autonomy of the providers did increase as they are held accountable on results, but the levels of autonomy differed greatly.

Promising practices in implementing institutional change at the operational level came from Kassaï and Burundi. A lesson learned from Kassaï may be that an institution (here a NGO) is needed to accompany the process, supporting the different kinds of stakeholders in learning and getting used to their new roles and responsibilities. The lesson from Burundi is similar, but here it is that an interesting type of ‘new’ institution was set-up, which is elaborate and expensive – although interesting when piloting, but becoming an important problem to be solved in scaling up from pilot to national program.

Changes in the health system as a whole are limited, for now. Only in Rwanda is PBF part of the national health strategy and instrumental in boosting health at a national level; Burundi will follow shortly. Lesson learned from Rwanda include that a rapid scaling up of PBF to national level may result in neglect of some of the essential issues mentioned above, mainly decentralization, and a split of functions limited to the different levels inside the MoH. The incremental growth in Burundi over the last few years may prove to be more successful.

The instruments developed for the approach including the business plan, contract, verification procedures, M&E system and standards for quality care in PBF have been instrumental to attain better results. Moreover, the use of the planning tools and subsequent empowerment with available funding to (innovatively) address problems were noted as important contributing factors. The introduction of PBF requires the development of implementation and verification tools to be used by PBF partners when the involvement of providers and government is critical. Agreement needs to be reached on: (i) mechanisms for determining performance outputs; (ii) modalities for verifying performance, client satisfaction surveys and compliant reporting; (iii) incentive mechanisms and motivation for employees; and (iv) verification needs to be carried out by other stakeholders, not providers alone (for instance in Rwanda providers in the MoH are the main actors to verify outputs and quality).

It should be remembered that results may improve initially as a first effect of the financial bonus while it may be too nascent to determine if this has a long-term lasting effect. It may be that after a certain period, the health workers get used to the bonus, hence the effect of the PBF approach will decrease again, perhaps to the same level as before its inception. It will be critical to predict the long term effects as linked to the determinants
mentioned above. As results of the PBF approach are not yet convincing as a whole, different approaches need to be tested. It would be worthwhile to study the contributing factors and determinants for increased performance by a (quasi-) experimental study design and/or intervention studies.

Finally, a lesson learned would be that it would be better to split the responsibilities of TA in the project cycle, not leaving the model, the approach, the set-up, the monitoring and the evaluation to the same person(s) to ensure a critical analysis of developments. PBF as an approach is conceptually still growing, so it needs a critical guidance during its development to make the approach stronger.

If concluding that PBF brought better results in the pilots, a final key question arises: are the additional costs necessary to maintain the PBF approach justified by the increase of outputs and/or in quality of care?

This study only provides a number of elements to answer this question. In all cases there are additional costs in terms of bonuses and administrative costs (salaries and functional costs of the local fund holder), while the outputs varied. These costs were significant (about 15-30% of the mean costs of health care), even when the investments, like TA to develop the approach or the increased M&E activities, were not taken into account. More in-depth research is needed to provide a more accurate answer: many of the costs were not accessible for this study, certainly not on another approach (like input planning) to compare with. As expected when setting up the study, it is difficult to make clear statements on the outcome after introducing PBF. Neither this study, nor the household surveys, are designed to answer this question.

Theoretically one could state that PBF is not about changing the type of services, or about changing treatments. It is about changing funding mechanisms, modalities, institutional arrangements and most importantly about changing the organization and way of financing health services. If increasing outputs in the classical input funding would mean a certain level of improvement in outcomes, then this would be true in the same way for PBF, provided that perverse effects would not have a reverse effect on the total outcome. The study showed that trends for PBF were different by geographical area, by context, by design of PBF. Further, confounding factors were identified. The outcome of PBF, of course, will differ as a consequence. It is true that indicators were most often not chosen based on the local priorities in health. On the other hand, the chosen indicators may indicate a decrease of maternal mortality (through an increase of ANC, Family Planning and assisted deliveries in all in PBF areas). Of course the issue of attribution remains and we need to caution against overextending the feasibility of one approach producing all positive health service results.

Another important outcome would be the effect on equity and on targeting the poor. More sound methodological studies are needed to provide evidence – now one can only address the issue in terms of probability. The internal evaluations give an indication that the poor are not excluded. The fact that in some cases the consultation fees were decreased to increase utilization and in a number of health areas equity funds were set up, may point to the probability that some of the PBF programmes even increased inclusion of the poor and vulnerable. This is still to be confirmed by further well-designed research.

We are thus concluding that a national level, sustainably financed, PBF programme will need a well financed health sector and most probably there will be a need to get additional resources especially targeted to the PBF programme. The origin of these additional resources will vary depending of the context, in a fragile context this will most probably come from the donors and in a more stable and prosperous context there could be more
fiscal capacity to create internal resources. The latter of these options depends on the political will to put more public money firstly into health and secondly in PBF. But political will is also important if the resources come from external sources, since the general and sector budget support mechanisms are gaining importance. In any case, there will be a need to have a high level of external funding in low income countries. This will then affect the financial sustainability question in the form of reliability and predictability of the resources available.

If outputs indeed did increase, and outcome followed indeed – would these results be sustainable? In terms of financial sustainability, it is clear that additional external funding will be needed. However, as long as budgets available for health in these countries is far below the (by the WB) estimated need of $US 34,- per capita, one may ask if it will be possible to provide quality care without external support anyway. The question would then be – did funding shift to a certain extent from external to internal financing agencies. The answer is that this is not yet the case.

In terms of institutional sustainability, it should be noted that in all countries the approach was embedded in, and supported by, national structures and policies. Certainly at operational level (the regulatory function was always in hands of the MoH), and increasingly at the central level, too. The exceptions are Tanzania and Zambia where the approach was carried out as parallel to the national system, but this is already being addressed and is in the process of shifting to a nationalised strategy. In each of the countries there is a strong commitment to embark on PBF as a national approach, as strongly promoted by the donor community.

In terms of technical sustainability, there is a clear need for capacity building, both on the approach, as well as on its implementation. All actors need technical support, especially the local fund holders and the stakeholders in the steering committees, to be able to use the PBF instruments. But the providers also need technical support to strengthen their management capacities.

The study presents many lessons that can be used in improving the implementation of the PBF approach. Also, it brings up an important number of topics for an agenda for research as we have outlined in the following section.
[Level 2] **Research Agenda for PBF**

**Approach issues:**

i. The contribution of intrinsic and extrinsic motivation of performance of health services – is it about decentralization or financial incentives?

ii. It would be worthwhile to study the contributing factors to increased performance in quasi experimental study design.

iii. The evidence base on attribution of results to PBF is still week, a comprehensive study based on a (quasi-) experimental study is needed.
   - be it an intervention study, be it a longitudinal case control study
   - Part of this study could be to compare between PBF and 'classical input funding
   - It would be interesting to carry out such a prospective study in a more stable country (not, or in addition to, a fragile state)

iv. Systems need to be developed to monitor quality of care *ex post* – not only if conditions to *provide* quality of care are met, but also if care *that was provided* was of good care.

v. Are increased outputs in the context of PBF translated in improved outcomes – is it possible to predict outcomes in case of an increase of outputs?

vi. Comparison of allocative efficiency with regard to the inputs used, comparing PBF with a comparable health system intervention;

vii. Costing the different types of costs used to maintain PBF – simulating the costs of a Government to scale up PBF from a pilot project to national level.

**Health system issues:**

i. What are the effects on health system and does PBF have implications for wider health systems performance. What are the unexpected effects or outcomes of PBF?

ii. To what extent does the PBF approach really change the behaviour of institutions and individuals in a sustainable way
   - What will happen to performance if we erase the incentives?
   - could a phase out strategy be possible and
   - could there be a switch to other financing mechanisms?
   - How to ensure that non-incentivized services are not neglected by staff?

iii. To what extent can PBF be mainstreamed into the wider health system. Should PBF be seen as a permanent or temporary part of a sustained overall system for financing/organizing a health system?

iv. Should the subsidy structure be changing for health interventions according to priority setting with reference to:
national health polices and strategies?
- priorities established by local health-authorities and CSO
- ‘natural’ different coverage rates such as the high achievement in terms of EPI and the very low coverage with family planning

v. What is the feasibility of replicating the PBF approach in non-fragile states with strong institutions, how much and what kind of TA is required.

vi. How to ensure that PBF contributes positively to quality of care?
   - What are the best mechanisms?
   - How to monitor quality of service delivered (ex-post), from a professional perspective
   - How to monitor quality of service delivered (ex-post), from a patient perspective

**Effects on health status:**

i. To what extent will increased outputs as a consequence of PBF lead to an improved health status – in terms of intermediate indicators for lowering of infant, child and maternal mortality?

ii. Does PBF make a difference in receiving treatments for the poor and most vulnerable?

**Human resources:**

i. Are the human resource policies aligned with the assumptions for establishment of PBF approach in district level facilities:
   - To what extent does PBF rely on the right-skills mix and right-size of HR, to what extent does PBF mean a threat or a solution?
   - Does PBF has a durable effect on motivation, and then on retention?
   - Should PBF focus be on incentives at facility- or on individual level, or on both?

ii. What are the adequate and appropriate training and capacity building needs:
   - For the service providers
   - For the health managers?
   - For the community representatives/ CSO
   - What are the needs for resource inputs for TA

iii. How do we involve health staff in the design and delivery of the system?

iv. How to ensure an inclusive and comprehensive approach to capacity building and service delivery while the major emphasis is on output based performance and incentives associated with targets.
v. To what extent is it possible to keep momentum – will an initial increase of staff' motivation remain after sometime or will it decrease, and if so: will it end up at a higher level than the initial motivation?

**Sustainability issues:**

i. To what extent can institutional embedding of PBF be ensured?

ii. To what extent can financial viability of PBF be ensured?

iii. Do transaction costs out weigh the results and explore scale up costs – at what point does PBF reach its optimal budgetary conditions in terms of transactions costs versus gains?