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# **Performance-based Contracting: a Case Study of Non-profit Hospitals in Uganda.**

**Freddie Peter Ssengooba**

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**Thesis in Fulfilment of the Doctorate of Philosophy in  
Health Systems and Policy**

**University of London**

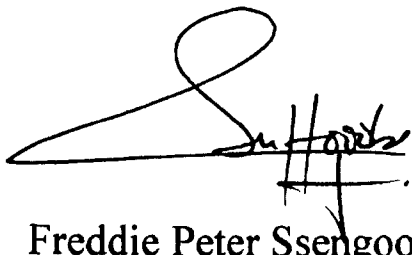
**2010**

**London School of Hygiene and Tropical Medicine**



**Declaration:**

I Freddie Peter Ssenkooba confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

A handwritten signature in black ink, featuring a large, stylized 'S' followed by 'senkooba' and a horizontal line with a small vertical tick at the end.

Freddie Peter Ssenkooba

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### ***List of Abbreviations***

AIC	Aids Information Centre
AIM	Aids Integrated Model project
ANC	Ante Natal Care
ARVs	Anti-retroviral (drugs)
BOD	Board of Governors
CAO	Chief Administrative Officer (District Govt)
CAS	Complex Adaptive System
CCU	Catholic Church of Uganda
CEO	Chief Executive Officer
CMH	Commission for Macroeconomics and Health
CUAMM	University College for Aspiring Missionary Doctors
DAM	District Awareness Meetings (for PBC)
DCPP	Disease Control Priority Project
DHB	Diocesan Health Board
DHO	District Health Officer
DPT3	Diphtheria, Pertussis and Tetanus (3 <sup>rd</sup> dose)
DRG	Diagnosis related group
EFA	Exploratory Factor Analysis
FAC	Factor (composite factor from EFA)
GAVI	Global Action for Vaccine Initiative
GFATM	Global Fund for AIDS Tuberculosis and Malaria
HMIS	Health Management Information System
HMT	Hospital Management Teams
HRDERD	High Degrees and Ethical Review Board (Makerere University)
HSD	Health Sub-District
HSSP	Health Sector Strategic Plan
IOM	Institute of Medicine
MDGs	Millennium Development Goals
MMR	Maternal Mortality Review
MOFP&ED	Ministry of Finance, Planning and Economic Development
MOH	Ministry of Health
MTEF	Medium Term Expenditure Framework
NGO	Non-governmental organisation
NIDs	National Immunisation Days
NLT	National League Table (for MOH)
OGAC	Office of the Global AIDS Coordinator (for PEPFAR)
OPD	Out Patient Department
PBC	Performance-based contracting
PCA	Principal Component Analysis
PEAP	Poverty Alleviation Action Plan
PEPFAR	President's Emergency Programme for AIDS Relief
PHC	Primary Health Care
PIT	Pilot Implementation team
PNFP	Private Not for Profit
PRSP	Poverty reduction strategy programmes
PVT	Performance Verification Team
SUO	Standard Unit of Output
SWAP	Sector-wide approach (for health development)
UCMB	Uganda Catholic Medical Bureau
UK	United Kingdom
UNCST	National Council for Science and Technology (Uganda)
UPMB	Uganda Protestant Medical Bureau
WBRG	World Bank Research Group
WDR	World Development Report
YSP	Yellow Star Programme

## **Abstract**

**Background:** Performance-based contracting (PBC) and similar approaches to tie funding to measured performance have become major characteristics of innovative financing mechanisms. The World Bank and Uganda's Ministry of Health pilot tested PBC in five districts for a period 2003 to 2006. This PhD examines the response to this pilot among private-not-for-profit (PNFP) hospitals.

**Methods:** A multi-level analysis was undertaken to explore essential up-stream and down-stream institutional relationships and functions for PBC success. Agency-based and process-based organisational theories were used as alternative frameworks to build explanations of the response actions. In-depth case studies were carried out using mixed methods among PNFP hospitals that were assigned to different mix of PBC pilot components (performance targets, service output metering, performance feedback and financial bonuses). Seven PNFP hospitals participated in the PBC pilot while an additional three non-participating public hospitals provided opportunity for comparative analysis. In-depth interviews (28) covered hospital management teams (HMTs) and members of their Board of Governors (BOG) in all the ten hospitals. Five district health officials, two implementers of PBC pilots and two officials from Uganda Catholic Medical Bureau (UCMB) were also interviewed. A survey of 560 hospital staff at baseline and 741 after 12 months was undertaken among the 10 hospitals to measure changes in perceptions relevant to hospital performance. Participant observations were undertaken during meetings for PBC pilot activities as well as meetings for reviewing the performance of health activities at national and district levels.

**Major findings:** Upstream support functions like financial disbursement, staff movements and costs of service provision formed contextual constraints for the hospitals to respond to PBC. Likewise, governance relationships between HMT and BOG provided additional constraints for PBC success. Hospital managers were expected to respond to several performance-focused interventions – many of which were contradictory to the PBC targets. Among the difficulties observed during the PBC pilot implementation, poor metering of performance and inadequate financing for the essential pilot elements were particularly problematic. The implementation arrangements generated unanticipated negative performance influences especially among the control group – a situation that may over-estimate the pilot effectiveness. Findings show that financial bonuses at the organization level can create either motivation or demotivation among staff depending on the hygiene of the bonus allocation processes within an organization. Results from the staff surveys indicate that the drivers for performance improvements in the hospitals were related to job satisfaction, performance governance of work teams, availability of medicines and supplies, as well as staff satisfaction with their financial benefits.

**Conclusions:** PBC may not achieve optimal effectiveness in settings without a package of supplementary interventions for improving resource inputs, performance governance and motivating the workforce. Financial incentives as predicted from agency theory were not sufficient for PBC success. Micro-care approaches aimed at improving the organisational processes (process-based theory) for better performance will be required for greater effectiveness of PBC initiatives and policies. Policy prescriptions and implementation arrangements for PBC interventions need to provide for on-going monitoring of mechanisms and consequences as a basis for mitigating harmful effects on health systems and optimizing the good.



# Chapter 1: Introduction

## **1.0 Introduction:**

There is expanding interest in the potential of performance-based contracting (PBC) as an intervention to fix the performance of health systems (Eichler, Auxila et al. 2001; Adam and Gunning 2002; Penelope and Murray 2002; Hecht, Baston et al. 2004; Loevinsohn and Harding 2005; Low-Beer, Afkhami et al. 2007; Allen 2009; Eichler, Levine et al. 2009). The advents of global financing instruments intending to support the achievement of measurable targets such as Millennium Development Goals (MDGs) have adopted performance-based aid frameworks with explicit targets. Global financial instruments such as GAVI, The Global Fund, PEPFAR, and World Bank's Multi-country AIDS Programmes (MAP) have made claims for the use of performance-based aid for improving the accountability of health systems and recipient countries despite mixed empirical evidence of effectiveness of this approach (Lim, Stein et al. 2008). At the national and sub-national levels, performance-based aid translates into performance-based contracts between fund-holders and service providers (Chapin and Fetter 2002; Penelope and Murray 2002; Taylor 2003; Meessen, Kashala et al. 2007; Eichler, Levine et al. 2009).

At the global level, performance-based aid is a major development in the aid modalities between international development partners and developing countries. Although first advocated in the early 1990s (World Bank 1993), the renewed interest is based on a number of reasons (Scott, Mannion et al. 2003):

- Millennium development goals (MDGs) are explicit commitment between governments and development partners to achieve measurable results in health status and poverty worldwide (Vandemoortele 2008).
- Poverty reduction strategies programmes (PRSPs) of governments have sought to explicitly plan for and measure their performance in the reduction of poverty and other MDGs (Uganda Govt 2005).
- Transition from project-based aid to Sector-wide Approaches (SWAs) in developing countries have necessitated the development of measurable indicators of progress as a form of accountability mechanism for development aid (Adam and Gunning 2002).
- Increased efforts to leverage the non-state sectors to play a greater role in the provision of health services (McPake and Ngalande 1994; Palmer 2000; Palmer, Strong et al. 2006)
- International aid disbursements are adopting performance-based financing tied to demonstrable progress as measured by performance indicators (GFATM 2003; OGAC 2005; Low-Beer, Afkhami et al. 2007).
- Increasing accountability of the health system has been promoted by reforms to make the services reach the intended groups. This was the theme of the 2004 World Development

Report – Making Services Work for Poor People (World Bank, 2004 ) as well as for the World Health Report in 2000(WHO 2000). It has also been a driver for reforms in the UK, USA and for international aid (Chapin and Fetter 2002; Hecht, Baston et al. 2004; Allen 2009).

### **1.1 Uganda Background**

The overall government policy is to alleviate poverty. The health sector is one of the sectors contributing to this goal through the reduction of ill-health and premature death. As part of the PRSP process, the health sector's contribution is tracked by its implementation of the minimum health care package. The package is a set of services that were judged to be cost-effective in reducing morbidity and mortality in Uganda (MOH 1999a). A set of indicators are used by the government to monitor performance of the sector ie:

- OPD unitisation of health services
- DPT3 immunisation coverage
- Deliveries in health facilities
- Approved posts filled by trained health workers
- Urban and rural HIV sero-prevalence

To implement the health policy objectives of expanding access to the minimum health care package to all Ugandans, MoH has pursued two inter-related policies among others:

- Expansion and up-grading of the service infrastructure by establishing functional health sub-districts
- Supporting the faith-based sector also called Private-not for profit (PNFP) sector to deliver a more comprehensive service.

The health sub-district (HSD) policy has invigorated the hospital sector with the intent to expand access to essential clinical care, at the same time broadening the participation of hospitals (serving as HSD referral centres) in health prevention and promotion activities (MOH-c 1999).

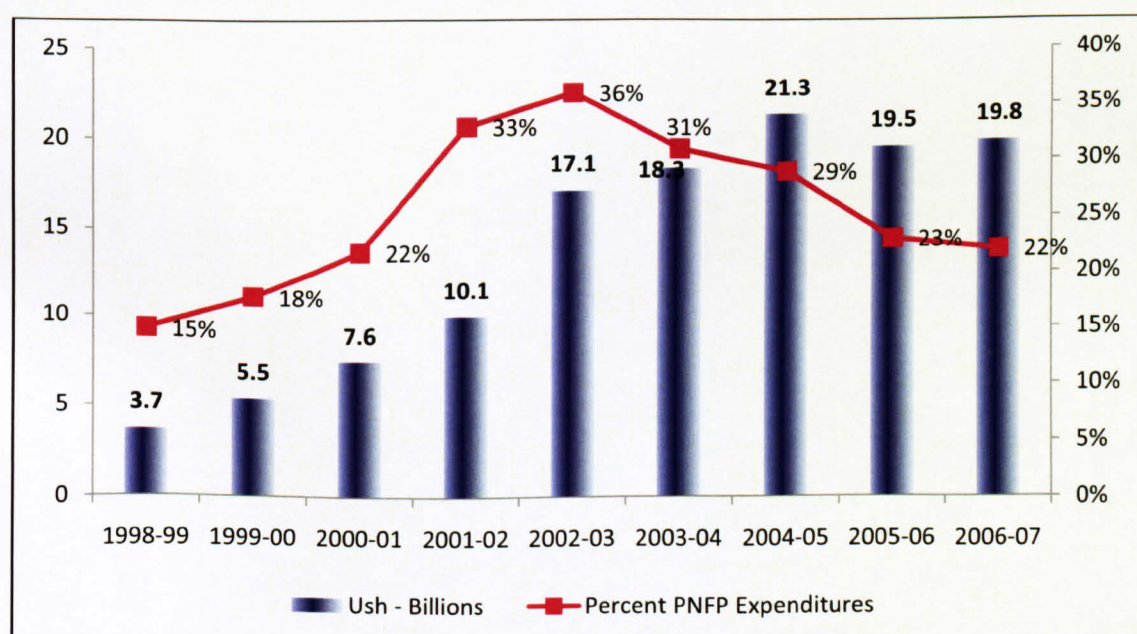
### **1.2 PNFP Developments in Uganda**

The provision of health care services in Uganda is shared between the state and non-state providers. Although the non-state providers range from informal drug vendors to up-scale private hospitals, the faith-based sector or private not-for-profit (PNFP) providers makes a major contribution to the delivery of the Minimum Health Care Package (MHCP) and the realisation of the Health Sector Strategic Plan of the Government (MoH 2003a). The PNFP sub sector owns about 30 percent of the health facilities in the country i.e. 44 hospitals and 520 lower level health centres and accounts for about 50 percent of the expected annual health service outputs of the health sector (MOH 2004; MOH 2007). PNFP facilities provide health services in more remote areas that are underserved by the public sector (Ritva and Svensson 2002). In recognition of its capacity to serve the health sector objectives, government has provided variable support to the PNFP sector over the years.

Government support to the faith-based sector in Uganda started shortly after independence in 1962 whereby Government was required to provide subventions to the missionary hospitals. During the 1970s, economic and other political changes diminished the value of these subventions. The hospitals turned to charitable organisations abroad for support and little effort was put in pursuing the government subventions that were getting smaller over time (Green 2002). However, some mission hospitals continued to receive personnel (with salary) from MOH as a form of support from Government (Uganda 2002).

From 1995, it became increasingly difficult for PNFP hospitals to cope with the costs of providing care. There was a decline in the funding of PNFP hospitals from charitable organisations abroad (Green 2002). In addition, Government progressively increased the emolument package of public servants to a point well above the levels sustainable in the PNFP sector. This situation caused an exodus of personnel especially nurses from the latter to the public sector (Guisti 2007). The initial response in PNFP hospitals was to increase charges in an effort to generate more local funds. This option did not get very far due to the general poverty and outcry of the communities. In 1997/98 fiscal year, Government had introduced a conditional primary health care grant to districts to guarantee the allocation of funds for PHC. In the same vein, PNFP hospitals were provided a direct subsidy (UCMB 1999) to leverage their contribution to the provision of the Minimum Health Care Package and to the Health Sector Strategic Plan (Giusti and Lochoro 2002). The graph below shows the trend in the financial allocations to broader PNFP subsector for the period 1998 to 2007.

**Figure 1.1 Trend of Public Allocation to the PNFP Sub-sector**



Source: (MOH 2007 page 96)

During the 2001 presidential campaigns, user-charges were retracted from all public health facilities. This policy change exerted pressure on the PNFP sub-sector to reduce their charges to ensure that those communities served by them equally benefit from the policy (Giusti and Lochoro 2002; Odaga and Maniple 2003). District local leaders grumbled about the lack of reciprocal action (removal of charges) from the PNFP facilities. Indeed, some local governments (eg Kamuli District) disowned the arrangement of a PNFP facility as the gazetted provider in their communities and constructed public facilities next to the PNFP ones - a situation that ran counter to the goal of efficiency being pursued in public-private partnerships policy. Furthermore, the change in user fee policy of Government left fee-charging PNFP providers relatively uncompetitive (Peter Waalwo Kajula 2004; Xu, Evans et al. 2006).

Figure 1.1 shows that the government subsidies were contributing 22 – 36 percent of the expenditures in the PNFP sub-sector. Available evidence shows that districts local governments signed a memorandum of understanding with PNFP as the basis for the subsidies. Without any specifics of contractual obligations, the memoranda required PNFP to use the subsidies for the provision on the minimum health care package and gradually reduce their charges to the users (MOH 1999b; Giusti and Lochoro 2002).

Administrative measures such as budgets, guidelines, reports of accounts and services utilisation have been used to control the PNFP providers under MoU. The MoU specified the details about allowable expenditures. For instance, expenditure for staff wages and salaries were not allowed. As noted in the mid-term review of HSSP, the key constraint in the Govt-PNFP partnership was the nature of contractual relationship:

*“... the administrative as opposed to contractual nature of the PNFP relationship with the local governments has not helped to strengthen the partnership. It may also not be providing the best value for money ..... it is recommended that a study be conducted to gather evidence-based data on the most appropriate contractual arrangement that would improve access to the minimum health care package for the poor and most vulnerable (and) at the same time increase value for money” (MoH-f 2003 page 51).*

Upon this backdrop, a performance-based contracting (PBC) pilot was designed and undertaken by the World Bank Research Group and Uganda’s Ministry of Health (MOH) with the aim of providing explicit annual service targets to the PNFP providers as the contractual obligations for the subsidies they received from the Government.

### **1.3 Brief Description of the PBC Pilot**

The pilot was undertaken between 2003 and 2007 in five districts i.e. Arua, Bushenyi, Jinja, Kyenjojo, and Mukono. All health facilities in the five districts were invited to participate in one of the three experimental groups. Government health facilities were assigned to the

control group largely to avoid the legal burden associated with changing public financing entitlements and limited decision space for handling financial bonuses in the intervention. PNFP facilities were randomly assigned to the three experimental groups. The following table summarises the interventions and their allocation to the three experimental groups:

**Table: 1.1: Hospital Assignment to PBC Pilot Experiment and Components**

Experimental group	Unique interventions	Common interventions
<b>Control group</b> (Public and PNFP facilities)	(Status quo continues i.e. Allocation Guidelines & MOU for PNFPs )	1. Baseline assessment of service outputs, 2. 6-monthly assessments:
<b>Experimental group A</b> (PNFP facilities only)	1. Contract addendum to MOU; 2. Selection of 3 service targets from a list of 6; 3. Freedom to allocate Govt. grant to PNFP.	<ul style="list-style-type: none"> <li>• service outputs achieved,</li> <li>• client satisfaction survey,</li> <li>• facility inputs survey,</li> <li>• household service, utilisation survey.</li> </ul>
<b>Experimental group B</b> (PNFP facilities only)	1. Contract addendum to MOU; 2. Selection of 3 service targets from a list of 6; 3. Freedom to allocate Govt. grant to PNFP; 4. Bonus payment if targets are achieved.	3. Performance feedback from the service output assessments

The control study group was provided with information about the study but did not enter into a contractual arrangement with the district. A number of public and PNFP facilities were assigned to this group.

The PNFP facilities in experimental groups A and B were required to sign a “Contract Addendum” to the usual Memorandum of Understanding (MOU) that each facility signs with the District Local Government. For Study Group A and B, the Addendum specified a number of performance goals and allowed participants the freedom to allocate grant monies as they wished. For Study Group B, the Addendum also provided for bonus payments for successful performance. The bonus amounts to be paid to Group A facilities were calibrated on the basis of how many of the three targets were attained at midyear and at the end of the year. The total bonus payments within the fiscal year would not exceed a maximum of 11 percent of the government subsidy provided to the health facility. The following performance targets were selected on the basis of the key interventions in the Health Sector Strategic Plan and availability of information on service outputs:

1. Increase the number of outpatient visits by 10%
2. Increase the number of births attended by a skilled health worker by 5%
3. Increase the number of children under one year immunised by 10%
4. Increase the number of new acceptors of family planning methods by 5%
5. Increase the average number of antenatal visits by pregnant women by 10%
6. Increase the number of children under five treated for malaria by 10%

The performance of all three study groups was monitored every six months over a period of two years, beginning with a baseline survey in September 2005. The service output assessments and the surveys for facility inputs, client satisfaction and household use of services were outsourced to the Makerere University, Institute of Public Health and a Pilot Coordinator was recruited by the World Bank Research Group and situated within the Ministry of Health headquarters.

#### **1.4 Study Rationale**

To understand the potential benefit of performance-based contracting (PBC) as a tool for improving access and equity objectives in health delivery in Uganda, the study in this thesis was proposed to examine how the PBC pilot would work to increase access to services in PNFP hospitals. This study also sought to explore the literature on performance-based contracting, its theoretical premise, experiences of applications to public health sectors and the overall impact PBC might have on improving efficiency in service delivery using the PBC pilot in Uganda as a case study. Contracting for performance as implemented in the Uganda pilot has implications on the capacity to measure and objectively verify performance targets. The literature review also sought to understand how control of hospital performance is exercised through measurement of targets and payment of bonuses and how these might elicit responses behaviour among hospitals.

The next section will explore the literature on contracting in health care provision. The key question guiding the review was the extent to which performance-based contracts provides incentives for improving access to health services and how providers might respond to these incentives. Economic, sociological and psychological theories have been used to explain how individuals, groups and organisations response to incentives. Subsequent sections introduce contracts and why they are increasingly being used in the health sector, before discussing theories on how contracts may succeed or fail to improve performance.

## Chapter 2: Literature Review

### 2.0 Introduction

The concept of the contract is rooted in the historical transition from a single entrepreneur business to multi-disciplinary and specialised industrial economy which depends on multiple skills and a broader scope of action. Macneil (1974) outlined the roots and key dimensions of contracts in economic exchange. He observed that the concept of the contract is a result of the necessity in society to plan for future activity – a situation that elevated the use of “promises” instead of on-the-spot “quid-pro-quo” in economic exchange.

*“A contract is a promise or a set of promises for the breach of which the law gives a remedy, or the performance of which, the law in some way, recognizes as a duty” (Macneil 1974)*

Macneil identifies three key features for a classical contract arising from the above definition of the contract law 1) specificity (ie exact characterization of the goods for exchange), 2) communication (ie clear understanding of the transaction) and 3) measured reciprocity (ie the exchange/monetised obligations of transactors).

As observed by Palmer (2000) and Allen (2002) classical contracts with full specification of the exchange goods or services are difficult to operationalise in the health care industry. This has necessitated the evolution of more relational contracts whereby trust and mutual dependence replaces the need to resort to the legal resolution of conflicts nor the need to fully specify and measure the goods or services at the heart of the contractual exchange (Palmer 2000; Allen 2002). As observed by Macneil, most economic activity is organised on the basis of relational contracts.

*“.. in post-industrial states, with their centuries of old transactional histories, perhaps the most important way by which exchange is projected is through (..) expectations that exchange motivations and dependence in exchange (..) relations will continue in future. Such relational expectations, if firmly enough grounded in fact, assure “satisfactory” exchange in the future without need for present specificity, present communication and present measured reciprocity. A vast amount of economic activity is carried on at least partly on this basis” (Macneil 1974 page 718).*

However, the reforms like new-public management in the UK have shown that there is a zone in the middle of the classical pole and relational pole of contractual exchange where some degrees specifying performance targets, communicating contract obligations and measuring and reimbursing performance may work (Le Grand 1998).



## **2.1 Performance-based Contracting (PBC)**

By definition, performance-based contracting is a tool or approach for linking monetary or material rewards conditional to taking a measurable action or achievement of predetermined performance targets (Eichler, Levine et al. 2009 page 6). Performance-based contracting is a mechanism that seeks to specify the product/outcome at the centre of the exchange in the provider-payer relationship. Performance-based contracting has several characteristics that distinguish it from the more traditional types of contracting. Performance-based contracting typically incorporates some or all of the following:

- Emphasises results related to output, quality, and outcomes rather than how the work is performed,
- Has an outcome orientation and clearly defined objectives and timeframes,
- Uses measurable performance standards and or quality assurance plans, and
- Provides performance incentives that ties payment to output or outcomes.

For example the “output contract” specifies the volume and/or quality of the outputs or outcome such as number of children fully immunised. By contrast, “process product” contract may specify a set of procedures to put into operations to bring about a desired outcome. An example of this nature is when contracts require accreditation regimens or specified institutional capabilities and resource standards such as workforce size and professional mix.

Advances in cost-effectiveness interventions, diagnostic and information technologies have enabled the development of standard means of measurement and costs of treating interventions. For example, cost reimbursement for diagnostic related groups (DRGs) is widely used in the US and UK. Likewise, as the trend for provider autonomy increases, there is a need for fund-holders to ensure that their objectives are met by organisations that are outside of their bureaucratic controls. Similar needs for accountability for results are driven by disease-specific initiatives that would like to ensure that multi-purpose organisations deliver on the specific disease control objectives as much as by reforms such as new public management that seek to optimise outcomes from public investments.

*“As decision rights are delegated to the organisation, the ability of governments to assert direct accountability (through the hierarchy) is diminished. When autonomy increases, accountability must be secured by shifting from hierarchical supervision to reliance on monitoring, regulations, and the economic incentives embedded in contract”(WHO 2000 page 65).*

*“ ... Performance contracts permit financiers to move away from the micromanagement associated with accounting for and examining the use of each input and toward a more hand-off approach where the desired results are what is counted”(Eichler, Levine et al. 2009 page 20).*

## **2.2 Why Should Hospitals Respond to PBC?**

This literature review is aimed at guiding the assessment of the responses of the hospitals to performance contracting intervention. Three related questions are essential to guide the



design, implementation and evaluation of PBC pilot for public policy action and scale-up (Le Grand 2003; Pawson and Tilley 2004):

1. Why should hospitals respond to PBC?
2. How is the response elicited?
3. What is the nature of the response?

In answering these questions lies the theoretical and practical lessons for policy and programmes to guide and successfully replicate the desirable responses and mitigate the negative ones. These questions are addressed in turn by reviewing the relevant theoretical and empirical literature. The chapter ends with a synthesis and related study propositions to guide the assessment of the hospital responses to performance-based contracting in Uganda.

Central to understanding why hospitals should or should not respond is in unpacking of the intervention – performance-based contracting (PBC) and the premises underlying its use as a tool for performance improvements in general and in the health system in particular.

- Why is PBC being used in the first place?
- What incentives are contained in PBC?
- Why should these incentives have an effect on the hospitals?

### **2.2.1 What Problem is PBC Trying to Solve?**

Traditional approaches to financing health services such as input-based or bureaucratic process approaches have often failed to yield sustained improvements in services, particularly for the poor and underprivileged populations (McPake 1997; Castro-Leal, Dayton et al. 2000; WHO 2000; Filmer 2001; Gwatkin 2003; Harding and Preker 2003; WDR 2004). This is one of the major reason for the international concern in the last decade, to explore ways to organize, deliver and target health services to promote efficiency, innovation and increase accountability for performance.

In general performance contracting is theorised to improve contractor performance by tying providers' compensation to the achievement of specified objectives. Other hypothesised benefits includes more flexibility to the contractor to achieve the desired results usually by igniting creative/innovative means of production (Shen 2003; Sanchez 2004; FCS 2005).

What constitutes “performance” in a performance-based contract is determined based on the objective of the payer. This has led some authors to refer to PBC as a “buyer’s side solution” (Chapin and Fetter 2002 pg 104). In the health sector, performance specification can be based on service “outcomes” such as abstinence from alcohol or drug addiction (Shen 2003; Lu and Ma 2006) or based on volume of outputs such as patient visits, children immunised, maternal deliveries (Eichler, Auxila et al. 2001; Soeters and Griffiths 2003; WHO 2003; Akashi, Yamada et al. 2004; Palmer and Mills 2005; McNamara 2006; Meessen, Musango et al. 2006). In some cases the measure of performance is on efficiency of resource utilisation such as reduction in the unit costs for care (Bartlett and Le Grand 1994; Le Grand 1998; Dawson,

Goddard et al. 2001; Dawson and Dargie 2002; Smith 2002; Jacobs and Dawson 2003) while in other situations the measure is on the quality of services or productivity of the workers (Schneider, Riehl et al. 1999; Moody 2004; Rosenthal, Frank et al. 2005; Lyroudi, Glaveli et al. 2006; McNamara 2006). The multiplicity of designs in the above literature attests to the flexibility of the PBC as a method for performance improvement in different contexts and performance needs.

### **2.2.2 Why Performance Contracting in the Health Sector**

From the economic perspective and as expressed in the 2004 World Development Report, problems of inefficiency arise from lack of incentives for service providers to optimise their performance:

*“...teachers must be present and effective at their jobs, just as doctors, and nurses must provide the care that patients need. But they are often mired in a system where the incentives for effective service delivery are weak, ... Since those who do serve there are rarely monitored, the penalties for not being at work are low.” (WDR 2004 pg 4)*

Performance contracting is claimed to have the potential for enhancing managerial innovation and discipline, by exerting greater attention to performance and efficiency; by motivating providers to structure their services for better performance (Mills 1997; Palmer 2000; Taylor 2003): As expressed by Eichler et al (2009), contracting is seen as a tool to convey incentives for preferred provider behaviours.

*“Optimism is warranted because material incentives are powerful; when incentives have been introduced, the improvements in key health indicators have been large and rapid and appear to have exceeded what would have occurred in the absence of the incentive. Based on an emerging base of evidence, performance incentives appear to be effective ways to achieve important health gains. The positive effects have been demonstrated when only a relatively modest sum (of money) was used as the reward” (Eichler, Levine et al. 2009 page 6).*

This optimistic view of performance contracts may be at odds with the possible differences in objectives of the contract parties and their motivations in pursuing contractual relations. Several economic and behavioural theories – sometimes referred to as agency-based theories – have been advanced to explain why and when contractual relationships may serve to coordinate and control the agent(s) to serve the interest of the principle. These are reviewed below.

### **2.3 Agency-based Theories**

The standard agency theory (Milgrom and Roberts 1988; Mooney and Mandy 1993; Mooney and Ryan 1993) posits that:

- The principal is ill-informed about the task from which he wants to maximise benefits
- The agent is well informed and too, wants to maximise his/her own benefits from the task

- The agent may not want a high risk or to expend a lot of effort in maximising his/her benefit;
- The principal has to design a viable contract to attract the participation of the agent; and
- The principal has to motivate the agent to choose the set of actions that will maximize the principal's benefit, subject to information asymmetry.

Agency problems arise due to the reliance on the agents in the context of asymmetry of information. In practice, specialized skill or knowledge makes information asymmetry the norm in contract relations (Alchian and Demsetz 1972; Macneil 1974; Williamson 1985; Strong and Waterson 1987; Sappington 1991; Douma and Schreuder 2002). The problem is worsened if the agents are risk averse or stand to benefit by pursuing objectives different from that of the principal. Attempts to remedy the conflict in objectives may take several forms including:

- to bring the agents into a hierarchical command to ensure that their behaviours are controlled according to principals' expectations (Williamson 1985; McPake, Kumaranayake et al. 2002).
- to adopt outcome benefit schemes to ensure profit sharing and/or transfer of property rights (Smith, Stephan et al. 1997; Saltman 2002). This approach seeks to introduce incentives for the agent to adopt the principal's objective.

### 2.3.1 Transaction Cost Theory and Performance Metering

By using the natural tendency by individuals to maximise own utility in a way that involves selfish, strategic and guileful behaviour (opportunism) and the limitation of individuals to acquire and process all information essential for rational decisions (bounded rationality), Williamson (1985) developed a typology to illustrate situations where comprehensive contracting (box C in table 2.1) and rational decision making are feasible as control mechanisms. Comprehensive contracting is possible if agents actions can be *observed, unambiguously measured and are directly attributed to the outcome of interest* (Williamson 1985 pg 52.). In situations where opportunism is much less, general clause contracting is the alternative control approach necessitating less recourse to performance measurement.

**Table 2. 1: Contractual difficulties under bounded rationality and opportunism**

		<b><i>Bounded Rationality</i></b>	
		Absent	Admitted
<b><i>Opportunism</i></b>	Absent	(A) Bliss	(B) General Clause contracting
	Admitted	(C) Comprehensive contracting	(D) Serious contractual difficulties

Source: (Williamson 1979)

In the health sector comprehensive contracting and accompanying performance metering would suit highly contestable (easy market entry) and simpler services e.g. immunisations, antenatal, delivery care, and intermediate outputs such as client volume in out-patient services (Preker and Harding 2000). In contrast, the difficulty of measurement of complex hospital services and their quality attributes creates serious contractual difficulties (box D) due to less than optimal metering mechanisms for performance control.

Following Williamson's framework, Ouchi urged that performance control mechanisms can be achieved by measuring the outcomes or behaviours. The behaviour of the employees can be measured in situations where the outcomes of employees' behaviours cannot feasibly be measured (Ouchi 1979; Strong and Waterson 1987). To be effective, behaviour measurements requires that the task(s) are programmable i.e. sequence and standards are specified and required behaviours are explicitly defined and readily measured. Task-specific behaviours are equivalent to adherence to clinical standards and care protocols in hospital /clinical care. These protocols lay down the processes of care and the required standards. Upon this assumption, a typology to explain the ability to measure performance behaviours/outcome and the programmability of the task looks like table 2.2.

**Table 2. 2 Task measurability and information system**

		<i>Knowledge of transformation process</i>	
		Perfect	Imperfect
<i>Ability to Measure activity/outcome</i>	High	(A) Behaviour or outcome control	(B) Outcome control
	Low	(C) Behaviour control	(D) Socialization "Clan" control

Source: (Ouchi 1979)

From Ouchi's typology, for the nature of measurability and knowledge of the transformation process (e.g. clinical protocols or algorithms), performance measurement can be organized through three governance (control) systems:

- Hierarchical surveillance: This is more suited to a situation with perfect information on the transformation process but low measurability of the activity (box C) e.g. immunisations or child birth.
- Market control: i.e. where there is imperfection in the knowledge of the transformation processes but high outcome measurability (eg cure from malaria) the market can be used to provide performance information of the production process (A) and (B).
- Clan governance also called "peer monitoring" is most appropriate where there is poor measurability of outcomes and/or difficulty of standard behaviours of production e.g. emergency care of road traffic accident victims (box D). In these circumstances, individuals socialised into particular traditions of appropriate behaviour or committed to a code of conduct and ethics are required to constitute a clan form of control.

From the Japanese experience, Ouchi concluded that it was cheaper to control people through socialisation and norms than through the use of material incentives or bureaucratic rules

(Ouchi 1980). In a clan system, performance information is transmitted via soft and informal channels and is closely associated with standards, culture and norms of professional behaviour, a situation also echoed by Arrow (1963):

*“the usual reason why the market acts as a check to ensure quality operates with weak force here (health care). It is for this reason that the ethical indoctrination is of such crucial importance. The control that is exercised ordinarily by informed buyers is replaced by internalised values”* (Arrow 1963 pg 143).

The recourse to performance-based contractual relations with incentives such as bonuses, and measurements based on explicit targets may be understood as attempts to introduce the market forces in the health care industry and overcome the dependence on the medical values and ethical socialisation of health professionals in the performance management of the industry. From economic perspectives, improving efficiency requires market-based features such as competition (e.g. the threat of exit) and the appeal of profitable activities to individuals as a means of broader welfare improvements (Homstrom and Milgrom 1991; Petersen, Woodard et al. 2006). Property rights and profitable entrepreneurship have been used as economic rationale for New Public Management reforms. A brief review of these is explored next.

### **2.3.2 Property Rights and New Public Management**

The need to protect welfare benefits of public provision from market-induced extinction (exit) and at the same time address their inefficiencies led to the New Public Management (NPM) reforms (Shaw 1999; Stark 2002; Dawson and Dargie Ed.). New Public Management came to symbolise a set of interventions aimed at replicating entrepreneurial mechanisms in the management of public services. Among the NPM set of interventions was the separation of the purchasing and provision functions and infusing competition and choice into the conduct of public bureaucracies (McPake 1996; Mills 1997; Ashton 1998; Taylor 2003). “Profit” was introduced in the form of financial incentives such as bonuses and share-holding which allowed public agents to claim some benefits arising from their improved performance. In these quasi-market arrangements, contractual arrangements replaced command and control of the public service bureaucracy. From the perspective of the public-private partnerships, contracting has been seen as a tool to engage and leverage private resources for health of the population for which there is little incentive (Taylor 2003; Palmer and Mills 2005). As a tool, contracting has therefore been used to introduce competition, financial incentives, risk sharing and performance measurement to guide the delivery systems in fulfilling particular objectives and become more accountable to the payers (Mills 1997; Harding and Preker 2003).

These reforms are premised on introducing market-like incentives into public or social systems of service provision. The incentives broadly involve the introduction of property rights within public service institutions. Freedom to make decisions on the use of assets and

rights to allocate residual returns such as revenue surplus are credited for the burgeoning efficiency of the for-profit sector and market-based developments (Milgrom and Roberts 1988). For example, a rational private owner will optimise her efficiency to ensure profitable provision as well as expand her market share. Ownership of productive assets assigns the rights to claim profits/residual. As a result, property rights theorists have advanced policies to introduce ownership rights to ensure that public sector managers bear the full financial impact of their choices. For example, organisational reforms like decentralization, autonomy and privatisation have sought to introduce decision rights in management (eg hire and fire) and rights to allocate revenue surplus (McPake 1996; Harding and Preker 2003). These provide strong (high-powered) incentives to managers of public services to optimise efficiency and service coverage in a manner similar to private entrepreneurship. For example, Le Grand (1998) argued that “waiting lists” were used by managers in the NHS to justify higher hospital budgets but this changed when NPM reforms introduced throughput volume and cost control as a basis for resource allocation (Le Grand 1998).

Firms may attempt to transmit these high-powered incentives internally in the form of bonus payment, higher salaries and promoting workers into higher paying jobs so that they too, share in the firm’s residual returns (Akashi, Yamada et al. 2004; Jacobs and Price 2004; Jacobs and Price 2006; Meessen, Van Damme et al. 2006). From this perspective, the use of bonuses in PBC can be seen as attempts to introduce a conditional surplus (bonus) to which the hospitals are entitled upon fulfilment of the contractual performance-targets.

### **2.3.3 Incentives and Performance Management**

From the economic perspective, the principal consideration is the need to expand the production frontier to the optimal level of efficiency through appropriate incentives to the agents. Health provision is a complex industry with many tasks, some more measurable than others and some requiring more attention to quality than the speed of production or requiring team action rather than individual effort (Preker et al 2000). There exists a tension among the incentives provided for performance of a particular task and the allocation of effort by agents on that task relative to other mandated tasks (Dixit 1996). In general, the theory of incentives argue that when there are multiple tasks, incentives serves not only to allocate risk and to motivate hard work, but also to direct the allocation of the agents’ attention among the various tasks (Homstrom B and Milgrom P 1991).

If volume of output is easy to measure but quality is not, then a system of incentives based on measures of service volume may lead health providers to increase their volume at the expense of quality. If responsive to the incentives, the provider (agent) would assign more effort to the elements that are measured compared to those that are not (Goddard et al 2000; Homstrom and Milgrom 1991). The implication of this theory is that the recourse to performance-based contracts among health providers might cause reallocation of effort away from some other tasks especially those that are not considered central to the obligations under the incentivised

contract or tasks/services that are not monitored as a basis for the payment. Therefore, the design of incentives needs to be well linked to all the desired outcomes as observed in McPake et al (2002):

*“In any payment system, rewards must be linked with some aspect of performance that is observable. Under incentive management and regulation, the objective is that the aspect chosen should also be that which is intended to be encouraged” (pg 179).*

## **2.4 How Would Hospitals Respond?**

Although agency-based economic theories above explain why incentives are needed for performance improvements, they have weak operational explanations as to how these incentives lead to performance improvements (Gauri 2001; Kingma 2003; Pawson and Tilley 2004; Hodak 2005). Human resource management practitioners rightly concerned with sustained employee productivity and continued employee commitment to the organisation find little practical assistance from agency-based theories (Marsden and Richardson 1994; Kingma 2003; Le Grand 2003; Natasha Palmer 2003; West, Wilk et al. 2003). Operational mechanisms of how external incentives lead to performance improvement at the front line (street level) have been a central concern of the field of organisational psychology. In equal measure, perspectives from organisational sociology and anthropology have provided contrasting approaches such as Human Relations, Organisational Contingency, Leadership and Governance and others – to deal with the issues of performance, efficiency and labour force commitment.

Process theories of motivation have been advanced to explain the causal factors for labour productivity and organisational performance. Process theories refer to a system of ideas or statements that account for or explain a group of facts or phenomena related to the implementation of activities – how they should be planned, organised, and scheduled in order to be effective (Grol, Bosch et al. 2007). Process theories vary in scope and application areas. Processes theories range from those seeking to explain the performance of organisations and work-team, to those dealing with the motivation, perceptions, organisational resources and support systems, and those that deal with how financial incentives influence performance. These are reviewed below:

### **2.4.1 Motivation and Performance at the Individual Level**

Although they have a long history in the business sector, recently, attention has turned to the psychosocial dimensions of labour productivity in the health sector (Marsden and Richardson 1994; Bennett, Franco et al. 2001; West, Wilk et al. 2003; Crilly and Le Grand 2004; Franco, Bennett et al. 2004; Moody and Pesut 2006). At the level of an individual worker within an organisational environment, two interrelated psychosocial streams are identified in the literature (Franco, Bennett et al. 2002) as sources of motivation and productivity:

The “will do” component relates to the extent to which a worker will adopt organisational goals and this is said to depend on intrinsic and extrinsic rewards from the work.

The “can do” component depends on the extent the worker mobilises personal resources/skills to achieve goals and depends on perception of competency, availability of resources and work environment. These are expanded in turn below:

#### **2.4.2 Will do: Commitment to Organisational Goals**

Several process-based theories have been advanced to understand an individual’s intrinsic and extrinsic motivation for work. These include those that seek to identify the factors essential for individual’s motivation (content theories) such as Maslow’s hierarchy of needs, McGregor’s X and Y theories and Herzberg theory. These theories address the human needs that give rise to motivated behaviour. These theories identify various “needs” essential for the worker motivation, satisfaction and continued commitment to work. The needs arising from these theories range from basic ones such as food and shelter to higher ones such as recognition, growth and sense of accomplishment. Other needs relate to relationships with others and a sense of belonging.

However in the context of human resource management as an explicit concern for sustained hospital performance, Herzberg’s motivation-hygiene theory offers more explanatory potential (Baysinger and Butler 1985; Marsden and Richardson 1994; Westphal 1999; O'Donnell and Shields 2002; Hauck and Street 2006). It identifies the short and long term factors as well as personal and environmental factors for employee motivation. In brief, motivation-hygiene theory posits that two factors i.e. motivators and satisfiers have different causal elements. The satisfiers relate to what a person does while the dissatisfiers relate to the situation in which the person does her work. For example, supervision, interpersonal relations, organisational rules, working conditions and salary are short-term satisfiers rather than motivators. The absence of hygiene factors can create job dissatisfaction, but their presence does not necessarily motivate or create satisfaction. The motivators are related to elements that enrich a person's job; such as achievement, recognition, the work itself, responsibility, and advancement. These motivators are associated with long-term positive effects in job performance while the hygiene factors produce only short-term changes in job attitudes and performance, that may fluctuate over time (Herzberg, Mausner et al. 1959). In particular, the use of financial rewards such as salary and bonuses are classified as hygiene factors with transient effects on productivity. The two factor theory has found broad application especially in managing and motivating knowledge-based productivity where tasks involve broad discretionary space from the employee. This situation is similar to hospital care where decision making is delegated to health professionals (Weaver and Sorrells-Jones 1999; Horwitz, Heng et al. 2003; Chan, McBey et al. 2004; Moody 2004; Moody and Pesut 2006).



### 2.4.3 Can Do: Intrinsic Motivation for Work

Although performance management and human resource management are related, the latter addresses the central concern of how to maintain productive employment relations between the worker and her organisation. In contrast, performance management relates to the processes that maintain or improve performance during employment. Performance management has attracted research especially in the field of industry, universities and hospitals (Guest 1999; May, Korczynski et al. 2002; MSH 2002; Smith 2002; Landrum and Baker 2004; Moody 2004; Veldhoven 2005; Hauck and Street 2006). Given its appeal to the incentive-based approach, Expectancy Theory has been widely embraced in this context. In general expectancy explains the links between external incentive and internal (or intrinsic) motivation to undertake or accomplish the required task by a person. Expectancy theory (Vroom Victor 1964; Lawler 1971) suggests that individuals can be motivated if they believe that:

- There is a positive correlation between their efforts and required performance outcomes,
- Favourable performance will result in a desirable reward,
- The reward will satisfy an important personal need, and
- The desire to satisfy the personal need is strong enough to make the effort worthwhile.

Thus, expectancy theory suggests that an individual consider the outcomes associated with various levels of his/her performance and elects to pursue the effort level that generates the greatest reward. The conscious or subconscious calculus for effort behaviour called “motivational force” is a product of three beliefs referred to as *expectancy*, *instrumentality* and *valence*:

- Expectancy - the belief that one's effort will result in the attainment of the desired performance. This depends on skills, goal difficulty and perceived control over outcome. For example, the resources required, the skills and support available to the worker affect their expectancy.
- Instrumentality - the belief that if one does attain performance goals, a reward will be received depends on trust and control mechanisms for the reward to be given (ie how, when and why rewards are distributed). This requires policies or formal organisational structures and rules that link the reward to expected performance. This also encompasses an objective and reliable means of measuring the expected *performance*.
- Valence – this encompass the value that the individual personally places on the rewards. This is a function of his/her needs, goals and values. For example what value does a worker attach to the bonus, salary, promotion or recognition for task accomplishment?

In general the expectancy theory suggests that an employee's beliefs about expectancy, instrumentality, and valence interact psychologically to create a motivational force such that

the employee acts in ways that bring pleasure and avoid pain. From the calculus perspective, the motivational force is theorised as a *product* of the three perceptions – implying that a zero value, in any of the beliefs will generate zero motivation outcome.

The implications of expectancy theory for the PBC pilot implementation in Uganda are that management must ensure that employees are aware of the links between their effort and the required task (service targets), the accomplishment of the task should lead to a promised reward and the reward must be of sufficient value compared to the level of effort or need of the worker. Communication is key to the linkages as put by Handy: “Without the knowledge of the [performance] score, the motivation calculus will soon dry up” (Handy 1993 pg 43). In addition, the concept rests on “beliefs” which operate at the cognitive level of the worker to form what others have called a *psychological contract* (Guest 1998).

#### **2.4.4 Psychological Contract**

A psychological contract has been advanced as a product of the “will do” and “can do” perceptions reviewed above (Guest 1998; Rousseau 2001; Franco, Bennett et al. 2002). It also attempts to remedy the criticism of the expectancy theory which assumes that individuals are capable of calculating all the odds and always act in accordance with their motivation calculus. Psychological contract has been defined by Rousseau et al as the individual employee’s subjective perceptions of the mutual obligations between employer and employee. Given bounded employee rationality, this contract reflects incomplete and sometimes distorted understanding of the employee-employer relations (Rousseau 2001). The psychological contract guides the day-to-day employee behaviour in ways that cannot necessarily be discerned from a written job contract.

How the psychological contract links back to employee performance is what Guest (1998) has identified as *causes*, *content* and *consequences* on the employee. Inputs into the contract or *causes*, include organisational culture, human resource practices, prior experience, expectations, and worker’s job-alternatives. The state of the contract or its *content* has three main affective components: Sense of fairness, trust and fulfilment of workers expectations. *Consequences* include key attitudes such as job satisfaction, job security, organisational commitment and motivation. If this contract is violated, negative attitudes such as resentment, anger, mistrust and betrayal may arise. These may cause negative work behaviours ranging from low commitment, reduced effort or higher absenteeism, sabotage and worker exit (Guest 1998). In stable contexts, an existing psychological contract is likely to be reaffirmed by positive customs, practices and norms in relation to employer and employee understandings of the basis of the exchange. As such, the psychological contract serves as the internal glue arising from external incentives structures that helps to explain the commitment to relational contractual relations and sustained productivity (Moody and Pesut 2006).

It is important to note that the “psychological contract” approach is an integrating concept that knit together the theoretic elements of motivation-hygiene and expectancy theories into cognitive mental schemas that guide the day-to-day motivation for productive organisational life and commitment (Rousseau 2001). Although presented as an individual-level concept, individuals share their schemas and cognitive constructs with others in the organisation through formal and informal ways to generate a general mood, culture or norm for organisational commitment and productivity.

## **2.5 Motivation and Performance at the Organisational Level**

Empirical work using motivation theory have been undertaken recently in the health sector (Marsden and French 1998; Franco, Bennett et al. 2004). Marsden and French for example, used the expectancy framework to assess the organisational effectiveness arising from performance-based payment reforms in public services in the UK. In addition to the basic structure of expectancy theory, a framework used by Franco et al incorporates the influence of organisational factors such as organisational structures and processes, resources and culture to understand the effects of health sector reforms on health workers’ motivation among hospitals in Jordan and Georgia (Franco, Bennett et al. 2004). Among the key insights from these efforts is the need to pay attention to organisational environment or what others have called work climates (MSH 2002; Paleologou, Kontodimopoulos et al. 2006; Sexton, Helmreich et al. 2006). From this perspective, PBC may introduce financial risks and uncertainty in the employment relations that may erode the psychological contract. For instance Eldridge and Palmer observe that – *“there is a question of the appropriateness of transferring performance-based payment schemes to less developed health systems wherein much of the risk is transferred to the providers working in more challenging and fragile setting ”* (Eldridge and Palmer 2009 page 6 of 7).

The above review thus far has highlighted the important determinants of performance from the institutional economics and socio-psychological perspectives. Two levels of contracts have emerged – one extrinsic and the other intrinsic to the cognitive level of the agent. Also the literature suggests that the extrinsic contract needs to work within a satisfactory context to be able to ignite the intrinsic one. But given the bounded rationality of the workers (agents), the dynamic events in the environment and the trends in the contractual relations, the intrinsic contract is not stable. It can oscillate along a continuum from strong motivation to negative one with corresponding changes in performance levels. With this understanding, narrowly defined incentives are likely to have temporary influence on the psychological contract if they are not addressing broader causes of dissatisfaction within the organisational environment. This literature suggests that an incentive-package approach is needed if the intrinsic contract is to be comprehensively affected. Saltman defines an incentive as:

*“implicit or explicit reward for performing a particular act. It is a broad concept which can apply to groups and organisation as well as to single individual and may arise from external entity or internally generated from within the group, organisation or individual” (Saltman 2002 pg 1679).*

In standard principal-agent relationships, compensation (money metric) systems serve the dual function of allocating risk and rewarding productive work (Etzioni 1964; Strong and Waterson 1987). Other forms of incentives within the organisations include:

- The restriction of activities in other tasks that are not related to the main outcomes for which the principal is interested. For example, restriction of alternative activities that may provide agents private gain at the expense of the core tasks for which they are contracted. A hospital may require its doctors not to engage in private practice as an example.
- Shifting ownership of assets i.e. changing the property rights over the productive assets to introduce “residual claimant” status by the agents. This may be accomplished by:-
  - Making the agent the sole residual claimant of any surplus from the agents’ efforts after meeting the principal’s set target or paying the franchise fee. Private wings in hospitals where the staff shares the proceeds from fees paid by clients as an example.
  - Making the agent share a fraction of the surplus with the principal after the set targets are achieved. Bonus payments arise from this form of incentives.
  - Rewarding/penalising the relative performance among agents where the winners take a prize (reward) and the poorest performers, a penalty. This “tournament” approach induces agents with similar capacity to improve performance relative to their peers. League tables approaches where the best agent is awarded a prize fit this category.

### **2.5.1 Incentive and System-level Dynamics**

Unanticipated problems usually arise from incentives aimed narrowly at a particular objective without proper attention to a range of contextual factors and agents’ characteristics. These may include:

- Effort redistribution or displacement for example, multi-task agents, may allocate effort only on the rewarded tasks to the detriment of other tasks (Homstrom and Milgrom 1991; Dixit 1996; Goddard, Mannion et al. 2000).
- Performance information systems may get manipulated. Incentives attached to information such as budgets, status rankings, bonuses and job-security are likely to influence agents’ reporting behaviours as noted by Goddard et al (2000):

*“... an important attribution issue arises if it is in the power of the agent to manipulate the reported performance measure in a way that improves reported behaviour without any concomitant improvement in actual behaviour, giving rise to misrepresentation of the reported performance” (pg 101).*

The potential for information manipulation is great within health care industry, since the collection of output data is often in the hands of the health care professionals whose actions cannot readily be audited. Literature in the US also illustrate the “DRG creep” phenomenon where hospitals tried to report higher paying diagnostic related groups (DRG) to increase their revenues (Steinwald and Dummit 1989; Lu and Ma 2002; Lu and Ma 2006). In the UK, performance targets and league-tables based on hospital waiting-lists in the National Health Services in the UK led to a shift of hospital’s attention to waiting lists to the neglect of other domains of health care (Anand 1992; Goddard, Mannion et al. 2000).

Other writers such as Fehr et al and Titmuss caution against the narrowly economic character of incentives as implied by agency theorists and neoclassical economists who regard self-interestedness and self-aggrandizement as the central character of people working in public employment. The studies by Fehr and Gächter (2002) and Titmuss (1970) demonstrate that economic incentives can reduce overall levels of productivity by crowding out voluntary cooperation. For example, voluntary blood donors in UK were shown to achieve higher levels of safe blood collected than a system based on monetary incentives for blood donation. In such situations, the beneficence of the agent/donors may be replaced by commercialised objectives (Titmuss 1970; Fehr and Gächter 2002). Non-profit health providers in Uganda and globally are generally motivated by charitable objectives. Over monetisation of their relationship with the state may crowd-out charitable objectives (Le Grand 2003). There is a growing literature suggesting that the medical profession is quite resistant to performance-based payments inasmuch as it denigrates their relationship with their patients/clients and the psychological satisfaction health workers get from helping those in need of health care (Gauri 2001; Fehr and Gächter 2002; Smith 2002; Kingma 2003; Moody and Pesut 2006; Petersen, Woodard et al. 2006). There is also plenty of literature suggesting that medical behaviour changes according to financial objectives (Ellis and McGuire 1986; Thorpe and Phelps 1990).

### **2.5.2 Organisational Culture and Performance**

Other sociologists view organisations as more than simply rationally constructed tools to achieve specific goals. They contend that organisations are social and human systems in which people try to satisfy their needs for happiness, social recognition, prestige, self-interest and power – other than pursuit of money and organisational objectives. People in the organisation are seen as originators of informal structures and may pursue interests distinct from those of the organisation, creating internal politics distinct from formal rules or official procedures. This human or social dimension of organisation can support, undercut or have little relation to organisational goals or performance (Scott 1998; Handel 2003). From this

perspective, social scientists have encouraged higher productivity by paying more attention to social conditions and organisational climate. The “Hawthorn effect” is popular in this sociological literature as the basis for what is termed as “welfare capitalism” (Homans 1941). The prescriptions of welfare capitalism, also called the human relations paradigm, aimed at closing the gap between employees’ needs for social interaction and the organisational goals. Employee welfare policies arising from this perspective led to greater employment security, fringe benefits such as health insurance, grievance mechanisms, company picnics, and company-sponsored athletics (Etzioni 1964; Jacoby 1997). Cultural engineering approaches have pushed for institutional interventions such as leadership skills development, building norms, values, beliefs and attitudes as well as symbols and rituals to align worker interests with organisational goals (Kunda 1999; Goddard, Mannion et al. 2000; Scott 2001). As put by Kunda, *“the ideal employees are those who have internalised the organisation’s goals and values – its culture – into their cognitive and affective make-up, and therefore no longer require strict and rigid external control.”* For example, NHS adopted symbolic awards for quality such as *3-star hospital trusts* to symbolise higher performance on quality in a manner similar to the hotel industry. Internal to the hospital trusts, the NHS also engineered a polity that shifted power from consultants to administrators as a structural measure to build a new culture for cost control (Flynn 1992; Crilly and Le Grand 2004).

### 2.5.3 Expectancy Theory

Although many theories seek to identify the factors essential for an individual’s motivation to accomplish a given task, Expectancy Theory seeks to explain the major factors that underlie performance management i.e. the interface between the individual worker and the organisation objective. It explains how external incentives such as bonus awards for pre-specified targets can induce performance-related behaviours among the individual worker (Lawler 1989). In general the expectancy theory suggests that an employee's beliefs about expectancy, instrumentality and valence interact at the psychological level to create a motivational force such that the employee acts in a manner that bring pleasure and avoid pain (see section 2.4.3). The implications of expectancy theory for the PBC pilot implementation in Uganda are that the stakeholders in achieving the PBC targets ie:

- Employees and hospital managers should be aware of the links between their efforts and the required outputs (service targets),
- Accomplishment of the task should lead to a promised reward and a promise of the bonus should be credible and regularly follow successful accomplishment,
- The reward (eg bonuses) must be commensurate with the level of expended efforts, and
- Communication and awareness is key to building these beliefs as put by Handy: “Without the knowledge of the [performance] score, the motivation calculus will soon dry up” (Handy 1993 pg 43).

### **2.5.4 Packaging Incentives**

Taken together, agency-based economic theories and organisational process theories reviewed above emphasise the need for both financial and non-financial incentives and provide several levels at which these provide motivation for performance improvement:

- Embedded or intrinsic to the individual i.e. physiological, psychological and social needs. These needs are mediated by the extrinsic incentives which together interact to form a psychological contract – a cognitive schema that guides the individual's mobilisation of effort.
- Market or external environment-based e.g. employment, remuneration standards and advancement and social status.
- Organisational-based e.g. supervision, recognition, promotion, performance rewards, job security, cooperative teams and participation/affiliation to an institution. These incentives aim to provide an organisational environment conducive for satisfactory day-to-day employee performance.
- Institutional-based i.e. legal framework, career-path, fair rules and regulations, equitable benefits, threat of censure, leadership, ethics, cultural norms and values. These institutional incentives serve to assure an organisation and its employees of a governance platform on which they can build their psychological contracts and commitment to the organisation relative to its competition.

As explicit from this list, financial incentives constitute a major, although not sufficient, incentive mechanism. An incentive package that weaves the incentives together from the perspectives of 1) the market, 2) organisational climate and 3) institutional governance is more likely to ignite the intrinsic contract of the workers for productivity.

### **2.6 Unpacking the PBC Intervention and its Implementation**

As a means of determining the essential elements of a complex social programme or intervention, a theory-driven evaluation has been recommended (Yin 1984; Pawson and Tilley 2004; ICEBeRG 2006). Theory-driven assessment allows the identification of the essential components without which the programme would not make the desired difference. Theoretical conceptions of how the complex programmes would work to achieve their goals have received a fair amount of attention in the evaluation research especially in health promotion and behaviour change innovations (Judge and Bauld 2001; Pawson and Tilley 2004; Grol, Bosch et al. 2007).

*“Successful implementation often requires a sequential approach, with different problems resolved at each step. Individuals or subgroups within the implementation's target group may be in different phases of a process of change ... subgroups may demand different approaches, the target group and the context for change must be well known. The implementation process requires a diagnostic or problem analysis to find out the reasons for departures from the*

*desired performance, setting, influential parties, and factors that could hamper or stimulate change”(Grol, Bosch et al. 2007 page 101).*

### **2.6.1 Theory of Dynamic Response:**

Despite the expanding literature on the magnitude of effects of health systems interventions, the mechanisms through which such outcomes accrue is sparsely addressed. The dynamic response model by McPake et al (2006) explicates the mechanism by which context influences modifies the innovations to create a difference between the intended intervention (de jure) and what the beneficiaries experience (de facto). The framework recognises that dynamic responses arise from the interaction of human agents in a particular context to determine the nature and form of the de facto intervention (McPake, Blaauw et al. 2006; Ssengooba, Rahman et al. 2007; Rifat, Ohiri et al. 2008). The intended structures, incentives and procedures that define the formal innovation are modified and transformed during implementation to create a difference in the way the innovation is experienced by the beneficiaries. The framework highlights the role of informal actions, behaviours, constraints and relationships – as some of the lynch pins for the transformation between de jure and the de facto interventions that seek to influence the health system. Without understanding this transformation process, evaluation research in the health system and social programmes fail and potentially misleads the policy development processes. As a remedy, authors from this perspective call for new, realistic and theory-driven methods for the evaluation of complex social programmes (Judge and Bauld 2001; Pawson and Tilley 2004; Green and Bennett 2007). These authors emphasise the need to understand and document the role of the context and the mechanisms in addition to the magnitude of effects of social and health systems interventions. How and why the intervention work is given more prominence. In general this framework recommends an embedded and microscopic examination of the intervention mechanisms that account for the effectiveness of the interventions.

### **2.6.2 Complexity Theory**

Inconsistent results from standard intervention could be related to the content of the underlying conceptualisation of implementation as linear and predictable. Like dynamic response theory, complexity theory assumes nonlinearity, and capability for interventions to re-organise through internal lessons, and evolve to suite contextual realities (Plsek and Wilson 2001; Leykum, Pugh et al. 2007; Rifat, Ohiri et al. 2008). As observed by Gibson, complexity involves “*forms within forms both up and down the scale... Units are nested within larger units. Things are components of other things. They would constitute a hierarchy except that this hierarchy is not categorical but full of transitions and overlaps*” (Gibson 1979 page 9). The seminal work by Pressman and Wildavsky illuminated the challenges of implementing complex Federal interventions in the USA. In their work, they documented over 30 decision points involving negotiations and networking with about 15 different agencies. All these reduced the probabilities for programme activities(Pressman and



Wildavsky 1978). PBC pilot is seen a complex intervention requiring several concurrent actions upstream and downstream and building horizontal relationships with other agencies and interventions.

*“The success of a financial incentive is likely to be inversely related to the complexity of the tasks it seeks to motivate ... results based financing is typically part of a package of interventions and it is difficult, if not impossible to disentangle the effects of RBF from other components of the intervention packages, including increased funding, technical support, training, new management structures and monitoring systems”*(Oxman and Fretheim 2008 page 58).

A science of complex adoptive system (CAS) has evolved to provide tools for evaluating interventions that have characteristics that define complex programmes or implementation approaches. The key features of effective CAS are:

1. Agents/organisations that continuously learn and adapt,
2. Interconnections for communication among agents,
3. Self-organizing to achieve optimal stability among agents, and
4. Co-evolution among agents in response to changes in the environment and their relationships.

From this conception of complexity, implementation of and results from the PBC experiment can be explained, in part, as context-driven. The tuning of the intervention to ensure context relevance may dictate particular adjustments. Thus the implementation arrangement is likely to be different from what is expected. The main implication of this perspective is the need for a prospective study of the contextual factors that drive the implementation decisions and actions.

## **2.7 The Nature of Response to PBC: Strategic Options**

Some authors, using the economic rationale have advised against the need for micro-care approaches aimed at supporting implementers and learning about the mechanisms that external incentives elicit within provider organisations. For example, this “black box” and “hands-off” approach has been advocated as essential in Rwanda’s performance-based contracting experiment. Soeters et al wrote:

*“Respecting the autonomous management of the service providers is important to encourage [provider] entrepreneurial spirit. [...] this “black box” or “hands off” approach also requires changing the mindset among the central government civil servants and aid agency staff”* (Soeters, Habineza et al. 2006 pg 887).

Examination of the strategic response options available to the hospital and their potential implications are important for heeding the call by the USA’s influential Institution of Medicine (IOM) to ensure learning and adjusting of interventions to avoid unintended effects. Hospital responsiveness to PBC service volume targets would of necessity involve cost and revenue considerations. This section deals with *how* hospital performance and response to

PBC can be understood from a strategic management perspective using standard microeconomics of production.

To attain performance targets, the hospital has to increase the demand for its services. The capacity of the hospital to influence demand for health services can be understood from the barriers to utilisation (Ensor and San 1996). Provider-influenced barriers include user costs and quality of services. User costs may include user-charges, waiting time to receive treatment and travel costs. The provider can reduce clients' costs by reducing user-charges and bridging the physical distance to hospital (transport costs) by engaging in outreach service delivery programmes for portable services such as immunisation. Quality improvement generally includes availability of drugs, diagnostic processes and provider courtesy and technology. In the short-term, the hospital may respond to service targets under PBC by adjusting user costs and service quality.

There are economic implications for decisions to increase output or to attain higher service quality. Strategies to enhance quality i.e. increase drug availability are subject to a budget constraint just as decisions to reduce user fees are constrained by their implications for the revenue priorities of the hospital. These implications are illustrated in Annex 1 using relationships between output, revenue and costs (Ellis and McGuire 1986; Clewer and Perkins 1998; Parkin, Powell et al. 2000). The micro-economic considerations of revenue, cost and quality show that the possible strategies to adjust service charges, quality and reduce physical access barriers (through outreach options) may require more expenditures but could be justified if the performance bonuses are large enough to cover the marginal costs of these strategies. The underlying assumption is that the health providers have the capacity to cost out the additional activities and/or monitor the changes in the revenues to ensure rational economic decision making to pursue the PBC targets.

### **2.7.1 Hospital Objectives and Corporate Governance**

What an organisation seeks to maximise in its objective is critical to interpreting performance response to different incentives (van Montfort 1981; McGuire 1985; McPake 1996). As organisations, hospitals have different interest groups ranging from national Government as payers/purchaser, shareholders (if for profit), corporate boards, administrators, physicians, nurses, supplies and clients. These groups may have different objectives that may conflict. This implies that a hospital may not have a single unified objective but several objectives which vary depending on the circumstances and power relationships between the groups (Cyert and March 1963; Pauly and Redisch 1973; Ellis and McGuire 1986). Multiple objectives due to multiple stakeholders implies that the organisation attempts to "satisfice"<sup>1</sup> some objectives as opposed to maximising them (McGuire, 1985). The range of objective

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<sup>1</sup> Satisficing is an alternative to optimization for situations where there are multiple and competitive objectives in which one gives up the idea of obtaining a "best" solution but sets lower bounds for the various objectives that, if attained, will be "good enough" and then seeks a solution that will exceed these bounds.

functions or legitimate performance domains for hospitals in the predominantly USA and UK literature include:

- **Maximizing profit:** Models based on the cost/price constraints imposed on the hospitals show that doctors alter the bundled care in a manner that reduces costs to the hospital, increases doctors' own incomes and lowers service quality or intensity provided to the clients (Morrissey, Conrad et al. 1984; Ellis and McGuire 1986; Thorpe and Phelps 1990).
- **Optimising managers' on-job consumption or managerial perks:** Some literature show that health care managers use resources for personal status, comfort and power by seeking higher salaries, large number of subordinates and fringe benefits such as cars, and lavish offices (Newhouse 1970)
- **Optimising hospital status:** Lee et al urge that hospital managers especially in the private sector elevate hospital quality and market share by expanding the technology and attracting specialist services (Lee 1971). This might lead to underutilised capacity and unnecessary use of higher quality of inputs.
- **Quality maximisation:** Evidence especially from non-profit hospitals show that they re-invested any surplus (profit) back into the hospital such that higher quality is sustained. The implication here is that non-profit hospitals seek high price inputs resulting into inefficiency relative to for-profit hospitals (Newhouse 1970).
- **Labour- welfare maximization:** Evidence from NHS in the UK shows that among the objectives of hospitals is to increase incomes or working conditions of the employees. This was made possible by pursuing a budget surplus for re-investing in the employee welfare. The implication here is that the hospital will seek to increase the welfare benefits by keeping a small number of employees and invest in less labour-intensive technologies or low-cost labour substitutes such as non-tenured and unskilled workers (Bartlett and Le Grand 1994).
- **Supply-side and demand-side objectives:** Some studies have documented the existence of binary and competing objectives between the interests of managers and clinical departments respectively. Implication here is that hospital objectives are a balance between the two groups - *clinical staff* and *administrative departments* who face *inputs* constraints and *budget* constraints respectively (Harris 1977; Crilly and Le Grand 2004).
- **Optimising professional aspirations:** Among organisations with predominantly skilled health professionals, behaviours that attempt to seize control of the organisation decision making processes to meet the demands for professionals aspirations have been observed (Mintzberg 1981), Crilly and Le Grand 2004).

From a normative perspective, governance structures exist to ensure that firms behave to maximise set objectives and mitigate others. Understanding the objectives of the hospital stakeholders above provides a menu of choices the hospitals might take when subjected to PBC. The governance mechanisms to enforce the desired objectives is an important

contextual variables for performance-based contracts. In general, Boards of Governors (BOG) exercise these roles. The mechanisms available for the BOG to enforce desired objectives include recruitment discretion, setting pay levels and the basis for the pay, and can use the threat of dismissal of executives to ensure compliance to organisation objectives (Eldenburg, Hermalin et al. 2001; Ellstrand, Tihanyi et al. 2002). Studies have documented correlations between the composition and size of Governance Boards to differences in organisational performance (Eldenburg, Hermalin et al. 2001; Rhoades, Rechner et al. 2001). The relationship between BOGs and executives responsible for management roles is an important interface for performance management and use of incentives for improving performance (Young, Beekun et al. 1992; Alexander and Lee 2006).

## **2.8 Experiences of Performances-based Contracting**

Within a public system, the overall goal of performance-based contracting is to ensure that public funds are channelled in a way that provides incentives for improving the delivery of services to the intended recipients. This usually requires expansion of the supply capacity of agents in a way that ensures accountability for results (OECD 1999; Penelope and Murray 2002; Taylor 2003). Preliminary evidence is emerging in middle and low income countries about performance-based contracting in health sector management. Established literature on the subject is found in United Kingdom (UK) especially about the reforms in the National Health Services (NHS) and in United States of America – especially in managed care settings. These two sets of literature illustrate the potential benefits of PBC, the remaining challenges in using these approaches and the methodological constraints in measurement of performance and evaluating impact of PBC initiatives.

### **2.8.1 High Income Country Experiences**

Experiences in the NHS and USA are illustrative in a number of ways. For example, performance-based contracting is being used for improvements in service quality and outcomes in the USA where performance targets and outcome measures focus more on quality (Schneider, Riehl et al. 1999; Chapin and Fetter 2002; Shen 2003; WHO 2003; Epping-Jordan, Pruitt et al. 2005; Rosenthal, Frank et al. 2005; IOM 2006; Lu and Ma 2006; Petersen, Woodard et al. 2006).

In the UK's NHS, performance-based contracting has been particularly driven by cost reduction imperatives with performance targets being set for unit costs or relative costs along with other targets such as waiting-times (Le Grand 1998; Dawson, Goddard et al. 2001; Sheila, Cox Sir et al. 2005; Allen 2009). Empirical work on performance-based targets on waiting time and unit/average cost reduction have been documented in the UK during the NHS reforms (Dawson, Goddard et al. 2001; Jacobs and Dawson 2003). In the UK the performance targets were set as a means of improving the hospital efficiency and controlling the rate of budget growth. Hospitals with high unit costs were given higher targets i.e. 4

percent reduction in costs and those with lower unit costs were given targets of 0 – 2 percent (Dawson, Goddard et al. 2001). Performance of Trust Hospital was assessed by indicators such as the rate of return on capital employed, the number of patients, and the costs per case or cost per patient-day (Bartlett and Le Grand 1994). The strategies adopted by the hospitals to attain unit cost targets ranged from increasing outputs and seeking higher discounts from suppliers and cutting back on fulltime nursing staff – a phenomenon referred to as “outsourcing nursing services”.

These experiences indicate the promise of performance management that underlies the PBC approaches. More accountability between stakeholders was a major outcome. The response behaviours among the providers were both positive and negative to the reform objectives. For example, despite a strong institutional base in both the UK and US, performance measurement, indicators and information systems have been a major challenge for the performance-based contracting approaches (Sheila, Cox Sir et al. 2005). Transactional costs for running the system have been high (Marini and Street 2007). A similar sentiment was raised by Saltman in 2002:

*“as a result of the shift to a more entrepreneurial environment, both within the public sector and beyond, requires not only a similar level of state activity but substantially more sophisticated types and levels of activity. This requires better training and motivated personnel, better information and greater financial and accounting expertise, All of these in turn requires considerable funding.” page 1682)*

Studies that tried to understand the response mechanisms to performance incentives cast some doubt about the systematic and sustained responses among providers. For example Jacobs and Dawson noted:

*“It was apparent from interviews that the term ‘strategy’ to describe ways of meeting efficiency targets was clearly a misnomer. ..While there was strategic planning in Trusts, the evidence suggested that most time and effort is devoted to the very short-term problems of trying to stay within budget and meet activity and waiting time targets” (Jacobs and Dawson 2003 pg 677).*

After more than a decade of experimenting with the performance-based contracting framework in the NHS and USA health care systems, performance indicators, measurement tools and institutional arrangements were still undergoing design by 2005 (Dawson, Gravelle et al. 2005; Sheila, Cox Sir et al. 2005; IOM 2006; IOM 2006-a). The costs of implementing a more robust performance verification and evaluation systems were becoming a concern as well as the emergence of unintended effects (Smith 1995; Marshall, Shekelle et al. 2003). In their report entitled “Performance Indicator: Good, Bad and Ugly” the UK’s Inquiry Commission on Performance Monitoring cautioned against costs and behaviour effects that had started to emerge in response to the performance frameworks:

*“Inspirational targets have a distinctive role but one which is largely irrelevant to the design of the PM (performance management) procedures. Motivational targets which are not*

*rationally based may demoralise and distort. Anticipated and actual side-effects of PM, including on individuals' behaviour and priorities, may need to be monitored as an intrinsic part of PM process"*(Sheila, Cox Sir et al. 2005)

In the United States, the experience with performance-based payments is over 15 years especially under Managed Care interventions. However, the policy framework for pay-for-performance approach is as recently as 2006 and as captured by the Institute of Medicine report of 2006, there are still major challenges for performance-based approaches within the US health system:

*"Pay-for-performance programmes should be implemented within a learning system that has capacity to monitor and assess early experiences, adjust for unintended consequences and evaluate impact"*(IOM 2006-a).

### **2.8.2 Low income country experiences**

Experiences from low income countries are more recent – i.e. in the last 10 years. Experiences in Haiti, Guatemala, Cambodia, Afghanistan and Rwanda are indicative of the potential and challenge of performance-based contracting in low income country settings (Eichler, Auxila et al. 2001; La Forgia, Mintz et al. 2005; Loevinsohn and Harding 2005; Meessen, Musango et al. 2006; Soeters, Habineza et al. 2006). The experiences, especially in Haiti are relevant to Uganda's assessment given the similar design features (Talyor 2003). Due to the differences in the measures used and the incentive designs in these studies it is difficult to compare all PBC schemes. Among the key features shared by most of these experiences is that they have been driven by external (donor) resources and heavily dependent on external technical assistance. Most are started as demonstration pilots (experiment) in situations that have marked shortages of resource for health care provision and contexts emerging from marked destruction of the health system. This probably explains why most are designed to target non-state health providers. Despite these similarities, there are differences in how the performance incentives are structured, how performance is measured and the magnitude of contract effectiveness. The methods of evaluating effectiveness are themselves subject to methodological weakness which makes the effectiveness of these initiatives unclear for policy replication (Eldridge, Palmer 2009). These issues are briefly discussed below.

1. **Designs of Performance Incentives:** In Haiti, nongovernmental primary care providers were made to earn up to 5% of their withheld budget and 5% bonus on achieving negotiated targets for childhood immunisations, prenatal and maternal care and in health promotion. Both bonus and basic payments were tied to performance in Rwanda with 40% of staff earnings coming from performance contracts. In Cambodia, the bonus was used for staff but the (NGO) district managers' salaries were totally part of the contract. The entire cost of the pilot (Cambodia) was not clear but the management contract and bonuses were paid out of \$1.5 million World Bank loan. In Haiti, the bonuses were paid

to the provider organisation. In Cambodia and Rwanda the internal contracts were made between the managers and each staff member in the organisation as a means of communicating the performance requirements of the schemes. For example, the contract in Cambodia indicated that job absenteeism was punishable with reduced share of the bonus. However, as illustrated by the Haitian pilot, bonuses were awarded to all participating NGOs including the ones that missed most of the targets. This reflects the “lock-in” problem whereby the incentive-based approach failed to punish poor performance (Eichler, Auxila et al. 2001). These problems of lock-in illustrate the “small numbers” bargaining and asset specificity, that result into a relational contractual relationship. Punishments (withholding of incentives) are replaced by mutual adjustments whereby the need to support the NGOs to do better becomes more important than to switch-off essential resources (Williamson 1985). Of particular interest in Haiti is that some NGOs tried to transmit the risk of PBC to their staff by reverting to performance-based salary payments. However, lower staff morale and less worker performance was observed as a result of the uncertain wage incomes. The NGO managers, while satisfied with the high-powered incentives by which they were paid, found it unsuitable to pay frontline providers in a similar way (Penelope and Murray 2002; Loevinsohn and Harding 2005). Also displayed in the Haiti case is the potential for perverse incentives arising from the use of prior performance as the basis for negotiating future target levels. Best performing NGOs in the first year exposed themselves to steeper targets, while those that under-performed stood a better chance of netting a bonus with smaller improvement in the subsequent year. In Rwanda, the incentives were designed to avoid this problem of “always push the carrot further ahead”. Performance targets based on annual increment of throughput volumes with the prior year as the benchmark (as the case in Uganda) punishes those that are operating at the maximum of their production frontier. It is not rational to assume that providers have inexhaustible capacity for indefinite expansion of productivity. This problem does illustrate the short-term nature of motivation arising from designs of incentive contract similar to Haiti pilots. On balance, the designs similar to the Haiti example were bound to cause dissatisfaction in the long-term.

2. **Measuring performance:** Performance indicators in most cases only covered primary care services such as child immunisations, use of oral rehydration therapy (ORT), maternal delivery, client satisfaction (waiting time) and general health centre visits. Some contracts had management process indicators such as attendance of coordination or management meetings. Due to their measurement and organisational complexity, hospitals were explicitly excluded in the pilots in Rwanda and Haiti. The capacity to sustain the performance monitoring system was questionable. For example the cost of monitoring activities was about \$1 per capita, or 5 percent of per capita health spending in Haiti at the time (Eichler, Auxila et al. 2001). In Rwanda the performance verification costs were 11 percent of the project cost in two small districts. In all cases, a third party

was contracted to verify performance through household surveys and/or random household checks among clients that received a service. Service records were directly used to impute performance in all cases although in Haiti, 50 percent of the bonus was based on household survey data. This reflects the need to balance the information sources for performance audit – given the vulnerability of the service records to opportunistic distortion by providers. Measurement problems were prominent in the Haiti case and serve to illustrate the difficulty of the performance framework especially in resource-poor settings. Where indicators reflected poor performance for all agencies or were difficult to interpret, the bonus attributed to the indicators was given to all NGOs (Eichler, Auxila et al. 2001). WHO cluster survey methodology was used for verification of performance for immunisation coverage. The surveys required specialists and sophisticated analytical methods which only one institution in Haiti could provide. Policy adoption of the Haiti model would require annual surveys covering the entire country and outsourcing survey activities from outside of Haiti would be necessary. Little is published about the time lag it took from survey activities to providing performance feedback (findings) and paying the bonuses. In general, large surveys take a long time to produce results upon which bonus payment would be based. In Rwanda, and in the redesigned Haiti model, performance verification was based on routine self-reported performance data by the health centres with random audit of these reports (Eichler, Levine et al. 2009). Threats of censor were communicated in the contract to avoid data manipulation. For instance, random verification of health centre data was performed by visiting households listed in health centre records by a third party. It is not clear how effective such random threats are in mitigating data manipulation by the providers.

3. **Institutional arrangements:** Temporary institutional arrangements that do not assure capacity for sustaining the innovations beyond the pilot projects are a common feature in the literature. In Rwanda, Haiti and Cambodia, foreign NGOs were performing the institutional roles such as contract design, service purchasing and in some cases, district health management functions. The foreign NGOs were initially attracted by the resources made available by the World Bank loans or bilateral grants which had time limits of 3-5 years. For the pilot in Rwanda, institution building was considered inevitable to ensure that the performance incentives operate within restructured institutional, organisational and management arrangements. For example decision-making was democratised by setting up and obligating an inclusive approach to organisational decision making. A “health centre management committee” was created as a structure to oversee the performance of the health centre and the schemes (Meessen, Musango et al. 2006). Incentives were also given for the upstream functions for example supervising organisations were supported to improve the support provided to the health centres implementing PBC. Nonetheless, other experimenters with PBC in Rwanda preferred a “hands off” approach and did not invest in institutional strengthening activities (Soeters,



Habineza et al. 2006). A similar “hands-off” approach is promoted by the Performance-based Incentives Working Group (PbIWG) as one of the benefits of performance incentives (Eichler, Levine et al. 2009 page 20). The interventions that create a package of incentives for both down-stream facilities to perform and for up-stream institutions to function and provide the needed support are in part responsible for the successful national scale-up of the PBC pilots in Rwanda and Guatemala. As expressed below, the Guatemala case shows that incremental but purposeful institutional developments up-stream were central to sustainable implementation and scaling-up of performance contracting:

*“In addition to forging the “downstream” infrastructure related to NGO selection, contractual design, payment mechanisms and information and monitoring systems, the Guatemalans had to develop the “upstream” institutional infrastructure to support service purchasing, including the policy framework, regulatory environment, consensus-building strategies, financial structures and processes and auditing systems”*(La Forgia, Mintz et al. 2005 pg 11).

4. **Contract effectiveness:** Over a period of two and half years the contracting pilot in Cambodia achieved a marked improvement in service utilisation (21% difference) compared to control districts (Jacobs and Price 2003; Soeters and Griffiths 2003; Loevinsohn and Harding 2005). Among the unique features of the Cambodia example is that it also tested internal contracting within the public health facilities where the incentive was bonus payment in addition to their operational budgets. In addition, the management contract involved the entire district health system with population-level outcome targets used as the performance measures. In Haiti immunisation increased by 24 percent and attended deliveries by 27 percent due to performance-based incentives in regions served by NGOs paid on the basis of results (Penelope and Murray 2002). In Afghanistan, an increase in the proportion of pregnant women receiving at least one antenatal care visit increased from 19% to 58% and attended deliveries increased from 4% to 13% in one year in provinces covering 3.5 million people. In Rwanda, performance contracting is claimed to have increased the OPD visits (utilisation) by 80 percent on the average. Attended deliveries increased by 12%-23% in provinces with performance-based funding in comparison with 6-9 percent in provinces without (Meessen, Kashala et al. 2007). In Guatemala, management contract with performance-based payment in rural districts performed better – average 11 percent points better than districts without contracts (La Forgia, Mintz et al. 2005).
5. **Attribution of effectiveness:** Like in the Cambodia case, the experimentation design was initially meant to be a randomised controlled trial. However the descriptions of the implementation of the pilots shows that several adjustments were made especially in the intervention arm, making it difficult to attribute the changes purely to performance-based contracting. For example, higher extra budgets (\$4 per capita) were allocated to the

experimental districts where management contracts were awarded. This is in contrast to control districts which operated with less – i.e. \$0.25 per capita and did not have comparable management capacity from experienced international NGOs. Variable attempts were made to improve health workers' satisfaction through financial and non financial means in the experimental group. For instance, user fees were introduced and revenues used to provide additional staff benefits. Internal to the provider organisations, health workers were made responsible for revenue collection and sharing of proceeds - implying additional organisational climate interventions among the experimental group. Indeed the introduced user-fee scheme and salary top-up to the workers were responsible for over 80 percent of the employee total earnings (Soeters and Griffiths 2003). This reduced informal fees and dual practice. In Haiti, Eichler et al (2009) state that “more funding” was a critical “compromise” to the participation of NGOs in the performance-based scheme (page 167). In Rwanda, the contracting experience was undertaken together with a shift from out-of-pocket payment to third-party (insurance) payment that removed the cost barrier to seeking care (Meessen, Kashala et al. 2007). These supplementary interventions i.e. more financing, better salaries, third-party payments and organisational restructuring coupled with performance-based contracting are by themselves powerful and independent determinants of provider performance thus confounding any direct attribution of effectiveness to contracting initiatives or the sub-components thereof (Rusa, Schneidman et al. 2009). In addition, most of these countries were emerging from conflicts that had destroyed the health provision systems – a situation that makes improvement in health service utilisation a normal phenomenon as the systems get re-established. In both Haiti and Rwanda, initial enrolment into the pilots was based on a criterion for good performance. Despite these different determinants of performance improvement (i.e. consumption of health services), authors generally make implicit or explicit simplifying assumptions to attribute performance changes to PBC. For example, Meessen and Kashala et al (2007) states that :

*“... all the changes observed in the production of health centres stem from changes in the contracts” (page 110).*

Some experimenters have authored policy prescriptions (Loevinsohn and Harding 2005; Soeters, Habineza et al. 2006; Meessen, Kashala et al. 2007) without taking cognisance of the weakness in the evidence arising from problematic designs, unique contexts and implementation adjustments. This problem has been highlighted by Galvin: “ .. *the methodology used in these evaluations along with the overwhelming preponderance of positive results, makes it difficult to distinguish proven findings from enthusiasm and marketing*”(Galvin 2006 pg 126).

Among the concerns raised about the weak evidence base for PBC schemes are related to complex design with many sub-components, experiments with weak control groups, weak designs, and the high costs of schemes relative to the small effects of these schemes(Eichler,

Levine et al. 2009; Eldridge and Palmer 2009). Other concerns relate to the relevance of the PBC policy transfer to fragile health systems.

Most of these studies take a strict “black box” rationale i.e. that performance would follow from the health facilities if performance-based bonuses or compensation is to be received. Other than describing changes in staff salaries, none of these studies have examined the mechanisms of *how* provider institutions internally responded to performance contracts and what internal adjustments, if any, were made to account for the performance improvements. For some authors, the need to understand how provider facilities adjust is dismissed outright as micro-management that should not interfere with providers’ capacity to innovate and attain performance. This attitude seems to promote the concept that “performance outputs justify the means” and within it lies the problem of pervasive short-cuts and displacements of other essential processes and outputs of health care as has been documented by several authors (Goddard, Mannion et al. 2000; Teleki, Damberg et al. 2006; Allen 2009).

## **2.9 State of Knowledge about PBC**

From the review above, several issues emerge regarding the mechanisms of incentives in driving performance improvements, implementation approaches and behavioural responses of organisations and individual workers to such incentives. These are summarised below:

1. Although Agency theory provides the rationale for performance incentives, there are equally challenging prospects for operationalising incentives into health care programmes. Most challenges arise as incentives ignite unintended effects such as distortions of information and disease profiles or modifying the value set of the workforce. To address these problems, operational research to track the intended and unintended effects has been recommended.
2. Although Agency theory helps to provide explanations as to why performance incentives might work, processes based theories have been most useful in building explanations on how incentives might elicit changes in behaviors. Processes theories like Expectancy theory have found wide applications in building explanations about how organisational-level incentives can be implemented to motivate individual-level efforts to achieve organisational objectives.
3. Theories of motivation provide more proximal explanations about how individuals or hospital workers sustain external and internal motivation and build a psychological contract to their tasks and host organisations. From this perspective, a package of incentives that provide ongoing job satisfaction and motivation for advancement, job security and fair governance and leadership are essential variables.
4. From the experiences of applying performance-based contracting in developed and developing countries, the operational challenges are many despite an expanded application in both country contexts. Setting measurable performance objectives and establishing optimal capacity to measure performance remain some of the major challenges.

5. Although several PBC pilots have been implemented and claimed successful, the institutional development required to support the scale-up of such pilots has attracted contestations in the literature. Some authors recommend a “hands-off” approach while others invest in expensive and foreign technical assistance to play the institutional roles such as designing, implementing, monitoring and evaluating the PBC schemes. In Rwanda and Guatemala where governance institutions like health facility committees and district managers were empowered to support PBC, national level scale-up has happened faster than in Haiti where the institutional functions have remained part of foreign technical assistance. From this perspective, upstream interventions to strengthen health system governance may need to be part of the package to make PBC more feasible for policy actions.
6. Although the literature about effectiveness of PBC schemes is expanding, the claims of effectiveness have not been matched with methodological rigor and attention to health system contexts. The attribution of changes in performance has been entangled with the complexity of additional interventions that accompany PBC schemes. Most evaluations have not provided the causal pathways through which PBC leads to changes in performance at either individual or organisational level.
7. From the implementation sciences perspective, the literature such as Complexity Theory and Dynamic Actions Theory suggest that implementation is non-linear and involve adjustments and adaptations to the historical precedents, contextual realities, and new information generated during actual implementation. Authors from this perspective recommend a more processes-oriented evaluation that tracks actions, challenges and adaptations during implementation of programmes like PBC. Process evaluations embedded within the implementation are favored to generate evidence in real-time and have feedback loops to guide the decisions for adaptations and adjustments.
8. Most PBC schemes especially in the developing countries have been designed for relatively simple health conditions like child immunisation, oral rehydration therapy, antenatal care, and maternal deliveries. Although improvements in performance among hospitals represent high efficiency gain in most health systems in the developing countries, most PBC schemes have excluded hospitals on the basis of being more complex with multiple performance objectives and multiple stakeholders.

## Chapter 3 Study Objectives and Methods

### 3.0 Introduction

An implication of the above literature review is that there is need to examine the processes that get triggered due to performance-based contracting. At a policy level, the question of 1) why should hospitals respond is important. At the hospital level, the question of 2) the how do the response actions lead to performance improvements and 3) how does the existence of PBC pilot affect the job satisfaction of hospital workforce – are critical for policy uptake, implementation planning and monitoring (Pawson and Tilley 2004; Dobrow, Goel et al. 2006; May 2006).

### 3.1 Conceptual Framework

Performance-based contracting as premised on agency theory explains why the principal (e.g. MOH) and the agents (PNFP hospitals) seek a contractual partnership to provide health care services. In the contractual relationship, MOH provides the PNFP hospitals subsidies and tax exemptions and the hospitals in turn provide health care services for the clients. In this relationship the principal has objectives she seeks to maximise. They may be related to the type of services e.g. essential health services or a subset of these services as in the case of six targets in Uganda's PBC pilot. On the side of the agents, the PNFP objectives may or may not be related to the MOH objectives. For example, availability of budget surplus among a number of the PNFP hospitals in Uganda may attest to the possibility of a profit objective (Reinikka and Svensson 2003). Although many hospitals do not make a surplus from the client charges, they receive government subsidies, charitable donations and tax exemptions on the basis of a social objective of serving the poor and underprivileged (Green 1987; Good 1991; Hanson, Atuyambe et al. 2002; Ssengooba, Atuyambe et al. 2002). As central to the agency problem, MOH has limited information about the magnitude of input resources and efficiency with which these resources are used in the PNFP sector. The implication of this agency problem is captured in Newhouse's (1970) reference to US non-profit hospitals:

*"Private philanthropy ... permits [non profit] hospitals some deviation from the minimum average costs than a hypothetical profit-making one, and yet be able to charge a price equal to or below that of a private firm. The difference in costs would simply be made up by the subsidy"* (page 66).

In a situation of limited information and a desire to optimise service provision, agency theory suggests that MOH should structure incentives to ensure that her set of objectives are met. The recourse to PBC could be understood as a lever to drive hospital provision to a higher level of production/performance. In the context of poor information on the internal cost structure and efficiency level of the PNFP hospitals, the performance bonus (11 percent of government subsidy) does represent both a minimum profit (incentive) to the hospital that the





pilot's key contributions to the hospital performance are related to the, performance audit, feedback and bonus payments – all predicted to influence the hospital's strategies to improve service outputs. The PBC pilot is not the only intervention that is working to improve hospital performance. Other down-stream interventions (on the right side) such as Yellow Star, performance league (rankings) and UCMB are key interventions that influence the service outputs targeted by the PBC pilot.

From the literature reviewed, the question of why hospitals should response to PBC and how the response will be elicited has highlighted a broad range of determinants and their potential relationships. These are summaries below.

### **3.2 Will Hospitals Respond?**

The hospital as an organisation may or may not respond to the PBC. The agency framework and model of revenue and costs of production (Annex 1) predict that the agent would respond if the contract provides sufficient revenue to meet their reservation utility or cover the marginal costs of producing more services - in other words, if the size of the bonus is worth the effort. If the risk (marginal costs of effort) of performance targets is judged to be worth the bonus amount, economic rationality would commit the hospital to PBC.

Organisation-based theories suggest alternative approaches to the question. Since organisations are not single-minded, and may not have capacity to assess and monitor their reservation utility or marginal costs, the approach to organisational rewards and worker commitment to productivity is embedded in the environmental factors within the organisation and not limited to money (bonus). Organisational governance, such as rules and aspirations of the different constituencies, influences the psychological contract, strategic decision-making and goal transmission within the organisation. The perceptions of health workers towards their organisation, leaders and leadership style may affect motivation and performance. In particular, the degree of information sharing, consultation or participatory decision-making among managers and professional staff may influence the choice of selected performance innovations, psychological contract/commitment to PBC and other organisational objectives. Governance relationships among stakeholders i.e. the hospital Boards, core managers and professional staff would provide an environmental context that may facilitate or hinder the capacity of the hospitals to respond to PBC.

Thus, unlike economic theory that assumes incentivising agents with money-metric incentives to achieve better performance; organisational theories suggest that organisational objectives can be manipulated by a package of process-based interventions that motivate people's productivity and job commitment at the same time providing a satisfactory work environment. In this respect, cultural engineering (clan control) suggested by Ouchi (1980) –

i.e. the specification of behavioural norms, procedures and processes, provide alternative control mechanism for organisational performance that is distinct from money-metric incentives.

Expectancy theory also provides process-based conditions that the pilot implementation project must fulfil if hospitals are to respond. For example, communication that links the hospitals' effort to the accomplishment of the service target is essential but not sufficient. Additional communication requires that the measurements of outcomes will be fair, relevant and unambiguous. Institutional arrangements such as rules and structures for bonus allocation need to inspire trust that the pilot will "stay-the-course" and "measure-up to the bargain". In this respect, hospitals may choose response behaviours (innovations) that are tailored to the perceived stability/transience of the pilot or its chance of adoption at the national level. For example short-term and low-cost innovations may be chosen in light of uncertainty of the pilot outcome. As predicted from agency and expectancy perspectives, the size of the bonus relative to hospitals' effort and needs is an important factor in the response strategy.

### ***3.3 How Will Hospitals Respond?***

By the definition implied in the specification of PBC service targets, hospital response entails increasing output in those selected services. From the economics perspective of hospital production, the nature of response predicted depends on its objective function, input resource costs and revenue constraints (Annex 1). The bonus (if sufficient to cover the marginal or average costs) is predicted to enable a response strategy of reducing client fees. In addition, a hospital can lower average costs on input resources to achieve higher output levels. This strategy would reduce quality and thus be subject to quality elasticity of demand. Lowering average costs could be achieved by using low-cost substitutes such as less drugs per client, generic medical supplies, or low-skill personnel such as assistant nurses and trainees. Strategies that increase average costs by either boosting service quality or adopting outreach-based provision are predicted to succeed with much higher additional revenue (or bonus) relative to additional costs. Given the concentration of PBC targets on simpler outpatient services as opposed to inpatient services, the hospital could respond by shifting resources internally to reorganise workload and average costs in the relevant departments concerned with accomplishing performance targets. In this respect, hospital response to performance targets may subtract from the non-target services (internal displacement). At the level of the staff, agency theory predicts that the incentives to staff have to be high-powered enough to motivate them to take on more workload or provide high quality. From this perspective the hospitals would need to pay the bonus proceeds to the departments and individuals that are directly related to the success of service targets.



If the bonuses are sufficiently large, the high-powered incentives thus created are predicted to cause opportunistic response behaviours that could lead to distorting performance information. Manipulation of performance data could be a possible strategy to meet performance targets since the performance records are in the control of the agents whose performance they reflect. For example, distortion of data in the UK hospitals was a feature during the transition to the performance framework (Goddard, Mannion et al. 2000; Hargreaves 2003).

Ideally, the design of the performance-based payment schemes in hospitals in Uganda needs to ensure that:

1. Both volume and quality dimension of outputs/effects are integrated in measures of output,
2. Performance targets are fairly comprehensive not to relegate some essential services to under investments of effort by agents, and
3. Performance evaluation needs to cut across a wide range of mandated tasks to allow for the understanding of the displaced activities.

Organisational-process perspectives relating to how the hospital would respond to PBC are rather complex to predict *ex ante*. Insights from process-based theories of motivation shed light on key variables. In general the external incentives need to empower the intrinsic contract for the worker, teams and the organisation as a whole to mobilise their efforts to accomplish targets. From the perspective of a psychological contract, incentives need to be comprehensive to empower cognitive beliefs that the employee-employer relations reduce dissatisfaction as well as enhance employee motivation. The incentive package needs to address the organisational environment by paying attention to input resources, human resource practices such as supervision, job security, teamwork and corporative work culture; and a sense of equity in effort and reward systems. Others include customs, norms and leadership style. From this perspective the bonuses would do well to motivate the hospital staff if the allocation decisions improve the work environments, avoid inequities and thus enhance satisfaction. Unlike agency theory that predicts high-powered incentives to a few staff, organisational process theories predict low-powered, equity/equality-based and indirect incentives for productivity centred around broad employee welfare and work environment.

However, the contingency of events, organisational circumstances and learning from prior actions and decisions during pilot implementation suggest that hospital response is not a one-off phenomenon but an iterative and complex process. As noted by Jacobs and Dawson (2003) while examining the strategies by hospitals to meet targets for cost saving and waiting time; “the issue of strategy was a misnomer”. Instead ad hoc “fire-fighting arrangements” varied according to circumstances of the hospital from year to year (Jacobs and Dawson 2003 page 682). Process-based theories for implementation show that the de-jury and the de-facto perspectives often differ markedly. Similarly, complexity theory predicts that processes are partly determined by the need to evolve and adapt to realities in the context.

The dynamics within the pilot implementation project may themselves determine the effectiveness of responses among hospitals to PBC. If the pilot implementation is effective, hospital responses will need to traverse the remits of organisational governance to ensure appropriate performance management within the hospitals. For example, the processes of decision making on bonus allocation and choice of strategies for performance innovations need strong communication, support supervision and resourcing. If the governance interface is effectively mobilised, the real performance engine of hospitals lies in motivating the individuals and teams in the work units (departments). Available staff numbers, skill mix, workload, customer care and diligence practices on performance-surveillance are all important variables that affect performance on the hospital floor.

### **3.4 Study Propositions: Competing Paradigms**

The study propositions are used as theoretical guides for the building explanations of the observed response to PBC as either economic-based or organisational process-based motivations (or a combination). In this regard, propositions are not hypotheses to be tested in this study but serve as guiding framework for investigation and interpretation of findings, and framing the policy implications thereof. Each strand of theory offers a proposition:

**Proposition 1:** Agency-based theories will be sufficient to explain the observed response of the hospitals to PBC. The response behaviour will exhibit the following:

- Economic interests of the stakeholders will shape the agency relationships and determine the type and size of performance response to PBC.
- The hospital response behaviours to PBC will be sufficiently explained by the size of the bonus, i.e. higher performance will arise if larger bonuses are promised.
- High-powered, money-metric approaches will be used to allocate the bonuses to “motivate” those directly involved with the service targets, i.e. direct link between bonus benefits and persons or work-units responsible for targets.
- Measurement of performance will be restricted to defined output targets and use audit like methods.

**Proposition 2:** The theoretical framework of organisational processes will be sufficient to explain the response actions of the hospitals to PBC. The response behaviours will exhibit the following:

- Satisfactory organisational climate such as welfare, resources availability, supportiveness, participatory decision-making will determine the response actions to PBC targets.
- The responses to PBC will be best explained by the experiences from the implementation processes and less from the bonus size.
- The use of the performance bonuses will be guided by enhancing staff welfare satisfaction.

- Equity principle among staff will be used to allocate performance bonuses, thus delinking performance of individuals and work units from bonus benefits (low powered incentives).
- The behaviour of the hospital staff will be important in performance measurement.
- Performance measurement will be broad and encompass metering of behaviours and processes of production.

### **3.5 Study Questions, Aims and Objectives**

The general objective is to learn from the pilot implementation activities, mechanisms and contexts that underlay successful or none successful hospital performance improvements. Two alternative theoretical frameworks of agency and organisational process are used to arrive at policy and practice recommendations.

#### **3.5.1 Study Questions**

1. Were hospitals responding to PBC?
  - 1.1 What are hospital stakeholders' performance objectives?
  - 1.2 How do governance mechanisms relate to PBC service targets?
  - 1.3 How effective is the implementation of PBC pilot among hospitals?
  - 1.4 What strategies are adopted to attain performance targets and how do these change over time?
2. What effects does the pilot PBC have on the hospital performance?
  - 2.1 How are the bonuses used and how does this affect performance?
  - 2.2 What changes in job perceptions arise among staff in response to PBC?

#### **3.5.2 Research objectives**

During the 18 months of PBC pilot implementation in Uganda from January 2005 to June 2006, the study objectives were:

1. To assess upstream performance-management, support systems and influences on PBC performance;
2. To analyse the governance mechanisms between BOG and hospital managers for PBC performance;
3. To evaluate PBC pilot implementation arrangements and their effectiveness among two case study hospitals;
4. To analyse the strategies adopted by two case-study hospitals to attain PBC targets and processes for the allocation of bonus funds
5. To compare changes in job satisfaction and performance among hospital staff participating and not participating in the PBC pilot

### **3.6 Methods and Study Design**

This research employed a mixed methods approach within a case study design to explicate the operational mechanisms about how PBC implementation triggers improved performance of hospitals. The unit of analysis in the study was the response of the hospital to performance-based contracts. Perceptions, behaviours, practices and decision processes were the basis for assessing the response. The analysis sub-units embedded in the case study included the interaction between hospital actors i.e. Board of Governors, managers and clinical staff in relation to prerequisites for hospital performance improvement. These relationships i.e. nature of strategic control (governance) by Boards, and performance surveillance, feedback mechanisms and technical assistance provided by the PBC pilot implementation team shed light on the mechanisms that PBC might elicit and provide the causal pathways to explain PBC response to PBC pilot. The propositions 1 and 2 (section 3.4) were used as alternative theoretical frameworks for building explanations of the observed response patterns. Several considerations outlined below provide the rationale for both case study design and mixed methods used in this study. Table 3.1 provides the summary of the methods used in this study.

#### **3.6.1 Case Study Approach**

The case study methodology was considered suitable for addressing the study objectives. These study objectives seek to understand a social phenomenon “system reaction to PBC” at an organic entity “the hospital” that can be referred to as a social system (Flynn 1992). Indeed the hospital has a number of actors, a culture for interactions, rules and professional and personal interpretation of experience (Handy 1993). As such, when the hospital system is subjected to the PBC as a structural intervention, the experience and interpretation of the actors provided the basis for understanding the impact that PBC had on the performance of hospitals. The strength of the case study methodology is the depth of study it enables for the phenomenon to be better understood.

Yin’s definition of a case study illustrates its appropriateness to the study questions and the nature of this study as described above:

*“The case study is an empirical enquiry that: Investigates a contemporary phenomenon within its real life context; when-the boundaries between phenomenon and context are not clearly evident, and in which multiple sources of evidence are used.” (Yin 2003 page 13)*

As (Burgess 1984) notes, prominence (in a case study) is given to understanding the actions of participants on the basis of their active experience of the world and the ways in which their actions arise from and reflect back on experience.

*“Thus within this approach the researched are not seen as objects with the given properties – attitudes, norms, behavioural characteristics – which can be readily measured given due care, but as actors whose own frame of reference needs detailed understanding before their*

*actions can be adequately interpreted and explained. Lewis (1980) referred to these methods as “inquiry from the inside rather than inquiry from the outside” (Bryman 1989 page 50)*

The case study also depends on the careful selection of the object for the study as a way to make broader generalization from very small cases studied. The ex ante “representativeness” of the study object at the selection phase is in sharp contrast to the statistical methods that use an ex post approach (Hamel, Dufour et al. 1993). As quoted in Hamel 1993, “the case study is an induction approach: Details about the object of the study are considered in the light of the context ... to explain the social with the social” (pg 41).

According to (Yin 2003), case studies are considered to have advantage over other methods where:

- “why” or “how” (explanatory and exploratory) questions are being posed in the research study
- ongoing policy implementation is being studied empirically
- it is not feasible to have control over the study events
- causal links are complex due to numerous variables
- contextual factors are of relevance to the study questions

Thus the focus on contemporary phenomena such as PBC in real life settings (PNFP hospitals) – allows an investigation to retain the holistic and meaningful characteristics of real-life events.

### **3.6.2 Case Study Limitations**

Among the limitations of the case-study approach is the issue of generalizebility, validity and a potential for subjective bias. On generalization, Mitchell 1983 urges that case studies cannot use statistical inference as the basis for generalization but use logical or theoretical links between them. The practical consequence for extrapolation from case studies is that generalization depends upon the adequacy of the underlying theory and related knowledge, and needs to be qualified by the relevant contextual condition:

*“.. the inference about the logical relationship between the two characteristics is not based upon the representativeness of the sample and therefore upon its typicality, but rather upon the plausibility or upon the logicity of the nexus between the two characteristics” (1983: 198).*

Others like Seale (2000) take a view that transferability of qualitative inquiry hinges on the “thick” description of the contextual to allow informed transferability:

*“whether (the) working hypothesis hold in some other context, or even in the same context at some other time, is an empirical issue, the resolution of which depends upon the degree of*

*similarity between sending and receiving (or earlier and later) contexts. Thus the naturalist (analyst) can not specify the external validity of an inquiry; he or she can provide only the thick description necessary to enable someone interested in making a transfer to reach a conclusion about whether the transfer can be contemplated as a possibility” (Seale 2000) pg 107).*

On the issues of bias, the study object (if not well selected), the researcher’s and the informant’s interpretations can introduced bias. Seale posits that field research potentially follows a convenience, snowballing or volunteer sampling according to conscious or unconscious opportunistic criteria, or researcher characteristic e.g. age, gender, ethnic and culturally ascribed access to information. According to (Hamel, Dufour et al. 1993; Seale 2000; Yin 2003; Highhouse 2007), comparative methods could be used in this situation, not for demonstrating proof, but to construct analytical categories free from value judgment and from the categories used by informants for practical purposes. Triangulation is therefore used to corroborate findings by using more than one method and to some extent overcome bias in any one method.

### **3.6.3 Selection Criteria for Case Study Hospitals**

As explained below, only two case study hospitals were selected for in-depth study on PBC pilot. The selection of these case study hospital(s) was guided by the discussion above about seeking validity of and generalizability in the case study approach ie:

- A qualitative logic for selection of cases for the study. The qualitative logic here refers to “one or more selected examples of a social phenomenon” (Hakim 1987, 61).
- Selection of an event or series of related events which exhibit the operation of some identified theoretical principle (Mitchell, 1983: 192)
- Case(s) should pose greater explanatory power for analytical generalization of an adequate underlying theory.
- Case that allow a thick description of the context i.e. where a degree of complexity is allowed to approximate real life conditions.
- Where comparative learning is vital, selection of events that optimizing the contrasts and contributes to broader explanatory power or broaden the theory (Yin 2003).

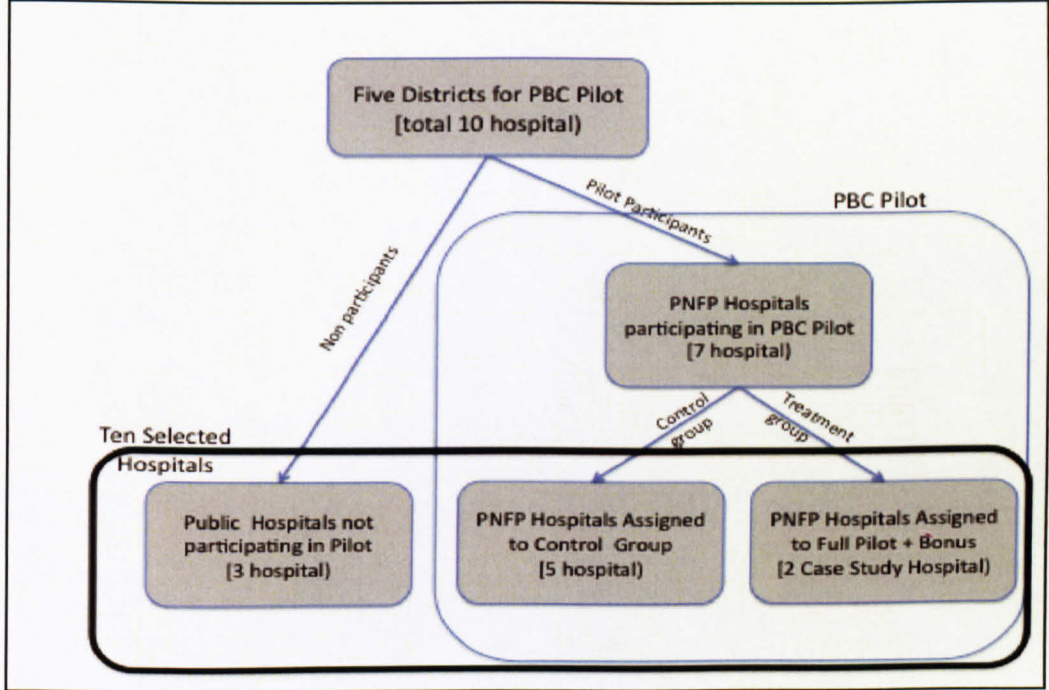
Although the MOH PBC study covered most PNFP health facilities in five (out of 56) districts that were selected using a regionally stratified random approach, the study questions in this research were best addressed at hospital-level as opposed to smaller facilities. The major reasons for seeking to study the effect of the PBC at hospital-level was that hospitals represented complex organisations and findings from these hospitals would engender greater theoretical and operational generalization to guide policy and practice for performance-based contracting in contexts similar to Uganda’s health system. Likewise, hospitals, as opposed to smaller health centres, have several organisational structures such as board of trustees, managers, and diverse mix (cadres) of workforce that are essential for the exploration of the theoretical propositions and conceptual framework for this study.

In addition, hospitals represent higher costs of resource inputs (finance, personnel and technology) in the health system. The social benefits accruing from improved performance of hospitals may therefore be of higher importance to policy. PBC pilot was promoted by the Ugandan MOH as a basis to improve value-for-money and access to the minimum health care package for the poor and most vulnerable(MoH 2003a).

### 3.6.4 Selection of Study Hospitals

Although seven hospitals participated in the PBC pilot, only two PNFP hospitals were assigned to a full range of PBC intervention (Group B see table 1.1 page 16). These two hospitals were purposively selected as the in-depth case-study for objectives 3 and 4. The assumption made here was that - if it were to become policy, PBC would be implemented and experienced in a manner similar to that observed in these two case study hospitals (see figure 3.2).

**Figure 3.2 Purposive Hospital Sample Driven By Pbc Pilot Participation**



For objectives 1, 2 and 5, the five additional PNFP hospitals assigned to the control group (Group A) by the PBC pilot and three Government-owned hospitals (not participating in the pilot but located in same districts) were added to the two hospitals above (group B) to provide comparative perspectives across all objectives. These three government hospitals were not involved in the PBC pilot activities. Overall, 10 hospitals participated in this study but only two provided in-depth insights for objectives 4 and 5 that concern implementation processes and mechanisms of response to the PBC pilot. Table 3.2 shows the key features of hospitals in this study.



The case study was designed to provide explanations for events across time through a prospective approach. Especially for objective 5, baseline and post-baseline survey of all the ten participating hospitals provided information for comparison between case study hospitals (intervention arm) and hospitals that were assigned to control group for PBC pilot and the three that were non-participants.

**Table 3.2 Characteristics of hospitals\* participating in the study**

	Bed size	Ownership	Allocation in the PBC pilot
Hospital 1	100	UCMB	Bonus Group
Hospital 2	180	UPMB	Bonus Group
Hospital 3	100	UCMB	Control Group
Hospital 4	100	UCMB	Control Group
Hospital 5	100	UCMB	Control Group
Hospital 6	110	UPMB	Control Group
Hospital 7	180	UCMB	Control Group
Hospital 8	100	Govt	Non participant
Hospital 9	100	Govt	Non participant
Hospital 10	100	Govt	Non participant

\* Hospital kept anonymous for ethical reasons

### **3.6.5 The Case for Prospective In-depth Study Approach**

The hospitals being subjected to PBC were complex in their operations and relationships. The contexts in terms of resource endowment, benefactor control and service environment were different. Although the PBC intervention provided a broadly uniform new experience across the case-study hospitals, unique differences were anticipated within each case study hospital based on the choices of the service targets and decision on allocation of the bonus funds. It was impossible to predict and structure a quantitative method to address all the possible contingencies. A flexible but systematic approach to answering the study questions required a mixed methods approach i.e. qualitative and quantitative approach within a case study design.

This study was started shortly after the active implementation of PBC pilot, before the actors had experienced all the phenomena and its implications. The data collection (January 2005 to June 2006) aimed to collect cumulative experiences over the time of the pilot. This provided the opportunity to identify key milestones in the PBC implementation and how experiences of these milestones shape the behaviours, decision making and perceptions of the actors. The prospective inquiry was therefore used as an appropriate design strategy. The major milestone in the PBC pilot included the six monthly performance surveillance (ie verification output volumes for selected service targets), the size of the bonus received and how the bonus funds were used to motivate better performance – either as rewards to providers themselves



and/or inputs needed to improve/sustain performance. These events were expected to vary over time depending on the experience that was gained during the pilot period. This kind of interactive and dynamic nature of the study thus justified the prospective approach to data collection and the use of qualitative methods in addition to quantitative approach. The prospective qualitative inquires are recommended especially if causal linkages are to be extracted from a chain of events across time:

*"[t]he process-tracing approach attempts to uncover what stimuli the actors attend to; the decision process that makes use of these stimuli to arrive at decisions; the actual behavior that then occurs; (George and McKeown 1985 pg 35)*

*"... the particular significance of the extended case study is that since it traces the events in which the same set of actors in the case study are involved over a relatively long period, the processual aspect is given particular emphasis. The extended case study enables the analyst to trace how the events chain on to one another and how therefore events are necessarily linked to one another through time" (Mitchell 1983: 194).*

Granham Allan (1996) also notes that:

*" Those involved may sometime actually not be in position to recognise easily the factors that influenced their behaviours. In such cases observation or detailed questioning of different actors over time is probably the only way in which adequate data can be collected" (pg 178).*

The interviews in the case study hospitals were conducted every 6 months to allow at least a 3 month interval after the performance surveillance and bonus payment have been completed. This allowed enough time for reflection (by the actors) on the effects arising from activities linked to PBC.

### **3.6.6 Units of Analysis – a Summary**

The unit of analysis refer to the objects of the study – that provide the source mechanisms or embody the objectives of interest in the study (Graneheim and Lundman 2004). The following are the units of analysis that guided the understanding of the hospital responses to PBC pilot. These are listed below and in table 3.2.

1. The expectations, nature and power of influence that different stakeholders have in the performance of the hospitals. These are linked to the first objective. The data sources for this objective were interviews and participant observations of meetings at the national level and at district level. These were supplemented by documentary reviews that provided the context, performance objectives, resource inputs and other influences on hospital performance. The analysis was also aimed at finding the relative power of influence of the different stakeholders on the hospitals' choices and priorities.
2. The expectations, nature and power of influence of Board of Governors, and the relationships BOG have with Hospital management team. These are related to second objective. The data sources here were the two groups that control the decision-making process and resource allocation in the hospital ie the Boards of Governors and the Hospital management teams.

3. The implementation processes, contextual constraints and enablers; learning, decision-making and adaptations by all concerned parties in the PBC pilot processes. These were the subjects for objective three in the study. The data sources for this analysis were key informant interviews with participants in the pilot – both hospital management teams and pilot coordinators. For comparative analysis, additional information was collected from other performance-based schemes led by the Yellow star program and UCMB.

**Table 3.3: Summary of Units of Analysis, Method and Data Sources**

Objectives	Analysis sub-units	Analysis methods	Data sources
Performance objectives, relationships and interests. [Chapter 4]	Nature and power of influential mechanism for performance improvements in the upstream/broader health system: Govt – MOH MOH – District UCMB – its health network	Operational definitions of “performance” at different interface Comparative means of incentivising performance: • Low powered or • High powered Comparative ways to meter performance features: • SWAP for Health sector • District league table • UCMB accreditation	<ul style="list-style-type: none"> <li>Participant observation of meetings:               <ol style="list-style-type: none"> <li>PBC pilot</li> <li>Performance reviews at district and national level</li> </ol> </li> <li>Literature review</li> <li>Administrative reports and records</li> </ul>
performance governance relationships between BOG and hospital managers [Chapter 5]	Nature and power of influential mechanism within hospitals Governance structures i.e. between BOGs and HMTs	Performance expectation of BOGs; Influential mechanisms at the disposal of the BOGs to improve performance; Comparative analysis of composition of BOG for effective stewardship;	Key informant interviews among HMTs and BOGs repeated  (21 interviews)
PBC implementation arrangements and their effectiveness [Chapter 6]	Implementation processes and their capacity to trigger performance improvements among participating hospitals.	Identification of vital mechanisms for PBC intervention; Comparison between de-jury and de-facto implementation of PBC pilot; Reasons for adaptations & omissions Comparison of implementation processes between PBC pilot and Yellow Star programme & UCMB.	Key informant interviews among PBC pilot Team, UCMB and HMTs. Three sets of HMT interviews in 2 case study hospitals i.e.at: • Baseline • 6 months and • 12 months  (16 interviews)
Strategies adopted by hospitals to attain PBC targets and processes for allocation of bonus funds [Chapter 7]	Link between PBC and attempted actions by hospitals to improve performance; and  Decision processes and outcomes for bonus allocation.	Building explanations for success and failure to achieve targets/bonus; Trajectories for purposive actions to improve performance; Trajectories for decision making processes to allocate bonus; Comparison of response actions of PBC and Yellow Star programme.	
Changes in staff motivation and perceptions about their performance [Chapter 8]	Essential factors for hospital staff (internal clients of PBC) to improve their personal level performance.	Comparison of baseline and post-baseline survey of perceptions of hospital staff. Comparison of perceptions between hospitals receiving PBC bonuses and those not.	Survey of hospital staff Baseline (n=560) Post-baseline (n=741)

4. The strategies adopted by hospitals to succeed in improving performance, and decision-processes for the allocation of the bonus by hospitals. This was the focus of the fourth objective. Unlike for objective three above, the information here was extracted from the participants in two hospitals that were subjected to the full PBC pilot. These two hospitals were treated as in-depth case studies since they experienced the full pilot interventions including the performance-based bonuses.
5. The key performance drivers from the perceptions of the hospital staff early in the pilot implementation and after one year of pilot experience. The objective five in the study required a survey (before and after) of the front-line workers in all hospitals (including in-depth case study ones) to collect the perceptions about the performance drivers of internal clients – the staff.

### **3.6.6 Research Data**

The influential mechanisms of PBC intervention were synthesised from four main data sources; 1) the inception workshop in July 2003 which was attended by the author. At the workshop, the rationale, methodology and preparation for the pilot were explained to the stakeholders in MOH, local government and private not for profit providers (PNFPs); 2) Participant observations were made at three performance feedback meetings of PBC pilot during January and February 2005; and 3) from administrative records i.e. monthly progress reports and other documents related to the pilot. The monthly reports provided contemporaneous accounts of the pilot activities, schedules, constraints and coping strategies. Annual reports of the case study hospitals for the years 2003 to 2005 were also reviewed. The fourth data source was interviews with members of the hospital management team (HMT) in the two bonus-eligible hospitals that were subjected to full pilot intervention<sup>2</sup>. The HMTs were asked how the targets were selected and what influenced their choices. Repeated interviews with the HMT aimed to describe their reactions to performance feedback, bonus awards and constraints in achieving the performance targets. The interviews with HMTs were conducted 2-3 months following performance feedback workshops to optimise the lead-time for decision-making and corrective actions. Prospective interviews were conducted at different times between April 2005 and June 2006 (Fig 3.2), in attempt to piece together the purposive actions in response to PBC pilot. Three sets of interviews were conducted in April-June 2005, November 2005 through to January 2006 and the last set in May – June 2006.

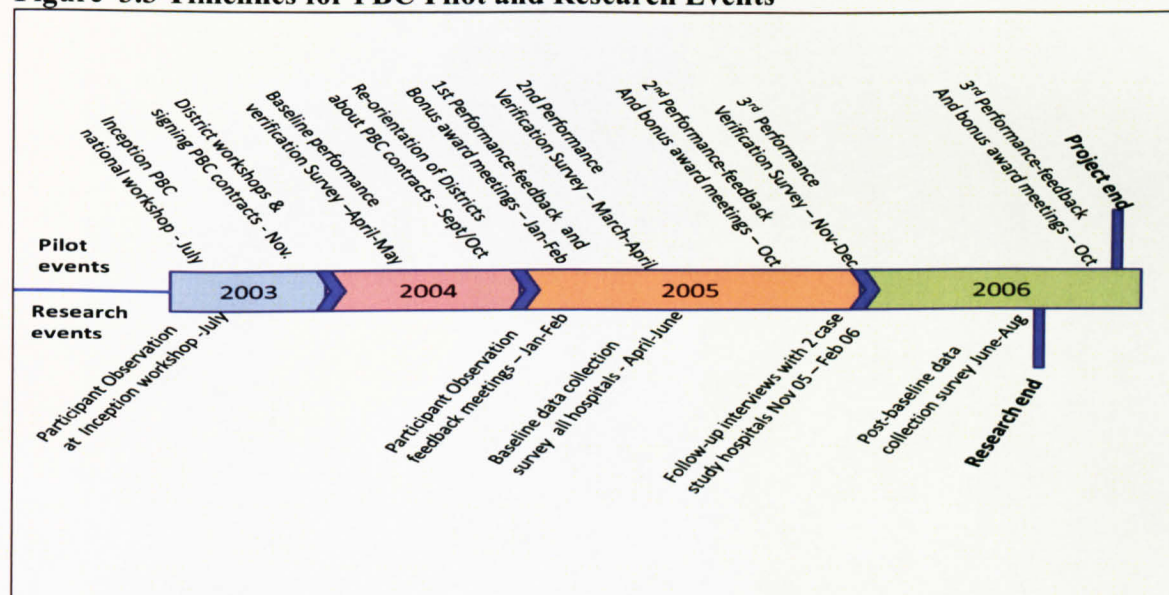
In-depth interviews were also done with members of the pilot implementation team (PIT) i.e. the Pilot Coordinator and officials responsible for verification of performance targets. Both the HMT and the PIT respondents were asked about the changes they had made as a result of experiences they encountered during pilot activities. The in-depth interviews were only

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<sup>2</sup> The study covered 10 hospitals. Two were in the intervention arm 4 PNFPs in the control arm and 4 Govt. one that did not participate in the pilot activities.

repeated among the two case-study hospitals. The survey of the perceptions of health workers was done in all the 10 hospitals at both baseline (April 2005) and post-baseline (May 2006).

**Figure 3.3 Timelines for PBC Pilot and Research Events**



### 3.6.6.1 Participant Observations

Observation of strategic meetings taking place before and during the period of data collection (ie from July 2004 to June 2006) aimed to understand the concept of performance and its management at the national and district levels. The observations were also made at meetings related to PBC pilot implementation.

#### 1. National level meetings

At the national level, performance review meetings for the health sector were organised as part of the SWAP arrangements by the Ministry of Health. The main objectives of these meetings were to review performance of the previous year and agree on priorities for the subsequent year. Annual Sector Performance Report for MOH contained league tables ranking districts on the basis of a common performance criterion (see section 4.5). Participants at these meetings included the MOH, Finance, Public Service, donors and civil society. In addition these meetings also drew participation from district level implementers of programmes such as District Health Officers and hospital managers. Three meetings were attended at the national level as follows:

- Annual Health Assembly and Technical Review Meetings October 2005
- Hospital Managers Meetings November 2005
- Biannual Technical Reviews Meeting April 2006

#### 2. District level meetings

At the district level, one meeting was attended in Arua district. The quarterly performance review meeting was organised by the District Health Office (DHO) and included managers of all hospitals and people representing technical departments of DHO. Others in attendance

included project staff from projects that had a presence in the district i.e. (AIC, AIM, CUAMM).

The meetings related to the implementation of the PBC pilot were organised at each of the five districts to provide performance feedback to the participating health units as well as to the district officials. An additional objective of these meetings was to award bonuses to the eligible health units i.e. units that achieved the performance targets. Observations were made at three meetings (districts of Arua, Bushenyi and Mukono) during the first round of performance feedback in January 2005. Participants at these meetings included members of PIT from MOH/World Bank, representatives from the DHO (usually the PNFP desk officer), at least one manager from each of the participating health units, a representative of the Health Unit Management Committee and district level politicians. Discussions at the meetings covered aspects related to setting targets, records and health information systems, approaches to improve performance and advice on how to use the bonus. Participants also reacted to the performance assessment results (feedback) provided by the PIT. The meetings culminated into the award of bank cheques (money) to the managers of health facilities that qualified to get performance bonuses.

#### **3.6.6.2 Key Informant Interviews**

In-depth interviews with key informants were conducted across a range of persons that held responsibilities and roles that concern hospitals performance and response to PBC pilot.

A structured dialogue approach was taken where the respondent was informed about the purpose of the research and given opportunity to opt in or out of the interview. When consent was given, in-depth interviews initially followed a structured guide (Annex 3 questionnaire). However, subsequent interviews (after 6 and 12 months) with the same group of persons took on a more unstructured approach to focus on the issues of interest like the reactions to the milestones and specific activities in the implementation of the pilot. These included performance feedback, bonus allocation and key issues in the organisational context that had potential effects on hospital performance.

Probing was used to focus on the domains of interest that emerged from the responses. When issues of interest did not emerge in the discussion, specific questions in the questionnaire guide were asked. In the subsequent rounds of interviews – especially in the case study hospitals – the interviews were more unstructured but linked to what had changed since the previous interview and how those changes affected the domains of interest to the research. The key domains in the interviews include understanding the following:

- How was performance defined in the power relations between the BOG and HMT
- Incentives that exist for performance at difference level
- Capacity for the hospital to perform i.e. staffing, finances, resource allocations and strategies
- Records and how they were being used

- For the two case study hospitals:
  - What was being done differently to succeed in achieving the target or getting a bonus?
  - Why the hospital failed to achieve X (Y& Z) target or why it failed to get the optimum bonus?
  - When a bonus was received, additional questions aimed to understand how the bonus was used and processes leading to these decisions.

Most interviews were recorded on a digital recorder although some interviews were done without recording. Most interviews were done in English. Only five (out of 35) were done with a high interchange (mix) of English and local language (Luganda). Recordings were downloaded to the computer and stored with the file name of the hospital, designated title of respondent and the date of interview. Transcription was done by listening to the recorded interviews and referring to the shorthand notes made during the interviews. The recorded interviews were transcribed verbatim. The unrecorded interviews were written and expanded immediately after the interview from the shorthand notes and also the recall of the interview session. About 7 (out of 37) of the interviews were not verbatim recorded or transcribed. Given the need to get familiar with the data, the interviewing and transcriptions were all done by the researcher/author. Most importantly, the transcriptions by the researcher/author enabled acquisition of more insights for follow-up interview in the next round or decision on new directions for inquiry. For example, during the interviews, information occasionally emerged that required new respondents to be sought and interviewed or adding a new track of questioning in the next interview round(s). This type of snowballing was particularly used to understand the various other interventions seeking to influence the performance of the hospitals. New track for research activities targeted UCMB and Yellow Star as possible comparators to PBC. Interviews and documents about UCMB and Yellow Star programmes were subsequently added to the research processes as alternative performance frameworks upon which to compare PBC.

#### **3.6.6.3 Analysis of Qualitative Data**

Analysis of the qualitative data was undertaken within a guiding principle of building explanations on the basis of observation, document reviews and narratives in the interviews of respondents. Building explanations was approached by interpreting information in the context in which the information is provided. To build explanations, the analysis units (table 3.1) and frameworks for hospital performance were used. These frameworks for analysis included the two theoretic propositions, and the two study questions ( section 3.4) – i.e. “will hospitals respond and how would they respond to PBC pilot”. Data were analysed using both deductions methods driven by these theoretic framework as well as by inductions methods that were grounded in the data (Patton 1999; Patton 2002; Graneheim and Lundman 2004; Pawson and Tilley 2004).



Building explanations used the “realistic evaluation” notion of understanding interventions as complex social programmes whose effects are realised if certain mechanisms are triggered in a particular context. Pawson and Tilly (2004) asserts that:

*“Theories must be framed in terms of propositions about how mechanisms are fired in context to produce outcomes.” (Pages 84-85)*

*“Understanding a programme requires that evaluators are mindful of processes both macro and micro, influences from both individuals and institutions, causal powers emanating from both reasoning and resources. Programmes, in short, are complex social organisations” (page 160).*

*“..combination of qualitative and quantitative data should offer something more than the weight of evidence but should invite a sense of explanatory completeness, synthesis or closure”(page 158).*

For both induction and deduction approaches to qualitative data analysis, content analysis was used to generate themes or categorise data into pre-determined frameworks. Interview extracts were used to extract latent and manifest content. For latent and content analysis, the meaning beyond the interview text was sought by interpreting interview extracts within the context of the interview dialogue (eg tables 4.7 & 5.1). The analysis approach built from the narrative units (or extracts of texts) to meaning units and to thematic domains or categories in a logical order of aggregation(Patton 2002; Graneheim and Lundman 2004).

*“... analysis of what the text talks about deals with the relationship aspect and involves an interpretation of the underlying meaning of the text, referred to as the latent content”[ ...] abstraction, emphasises descriptions and interpretations on a higher logical level. Examples of abstraction include the creations of codes, categories and themes on varying levels.”(Graneheim and Lundman 2004 page 106).*

Triangulation of information from different perspectives was undertaken as a method of synthesising the information from the different sources i.e. both national, and hospital level, and from managers, to Governing Board members and other relevant sources to provide coherence and explanations that are most plausible to address the analysis units in the study. Triangulation is recognised as a useful approach for dealing with varied sources of information in mixed methods and in case-study research (Patton 1999; Foss and Ellefsen 2002).

#### **3.6.6.4 Staff Questionnaire Survey**

Perceptions of staff regarding relevant organisation climate variables within each hospital were assessed through a self-administered questionnaire. The questionnaires were anonymous to encourage objective assessment. Perceptions or cognitive feelings of health workers were assessed using a purpose-made tool drawing on concepts of expectancy and motivation theories. Perception questionnaires serve the value of measuring latent variables that operate

at the cognitive level (Nunnally 1978; Hicks, Hennessy et al. 1996; Podsakoff, Ahearne et al. 1997). Table 3.3 illustrates the theory, concepts and questionnaire items that were developed based on the two theoretic concepts.

Each of the domains was assessed using a set of questions. The domains and the questions within each were constructed and or adopted from the literature and the two theories above. The major drivers of the construct validity of the questionnaire were the process-based theories for motivation especially by Lawler (1971) and Herzberg (1959). These were blended with questions that addressed the economic benefits in the work place. The literature provided a range of validated questions that had been used to assess similar issues in different contexts (Bennett, Franco et al. 2001; Franco, Bennett et al. 2004; Paleologou, Kontodimopoulos et al. 2006; Petersen, Woodard et al. 2006).

**Table 3.4 Content Validity: Theories, Concepts and Questionnaire Items<sup>†</sup>**

<b>Theory</b>	<b>Concepts</b>	<b>Questionnaire Item</b>
Expectancy theory	Effort-performance perceptions	Information about targets Affordability of a 10% increase in workload Availability of drugs for patients Availability of necessary supplies & equipment
	Performance-reward linkage	How likely to get a reward if hospital achieves targets Willingness to contribute to target
	Perceived value of the rewards (bonus)	Extent job benefits cover basic needs Extent of private activities to supplement salary Satisfaction if salary is increased by 10 percent
Herzberg's theory	Satisfiers	Working conditions, receipt of supervision, confidence from superiors, meetings to evaluate work, fairness of rules and regulations, job contract, peer cooperation, conflict among workmates.
	Motivators	Appreciation by superiors, encouraging hard working persons, entrusting of responsibility to gain expertise, job as a source of satisfaction, professional status due to working at this organisation

<sup>†</sup> The full Questionnaire is attached in the Annex 3

The questions were structured in a manner that fitted a 5-point response categories (see Annex 3 for Questionnaire). The responses to each question were structured along a 5-point unipolar adjective scale ranging from “very low”, “low”, “moderate”, “high” and “very high”. The questions were positively structured in relation to the aspect of measure – for example “To what extent does working at this hospital improve your professional status?” or “To what extent does your job-contract provide security for your work?” The positive structuring is known to increase clarity of questions and avoid cultural disinclination to response (Bennett, Franco et al. 2001; Franco, Bennett et al. 2004). The questions were sequenced in a careful manner to help the respondent focus on the underlying domain of the measure. In addition to the domains of interest to the study above, the tool also collected background details about the respondents such as age, sex, cadre and hospital department and duration of stay (employment) at the hospital.



The tool was pre-tested for clarity of questions and relevance of the response categories on the scale. Fifteen nurses attending the nurse training at Mulago Hospital nursing school participated in the pre-test. A group interview was conducted with these nurses after they had completed the questionnaire to give feedback about the items that were not clear. Also the time it took to complete the tool ranged from 35 to 45 minutes. The tool was modified accordingly and was administered in English<sup>3</sup>.

#### **3.6.6.5 Administering the Survey**

The survey was administered twice to each of the 10 selected hospitals. The first round was during the months April – May 2005 and the second round was after about one year i.e. June -August 2006. The rationale of the 2-point survey was to set a baseline early in the implementation of PBC pilot and be able to detect changes in staff perceptions over a period of one year. The survey aim was to collect data from all the clinical and administrative staff at each study hospital. Overall, the response rate at baseline was 78 percent while that for the post-base line was 88 percent for the targeted cadres. Clinical, laboratory, and administrative cadres were given the forms to fill. Cleaners, gatekeepers and similar categories of non-clinical and support staff were excluded.

Each data collection form had a cover letter signed by the researcher/author. The letter provided information about the research purpose as well as providing information for consent of the respondent. An open envelop was provided together with the form and the respondents were requested to enclose the completed questionnaire and to seal the envelope. Information was also provided in the cover letter suggesting that the respondents name should not appear anywhere on the form or envelop. Arrangements were made at each hospital to provide a token of Uganda shilling 2,000 (bout \$1) for whoever returned the sealed envelope. The token was approved by the ethical review board to enable improved response rate. In general, the person in charge of records in the hospital played the role of collecting the sealed envelopes from the staff and dispensing the cash token. Forms were unsealed by the principal researcher before the data was captured into the computer. SPSS software version 11 was used to analyse the data (Bryman and Cramer 2002). Analysis of the survey data was based on Exploratory Factor Analysis and is further described in chapter 8.

#### **3.6.6.6 Study Biases, Limitations and Quality Control**

The major study bias was the inadequate implementation of the pilot activities partly due to design weakness and financial constraints. Given the centrality of this bias to influence the findings of this study, a detailed assessment of implementation and its (in)effectiveness was

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<sup>3</sup> The targeted respondents have a minimum of 11 years of formal education (4 years post-primary) and English is the official medium of instruction in Ugandan education system. The cadre of nurse assistants, the least cadre in terms of educational hierarchy among hospitals – are required to have completed 4 years of post-primary education and have acceptable English competence.

treated as a valid and independent objective in this study. Chapter six provided the details of this bias and as such makes explicit the contextual constraints that readers of this work and its recommendations need to take into account. Although this was a bias in terms of the pilot effectiveness, the structural constraints such as the pilot design, financial resources and the implementation adoptability/flexibility are common variables to the field of implementation analyses (Hill and Hupe 2002).

The author and researcher (myself) had potential characteristics to bias the respondent's answers especially since he was affiliated to the institution implementing some of the pilot activities (Makerere University School of Public Health) and as an educator at the major medical school that trained some of the respondents (medical doctors). Research data such as the questions about the implementation effectiveness of the pilot could have been answered in a manner that makes the respondent socially acceptable or provide answers that were assumed to be in the interest of the School. During the research process, the author made it clear that his work was separate, independent and objective about the experiences of the respondent with the PBC pilot. The author was also introduced to the participants during the meetings as interested in the pilot process for academic purpose i.e. for PHD research study. In addition, the respondents were assured that their views were anonymous and confidential. Since the researcher interacted with the respondents several times in the course of 18 months, the biases arising from these relationships were assumed to decline as trust was established over the study period. In their narratives, there were indeed candid accounts of their commissions, omissions and experiences - both positive and negative, which implied a limited impact of this bias. Given the limited number of in-depth case study hospitals, there was a constant risk in the textual descriptions to un-mask the identity of these hospitals especially where there are unique features particular to these hospitals or their contexts. Some of these features were too close to the explanations needed to understand the hospital performance and response to PBC pilot. In these respects, a trade-off was made to keep the identity of the study hospital anonymous by subtracting some details from the descriptions with minimal loss of explanatory power. Sub-texts and footnotes were added where appropriate, to explain to the reader why more explicit details were withheld.

Among the major limitation to this study were the weak and incomparable data systems among study hospitals. Administrative data on finances, expenditures and service outputs were organized differently among the hospitals in the study. Hospitals under UCMB had evolved an advanced and common approach to the data system. However, hospitals in the sister UPMB and Govt hospitals did not have similar level of systematic organisation of the data. For example, wage expenditures for the Govt hospitals was centralised in the Public Service Payroll that made it difficult to compare with UCMB expenditures. During this study there were several changes in the HMIS system of the MOH as a new system was being introduced. It was common to find new and old data capture forms being used by the study

hospitals. This made the process of generating service outputs trends more problematic. Attempts to mitigate this problem required very heavy time and money investments that were not possible within the logistical support available for this research.

Given the mixed methods approach used in this study, the variety of research materials was high. Analysis and interpretation required competence building for the researcher as well as testing the interpretations with academic supervisors and other experts to build confidence in qualitative research findings. The researcher/author attended several workshops and seminars on how to analyse qualitative research. Analysis extracts were presented among peer PhD students, at seminars at LSHTM facilitated by Prof. Jude Green. Seminars were also given at LSHTM, Makerere University School of Public Health, Ministry of Health, UCMB and at international conferences such as IHEA 2007 and Implementation Science Seminar in Bergen, Norway in late 2008. Presentation at UCMB and MOH and MUSPH involved several persons that participated as respondents in this research, thus providing feedback and confidence of the interpretation of the research findings. Although less formal feedback was received, chapters 6 and 7 were shared with managers of case-study hospitals. Chapters 5, 6 and 7 were shared with key members of the pilot implementation team at MOH and MUSPH. Findings in chapter 4 and 5 were presented to officials of UCMB secretariat for validation as well as sharing information for decision making. Feedback did not raise major objections to the findings or their interpretations.

In some cases, the research activities were more ambitious and generated lots of data especially for the hospital staff surveys. Some of the data collected are not presented in this dissertation mostly because it was driven by the demands by MOH to generate some baseline information for the upcoming social health insurance policy. Some of this data will be processed for use by MOH and for separate publication(s).

### ***3.7 Ethical Approval and its Implications***

Ethical approval was sought and granted for the study at four different levels. 1) LSHTM Ethics and Review Board. 2) Higher Degrees and Ethical Review Board (HDERB) of Makerere University School of Public Health; and 3) Uganda National Council of Science and Technology (UNCST). Upon approval by the UNCST in March 2005, 4) letters were written to the selected hospitals requesting their participation in the study in addition to the notification letters provided by the UNCST. As it became known during the study that some research objectives would be better served by interviewing technical staff of Uganda Catholic Medical Bureau (UCMB) and Uganda Protestant Medical Bureau (UPMB), further permission was sought and received from these agencies as well. Annual progress report was also provided in June 2006 to the HRERB as required by the guidelines and conditions of UNCST.

Central to the ethical requirement of this study was the promise of anonymity of the respondent and hospitals in the publications arising from this research activity. As such, the names of the participating individuals' i.e. key informants are categorised into broader groupings to mask the identity of the respondents. The groupings are "Staff", "Hospital Management Team (HMT)", Board of Governors (BOD), District Health Officers (DOHs), Uganda Catholic Medical Bureau (UCMB) PBC Pilot Team. The participating hospitals are presented with numeric labels such as from 1 to 10.

However, some aspects of the identity such as the unique history of a particular hospital or organization posed a challenge since this unique history was tied to some core units of analysis i.e. building explanation for performance trends/history (chapter 7). In this respect, the author had to use a delicate descriptive language and eliminated features that would give away the hospital identity to the readers. For example, attempts were made to make anonymous these key features by using descriptive terms such as "previously stigmatised hospital" instead of making explicit the source of stigma. This was done as a means to preserving the major findings and causal explanations as to why performance baseline was low in particular hospital(s).

### **3.8 Overview of results chapters:**

Apart from the assessment of the operational mechanisms, the analysis also aims to deduce theoretical generalisations about how to organise and design performance improvement innovations in health systems with contexts similar to Uganda. This would form the basis for policy recommendation and practice guidelines on decisions for adoption and practical application of PBC. Therefore, the analysis was driven by the need to draw both the practical implications and the broader theoretical basis for organising performance improvements in the health systems. For the latter purpose, agency theory and organisation process theories were taken as alternative theoretic frameworks against which to compare the findings from this study. As the study progressed, more information about alternative interventions for performance improvements was obtained. These interventions provided additional frameworks for comparing PBC pilot as well as enriching the analysis and lessons for policy and practice.

Please refer to Table 3.2 above for the summary of the analysis units and main methods for analysis for each of the results chapters 4, 5, 6, 7 and 8.

## **Chapter 4: Performance Management in the Health System**

### **4.0 Introduction**

This chapter attempts to describe performance management in the Ugandan health system. It describes the performance frameworks upstream and how this links with the hospital sector, which forms part of the ultimate interface for service provision. The purpose is to portray the mix and range of performance frameworks in the upstream and their instrumental mechanisms of influence on the hospitals. The chapter uses case studies to explore different levers on performance and how they trickle down to the hospitals from the upstream actors. Case studies of 1) the District Performance Ranking (league table) and 2) Accreditation by Uganda Catholic Medical Bureau (UCMB) are presented as upstream interventions to improve performance at the time PBC pilot was being implemented. In addition to exploring the synergies and constraints to successful implementation and response to performance-based contracting (PBC) in the Ugandan context, this chapter also illustrates the use of clan-based control mechanisms to manage hospital performance at a system and network level by MOH and UCMB respectively.

Performance as a concept is central to the understanding of the context and response of hospitals to performance-based contracting (PBC). Although the specifications of service targets to be achieved under the PBC framework provide fairly clear performance dimensions, the hospital response to PBC is tenuously interwoven in the broader performance expectations contingent on these hospitals. Different stakeholders have different mechanisms for inducing their desired performance dimension from hospitals. The key stakeholders for the hospital sector in Uganda include those internal to the hospital such as the staff, managers, and board of governors. The external stakeholders include the district leaders and health managers, central ministries of Health and Finance and several national health projects that link with hospitals for their implementation arrangements. For the PNFP hospitals, additional stakeholders include religious medical bureaus and religious congregations that own or run the hospitals. A multiplicity of performance expectations arising from all stakeholders, their mechanisms and power of influence –formed a context that is central to understanding the response to PBC as a singular intervention in a complex context.

Secondly, hospitals as organisations have a multitude of products and processes that in combination constitute “performance” to different stakeholders. Given the hierarchy of agency relationships in the decentralised health and administrative systems, some performance influences are direct while others are channelled to the hospitals through other agencies (see figure 3.1). Both agency and organisational theories identify the need for coordination among multiple principals to ensure that the multitask-agent like hospitals respond optimally to the relevant performance expectations and avoid displacement of efforts

between objectives and avoid goal-confusion (Lawler 1971; Homstrom and Milgrom 1991; Smith, Stephan et al. 1997). Given several layers of agency relationships, in the Ugandan health care system, each level in the agency chain transmits incentives to the next agent in the system.

The chapter presents findings at three interfaces in the performance management of the health system. These are (1) the state–sector (MOH) level (2) the MOH–district level and (3) the district–hospital (facility) level.

The findings in this chapter were generated from three sets of data collection activities: document reviews, participant observations at meetings discussing health sector performance and from in-depth interviews with stakeholders proximal to the governance of study hospitals. The latter category included the district health officials (DHO), officials in the Uganda Catholic Medical Bureau (UCMB), Boards of Governors (BOG) and members of the hospital management team (HMT). Two main questions guided this description and analysis:

1. What dimensions of hospital performance do upstream stakeholders value?
2. What mechanisms do these upstream stakeholders use to influence hospital performance towards their expectations?

#### ***4.1 Macro Level Performance Expectation***

Uganda being a low income country, much of the health system and provision of health services is financed by donor assistance. In 2005, the national health sector budget was 48 percent financed by donor funds (Uganda Government 2005). Donor assistance is sourced from both multilateral and bilateral agencies. The financial, material and technical support are provided on the basis of a number of objectives. Objectives at this level can be deduced from international conventions. The Millennium Development Goals, the poverty reduction strategy programmes (PRSP), the disease control priorities project and the report of the Commission on Macroeconomics and Health are the contemporary reference points for performance expectations of multilateral and bilateral agencies (CMH 2001; World Bank 2001; UNDP 2003; DCPD 2006).

The performance expectations at the global level are generally health outcomes at the national level such as health status improvements, reduced inequalities, poverty reduction and enhanced human capacity and productivity. The main performance influence is financing i.e. grants and loans and project funds for health programmes. The threat of withholding funding to the country is another form of influence. Such threats are usually linked to broad performance indicators such as governance, corruption and political developments (Oliveira-Cruz 2007). Through mechanisms introduced by performance-based aid such as the Global Fund, performance auditing has been explicitly added as a requirement for disbursement of aid at the donor-government level (GFATM 2003). For example, Uganda's HIV and malaria

grants from GFATM were suspended and some prematurely terminated after the performance audit indicated unsatisfactory results in 2005(The Global Fund 2005; The Global Fund 2008).

The integration of agents of the donor countries and projects into sector planning and monitoring in the form of Sector-wide Approaches (SWAP) is an additional instrumental influence by stakeholders at this level. Vertical projects designed to directly influence the health outcomes are also a common approach to addressing performance expectations arising from this level. Financing and provision of technical support to conduct demographic and household surveys at national level are now well established mechanisms of assessment for health outcome indicators(UBOS 2001). Special studies are usually commissioned by both government and donor countries to evaluate implementation processes and outcomes(Horizons International Ltd 2001; Business Synergies 2002; AMREF 2004). The performance expectations at this level and their mechanisms of influence are summarised in table 4.1.

**Table 4.1: Macro level performance expectations and influences for health outcomes**

Level	Performance expectations relevant to hospitals	Mechanisms of influence
Global objectives <ul style="list-style-type: none"> <li>• MDGs,</li> <li>• PRSPs</li> <li>• CMH,</li> <li>• DCPD</li> </ul>	Improved health status Reduced inequalities More productivity/efficiency Reduced catastrophic expenses Reduced corruption among government institutions Reduced population growth Responsive providers Improved management practices Expanded effective interventions Implementation benchmarks	<ul style="list-style-type: none"> <li>• Conditional financing               <ul style="list-style-type: none"> <li>- performance-base aid</li> <li>- donor integration into sector management/SWAPs</li> </ul> </li> <li>• Project-based initiatives</li> <li>• Technical assistance missions</li> <li>• measuring process/outcome               <ul style="list-style-type: none"> <li>- implementation reports</li> <li>- Tracking studies</li> <li>-mortality and morbidity surveys e.g. DHS, Household surveys, national census</li> </ul> </li> </ul>

## **4.2 Performance Expectations at the National/State Level**

The World Health Organisation, in its 2000 World Health Report (WHR-2000), introduced measures of national health system performance. At a systems level, the report identified three main objectives: improving the health of the population, responding to people's expectations and providing financial protection against the cost of ill health (WHO 2000). The National Health Sector Strategic Plan II in Uganda draws on WHR-2000 in framing the performance expectations of the Uganda Health Sector Strategic Plan (Uganda Government 2005). The sector plan identified its objectives as producing, restoring and maintaining health. Hospitals are key players in all three objectives(WHO 2000). To meet these three health system objectives, the WHR identified four functional domains whose performance is critical for objective attainment. These four include financing, stewardship, creating resources/capacity and service provision (WHO 2000 pg 25). The report contains assessments of health outcomes such as life expectancy and process measurements for

respect, confidentiality and autonomy. Other measures are for responsiveness i.e. prompt attention, quality of health care amenities and availability of a range of providers to choose from. Hospitals are also key symbols for the national health system and the social welfare infrastructure which makes them subject to broader socio-political development aspirations (McPake 1996).

#### 4.2.1 National Development Expectations Versus the Health Sector

The main driving force for the diffusion of performance assessment and monitoring can be attributed to a number of national and global financial assistance programmes. The advent of Poverty Reduction Strategy Programmes (PRSP) led by the World Bank and IMF had a strong influence at the national treasury and development planning directorate under the custodianship of the Ministry of Finance, Planning and Economic Development (MOFP&ED) and indeed the Government in general (World Bank 2001). The national development plan referred to as the Poverty Eradication Action Plan (PEAP), was developed with an explicit set of outcome performance indicators that each government sector had to contribute in order to achieve the overall national objective of poverty eradication and development (MOFP&ED 2001). The main contribution by the health sector to PEAP (table 4.2) is related to improving health outcome indicators i.e. infant and child mortality, maternal mortality and effects of poor nutrition. Explicit indicators and targets were set and have been actively monitored by household surveys (MOFP&ED 2003).

**Table 4.2: Health indicators for PEAP monitoring by MOFP&ED**

Indicator	1990	1995	2000	PEAP target by 2005
IMR (infant death/1000 live birth)	122	81	88	68
Under 5 Mortality rate	180	147	152	103
Maternal mortality rate	527	506	505	354
Stunting (chronic malnutrition)	38	38	38.5	28

Source (UBOS 2003; Uganda Government 2003 pg16-30).

However given the multiple determinants of the PEAP, these indicators (table 4.2) and lack of capacity for regular measurement<sup>4</sup>, the Health Sector Strategic Plans (HSSP) adopted process measures (table 4.3) as proxies to the outcome indicators for PEAP. Out of the 25 indicators listed in the HSSP, a short-list of five (table 4.3) were identified as the instruments for performance management and assessment at the implementation level (districts). The five indicators (table 4.3) were being accessed annually using a routine data collection system known as the Health Management Information System (HMIS) and a sentinel HIV surveillance system. The availability of performance data in these two routine information

<sup>4</sup> Outcome indicators are assessed every five years using household surveys.



systems was important in the selection of the indicators for HSSP monitoring (Talisuna 2001).

**Table 4.3: Health sector HSSP indicators (1999 to 2005) for monitoring by MOH**

Indicator	Baseline 1999/00	2000 - 2001	2001- 2002	2002- 2003	2003- 2004	2004- 2005	2004/05 target
OPD utilisation	0.40	0.43	0.60	0.72	0.79	0.90	0.70
DPT3/pentavalent vaccine coverage %	41	48	63	84	83	89	85
Delivery at health facility – GoU and PNFP	25.2	22.6	19	20.3	24.4	25	35
Approved post filled by trained health workers	33	40	42	66	68	68	52
National average for HIV sero-prevalence from ANC sentinel sites	6.8	6.1	6.5	6.2	--	7.1	5

#### **4.2.2 Health Sector Performance Monitoring - SWAP**

A review of the resolutions and “agreed actions” (also called Undertakings) of the Health Sector Annual Performance Review Meetings provided the priority actions to be achieved. This list of actions, usually appended to the Annual Health Sector Performance Report, reflects the formal performance concerns of the health sector stakeholder forum – or SWAP.

For the period 2000-2002, most of the undertakings reflect attention to the capacity of the health system to absorb the available funding and generate value-for-money in terms of HSSP results (indicators). In addition to HSSP indicators, tracking studies were commissioned to identify bottlenecks for implementation of the plan. These studies were commissioned to track the flow of funds and availability of human resources and drugs. The studies found major weaknesses in the financial accounting function, drug procurements and severe shortages of qualified health workers (Horizons International Ltd 2001; Business Synergies 2002; AMREF 2004; Ssenono, Petit et al. 2005). Efforts were made to strengthen the disbursements of funds, and accounts assistants were recruited. Drugs budgets were increased and procurement systems were changed to allow better responsiveness to health facilities to reduce acute drug shortages (Nazerali, Oteba et al. 2006). Significant efforts were also made to train Nurse Assistants as a temporary measure to address staff shortage especially in the remote and underserved areas (MOH 2003; Ssengooba 2004). This period was characterised by increased utilisation of health services due to the withdrawal of user-fees in 2001 and better availability of drugs (Xu, Evans et al. 2006; Yates, Kirunga et al. 2006).

The period 2003 to 2006 was, however, beset with less tractable health sector performance concerns such as health worker shortage, inadequate salaries, sub-optimal functioning of the infrastructure, inadequate drugs budgets and problematic procurement processes of medical goods (Nazerali, Oteba et al. 2006). Priority actions listed in the Annual Health Sector

Performance Reports for the period 2003 to 2006 reflect strong performance constraints arising from human resources inadequacy, low staffing norms (size of establishment), inequitable staff deployment and efforts to overcome government freeze on recruitment of health workers (MOH 2003; MOH 2004). Solutions such as increased health worker recruitment and increased salary for government health workers caused problems for PNFP providers. The latter lost their staff to the government sector due to the salary disparities created by better pay by Government (UCMB 2005a). Expanding health care infrastructure especially to underserved areas and to accommodate new interventions like laboratories for ARV treatment also faced the constraint of lack of human resources to function optimally. National level procurement of drugs and other medical products was a recurrent problem. Overall, the performance expectations at the national health sector level reflected a need to build and strengthen the support systems such as human resources and product procurement, increase financing and expand provision of infrastructure. These concerns were also shared by the hospitals participating in this study and the PBC pilot.

#### **4.2.3 The league Table: Ministry of Health – Districts' Performance**

Given a national policy of decentralized governance, the Districts are the sub-national structures for implementation of national programmes including health plans. In this respect, the performance of the districts was central for the success of the HSSP for the Ministry of Health (MOH). As holders of the implementation mandate for the national programmes, the District Councils (DCs) were increasingly being subjected to performance assessments and monitoring of implementation of essential national programmes (Birungi 2003). For example the education sector used the “pass and failure rates” of pupils and students at the Uganda National Examinations Board to rank districts according to their performance in education achievements. DCs responded to poor rankings by sacking the Head Teachers and District Education Officers (Williamson 2003).

The developments in the education sector had effects on the health sector (Okuonzi and Birungi 2000). In its third Annual Health Sector Performance Report, the MOH had devised a league table to address the gap in the previous two annual sector reports that did not have district-level performance information. The “performance” measures included in the league table were driven by the ease of data availability at the district level. In the 2002/03 financial year, MOH published the league table ranking all districts (see table 4.4) in its Annual Health Sector Report (MOH 2003b). As a measure of drilling down the performance governance responsibility of the DCs and attempting to galvanise performance accountability at the district level, MOH and its SWAP partners started hosting the annual National Health Assemblies (NHA). Using the district as the unit of assessment, the league table rankings were presented to the NHA where the delegates included district and national political leaders, technocrats, civil society and the media. The political leaders and their technocrat (DHOs) that were ranked among the top ten districts were invited during the assembly to

receive a recognition award – a placard and a handshake from the chief guest –i.e. vice president.

As expected from the league table approach of winner-loser or “name and shame”, there were many objections and controversies about the measures used, the missing data, the weights given to the different measurements and indeed the overall purpose the table would serve especially for the districts that were ranked at the top and bottom (Komakech 2005). Indeed the incentives arising from a good league table position were controversial and demotivating in the long term. For example, views emerging from the interviews with the DHO indicated that good performance on the league table was a reason for being denied resources such as cars and lack of increments for district wage allocation for health workers. Following the launch of the league table, MOH allocated some resources in a manner to boost the performance of districts that performed poorly – a practice that generated different signals for performance.

*“Good performance is a risk. .... People in the ministry say we are doing well and they do not give us resources. When they were giving out ambulances, small districts received some and have since parked them due to (lack of) fuel budgets. For us, they say we are doing well (top on the league table) and no ambulance is given. So we have to let things slip down (let performance decline) and be reconsidered. It’s demotivating sometimes to do well” (DHO).*

It is such concerns that led to the Annual Health Assembly resolution to revise measures used with a view to empower districts to monitor their performance better (MOH 2004). This researcher attended the Working Group meetings organised to revise the league table at the health sector Technical Reviews Meeting on 27th April 2006. Some of the views expressed at this meeting are captured alongside the components and weights of the league table elements in table 4.4. The main concerns were related to the locus of control for the actions being measures in the league table. In particular, the attendees felt that some of the measures were partly a reflection of performance of the central ministries as opposed to districts. For example, league table measure such as proportion of disbursed funds that were expended was assigned 10 points but participants indicated that funds were being disbursed too late for time-sensitive activities at the district-level to be undertaken. This affected the rate at which disbursed funds were expended. This was captured in the experience of one participant as:

*“we plan to go to outreach 10 times a month. If the money comes three months late, we can not do 30 outreach in the next month to catch up. Why do you penalize us and not the ministry that did not send the money in time?” (DHO)*

In addition, the perceived performance failures of the intermediary agencies such as National Medical Store (NMS) were not being taken into account in awarding 10 performance points in league table for the measure about “drug purchase”. The National Medical Store (NMS)

was said to have insufficient stocks and yet the performance points (and guidelines) were obliging districts to buy from NMS.

**Table 4.4: league table measures, weights and expressed concerns by actors**

League table Measure	Score weights	Major comments on measure by annual health assembly
Percent of PHC funds disbursed that were expended	10	Ignores disbursement delays from treasury to districts and implementing units. Participants want a measure of timeliness of disbursement added.
Percent of health units submitting complete HMIS returns to the district	5	Ignores availability of stationery i.e. new HMIS forms were not widely available. Coexistence of old and new data forms made comparison of outputs difficult.
Percent of district HMIS returns submitted (to MOH) timely	5	Loss of data by recipient office, no feedback to districts except league table, vacant posts amongst personnel to deal with records.
Proportion of approved posts that are filled by trained health personnel	5	Recruitment is not controlled by districts but Treasury, MOH and Public Service. Districts only recruit if funds and standards are provided or when the recruitment ban is lifted.
Proportion of PHC grants spent on drugs purchased at NMS (or JMS) [Guideline is 50% spent on drugs]	10	NMS sometime does not have enough drugs stocks and does not want to refund the money/credits to the units or districts to shop elsewhere. The budget ratio for drugs was opposed. Hospital actors felt 50% was too much. Lack of funds for repairs and maintenance were cited as rationale for lower score.
Percent of children under 1 year received 3 doses of DPT according to schedule	12.5	No significant controversy on this indicator.
Total Govt and NGO OPD utilisation per person per year	12.5	Insufficient drugs at NMS was a recurrent complaint here too. Without enough drugs OPD attendances decline.
Percent of deliveries in Govt and NGO health facilities	12.5	Lack of doctors, ill equipped maternity units, recruitment budgets.
Proportion of TB cases notified compared to expected	10	Contestation of uniformity of TB incidence among districts
Percent of pregnant women received 2 <sup>nd</sup> dose of Fansidar for malaria prevention	10	Conflict with new guideline on malaria treatment. Coartem had replaced Fansidar in guidelines.
Pit latrine coverage	7.5	Credibility of data questioned. No routine data are collected on this, surveys are expensive.

It is important to note that the league table which represented the measurement instrument for the district health services was a significant deviation from the HSSP indicators (table 4.4). The league table dropped the indicator on HIV prevalence. Other indicators were added - TB, malaria, sanitation and a host of administrative indicators to monitor absorption capacity for disbursed funds, procurement of drugs, and two indicators to measure adequacy of reporting and information flow from districts to MOH.

Despite its short comings, the league table rankings did spur a number of responses among the DHOs and politicians at the district level. Two DHOs were interviewed in this study and asked what they had done differently as a result of their league table position for the 2004/05. The league table position (rank) for their district had ignited some performance related queries from district political leaders. Political leaders had started to ask why their districts were in unfavourable positions, or why they had fallen in the rankings from the previous year. But the most tangible finding was the adoption of the league table idea by the district

health system in these two districts. The sub-nationalisation of the league table idea and by adopting similar indicators and providing some form of recognition awards to “good performers” within the districts, showed that the districts were sensitive to the rankings at the national level. As illustrated by the extracts of the interview below, this DHO appreciated the general idea behind the league table despite the limitations of its measures.

*“Sometimes the criteria MOH people use are meaningless. ... They put scores on things that are not of any purpose on the ground. Imagine they give 10 points for purchasing drugs from NMS. If I purchase drug items worth Sh.20 million from NMS, I get the score even if the drug is only serving two persons. Drug availability to me is a better measure but the guy (MOH official) was offended when I challenged him about this. You see these scores, they make IDP camps<sup>5</sup> to do better than us – God forbid” (DHO)*

*“This (league) table is brought in a Political Leaders’ Forum... You get them (District Council) Chairman asking “what has happened to our district to be (ranked) down”. Of course no one wants to be at the tail end. We defended this since they (MOH) had not included a score on drugs for our district and yet this drug item attracts a score of 10. When we asked for a reason why they left it out, we’ve never received a response. But the idea is good. It arouses the interest of the leaders. But the quality of the measurement (is not good) – the purpose is delivery to people. ... satisfaction of beneficiaries are needed.... We also rank our units through HMIS-completeness, promptness and adequacy. Also reproductive health – deliveries, School health, child health days, (we) give prizes biannually to the HSDs that perform better. It’s now routine” (DHO).*

Table 4.5 below provides a summary of the performance expectations and influences at the national (Ministry of Health) level.

### **4.3 Expectations at the Decentralised/District Health System**

The district health managers expect improvement in the utilisation of the health services and proper reports of utilisation and reports of accounts from downstream implementers of district health programmes. It is upon the aggregation and submissions of these reports to the Ministry of Health that quarterly disbursement of funds are triggered. The official withdrawal of user-fees in public health facilities had also led to the expectation that PNFP services would also be made affordable to local communities. As will be discussed in more detail in section 5.1, the push for the reduction of fees by PNFP providers and non increasing subsidy from Government had raised sustainability questions among PNFP providers. This led to active efforts by the district health directorates to assist the PNFP providers in their districts by seconding staff, donating vehicles and allocating project-based resources to PNFP hospitals. This active support mechanism was mainly to boost the operational capacity of these providers.

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<sup>5</sup> Gulu district with camps of internally displaced population (IDP) was ranked best overall

**Table 4.5: Summary performance expectations, support and enforcement at MOH level**

	Performance Expectations	Performance Support	Performance Measurements	Mechanisms of enforcement
<b>Upstream expectations of MOH</b> (MOFPED Donors)	<ul style="list-style-type: none"> <li>• aid flows and predictability</li> <li>• mobilizing more resources</li> <li>• Larger budget share from Treasury</li> </ul>	<ul style="list-style-type: none"> <li>• Technical experts and donor sponsored studies</li> </ul>	<ul style="list-style-type: none"> <li>• Overall resources committed to the health sector plan</li> </ul>	<ul style="list-style-type: none"> <li>• Display of evidence of need i.e. mortality rates, shortages of staff, drugs and poor infrastructure,</li> </ul>
<b>Internal or horizontal expectations of MOH</b> <i>[Le from other national agencies that play vital roles complementary to MOH – i.e. NMS, National Drug Authority, Health Service Commission etc]</i>	<ul style="list-style-type: none"> <li>• Effective support to implementers with</li> <li>• policy and guidelines</li> <li>• Area team support supervision</li> <li>• Improved function of Autonomous agencies</li> <li>• National medical stores</li> <li>• Health service commission</li> <li>• Ministry of education</li> <li>• Enrolment and output health worker training programmes</li> </ul>	<ul style="list-style-type: none"> <li>• Budget support by donors</li> <li>• Advocacy for higher budget allocation</li> <li>• Resource mobilization i.e. projects grants from Global Fund</li> <li>• Bulk procurement of drugs and equipment</li> <li>• Negotiating performance reports with Global Health Initiatives.</li> <li>• Negotiating budgets and disbursements with National Treasury</li> </ul>	<ul style="list-style-type: none"> <li>• Donor funds channelled through the national budget or through projects</li> <li>• Availability of sufficient drugs stocks at NMS &amp; JMS</li> <li>• Number of graduating health workers from training schools</li> <li>• Timeliness of PHC fund disbursement to districts</li> <li>• Annual Sector Review <ul style="list-style-type: none"> <li>- fact finding visits</li> <li>- annual reports</li> <li>- tracking studies</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Inter agency committee meetings or working groups</li> <li>• Quarterly performance reviews by MOH staff</li> <li>• Public stakeholder performance review meetings with district leaders, NGOs &amp; media.</li> <li>• Open accountability public information sharing: <ul style="list-style-type: none"> <li>- pressure of “name and shame” or “name and glorify”</li> </ul> </li> </ul>
<b>Downstream expectations of MOH</b> (districts)	<ul style="list-style-type: none"> <li>• Adequate stock of quality staff and mix</li> <li>• Expand coverage e.g. ARVs, TB, malaria</li> <li>• quality of services</li> <li>• provide output information</li> <li>• value for money accountability</li> <li>• prompt performance reports</li> <li>• absorption of available funds</li> <li>• PHC infrastructure development</li> <li>• community PHC participation</li> </ul>	<ul style="list-style-type: none"> <li>• Advocacy &amp; timely disbursement of funds</li> <li>• Planning and allocation of national budgets thru the MTEFs.</li> <li>• Reducing bureaucracy <ul style="list-style-type: none"> <li>- earmarking PNFP funds</li> <li>- providing drug credit lines</li> </ul> </li> <li>• Guidelines for implementation and managing care delivery <ul style="list-style-type: none"> <li>- recruitment quotas</li> <li>- earmarking drug budgets</li> </ul> </li> <li>• Media campaigns for national programmes</li> </ul>	<ul style="list-style-type: none"> <li>• Area team supervision and support visits</li> <li>• League tables of district performance</li> <li>• Special studies <ul style="list-style-type: none"> <li>- tracking studies</li> <li>- disease surveillance</li> </ul> </li> <li>• Periodic surveys</li> <li>• household poverty monitoring</li> <li>• demographic and health</li> </ul>	<ul style="list-style-type: none"> <li>• Name and shame in the league table</li> <li>• Withholding budget disbursements</li> <li>• Not allocating resources such as cars, project funds, infrastructure fund to non compliant districts</li> <li>• Can advise the district employer against an incompetent manager</li> </ul>

Source: researcher construction from observations at stakeholder meetings and relevant literature review

#### 4.3.1 Performance Review Meetings

In relation to the district level performance management, quarterly and annual performance review meetings were innovations in the process of being established in two of the three districts hosting the study hospitals. In these two districts, the processes of performance analysis and review were being supported financially and also technically by international

NGO projects working in these districts. One of the NGO projects that was involved in supporting Quarterly Performance Review Meetings (QPRMs) had a presence in the two districts where this practice was being established. Publicly available information about this NGO project showed that its objectives and therefore its success, were dependent on the performance improvements of the UCMB health facilities in these two districts (CUAMM 2002). The project was directly involved in the performance assessments and also financing the QPRMs in the two districts as a means of accessing performance information for monitoring its project. The performance targets and review processes were guided by the short-list of MOH indicators for HSSP and the measures used in the national league table (tables 4.3 and 4.4).

#### **4.3.2 Performance Recognition and Awards**

In addition to the PBC pilot, other projects were also found in the districts trying to influence the performance of study hospitals. These projects were providing funds and assessing hospital performance against their objectives. The following four projects used some form of performance frameworks (measurement and rewards) to directly influence the specific performance objectives within the study hospitals:

- a) Yellow Star programme (YSP) was being adopted by districts to promote service quality improvements. Although not well institutionalised in the districts hosting the study hospitals, YSP was starting to assess service quality in hospitals and health centres. As described further in chapter 6, the programme was providing certificates and other forms of recognition to the hospitals for good quality of services provided. It was also supporting activities that signal to the communities the service quality of the health facilities. This programme was just starting in some of the hospitals at the time this study was winding up its field activities.
- b) UCMB was influential among the hospitals affiliated to the Catholic Church. Section 4.4 provides more discussion of its objectives and influence.
- c) The reproductive health programme of MOH and UNFPA were supporting districts to implement project activities aimed at tracking causes of maternal mortality. The performance measures here included maternal death audits in health facilities and in the communities.
- d) The rolling out of ARVs in most hospitals in 2004 had also introduced performance-targets for antiretroviral therapy enrolments as well as performance interest in tracking drug stocks and adherence to HIV/AIDS care. As incentives, all study hospitals were receiving project funding in accordance with the number of clients they had enrolled onto ART programmes. Some of these projects were being coordinated through the district health management offices.

However, the main challenge was the unpredictability of resources to support these performance frameworks. There was poor information about their schedules and uncertainty

surrounded their prospects for sustainability. Table 4.7 provides a summary of performance expectations and influences at the district level.

#### **4.3.3 Districts as Middlemen in Performance Management**

It is essential to recognise that the district level served an intermediary role in the management of service delivery systems. In general the districts did not have locally generated funds to implement their programmes. Performance expectations at this level were contingent on upstream provision of funds, guidelines and policies for district level activities to run. Much as the District Health Offices were assessing the upstream support they received, they did not have strong mechanisms to enforce their upstream expectations especially from the ministries of Health and Finance. The down-stream expectations, support and influences of the District Health Directorates towards the hospitals were contingent on the fulfilment of the upstream expectations. As a result, the District Health Officers had low powered influences which were sometimes counterproductive due to slow or delayed disbursement of funds from the central government. The following interview and meeting extracts illustrate the difficulty of demanding better performance from providers when they are not receiving adequate resources to perform their activities. It also illustrates the unorthodox ways the district providers and their managers try to secure funds by pragmatically bending institutional rules and norms:

*"We have explained to them (hospitals) in many meetings that the delays (in disbursements) are from central government. This is (an) issue of (insufficient) cash budget and a problem of revenue collection. The problem is also with proportionate disbursements. I was doing my computation of disbursements – hospital X<sup>6</sup> has 100% disbursed, PNFPs have 70 to 80% disbursed – yet this is June (the end of the financial year)" (DHO).*

*"Supervision funds for this district are not forthcoming and most supervision activities have been put on hold for a month and half. .... The project officer informs the quarterly performance review meeting that 2.2 million shillings is now available to start the overdue supervision visits. However, the project officer needs accountability for this money within three days after (today's) meeting. This accountability will enable him to get access to a larger disbursement of 9 million shillings from project office in Kampala. Attendees at the performance review meeting discuss briefly the ethics of giving accountability before doing the supervision visits. Eventually they agree to provide the accountability as a means of securing funds for project activities in the next quarter (Researcher Observation at District Quarterly Performance Reviews Meeting ).*

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<sup>6</sup> Name of a public hospital edited out to conceal identity of the hospital and the respondent



**Table 4.6: Summary of district performance framework towards hospitals**

	Performance Expectations	Performance Support	Performance assessment	Mechanisms of enforcement
Upstream	Increased funds for activities Regular disbursement of fund Guidelines and coherent policies National procurement and availability of medical goods Support supervision Empowering measures of performance MOH feedback systems on district level performance	Developing operational plans for district programmes Share district level information to MOH Accountability reports Service utilisation reporting Coordinating actions for implementation	Disbursements of funds from the treasury Project-based support especially that channelled through the districts Fair share of facilitation e.g. development projects, cars	Complaints when given opportunity to talk to MOH and MOFP&ED – especially during Annual Health Assembly and SWAP sector review meetings
Downstream	Preparation of operational plans Timely reports of activities and accountability Quality – drugs & satisfaction Increased use of curative and preventive services <ul style="list-style-type: none"> <li>• achieving HSSP league table set targets</li> <li>• acceptable staff standards</li> <li>• Sustainable initiatives</li> <li>• visibility of health facilities</li> <li>• programmes/projects</li> <li>• Affordable services to users</li> <li>• HSD supervision to lower health facilities</li> </ul> Implementing ad hoc national programmes such as <ul style="list-style-type: none"> <li>• immunisations days (NIDs),</li> <li>• MMR audits</li> <li>• ARV drugs</li> <li>• Yellow star</li> </ul>	On-ward disbursement of operational funds Mobilizing project-based funds for programmes Recruitment & deployment of staff & secondment to PNFP Procurement support Coordination with local and national authorities Supporting systems: <ul style="list-style-type: none"> <li>• Information systems</li> <li>• Accounting systems</li> <li>• Support supervision to HSD and lower level units</li> <li>• Facility planning</li> <li>• Setting HSSP annual service targets</li> <li>• Networking with UCMB and UPMB</li> </ul>	Routine monitoring and support visits <ul style="list-style-type: none"> <li>• infrastructure</li> <li>• staffing</li> <li>• drug availability</li> </ul> Quarterly performance review meetings: <ul style="list-style-type: none"> <li>• Reports of accounts</li> <li>• Reports of activities</li> <li>• HSSP targets attainment</li> <li>• District-based league table</li> </ul> Project-based measures: <ul style="list-style-type: none"> <li>• Maternal mortality audits</li> <li>• Drugs stocks for key programmes i.e. ARVs, condoms, malaria</li> <li>• Yellow star rankings</li> <li>• Performance-based contracting pilot</li> </ul>	Integration with PNFP management i.e. seconding staff for HSD work  Recommendation for access to national and project resources i.e. vehicles and project grants – also threats of exclusion from project grants e.g. for ARV, PMTCT, etc  Awards for excelling on league table  Awards of certificate for quality – under the Yellow Star Programme

#### **4.4 UCMB and its Performance Expectations: A Case Study**

The PNFP medical bureaus (especially the catholic one) had profound influence on the performance of the study hospitals affiliated to them. Five study hospitals fall under the Uganda Catholic Medical Bureau (UCMB), two belong to Uganda Protestant Medical Bureau (UPMB) and three were public district hospitals. The performance interactions between the bureaus and the hospitals are an essential component of understanding the context of the study hospitals and their response to performance contracts. More importantly, the Bureaus provide reports of the aggregate health service outputs as performance accountability for the grants the government extends to the PNFP sector. PNFPs were active players in influencing hospitals and lower level providers to provide performance information to government. They play an advocacy role aimed at improving government subsidies to the PNFP sector and in advancing the public private partnership policies.

#### **4.4.1 UCMB and its Institutional Basis for Performance Governance**

UCMB is the technical arm of the Catholic Church of Uganda (CCU) in health service delivery. UCMB programmes have a direct influence on the performance of its members and other PNFP providers. Overall, CCU has about 60 percent of the PNFP health facilities with 27 hospitals, 11 nurse training schools, and 228 lower level health facilities. Given this large network of PNFP health providers and relatively well resourced support programmes, UCMB had more performance enhancing innovations for its members and enjoyed more authority in comparison to its sister Bureaus. In brief, the mandate of the UCMB as reflected in its 1999 Mission and Policy Statement covers the following (UCMB 1999):

1. improving managerial, administrative, fiscal and legal capacities of its members,
2. collecting data for demonstrating the relevance, cost efficiency/effectiveness and social orientation of the CCU health services,
3. disseminating relevant information to CCU health services,
4. facilitating forums of common discussion, learning, collaboration, exchange of experience, identification of common problems and priorities,
5. advocating/lobbying for CCU health services with Government, private-or-profit, international agencies and donor community,
6. representing the CCU health services and liaising with Government,
7. cooperating with Government in areas of health policy development, planning quality assurance, training and other relevant issues.

Given its linkage with the Catholic Church, UCMB was able to mobilise funds from local and international agencies, to actively pursue its mandate. Its programmes were geared to providing support to its members in the domains of organisational development, strengthening management training, information systems and establishing systems for quality improvement. Its mandate also links it to the Catholic-founded university – Uganda Martyrs University for the development of management and administration skills of health service managers. In addition, UCMB and UPMB together are cofounders of one of Uganda's largest drugs procurement agency – Joint Medical Stores (JMS). Through JMS, subsidised drugs were procured and sold to member organisations of UCMB and UPMC. UCMB used its network and church influence to attract projects that work to enhance the UCMB mandate and to provide support for operational activities in the hospitals(UCMB 2006b). Several European sponsored projects were found active in expanding the infrastructure of study hospitals, providing sponsorship for management training and to a lesser extent, contributing to drug-costs and salaries of doctors.

Due to its relatively well resourced mandate, UCMB's performance expectations and supportive arrangements espouses a powerful influence within its network and in the five study hospitals affiliated to it. Given a history of collaboration between UCMB and UPMB,

the latter was adopting a number of similar mechanisms (UPMB 2005) in its own network to which two study hospitals belonged.

#### **4.4.2 The Complementary Roles of UCMB**

It is worth noting that UCMB articulated most of its operational mandates as facilitating its member organisations to comply with and address national and district health objectives. In general therefore, UCMB's role was mostly to complement government's health objectives. This cooperation with national and local governments was an essential basis for government subsidies to UCMB and other PNFPs (Guisti 2006). The following examples indicate the complementarities of UCMB to MOH guidelines and tools:

1. use of MOH health management information systems (HMIS) for reporting the productivity of the UCMB units to government and to the governing boards.
2. use of a similar accounts reporting format to that used by the government system
3. use of a set of quality indicators extracted from the Yellow Star Programme adopted by MOH.
4. striving to use the MOH staffing standards despite problems of staff attrition,
5. gazetting UCMB hospitals to take on additional roles as Health Sub-District (HSD). As HSD, hospitals were expected to support lower level units (both public and PNFP) by undertaking activities for planning, supervision, drug procurement, information management and performance reporting. Providing outreach services such as immunisation, health promotion and supporting community health workers were part of the HSD activities. With the exception of one, all study hospitals had accepted the added role as HSD.

#### **4.4.3 UCMB - Hospital Interface**

Performance expectations arising from the implementation of UCMB mandate were prevalent among the narratives of study hospital managers affiliated to UCC. The table 4.7 below seeks to provide the emergent themes and illustrative statements abstracted from in-depth interviews. The table also presents how the narratives about UCMB were interpreted in the context of the interviews. The interview extracts are from 13 respondents at the managerial level in the five UCMB hospitals at baseline in 2005.

Arising from repeated reference to UCMB in the interviews with hospital managers, this researcher decided to interview two UCMB officials to understand the underpinnings of the organisational development activities that were being attributed to UCMB by hospital managers.

**Table 4.7: Illustrative analytic induction for performance expectations of UCMB**

Interview extracts	Condensed meaning	Interpretation of underlying meaning	Sub-theme	Theme
<p>UCMB requires us to report on undertakings (actions for improvement) agreed in the year.</p> <p>We were not accredited for 2004/05 due to failure of reporting. We had all the information, we [have now] prepared all and gave it. So we are accredited this time.</p>	<p>Expectation of progress reports on agreed actions</p> <p>Consequence of failure and Responsiveness to sanctions</p>	<p>Monitoring of change actions</p> <p>Valued benefits of UCMB accreditation</p>	<p>Incentives for change or improvement</p>	<p>Managing change</p>
<p>What is behind (improvement in hospital performance) is one: change of administrator. Because the previous one did not know much. She was not educated at all in issues of administration - I also went to school for (MSc) Health Services Management, ....also UCMB streamlined management. New manuals and hospital charter”.</p>	<p>Intervening in management processes by setting ground rules</p> <p>Training persons for management positions</p>	<p>Capacity building for better hospitals administration</p>	<p>Organisational management</p>	<p>Modernising Management</p>
<p>You find for example that a doctor gets about 650,000 per month which is just close to what government is paying and as you know the work is a lot and of course being a mission hospital, they have a tight grip - for example UCMB doesn't allow having (private) clinics – at least not near the hospital.</p>	<p>Strictness in human resource management</p> <p>Curbing practices that compete with hospital activities</p>	<p>UCMB seen as a source of control and institutional authority</p>	<p>Strengthening Systems of HR control</p>	<p>Human resource</p>
<p>It's a requirement of CUAMM and UCMB that the board meet monthly. It's there on paper but we usually meet quarterly.</p> <p>... also UCMB requires that we report to board of governors before sending [reports] to UCMB.</p>	<p>Require managers and Board of Governors (BOG) to meet more often</p>	<p>Increase oversight of BOGs on hospital management</p>	<p>Governance oversight/ supervision of managers</p>	<p>Governance</p>
<p>Essentially what they have done - ... is to make diocesan co-ordinators ensure that the hospital have their finances, how they make money [business plan], their vision and that kind of thing. They are the link to UCMB.</p>	<p>Supportive complementarities from linkages to UCMB</p> <p>Extension of UCMB influence via Diocesan coordinators</p>	<p>Assistance with strategic issues of hospital management (vision, sustainable financing)</p>	<p>Build organisational systems for sustainable operations</p>	<p>Business strategy</p>

The following section draws on the interviews of the two UCMB officials, documents about UCMB activities and the interviews with hospital management teams (HMT) to analyse the mechanism behind the change processes (table 4.7) that exhibited features of strong compliance from the study hospitals. The process of change that UCMB was championing covered core domains of organisational functioning such as revisions for hospital mission statements, strategic governance manuals and performance management. Understanding the levers for the apparent good compliance from the hospitals was necessary in as much as it

provides a comparative dimension for evaluating hospital response to PBC. PBC pilot, like UCMB's mandate, required organisational level responses in performance management and governance processes (Smith 2002; Scott, Mannion et al. 2003).

#### **4.4.3.1 Institutionalising Improved Performance by UCMB**

The fieldwork for this study coincided with a period of revising hospital mission statements and constitutions (Hospital Charters) in most UCMB hospitals. This was mostly influenced by UCMB as a basis for managing the broader organisational change process. Hospitals were required to align their mission with the newly revised CCU mission for health services. As evident from the CCU mission statement below, values and norms were central mechanisms that were being strengthened (UCMB 1999).

1. *The mission of the Catholic health services in Uganda is derived from the mission of the Church which has a mandate, based on the imitation of Christ and His deeds, to promote life to the full and to heal. These services are committed to a holistic approach in healing by treating and preventing diseases, with a preferential option for the less privileged.*
2. *Since the person is at the centre of all activities of the Catholic health services, a basic attitude of respect for the human dignity will be the guideline for all. Therefore the principle of subsidiarity will be applied with equity in all relationships within the Catholic health service network.*
3. *Justice, universality and equality will mark the work of all Catholic health units in Uganda. Their work will be done in a professional way and in a spirit of total dedication and transparency. Human life being sacred, the basic attitude of all personnel in Catholic health services will be the healing of the person with total respect for life.*

The information abstracted from the UCMB Annual General Meetings from 2003 to 2005 shows a gradual change process moving its focus initially on output performance assessment and management training to institutional building processes such as new hospital charters and operations manuals. This process was interpreted as efforts to codify best practices in organisational decision making (Scott 2001). For example, during the first round of interviews between April – June 2005, most of the hospitals were starting to revise their missions and governance manuals. The manuals developed included that for financial management and personnel management (employment). The templates for the revision of these manuals were traced to the Mission Statement and Policy of the Uganda Catholic Health Services (UCMB 1999). Similar activities of reviewing the “hospital constitution and mission” were found in one of the two study hospitals affiliated to UPMB. By 2006, the change processes among UCMB were targeting fiduciary obligations of managers and quality of health services provided by these hospitals. The UCMB change processes – like preparing new mission, charters and operational manuals targeted hospitals as opposed to smaller health centres because of the high investment costs in hospitals and the overall impact they have on service delivery (UCMB 2003).

#### **4.4.3.2 Integration of UCMB into Hospital Operations**

The advent of UCMB revitalization in 1999 also introduced a new structure – the Diocesan Health Coordinator (DHC) as the technical extension of the Diocesan Health Boards (DHB). The DHB played the role of supervising health facilities affiliated to the UCC in each dioceses. The powers of the DHBs were exercised most directly by the DHCs. For example, the DHCs were members of the hospital Boards of Governors by virtue of their office and supervised all the UCC/UCMB health facilities. As such, the DHC received reports of performance and reports of accounts from all member facilities every month. In practice, the DHC were supervised directly by UCMB due to the technical nature of their work. The operations of DHCs' offices, salaries and their training had been financially supported by UCMB. In effect, the DHCs were the extended arm of UCMB that enabled the latter to observe the hospitals more directly for example through membership of BOGs. The DHC were also instrumental extension of UCMB in influencing the functions of DHBs at the diocese level. In general UCMB had through its agents – the DHCs – integrated itself into the hospitals and the DHBs. As explained by Williamson (1979) integration can be one mechanism to achieve control in transactional relationships at less cost under circumstances including information asymmetry (Williamson 1979).

#### **4.4.3.3 Providing Technical Support and Training**

UCMB had at its headquarters technical experts in the field of Information Systems, Human Resource Management, Organisational Development and Financial Management. These experts were also boosted by the staff of the Catholic founded University – the Uganda Martyrs University (UMU). Individualised needs of hospitals were identified and tailor-made training and mentoring of the hospital managers was regularly provided in the key domains of the expertise above. Research on key issues such as policy implementation of user-fee reduction, service quality assessment and use of information in management decisions, had been commissioned. The research findings were being presented and discussed at the performance review meetings hosted by UCMB (UCMB 2005).

Training scholarships for short courses, Diploma and Masters in Health Service Management had been provided especially to those in management positions in hospitals. By May 2006, 22 and 46 managers from UCMB network had benefited from the diploma and masters courses respectively. Additionally, a fund has been created by UCMB to support the conduct of operational research in the domains relevant to UCMB mandate. Most of the research papers produced under this support were published by UMU journal called Health Policy and Development (HPD 2003-5). The journal topics include management information systems, strategic planning, human resource, user fees and utilisation, costing of services and service quality. Other research activities were being undertaken with the support of NGOs affiliated to UCMB.

In general, management support through coaching, workshops and training was an important aspect of UCMB reforms to strengthen the performance of its hospitals. Likewise, operational research was actively resourced to inform the reform processes. The research findings were being generated by and shared among the key players.

#### **4.4.3.4 UCMB Accreditation Regimen**

UCMB devised a system of accreditation for both hospitals and lower level health units in their network since 2003. The purpose for the accreditation was stated as aiming to transform CCU health service mission from the religious values to practical steps that could be measured objectively to assess compliance. Compliance to the accreditation requirements and the performance assessment of service outputs was branded as “Faithfulness to the Mission”(UCMB 2006).

*“They (church) delegated to us (UCMB) the task of implementing the mission. We devised a tool to ensure that the mission moves from moral authority to practical set of things that need to be done to show cohesion and adherence to the mission. We have invented tools referred to as accreditation requirements to foster faithfulness to the mission. As the bureau (UCMB), we have translated the mission, its processes and results that are measured objectively. These are (health service) access, equity to the poor and vulnerable, efficiency, productivity and improved quality” (UCMB official).*

The accreditation consisted of statutory requirements, agreed undertakings and other necessary submissions as illustrated in table 4.8. The important attributes of the accreditation included a focus on fulfilling the legal status of the hospitals and strengthening accountability of managers to their BOG. The accreditation also sought to bring the BOG into active oversight by ensuring that they received analytic and credible information about hospital performance from their HMTs. For example, graphic plots of trends of key services outputs were required to enable BOG to make informed strategic decisions. As a recent development, additional accreditation requirements were added in 2005 to encourage prescription audits, and client satisfaction surveys (Lochoro 2004).

As illustrated in the quotations below, financial and non-financial incentives were attached to the fulfilment of accreditation requirements by the hospitals (and health centres). These included discounts on drug purchases from the JMS, representation by UCMB especially by mobilising donor grants, training scholarships of managers, free learning resources i.e. journal and bulletins and above all, providing a credible institutions for hospitals to access donor funds.

*“... The benefits [of accreditation] includes: (enumerates) 1.Discounts of (drugs) procurement with JMS, 2 -Advocacy – UCMB has little influence if there is no data to defend the hospital. 3-Scholarships by UCMB. Myself I benefited from that – (I) did a DHSM (diploma health services management). The Administrator also benefited.” HMT-PNFP*

*“... about 90 percent of all Catholic units are accredited. 45 units still do not have a valid charter. ... in theory these units have already missed accreditation for 2006/7 since the deadline is passed (31June 2006). When units are not accredited, it means that they will not benefit from*

our bulletin, scholarships and above all cannot be trusted" UCMB Executive Secretary (UCMB 2006 page 2).

*".. concerning management and corporate governance in hospitals, there has been evidence of progress towards a fair corporate governance. UCMB had to push a lot and a lot has been achieved to "please UCMB". Yet UCMB has no vested interest for itself but it knows that without good governance there is no fiduciary assurance hence no chance of attracting donors and no possibility to give real accountability upwards and downwards" UCMB Executive Secretary (UCMB 2006 pg 2).*

In general terms, UCMB accreditation represented a tool to translate UCC mission from abstract values and norms to measurable performance processes and outputs. Accreditation was seen not as an end but as a process towards better governance and building institutional trust for financial survival of the hospitals. The incentives attached to accreditation were relatively more powerful compared to the incentives in the PBC pilot or league table approach of the local governments.

**Table 4.8: UCMB accreditation requirements for 2005/06.**

Statutory	Undertakings	Other necessary submissions
<ul style="list-style-type: none"> <li>• License issued by registrar</li> <li>• Annual contribution to UCMB</li> <li>• Existence of manual of financial management</li> <li>• Annual hospital analytical report for the financial year prior.</li> </ul>	<ul style="list-style-type: none"> <li>• Receipt of quarterly HR notification form,</li> <li>• Receipt of job description of information officer,</li> <li>• Copy of report of Faithfulness to the Mission submitted to the BOG and copied to UCMB,</li> <li>• Submission of 60 – 80 survey form for assessment of patients' prescription audit,</li> <li>• Submission of at least 50 survey forms for patient satisfaction,</li> <li>• Annual comprehensive report (inputs, revenues and outputs) using UCMB format, including EDF drugs, signed, stamped,</li> <li>• Statement of achievement of audited Accounts for the concluded financial year,</li> <li>• Report of one page about one action taken to improve quality of care and its effect(s),</li> <li>• (if has a nurse school) submission of complete annual report.</li> </ul>	<ul style="list-style-type: none"> <li>• Submission of summary report on fulfilment of statutory requirements, undertakings and actions</li> <li>• Receipt of staffing situation as of 30.06.2006</li> <li>• Receipt of questionnaires to monitor and evaluate the effects of global initiatives project in hospital services</li> </ul>

Source:(UCMB 2005 pg 7)

#### **4.4.3.5 UCMB Relative Performance Assessment**

A database had been created in 1997 to collect comparable information for hospitals and lower level health units. Analysis of efficiency, access, and equity had been undertaken annually using this database as a means of providing MOH and the Government with aggregate performance accountability (service outputs) for the subsidies provided to the UCMB (Guisti 2006). Additionally, and probably more central to this study, the database was being used to compute relative (Amone, Asio et al. 2005) measures of service output and efficiency among hospitals. These measures – referred to as "standard unit of outputs" (SUOs) were used to construct relative performance measures of hospitals. These measures were presented by UCMB in its annual and biannual performance review meetings (PRMs) attended by all managers from UCMB affiliated hospitals. Although similar to the league



table in concept and method, the relative performance rankings were used to identify explanations for both good and poor performance. Put differently, the relative performance rankings were used as entry points for a learning process and sharing of information among all hospital managers attending the PRMs. Unlike the league table at the national and district level, UCMB's measures included the following performance measures of productivity, efficiency and equity:

1. Weighting all major hospital services outputs (inpatient, outpatient and immunisations) into "OPD-equivalent" units called SUO.
2. Output efficiency was computed by comparing SUO with inputs such as expenditures and available staff.
3. Average user-fee charged per SUO was used as a measure of equity (affordability) of services.
4. The comparative measure (average values) were endogenously generated for each comparable group such as hospitals and health centres. This allowed the "standard" or "benchmark" scenario to take into account contextual dynamics that affect all providers – such as fluctuation in amount of government subsidies. Unlike PBC that demanded an increase in outputs every year, UCMB measures were based on *deviation* from the group average value – i.e. the benchmark was set within the groups.
5. The measurement of SUO was for internal hospital assessment. The measures were considered to be technical but the interpretation and feasible actions was considered to be contextual(UCMB 2006). Therefore, HMT were required during the PRMs to elaborate the explanations for their hospital's performance and develop action plans for improvement. The action plans were submitted to UCMB for monitoring and as a basis for organising supportive arrangements required.

Performance review meetings of UCMB were also used as forums for sharing best practices. Health units that were making "good" progress were given subtle recognition such as a podium at the review meetings to tell others about their success stories.

Table 4.9 summarises the performance interactions in the three domains of expectations, performance support and assessment between UCMB and its affiliated study hospitals. Like the district health directorates, PNFP bureaus are intermediary organisations whose downstream performance expectations are subject to, or moderated by, upstream contingencies.

**Table 4.9: Summary of UCMB performance expectations, support and assessment**

Performance expectation	Performance Support	Performance assessment	Mechanisms of Enforcement
(complimentary to the DHOs expectation) plus:  Sustainable provider organisations Alignment to the CCU Mission Improved service quality Capable managers Improved managerial systems <ul style="list-style-type: none"> <li>• Accountability to Boards</li> <li>• Governance best practices</li> <li>• Human resource management practices</li> <li>• Communication within organisations</li> <li>• Performance reporting</li> </ul>	Advocacy at national level for higher PNFP allocations Technical assistance to provider organisations Host regular forums for peer exchange and learning Scholarships for managers and administrators in UCMB network Resource mobilization for capital developments eg <ul style="list-style-type: none"> <li>• 5 European NGO in UCMB study hospitals</li> </ul> Operations research for policy changes: <ul style="list-style-type: none"> <li>• User fee reduction</li> <li>• research grants for Msc trainees at UCC University</li> </ul>	Accreditation regimen for UCMB membership eg: <ul style="list-style-type: none"> <li>• hospital constitution</li> <li>• organisational manuals</li> <li>• accounting to the Boards</li> <li>• performance reports ("faithfulness to the mission")</li> <li>• annual financial audit</li> <li>• operating licence as NGO</li> </ul> performance assessment: <ul style="list-style-type: none"> <li>• analysis of utilisation data</li> <li>• comparing across units</li> <li>• service quality measures</li> <li>• customised plans for improvements</li> </ul>	A range of incentives for accredited members eg:  1. Financial incentives: <ul style="list-style-type: none"> <li>• Discount on drug purchases</li> <li>• Grants from projects sourced by UCMB</li> </ul> 2. Non financial incentives: <ul style="list-style-type: none"> <li>• Scholarships for management training</li> <li>• Information Technology i.e. email system &amp; internet</li> <li>• Free journal and bulletins</li> <li>• Peer learning</li> </ul> 3. Reputation incentive: <ul style="list-style-type: none"> <li>• Trust for UCMB accredited members</li> </ul>

**Summary:**

This chapter has outlined the context within which PBC intervention was implemented in Uganda. It shows that performance objectives set at the macro (upstream-macro) level were different from those espoused at (upstream-meso) MOH/sector and sub-national (district) levels. At the level of service provision (down-stream) – hospitals are subjected to fulfilling several objectives of the upstream agencies as well as their own objectives. Chapter 4 shed some light on the multiplicity of performance objectives among upstream agencies in the Ugandan health system. The chapter also illustrated different influence mechanisms for performance objectives of these stakeholders. Some of these influences were weak, (ie at the district level - DHOs) and some were relatively more powerful – i.e. those linked to financial allocation, disbursement and accreditation of UCMB. This context is bound to have both synergy and constraints to the success of PBC. Synergies are related to similar service targets with other performance framework like reduction in user fees, national league table and UCMB accreditation. In contrast, contextual factors like increase in the costs of production and less stable workforce especially for PNFP hospitals would make PBC success more difficult. The uses of a league table by MOH and accreditation processes by UCMB case study illustrate the use of clan-based approached as suggested by Ouchi (1980) for managing performance by these institutions.

Chapter 5 examines the structures for performance governance at the interface most proximal to the hospital – i.e. between the Boards of Governors and hospital management teams.

## **Chapter 5: Performance Governance Mechanisms**

### **5.0 Introduction**

Performance-based contracting as a policy lever assumes a platform of organisational governance that is result oriented, that has well articulated goals and objectives and above all, aligned governance structures such as rules, regulation, protocols and conventions (Palmer 2000; Eeckloo, Van Herck et al. 2004; Latham, Almost et al. 2005; Palmer and Mills 2005). Governance structures refer to all those arrangements by which power and authority are exercised involving variously, formal and informal systems, public and private auspices, regulative and normative mechanisms (Scott 2001). Both social science and institutional economics recognise the need to have structures of control to ensure that the agent bound into a contract performs in terms of desired effort, action or behaviour. A distinction is made in the governance structure between the groups acting on behalf of the owners and the executors of the task – the agents or executives. Williamson (1985) notes “the board of directors should be regarded primarily as a governance structure safeguard between the firm and owners and secondarily as a way by which to safeguard the contractual relation between the firm and its management” (page 298). PNFP and public hospitals act as agent organisations on behalf of the church, government or other non-profit owners. Within hospitals, governance structures involve the governance Boards, Boards of Directors or Supervising Boards (Weiner and Alexander 1993; Johnson, Daily et al. 1996; Wagner, Stimpert et al. 1998; Vining 2003). The principle underlying the need for the governance Boards is to ensure responsibility and accountability for the overall performance of the organisation and act as the eyes and ears of the shareholder or owners (Taylor 2000). For PBC to succeed, governance structures need to encourage result-oriented objectives that are aligned with the service targets as specified in the PBC contract. In situations where governance structures do not value and encourage result-oriented performance, the internal incentives for managers and executives to achieve PBC service targets would be weaker.

As normative structures that provide oversight and strategic support to the hospital management team (HMT), boards of governors (BOG) are a common feature in non-profit and public hospitals and serve three main functions: 1) developing corporate policies and plans, 2) providing oversight on organisational performance against the plans /mission and 3) acting as the voice of the ownership of the hospitals. To perform these roles, BOGs have privileged access to information about the internal processes of the hospitals. In theory, access to information about the internal organisational processes is essential to effectively influence the operations and direction of the hospital to achieve legitimate performance expectations. On their part, the HMT represents the executive function of directing and managing the hospital care resources, processes and support systems (Taylor 2000; Alexander and Lee 2006; Alexander, Ye et al. 2006).

The context of the governance mechanisms at the interface between the BOG and HMT in the study hospitals provided an important dimension for understanding the capacity of the hospital to respond to performance-based contracting (PBC). This chapter seeks to describe the governance interactions between the BOGs and the HMT. These two groups occupy an essential interface that has most responsibility for performance governance of hospitals. Data for this chapter were extracted from the administrative documents – in particular the annual hospital performance reports and in-depth interviews with 16 members of the BOG and HMT. The interview data were extracted by response to four broad themes of inquiry:

1. What are the expectations of the board and how are they influencing the hospital to achieve these expectations?
2. What is the composition of the BOG (i.e. professional mix of members and the chairperson)?
3. How has the BOG characterised the interactions with HMT (and vice versa)?
4. What information was being exchanged during BOG-HMT interactions?

### ***5.1 Performance Expectations of Boards of Governors***

The following description and analysis illustrates the main domains that emerged regarding performance expectations of the BOG towards HMT and the hospital as a whole. The opinions of the BOGs were elicited by asking two related questions in a strict order:

1. What opinion did BOGs members have about the performance of HMT and
2. On what basis did respondents form the expressed opinion (in response to above question).

The aim was to assess the means used by BOG to assess the performance of the HMT. The interview technique of getting an interviewee to form an opinion on an outcome of interest – the performance of the HMT, and later asked the basis for the opinion is used in in-depth interviews to move from the performance outcome to the mechanisms behind the outcome and to understand the circumstances or context within which the outcome is expected (Patton 2002; Pawson and Tilley 2004). Respondents were probed for examples to clarify their views. Table 5.1 provides a summary of the emerging themes and illustrative interview-extracts that best captured the attributed meanings in the context of the narratives.

From the summary (table 5.1), five main themes emerged from the interviews. Sections 5.1.1 to 5.1.7 attempt to interpret the emerging themes in the broader contexts facing the hospitals. Additional information is provided that seeks to tie up the range of views - both reinforcing and contradicting – into a coherent interpretation of the themes.

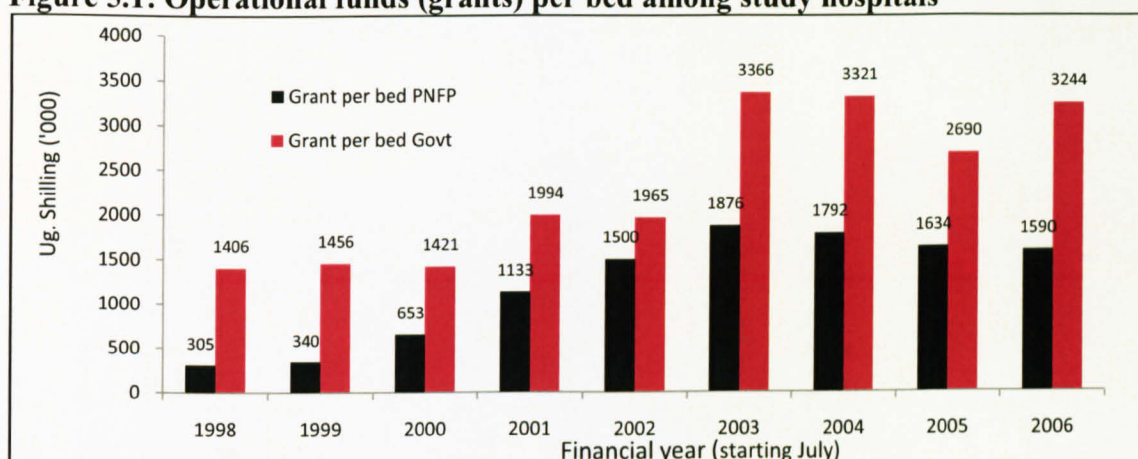
**Table 5.1 Illustrative Analytic Induction of the Performance Expectations of the BOGs**

Illustrative interview extracts	Condensed meaning	Interpretation of meaning in context	Theme
<p>"...as you would expect, the number one (concern) is money. Issues about funds from the ministry, the disbursement from donors, the expenditures, and also the medical services, ..[BOG] always want to see the delivery [maternity] improving."</p> <p>"The other issue is the reduction of fees. Although we are getting more money, its still not enough to pay salaries and run the hospital. The drug costs have shot-up as numbers (utilisation) increase."</p> <p>"Because the patients have increased, the demands and supplies have increased. Really the money running the hospital is the biggest constraint."</p> <p>"They [BOG] also would expect that we handle as many (patients) as possible with low referrals."</p>	<ul style="list-style-type: none"> <li>• Availability of operational funds</li> <li>• Increasing service outputs</li> <li>• Providing a comprehensive range of services</li> </ul>	<p>Financial sustainability of operations</p> <p>Meeting the needs of the community</p>	Viability of hospital
<p>"Among the development issues, we are trying to expand the infrastructure. This hospital is young. We need to build administration block, the children's ward and male ward."</p> <p>"I think they (managers) are doing fine.. because ..if you show (named hospital) five years back, ..they have also done a lot of renovations. All those buildings were old but are all renovated. Much of the money is coming from (named country in Europe). That administrator has been writing many (grant) proposals, new buildings. I am sure you have seen the new administration block...staff block also coming up"</p>	<ul style="list-style-type: none"> <li>• Improving the hospital infrastructure</li> <li>• Mobilising financial resources for capital projects</li> </ul>	Improving and expanding hospital capacity	expansion of infrastructure capacity
<p>"One area (for BoG monitoring mission) is patients' complaints on staff behaviour, abuse, mistreatment, neglect. Recruitment of nurses and other clinical staff also get them (BOG) involved."</p> <p>"We are concerned about the handling of patients and the behaviour of the staff. You know this is a mission hospital where Christ's values have to be reflected in the work of the staff. So the behaviour is not the best. ...some are stealing and take alcohol and get badly drunk. These are not Christ-like behaviours"</p>	<ul style="list-style-type: none"> <li>• Behaviour of staff towards patients</li> <li>• Exemplary religious behaviours</li> </ul>	Upholding of key values in work place	Code of conduct
<p>"... recently we were interviewing for recruiting a nurse, of all the seven candidates only one was of (named religion) and this (person) performed the worst in interviews, but some panellist was trying to make a case for her because she was (of named religion). The doctor could not stomach this and told them to be serious."</p> <p>"The (named hospital) used not to recruit single (not married) people like me. It's the pressure of staff leaving all the time that they relaxed and became flexible."</p>	<ul style="list-style-type: none"> <li>• Recruiting staff with appropriate religious orientation</li> <li>• Tension between values and staff competence</li> </ul>	Competition between religious values and technical/medical values	
<p>"They also expect me (SNO) to ensure discipline and hear patient complaints. Whenever there are complaints from the community about the hospital, they (board members) approach me and ask why such a thing is happening"</p> <p>"they (BOG) asked why many staff are leaving. They thought that it was due to poor management, but when we explained to them, they understood the issue of salary and government jobs being more secure. They have also complained about support nurses (assistant nurses) on the ward. They were feeling that the quality of the staff and care is low, due to the support nurses."</p>	<ul style="list-style-type: none"> <li>• Resolving conflict</li> <li>• Improving user satisfaction</li> <li>• Good handling of staff</li> <li>• Quality of the staff</li> </ul>	<p>Harmony in the work place</p> <p>Customer/public relations</p> <p>Staff - satisfaction</p> <p>Staff - competence</p>	Management competence
<p>"there was laxity in the administration with issues of finance. ... their budgets were run haphazardly. There was no documentation of the drugs. The drugs were being misused. When we came in we developed a three pillar system to deal with this problem of drugs. This involves the Store, the Pharmacy and Administration. We have put there registers at all these departments. When we come like today, we inspect the store, the pharmacy and look at the registers and meet with administration to address the issues we observe in these."</p>	<ul style="list-style-type: none"> <li>• Building systems for better function</li> <li>• Improving the information for verification of hospital functions by the board</li> </ul>	Strengthening management systems	
<p>"What we do, at the end of the day (ultimately), we have to give them reports on how the hospital is performing, which projects we have made and discuss a way forward and so many things."</p>	<ul style="list-style-type: none"> <li>• Provide progress information on activities.</li> <li>• Make action plans</li> </ul>	<p>Monitoring activities</p> <p>Accountability</p> <p>Planning</p>	

### 5.1.1 Viability of the Hospital Operation

The major performance concern across all the PNFP respondents was the challenge of sustaining, besides increasing, the hospital operations in the context of declining financial support from government. Although grants from government to all hospitals (Govt and PNFP) had increased for the period 1999 to 2004, there was a decline in 2005 and 2006 (Lochoro, Batalingaya et al. 2006). The graph below provides the financial allocation to the seven PNFP hospitals and three Govt Hospitals included in this study for the period 1998 to 2006.

**Figure 5.1: Operational funds (grants) per bed among study hospitals\***



\* Allocations excludes wage and development grants

Source: MOH Financial Transfers for Health Services 1998 - 2006

This decline notwithstanding, PNFP hospitals were being pushed by Government to reduce their user-charges in lieu of the grants from government. All the PNFP study hospitals had reduced user-charges especially for the services monitored by the MOH HSSP indicators. However, these services were the ones that attracted the highest client volumes (and revenue) e.g. antenatal care, maternal delivery, in-patient care for children and generally for all OPD visits. The reduction of client charges led to a marked increase in the utilisation of services, according to the respondents, and also an increase in drug consumption (Odaga and Maniple 2003). In some instances, respondents implied that most of the revenues generated from client fees were insufficient to meet the increased cost of medicines and sundries - let alone the salaries of staff.

*"We did a pilot study (user fee reduction) and it brought out more revenue, used more of the available staff and capacity, so at the end of it, we had some results [output] to show. However we had to increase the number of staff, the workload was high. On materials - drugs, sundries, even the administration had to move from other systems to a new and better system. We ended up having many more people to manage. Eventually also paper (consumption) increased due to records to be kept" (HMT-PNFP- Hosp-3).*



As a consequence and due to its stability as a source of funding, the government grants were used to pay salaries for hospital staff<sup>7</sup>. The government grant constituted about 30 to 60 percent of the operational funds of the study hospitals (Odaga and Maniple 2003; Giusti, Lochoro et al. 2004). Although considered stable (secure) as a source of funding, the regularity of (monthly) disbursement of these funds was the biggest performance constraint described by the managers and board respondents. Delays in disbursements of 2 to 3 months were common during the study period, causing delayed and unpredictable salary payments among the PNFP hospitals. Combined with what was mostly described as “staff exodus”, “seeking greener pastures” or “staff sneaking way”, the staff movements from PNFP to join the government sector during the study period, elevated the issue of the viability of PNFP hospitals. In their narratives regarding performance expectations, some respondents had explicit or implicit trade-offs that would affect PNFP performance. As illustrated by the following views, some managers were contemplating reducing their activities and BOGs were reluctant to enforce some rules in the context of staff dissatisfaction with low salaries:

*“The biggest problem is that our budget lines [from Govt] are already getting reduced. I was telling the DHO that we might have to scale down activities due to less funds. UCMB has advised us to try and cut - minimise costs. The challenge is to keep essential services” (HMT-PNFP- Hosp 7).*

*“The last release was December (3 months ago) and even that delayed since July, they released in bulk. This affect us very much. We are already charging little. This is a problem and this thing can affect the performance - the plan cannot be implemented. We have to pay salaries, drugs... we have made the service fees very low to access to the poor - that is the vision of the church. But flow (of funds) from Government is poor. Also our donors. These like (3 named European donors) their projects have ended. Now the hospital is looking of ways to fill the gap” (BOG-PNFP – Hosp 6).*

*“... welfare issues?., its all salaries - salaries - salaries. You know, the government has been increasing the salaries of its staff. This is putting pressure on the board to pay similar salaries. We have lost a number of staff to the district. Government should help us so that they pay for the salaries of our staff. When these staff leave the work is too much for the remaining ones and they also get unhappy and want to leave” (BOG-PNFP- Hosp-5).*

*“Umm „the main one (incentives to managers) is free time to do their other business. You see we cannot pay the doctor enough money yet. In the clinics they are able to earn more to supplement their income” (BOG-PNFP – Hosp-5).*

### **5.1.2 Expanding Infrastructure**

Renovations and new buildings is one of the key distinguishing features between the PNFP and Government hospitals in the study sample. The members of the board (HUMC) in the government units lamented the lack of funds and partnerships for renovation of the old and dilapidated hospital buildings – most of them built in the 1960s. All PNFP hospitals had major recent and on-going renovations and construction works. Members of the board in PNFP hospitals attached sufficient importance to performance in this area and used such construction works to infer positive judgment on the performance of hospital managers. For example, the capacity of the hospital managers to attract grants for, or to implement, the

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<sup>7</sup> In contravention of the government guidelines that disallows the grant to PNFP to be used to pay for salaries

construction works received positive performance perceptions from the BOGs. However, it was not clear what roles HMT, had played in the sourcing of these grants. The respondents' rationales for the infrastructure improvements had a resonance with improving hospital performance in several ways. Some of the expressed links to hospital performance included statements like: "Projecting a better image", "making patients comfortable", "improving the working environment for staff" and "modernising the hospital". Other reasons were related to insufficient space especially due to increased patients being served, providing staff accommodation as an incentive and adding new services to the profile of the hospital. In two PNFP hospitals, the infrastructure costs that were reported in their annual reports over the previous 2-3 year was about half the total annual hospital expenditures. The investments in infrastructure also did generate additional expectations for hospital managers especially from district level managers. As the extract below indicates, BOGs place too much emphasis on infrastructure development that would generate unsustainable recurrent costs, according to some respondents. The infrastructure focus seemed to be at the expense of priority operational needs of the hospital such as improvements in salaries.

*" we get information about these hospital. I was in (named hospital) when they were commissioning the sewage plant last month. They got 1.5 billion (shillings) installation from (named European country). The challenge will be to maintain the installation. Donors give these hospital funds but they are for strict purpose only. .... Most of the funds are for capital development for example and they do not want to assist with the recurrent costs. Currently the problems they [PNFP hospitals] have is salaries and no donor is helping on this" (CAO and Member BOG - PNFP hospital).*

*"It (maintenance) can be a headache. We have some people who are trained to maintain the equipment. when we find the problem is difficult, we communicate with those people (in Europe) to come in - especially those that did the wetland (sewage system)" (HMT- PNFP-Hosp 7).*

*"... I do not see how they (equipment) will be sustained if you do not save money. The hospital needs to save money to do the repairs and servicing of the equipment. Ok, they have trained some mechanics to repair but money to buy spares and replace some is not there" (HMT-PNFP- Hosp 7).*

### **5.1.3 Code of Conduct**

Performance expectations that reflected religious values or serving God or being a good Christian were expected by the PNFP BOG from both the hospital management team (HMT) and the hospital staff. With the exception of the representatives of the district (local) authorities, the governing boards in PNFP hospitals were generally appointed using a criterion of "religious faithfulness". The terms of reference for the BOGs included overseeing the "Christian Code of Conduct" (UCMB 1999; KCH 2005). Generally, the religious values the BOG expected included the displaying of good behaviours such as "sacrificing for the good of the hospital". Poor attitude towards patients, stealing of drugs, lacking voluntary spirit in serving the hospital, being driven by "selfish interests" instead of the "common good" of the hospital or patients – were some of the descriptions used to explain poor performance of the BOGs, managers or staff. Given the context of a crisis of nurses and doctors deserting the from PNFP hospitals in large numbers, values of



volunteerism and sacrificing were being used by the BOG to appeal to the remaining staff to stay and to deflect the staff demands for higher pay. Performance expectations geared towards religious values and norms were invoked by both managers and board respondents in situations of negative behaviours. Examples here included BOG pressurising the HMT to recruit unsuitable staff (eg family relatives) or when managers were drunk (with alcohol) on duty. Reference to institutional symbols, ritual and norms rooted in religious beliefs were also used by respondents as means for performance assessment. Examples given included recruitment of staff from the same religious faith, respecting Christian calendar events and perceptions related to being married in a Christian way. It was observed that catholic hospitals had Nuns (religious sisters also trained as nurses) heading most of hospital departments. In addition, it was observed that all PNFP hospitals practiced routine religious ceremonies such as prayer sessions, “devotions” and “fellowships” for their staff members.

However tensions and contradictions did exist about the elements related to the code of conduct. The opinions of medical professionals that constituted the HMT reflected some disapproval of the code of conduct especially when used to interfere with their private life or professional activities. Interestingly, the HMT were keen to use the language of the behaviour code when dealing with conflict situations with members of the board or their subordinates. Clearly, there were views that did indicate a pragmatic flexibility in enforcing the code of conduct especially in the context of the contemporary shortage of clinical staff. This pragmatism tended to allow recruiting of clinical staff with different religions, “improper” marital relationships and doctors to participate in private practice. The issue of code of conduct was not prominent among the respondents from government hospitals.

*“.. we in management are Catholics .. (for the example) SNO is a nun, The Chaplain is – a priest. We have a code of conduct - what we should and should not do. As management we have a challenge - not to make every person a Catholic in the hospital. The majority of our patients are not Catholics. Many are Muslims - that is one thing. Many times when we advertise for jobs here, you find that there is no catholic applying, so we have a very mixed staff. But when the staff come we tell them that this is a Catholic institution. Mostly these are uniform Christian values, which are known”(HMT-PNFP Hosp-3).*

*“The other issue is the Medical staff. They do their best working within ethics and staff rules and regulations on how to handle patients and to administer drugs. Underlying that is the mission of hospital. This is a Christian hospital. We keep reminding the staff. The service we do is to glorify God by proper attention to the patients. And we keep reminding them about this mission. We discourage private practice and encourage service above self. These are some of the major control measures – according to the mission of the hospital”( HMT-PNFP Hosp-2).*

*“I have noticed that DHO sends indisciplined staff to us for correction and shaping them into better people. We have that kind of thing. But it takes daily devotions. Every morning we have prayers, praise and preaching. These are done by the staff or the reverend” (HMT-PNFP Hosp-2)*

*“Other issues (challenges) relate to staff. This is a Christian hospital, not being married can be a problem for nurses. If one gets pregnant, they commission an inquiry on how she got pregnant – yet this is biologically clear (laughs). These are adults with rights but it can be difficult. I have had problems to deal with both staff and church on this ....Also having two or more wives (polygamy) is a*

*cause of (staff) dismissal despite good performance. This amounts to social interference” (HMT-PNFP Hosp-2)*

*“...something (religion) you have not grown-up in is sometimes difficult to appreciate. What we have decided - my Admin[istrator] is a staunch Catholic. So I said to him to represent me on such things (religious ceremonies). I go and sit close to him to get some tips and coaching. But as it were, I am a surgeon, and appointed – now also appointed as M/S [hospital director]” (HMT-PNFP Hosp-3).*

#### **5.1.4 Management Competence**

Within this theme, management competence referred to both what people do or should do and the systems or arrangements that should be put in place to make them do those things in a proper, acceptable and organised way within the hospital. The views from the BOG respondents for this theme did overlap to some extent with the views captured under the viability theme. For example, the capacity for managers to increase the revenues from user charges subject to the constraint of reduced charges spans both themes on viability and management competence. The predominant views in this area did reflect the need for the managers (or the hospital as a whole) to improve its public relations and customer satisfaction as a means to increase the number of patients and revenue. The descriptions of the interactions between BOGs and managers had a lot to do with sorting out internal systems constraints to performance as well as addressing external barriers to utilisation of services. Three contextual issues are important to understand the expressed views relating to management competence during the study period.

- 1.) Given the context of free services in the government health units, the performance of PNFP hospitals that still charged users (even though fees had recently been reduced) did present a competitive disadvantage that needed proactive approaches to increase the PNFP hospital share of the market. But more importantly, PNFPs had to justify increasing size of grants provided to them by the Government for the period 1997 to 2004. Communities needed to be aware that the fees in PNFP hospitals were reduced so that the utilisation could improve. Active marketing activities in the community were being undertaken to attract more utilisation and revenues.
- 2.) Reduction in the user charges did bring in more users to the hospital and increased the workload. Complaints by staff about the workload and low salary, coupled with PNFP staff crossing over to the public sector during the study period, must have focused the boards' attention towards the performance of the managers in handling of staff or managing what was referred to as “staff exodus”.
- 3.) The increased number of donor projects in PNFP hospitals also brought with them new stakeholders and accountability relationships. For example, a feasibility study done by European engineers before the refurbishment of one of the study hospitals by such projects made 23 recommendations for “correcting” problems in the management/administrative systems. Among the recommendation was a requirement to develop a written hospital constitution and written clear terms of reference for the governing board (DKA Austria 1999).

*"The Hospital needs a re-organisation of its management ....The management needs to implement urgent measures of correction of the problems related to employment, ..financial and resource control systems have to be introduced with urgency." (Extract from executive summary(DKA Austria 1999 pg 3).*

Given the weakness of governance, the study also recommended that a representative of the project be co-opted (or integrated) into the BOG. This practice of donor projects integrating themselves into the BOG or HMT was common among PNFP hospitals with big donor funded projects.

*"... What I have been doing is not to control but to know what is going on" (Donor-Rep & HMT-PNFP)*

Respondents from the government study hospitals also did express views reflective of active attention to strengthening systems for financial accountability and responsiveness to views from the community. One hospital board<sup>8</sup> among the three government hospitals in the study was proactive and unique in its activities to strengthen systems. This board had devised its own systems within the hospital to get performance information in areas related to the use of finances, drugs and ward-level absenteeism of nursing staff. In the community they had instituted a system of oversight of hospital performance in areas of drugs availability and staff courtesy to patients. The vice-chairman of this board was heading a community-based NGO providing primary health care service in the catchment area of the hospital. This role enabled him to monitor the hospital performance from the community's perspective.

*"The other problem was the drugs. We have informants in the community and they tell us that the drugs used to disappear from the hospital in (hand) bags. This, we have investigated and involved the community and we have apprehended some culprits. ...Police has done its investigations and made arrests. We have about 10 informants in the community. They come as patients and are not identified by the hospital staff. ... Before I come for the (board) meeting I gather my information from the informants and get the key issues to discuss with management." (BOG-Govt-Hosp-10)*

*"Before we sit down to discuss, we do an inspection of the hospital again we gather information on cleanliness, OPD and ward records. One of the sources is the daily hand-over records (for on-duty nurses). We have tried to make sure that when nurses are leaving the duty, they have proper handover records to the next team" (BOG-Govt Hosp-10)*

## **5.2 The Boards of Governors (BOG) and their Capacity to Govern**

The normative function of the governing Boards is to provide oversight and guidance to the executives. This presupposes an effective Board with knowledge of the industry as well as capability to observe or monitor the executives (HMTs) and organisations' management processes (Taylor 2000; Alexander and Lee 2006). Indeed business firms invest a lot in the boards to ensure that the oversight capacity is effective (Wagner, Stimpert et al. 1998; Coles, McWilliams et al. 2001; Hillman and Dalziel 2003; Vining 2003). By implication, the BOG needs to have capacity to serve these dual functions of monitoring and strategic guidance.

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<sup>8</sup> Governing boards in government hospitals are misleadingly called Hospital Management Committees (HMC)

This section provides analytical insights into the capacity of the board to undertake these functions given the structural arrangements that affect the interactions between them and the HMT. The structural concerns for this study are related to Board composition and locus of power in the interactions between board and HMTs. Knowledge as a source of power of leadership or governance is essential in knowledge-intensive organisations like hospitals. Without the requisite knowledge, the information exchanged between HMT and BOG may not lead to effective control or performance governance. Other sources of power in governance are related to ownership of productive assets such as the hospital infrastructure. Power in governance may also be gained through the use of symbolic artefacts such as ranks and titles that order the social structure of actors (Scott 2001; Struyk 2002).

### **5.2.1 Board Composition**

The MOH guidelines (MOH 2006) require that the district level technocrats i.e. the Chief Administrative Officer (CAO) and the District Health Officers (DHOs) be part of the hospital boards in both government and PNFP hospitals. Members of the hospital management team also form part of the BOG, and these include - the Medical Superintendent (MS), Senior Nursing Officer (SNO), and Hospital Administrator (HA). Among the study hospitals, the HMT sometimes included either an Accounts Officer or a staff representative. The different hospital ownership structures – diocesan health boards – had different approaches to constituting the BOGs in the PNFP hospitals. Three notable differences existed among the study hospitals in the composition of the boards and the board leader (chairperson):

- 1) Mix of professional experts led by a doctor as chairperson of the board (3/10)
- 2) Predominantly clergy people and led by senior clergyman or bishop (4/10)
- 3) Predominantly politicians and led by a chairperson who is a politician (3/10)

Regarding the hospitals management team (HMT), two main differences seem to capture the difference in structure regarding the interactions between the BOG and HMTs:

- 1) Doctor (medical superintendent) as leader of the HMT (8/10)
- 2) Administrator<sup>9</sup> (or “chief executive officer”) as leader of the HMT (2/10)

### **5.2.2 Governance Structures and Power Play**

This section describes the respondent views regarding the capacity of the BOG to support and provide effective oversight and stewardship of the hospital management and performance. Both HMT and BOG respondents were asked to express opinions on how effective the BOG was and also asked to provide views about the exchange of information between the two groups of actors. The views expressed regarding the board capacity differed significantly across the three predominant professional groups of the board and the two forms of

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<sup>9</sup> Administrators were not medically trained although one was trained to a level of Master of Business Administration (MBA). All were Ugandans.

professional leadership of the HMT. Five heuristic scenarios (figure 5.2) emerged in relation to the characteristics of the interactions between the HMT and BOG regarding the capacity of the latter to influence performance management or organisational governance in general. These scenarios map out better the differences in the structural mechanisms that were observed in the data regarding the BOG and HMT interaction in the study hospitals. The structural mechanisms are confined to the two categories of lead actors in the governance exchange – the chairperson of the BOG and the lead manager in the HMT since these embody the institutional powers in the interactions (Taylor 2000; Alexander and Lee 2006; Ditzel, Strach et al. 2006). These interactions are highlighted here because they represent the exchange of information essential for the BOGs to effectively exercise their roles as stewards of hospital performance (Goddard, Mannion et al. 2000; Taylor 2000; Coles, McWilliams et al. 2001).

**Table 5.2: Dominant Characteristics in The Interactions Between the BOG And HMT**

		Lead Person -Board of Governors		
		<i>Medical Doctor</i>	<i>Church Clergy</i>	<i>Politician (govt)</i>
Lead Person - Hospital Manager	<i>Medical doctors (MS)</i>	<div>1</div> <p>[Hosp-3, Hosp-4] Regular Board meetings Active exchange in board</p> <ul style="list-style-type: none"> <li>• Sense of challenge i.e. "Pinning down" "defending actions"</li> <li>• Graphs/visual information</li> </ul>	<div>4</div> <p>[Hosp-5, Hosp-2, Hosp-6] Infrequent board meetings Delegating chairpersonship MS more powerful (knowledge and executive) Simplification of information to boards</p>	<div>5</div> <p>[Hosp-8, Hosp-10, Hosp-9] More frequent meetings Audit-orientation MS more powerful Over simplification of performance report Stronger mutual dependence between the HMT and BOGs</p>
	<i>Church Clergyman or women (CEO)</i>	<div>2</div> <p>[Hosp-1] Regular board meetings Active Board exchange but within narrow limits, Graphs/visual information, Transparency problems , Complex power hierarchy</p> <ul style="list-style-type: none"> <li>• Dysfunctional HMT</li> <li>• CEO powers seemed above that of BOG.</li> <li>• Delegating CEO-ship</li> </ul>	<div>3</div> <p>[Hosp-7] Infrequent board meetings Delegating chairpersonship Passive board meetings Transparency concerns Complex power relations</p> <ul style="list-style-type: none"> <li>• Dysfunctional HMT</li> <li>• CEO controls BOG.</li> <li>• Takeover of the BOG by some hospital donors</li> </ul>	--

The limitations in this categorisation are nonetheless recognised. For example the boards and HMTs are not stationary objects to be described within a given box. Their views may capture feelings of the moment and may have huge variation over time and across different respondents that may have dissimilar perspectives. For example, some contradictory views were encountered across the two groups of actors and within the groups but these were minor and did not pose a strong challenge to the value of analytic insights according to the five characterizations.

### 5.2.1.1 Scenario-1: Doctor – Doctor Interactions

One Catholic diocese owned the hospitals in this category (and one hospital in scenario 2) where the chairperson of the board had a medical professional background. This did reflect the decision of the diocesan health board (DHB) that had the powers for appointing the BOGs in each hospital in its dioceses. In addition, the chairperson of the BOG in these two hospitals (also scenario 2) was also a Medical Superintendent (lead hospital manager/director) in other Catholic hospital. In effect, a peer-review system was established since the two leaders for the BOG and HMT had similar experience in hospital management, medical orientation and religious socialisation. The BOG-HMT interaction in this model were described with accounts such as “being pinned down”, “blamed for overspending”, “put our position”, “defended our actions”, “opened our eyes to this problem”, being embarrassed. These accounts were interpreted to imply active governance accountability and or active oversight in the interactions of the two groups in this scenario. The information provided to the BOGs in these two hospitals comprised of graphic display of trends in hospital outputs in addition to reports of accounts and other administrative information. Graphic displays of hospital outputs were also shared within the hospitals on Notice-boards, and at ward-level. Below are illustrative views in this category:

*“They (BOD) say “Doctor, the graph is going down - patients are decreasing what is happening?” But when you compare with the target you see that we are doing well. There are seasonal variations of cause in these trends - but overall the targets are achieved” (HMT-PNFP-Hosp-4).*

*“Yeah. Even the other week, when it (Board) sat these are graphs they got. ... they are impressed by the improvement” (HMT-PNFP-Hosp-3).*

*“...we are not balancing our budgets. Everybody has reasons. They (BOG) were blaming us for over spending but again we put our position clear... “Ladies and gentlemen, we are receiving a new ambulance worth 60 million shillings and Customs want us to clear taxes - 4.5 million - should we leave the ambulance because we are trying to save expenditure?” So this is what I told them” (HMT-PNFP-Hosp-3)*

### 5.2.1.2 Scenario-2: Doctor as BOG – Clergy person as CEO interactions

One hospital falls under this category. As described in chapters 6 and 7, this hospital was one of the two that were selected for in-depth case study since it was allocated to the full set of the PBC pilot. This hospital also had several opportunities to network with the hospitals in scenario 1 since all three belonged to the same diocese. Like in scenario 1 above, the board chairperson was a lead manager in a different hospital<sup>10</sup>. However the lead manager for the HMT was a clergywoman with no medical background but had an MBA degree. The official title in the organogram for this person was Chief Executive Officer (CEO)<sup>11</sup>. Three departmental heads reported to the CEO – a Medical Department headed by a doctor (also called Medical Superintendent or MS), Nursing Department headed by a Senior Nursing Officer (SNO), and Administration Department headed by assistant CEO. More importantly the CEO also symbolized hospital ownership in this hospital since she was a senior member

<sup>10</sup> The board chairman was a catholic doctor and the medical superintendent (MS) in a government hospital also participating in this study (scenario 5).

<sup>11</sup> In the narratives of the rest of the HMT respondents in this hospital, the title of “Administrator” was used instead of CEO.

of the founding religious congregation. The ownership claim was even more enhanced given an additional leadership position the CEO held at the national headquarters of the founding congregation. As a result, the CEO represented the powers of the ownership of the hospital, a situation that had implications for the effective governance oversight and CEO accountability to the BOG. Due to dual leadership roles in different locations, the CEO was a part-timer in her hospital job with frequent delegation to a junior non-medical assistant CEO. The narratives in this hospital indicated problems in the interactions within the HMT itself and between BOG-HMT. For example, there was a sense of poor coordination within the HMT as captured by descriptions such as “impatience (among managers)”, “confusion”, “not sure what to do”, “overstepping roles”, “rumours” and “different ways of making decisions”. Narratives about the BOG – HMT interactions, seemed to indicate dysfunctional accountability: “managers doing their own things”, “not transparent”, “fear to challenge holy people”, “odd ways of managing” and “too much power” assigned to some individuals. Below are illustrative views:

*“I sit in these boards. I see lots of problems with accountability. They (managers) depend on individuals and not systems and since some individuals are “holy”, people fear to ask them questions. Or they think holy persons don’t make mistakes. They have orders to do things and orders may be wrong” (DHO – member BOG-PNFP-Hosp-1).*

*“This is a Catholic institution. It has given so much powers to the nuns [...] the way those ladies do their stuff is not very transparent sometimes. The kind of leadership is like [...] the Admin (CEO) is the centre of everything [...] also the Admin is both above and below the Board. The SNO, and myself ... all have literally little role - all issues centre on Admin[istrator]” (HMT-PNFP-Hosp-1).*

*“... I do my work and there is no big difference<sup>12</sup> (between this hospital and the one before). But as MS things are different here - a lot different. Institutions headed by the veiled ladies (nuns) work in some odd ways. (some silence) The way decisions are made is very different. Sometimes workers are not that free – they are not sure to do what they know should be done. .. People get sacked at will (without required procedure)... (nuns) have odd ways of managing. I am doing my work and studying the situation” (HMT-PNFP-Hosp-1).*

Despite these largely negative accounts, there were indications that within bounds, governance interactions were active. The board meetings were regular (every 3 months), proposals for grants were being endorsed by the chairperson and some financial allocation decisions were open to board influence. However, examples given implied that hard decisions presented to the BOG were being pushed back to the CEO to handle – which might imply that the CEO had the ultimate decision making powers.

*“Even as we talk now the non-offset arrears of NSSF (Pension Fund) are very big. The board meeting last week could not help on this. They just said, “Sister (CEO) do something” (laughs)” (HMT-PNFP Hosp-1).*

*“Well, these board members, they know (competent) - they ask why nurses are leaving for example” (HMT-PNFP-Hosp-1).*

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<sup>12</sup> A senior medical doctor (lead manager) found in scenario 1 hospital at the start of the study was transferred to scenario 2 as MS towards the end of the study. He is interviewed after 4 months in the new place.

The use of visual graphics to show trends in service outputs and active reactions from the Board on issues presented was evident in the narratives. The district level technocrats were also active in the board meetings.

*"When we meet, it's like politicians - they (BOG) need to look at those data and ask – "you are supposed to be here. Why?" And using these graphics, it's better than talk talk." (HMT-PNFP-Hosp-1).*

*" they draw nice graphs on computer and the department see how they are doing (performing). You can see that OPD now is falling and try to find out why? Why OPD is falling. For example like now ,, you find that the OPD is low since parents are sending children to school"<sup>13</sup> (BOG-PNFP Hosp-1).*

One essential aspect of the context in the three hospitals (both scenario 1 and 2) was the presence of an NGO project with objectives to improve health provider performance in UCMB facilities during the implementation of the policy to reduce user-fees (Santini 2002; Mugisha 2004; Amone, Asio et al. 2005). As a way of monitoring the project results and impact, the project had established a computerised system for data capture and processing of the Health Management Information Systems (HMIS). Computers and excel spreadsheets with automated generation of graphs for trends of service utilisation and revenue generation were installed at all three hospitals. The project systems of performance monitoring also included quarterly performance review meetings at the diocese-level that brought together the three hospitals and other lower-level providers. The project monitoring system probably explains better the widespread use of service data and graphics in BOG-HMT interactions in these three hospitals (scenarios 1 and 2).

*"We have been drawing them (graphs) ,, previously it's been for (named) project. (Named) project have been using them as a way to solicit for funds from abroad" (HMT-PNFP-Hosp-3).*

### **5.2.3.3 Scenario-3: Clergy Person both as Board and as CEO**

One hospital fitted this category. The board in this hospital was chaired by the bishop who delegated the functions to the nearby parish priest. Three members of the board were drawn from the lower level units belonging to the diocese. These had a medical background - mostly nurses. The district technocrats that represent the District Council on the board rarely attended the board meetings – sometimes delegating to junior officers. The lead manager – officially called CEO was clergy person – a priest<sup>14</sup>. The board meetings were rare (twice a year) probably since the two major actors – the acting board chairperson and the CEO stayed in the same building thus facilitating daily interactions.

When it did meet, the interactions within the board were variously described as:- "not proactive", "things are slow", "no discussion", "normally approve whatever is given", "weak

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<sup>13</sup> Seasons when families do not attend hospitals as a result of low cash arising from having paid school fees for their children's return to school.

<sup>14</sup> Towards the end of this study the CEO changed from clergyman to a clergywoman.



control from above”, “do not ask any question”, “just say go ahead”, “delegate attendance to junior people” , “not held accountable by the board”. The power relations were a major source of negative accounts. UCMB accreditation regimen – especially the drafting of a new hospital charter, had imposed explicit changes in the power relations between the medical members in the HMT and the role of the clergy person as CEO. Power relationships and friction arising from the need to get accredited created dissent and led to the quitting of the doctor. The turnover of the members in the HMT in this hospital was high – i.e. 3 out of 4 key members left during the 12 months of this study.

*“.. what I see here is that the Board is not proactive. They normally approve what they have been given. Sometimes I feel disappointed at the end of the meeting. I would expect some reactions but they just do not say anything. They just say “yes go ahead”. We have good relations with the Bishop but he does not attend much –he just says “you go ahead” (HMT\_PNFP-Hosp-7).*

*“.....only meeting twice a year and there is no discussion? No questions about what was achieved or not achieved. They are not technical people. Some members are from other Catholics health units, the priest and core management. The DHO and the CAO are on the Board but do not come. Sometimes they send junior people to represent them” (HMT\_PNFP-Hosp-7).*

*“Most managers .. came through relatives – priests and nuns. They are not held accountable by the Board. These power relations will bring the hospital down. Confronting these persons in the hospital is like confronting the bishop” (Former HMT\_PNFP Hosp-7).*

*“The Bishop also trusts these persons better than the M/S. There is a small circle of disgruntled relatives of priests and nuns .... they give him [bishop] wrong information” (Former HMT\_PNFP-Hosp-7).*

Given the weakness of the governance in this hospital, a donor project that was supporting this hospital had to employ their own staff to be part of both the management team and BOG partly as a means of ensuring performance accountability and transparency. The changes in HMT and the structure of power in the hospital had made the donor representative<sup>15</sup> worried about accountability and transparency.

#### **5.2.3.4 Scenario-4: Clergy as Board- Person and Doctor as Lead Manager**

One of the two case study hospital for this study belonged to this group. The three hospitals in this group had a bishop as the chairperson of the Board of Governors. Two hospitals belonged to the UPMB and one to UCMB. Infrequent meetings were reported among UPMB hospitals although this changed somewhat due to the need to review the hospital constitution (charter) during the study period. One hospital in this category had a Board that was too scattered geographically within the country probably making it expensive to meet more frequently. This board sat once a year.

In the remaining two, the bishops delegated their roles as board chairpersons to other clergy members - usually closest to the hospital. Like in scenario 3 above, the district technocrats (CAO and DDSH) mandated to represent the district were not attending most of the time or

<sup>15</sup> One donor representative (European national) was acting as a member of the HMT during the study period and interviewed in this respect.

delegated to junior staff. In these circumstances the lead manager – a doctor, tended to have a wider scope for autonomous decision-making. The board was seen more as a body to notify of what is going on. Accounts here related to the scope and boundaries for Board actions. For example, the roles of BOG were perceived to be limited to a set of activities such as “limited to policy making”, “their interest is [mostly] cash flow”. In this scenario, the Board was not invited to make decisions such as erecting new buildings because the manager considered such decision as “ day-to-day matters for management to decide”, and the Board only needed to be notified about the outcomes - “we report what we have done”.

*“They are definitely interested in the expenditure report. We provide a detailed expenditure report. That is where most of their focus is in the meeting. We will present what we have done with the funds in the expenditures” (HMT-PNFP –Hosp-2)*

*“No input (from the BoG was needed). This is day-to-day running of operations and the management does this sort of day-to-day matters (decision to use bonus funds to build a staff house). The board of governors is for policy. We report to them everything we have done. They meet only three times a year, but more if there is a need. The house will be there to see” ( HMT-PNFP-Hosp-2).*

*“They are all ministers [church leaders] except the treasurer, who is an accountant ... They understand only the finance statement and liquidity – working capital, and revenue figures” (HMT-PNFP-6).*

These accounts indicate a narrower scope of functions accorded to the Board by the lead managers. From the perspective of the board members, contrasting views were expressed indicating some conflicts of objectives among the two groups. For instance the Board respondents complained that managers were “ignoring structures”, “do not want to account”, “slow to act on Board decisions”, “do not coordinate well [with BOG]” and “do not provide feedback outcomes on prior decisions”. These seem to indicate a contestation of the power relationship between the Board and the HMT.

*“The administrator and the MS sometimes do not coordinate well [...] some of the mishandling – I think – is due to lack of management training. ... For example, financial mishandling - you find these problems. People spend without authority, do not want to account to the board sometime” (BOG-PNFP- Hosp 5).*

*“Some of the workers’ problems are not well handled. [...] like recently a staff was suspended. The board has a disciplinary committee but we were only copied the suspension letter. Sometimes people do not know why these structures exist. Since I stay very near the hospital, the staff come to me to complain about their issues” (BOG-PNFP- Hosp 5).*

There was also a problem related to the use of technical language in the exchange that could have reduced the effectiveness of the communication between the BOG and HMT in this category as illustrated by this respondent’s struggle to reproduce the word “mortality” and “morbidity” which were used in the reports the HMT provided to the BOG.

*“The doctor gives us a summary of what they have achieved in the period and also the actions on what was decided on in the last meeting. The report has those medical details of diseases, motaliza,*

*motalita „, you<sup>16</sup> doctors use terminologies. We have asked them (doctors) to use clear language” (BOD-PNFP-Hosp 5).*

Nonetheless, attempts to simplify the technical information for easy consumption by the BOG were encountered – but these efforts also posed a new problem of oversimplification. For example, despite a similar practice of generating graphic trends in service volumes, by managers in this group, these graphics were not shared with the boards largely due to feelings that the board members would not understand them.

*“... not all of them (BOGs) have basic medical experience and qualification. Especially those that do not have this ,, find it difficult to comprehend. They use their common sense to give advice. But those that are medical, deliberate on the technical” (HMT-PNFP-Hosp-2).*

Faced with the difficulty of executing its roles, one Board in this category had expressed a need to learn from other hospital Boards.

*“Well, we are not perfect as the board. We have requested the chairman to organize and take us for a study trip to other mission hospitals to see how other boards do their business. ..You see, issues such as salary levels in other hospitals and the benefits they give their staff would help. We have a big number of staff deserting the hospital and we thought the visit might help to learn from others and compare notes. The hospital administration was asked to plan for this but they are slow to act.” (BOG-PNFP- Hosp 2)*

#### **5.2.3.5 Scenario 5: Politician as Board-chair and Doctor as Lead Manager**

This scenario has all the three government hospitals in this study. Due to the political nature of the supervision Boards in this group, most of them were engaged in electioneering or electoral campaigns during the study period and were hard to find and interview. Related to the outcomes of the elections, new Boards were constituted during the study period. Nonetheless, two interviews were done with BOG with sufficient experience in this group and six interviews with HMT. The HMT respondents provided additional views about their Boards members – current and previous ones. One of the key features within this group is that relatively frequent Board meetings were held – usually monthly meetings of the entire Board or its sub-committee. District technocrats always attended the board meetings. The narratives used to describe the BOG-HMT interactions had some unique language such as “watchdogs”, “tracking” or descriptions of processes that can be called “espionage”. Some narratives among the HMT implied a fear of victimization and a prominent expectation of monetary benefits by the members of the Board. Narratives from the HMT did indicate some areas of cooperation between the two. For instance, the Board was used by HMT to intercede between contract providers – firms contracted to clean the hospital and provide catering services. The BOG was also used to “to advocate” for the hospitals’ interests such as protecting the hospital budgets from being diverted to other use by the District Councils.

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<sup>16</sup> The interviewer (researcher) introduced himself as a doctor to the respondents.

*"When we complain about the tenderers they (contract providers) feel it is a personal issue. So we ask them (Board) to intervene. Also they are helpful to take the information on the effectiveness of the tenderers... we have complained before about these people (contract holders) who do a poor job. Of course some are politically connected. You cannot raise much complaint about them. That is why we prefer that fellow politicians (the Board) deal with them – so that the issue is not personalized" (HMT-Govt-Hosp 9).*

*"We sit every month with the hospital committee (board)... we have had this feeling (too frequent meetings) as management but the issue is, when they were made members ..., they expected some money. .... We also buy some sodas. Chairman gets [Ug Shillings] 55,000, other 40,000, staff get 20,000..... If you suggest making meetings every quarter, they do not accept. It's a personal issue. They were made members with expectation of allowance every month. Like now this month, there is nothing new to report. So we just went around the hospital on a tour and they observed cleanliness, noting some repairs. We just had the old issues to discuss" (HMT-Govt-Hosp 9).*

The information generated and provided by the HMT to the Board showed a marked difference across all three hospitals in this group. In one hospital graphic summaries of utilisation were provided but in a remarkably different way. In this hospital each ward had a hand-drawn graph on the wall which displayed the trends in the services provided on that ward or department. As part of the board meeting, the members are taken on a tour of the hospital wards and the graphs were used to show performance of each department. This innovation seems to have been imported from the UCMB hospital where the lead manager acted as chairperson for the BOG. As Board chairperson, he got regular exposure to the information and graphics from the PNFP hospital. Although not directly admitted, the lead manager's role as board chairperson may have contributed to adaptation of graphic information for the interactions with his BOG. Additionally, this hospital also had high media visibility especially due to road traffic accidents (located on a busy highway) and the hospital was used by MOH as the show-case for the launch of the 2004 World Health Report that focused on road traffic accidents (WHO and World Bank 2004). This critical incident may have instigated<sup>17</sup> the adoption of this practice although the rationale for its sustenance was described as an imperative for improving performance:

*".. when I got here, people did not know that data was for administration use - until I told them that they should draw data in their own area [departments] and know how they are performing. ...So this has helped the staff to know what they are doing - other than giving it to administration, to district and ministry. They should also know what they are doing. "Are you improving?" For example, in maternity, "are you [midwives] delivering more women? Are you having still-birth or live-birth?" There you would know your quality" (HMT-Govt-Hosp 8).*

In another government hospital, information provided to the board was different. Although graphs of service outputs were nicely displayed in the lead manager's office, little attention was paid to the graphs by either the HMT or the board. Incidentally, the graphs were indicating output trends far below the set targets for several of the service outputs plotted. For this hospital, the graph was seen as a requirement by the District Health Office (DHO) to monitor immunisation.

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<sup>17</sup> This author had carried out a different research project in this hospital in 2003 and the practice of displaying service output graphs was not in use.

*"No (we do not use graphs in the report to the Board). We give them outlines with numbers we have seen (utilisation figures) in a month. We make it simple for them. But they see the graphs,... They are always in this office (graphs are displayed in respondent's office). ....The graphs are plotted by the Records person. The only thing that I have been following is the immunisation. The DHO always asks about DPT3 target not being achieved. We have constantly failed to meet that target" (HMT-Govt-Hosp 9).*

As discussed already in section 5.5 above, another unique case relevant here was the board that had set up its own system of information to track the performance of the hospital in the areas it considered important.

### **5.2.3 The Complication of Delegated Managers**

All medical doctors that exercised directly the powers of the lead manager (scenarios 1 and 4) or indirectly by participating in the HMT under the CEO (scenarios 2 and 3), were delegated staff to PNFP hospitals by either the local governments or donor projects. Delegated (seconded) staff in this context meant that the salaries of the delegated staff were paid not by the hospital but by local governments or the NGO projects. In principle, the Government or project reserved the right to recall such seconded staff and redeploy them elsewhere. The delegated staff represented a financial contribution to these hospitals, although it was considered problematic by the hospital BOGs. The expressed complications were related to the delegated doctors who also played management/ governance roles. For example, the respondents among the BOG feared that such staff could be recalled at the discretion of Government or projects, have different allegiances in decision making and that such staff are difficult to control since the hospital was not paying their salaries. Probably as a means of buying some stake for allegiance to the hospitals, these delegated staffs were being paid substantial "salary top-up" and benefits. The consequence of this approach was an underlying problem of wide disparities in the employment benefits among the HMT and a potential for dysfunctional teamwork and poor performance.

*"Both doctors in the hospital belong to the district; they are seconded by the district. These come with clear terms of work, the duration of tenure and different pay. They may not share the missionary work of volunteering spirit. When the hospital begins to suffer, they leave." BOG-PNFP-Hosp-2*

### **5.3 Summary: Strategic Intent and their Control.**

As summarised in the table 5.1, the performance expectations of the BOGs included: 1) viability of the hospitals; 2) expansion of hospital capacity; 3) adherence to code of conduct and 4) competent management. With respect to the control of hospital performance and supporting innovations like PBC, the findings show that the BOGs were using a mix of approaches. Although result-oriented performance is needed for PBC, these findings show a mix of mechanisms used by governance structures in hospitals. Prominent among these were the following:

1. **Assessments of inputs, processes and outcomes:** The findings indicate that all boards generally were monitoring the hospital financial accounts and client volumes by way of information provided to them by the hospital management teams (HMTs). This information, however, had different formats across the study hospitals. Graphic plots of output/financial trends – considered more empowering to the boards’ monitoring role – were established in mostly UCMB hospitals. Where networking was enabled between UCMB and government hospitals (cross membership on BOG), the findings show that the practice to use graphical information was diffusing to the latter. Observation of resource inputs by the BOG was being actively used in monitoring the hospital performance, infrastructure developments such as renovations and new buildings were most observed aspects. The performance perceptions of the board members tended to assign higher judgments of managerial competence on the basis of improvements in the hospital infrastructure. Although the findings showed that the BOGs were most likely to examine the financial information, obvious limitations to their financial control were related to erratic disbursements of grants from Government and restricted increases in public grants /subsidies. For instance, when faced with what they described as “staff exodus” from the NGO hospitals, the BOGs were unable to use available (donor project) funds to prop-up the staff salaries and prevent the staff exodus. Other domains of outcomes that were being monitored by some boards – albeit unsystematically – included client satisfaction, drug pillage, hospital cleanliness, staff attrition, quality of nursing staff and disbursement of funds from Government and donors.
2. **Assessments of behaviours:** Behavioural assessment or monitoring was implicit in the boards’ expectations related to the code of conduct by the managers and staff. Behaviours such as drunkenness, stealing, adherence to managerial procedures, duty hand-over by nurses, and compliance to religious practices (e.g. proper marriage) were some of the information sources upon which the BOGs formed their perceptions for performance effectiveness or control. Religious norms were the most prominent basis for behaviour assessments. Behavioural assessment based on clinical and managerial protocols required the boards to have more technical capacity than was available within most BOGs. Nonetheless, some attempts were being made to set up systems for observing medical/professional and managerial behaviours as exemplified by the establishments of ward registers to monitor change-over of nursing duties in one public hospital, and constituting hospital boards on the basis of professional peers to enable peer-review mechanisms for medical and managerial behaviours.
3. **Inculcating norms for behaviour:** Mostly among PNFP hospitals, findings such as the religious-oriented staff recruitments, insistence on rituals such as prayers and devotions, and expectations that the managers (and staff) actions be “Christ-like”, “volunteering”, “sacrificing for the good of the hospital”, “glorify God by attending to patients” –

suggests efforts to inculcate norms for behaviours as a form of control. As a structural design for inculcating religious values or ensuring norms-driven control, most department leaders in UCMB hospitals were religious cadres (nuns) with nursing or midwifery professions. Justification for this pattern was directly related to ability of nuns to “following orders” and being able to inculcate religious discipline among the hospital staff. A related finding among PNFP hospitals was that board members were more likely to be socialised in religious norms either as clergy persons or selected on the basis of their religious devotions. Taken together with the findings related to religious-based recruitments, religion was one of the common operating norms among PNFP hospitals. These findings show that, at best, there were two norms for controlling behaviour in the PNFP hospitals – a religious and a medical profession one.

4. **Conflict in the control mechanisms:** Some indication of conflict in the control mechanisms were observed in the data presented in chapter 5.4. The medical staff seemed to resist some aspects of the behaviour norms based on religious faith. In particular, behaviour controls that reduced autonomy of staff or constrained their social interactions such as marital status and pregnancy among unmarried females or polygamy and male staff, were considered as “social interference”. Technocrats within the board were worried about what they referred to as “blind actions” and “religious commands” arising from inappropriate advice from “holy people”. The findings also support a proposition that dominance of clergymen and clergywomen in the management of the PNFP hospitals had a higher preponderance for dysfunctional governance relationships within BOGs.

This mix of approaches for managing performance illustrates the preponderance for using norms, behaviours and process-based control mechanisms in the BOD-HMT governance arrangements in addition to output-oriented management.

### **5.3.1 Context: Performance Governance as a Barrier**

Findings in this chapter shed some light on the level of awareness of strategic intent, exchange of information and capacity of the Boards to effectively and legitimately undertake their roles and support innovations like PBC. Composition of the Board and the information systems to provide usable information are essential for the Board to optimise and legitimise their performance control and oversight. The following issues show the promise and challenge of optimizing performance governance and control at the interface between the BOG and HMT:

1. **Composition:** The capacity of the Boards to provide effective leadership expected from them was dependent on the composition of the Boards. There were findings to suggest that the Boards with medical orientation and managerial experience were relatively better suited to provide governance leadership of hospitals. The hospital Boards that were

composed on the basis of “peer-review” mechanism engendered better governance interactions between BOGs and HMTs. Peer review systems are considered appropriate mechanisms for institutional control in situation of complex performance objectives and in knowledge-based organisations (Williamson 1979; Ouchi 1980; Moss, Dugal et al. 2005). Hospitals are knowledge-based organisations with complex objectives and outputs. However, as illustrated in section 5.6.2.3, medical or managerial orientation may not be a sufficient condition if the intrinsic power of the Boards are inferior to that of the HMTs. For example the peer-review systems did not counter governance problems in the hospital where the CEO symbolised ownership-rights (section 5.6.2.2).

2. **Information quality:** Information provided to the Boards was being tailored according to the perceived capacity of the Boards to understand complex activities in the hospitals. Boards with predominantly non-medical members i.e. clergymen or politicians received over simplified information with less value for effective performance control and oversight. UCMB and projects associated with it had succeeded in standardising the information to be provided to the Boards. Due to their recent introduction by UCMB, the study was not able to capture the effects of these changes on the capacity of the hospital Board. Among government hospitals, similar findings were observed. There were no specific programmes to prepare members of Boards for their roles in government and PNFP hospitals.
3. **Power structures:** The institutional power structures – especially the symbolisation of ownership of the hospitals by some members in the HMT was associated with dysfunctional interactions between the Board and HMT, contributing to ineffective control, poor accountability and sub-optimal management of operations. Partly, this may be a result of a clash of values and norms between professional autonomy as a value among medical professionals versus values of “order-obedience-sacrifice” based on religious culture in PNFP hospitals. Similarly, in public hospitals, the rent-seeking culture among politicians (Eeckloo, Van Herck et al. 2004) may explain in part, the observed dysfunctional power relationships with the HMTs. The power of HMT to award financial allowances to the Board members seemed to insubordinate the latter to the former.
4. **External control of organisations:** The external source of salaries for doctors that play a major role in the HMT imposed a problem of multiple allegiances among the executive, thus blunting the influence of the Boards. The majority of the doctors undertaking management roles in PNFP hospitals were seconded by either District Governments or NGO projects. When the Boards of Governors did not pay the managers directly, the latter’s control was blunt. For instance, members of the Board were reluctant to reprimand managers whose salaries they did not pay for fear that the doctor may request for redeployment to another hospital. Performance governance and organisational control is built on the assumption of reciprocal exchange of valuable benefits among the agent and the principal (Goddard, Mannion et al. 2000; Taylor 2000; George 2003).



External pressures such as to reduce user fees, increase staff salaries and massive staff departures created disempowerment of the governing Boards especially in the PNFP hospitals. Inability of the Boards to provide salaries comparable to those paid to government employees and constraints against growth of hospital revenues put the PNFP Boards in a disempowered position. In these circumstances, the Boards were willing to tolerate illegitimate behaviours such as dual-practice by some hospital staff.

5. **Delegation in the Boards:** Delegation of authority within the Boards was observed to be a major feature especially in hospitals where the Board chairperson was a bishop or a senior/prominent clergyman or woman with major responsibilities elsewhere. Delegation of Board membership was also common among the local government representatives on the PNFP hospital Boards. In such a situation, there were problems related to slow decision-making, poor accountability and overall poor assertion of good leadership.
6. **Performance control by integration:** Probably as an implication of the weakness in the governance systems within the study hospitals, donor projects seeking to access performance information for their objectives resorted to integrating their staff into the BOGs or HMT. Many donor projects in the PNFP hospitals planted their representatives into the BOG and/or within HMTs with explicit objectives to access the information they needed to monitor the performance of their projects. In government hospitals, more frequent Board meetings can be interpreted as attempts by the Boards to integrate themselves into managerial operations to overcome poor access to performance information. Alternatively, more frequent Board meetings could be due to the need to extract some financial benefits (allowances). By seconding medical staff to PNFP hospitals – some as hospital managers, the local governments achieved instrumental means of integrating themselves with the PNFP hospitals and achieve a vantage position to observe their performance.

Overall, the governance of hospitals (both PNFP and Government) created a context that was weak to provide synergistic support to performance-based contracting pilot. For a more successful PBC initiative, additional efforts would be required to improve performance governance at the interface between BOGs and HMTs. Promising models in the data include establishing BOG on the basis of “professional peer review” and establishing systems that harvest user-information from the community about the performance of the hospitals.

## Chapter 6: PBC Implementation

### 6.0 Introduction

This chapter aims to explore the mechanisms of effect of the PBC pilot by analysing the designs, implementation arrangements and their influence on the hospital performance given a plethora of performance expectations and a myriad of performance influences in study hospitals. To be able to appeal to hospitals, PBC interventions needed to be sufficiently powered to overcome the competition from other frameworks likes that of UCMB and Yellow Star Program, or ride on the synergistic tide of these and similar interventions. By analysing the implementation activities, explanations of the success and failures to achieve targets, this chapter tries to illuminate the vital mechanisms at play within the PBC intervention for the hospitals to respond. Thus, this chapter attempts an objective evaluation of the PBC pilot design and implementation activities to ignite effective response mechanisms. The evaluation is also aided by a brief description of the implementation arrangements of UCMB and the Yellow Star Programme (YSP). As comparative programmes with similar purpose of influencing performance improvements among hospitals, UCMB and YSP provided local benchmarks upon which to compare PBC and arrive at more practical policy and practice alternatives (Nolte, Wait et al. 2006). During the field activities of this research it was observed that UCMB and Yellow Star Programmes were actively engaged with the same study hospitals with demonstrable responsiveness. Chapter 7 deals with the response patterns arising from the implementation of PBC innovation from the perspective of two case-study hospitals.

For PBC to have an effect on its specified performance expectations – the six goals (see table 6.1) – it would need to compete with the influence mechanisms of other performance frameworks such as UCMB, district league table and YSP. In general, PBC needs to appeal to the hospitals to pay attention to its set of targets. Alternatively, PBC response could capitalise on the synergistic influences of other performance frameworks with similar performance goals and/or similar interests in the mechanisms underlying the performance of hospitals.

#### **Text Box 6.1: Performance goals menu for PBC**

**A choice of three performance goals selected from a list of six:**

1. increase the number of outpatient visits by 10%
2. increase the number of birth attended by a skilled health worker by 5%
3. increase the number of children under one year who are fully immunised by 10%
4. increase the number of new acceptors of modern family planning methods by 5%
5. increase the average number of antenatal visits by pregnant women by 10%
6. increase the number of children under five years treated for malaria by 10%

### **6.1 PBC Implementation: De jure and De facto**

The influential mechanisms of PBC intervention were related to the major design features discussed below. These features are extracted from four main data sources. The inception preparation workshop in July 2003 which this researcher attended, participant observations at three meetings of PBC pilot during January and February 2005, and from monthly pilot progress reports. The monthly reports provided contemporaneous accounts of the implementation of the pilot activities. The fourth data source was interviews with members of the hospital management team (HMT) in the bonus-eligible hospitals. The HMTs were asked how the targets were selected and what influenced their choices. Additional data was collected by interviewing members of the pilot implementing team (PIT) such as the pilot coordinator and officials implementing the performance surveillance/verification activities. The PIT respondents were also asked about the changes they had made as a result of field experiences they encountered during pilot activities. Analytical frameworks provided by complexity theory and the theory of dynamic response actions were used for data extraction and analysis.

The following sections provide a description as well as a qualitative analysis of the implementation arrangements and the range of mechanisms the pilot employed. In analysing the implementation arrangements, it is important to note that the pilot design and activities were implemented using district-based forums (meetings) that targeted all the participating health facilities in each of the five districts. Given this arrangement, the PNFP<sup>18</sup> hospitals in this study were part of a large set of health facilities in these districts that were subject to the pilot activities.

The implementation arrangements had several components that together formed the PBC pilot intervention. Each of these components represents the cluster of essential activities for PBC as implemented in Uganda:

1. A consultative meeting for consensus building among stakeholders at national level at the start of the pilot in July 2003,
2. Meetings to select service targets and create awareness about PBC at the district level,
3. Semi-annual performance surveillance activities measured the output volumes for the selected service targets,
4. Meetings to provide performance feedback to the participating health facilities, and
5. Providing the performance bonuses where eligible.

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<sup>18</sup> Only PNFP hospitals were eligible to participate in these processes. The 3 government hospitals were not part of the PBC pilot and did not have any participation in the PBC pilot activities.

### **6.1.1 Consensus Building for PBC Pilot**

A consensus-building meeting with national stakeholders was an essential first step in the pilot activities. The stakeholders included MOH, PNFP bureaus, Makerere University Institute of Public Health (MUIPH)<sup>19</sup>, District Health Officers (DHO) from the selected districts, and some of the managers of the health facilities. The first meeting at the national level took place in July 2003. At the national level, the stakeholders included the Ministry of Health (MOH), the three Medical Bureaus and the Makerere University Institute of Public Health (MUIPH).

At the first national level meeting that this researcher attended, there was strong support from the three PNFP Bureaus for the PBC pilot. This support was premised on the dissatisfaction of the Bureaus about the administrative controls that Government (MOH) was using to control the use of the grants it was providing to the PNFP sector. Among the main causes of discontent about the administrative controls was the government guidelines that restricted the use of the Primary Health Care (PHC) grants to pay salaries of PNFP staff and the specification of the grant proportion (50%) to be spent on drugs (Giusti 2003; MOH MTR 2003). At the first PBC meeting, Bureau officials presented papers that advocated for a contractual arrangement with Government that allowed more autonomy for managerial decisions in using this grant money. The PBC experiment by the World Bank was a welcome development.

After a 2-day meeting at the national level, the PNFP health facilities in the five selected districts were randomised into control group and treatment group. The treatment group were eligible to receive a bonus only if they achieved or surpassed their service targets. Facilities in the control group were not eligible for bonus even if they achieved or surpassed their targets. At the end of the national meeting, there was broad consensus to have similar meetings at the district level to sensitise the local leaders especially about their roles in PBC contract experiment and its legal implications. The main legal implication was that a subset of small health centres in the control group and all facilities in the treatment group were allowed to allocate the grants from Government freely – in disregard to the MOH guidelines. MOH guidelines required all grant beneficiaries to spend the grants in a specific manner. For instance, about 50 percent of the grants were to be used for procuring drugs, and no wage-related expenditures were allowed. MOH guidelines against salary expenditure had been relaxed for PNFP hospitals before PBC pilot started (MOH 2005).

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<sup>19</sup> MUIPH was the holder of the World Bank sub-contract to undertake the performance surveillance activities for the PBC pilot. Their contract also involved other data collection for impact evaluation of the pilot. The author of this dissertation did not play active roles in the pilot activities other than those limited to participant observations of some pilot activities. Nonetheless some ideas, complaints and influence could have been introduced during interviews and informal interactions with the pilot implementers. Given the limited decision space and resource constraints on the pilot implementers, these influences may have had limited impact on the pilot processes.

At the district level, the stakeholders included the District Health Officers, the District PNFP Coordinators, District Health Secretaries (political leaders in-charge of health) and Chief Administrative Officers (in charge of district administration). Facility managers and representatives of their Board of Governors were also invited.

Subsequent meetings were held in the five selected districts of Arua, Bushenyi, Jinja, Kyenjojo and Mukono. The aim of these meetings was to build commitment for participation, compliance and support among the stakeholders at the national and district level.

### **6.1.2 Selection of the Targets for PBC Contract**

Ideally, the selection of the three service targets represented a strategic step for the bonus eligible hospitals to succeed in achieving PBC contract targets. The best approach to strategic choice (ie selecting three out of a menu of six) would entail some analysis of prior trends in service outputs, the needs of the community, alternative providers and the capacity of the hospital to succeed for the selected targets. Capacity considerations would include things like internal resources such as staff and external resources such as grants and technical support to fulfil the PBC contract obligations. From the Expectancy theoretic construct, this represents the need or belief that the agent's (hospital) efforts will result in the attainment of the desired performance. In general, strategic choice of PBC targets would be best done by the internal hospital actors since they have access to this set of strategic information about their capacity (Gibson, Martin et al. 2005). The internal actors here included the members of the Board, Hospital management team (HMT), the heads of department and clinical staff. In addition, the internalisation or "ownership" of the PBC innovation would be best served if the choice-making process and analyses were open to discussion by the service departments in the hospitals (Gardner and Schermerhorn 2004). It is the service departments that have more specialised information on their capacity as well as strategic information for success. In general, a participatory process for making the choice of targets would have the effect of communicating the performance expectations to those at the frontline of producing the contracted services – thus fulfilling one of the predicted requirements from Expectancy Theory.

In reality (de-facto situation) the selection of the targets was done differently. The targets were selected during the district meetings organised to generate PBC awareness. At these meetings, 2 – 3 members of the HMT (inclusive of one member of BoG) from each hospital and other participating health facilities were invited to the PBC district awareness meeting (DAMs). At the meeting, the 2 – 3 representatives were required to make the selection of the service targets. At the end of the one-day DAM, a PBC contract was signed between the hospital representatives and the PBC pilot team. The signing of the contract signalled the start of the PBC obligations. These workshops were held during September and October 2003. Of interest to this study is the implication of the choice of service targets that were made by the two invited persons from each hospital, in particular, the likelihood of

insufficient consultation within the hospitals regarding the selection of the performance targets.

*“We selected as a group – me and back then there was a doctor XX – we both attended the meeting at the district (DAM) and chose these targets” (HTM-Hosp-2).*

#### **6.1.2.1 Limited Awareness of Performance Targets**

There was evidence of limited knowledge of PBC contracts and the service targets that had been selected among PNFP study hospitals. It was apparent that little effort was made to create wider organisational awareness about PBC contracts. The knowledge about targets was limited to a few persons that had attended the DAMs. The commitment to the three selected performance targets was therefore limited to members of the hospital management team (HMT).

Secondly, the lack of dissemination of targets within the hospitals could have been due to the loss of momentum of pilot activities soon after the performance contracts had been signed. For nearly 12 months following the DAM and signing of the PBC contracts, there was little pilot activity. For example, in some health centres (not hospitals) the persons that had participated in signing the performance contract and selecting the performance target had moved or died. This slow start of the pilot activities was attributed to two reasons: delayed disbursement of funds by the Bank and the departure of the person that was supposed to coordinate the pilot activities. Partly due to the delayed disbursement of funds, the replacement of the coordinator took eight months and during this period, the pilot activities stalled.

*“Another thing that happened in that period is that many of the health workers left their positions. Many left for greener pastures or were transferred. One died. As a result when (we) started in August 2004, I found out that people who had also been sensitised had moved and fresh sensitization was done by myself” (PIT-MOH).*

*“In other cases, the in-charges were new, did not know and did not add extra effort. In certain units, they (had) transferred the people and we would find a new management team with no information at all about the pilot” (PIT-MOH).*

Partial ignorance about the selected targets remained even after the pilot activities had been revived. For example, inconsistency about which targets were chosen by the hospital was common after an 8-month period (September 2004– April 2005) of invigorated pilot activities. In this period, re-sensitisation workshops had been held, performance verification visits had been made and the first round of performance feedback ( $\pm$  bonus payment) had been accomplished. When asked a direct question such as “which targets did you choose?” most respondents among hospital managers tried to search for and read their answers from their copies of the contract. In one instance illustrated by the extract below, the lead manager

discovered during the interview with this author that the targets in the contract were different from what he thought they were:

*“we selected – I think OPD – (looks up the file and reads from file) – we had selected – (smile of surprise). I wish we had selected OPD. We selected deliveries, immunisation and under-5s treated for malaria. But you know - back then, these are targets we,,,,, I wish we had selected 1,2,3 (OPD, deliveries and immunisation of under 5s)” (HMT Hosp-2).*

#### **6.1.2.2 Replacing Flexibility with Rigidity**

According to the original design and the contract document, the hospitals (and other health centres) had the freedom to choose different service targets at the beginning of each financial year (World Bank and MOH Uganda 2003). During the first round of performance-feedback workshops (PFW) in January 2005, the freedom to change and choose different targets was ruled out. The pilot implementation team (PIT) wanted to ensure that the hospitals did not abandon selected targets before purposeful strategies to improve them. In effect, the hospitals (and other participating health centres) were locked-in with the choices made in haste or whose context had changed sufficiently for the hospitals to make any meaningful efforts to succeed. For example, community-based programmes to prevent malaria had been initiated within the catchment population of the study hospitals after the contracts were signed. These prevention initiatives were being led and supported by the study hospitals that had selected the malaria treatment target. Success for such a target would mean reneging on the prevention programme objectives of the same hospital.

*“... for the one of malaria (target), I am not so sure (of success). We have – (stops and laughs). (...) there are many things we are improving down there (in the communities), you know. We are responsible to the Health sub-district (prevention programmes) and we are making sure they have drugs for community-based malaria treatment” (HMT-Hosp-2).*

*“.... you know – (for) malaria, there was this home-based management (new programme) that we did not factor in. We thought the malaria will always be there but it was not to be. The immunisation one, I think, is right” (HMT-Hosp-2).*

#### **6.1.3 Performance Verification**

Performance verification (PV) or assessment of the magnitude of service outputs related to the performance targets was one of the major mechanisms to influence hospitals to respond to PBC. In agency theory this relates to the ability to observe the effort of the agent and is seen as an essential tool to overcome the agency problem of non-observable effort (Goddard, Mannion et al. 2000). PV also serves to focus the agent's interest on the records or systems that generate the performance data. According to the pilot design, and implicit in the PBC contract document, PV was to be “confirmed based on HMIS reports”. HMIS (health management information systems) reports were monthly and quarterly reports of service outputs that each health facility was obliged to submit to the District Health Office. The reports use a standard format (Govt of Uganda 2005). To guard against distortion of the HMIS reports, the contract included the penalty clause below:

*“ ... the health unit's performance will be confirmed based on HMIS reports, institutional surveys and household surveys. If any large discrepancies between the survey and health unit's data are found regarding over-reporting, any bonus payment received will be claimed back. The district reserves the right to take other disciplinary actions based on those findings”(World Bank and MOH Uganda 2003).*

During implementation of PV activities, the sub-contractor – Makerere University, Institute of Public Health decided to modify the source of PV data. Primary registers instead of HMIS reports were used by the performance verification team (PVT) to compile the performance data. Primary registers are the detailed medical records that have each patient/client details e.g. name, age, diagnosis and treatment items. Monthly HMIS reports on the other hand have aggregated performance data generated by adding up every entry in the primary registers. The basis for this change was due to the alleged fear that the HMIS reports were vulnerable to manipulation. Despite the apparent deviation from the contract specification implicit in this action, the PVT set themselves a large task. Processing performance data from primary registers required several stages with workload implications. For example, the PVT had to identify the contract – relevant services from multipurpose registers. They had to tally thousands of cases, visits or services provided by a hospital during the verification period. From the perspective of understanding the effectiveness of the PVT activities, three main implications could be attributable to its workload. These are discussed in sections 6.2.3.1 to 6.2.3.3.

#### **6.1.3.1 Crowding out Performance Verification Activities**

In addition to the PV activities related to the three selected service targets, the financiers of the pilot – the World Bank Research Group (WBRG) sought to collect a broader set of data to analyse the impact of PBC pilot in Uganda. The need for impact data required the PVT to conduct several surveys in addition to PV activities in the registers. The impact assessment required data from five survey components: 1) facility equipment, 2) the staff, 3) exit poll of patients, 4) households and 5) survey of the support systems (supervision and financing).

As a result, the workload for the performance verification team (2-3 persons) in the hospitals was not restricted to tallying the cases in the registers related to the three PBC targets. According to the Health Facility Module of the survey tools, the PVT had to extract from the hospital registers and tally outputs for a total of 39 different services (World Bank, MOH Uganda et al. 2004 pg 3&4). The same team had to conduct an exit poll of clients (at least 30), interview the clinical staff (average of 60 in hospitals), as well as conduct household interviews (at least 10 households). Given the financial constraints within which the PVT operated (see section 6.2.5.1), all these activities were done within three days for each hospital. These activities were supposed to be repeated four times i.e. every six months for a period of two years.



*"An overriding constraint was that due to a tight budget, each facility/community had been budgeted for one day but hospitals and big health centers needed three days on average to collect facility data and also to do staff and exit interviews." (progress report December 2004 – page2).*

### **6.1.3.2 Reliability of Baseline Performance Measures**

It was necessary to collect the baseline performance of each provider 12 months before September 2003 when the PBC contracts were signed. However, the baseline performance verification activities were delayed for 12 months. The implication of this delay was to increase the workload for the PVT. For instance, the review of patient registers for the baseline covered 18 months instead of 12. This long period for performance verification and the decision to use primary registers instead of monthly (aggregated) HMIS reports, caused excessive workload especially for the baseline PVT in April/May 2004. There was also a steep learning curve as the PVT was new to the task. There were particular challenges in extraction of PBC related target and non-target services from primary registers full of clinical jargon and shorthand.

The verification of performance data was probably the most challenging and as illustrated in box 6.2, was also most likely to attract shortcuts by the PVT. It also illustrates the problems of performance auditing such as disruption of service provision with likely negative effects on clients' waiting-time and satisfaction.

#### **Textbox 6.2: Bottlenecks to PBC Pilot Implementation**

*Question:- What needs to be strengthened for the pilot process to work better at the district level?*

*Answer:- "Monitoring is key. (...) For example in (named health centre) - a health centre III was in the bonus group. It did not meet the target at all in both first and second round. We decided to give it a visit to find out what was happening. ....We realised that it is far from (named town). That is 60 miles.(...) These people (clinic staff) told us that the research assistant [PVT] arrived late and was in a hurry and did not look at all their records. That is how they did not make the targets. But on the second round the research assistant [PVT] did not actually arrive –so you see how monitoring is very important? He might have sat under a tree and wrote the data. So monitoring of research assistants [PVT] is very important. We also had emphasised that they notify the health units about their schedules - sometimes you find that in the middle of a busy clinic, the research assistants [PVT] are collecting all the registers, stopping the clinic to talk to (interview) the staff. The health workers find it very difficult to organise themselves. The other issue was the exit interviews. These were very few simply because they had taken away all the staff for interviews and there was no one left to see the patients and therefore no exit patients [to interview]. Some of these units have 2 or 3 staff only. At the exit poll, the patients were very tired. They had waited for too long and did not cooperate".*

*Question:- Were you interested in information about waiting time in these clinics?*

*Answer:- " Yes (burst into laughter),,, indeed, yes" (member PIT).*

It can be implied from the above extract that the PVT team had potential for causing ineffective functioning of the service provision on the day of their visit while at the same time collecting data about service quality from the clients at the facility. The negative effects such as long waiting-time for clients may partly be due to the PVT processes and not the routine

reality of clients at the health facility. Likewise, client satisfaction would be reduced by the auditing activities of the pilot and not the routine experience of clients. Unfortunately the interpretation of such data makes all attribution of waiting time of client dissatisfaction to the provider organization.

The faults in baseline PV activities affected the legitimacy of the performance feedback activities (see section 6.2.4) but also provided an unreliable performance benchmark for the rest of the PBC pilot. Most discussions during the performance feedback workshops contested the service output figures used for calculating the bonus amounts. The discussions and explanations during the performance feedback workshops did indicate a significant dissatisfaction with the PV activities during the baseline survey.

*"... frankly, I do not know (why we failed the target) .... What I realised, there is a problem with measurement – the people who collected the records – I do not know what they looked at. ... The data collection was problematic. One thing I am sure of is, our numbers are much more than what was reported. We have even gone again and looked at them and they are much higher" (HMT-Hosp-2).*

*"What is this thing 'data not available?' I see everywhere 'data not available', 'data not available'. What is the purpose of this [pilot]? What is called data? This is demotivating and makes us inferior saying that data is not available yet the DHO (district health Office) has been receiving these data and our databases are complete" (HMT at PFW Arua 8<sup>th</sup> Feb 2005).*

From the perspective of the PVT, the imperfections in performance measurement were explained variously as due to "missing records", "records were locked up and not accessible to the research assistants", "registers were misplaced" or "the staff responsible for the records was absent at time of the visit". Implicit from these reasons was the de-facto concept of the "cross-sectional survey" – a snapshot picture at a particular point in time. For example, if the registers (records) were locked up in a cupboard on the day of the PVT visited, a "zero outputs" was recorded against the service targets and no return visits were made to fill the missing data. This could be interpreted as a coping mechanism by the PVT that was under pressure of heavy workload. In addition to enormous workload as an underpinning logic for explaining the behaviour adopted during performance verification, restrictive budgetary provision and questionable financing priorities for pilot activities all biased the performance verification activities to ineffective execution.

*"There was a problem of facilitation (financing). For example, I was supposed to monitor and supervise the units but we did not move out at all, except for bonus payment" (member PIT).*

*"Call-backs [return visits] to facilities or communities were impossible given the tight budget and this could have contributed to the teams getting less staff and exit interviews than targeted" (progress report December 2004 – page 4).*

### **6.1.2.3 Adjusting to the Constraints in the Records System**

The specification of some PBC targets required data that were not routinely captured in the aggregated HMIS reports. For example, the process of aggregating service output data created only two age categories "under 5-years" and "above 5-years", in the national

information system and facility performance reports. For antenatal visits, the HMIS categories included “1st visit” and “re-visits” (Govt of Uganda 2005). Three PBC targets i.e. antenatal, immunisation and malaria (see box 6.1) required exact “age” or “visit number” variables for performance verification. In response to these problems, calculation of “average” number of ANC visits as required by the ANC target was abandoned and instead the “total” number of visits was used. For the malaria target, where an age cut-off eg “one-year and below” was needed, the primary registers presented a problem. All malaria cases in the registers that did not have the “age” entries were not counted when imputing performance for the malaria target. This problem led to very low performance figures for the malaria and immunisation targets during the baseline survey and was a source of heated discussion in the performance-feedback workshops.

*“People used to put (make entries like) ‘adult’ and ‘child’ instead of the age. We had problems with this for immunisation and malaria (targets). We only counted such for OPD but not for immunisation and malaria targets” (member PIT).*

*“Being able to make correct recording improved the numbers (in 2<sup>nd</sup> PV round). Some of them, it was improving the handwriting so that we (PVT) can understand the diagnosis for the tallying. Clinicians use lots of shorthand in the registers. Some used “PF” (plasmodium falciparum) for a diagnosis of malaria” (member PIT).*

The implication of these record-entry problems and unavailable records and workload for the PVT at baseline is that performance “improvements” observed in the subsequent PV activities potentially arose partly from the improved capacity of the PVT to deal with the registers and not necessarily from more clients being served by the participating health facilities.

#### **6.1.4 Performance Feedback**

Performance feedback information about the successes and failure to attain the performance targets was an essential part of the design. Providing information to the agents – the hospitals and health centres about their level of achievement in relation to the targets is meant to motivate them to improve or sustain required efforts. On its own, performance feedback is effective in improving performance of health providers (World Bank 2003; McNamara 2006). The key findings related to the activities of this component are related to the adaptations that were made in the implementation arrangements for providing feedback and the challenge of the negative effects that arose from randomising the monetary bonuses to a few providers. There was also a problem in the temporal sequence between performance feedback and performance verification. These are discussed below:

##### **6.1.4.1 Performance Accountability: A Good Start but ..**

Performance feedback workshops (PFWs) were organised as a one day event in each of the five pilot districts at the start of 2005. As a measure of creating effective performance

accountability to the relevant authorities, the invited guests to the feedback workshops included the district political leaders, district technocrats in charge of finance, administration and health. One member of the Board of Governors (BOG) was invited along with two members of the management team from all participating health units (hospitals and health centres). During the first round of PFW in January/February 2005, a good turn-up of stakeholders was observed at the three workshops attended by this researcher.

Participating units that had achieved or surpassed their targets and were eligible for bonuses received their bank cheques and a handshake from the chief-guest (mostly District Health Secretaries). The PFW included speeches from the chief guest and representatives of the Chief Administrative Officer and the District Health Office. The speeches generally provided guidance on how health managers can succeed to achieve better results. For example, the speeches contained suggestions such as: “publicising services”, “making services affordable to the poor”, “being nice to patients”, “accountability for the money and outputs” and “making the records (data) speak for themselves”. The key themes in the discussions arising from the three workshops attended by this author can be summarised as follows:

### **1. Focus on Records**

More discussions centred on the need to keep good records. In one district which was ranked 31st on the national MOH league table, discussion focused on improving the completeness of records as a strategy to improve the district’s ranking in the national league table. As indicated in section 6.2.3.1, the performance feedback results presented at these meetings had several missing figures attributed to problems in the service records. Given the precedent of poor performance of this district at the national MOH league table for similar reasons of poor data completeness, the politicians and the District Health Officers (DHOs) in this district took advantage of the forum to emphasise the message about improving records:

*“Lack of data made the district get ranked number 31 on the national league table. You can say by mouth that you are performing but without evidence, this is nothing” (DHO at PFW 8<sup>th</sup> Feb 2005).*

*“We need data. That is how you account for government funds. (District political leader - Performance feedback workshop 8<sup>th</sup> Feb 2005).*

### **2. Credibility of Performance Assessment**

During one of the PFWs, the submission of one of the bonus recipients captured the attention and discussions of both political and technical leaders as well as the health unit managers. The extract from the submission (below) indicated some loopholes in the performance attributed to innovative efforts as opposed to usual practice or trends.

*“Me – I have nothing to say but to thank you. I did not know of this contract thing [PBC pilot]. I am only seven months in the post and did not know of this contracting. I was surprised [to be] invited to this workshop to receive a bonus. I am very happy. Thank you very much” (laughing from the participant PFW 8<sup>th</sup> February 2005).*

The discussion that followed variously used the language of “a joke”, “fluking” or “accident” in reference to the connection between purposeful actions and the receipt of the bonus. Recommendations were made to make the bonus competitive as well as making sure that the performance verification activities measured “real” improvement and not “usual” expected increases. It emerged during the interviews with the hospital managers that the level of the set targets for the PBC pilot were either similar or lower than the ones the hospitals had set as part of their routine annual budgeting processes.

*“... for example we have a target of 19,000 OPD attendance this year and the target is based on the previous year and we set at 10 percent .... the issue is that as administration we are tuned to a 10 percent increase in the budgeting” (HMT-Hosp-2).*

It is therefore possible to speculate that PBC targets were not sufficiently challenging and the hospitals were taking advantage of the same or lower targets of PBC, thus not pressured to do anything different from the ordinary.

#### **6.1.4.2 Demotivating the Control Groups: “Done Better but no Bonus”**

During the first round of performance feedback workshops it became obvious that the bonus was a potential source of negative emotions for the health managers whose facilities had done better than those that were randomised to the bonus-eligible group. Facilities in the control group also witnessed the bonus giveaway ceremony but received nothing irrespective of good or better performance a situation that evoked feelings of envy and unfairness. This was evident as numerous and spirited attempts by the participants in control groups to contest the randomization approach.

Numerous views were expressed suggesting that the bonus be made competitive for all participating units. In both rounds of performance feedback i.e. January and September 2005, participants attending the PFW continued to urge that the bonuses be opened up to competition (tournament design). Other views within the pilot implementation team (PIT) and the district health officers (DHO) were suggestive of adding some forms of placebo benefits or recognition for the facilities in the control group that exceeded their targets. However, there was no guarantee that such placebo benefits would not potentially become a disguised “bonus” to the control group.

*“ We had also suggested token things like pens, calendars, books – things to remind them about the study and make the study visible. ... It would have been a good idea that all participating (health centres) got something (benefit)” (Member PIT).*

Indeed some district managers were beginning to consider providing some kind of “placebo rewards” to counter what they described as insidious apathy to the pilot. For example, lack of cooperation had been observed among the control groups especially during subsequent performance verification activities. As illustrated in the extract of a group interview with the district health officer (DHO) and the district coordinator of non-profit providers (PNFP-

Coordinator) in box 6.3, the bonuses had elicited negative satisfaction among the control groups.

### **Text Box 6.3: Bonus as a source of negative motivation for control group**

*Interviewer:* "What do you see as the future for the contracting arrangements with PNFPs and performance bonuses?"

*PNFP Coordinator:* *What I hear is that the people are not happy. It also looks expensive and not reliable. So the (health) units did not appreciate it. They are participating but do not get a bonus. They said – I remember – one in-charge [manager] complaining that even when other health centres performed better, the bonus is only paid to HOSP-1 hospital and same HOSP-1 hospital only every time. XXX health centre improved 20-50%. They say they squeeze here and there to improve performance and directed resources to register improvement but they are not recognised (given bonus).*

*DHO:* *May be as a district, we need to recognise them – those that are the controls but are doing well. I hope the study team (pilot) does not mind. They did not understand the issue of control group. We can provide certificate or sponsor managers for a study tour.*

*PNFP Coordinator:* *The control groups have performed even better than those getting a bonus. HOSP-1 hospital got 10 million (shillings) and yet ZZZ hospital is doing far much better. It's frustrating and has lost meaning – done better but no bonus."*

*(Extract from a group interview of District Health Director and District PNFP Coordinator)*

#### **6.1.4.3 Bonus-biased Performance Feedback**

A notable finding at the first PFWs (January 2005) was that the "real" performance feedback was only given to the bonus-eligible group of participating health units. Real performance feedback entailed provision of absolute service output figures for the period under review. These figures were also compared (percent change) with a corresponding calendar period in the previous year. Taking the immunisation target as an example, total immunisations figures for January – March 2004 were compared to a similar period in 2003 and the percentage increase/decrease was computed and compared with the target. Feedback was limited to the three service targets selected by a facility<sup>20</sup>. Although health units in the control group had been subjected to the same pilot activities i.e. target selection and performance verification, their performance figures were not provided during the first and second performance feedback workshops.

*"Indeed we did not give it (feedback to control groups) out. But for round 1, we did send all the performance feedback through the district focal persons (PNFP coordinators),... for the second round, we only processed the one for the bonus group since there was pressure to disburse the funds*

<sup>20</sup> Even though the performance verification team collected data for about 37 different services/diagnoses, feedback was limited to the three service targets in the contract.

*since (named NGO) was closing up. But the rest of the result will be worked out and sent” (Member PIT).*

For the second round of feedback in September – October 2005, participants from control groups and the local government officials were all excluded from these workshops. Only participants from the bonus-eligible health units were invited. The exclusion was attributed to lack of sufficient budgets to hold big and all-inclusive workshops. The performance feedback for the health units in the control groups were sent by email several months after providing feedback to the bonus-eligible group.

*“Another disappointment was - we were unable to organise big workshops that bring all the participating health units together including the district health and local government officials. This time (second round of performance feedback) it was a mini workshop involving only members of bonus group – hence could easily be looked at as discriminatory” (Progress Report, September 2005 page 2 ).*

According to the interview with the pilot implementation team, the biased feedback also had implications for the success of the subsequent pilot activities. Cooperation from the control groups was eroded in the subsequent performance verification visits since they did not see much value in participating. Most participants in control groups did not take interest in signing the second PBC contract for the financial year 2005/06 as was expected of them.

*“I think the problem (lack of cooperation) was that some units were not involved. .. They also did not appreciate the issue of randomisation. All they needed was to be in the bonus group.” (Member PIT)*

*“In my view we should have included some government units in the bonus group. It was an oversight. They did not have any interest in the study” (Member PIT).*

*“... You see, the overall objective was to have all groups together in a forum (feedback workshops). ... Also we wanted these that fail, to learn from the successful ones. Unfortunately this is not done. The funders were not willing to finance this (PFWs). They were purely paying for the bonuses. ... In the second round we called only the bonus group.” (Member PIT).*

#### **6.1.4.4 Hitting Two Birds with One Stone Or Temporal Bias?**

According to the PBC contract, performance feedback was expected to happen within the first three months following the PV visits. Implicit in this time specification was the need to allow a minimum of three months to the recipients of performance feedback to undertake corrective actions before the next PV visit.

The de facto practice did not allow time for the recipients of performance feedback to adjust and innovate before the next PV visits. Subsequent PV visits were started immediately following the performance feedback activities. From table 6.1, the performance feedback for round-1 took place in the months of January and February 2005. The PV for round-2 started also in February 2005. The performance feedback in September 2005 was immediately followed by PV visit in October.



**Table 6.1: Schedule for pilot implementation activities.**

	Performance verification	Performance feedback	Period/months covered by performance verification activities
<b>Round-1 (baseline)</b>	April/May 2004	Jan/Feb 2005	Jan 2003-March 2004 (14 months)
<b>Round-2</b>	Feb/March 2005	September 2005	April-Dec 2004 (9 months)
<b>Round-3</b>	Oct/Nov 2005	Pending by Aug 2006	Jan – Sept 2005 (9 months)

Source: Adopted from (PBC-MPR 2005b)

Although not directly admitted by the pilot implementation team the synchronisation of the performance feedback activities with the activities for performance verification was intended to “hit two birds with one stone”. Less than optimal financial facilitation of the pilot implementation team seemed to explain why several activities were being clustered together to fit the budget.

*“The first bonus payment was done in January (2005). ... Meanwhile, the data collection teams left for fieldwork at the end of February (2005)” (progress report February 2005).*

*“It is anticipated that the 2<sup>nd</sup> bonus payment (read performance feedback visit) should be done in August (2005), and data collection for Wave3 (PV round 3) should be conducted immediately thereafter” (progress report July 2005).*

The implication of this practice is that any corrective actions or performance innovations arising from the performance feedback would not show up in the outputs of the next round of performance feedback. Participants in the performance feedback workshops (PFWs) expressed this concern as the meeting extract below indicates:

*“We are just receiving this information and there is no time to do those things you are talking about (improving records). How can we change them (records) if the team (PVT) is coming back this month?” (Participant - PFW, 8<sup>th</sup> February 2005)*

Any purposeful response by the hospitals to the first performance feedback provided in January/February 2005 would not be picked up by the PVT until Round-3 in October/November 2005. Given that the pilot was limited to two years of implementation, this problem created a systematic bias against finding a positive response to the performance feedback element of PBC experiment.

### 6.1.5 Bonus Payment

The bonus represented the apex of the PBC pilot. The bonuses were computed as a proportion of the government annual grant given to a hospital as opposed to its total annual revenues. The bonus payments were designed to take place every six months. This was meant to provide mid-year<sup>21</sup> and end of year bonus payments. For each of the three targets achieved or exceeded, one percent of the base grant was payable i.e. three percentage points at mid-year

<sup>21</sup> Financial year was used to synchronise with the budget cycle. The mid year target was equal to half the annual target.



and at end-of-year. The bonus award was designed to include incentives for effort to be made across all the three selected targets and also across time for each target i.e. at mid-year and end-of-year. In this respect, an extra bonus point (1%) was given if success was consistently achieved at both periods for each target – thus providing three additional bonus points. An additional point (1%) was given if two annual targets are achieved and another point (1%) added if all three annual targets were achieved (Talyor 2003). Overall the maximum bonus a hospital could get was 11 percent of its government (PHC) grant.

At the time of computing the first bonus payments, it became clear that the bonus amounts were too small especially for the smaller health centres. Lower level PNFP health centres generally received small grants (\$ 4,300 – 6,400) from Government. The pilot implementation team (PIT) successfully negotiated a doubling of the bonus points. By implication, the maximum attainable bonuses changed from 11 percent to 22 percent of Government grant. Among the study hospitals, the contribution of the government grant was 30 to 60 percent of the total annual revenues. Table 6.2 shows the assessed performance and the proportions of bonus received and their US dollar equivalence.

**Table 6.2: Bonus payments and as proportions to annual revenues in eligible hospitals**

Hospital (base Govt grant)	Targets	1 <sup>st</sup> round	1 <sup>st</sup> bonus (max)	2 <sup>nd</sup> round	Annual target (+ extras)	2 <sup>nd</sup> bonus (max)	bonus as % (total annual revenue)
Hospital HOSP-1 (\$74,135)	OPD	0	<b>\$1,480</b> (2/3)	1	1	<b>\$5,930</b> (8/8)	<b>3.3%</b> (\$227,053)
	ANC	1*		1	1+1		
	Malaria	1 (0!)**		1	1+1		
Hospital HOSP-2 (\$180,807)	Malaria	0	<b>\$0</b> (0/3)	0	0	<b>\$9,040</b> (4/8)	<b>2.0%</b> (\$451,778)
	Immunisation	0		1	1 +1		
	Delivery	0		1	1 +1		

\* 1 here implies one target exceeded and two percent of the government grant payable as bonus.

\*\* Target awarded when it should not have been awarded since performance declined i.e. -21%

Despite doubling the original bonus amounts, table 6.2 shows that the received bonuses were too small a fraction of the total revenue of the hospitals. For example in the hospital (HOSP-1) that did well (got 10 out of 11 percentage points), the total bonus (1st and 2nd) was 3.3 percent of the total annual revenues.

Total revenue of the hospital in contrast to the size of bonus provides a better picture of the valence of PBC bonuses to induce a profound performance improvement response. If the hospital actors were rational and calculating agents as assumed under the agency and expectancy theories, they would pay correspondingly little attention. Chapter 7 provides details of the response to the bonus payments and how they were used.

Despite it making a small contribution to hospital revenues, the bonus amount shared between the two hospitals (table 6.2) was equivalent to 82 percent of the total bonus

payments made by the PBC pilot. Eighteen percent was shared among the rest – 17 bonus-eligible health centres. The large share of the bonus funds by the hospitals was due to relatively larger base grants they received from the Government. The hospitals in the pilot also had a relatively high success with the PBC targets. This finding has implications for the feasibility of sustaining financial bonuses especially for hospitals that have relatively high operational budgets.

#### **6.1.6 Pilot Financing: Uncertainty of Bonus Funds**

Despite the centrality of the “bonus” in the PBC pilot as the intervention, the financing of bonus payments was relegated to uncertain transactions with a potential to ruin the pilot purpose. As the main architect of the PBC pilot, the World Bank Research Group (WBRG) staff secured funds for the coordination and impact research components of the pilot. A local research institution<sup>22</sup> (LRI) was contracted by the WBRG to conduct the impact assessment surveys and performance verification activities. In addition, a local consultant was hired as a Pilot Coordinator (PC). The financing of the bonus payments was assigned to the Ministry of Health. Counterpart funding (read bonus fund) was required from MOH as a demonstration of the Ministry’s commitment to PBC pilot. MOH also provided the office for the PC. However, given the government budgeting cycles, and the priorities contingent on its budget, the MOH could not fulfil the counterpart funding requirement. This left the pilot implementation team (PIT) with no guaranteed funds to pay the bonuses.

*“... This is the problem. It was assumed that MOH will take care of some of these things but this is wrong. .... So the assumption that MOH would provide resources [for bonus payment] need to be streamlined at the beginning” (Member PIT).*

*“...In theory, they (MOH) accepted the study to be done, but due to resource constraints, their commitment to the study was lost... It’s possible that they (World Bank people) did not do good thinking and ground work. No budget for the critical parts of the study – the bonus and facilitation of monitoring” (Member PIT).*

The PIT had to engage in additional activities to source for funds to finance the bonuses. With the recommendation of the MOH, PIT negotiated with several US-based NGO projects in Uganda to pay the PBC bonuses. Fortunately, one of them agreed to finance the bonus payments. Although this NGO assisted with two (out of three) rounds of the bonus payments, the NGO wound-up its programme in Uganda leaving the third round of bonus payment in jeopardy. By August 2006, the source of funds to pay for the third and last bonuses was still not secured despite a 9-months delay to pay the bonuses. The pilot coordinator’s contract had a total of 42 days in a period of 12 months. The coordinator indicated that most of his contract days were used for “hunting” and “negotiating” funds for the bonus payment. The funds made available for the sub-contract for performance surveillance were also perceived as insufficient for the extensive surveys.

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<sup>22</sup> This researcher/author belongs to the institution that was contracted to conduct the research but kept a reasonable distance and position not to influence the research activities related to the pilot.

*“The research team reported that they were working under a very tight budget. They planned for \$280,000 but only \$175,000 was approved. The mode of payment too was unfriendly. That is, they got first payment on signing the contract (\$17,000). Thereafter, they could only receive funds after the deliverables were submitted and accepted. As a result, they had to incur debts ..... Besides, fewer research assistants were recruited and time for fieldwork was limited. Budget constraints also affected the inland travel arrangements for the local consultant and facilitation of bonus payment workshops” (Alia 2005b pg 20).*

In general, the financing problems displaced activities necessary to support the pilot implementers and caused uncertainty in the schedules for bonus payments and performance feedback activities<sup>23</sup>. In the language of the expectancy theory, the uncertainty of bonus payment weakened the instrumentality of PBC pilot – i.e. the necessary belief among pilot participants that rewards will follow from the successful attainment of expected performance (targets).

## **6.2 Comparison with Other Performance Frameworks**

As indicated from chapter 4, there were several initiatives in the study hospitals trying to influence their performance improvements. Although the Maternal Death Audits and District Performance Reviews (and intra-league table) were taking root, they lacked documentation and sufficient history in the study hospitals to characterise their activities. This section provides brief descriptions of the implementation arrangements of the two well established performance improvement initiatives found among some of the study hospitals. These are UCMB’s performance reviews and the Yellow Star Programme (YSP) for quality improvement. This comparison is meant to highlight the strength and weakness of the PBC in relation to these programmes that used different mechanisms to secure improved performance from the same hospitals. The comparison here is used for the dual purpose of aiding the evaluation of PBC pilot as well as enabling learning across all these three performance frameworks.

### **6.2.1 UCMB Performance Reviews**

As discussed in section 4.4.3.5, UCMB had since 1997 started a process of comparative performance assessment for its network of health facilities. The key aspects of the UCMB performance framework (Lochoro 2004; Mandelli and Giusti 2005; UCMB 2006) are briefly listed below:

#### **1. Annual Performance Reviews**

Hospitals and lower level health facilities in the UCMB network were required to submit to UCMB their annual comprehensive performance reports. These reports were only received at the end of the financial year. The annual reports comprised of hospital revenues, resource inputs and service outputs during the financial year. The information under the categories of

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<sup>23</sup> Activities for bonus payment and performance feedback were coupled together. Failure to find funds for bonuses also delayed the performance feedback activities.

revenue, inputs and outputs was standardised to ensure comparability. The reports of hospital inputs and outputs were based on the national Health Management Information System (HMIS), thus enabling the same reports to serve both the reporting obligations of UCMB as well as that of the district health office and MOH. Guidelines about how to process and aggregate the data had been made available to the managers of health facilities affiliated to UCMB. There was evidence of activities by UCMB to validate the information in the reports. Verification of the submitted performance data was done through soft bureaucratic arrangements such as accreditation requirements – i.e. that these performance reports be endorsed by the chairperson of the Board of Governors before their submission to UCMB and to the districts. Additional bureaucratic control and verification of performance data was given to the diocesan health coordinators. These coordinators had a structural role to receive monthly and quarterly performance reports – that could potentially serve as validation for the annual performance reports.

Before the annual performance review meetings (APRMs), the data from all the UCMB affiliated hospitals were analysed. The aim of the analysis was twofold:

1. To construct an average performance among hospitals in the UCMB network (ie a benchmark scenario) and
2. To compare each hospital with this average.

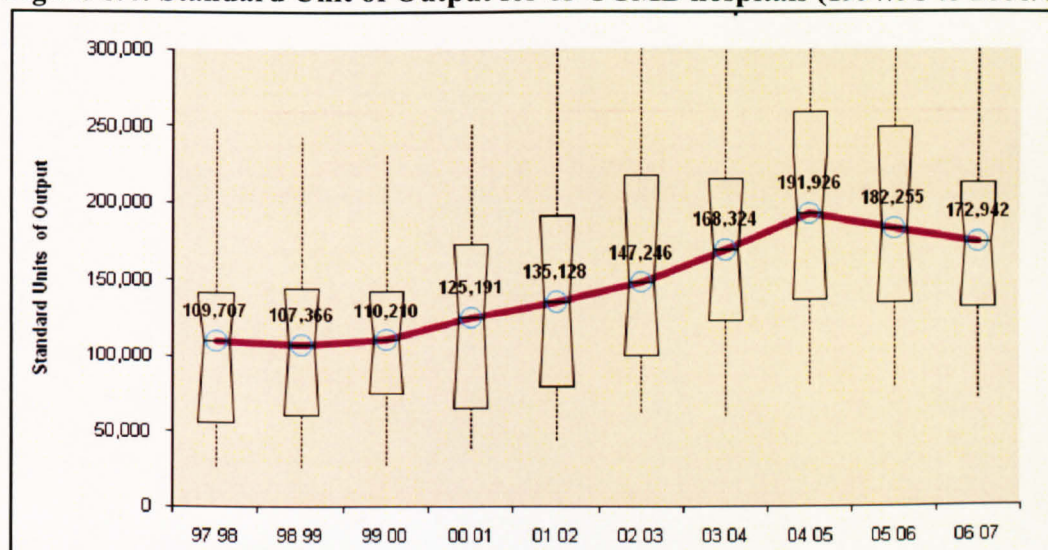
Lower-level health centres had their analyses separated from hospitals. For comparative purposes, it is important to note that *all* outputs of a hospital were being converted into a standard unit of output (SUO). The SUO was constructed by applying weights to all hospital service outputs relative to outpatient visit. Thus all hospital services were converted to “OPD equivalence” (Beekes 2003; Giusti, Lochoro et al. 2004; Mandelli and Giusti 2005). Relative performance was assessed for average hospital cost, client fees, staff, and a combination of these. For example, comparisons were made for SUO per available staff, cost per SUO and client fees per SUO. Each hospital was compared with the *average* for each of these measures. Figure 6.4 illustrates the type of analyses and trends for hospital SUO.

By 2004/05, quality assessments were introduced. These include prescription audits, client satisfaction and others related to infection control. Many of these measures were borrowed from the Yellow Star Programme.

Attendance at the APRMs was mainly limited to the management teams of hospitals and health centre, diocesan coordinators and UCMB experts. Each hospital performance was compared with the average scenario. During the meetings, the hospital management teams for each hospital were tasked to come up with explanations for their performance – i.e. *variance* from the average. All hospitals, especially for those below the average scenario, *action plans*

were developed together with UCMB experts to address the identified causes of less than optimal performance.

**Figure 6.4: Standard Unit of Output for 63 UCMB hospitals (1997/98 to 2006/07)**



Source: (Giusti 2008)

## 2. Performance Monitoring, Support and Incentives

At the level of the dioceses, quarterly performance reviews meetings (QPRM) were hosted by the Diocesan Health Coordinators (DHC) and attended by some UCMB experts. The aim of the QPRMs was to monitor progress towards the action plans each hospital (and health centre) had developed at the previous APRM. The DHC— the diocesan link persons to UCMB were receiving monthly reports of outputs and revenues including reports of disbursements of grants from the Government. These monthly reports were aggregated before the QPRM and used for performance assessment during the meetings. After the second quarter's QPRM (semi-annual) at each dioceses level, all the DHCs were invited to UCMB headquarters to discuss the performance of their dioceses. At these semi-annual meetings at UCMB headquarters, the aggregate performance of each diocese was presented and reasons for better and poor performance sought. As a product of this forum, *action plans* for monitoring and supporting the dioceses or their health facilities were made by DHCs and internal UCMB experts. Particularly for hospitals, technical workshops were commonly organized alongside the second quarter's QPRM (semi-annual) meeting. These technical workshops were aimed at providing training to the hospital managers and DHC for identified gaps in skill and knowledge. Many of the training workshops focused on financial management, information and computing systems.

The incentive for good performance in the UCMB framework was internal recognition. For example the units that performed above average were mentioned for recognition during the performance review meetings. The best hospital teams were given space at the podium to



share their success strategies with the others at the review meetings. Facilities that had accomplished the requirements for accreditation were also awarded their accreditation certificates. Other than the disincentives related to not being accredited (see section 4.4.3.4), there was unwillingness to use coercive approaches such as sanctions for poor performance.

*“Usually we use such graphs as these (comparative graphs) to motivate them to do better and to compare with others. Its also a motivation to those that are below to improve and catch up” (UCMB-DHC).*

*“No no ,, we don’t give them sanctions (for poor performance) but we look for reasons, we look deeper and (try to) see why. Is it (because of) free services in government units? Is it (inadequate) drugs? Are the staff there?” (Official, UCMB).*

*“.... some of the privileges (of accreditation) are access to free advice from us (UCMB), we have experts in Human Resources, ICT and Data Management, Organisational Development and Financial Management” (Official, UCMB).*

There were also activities to support and strengthen the information system of the UCMB members. For example, computers and email systems were found installed at the UCMB study hospitals and training of staff in the records departments has been undertaken. UCMB had in-house experts especially on information and communication technology (ICT) to strengthen information and communication systems in the network. For example, performance reports were being sent via e-mail to DHC and UCMB and there were efforts to activate electronic communication within the UCMB network (UCMB 2005 pg 7). Other experts were in human resources, organisational development and financial management. As discussed in chapter 4, these were critical capacities for hospitals to build their systems to support organisational performance. Trainings – short courses and supervision visits were the common forms of benefiting from the UCMB experts. The Diocesan Health Coordinators were required to provide support to the health facilities especially to strengthen the use of information technologies made available. UCMB accreditation was another form of performance incentive (see section 4.4.3.4).

In general, the UCMB performance framework had a ripple-down effect of performance evaluation meetings and action plans for performance improvement, performance monitoring and performance support. There were regular quarterly, semi-annual and annual performance review meetings. Support was provided for developing action plans to fix performance problems and training especially in financial and information processing. All these were grounded on a platform of UCMB accreditation regimen.

## **6.2.2 Yellow Star Programme**

The Yellow Star Programme is a quality improvement initiative that aimed to improve the quality of health care in Uganda through a system of supervision, certification and recognition of facilities that achieve and maintain minimum standards. It also aimed to

improve client satisfaction by involving communities in improving and monitoring the quality of services at their facilities (DISH. 2002; Ekochu 2005). The Yellow Star Programme was started by the MOH as an initiative to sustain quality improvement processes and improve performance and compliance to standards. The programme was started in seven districts in 2002 and was being scaled-up to all districts in a phased manner. By early 2006, the programme had just started in Arua district that provided this researcher an opportunity to encounter its effects among the study hospitals in that district. The programme started in Mukono district in 2003 and hospitals from this district had well-established experience of the programme. The programme had three sets of activities that were essential to its performance influence on the hospitals. These are described briefly below:

### **1. Internal Assessment of Provider Quality**

The internal assessment of provider quality was based on 35 minimum quality standards. The standards covered six domains of the provider functions. These were infrastructure, management systems, infection control, information and interpersonal communication, clinical services and customer care. The programme concept was based on a provider and community report card concept (McNamara 2006). The assessments were supposed to take place every three months (quarterly) although there was evidence that this was not the case. Checklists, interviews and observations were used by an external team of supervisors to assess performance and provide scores for all the 35 standards. The scores were standardised and feedback was given for each of the six domains and as overall percentage achievement.

### **2. Feedback of Performance and Action Plans**

The results of the assessment were provided as feedback immediately (within a week) after the assessment. The feedback was provided at a forum that included the hospital managers, the district technical and political leaders as well as community leaders. The feedback was aimed at providing the hospital managers with their internal quality assessment together with the views from the community about the hospital services.

*"These people (yellow star team) visited on 9<sup>th</sup> Feb, 2006. They assessed the hospital and also went to the community. After their visit they called us to town and gave us their report ... All of findings were given. They also invited DHOS, political leaders of local government" (HMT-Hosp-2).*

During the feedback meetings, the facility management teams together with the community leaders were facilitated by the Yellow Star Team (YST) to develop action plans to address the shortcomings identified in the assessment. The implementation of the action plans would be followed up and included in the quarterly supervision by the YST. More importantly, financial resources had been committed to these action plans. Project grants provided to the hospitals for the community health programmes were being used to implement these action plans. The YSP activities were being financed by a USAID project known as UPHOLD.

### **3. Recognition for Quality Improvement**

The recognition of quality improvements by the YSP was similar to the one used in the hotel industry. “Star” insignias were used as external signals to the public for quality status of the hospital or health centre. Consistent attainment of scores above specified cut-off percentage points in two consecutive assessment rounds (i.e. quarterly assessments) qualified a hospital or health centre to a “Yellow Star” insignia. If continued improvements in the scores were sustained on two subsequent assessment rounds, the hospital would be awarded a second and third Yellow Star insignias –thus symbolising 2-star and 3-star status respectively. A huge 3-dimensional monument of a star would be erected in front of the hospital as a public recognition of excellence if the 3-star status is sustained over three consecutive rounds of assessment. Clearly these processes were indicative of an incremental process of quality improvement that took over one year for a facility to reach the ultimate prize. Internally within the hospital, small prizes - certificates and trophies were used to encourage a culture for quality improvements. As the message on the exhibit below shows, this cultural engineering was aimed at creating trust in the health services (DISH. 2002). In the early phase of quality assessments the hospitals were encouraged by recognising outstanding progress (improvements) in each of the assessed domains. Trophies or placards were awarded for this purpose. Mugs, individual certificates and calendars with Yellow Star messages are also provided to individual staff with excellent qualities<sup>24</sup>.

### **4. Community Awareness of Provider Quality**

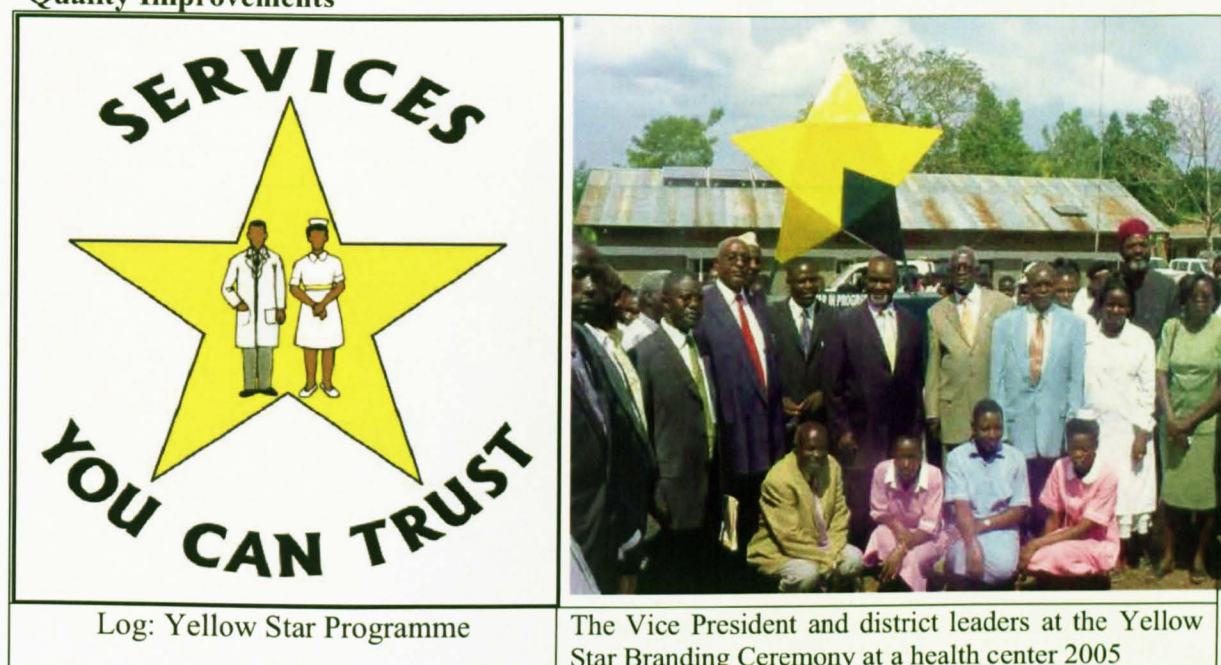
The advocacy component of the programme was geared to improving community awareness of good quality health services as well as for gaining support for Yellow Star Programme activities. For example, communities were informed about the significance of a Yellow Star insignia given to the health provider facility. They were also being encouraged to demand key aspects of service quality from health providers. Advocacy activities included talking to the community leaders and attending community-level meetings. Fliers and meetings were also being used in the early phases of the programme. For example, at each Star-award ceremony, the community leaders would be invited to witness the occasion. Available information from another district indicated that the award of the ultimate prize i.e. the event of erecting a huge 3-dimensional star in front of the health facility was a much-publicised event. Available pictures showed that the event was presided over by a Vice President of Uganda and included a Brass Band leading a public march in the community (UCMB 2005b).

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<sup>24</sup> Based on feedback from the communities, names of staff identified as outstanding in their work would get such awards.



**Figure 6.5: Yellow Star Programme: Log and Public Event to Recognise Success in Quality Improvements**



### **5. Capacity Building at the District**

One key feature of the YSP was the decentralised nature of the programme right from the start. Early in the start-up of the initiative in a district, a district Yellow Star Team was setup, trained and facilitated to undertake the programme activities in the district. Membership of the district yellow star team had been drawn from the health workers in hospitals, district health officials and a political leader in the district. The trained persons were provided with manuals and linked to the District Health Office. However, the financial support for YSP activities was still not integrated into the district budget and was a source of uncertainty and irregularity of YSP activities. For example, by 2006, there were only three quality assessment visits (10 expected) among the study hospitals that had started participating in the YSP in 2003.

### **6.3 Summary:**

This chapter has highlighted the performance mechanisms at the interface between PBC and the case study hospitals. The pilot mechanisms included selection of the targets, performance measurements, performance feedback and if eligible, a financial bonus was awarded for successful target accomplishment. The findings in the chapter have shown that constraints were encountered in animating these mechanisms in a manner that would lead to effective performance responses to PBC pilot.

The chapter findings highlighted difficulties in performance measurement and in the feedback. The implementation of the PBC pilot was itself problematic especially due to insufficient financing for the essential activities. Other causes of ineffective implementation were related to the coupling of conflicting roles. The pilot implementation team was charged

with concurrent objectives for pilot implementation and pilot impact evaluation. The important findings regarding performance control and management are related to measurements, feedback and the bonuses. These are highlighted below:

### **6.3.1 Measurement Difficulties**

The findings in this chapter illuminated several sources of measurement difficulties for the desired outcomes – PBC targets. Performance assessment together with impact surveys was contracted to a local research institution. As a prerequisite, from the lens of expectancy theory, the measurements needed to be fair, valid and consistent. These conditions were not achieved during PBC implementation.

1. **Fairness:** Several approaches used to measure the output volumes were not fair to hospitals. For instance, the measurements were based on primary registers even when the contract document stated otherwise. Non-availability of the registers on the day the performance verification team (PVT) visited was punished as zero performance. The failure by the verification team to read or understand a diagnosis in the register also meant under assessment for the provider's performance.
2. **Validity:** Validity requires that the measured performance arises from and encompasses all the dimension relevant to the efforts towards a measurable objective (Smith and Street 2006). The main finding on validity related to problems in the format of the data in the registers and the behaviours of some members in the PVT. For instance some essential variables for computing the service targets such as "age of patients" were not routinely recorded. The PVT was taking shortcuts that included instances of forging performance data. Given the problems in the registers, steep workload and the opportunist behaviours of the PVT, the performance measurement process lacked validity.
3. **Consistence or reliability** was a problem due to several adjustments that were made during implementation period. As the performance verification teams acquired some expertise in dealing with the registers, they were more likely to understand the recorded diagnoses, and shorthand used to record performance data. This improvement among the performance auditors meant that the data they collected was not comparable across time – and by extension not reliable to compute percentage change in performance of provider organisations. Given the decline in cooperation (providing data and being interviewed) from the provider organisations in subsequent rounds, additional problems of reliability were likely.
4. **Confusion of roles:** The findings in this chapter show that there was confusion of roles within the performance verification team (PVT). Performance-verification and impact-assessment were merged and undertaken as one activity by the PVT. This caused a tension between proper implementation of the pilot and the evaluation of its impact. From the findings, the activities of impact evaluation seem to have crowded-out those aimed at auditing the performance against the three performance targets.
5. **Intrusive approach:** It emerged from the descriptions that the PVT was disruptive to the provider organisations by trying to accomplish several activities in a short period of time.

Findings indicate that the service provision activities were nearly halted in order for the PVT to do its performance audits. Some implications of these problems were observed among the narratives of respondents. Resentment and lack of cooperation had emerged in the subsequent rounds of performance verification with reported decline in compliance with pilot activities. The narratives indicated that the PVT auditing processes may have affected the clients' experiences and indicators like "waiting-time", thus creating a potential bias for negative results in the impact data for PBC pilot.

### **6.3.2 Performance Feedback**

On its own, performance feedback was shown to have important effects on the hospitals. Findings show that performance feedback by the PBC pilot and among Yellow Star and UCMB frameworks was helpful for identifying solutions for improving performance. In its early phase, when the feedback was given amidst an inclusive forum with representatives drawn from the political, technical, peer providers and their BOG members, the discussions in this forum suggested an opportunity for learning among the key stakeholders and improving performance governance. For example, political leaders and members of the BOG were exposed to comparative information about service volumes from many health units and information about operational constraints such as staffing levels and inadequate budgets. It was observed that the discussions at these inclusive forums provided strategic guidance for performance improvements and innovations. For instance providers were urged to address problems of incomplete records and handling clients well. However, financial insufficiency for the PBC pilot activities gradually eclipsed performance feedback and focused on bonus payment instead. The timing between performance feedback and performance assessment was also problematic. Little time was given to the hospitals to act on the feedback results before the next performance assessment was due. The synchronisation of feedback and assessment seem to have a structural bias against the hospital making any correction action.

Some differences in design of performance feedback existed among PBC, Yellow Star and UCMB frameworks (table 6.3). Feedback under Yellow Star programme was given soon after the assessment. This was possible due to simpler measurement tools i.e. checklists and client satisfaction survey that did not require complicated analysis. Like the initial feedback by PBC, Yellow Star also used a stakeholder model for promoting broader performance accountability and governance. Feedback forums included peer providers, political and technical district leaders. A local team made up of clinically oriented persons from the district undertook the technical measurement of quality. This is equivalent to a peer-review mechanism that Ouchi (1979) refers to as a clan-control mechanism. Community views and satisfaction were undertaken together with members drawn from among the community leaders. As such, the district Yellow Star Teams had both a clinical and consumer orientation.

The UCMB design for feedback and for collecting performance measurements showed marked differences. For instance, the collection of performance information relied on the

performance reports submitted by the hospital managers. Probably due to more established trust arising from a strong institutional foundation of UCMB hospitals, performance verification was anchored in bureaucratic and soft control systems. Unlike YSP and PBC, the performance feedback forum for UCMB included mostly UCMB members i.e. hospital managers, DHC and UCMB experts. In the descriptions by Ouchi, this arrangement can be referred as a “clan system” where feedback is for members only (Ouchi 1979). Like YSP, UCMB also used the performance measurement and feedback as a means for generating *action plans* for performance improvements. Both financial and technical support was being provided by YSP and UCMB based on the action plans for performance improvements. The table 6.3 provides a summary of the contrasts between the three performance frameworks.

### **6.3.3 Bonus: Financing and Size**

Since bonus payment was coupled to performance feedback processes, it was subjected to delays due to securing the funds for both the feedback costs and the bonuses. The findings show that fundraising for the bonus money was transaction intensive and influenced the design and timing of the performance feedback. For example funds secured for bonus payments did not include costs for inviting key stakeholders to broaden the performance accountability and nurture the governance for results. Despite doubling the bonus size, the amounts were too small compared to the total hospital revenues. For instance the total bonus accounted for 3.3 percent of revenue for the case-study hospital that succeeded in achieving 10 out of a maximum of 11 bonus points. It was not possible in this study to establish the costs of generating a five or ten percent increase among the service targets. Such information would be useful to make firm conclusion about the incentives implicit in the contracts offered. However, the findings also show that the two case study hospitals in this chapter were responsible for 82 percent of the entire bonus funds paid out to a total of 19 health facilities. As such, efforts seeking to measure the impact and cost-effectiveness of performance bonuses or PBC innovation need to pay more attention to the hospitals.

In summary, the pilot implementation was faced with several technical and financial challenges. Adaptations were made to the implementation arrangements. These adaptations had both enhancing and blunting effects on the pilot design mechanisms for successful response to PBC pilot. Enhancing adaptations included the doubling of bonus amounts, the initial attempts to bridge performance accountability and governance among key stakeholders and establishing a forum for shared learning among pilot participants. The imbalance between proper implementation of the essential elements of the pilot and evaluating its impact was a source of problems for both.

**Table 6.3: Performance Frameworks –contrasts between PBC, UCMB and Yellow Star**

	<b>PBC</b>	<b>UCMB</b>	<b>Yellow star</b>
<i>Objective</i>	Increase in the 3 services selected as targets	Efficiency, productivity and equity of the provider Org.	Quality improvement and use of quality standards.
<i>Measurement variables</i>	Percentage increase in target outputs. Also data for impact assessment	Computation of average scenario for efficiency & productivity to compare across similar units	Multi-dimension quality measures – 35 process indicators for quality and community satisfaction.
<i>Data source</i>	Primary registers, household survey, staff interviews, organisational inventory	Annual performance reports submitted by providers plus new surveys for client satisfaction and quality	Observations, checklists and client interviews
<i>Data collectors</i>	Outsourced performance assessment to a research institution.	Hospital managers but reports verified by BOG and Diocesan Coordinators	Yellow Star Team made up of clinical peers, administrative and political leaders. Decentralised YSP activities to district level
<i>Performance feedback</i>	At first, a stakeholder model of performance accountability. Also aimed to achieve peer-to-peer learning from best-practice. But abandoned stakeholder model due to insufficient funds. Feedback delayed for 5-8 months Some informal guidance is provided to participants i.e. improving records.	Professional (clan model) of performance accountability – i.e. feedback for members only. Strong peer-to-peer learning from clan best practices. Feedback given annually and bi-annually Causes of sub-optimal performance are identified and action plans are developed to address them. Funds, coaching and supervision provided based on plans.	Internal to hospital, clan model of feedback is given about the clinical quality domains External to the hospital, a stakeholder model of accountability i.e. “public-report card” for quality. Feedback given soon after the assessment. Aim is empowerment of <i>client Voice &amp; Exit</i> as the basis of service quality.
<i>Technical support provided to the hospital</i>	No technical support is given.  “Arms length” and “hands-off” approach	Micro-care approach is used. Action plans, monitoring and support programmes. Active institutional support i.e. management skills training, ICT, experts coaching, UCMB affiliated projects with supporting funds.	Micro-care approach. Action plans, monitoring and financial resources for the planned actions. But uncertainty and irregularity of YSP activities.
<i>Incentives/ Enforcement</i>	Financial bonus to the organisation <i>after</i> validated performance improvements (outcome incentives).	Accreditation and associated access rights e.g. discounts on drugs purchases, training/scholarships, grants, information/ICT and technical assistance (process incentives)	Certificates, status symbols i.e. STAR awards and publicity of hospital (both process and outcome incentives)

In particular, the findings show that the performance measurement lacked credibility, thus affecting the subsequent activities in the PBC implementation chain – feedback and bonus payment. Proper adaptation of the hospitals to PBC required that the selected service targets were adjustable over time to avoid conflict among different performance objectives. This adaptation was eliminated, thus locking-in the contextual causes for sub-optimal pilot effectiveness.



## **Chapter 7: Hospital Responses to PBC**

### ***7.0 Introduction:***

This chapter analyses PBC response from the perspective of two in-depth case study hospitals. Given the implementation arrangements of the PBC pilot that focused on the bonus-eligible group of participants, a case study of the two bonus-eligible hospitals provides a closer opportunity to examine responses to PBC. Given their eligibility for performance bonuses (treatment group), these two case study hospitals enjoyed a relatively full package of PBC pilot activities. The aim of this chapter is to explicate the actions taken by hospital actors in response to pilot activities.

The information in this section was extracted from the responses to two sets of questions. The general questions such as “how do you see the performance of the hospital?” or “how is the hospital doing?” were analysed together with responses given to questions directly relating to the success or failures to secure a bonus in each of the two bonus payment rounds. The responses to the general hospital performance provided contextual information on performance constraints and enabling factors. The more direct questions such as “why did you fail to achieve the targets?” or “what did you do differently to succeed in getting a bonus?” sought to explore the respondents’ explanations for failure and for success with PBC targets. The respondents were mostly from hospital management teams (HMT) and in a few cases, clinical staff in hospital departments directly responsible for providing services selected for PBC contract. Additional insights for this chapter come from the observation at three performance feedback workshops in January 2005, two interviews with the pilot implementation team (PIT) and two interviews with district directors of health services. The interviews tried to extract information related to the responses to the Yellow Star Programme. The response to UCMB’s framework was presented in chapter 4 along with the case study of UCMB’s performance expectation.

### ***7.1 PBC performance trajectories:***

As shown in table 7.1 and 7.2, each hospital had a different temporal experience regarding its success with the PBC targets or securing the performance bonuses.

Case 1 Hospital secured a bonus at both the first and second round. In total, Case 1 posted the best overall performance among all 19 bonus eligible health facilities in the entire PBC pilot. This hospital received two (out of three) bonus points in the first round (Jan 2005) and received the maximum (8/8) bonus points in the second round (Sep 2005). Despite the success in securing a bonus, the views among the hospital management teams (HMTs) indicated concerns for less than optimal performance for the hospital as a whole.

**Table 7.1: Case 1 Hospital – Explanations for Success and Failure to Secure a Bonus**

Bonus status	Round 1 (targets = OPD, ANC and malaria treatment for children)	Round 2
Success	<b>(Bonus Success = 2 of 3 targets)</b> <ul style="list-style-type: none"> <li>• Reduction of fees (free ANC)</li> <li>• More doctors i.e. from 1 to 3.</li> <li>• Outreach programme expanded</li> <li>• Marketing the reduced fees</li> <li>• Reduced waiting time</li> <li>• Government grant – a major contribution 57%.</li> <li>• History of “total collapse” i.e. starting from low performance baseline</li> <li>• Facelift and renovations</li> </ul>	<b>(Bonus Success = 8 of 8 targets)</b> <ul style="list-style-type: none"> <li>• “Got a Surgeon”</li> <li>• Became a referral hospital due to surgeon</li> <li>• Reduction of user-charges has generated more utilisation (although fees raised a little since last year)</li> <li>• Decentralise performance accountability i.e. made each unit accountable for their performance e.g. each unit prepares its annual report and “need to show data”. Renovations of old establishments</li> <li>• Historical stigma<sup>25</sup> about this hospital is now fading away – so more patients are coming now than before.</li> </ul>
Failure	<b>(Bonus Failure = 1 of 3 targets)</b> <ul style="list-style-type: none"> <li>• Seasonal variations</li> <li>• Government grant – delay in disbursement</li> <li>• Declined revenue amidst increased recurrent costs e.g. salaries</li> <li>• Nurses are leaving hospital – salaries are too low.</li> </ul>	<b>(Bonus Failure = 0 of 8 target)</b> <ul style="list-style-type: none"> <li>• despite total success, respondents perceived failures due to:</li> <li>• Reduced outreach</li> <li>• Government grant cut</li> <li>• breakdown of vehicle for outreach services</li> <li>• staff (doctors and nurses) changing all the time</li> </ul>

Case 2 Hospital started by failing to secure any bonus in the first round but went on to secure five bonus points in the second round. Given a larger base-grant from the Government, this hospital secured a much larger bonus than the total bonus secured by Case 1 hospital. Table 7.2 provides the summary of the explanations provided for failure and success in rounds 1 and 2.

**Table 7.2: Case 2 Hospital – Explanations for Bonus Failure Followed by Success**

Bonus status	Round 1 (targets = malaria treatment, immunisation and delivery)	Round 2
Success	<b>(Bonus success = 0 out of 3)</b>	<b>(Bonus success = 5 out of 8)</b> <ul style="list-style-type: none"> <li>• Improved community awareness of reduced fees</li> <li>• Improved image i.e. new buildings/renovations.</li> <li>• Government grant is essential for hospital survival.</li> <li>• Improved staffing- more doctors and “white” doctors improve confidence.</li> <li>• Marketing hospital services during community outreach and advertise reduced fees.</li> <li>• Offer better quality than public hospital</li> </ul>
Failure	<b>(Bonus failure = 3 out of 3 )</b> <ul style="list-style-type: none"> <li>• Unhappy with verification method used.</li> <li>• “Unstrategic” choice-making.</li> <li>• Seasonal drought and low malaria.</li> <li>• Programmes that compete with PBC targets are making it had to succeed eg: <ul style="list-style-type: none"> <li>• Community malaria treatment project</li> <li>• Making efforts to support lower units.</li> </ul> </li> <li>• Competition from free public services.</li> <li>• Poverty in community – inability to pay for reduced fees at hospital.</li> <li>• Increasing recurrent costs at a time of decreasing Govt. grant (contribution).</li> </ul>	<b>(Bonus failure = 3 out of 8)</b> <ul style="list-style-type: none"> <li>• Poor target selection especially malaria.</li> <li>• Poor disbursement of Government funds</li> <li>• Level of poverty is high – people still complain about reduced fees or bypass the hospital for free care at government hospital</li> </ul>

<sup>25</sup> To protect the identity of the hospital, the historical source of stigma could not be stated.

## 7.2 General Strategies for Performance Improvement

The narratives describing reasons for the general hospital performance had similarity with reasons related to success and failure to secure the PBC bonuses (table 7.1 and 7.2). For example, the reasons given for success with PBC were reasons that affected a broad range of outputs and had no direct relation to the selected PBC targets. However, the failures were more linked to the target - problems in verification, selection or the environment. The similarities implied a general lack of distinction between improvement for PBC performance targets and performance improvement for the hospital as an organisation. The general sense arising from this lack of distinction is that the response to PBC was perceived as a consequence of broader and arguably more powerful causal levers for organisational performance. This assertion arises from the following five thematic domains providing explanations of performance changes in the two hospitals.

### 1. Quality Improvements

In general, the improvement or success of the hospitals was attributed to enhancements in staffing and quality of amenities. Renovations and new buildings were described as signal to the community for better quality. These were variously referred to as “facelifts” and “projecting a better image to the community”. The effects of these improvements were linked to “reduced stigma” towards the hospital as well as “comfort to the patients and staff”. Stigma was particularly important in case-1 that evolved from a specialised health centre that formally treated victims of a socially stigmatised disease - before it was converted to a general hospital.

An increase in the number of doctors was said to be a cause for improved service utilisation (and PBC targets) while a decrease in nurses was ascribed to an internal workload escalation. In these hospitals, the availability of expatriate or “white” doctors was seen as a “boost” to the image and confidence of the hospital. The increase in the number of doctors and nurses as a source of performance improvement was always couched with a caveat about inadequate salaries. Sustaining doctors and higher cadre nurses was highly problematic due to what was described by some as a staff exodus. Staff desertion from the study hospitals during the period of data collection for this study was high. Quality of amenities as a reason for improving utilisation of services was used to describe a comparative advantage the PNFP study hospitals had over other providers especially the government and lower-level providers. For example, better diagnostics, drug availability and transparent (official) payments were perceived to be better in these hospitals compared to lower level providers or government hospitals.

*“we used to be two doctors, now we have been three. Those are the things that had put us on (PBC) target- because of the presence of those two young men (doctors)” (HMT-Hosp-1).*

*“Indeed there is a marked increase (in attendance) if you compare with the last two years partly (because) there are more doctors. Patients want doctors. Also we now have these nurses with yellow belts (qualified nurses). Previously we had many nurse assistants. The surgeon has also added to the*



patients. Now we are getting patients from (named referral ) hospital. Before, we used to refer (patients) to them. This is now the opposite. The hospital has also had a face lift – buildings are renovated and it does feel good”(HMT-Hosp-1).

*“..In addition, we have improved on staffing. ...since December 2004, we have received two White doctors from German and two American doctors - all together we have six doctors, two native ones ...our people believe more in White doctors. They have confidence in the hospital and this increase attendance. They do not know that these (White doctors) are here to learn tropical medicine” (HMT-Hosp-2).*

## **2. Reduction of User Fees**

Most study hospitals started reducing user-fees or making fees fixed for key services – a phenomenon popularly called “flat” fees. This explanation was given in the case study hospitals and all other PNFP ones as a source of improvement in utilisation of services since 2003 or 2004. The reduction and fixing of fees was one of the Government requirements arising from Government subsidies (grants) to PNFP sector. The success for PBC targets was seen as riding on the momentum created by this policy imperative to reduce fees for PNFP services.

Making PNFP services “affordable” to the poor was the basis upon which the Government grants were being provided to the PNFP. By 2004, the Government contribution to the PNFP hospital budgets was estimated at about 35 percent and ranged 30% to 60% depending on the size of the PNFP facility (Giusti, Lochoro et al. 2004; Lochoro, Batalingaya et al. 2006). The services whose fees were reduced included OPD services for children and maternal health services, especially antenatal care and delivery services. For admission services the reduction of fees was restricted to children and special programmes such as HIV testing and antiretroviral therapy (Odaga and Maniple 2003). Immunisation services had long been provided free by all PNFP hospitals and health centres. As illustrated by the interview extract below, case study hospitals were emerging from a period of low service unitisation.

*“.. One of the major threats was user fees. In 1994 when the White sisters (Irish Nuns) left, also the funding was stopped. The management that took over grappled with shortage of funds and resorted to hiking fees to get more revenue. Unfortunately the clients run away. ...What we have done is (...) lowered the fees. This led to a turn around. Utilisation (bed occupancy) moved from 37% to 87%” (HMT-Hosp-1).*

## **3. Changes in the Government Grants**

The problems arising from the reduction of fees were related to the Government grants. These grants were seen as a source of hospital success with performance improvements and also as a source of performance failure. In relation to the total grants received by the hospital, the grants were viewed as critically important for the survival of the hospitals and central to the recent performance improvements. However, in relation to the erratic disbursements and perceived decline in the grant amounts for the year prior to this study, the respondents attributed their performance failures also to government grants.

*"... We used to get Sh 7 million now we get about 137 million from Government. (...) We also get some money from the (named European country)" (HMT-Hosp-1).*

*"I even presented a paper – 'managing under minimal resources' – you know hospitals are dependant so much on Government. ... We had a crisis here. Government funds never came for three month. It affected us so much. So from that time what we decided is to make sure we use the money on the capital account (for donor projects) to pay for the salaries and when the Government funds come we replace. Because it does come but the problem is that it is not regular. So we get the salaries paid out of the funds we have" (HMT-Hosp-2).*

#### **4. Cost-reduction Efforts**

Cost reduction strategies were closely linked to the user-fee reduction explanation for enhancing performance and also to the decline in government grants. Given the pressure from MOH to have user-charges reduced, most hospitals had experienced some increase in the utilisation of their services but also some variable costs like drugs had increased. Cost reduction in the provision of care was being recommended as means of sustaining lower user-charges (Odaga and Maniple 2003; UCMB 2003).

Cost reducing measures were articulated as curbing irrational drug use; making staff conscious of costs in the prescriptions; and discouraging "heroic surgery" or discouraging admission of "chronic" and "costly" cases. As a tool for building this cost-consciousness, continuous medical education (CME) sessions had been invigorated to sensitise the staff on the cost issues (see case 1 below). As a means of inducing staff behaviour change, the future improvement in staff salaries (a contemporary concern) was being tagged to the staff ability to reduce costs through approaches such as rational drug use, longer-duty hours for nurses and clinical triage aimed at screening against high-cost care. The two case-study hospitals had training schools for nurses. These nurse trainees were increasingly used as substitutes to compensate for nursing staff shortages. In case 2 hospital (see below), the cost-reduction strategies aimed at reducing the size of the support staff that was considered too large. For example, a policy of non-replacement of retiring support-staff had been adopted in the revised employment manual. The following extracts from the manager of clinical services are suggestive of an active strategy to cut cost and change the case-mix of the hospital. The extract also raised the danger of such measures:

*"..We had to redirect CME to look at those targets. ... Previously it was just to choose topics without (performance objective), ... but what we did was to choose those topical issues affecting the hospital.... Like rational use of drugs. Because if people do not know rational use of drugs, it directly affects the work because we have a flat rate (fixed charges)" (HMT-Hosp-1).*

*"..for example, these days, we are not in the mood for (treating) accident patients. So what we do – ok for simple cases like fractures [we can fix], but this business of long (stay) - six month. ... If you see what we put in (spend) compared to what the patient pays – those are referred (to other hospitals). Actually, I have been telling my colleagues (doctors) - these chronic, chronic conditions, heroic surgery, should not be encouraged. ... Because for one week of admission, we spend a lot on them. We rather work on those with 3-4 days – may be 5 days maximum, and someone is discharged" (HMT-Hosp-1).*

#### **5. Historical Trends**

Many of the narratives used historical trajectories of the hospital's performance to contextualise current service outputs levels. For instance, respondents tended to use historical comparison of hospital performance in the last 3-5 years as explanations for current performance successes. The elements in the historical trends to which performance improvements were tied included new infrastructure, past increments in the size of grants from Government and in some cases, reduced stigma towards the hospitals – especially the hospital that was established as a specialised treatment centre for a socially stigmatised disease. When it became a general hospital six years before this study, there was community stigma attached to seeking care from this hospital. There was a clear difference among the two case study hospitals regarding the historical trajectories and current performance. These are briefly outlined:

### **Case 1 Hospital**

The respondents in this hospital used a language that implied that the hospital was near total collapse 5-6 years before. The hospital was said to have had “pathetic infrastructure”, suffered from the withdrawal of funding by the founding European congregation and from community stigma due to its earlier focus on treating victims of a locally stigmatized disease. These features had been significantly overcome by 2005 due to a number of positive developments. Among the developments were the new and competent administration staff, increased<sup>26</sup> Government grants and renovations and new buildings. The narratives implied very low utilisation 4-5 years ago which might have formed a relatively low and easy springboard (baseline) for accelerated catch-up in the recent years.

*“By the way, compared to some 4-5 years ago - we are now performing very well. For once now our bed occupancies is 70 percent – some time in the past it was less than 40%” (HMT-Hosp-1).*

*“You probably do not know where we started, our name was so bad and people used to say (named) hospital was about [named disease]<sup>27</sup>. We had very old infrastructure. We have had to renovate some and maintain the other” (HMT-Hosp-1).*

*“When I was posted here there were three people (patients) in (the) medical ward. It was dilapidated, I myself could not allow being treated there as a patient” (HMT-Hosp-1).*

### **Case 2 Hospital**

The performance of this hospital was described as very high in the past and was now on the recovery trend after a depression. The depression was attributed to both internal and external changes. The internal issues related to poor management practices culminating in a staff strike and short-lived hospital closure in 2003. The new management team after the strike made several internal changes to administrative systems to assure steady salary payments. One of the changes was to establish a regular staff assembly to improve communication between staff and administration. A reserve fund was also established to cushion staff salaries from irregular Government grant disbursements. The external changes were related to

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<sup>26</sup> The grant increased from 7 million in 1998 to 137 million in 2004 but has reduced for 2005/06 financial year.

<sup>27</sup> The Disease is masked here to protect the identity of the hospital.

the market structure for this hospital. In the past, this hospital had less competition due to dysfunctional public providers and lower level health facilities. From their descriptions, the hospital was the only place of resort for good services in the past. When the public facilities stopped charging user-fees in 2001 and lower level services improved in terms of drugs and staffing, the hospital experienced a decline in performance (attendance).

*"If you look at the overall performance of OPD attendance over the years, OPD of those years were about 35,000 (now about 20,000). They (OPD attendance) have been dropping, dropping until about 2001 and started going up a little. I believe people in those years (of high OPD attendance) used to come here for every minor illness. There were no services working down there (lower levels) at all. But services down there are improving and they do not have to come to the hospital for small ailments" (HMT-Hosp-2).*

### **7.3 Performance Strategies Attributed to PBC**

It is not easy to make firm attribution of response to PBC intervention using qualitative interview techniques. Part of the problem is related to the multi-component intervention that PBC pilot signified (see chapter 6). As discussed in section 6.2, the components included selection of performance goals/targets, performance verification, performance feedback and where eligible, bonus payment.

For the two case study hospitals, three sets of prospective interviews were conducted to try to unpick the strategies - purposeful actions attributable to response to PBC. The questions here aimed to find out what was being done to secure the next bonus and what was done differently to win the previous bonus. These questions were repeated in the second and third interviews rounds. The first and second interviews were conducted 3-4 months after PBC bonus payments. This temporal delay between bonus payment and interviews was essential to allow time for the hospitals to react to the PBC feedback and to make allocation decisions for the received bonus funds. However, the third interviews were done before bonus payments were made. The funds to pay for the third round of bonus payments were not forthcoming due to prolonged negotiation with potential financiers, leading to these interviews taking place before the bonus payment.

The responses in the two case study hospitals are best summarised in two categories i.e. early adopters that failed to sustain purposeful actions and late adopters reacting to late success. As implicit in these qualitative descriptions, the response actions and their sustenance were linked to the manner in which the received bonus was used. Section 7.4 discusses the use of the bonuses. As already discussed in section 6.2.2, there was no evidence of consistent knowledge of the selected performance targets among the HMT and little evidence of purposeful response actions before the first round of bonus payment in both hospitals.

### **7.3.1 Early Adopters and Poor Sustainers**

There was evidence in Case 1 HOSP-1 hospital of active interest and purposeful actions (strategy) for attaining the targets and their second bonus during the first set of interviews in May 2005. This was four months after the first bonus of about \$1,500 was awarded to this hospital (table 6.2). In the narratives of the two hospital managers and departmental leader (ward nurse) in-charge of one of the targets, it was clear that two active strategies were at play to attain targets. These were:

#### **1. Marketing of reduced user fees:**

The recent reduction and fixing of the fees for OPD, ANC, maternal delivery and child-care admission services needed to be communicated to the communities to ensure that utilisation improved. This strategy was being used as a means of achieving success on both the PBC targets as well as other performance requirements from the district, UCMB and yellow star programmes. This hospital had OPD, antenatal and malaria treatment as their selected PBC targets. The OPD and antenatal targets were similar to the targets in the league table of the MOH. The prospects of additional bonus from PBC pilot seemed to have synergised the otherwise generic strategy of marketing the new and reduced fees in all the PNFP providers.

The marketing strategy included expansion of the outreach service team of providers to include a Health Inspector who was charged with the responsibility of marketing the new hospital fees and services. From the narratives, the duty of the Health Inspector was to talk to the community (outreach clients) about the changes in the hospital fees for OPD, ANC maternal delivery and admission for children. Awareness of new services such as ultra-sonography, antiretroviral therapy, and a new eye-clinic was also mentioned.

There was little sharing of information regarding PBC within this hospital. For example, the head nurse for the paediatric ward was not aware about the childhood malaria treatment target that was under her departmental responsibility. To a large extent, the information regarding PBC targets was limited to those in the hospital management team and in particular the doctor responsible for the Community Health Department (CHD). This is probably due to the external focus of the marketing approach which could be justified given the fact that the clinical staff only dealt with clients that had elected to come into the hospital. The responses from the ward nurse and midwife in this hospital suggested that they had little influence over the number of admissions on their wards. Their responsibility was to treat those that come to the hospital. Nonetheless, this view did not recognise the role of building a reputation among clients to influence future return for the service or referral of other clients.

#### **2. Internal systems reorganisation:**

The second explicit and well-triangulated strategy for success with PBC targets among the respondents indicated an internal reorganisation to reduce waiting time. The client flow

within the outpatient department was reorganised to quicken the clinical processes. For example, the antenatal clinic was separated from the general OPD clinic – a situation made possible by a new building. The antenatal clinic was also made more self-contained by creating a provision for the clinic to hold its own drugs and to receive payments from clients. The reorganisation saved time for antenatal clients from queuing up at the midwife's office, the pharmacy and at the cashier's office, which used to cause long delays and complaints. Separation of the ANC clinic also reduced the congestion within the OPD clinic. This reorganisation of services within OPD was traced to a study in 2002 at this hospital (Nakafeero 2002). To enhance its competitive advantage, the study recommended that the hospital decongest OPD and decentralise some of the pharmacy and cashier functions to clinical departments. The recommendations were made in light of the study findings that most client complaints were related to long waiting time and multiple queues. It seems the decision to separate the ANC clinic from OPD was made long before the PBC pilot was introduced. The new building to house the ANC clinic was commissioned in mid 2004. Although PBC pilot did not trigger this reorganisation, it provided a “validating effect” – that the reorganisation of ANC clinic was a good decision and useful for the success of the new initiative like PBC.

#### **7.3.1.1 Adapting PBC Demands to Internal Changes**

Findings from the second-set of interviews conducted between December 2005 and January 2006, showed a shift in the main strategies for success – i.e. securing the third bonus. Explanations had now changed from the marketing of the new fees and services to the influence of a new and specialised doctor – a surgeon. Although none of the PBC targets required the services of a surgeon, it was claimed that the surgeon had elevated the hospital to a “referral” status. This may imply that the surgeon was seen as a quality signal to the community and perceived to influence the increase of hospital clients beyond the surgical services. For instance, claims were made that this hospital had started receiving patients from the neighbouring government hospital (15Km away) that had a regional referral function.

During the second and third interview rounds, it was evident that the original strategy for marketing the fees in the community had been derailed. A number of significant changes had happened within the hospital six months after the first interview in May 2005, which made the marketing strategy unsustainable. These are reviewed briefly:

1. An entire new set of doctors (three including a surgeon) had been recruited to replace the three that had left six months before December 2005. More importantly, these staff changes had resulted in the loss of the main strategist for PBC in this hospital. During the first interviews in May 2005, the doctor in charge of the Community Health Department (CHD) was most enthusiastic and most involved in the PBC pilot activities i.e. performance feedback workshops. The doctor was the most articulate about the contractual commitments to PBC targets and how the targets were being addressed. The CHD that this doctor headed was responsible for marketing of hospital services and

generally organising outreach services. Given the limited sharing of PBC-related information beyond this doctor and the hospital management team, the doctor's departure caused a significant loss of institutional memory for PBC pilot activities.

2. The second significant change was related to the stoppage of funds for the CHD<sup>28</sup> activities to this hospital. Without these funds to conduct CHD activities such as outreach immunisations and support supervision to lower-level health units, the marketing of hospital services and its reduced fees was also affected. Failure to properly account for the CHD funds to the district authorities was implied as the cause of the stoppage of the funds. As discussed in section 5.6.2.2 (chapter 5) the management in this hospital was generally perceived by the district authorities as having weak institutional structures for proper financial accountability. By the third and last interviews in June 2006, one of the new doctors had been formally assigned the role of managing the CHD activities and the funds for the CHD had started to flow again.

At the end of field study activities in June 2006, the future oriented strategies for success with PBC targets were loosely premised on a new innovation that was being rolled out by UCMB at this time. The Cost-Centre Approach was being introduced in all UCMB hospitals as a means for enhancing "decentralised" financial-control systems within the hospitals (Akidi 2005). This innovation was seen by the hospital respondents as a means of sustaining PBC success. In particular, the requirement under the cost-centre approach for each hospital department to prepare its own performance report was assumed to be a sufficient incentive to keep PBC targets improving. For example, those in administration believed that each department would need "data to show improvements" and the PBC targets would ride on this new innovation.

*"The in-charge and her team prepare their report. ... Our job is to give them guidelines and deadlines. This motivates them in a small way. ... There is no worry (of PBC targets) at all. These are part of the normal working. No pressure (of PBC targets) at all. In their (departmental) meetings, of course they are asked how they are performing. Remember they are charged with the responsibility of writing (departmental performance) reports. They need data and indicators to show improvement" (HMT-Hosp-1).*

### **7.3.2 Case 2 – Late Adoption and a Focus on Records**

The case of HOSP-2 illustrates the influence of performance feedback about service records. In the first round, HOSP-2 did not qualify for any bonus and one of the reasons was that it had "incomplete records". A zero mark was given against its malaria target. This feedback of incomplete records attracted mixed reaction from the respondents in the HMT. There was disappointment about the feedback of "incomplete records" at the same time there was interest by the HMT to establish why the records were considered incomplete. Concurrent with PBC pilot implementation, this hospital was monitoring the effects of its recently

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<sup>28</sup> Community Health Departments are the creation of the district health system to implement health prevention and promotion activities according to the Health Sub-district Policy of MOH.

reduced client charges. Utilisation and revenue data were actively being collected, aggregated and plotted to monitor client-trends and income. The office of the Lead Manager (Medical Superintendent) had graphic displays of utilisation and income for key services for 2003/04 and 2004/05 financial years. The feedback of incomplete records was not well received since the plotted service utilisation trends were showing upward trends. Although the interest to investigate the problems in the records to find out why they had failed to secure the bonus was expressed during the first interview round (May 2005), it is after the hospital had successfully secured its first bonus in the second round (September 2005), that purposeful actions on records and internal information sharing on PBC started.

*"All along I had kept silent about this (PBC pilot) but when the bonus came, I used this story (bible story in Mathew about talents) to talk at the (staff) assembly. I reminded them about the study and announced the bonus" (HMT-Hosp-2).*

By the third interview in June 2006, the HMT had completed a mini re-organisation of the records system. It was "found out" that there was "under-recording" of bed occupancy on the wards. This was partly attributed to shortage of nurses, high workload and over-delegation of primary records to nurse assistants and trainees to fill. As part of the reorganisation of the records system, new data-capture forms were designed to ensure that daily auditing of patient numbers on the ward was done and reported to the Medical Superintendant (MS). Likewise, patient registers had to be reconciled with the cashier records. More importantly, performance feedback to each department was initiated. The performance monitoring graphs that were exclusively for the management team (to track trends for fees and utilisation) were used to give performance feedback to each department.

*"We had to show them the graph with 50% bed occupancy and yet we are always having floor-cases (beyond capacity) and they would complain that they are under assessed. But this under recording is improved a little. Also there is this too much work (overload). They always say that they forget to record. Sometimes there is only one staff on the ward. If it's maternity, you would be busy with clearing the line and forget to record all patients you see" (HMT-Hosp-2).*

Towards the end of this study, it was claimed that the new system of auditing patient records had improved the bed occupancy substantially and made the hospital manager optimistic that they would be in position to secure the next round of bonus. It is noteworthy that two of the selected PBC targets, i.e. malaria and deliveries, were in-patient services and thus subject to "under-reporting" of bed occupancy. It is also noteworthy that the attention to records was more for in-patient services. The managers reported a perception that the records for OPD services were fine.

The focus on the records in this hospital can also be traced to two additional contextual developments within the broader district. Poor and declining ranking of the district performance on the national MOH league table had been widely blamed on incomplete submission of performance reports to the district. In response to the poor district performance on the MOH league table, there were concerted efforts by the district health



directorate to ensure that all its health facilities improved their records systems and promptly submitted their performance reports. This author witnessed active discussions about missing and incomplete records in one district performance review meeting he attended. For example, managers of health centres that had incomplete submission of performance reports were booed, teased by colleagues and pressured to explain to the meeting why they had incomplete reports. The second contextual issue for poor records was the acute shortage of health staff in the PNFP sub-sector. Given better salaries and a massive recruitment exercise by the government sector, the remaining staff in this hospital faced a huge workload burden. Records become one of the tasks that the overburdened staff were less willing to complete. This issue is discussed further in chapter 8 on motivation of clinical staff.

By the third and last interview, there were also actions towards the marketing of hospital services to the community as a way to achieve PBC targets. The marketing strategy seems to have arisen from the assessment and the recommendations of the recently established Yellow Star Programme in the district hosting this hospital.

*"...Outside in the community – like today, we are having meetings with the community leaders. The uptake of outreach services is poor. So we have started to mobilise the community- to inform them about new services available – like PMTCT, ARV, orthopaedic and X-rays. Last month, Yellow Star people assessed us and also recommended that we mobilise the community and educate them about the services. We are also building skills to mobilise the community better" (HTM-Hosp-2).*

## **7.4 Attributions for Performance Failure**

Many of the reasons advanced for poor performance regarding PBC targets and generally as failures to achieve maximum possible performance for the hospital as a whole were attributed mostly to external influences that had affected the internal capacity to perform well. In addition to the problems of staff shortage already discussed above, the two major reasons for sub-optimal performance are briefly described below:

### **7.4.1 Increased Costs and Dependence on Uncertain Government Grants**

The delay in monthly disbursements and the decline in size of Government grants to the case study hospitals were the main reasons given for suboptimal performance. From the descriptions, the study hospitals were vulnerable to fluctuation in the flow of government grants due to reduced net revenues from user fees. The reduction of client fees had led to increased service utilisation and gross revenues. However, concurrent increases in the drugs and supplies costs as a result of more clients had increased the overall operating costs of the hospitals. Furthermore, higher operation costs were attributable to increased salaries. As the PNFP hospitals attempted to curb staff losses to the government sector, they had to increase the salaries of their staff to reduce the salary gap.

Based on the narratives, it is possible to conjecture that the increased utilisation due to reduced and fixed fees was not sufficient to compensate for the increased costs. The

reduction of net revenues from user-fees increased hospital dependence on government grants more than before. Several narratives described financial difficulties to pay salaries and keeping drugs available. Expressions such as “hand-to-mouth”, “challenge of managing broke institutions”, “juggling funds” and “breaking the rules” were used to describe the financial constraints to performance. In some institutions, financial vulnerability had forced those in management to open up communication channels with hospital staff to explain why the salary payments were delayed or to inform staff about plans and proposals for better salaries in the near future.

The heightened perception of financial vulnerability does explain to an extent why the winning of the PBC bonuses was not a source of triumph. Even after winning the maximum bonus in the second round, respondents in Case 1 HOSP-1 continued to complain about performance constraints when asked about the strategic actions that allowed them to succeed to secure PBC bonuses. Similar behaviours were observed during the first round of performance feedback meetings in January 2005. In these meetings, the recipients of the bonus preferred to speak about their performance constraints than to speak about what had been done to be successful. The expressed constraints in these workshops related to delays in disbursement of PHC grants and “poaching” of PNFP staff by local governments. The reasons for reluctance to take credit for success among the bonus winners were not clear from the data. As a conjecture, it may be an issue of the size of the bonus being small or internal information that such performance levels were part of the normal expectation or indeed other reasons.

#### **7.4.2 Lock-in of “Unstrategic” Choice of Targets**

Some of the reasons for failure were related to the PBC pilot itself. As experience and learning about PBC accumulated and events in the environment evolved, hospitals needed some room to adjust their initial set of PBC targets to avoid failure. The decision by the pilot implementation team to confine the hospitals to the performance targets they selected in haste two years earlier was blunting their capacity to adapt to new contextual realities. Given this “lock-in effect” of the PBC pilot (also see section 6.2.2.2), hospitals faced barriers to respond by altering the initial choice of service targets that were selected “unstrategically” or those that were redundant due to new developments. This particular feeling was building up after Case 2 hospital (HOSP-2) had received its first bonus – an event that increased attention paid to PBC targets. From the narratives, HMT members made explicit and implicit fears regarding the prospects for success on the malaria target in the context of seasonal variations and growing prevention efforts to “eradicate” malaria in Uganda. Given this context, the selection of OPD or malaria as service targets for this hospital was probably unwise. Uganda is one of the beneficiaries of the United States’ Presidential Malaria Initiative to scale up prevention efforts for malaria (USAID 2006).

*"...In particular ... we will ensure that supplies are available. When drugs are there attendance is good. But it's a tricky situation. The population may get better and PHC (primary health care) activities may reduce the need for (hospital) care. People are talking of malaria eradication. If they are serious, we will have trouble (laughs)" (HMT-Hosp-2).*

*"... like for OPD attendance, the problem (is) these seasonal peaks – last year, what I realised, there was that dry season. It (OPD) was so, so low. Abnormally low. But this year when you look at the targets, we are on the way" (HMT-Hosp-1).*

## **7.5 How were the Bonuses Used?**

How the bonuses were used was an internal process to the hospital but subject to some influence from PBC pilot implementation team (PIT). In this section both PIT influences and the internal processes for handling the bonuses are examined in relation to the outcomes – i.e. what the bonus funds were used for. The question addressed in this section was: To what extent did the bonus use and the decision-making processes affect the response to PBC targets within the case study hospitals? The underlying assumption was that the decision processes and outcomes affect the motivation to pursue successful strategies for PBC (Lynch, Eisenberger et al. 1999; Gibson, Martin et al. 2005). The descriptions are limited to the two case study hospitals that received the bonus. To a limited extent, information regarding response to the Yellow Star Programme is used to compare with the responses due to PBC.

There was also a variable time lag from the time the bonus cheques were received and the interviews by this researcher to establish the process and outcome of the allocation of the bonus funds. The two case study hospitals had some similarities in the outcome of the bonus allocation but very different decision making processes leading to these outcomes. The following sections provide the brief description of the processes and outcomes for each case study hospital.

### **7.5.1 Case 1<sup>29</sup> Hospital**

#### **7.5.1.1 First bonus: Open Transactions, Exhibitionist Outcome**

This hospital received two bonuses US\$ 1,480 for round one, and US\$ 5,930 for round two. During the first round there was active consultation within the Hospital management team, the clinical staff and some involvement of the Board of Governors on the allocation decision of the bonus funds. The processes were led by a doctor who was leading the community health departments and at the time acting in the position of the lead hospital manager. In brief the processes of decision making and their outcome are presented below in the order in which they happened following the information that the first bonus was due to be received:

##### **1. Consultation within the HMT:**

Before the receipt of the bonus money, the HMT made some tentative allocation decisions for the bonus with the underlying assumption that the bonus was to be used at the discretion of

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<sup>29</sup> Hospital names masked due to ethical requirement.

the hospital actors. The HMT came up with two options for bonus allocation. The first and most favoured was to hold a party (picnic) at the popular tourist site – the source of the River Nile. The second option was to invest the bonus fund into a money-making venture i.e. buy tents, chairs and other accessories to be rented-out at a fee for ceremonies such as weddings and parties.

*“..We as management, we sat down - put down a few (options). Of course we did not know the amount. For us we thought that we can use it for practically anything we wanted. One of the ideas was to make a party and cerebrate. Ok, that was high on the agenda. Go to Bujagali (waterfalls - a popular tourist site). The other idea was to make packages for hire - buy a tent and chairs to make money by hiring them out. These were the ideas we brought to the members (of staff)” (HMT-Hosp-1).*

## 2. Consultation with the Staff:

The HMT presented their options to the hospital staff at one of the monthly staff meetings. From their narratives, the staff meetings endorsed the holding of the picnic. But because the size of the bonus was not known, the staff meeting also added the option of buying equipment for OPD such as blood pressure machines.

## 3. Receiving the cheque and guidance to use funds:

Two members of the HMT attended the performance feedback workshop (PFW) at which the bonus – in the form of a bank cheque was presented. At the same forum, guidance on the use of the bonus was given. Several speeches also emphasised proper accountability for the bonus funds. From their narratives and the observation of this researcher at this meeting, the guidance was off-the-cuff and did have strong influence in the use of the first bonus in this hospital. At the feedback workshop, the pilot coordinator advised that the bonus funds be used for “visible improvements” in the hospital.

*“We were briefed that we were not supposed to distribute it but do something that can be seen. .. not to distribute it (to staff) like “you take 20,000, you take 30,000” (shillings)” (HMT-Hosp-1).*

## 4. Reallocation decision given the guidance:

Following the advice to use the bonus in a manner that was visible and also allowed for proper accountability for the funds, the HMT decided to use the funds to build a gate at the entrance of the hospital, fencing around it and erect a signpost indicating the services provided by the hospital.

*“But when we received the (bank) cheque, (named pilot coordinator) discouraged the party (picnic) business and told us to use the bonus for visible improvements in the hospital. When they come next time, the gate is there for accountability” (HMT-Hosp-1).*

## 5. Feedback to the staff about changed priorities:

Following the advice given by the pilot coordinator at the workshop, HMT informed the staff during their next monthly meeting about the untenable allocation of bonus to a party or picnic as had been agreed. From the narratives, the hospital staff members were not happy about the change of priorities – a situation that resulted in loss of interest in PBC.

*".. we called for the meeting and the administrator gave them the clarification that we are going to do this and that (gate and fence). Of course some people were still adamant – "our party", "our party" - that kind of thing. But this was a directive, you ca not go against it. We might jeopardise our (next) chance. So we had to be obedient" (HMT-Hosp-1).*

*".. We just told them (the staff) what we were told – how to spend the money and suggested that we work on the gate and fencing. It also provides security to their houses. They were complaining about some thefts and the fence will reduce that" (HMT-Hosp-1).*

#### 6. Belated inputs by the Board of Governors:

The opportunity to inform the Board arose during the construction of the gate. The Board meetings were held every 3 months. Although the Board's advice was late and was not taken into account, the Board preferred the bonus funds to be invested back in the department that had contributed to the achievement of the bonus. They had advised that the funds be used to buy equipment for OPD and antenatal departments.

*"... Although some people – the members of the Board – you know, there was pulling ... some (BOG members) saying that we should have used it to buy equipment for ANC (antenatal clinic) ... We told them that we are going to get equipment worth much more from (named European NGO). And besides, these people (PIT) might not realize the impact of their project" (HMT-Hosp-1).*

#### 7.5.1.2 Second Bonus: Classified Transaction and Outcome

The second bonus (\$5,930) was paid out in September 2006 after the substantive hospital manager was back in her position as CEO. Unlike the active consultation processes and information sharing for the first bonus, the second bonus was handled in a manner that is best described as a classified secret. Only two individuals among the HMT knew the second bonus and how it was used - the CEO and the accountant. According to these two persons the bonus funds had been used to pay-off the accumulated arrears for the National Social Security Fund (NSSF) and the little that was left contributed to the annual hospital party. Several explanations can be advanced from the narratives as to why covert actions were preferred in handling the second bonus.

##### 1. Financial crisis and escalating costs:

During the second interviews in December 2005 and January 2006, it was evident that the hospital had problems meeting its operating costs. Government grants had not come for a long time. For example the disbursements for July through September were released in one bulk in December 2005<sup>30</sup>. Several staff had left due to better salary in Government, and according to some respondents, the hospital had been "forced" to raise the salaries of its staff to curb the exodus of nursing staff. Matters were made worse by UCMB's accreditation requirement for fulfilling the statutory staff contributions to the National Social Security Fund (NSSF). The increased salaries also meant an increase in the NSSF contributions<sup>31</sup>. In response to these increasing costs of operations, this hospital raised the user charges in

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<sup>30</sup> Presidential elections were due in March 2006 and election pressures affected the flow of funds to the social sectors

<sup>31</sup> Employers contributed 5% and the employees 5% of salary amount

September 2005. For example, the price for a delivery was increased from 5,000 to 7,000 Uganda Shillings. OPD and antenatal visits had been increased by US\$ 500. Antenatal visits were previously free of charge when this study started in May 2005. It follows from this context that when the second bonus was received in September 2005, there was a shortage of money due to the delays in disbursement of the government grants by three months and increased costs of operations. Thus, the bonus funds were used to mitigate the financial shortage. About 70 percent of the second bonus was alleged to have paid for the NSSF arrears that had accumulated in the four months prior to receiving the second bonus.

## 2. Prior Board advice for spending the bonus:

The advice by the Board of Governors as to how the first bonus ought to have been spent probably explains why the second bonus was handled in a secretive way. The Board had advised that the bonus be used to benefit those departments that were responsible for the PBC service targets – i.e. children's ward, OPD and antenatal clinics. Although the Board's advice came too late for the first bonus it preceded the second bonus. Given the financial crisis at the time of the second bonus, wider dissemination of information about the bonus would have legitimised the claim of the favoured departments and aroused the Board's interest in the matter.

## 3. Internal contestation of PBC beneficiaries:

Related to the second point above, there was a strong view among the HMT against privileging the clinical departments that were responsible for the PBC targets. Those in administration considered themselves as the main implementers of PBC in the hospital. They rationalised their claim by implying that the administration was the "engine" for the hospital to run. Other respondents in administration favoured more inclusive approaches to sharing the bonus benefits.

*"The Board wanted ANC, OPD and, paediatric ward to benefit. But we urged and said no. Management is the implementer. We are on the ground and know our people. If these people are to be promoted (privileged) and given something, it will not work. We all contribute in one way or the other" (HMT-Hosp-1).*

*"... You should see them (nursing staff) when the salaries are delayed. They are all demoralised and cannot work. Like the other day when the water tank was down (no piped water), the nurses were running to us (in administration) to fix the problem. Also the plumber is important for their infection control" (HMT-Hosp-1).*

In general the use of the bonus was affected by contextual circumstances such as cash flow problems as well as internal disagreements on how the bonus should be used. The Board's advice aimed to closely link the bonus and the PBC targets – e.g. advised that bonus be invested back into the departments responsible for the targets. Those in administration opposed this view and preferred a more equitable process. Lack of communication for the second and much larger bonus can be (in part) interpreted as a mechanism to avoid potential

conflicts and staff dissatisfaction arising from the high-powered incentive approach recommended by the Board.

### **7.5.1.3 Internal Implications of Bonus Use**

There were limited reactions to the bonus use amongst this hospital's staff. The reactions were further limited to the first bonus that was fairly open to discussion. By June 2006, the interviews with clinical staff at the departmental level in the hospital showed much less knowledge or concern about the bonus and how it was used. Respondents vaguely remembered the party that was cancelled and a gate that was built instead. Although not admitted by the hospital management team, or the staff, the open decision-making processes used for the first bonus and the unsatisfactory outcome of the decision i.e. cancellation of the picnic left dissatisfaction among the staff. Probably as an attempt to salvage the situation, the Annual Hospital Day to honour the hospital patron was celebrated at the waterfalls along the River Nile – the site that was preferred for the picnic to celebrate the first PBC bonus. Prior to this, all Annual Hospital Day celebrations had been held within the hospital. In keeping with the efforts to keep the round-two bonus a secret, the respondents did not recall any mention of the PBC bonus at this party. This was an important finding especially given the fact that this celebration at the River-Nile was held during October 2005, one month after receiving the \$ 5,930 PBC bonus. Two persons among the hospital management team claimed that part of the second bonus was used to contribute to this party. Other views indicated that the party was a regular budget item for the hospital.

## **7.5.2 Case-2 Hospital**

### **7.5.2.1 First Bonus: Open Transaction and Exhibitionist Outcome**

Unlike Case 1 hospital discussed above, Case-2 hospital received one bonus equivalent to \$ 9,040 during the course of this study. The following section describes the process of decision making in the order in which its stages took place. In this hospital several outcomes from the PBC bonus were found. It is also important to note that this hospital spread these bonus outcomes over a longer period of time. It took nearly five months i.e. from September 2005 to February 2006 to complete the transactions related to the bonus funds. Section 7.4.2.2 describes some of the expressed effects the bonus allocation processes and outcomes had on some of the actors in this hospital.

#### **1. Consultation within HMT:**

The management team after receiving the bonus made some decisions on how to spend the bonus funds. Three allocation options were preferred; 1) to build a house block as accommodation for three nursing staff; 2) to hold a party for all hospital staff and 3) to recognise hardworking staff.

#### **2. Consultation with the heads of departments:**

The management team presented their decisions to a meeting of departmental (ward) leaders. The departmental leaders were requested to identify the names of the hard working staff that would be recognised in each of the departments. During this meeting there was discontent about building a staff house but more so about the decision to recognise a few hardworking staff. The staff representative was commissioned to undertake wider consultations with the rest of the staff and report back to the management team.

### 3. Feedback about staff consultation:

The outcome of the staff consultation rejected the idea of identifying and rewarding a few hardworking staff. Implicit in the rejection of recognising a few individuals as hardworking (performers) was the need to uphold teamwork among the clinical staff.

*".. The staff representative was requested to go and consult with all the staff. He came back and his view was that everyone was performing hard and needed to be appreciated. You see here - there is that feeling that if you have got the prize, you work alone. It does not encourage team spirit" (HMT-Hosp-2)*

*"They refused the idea of giving names. They wanted everybody to be appreciated. They said that ill feelings will be left with those that do not get rewarded" (HMT-Hosp-2).*

### 4. General assembly – 1: Ratification of Decisions:

At its bi-monthly general assembly in October 2005, the broader hospital staff body had opportunity to provide input into the decision-making regarding the bonus. It seems that the main inputs were intended to make all hospital staff eligible for some bonus benefit. Ideas brought forward by the assembly recommended that a bale of old clothes be bought and all staff get some cloth item. In addition, it was suggested that electric kettles be bought for each department to make tea while at work. It is clear that the decision to build a staff house was not popular but the management team insisted on having it as part of the outcome.

*"At the general assembly many ideas where given and the one of old cloth was the best. People also talked about the party - which we (in Management also) had, but Management also insisted on a staff house of three (units). So we decided to pick three items – party, block and clothes" (HMT-Hosp-2).*

*"They liked the idea of the party and it seems this is going to be the first end-of-year party in the history of the hospital - at least in the last about 5 – 7 years. We will have a bull slaughtered and recognise some staff especially the long serving ones and those due to retire" (HTM-Hosp-2).*

### 5. General assembly – 2: Unwrapping presents:

At its next general assembly in December 2005, each staff had a chance to pick and unwrap a pack of clothes as a reward for hospital performance. Three bales of used (second hand) cloth had been bought and sorted by "gender" categories – male and female. A random method was used for each staff member to pick a set of the clothes according to his/her sex. According to the narrative of the event, the lead manager also took the opportunity of this event to remind the staff about working hard albeit based on a biblical sermon.

*"We had to get three bales of cloth, old clothes, and everyone got three items. (Nursing) Sister and her team organised and packed these for both male and females to pick. It was nice and fun. It was*



*random. People appreciated it. We also gave a kettle to each ward for making tea. That general assembly was the best one we have had" (HMT-Hosp-2).*

*"This time I reminded them the story of the Talents (bible story) and announced that the master (MOH) has rewarded us for hard work" (HMT-Hosp-2).*

#### 6. End-of-year party:

Although belated, the end of year party for the hospital was held in February 2006. From the respondents' narratives and pictures of the party seen by this researcher, it was a large party involving over 150 people. The guests included members of the hospital governing Board and district leaders. A cultural troupe was hired to entertain the party and disco music was also hired to provide music for all to dance. The electronic copy of the lead manager's speech was provided to this researcher. The following extract from the speech indicates that the bonus and PBC were made visible at the party and the hospital staff were made aware of the link between the bonus and increased performance;

*"There was an increase in out-patient utilisation, admissions, deliveries and immunisation as compared to the previous year. The outputs also surpassed the planned targets for the year. However a decline in antenatal attendance was noted. The increased outputs resulted in the hospital winning a bonus from the Ministry of Health amounting to 16 million shillings. This is the main reason for this ceremony. I therefore salute all the staff for this major achievement and encourage you to work even harder this year" (Medical Superintendent's End-of-Year Party Speech 2005).*

At the party the management team decided to restrict the recognition of individuals to those that were due to retire from hospital service as opposed to hardworking staff. These received household gifts.

*"We also gave out gifts. We got gifts also for those that were retiring. We got things like lanterns, kettles and clocks – small small household items for them. So we gave presents to about 15 staff as send-off" (HMT-Hosp-2).*

#### 7. Commissioning of the new staff accommodation:

Although the building was not ready for commissioning by the end of fieldwork for this study, it was included in the plans to have the new building commissioned before the end of the year. From the trend of events above, the commissioning of the staff accommodation building block represented yet another event to remind the staff about the PBC targets and the need to improve the performance.

##### 7.5.2.2 Internal Implications of Bonus Use

There were extensive reactions about the PBC in general and the bonus in particular in this hospital. Most of these related to the effects on managers. In general the responses from the managers reflected that; "it felt good", "cemented my leadership" and "proved" that those in administration were effective. The implications of failing to secure a bonus in the forthcoming PBC performance feedback were described as "it would be very sad" and "it will be a big disappointment". As discussed before (see section 6.4.3.2) there was indication that the staff had now understood what was at stake and had started to pay attention to

“recording” their work. The challenge and stakes of sustaining ever increasing performance trends at the level specified in the PBC targets – 5 or 10 percent had become a worry for the managers in this hospital.

*“Some time back, people (staff) used to question us ‘what are those people doing in those offices? They do not care about our problems’ Now that has changed – at least a bit” (HMT-Hosp-2).*

*“All the staffs are aware about this bonus and they are expecting it, if they do not get it, it will be a big disappointment (....) We have been pushing them to record their work but they did not appreciate. Now they know that without proper recording, they cannot show that they are performing. Records are now improved a lot” (HMT-Hosp-2).*

*“It (securing the next bonus) is a big challenge. Now that we have got a bonus, it would be sad to fail. The challenge is that the bonus is based on increment of a previous performance. It’s very difficult to always have big increases. We will try to do our part” (HMT-Hosp-2).*

The internal implications in Case-2 hospital are better understood in the context of two prevailing circumstances at the time of the bonus:

**1. Prolonged and incremental approach to bonus processes:**

The process of bonus handling, decision making and implementing the allocation decisions took five months. For example the party was held in February 2006, five months after the bonus was received at the end of September 2005. The extended period and incremental approach is best explained as “buying time” by the hospital administration. At the time the bonus was received, the hospital had pressing needs for money. Like in case-1 hospital above, the Government had not disbursed funds for four months. The bonus funds were in the meantime used to pay salaries for staff. When Government released some funds to the hospital in December, the first planned expenditure - three bales of old clothes, was made. The party was held after another batch of funds from the Government was released in January 2006. As partly explained in the interview extract below, the hospital had adopted a practice of keeping some funds in reserve to mitigate the disruptive effects of delayed government funds especially on salary payments.

*“It (bonus) came at a good time. We had experienced a delay in disbursement by Government. ... It helped to offset the problem at the time. We operate a revolving fund ... a back-up for smoothening such problem area. So the bonus came at such a time – four month delays, and it helped solve the urgent problem – paying salaries. When the (Government) disbursement came, we have started to implement what we planned (for the bonus)” (HMT-Hosp-2).*

**2. Open and deliberative decision-making**

A staff strike in 2003 was said to have helped to establish a forum for staff deliberation and interaction with those in the administration of the hospital. A staff assembly was being held every two months. The consultations on the bonus found an existing and functional forum that enabled the staff to be part of the decision-making process and more importantly, to share information about PBC and its performance requirements.

*“Since I came into leadership, I started dialogue between administration and the staff. There was accusation of aloofness in the past and a big problem of suspicions. When I became the MS (medical superintendent), I established the forum for discussion. Staff assemblies are held every 2 months for discussion of issues” (HMT-Hosp-2).*

Arising from the protracted, participative and incremental processes related to the bonus use, there was increased and sustained visibility of PBC in this hospital compared to its counterpart (Case 1 HOSP-1). The clinical staffs were generally aware of PBC although the knowledge about the specific PBC targets continued to be limited to persons in management and records departments.

## **7.6 Response to Yellow Star Programme**

Both case study hospitals had experience with the Yellow Star programme. The Yellow Star Programme started in Case 1 hospital in 2003 while for Case 2 hospital, it had just started in January 2006. As detailed in section 4.4.3, UCMB also offered a powerful range of influences to the study hospitals in its network. Its accreditation processes, technical and financial support systems provided a legitimizing force for the response of its hospitals. Many of the responses to UCMB were related to securing accreditation and are discussed in sections 4.4.3.4 and 4.4.3.5.

### **7.6.1 Case 1 HOSP-1 Hospital**

During the interviews conducted in the early phase of this research, respondents in this hospital made several references to the trophy that was awarded to this hospital in recognition of improved performance. The trophy was mentioned by five out of six respondents in this hospital during April – May 2005 interviews. Later it was discovered that the trophy was part of the Yellow Star Programme that was piloted in the district hosting this hospital since 2002. From the narratives, the basis for receiving the trophy was not clear. Each respondent tried to rationalise the trophy in relation to his/her functional roles. For example, a Board member thought it was given for excelling in financial accountability, a manager responsible for administration thought it was for “improvement in infrastructure and accountability”. Another manager responsible for nursing thought the trophy was for “improved nursing” and a nurse on the ward believed it was for “better handling of patients”. The uncertainty of criteria for receiving the award is probably a structural side-effect of the multi-dimensional assessment of Yellow Star Programme which made it difficult for the recipients to identify the basis for the award. Alternatively, it could have been due to less than optimal communication systems in this hospital.

*“In 2003/04 – (HOSP-1) hospital got an award as recognition for the most improved infrastructure and in accountability from the district. It was not imaginable – even the Board was very happy about this achievement” (HMT-Hosp-1).*

More interesting, was the finding that there was no mention about the PBC bonuses (total \$ 7,410) received by the hospitals in both its annual hospital reports for 2004-05 and 2005-06 respectively. The interest in this finding is relative to the 2003-04 annual report that had its second page dedicated to a full-page photograph of the trophy the hospital had won in recognition of its performance by the Yellow Star Programme. This 2003-04 report made numerous references to the improved hospital performance and to the trophy as evidence of this improvement. The trophy – a copper placard engraved with the words “*Appreciation Award: In Recognition Of Your Commitment Towards Improved Health Services In The District*” must have cost not more than US\$150 from the local art shops in Kampala. The trophy was a decoration piece on the wall of the hospital’s Board Room.

### 7.6.2 Case-2 Hospital

Since Yellow Star Programme was just starting in this hospital during the conduct of this research, the opportunity available was to learn about the response it was able to attract. Of interest to this research was the finding that this hospital showed a relatively high responsiveness to Yellow Star Programme feedback in a short period of time. High responsiveness was related to the design feature of Yellow Star in particular, the attention paid to the development of action plans for correcting the performance gaps identified. The assessment had found some gaps in infection control and communication with the community.

Figure 7.1: Response to Yellow Star Programme Feedback

Interviewer:	<i>What action plans?</i>
Respondent:	<i>We planned and have already done some of the activities we developed – planned with the LCs (community leaders), hospital staff, yellow star team - all these were invited to the feedback meeting in town. The action plan had objective, activities, date, responsible persons and resources need. The activities were agreed upon by us, the DHOs and LCs. The dates were identified together with the village LCs. - On the 19th February the community sensitisation was done. The SNO (senior nurse officer), myself and Health Inspector responsible for PHC, we went for the meeting.</i>
	<i>Secondly, regarding infection control, we have already held CME (continuous medical education) session. The nurse who had attended infection control workshop was asked to do the CME and share with all staff.</i>
	<i>Internal supervision for (improved) waste disposal - the buckets were bought and distributed to all the departments and wards.</i>
Interviewer:	<i>Where did you get the funds to do all these?</i>
Respondent:	<i>We used PHC funds since the DHO said it was ok to plan them and improve the hospital. Some funds were also promised from Yellow Star people (project)</i>

*“There were many positives (feedback) from the community views but I only noted the negatives. ... Many of the negative views were not true but lies. Like they said that the gates are closed at night, that time is not given for mother to push (deliver normally) but hurriedly taken for cutting (caesarean section). In general they said there was a communication gap with the community. We developed a certain action plan about these” (HMT-Hosp-2).*

There was evidence that the action plans for the corrective actions had been implemented within a period of one month from the time the yellow star team gave them feedback as the interview extract in Text box 7.1 indicates.

## **7.7 Summary**

Several approaches to increase hospital performance can be summarised from the findings in this chapter. Most of the strategies were internal to the hospital although some were aimed outside the hospital. However, these strategies faced problems in the broader context. The findings regarding how the bonus was used have also illustrated important findings regarding the processes of decision-making and hospital priorities for spending the bonuses. The main findings are summarised below.

### **Strategies for Improving Performance**

The range of strategies adopted by the case-study hospitals to increase their outputs during the period of PBC implementation and other performance demands can be summarised as internal and external strategies (table 7.3). Although most of them were not directly triggered by PBC per se, the latter seem to have had a “validating effect” in the case-study hospitals.

### **Contextual Influences**

Several problems as well as opportunities were illuminated in the context of the case-study hospitals. The problems were mainly due to salary increases in the public sector and the delays and uncertain disbursements of the major source of operational funds from Government. Compounding the problem was the recent reduction of user-charges in the hospitals. The descriptions show a mixed blessing. Although the outputs (performance) were reported as improved especially in response to user-fee reductions, there were many problems internal to the hospitals. These included:

- Increased operational costs of the hospital especially as they attempted to stem loss of their staff to better paying jobs in the public sector,
- Increase in workload as more patients started to come to hospitals seem to have compounded the dissatisfaction of staff leading to more departures,
- Although marked increase in government subsidies had been described 4-5 years ago, views indicated a recent decline in the grant amounts.

In reference to PBC targets, constraints to performance were related to a number of design features and changes in the context. For example;

- Targets were selected in haste with limited information on the hospital’s capacity to accomplish them,
- Changes in the external environment over time required a change in the service targets. For example droughts reduced malaria cases.
- New prevention projects demanded that hospitals focus on activities that were in conflict with the PBC targets. For example hospitals were required to train, and

support activities aimed at treating malaria cases in the community – putting their PBC target to increase volume of hospital-based malaria treatment in jeopardy.

**Table 7.3: Range of strategies to increase service outputs.**

<b>Internal strategies</b>	1. Reducing user charges for selected services especially OPD, child admission and maternity services
	2. Increasing staffing quality especially more doctors
	3. Ensuring availability of drugs and sufficient stocks
	4. Signalling higher quality. This was implied in “white” doctors, new surgeon, technology e.g. ultrasonography, X-rays
	5. Staff welfare – reorganise the finances to buffer salaries from external uncertainty, attempts to increase salaries, promises of better pay in the future and building new staff accommodation
	6. Reorganisation of client flow to reduce waiting time, e.g. decentralizing pharmacy and cashier functions to departments
	7. Vigilance towards records of outputs, for example audit of output data, new monitoring tools
	8. Internal arrangements for performance accountability – e.g. providing performance feedback to departmental staff and making the departments account for their outputs to the administration (cost centre approach)
	9. Cost-control approaches e.g. screening against high cost care, control of drug prescriptions
	10. Activating learning systems to support the desired behaviours i.e. CMEs for cost-awareness, prescription control and improving service quality
<b>External strategies</b>	11. Marketing of services to the community especially new and reduced user-charges
	12. Outreach service provision to the communities

On the positive side, the hospitals’ performance was helped by a number of historical developments. The descriptions showed a major role played by the following:

- Infrastructure developments in the case-study hospitals. New buildings, clinical and administrative technologies had been put in place mostly by projects supported by foreign donors.
- Management training for hospital managers especially in the UCMB network. Better administration was said to be among the reasons for performance improvements.
- Information technology investments like computers and associated training.
- Increased subsidies to case-study hospitals from Government. Some hospitals described this as increasing from about USh. 7 million to USh.137 million in the last seven years.
- New project-based support for new services such as for ARVs, malaria, and Yellow Star activities.

In general, the hospitals’ capacity to produce more service outputs had been supported by these initiatives. These developments allow a possible conclusion that the changes in service

outputs (performance) during the PBC pilot activities were mostly due to these factors – as opposed to PBC intervention.

### **Bonus Use**

Findings about how the bonuses were used provided several useful insights into the capacity of the hospital to handle and transmit incentives for internal performance improvements. The findings regarding the use of the bonuses can be categorised according to the level of stakeholder consensus achieved: 1) consensus; 2) controversy and 3) rejection.

1. Consensus was achieved for the use of the bonus for holding staff-parties or picnics to celebrate the performance achievements.
2. Controversial decisions included bonus allocation to build capital infrastructure such as staff-house, gate and fencing. Other controversial decisions aimed to award the bonus to the departments responsible for the service targets; offsetting operational expenses and investing the bonus in money-generating ventures for the hospitals.
3. Rejected options were those seeking to use the bonus to recognise or encourage hardworking individuals or departments that were deemed responsible for securing the service targets. Upholding equity and team spirit were the main reasons given for the rejection of approaches seeking to link bonus rewards to individual/departmental performance criteria. The bonuses were used instead to ensure equity and team work spirit among the hospital staff.

The findings suggest that depending on the size of the bonus, options 1 and 2 above were likely to be used for the bonus and not option 3. This finding has implications for designing incentives for hospitals and other team-based work. Whereas the hospital staff – when consulted - preferred universal welfare benefits such as parties, electric kettles and clothes – managers preferred outcomes that had durable visibility such as buildings. This finding is essential in developing guidelines for reducing the potential conflicts and dissatisfaction that may arise from these different objectives.

### **Process of Decision Making for Bonus**

The findings regarding the process of decision-making provide a cautionary tale for using financial incentives within weak leadership structures. The case-study hospital that had idiosyncratic governance structures (chapter 5) showed that a bonus might have no effects on performance if no communication is made to link a bonus and performance. At worst, the information about the bonus can cause dissatisfaction if what information is provided is of action contrary to the expectations of those working to achieve the service targets. These two patterns were exhibited in this hospital and seemed to sow the seeds for institutional distrust in handling money-metric performance incentives. An additional finding contributed by this case study (case 1 hospital) was the risk of losing institutional memory when information is not widely shared within the organisation but confined to a few individuals. When the most

knowledgeable individual for PBC left the hospital, the innovation momentum was dissipated.

The findings from the second case-study (case 2 hospital) showed that a precedent of strong communication, democratic leadership style and decision-making was superior in communicating the performance demands for the PBC pilot. The leadership in this hospital was able to communicate on several occasions about the link between hospital performance and the social and welfare benefits arising from the bonus. Although from the agency lens the incentives were much weaker than the powerful money-metric ones for performance, the leadership in this case study hospital was able to fulfil several prerequisites predicted from the expectancy theory.

### **Performance Management Implications**

Finally the above results show the need for strong capacity for performance management i.e. strategising, resourcing and monitoring processes for service outputs. The case studies also demonstrate that internal strategies were helped by such developments as infrastructure investments, and increase in revenues such as government and donor grants. Given the context of increasing costs and declining revenues, some strategies were aimed at reducing costs by screening against high-cost care such as “heroic” surgery and accidents. Performance monitoring and feedback was getting established mostly as a result of user-fee reduction and a need to closely monitor revenues and costs. In both hospitals the forums for continuing medical education (CME) were being used to communicate changes needed to sustain performance given the new innovations. CME sessions targeted towards rational drug prescription and infection control were found. In one hospital the PBC bonus had been used to enhance communication about performance. Findings in section 7.4.2 show that the bonus provided opportunity for managers to inspire staff to work hard and achieve more. However, the rejection of using high-powered incentives that make effort-attribution to the individual or department meant that performance management approaches available within the case-study hospitals were mainly driven by (low powered) universal distribution.



# Chapter 8: Staff Perceptions about Hospital Performance

## 8.0 Introduction

The aim of this chapter is to assess staff perceptions regarding the major performance drivers and constraints at the level of the worker teams. In this chapter, attempts are made to assess the capacity of hospital staff to do more work. Staff capacity to do more is a critical assumption of PBC service target as designed in Uganda. Performance targets under PBC sought to increase annual outputs by 5 or 10 percent. If the hospitals are unable to increase their staff numbers in the short-term, achieving 5-10 percent higher output targets would entail increases in the workload among available hospital staff. Secondly, as deduced from the previous chapter, the staff would need to improve the service records to ensure that the performance (outputs) of the hospital are optimally captured and reflected in the performance reports.

The performance (production of service outputs both for targets and non-targets) of the hospitals is mediated through its workers. There are several theoretical constructs attempting to explain the performance at the level of the individual worker, the work team and the organisation. All these theoretical explanations have a common denominator – the individual and his/her capacities to cooperate with others for team-based or organisational-based functions. The human capacity to perform required tasks in hospital setting has attracted several researchers (Marsden and Richardson 1994; Podsakoff, Ahearne et al. 1997; Franco, Bennett et al. 2002; MSH 2002; Franco, Bennett et al. 2004; Paleologou, Kontodimopoulos et al. 2006; Petersen, Woodard et al. 2006). The workers’ performance-capacity investigated by these research efforts includes: Staff motivation, satisfactory work climate, organisational resources and support systems, teamwork and rewards. Psychometric surveys are mostly used in these studies as a means of measuring staff attitudes and perceptions essential for inferring specified performance objectives. The survey methods are described in section 3.6.6.4 and 3.6.6.5.

## 8.1 Description of the Staff Surveys

A total of 1,301 staff in ten hospitals responded to the questionnaires in both rounds (see table 8.1). Of these 560 (43%) were from the baseline survey. At baseline 714 questionnaires were distributed while in the second round 845 were distributed among the ten study hospital.

**Table 8.1: Sample and response rates at baseline (2005) and post-baseline (2006)**

		Hosp 1	Hosp 2	Hosp 3	Hosp 4	Hosp 5	Hosp 6	Hosp 7	Hosp 8	Hosp 9	Hosp 10
2006	Returned	50	72	85	130	82	110	60	50	40	62
	Response %	70	100	80	94	96	89	87	70	93	96
2005	Returned	41	47	56	77	64	43	73	58	50	51
	Response %	85	60	80	100	79	61	91	75	92	66

Distribution was according to the staff-size for each hospital except in the first round (2005) where a few hospital departments were excluded due to insufficient financial resources for the survey activities. The table 8.1 provides the response rate and sample by hospital in each of the survey rounds while table 8.2 presents the background characteristics of the respondents. Overall the response rate at baseline and post-baseline was 78 and 88 percent respectively. The percentage of missing responses was generally low 5-8 percent.

**Table 8.2: Respondent demographics at baseline 2005 and post-baseline (2006)**

Demographic characteristic	2005 (n=560)	2006 (n=741)	Total (n=1301)
<b>Q44 Sex of respondent</b>			
Male	159	236	395
Female	392	501	893
<b>Duration of service in hospital</b>			
Under 1 year	91	122	213
1-5 years	182	210	392
5 & above	243	383	626
<b>Department of service</b>			
Administration	55	68	123
OPD (ANC/MCH)	232	357	589
In-Patient ward	250	308	558
<b>Cadre mix by survey</b>			
Administration	18	22	40
Clinical officer	17	36	53
Doctor	17	23	40
Midwife	79	104	183
Nurse	176	227	403
Nurse assistant	125	144	269
Paramedics	66	95	161
Support	42	65	107
<b>Staff by hospital ownership</b>			
Government	197	297	494
PNFP	363	444	807
UCMB	273	262	535
Bonus gp	94	172	266

## 8.2 Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) as described below was employed to achieve two main analytic objectives:

1. To reduce the data to fewer functional variables:

EFA is an analytic method for determining the number and nature of fewer variables that underlie larger numbers of variables or measures in a dataset. This feature of EFA helps to explain data by reducing large amounts of information into a manageable form and size. It does this by identification of measures (factors) that belong together or virtually measure a similar concept or latent construct. The result is fewer functional variables (factor or patterns) from the 19 variables that were used to assess the determinants of staff performance. As stated by Rummel (1970), *"it (factor analysis) disentangles complex relationships among the phenomenon into its functional unities (ie separate or independent patterns) of behaviour. It*

*handles social phenomena in the situation. The interrelationship between behaviour and environment can be analyzed as they exist in real life*” (Rummel 1970 pg 3).

2. To generate a standardised measurement scale:

Factor analysis generates empirical weights to transform ordinal data (ie 1 – 5 point Likert scale) into standardised factor scores. To determine the factor score for each case, the case’s data on each variable that constitute the factor is multiplied by the factor weight for that variable. Factor weights (also called loadings,  $\alpha$ ) measure the degree of involvement of each variable in the given extracted factors (see table 8.4). Cases will have high or low factor scores, as their Likert scale values are high or low on the variables that constitute a factor. These factor scores are standardised or scaled so that the mean is zero and about two-thirds of the values lie between +1.00 and – 1.00. In effect, the factor scores are normally distributed continuous variables that can be used in subsequent analyses to explore relations using multivariate analysis such as logistic regression (section 8.6.1). Similar approaches are used in marketing, education psychology and health research (Dobie, McFarland et al. 1986; Telesi 2006). To achieve standardisation of the factor scores across the two surveys in 2005 and 2006, EFA was applied to the *combined* sample for both years. In effect, the factor means for each survey round, each hospital and sub samples will differ from zero (combined sample mean)(Hays, Brown et al. 2006). It is these sub-sample differences that the analysis in this chapter seeks to exploit. The key purposes addressed by EFA are summarised in the table 8.3.

**Table 8.3: Research purposes and exploratory factor analytic approaches used**

Question	Method	Implication
1. What are the patterns of relationship among the 19 variables used to measure different aspects considered essential for improving performance from the theories used?	Factor extraction i.e. data reduction by Principle Component Analysis (section 8.3)	Inductively extract fewer variables that capture most of the variability in the data for further analysis
2. What do the extracted factor patterns i.e. clustering of variables tell us about these factors that capture the most variability in the data?	Examine the factor structure i.e. variable loading on each factor using <i>varimax</i> rotation	Examine items for multiple factor loading and reliability. Descriptively label the extracted factors in accordance to the composite items (section 8.3)
3. How do the extracted factors predict the performance experiences (perceptions) captured in the performance scores developed in section 8.4?	Linear regression analysis of extracted factors against proxy “performance score” as dependent variables	Identify models that best explain the performance perceptions at baseline and post-baseline (section 8.4)

### **8.3 Extractions of Latent Factors**

Factor extraction employed Principal Component Analysis with *varimax rotation* technique in SPSS version 14 (Bryman and Cramer 2002). The combined sample at baseline and post-baseline was used to ensure standardisation of the extracted factors across the two time

periods. All the 19 variables assessed based on the theoretical drivers of staff performance were used to extract fewer but functional latent factors. Several rounds of PCA were performed each time, dropping variables that had high cross loading on different extracted factors (components) until 13 variables were left in the model. The questions that were dropped due to cross loading on different extracted factors implied that they were imprecise or had more than one meaning to the respondents. To generate reliable measurement instruments, this approach is recommended especially for instruments that have not been validated before (Hicks, Hennessy et al. 1996; Castle 2006; Hennessy, Hicks et al. 2006). The items (variables) that were dropped due to cross loading included the following:

- Q423 Extent supervisors showed appreciation of your work - last 2 months
- Q425 Extent job contract provide security for your work - last 2 months
- Q426 Extent superiors encouraged hardworking persons - last 2 months
- Q422 Extent your department held meetings to evaluate clinical activities - last 2 months
- Q419 Extent working condition meets your expectations - last 2 months
- Q429 Extent Workmates covered your duty hours if you needed help - last 2 month

For the final factor extraction, all cases with missing response in any of the remaining 13 variables were excluded (ie *listwise* handling) to improve the accuracy of the correlations. As a result, 1,050 responses (86 percent) were processed for this analysis – dropping 14 percent due to listwise missing values. Analysis of missing values did not show significant changes in the item means as a result of this sample reduction.

Overall the sample adequacy for the remaining cases was acceptable i.e. Kaiser-Meyer-Olkin measure of sampling adequacy was 0.784. The significant Bartlett's Test of Sphericity ( $P=0.000$ ) indicated that there were significant relationships among the remaining 13 variables to justify the use of factor analysis to extract the latent factors. Table 8.4 presents the final results of the EFA. The item-to-scale loadings were substantial in magnitude, ranging from 0.52 to 0.95 across the four extracted factors. The convention is to treat loadings above 0.44 (negative or positive) as salient in defining a factor (Rummel 1970; Henson and Roberts 2006). The higher the loadings (positive or negative) the more important the variable is in defining the factor. Negative loading imply an inverse relationship.

### **8.3.1 Factor Description**

Four factors were generated that accounted for 53 percent of the variance in the 13 variables measuring different perceptions for worker performance and motivation. The standardized factor scores were saved back into the dataset for subsequent comparative and regression analysis. The four extracted factors (see table 8.4) were responsible for 53 percent of the cumulative variation (ie 24.3%, 11.4%, 9.1% and 8.4% respectively).

**Table 8.4: Total variance explained by extracted factors**

Extracted factors	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.16	24.32	24.32	3.16	24.32	24.32	2.34	17.99	17.99
2	1.48	11.43	35.75	1.49	11.43	35.75	1.69	12.99	30.98
3	1.19	9.19	44.93	1.19	9.19	44.93	1.50	11.56	42.54
4	1.09	8.41	53.35	1.09	8.41	53.35	1.40	10.81	53.35

A descriptive approach was used to label the extracted factors as “Performance Governance”; “Job satisfaction”; “Drugs and Supplies” and “Financial Satisfaction”. The descriptive labelling of the factor (factor scores) was based on the variable loadings (partial correlations) generated from the pattern matrix (see table 8.5). These correlations help formulate an interpretation of each factor or component onto which a set of variables have high correlation (Rummel 1970). This “intuitive” description was done by looking for a common thread among the variables that have large loadings for each factor. This process was influenced by the theoretical literature that formed the basis for the design of the questionnaire items i.e. Expectancy theory and Herzberg’s two factor theory of work motivation.

**Table 8.5: Item descriptive statistics and item to scale partial correlations\***

Scale items	Mean†	SD	Performance Governance	Job satisfaction	Drugs & supplies	Financial satisfaction
Q421 Extent supervisors have confidence in your work - last 2 months	3.92	0.95	0.69	0.04	0.04	-0.09
Q427 Extent Superiors were friendly to their staff - last 2 months	3.18	1.11	0.66	0.29	0.16	-0.01
Q420 Extent you received supervision from your superiors - last 2 months	3.26	1.07	0.66	0.12	0.02	0.10
Q428 Extent superiors entrust responsibilities to junior staff to enable gain expertise	3.19	1.09	0.66	0.22	0.05	-0.06
Q424 Extent rules and regulations were fairly applied to workers - last 2 months	3.31	1.00	0.54	-0.02	0.27	0.10
Q433 Extent your job provided satisfaction - last 2 month	3.05	1.07	0.22	0.78	0.09	-0.03
Q434 Extent your professional status is improved by working at this hospital	3.51	1.05	0.26	0.69	0.02	-0.10
Q443 Extent your job benefits (salary etc) cover your basic needs	2.54	1.04	-0.06	0.62	0.21	0.39
Q412 Extent of drugs available for your patients in last 2 months	3.70	0.91	0.12	0.08	0.84	0.03
Q413A Extent supplies and equipment available for successful tasks completion	3.18	0.94	0.16	0.14	0.80	-0.02
Q445 Extent you supplement your salary by doing private activities to earn more income	2.10	1.22	0.08	0.18	0.03	0.73
Q444 Extent job benefits (salary etc) differ among colleagues doing similar work	2.98	1.20	0.19	-0.15	-0.04	0.64
Q430 Extent conflicts did exist among workmates in your Dept - last 2 months (Reverse coded)	4.22	1.03	0.25	0.01	-0.02	-0.52

\* Bartlett's Test of Sphericity  $P = 0.000$  level and total sample was 1,050

† Combined 2005 and 2006 (baseline and post-baseline) sample to standardise the variations scores for comparative purpose

### 8.3.2 Reliability for Extracted Factors

Table 8.6 provides the Spearman's correlation coefficient among the factor scales (off diagonal entries). The low correlations among the extracted factors show that these are fairly distinct from each other. None of the correlation coefficient was statistically significant (P-value range 0.557 – 0.896). With the exception of the Financial Satisfaction factor with Cronbach's alpha score of 0.329, the internal reliability estimate of variables underlying each factor was good i.e. –the Cronbach's alpha coefficient (in main diagonal) are much higher than the correlations among individual factors. These findings imply fair discriminate validity of the extracted factors.

**Table 8.6: Correlation among factors and their reliability estimates (diagonal)**

	Governance factor score FAC_Gov	Job Satisfaction factor score FAC_Sat	Drugs & Supplies factor score FAC_Avl	Financial Satisfaction FAC_Fst
Governance factor score FAC_Gov	(0.703)			
Job Satisfaction factor score FAC_Sat	0.013	(0.601)		
Drug & tools availability factor score FAC_Avl	-0.009	-0.009	(0.608)	
Financial Satisfaction FAC_Fst	-0.018	0.004	-0.009	(0.329)

### 8.3.3 Sample Differences in Relation to Extracted Factors

The figures 8.1 to 8.4 below shows the profiles of all the ten hospitals on the basis of the four extracted factors from the sample at baseline in 2005 and post-baseline in 2006 respectively. The blocks represent the 95% confidence intervals, while the lines represent the range. The dots show outlying observations. Noticeable in figure 8.1 is the lack of significant changes in each of the study hospital observations for the two surveys. Non significant improvements in the governance in hospitals 1, 6, 8, 9 and 10 compared to baseline survey are noticeable however. Likewise, the governance for hospital 4 shows some declined while the rest had no noticeable changes.



Figure 8.1: Box plots: Performance governance scores at baseline (2005) and in 2006

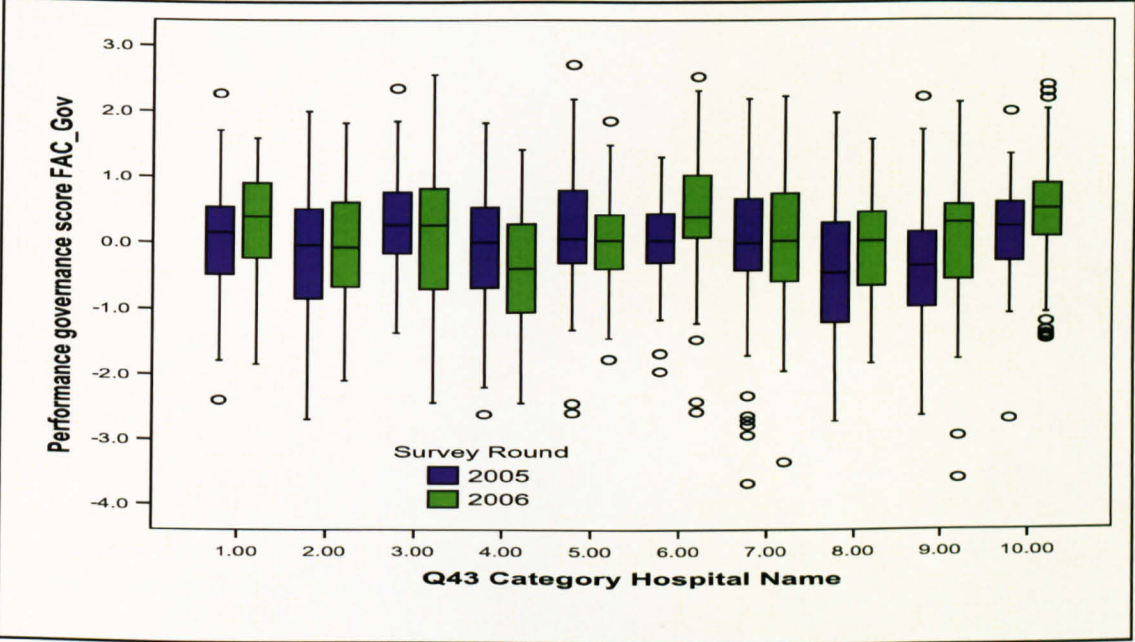
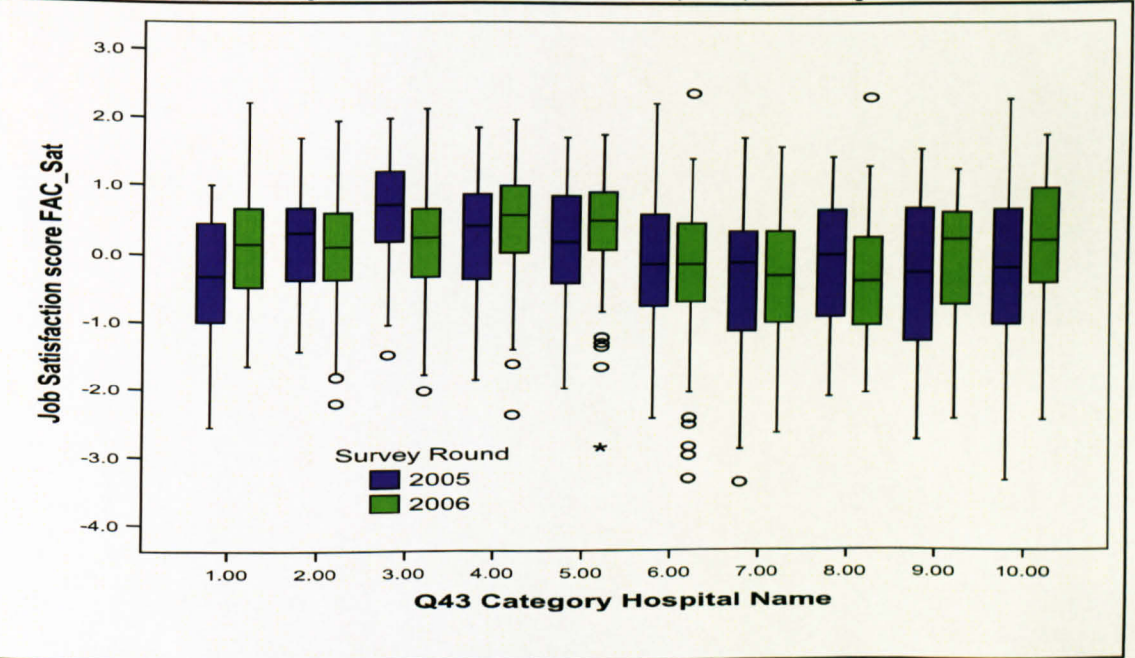


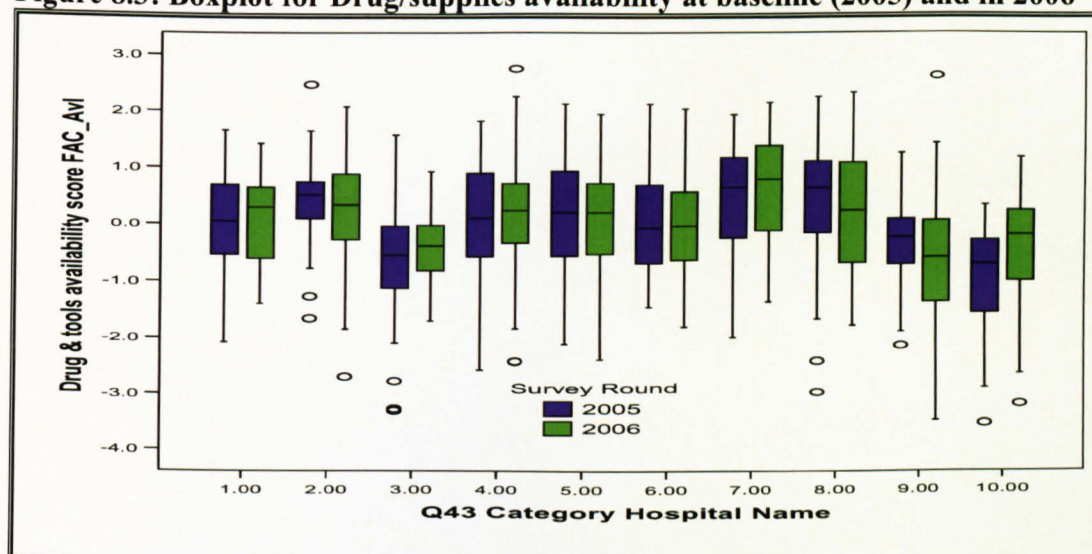
Figure 8.2 shows the plot for the job satisfaction across the 10 study hospitals at baseline and post baseline. Although small improvements are noticeable in hospitals 1, 9 and 10, these are not statistically significant. Similarly, a non-significant decline is noticed for hospital 3 and 7, while the rest had little difference from baseline.

Figure 8.2: Boxplot for job satisfaction at baseline (2005) and at post-baseline (2006)



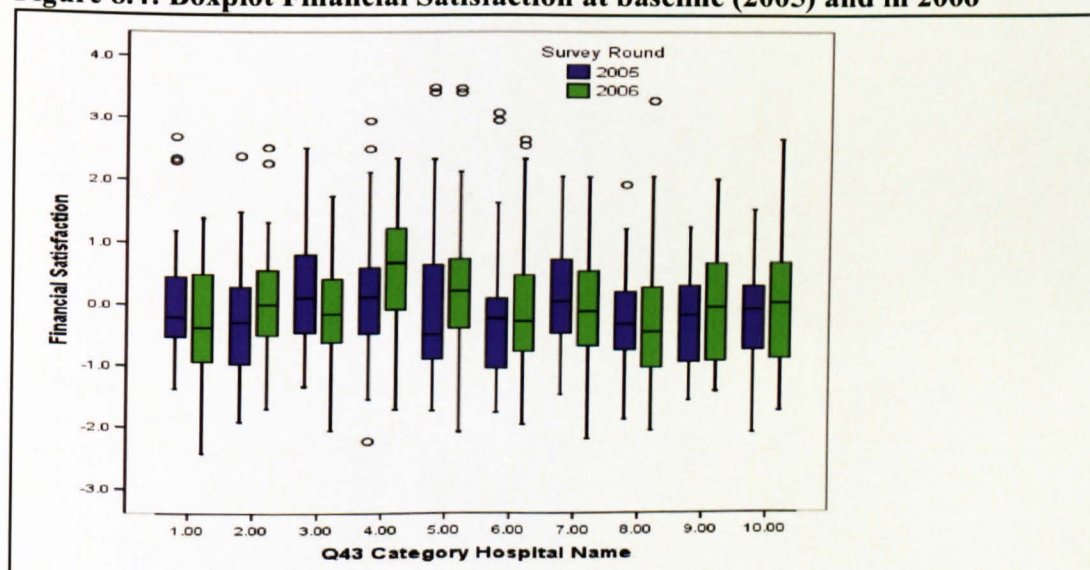
As for the factor for Drugs and Supplies, hospital 7 posted the highest score at baseline and was able to better this score one year later. Although not significant, the factor scores improved for hospitals 2, 7 and 10. Marked low scores persisted for hospitals 3, 9 and 10.

**Figure 8.3: Boxplot for Drug/supplies availability at baseline (2005) and in 2006**



The factor that captured the construct about Financial Satisfaction showed that hospital 5 had low relative scores about financial satisfaction especially at baseline. The next remarkable finding is that hospital 4 posted the highest and significant improvements in scores for this factor relative to baseline. In general, the extracted factors show small and statistically insignificant changes between baseline and post baseline indicating the little changes in the staff perceptions of the work climate factors.

**Figure 8.4: Boxplot Financial Satisfaction at baseline (2005) and in 2006**



#### **8.4 Changes in Perceptions during PBC Interventions**

Table 8.7 reports the mean changes in the factor scores from baseline survey in 2005. This table aggregates the hospitals in accordance to their exposure (randomisation) to the PBC pilot. Government hospitals were not exposed to PBC at all. As discussed in chapters 4-6



there was unique intervention among hospitals affiliated to UCMB in the form of performance interventions and accreditation system. For this reason, the UCMB group has been singled out in the analysis below. Among the Government hospitals, the main change was a decline in perceptions regarding performance governance and an increase in perceptions related to financial satisfaction.

**Table 8.7: Mean changes in the factor scores: Baseline (2005) and in 2006\***

		Survey Round	N	Mean	SD	t-test for Equality of Means			
						Mean Diff	SE	t	P value
Government hospitals	Governance factor score FAC_Gov	2006	259	-0.14	0.94	-0.25	0.10	-2.53	0.012
		2005	147	0.10	0.96				
	Job Satisfaction factor score FAC_Sat	2006	259	0.30	0.82	-0.02	0.09	-0.20	0.843
		2005	147	0.32	0.87				
	Drug & tools availability factor score FAC_Avl	2006	259	0.01	0.87	0.08	0.10	0.73	0.468
		2005	147	-0.07	1.07				
PNFP hospitals	Financial Satisfaction	2006	259	0.26	1.01	0.15	0.11	1.42	0.154
		2005	147	0.11	1.08				
	Governance factor score FAC_Gov	2006	356	0.19	0.98	0.35	0.08	4.40	0.000
		2005	288	-0.16	1.06				
	Job Satisfaction factor score FAC_Sat	2006	356	-0.14	0.98	0.13	0.08	1.51	0.131
		2005	288	-0.27	1.11				
	Drug Supplies availability factor score FAC_Avl	2006	356	0.01	1.04	0.00	0.08	-0.05	0.958
		2005	288	0.02	1.03				
	Financial Satisfaction	2006	356	-0.12	0.98	0.01	0.08	0.18	0.858
		2005	288	-0.14	0.92				
UCMB hospitals	Governance factor score FAC_Gov	2006	209	0.14	1.02	0.33	0.10	3.22	0.001
		2005	221	-0.19	1.10				
	Job Satisfaction factor score FAC_Sat	2006	209	-0.15	0.99	0.20	0.10	1.98	0.048
		2005	221	-0.35	1.13				
	Drug & tools availability factor score FAC_Avl	2006	209	-0.02	1.13	0.02	0.11	0.15	0.885
		2005	221	-0.04	1.07				
Bonus hospitals	Financial Satisfaction	2006	209	-0.16	1.01	-0.05	0.09	-0.51	0.608
		2005	221	-0.11	0.87				
	Governance factor score FAC_Gov	2006	147	0.45	0.91	0.40	0.12	3.25	0.001
		2005	73	0.04	0.79				
	Job Satisfaction factor score FAC_Sat	2006	147	-0.13	1.03	0.10	0.17	0.59	0.557
		2005	73	-0.23	1.27				
	Drug & tools availability factor score FAC_Avl	2006	147	-0.21	0.93	0.32	0.14	2.33	0.021
		2005	73	-0.53	1.02				
	Financial Satisfaction FAC_Fst	2006	147	-0.10	1.00	0.09	0.14	0.60	0.552
		2005	73	-0.18	1.03				

\*Shaded rows indicate statistically significant mean differences at 5% to 15% P-value level

Compared to baseline, the factor scores for performance governance perceptions reduced significantly (P-value 0.012), while scores for financial satisfaction increased (p-value 0.154). Compared to baseline, PNFP, UCMB and hospitals in Bonus Group of the PBC pilot improved their perception scores of performance governance by a factor of 4.4; 3.2; and 3.2 respectively. These governance changes were all significant (P-value below 2.0 %). Staff job satisfaction was significantly improved among the PNFP and UCMB hospitals (ie 1.5 and 1.9 times, p-value 0.131 and 0.048 respectively) but not among hospitals that received performance bonuses. However, there was a significant improvement (t-test 2.33, p-value

0.021) in the perceptions of availability of drugs and supplies among the hospitals that received performance bonuses.

From the table 8.7, it can be said that there was improvement in the perceptions related to performance governance, drugs/supplies availability and staff job-satisfaction among hospitals affiliated to the PNFP group and to PBC bonus group. Among government hospitals performance governance perceptions declined compared to the baseline.

### **8.5 Measure of Performance Perceptions**

In the same staff survey described in section 3.6.6.4 (chapter 3), questions were included to generate staff perceptions towards performance related variables such as workload and service records. As noted in chapters 7 and 8, it emerged that some response to PBC pilot were geared towards the betterment of service records or information system in general. Given a before-and-after survey, changes in these perceptions too can shed some light on the performance-relevant variables.

Self-assessment of performance was measured using seven items in the staff questionnaire. Likert scales with 5-point categories were used to rate the staff perceptions on these items. The questionnaire items were related to “working beyond normal experience” and “the extent of filling required service records” (table 8.8). These two aspects i.e. perceptions of efforts towards service records and doing more tasks (workload) compared to prior experience were used to design a proxy measure of performance among the staff. As measured, higher scores indicated that the staff performance on these aspects is perceived as already high and implying less room to expand. In contrast, lower scores indicated an opportunity for the staff to improve their performance. These assumptions are based on the optimal “efficiency frontier” as perceived by the staff from these measures (Chu and Spires 2003).

#### **8.5.1 Internal Consistence of Performance Measure**

A similar approach was taken as in section 8.3 above to extract fewer composite performance factors. Principal component analysis was employed together with Varimax rotation and Kaiser normalisation. Table 8.8 shows the items used for the construction of a performance scale and the two factors that were extracted. The two factors extracted were descriptively labelled “workload” and “records vigilance” in accordance with the higher item loadings. The reliability of the scale was acceptable as reflected in Cronback’s Alpha coefficient of 0.708. The missing values on each of the items were generally low (less than 5%) and did not have a significant effect on the mean and aggregate scores.

The Spearman’s correlation coefficient among the two factors was low (Spearman’s rho of 0.011, p-value 0.713), suggesting that the two factors were distinct enough from each other.

The reliability for Workload and Records Vigilance factors were acceptably high - Cronback's alpha coefficient of 0.721 and 0.736 respectively.

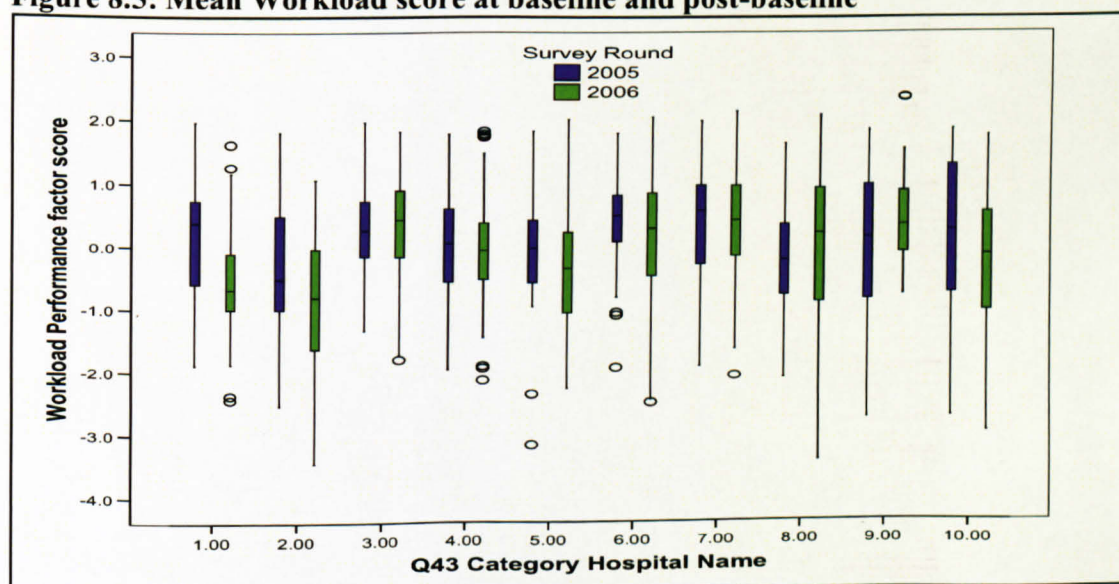
**Table 8.8: Item descriptive statistics and item-to-scale partial correlations**

Scale Items	Mean	S.D	Missing % (N=1165)	Floor %	Ceiling %	"Workload " Factor	"Record vigilance" Factor
Q447 Extent you worked beyond your normal experience because of service targets past 2 months	3.44	1.04	2.4	5.5	15.0	0.810	0.034
Q448 Extent service targets have made your colleagues work beyond normal levels	3.38	0.99	3.5	4.4	11.5	0.789	0.049
Q415 Extent you worked beyond normal expectations in last 2 months	3.79	1.03	1.8	3.2	28.0	0.699	0.060
Q410 Opinion on workload you clear daily in last 2 months	4.03	0.84	1.8	0.8	32.0	0.654	0.100
Q416 Extent completed records last 2 months (task related records)	3.75	1.03	3.9	4.2	24.4	0.086	0.888
Q417 Extent colleagues in Dept completed required records	3.66	0.96	3.6	2.8	18.4	0.064	0.888

### 8.5.2 Performance Perceptions: Baseline and Post-baseline

Figures 8.5 and 8.6 show extracted factor scores for each sample hospital. The wide confidence intervals around the means also indicate that the samples for each hospital were too small to give precise measures. Non significant increase in the perceived workload scores were observed in hospital 8. Several hospitals show some decline – i.e. hospitals 1, 2, 5, and 10.

**Figure 8.5: Mean Workload score at baseline and post-baseline**

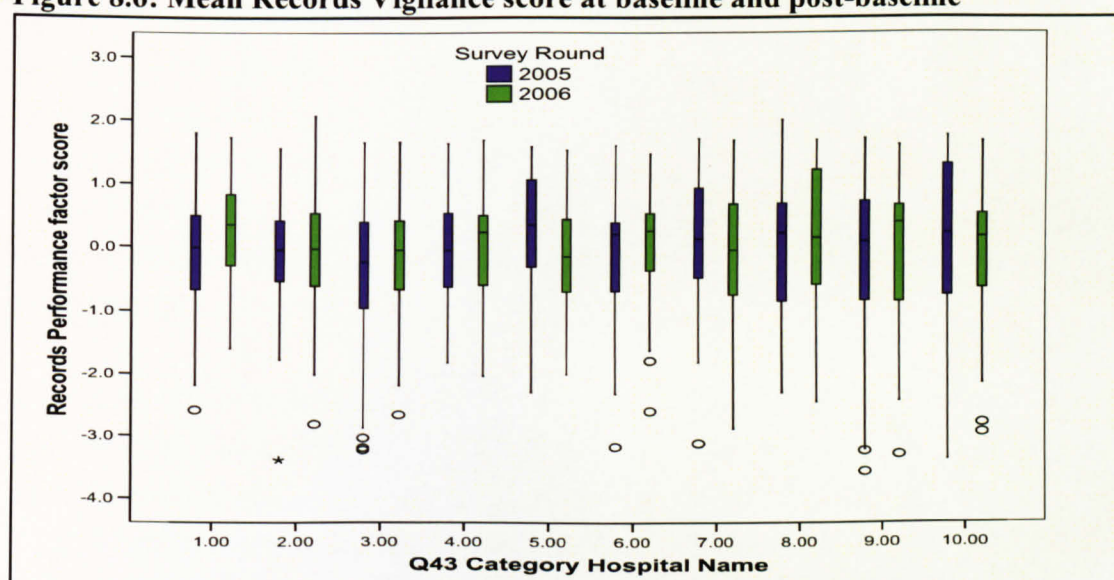


Among hospitals 6, 8, 9 and 10, the scores for records vigilance (figure 8.6) were above the combined sample average in both survey rounds. This indicates that these hospitals were



doing generally well on records compared to others. Non-significant increase on the workload score was observed in hospitals 1 and 4, while perceptions declined in 5 and 7.

**Figure 8.6: Mean Records Vigilance score at baseline and post-baseline**



As summarised in table 8.9, the main difference from baseline across all hospital ownership categories was a relative decline in the workload scores indicating less workload compared to baseline. This decline in perception was nearly 2.5 times compared to baseline for the PNFP hospitals. For the government, UCMB and hospitals that received a PBC Bonus, the decline in scores was about 1.5 times compared to baseline (p-value range 0.131 – 0.138). There was no statistical difference in the mean scores capturing perceptions for efforts on records among these hospital categories.

**Table 8.9: Mean Change for the elements in the performance score**

Table 6.9: Mean Change for the elements in the performance score						t-test for Equality of Means			
		Survey Round	N	Mean	SD	Mean Diff	SE	t- test	P- Value
Government hospital	Workload	2006	275	-0.01	0.87	-0.13	0.09	-1.49	0.138
	Performance score	2005	165	0.11	0.86				
	Records	2006	275	-0.01	0.86	0.03	0.10	0.28	0.782
	Performance score	2005	165	-0.03	1.03				
PNFP hospitals	Workload	2006	407	-0.11	1.11	-0.19	0.08	-2.43	0.015
	Performance score	2005	318	0.09	1.01				
	Records	2006	407	0.04	0.99	0.07	0.08	0.90	0.368
	Performance score	2005	318	-0.03	1.11				
UCMB hospitals	Workload	2006	241	-0.03	1.08	-0.14	0.10	-1.51	0.131
	Performance score	2005	235	0.12	1.00				
	Records	2006	241	0.03	1.06	0.05	0.10	0.45	0.656
	Performance score	2005	235	-0.02	1.16				
Bonus hospitals	Workload	2006	156	0.05	1.03	-0.21	0.14	-1.49	0.137
	Performance score	2005	79	0.26	1.00				
	Records	2006	156	0.06	0.92	0.10	0.15	0.65	0.516
	Performance score	2005	79	-0.04	1.14				

## **8.6 Performance Drivers and their Dynamics**

Regression analysis was used to find to what extent performance related perceptions – i.e. factor scores for workload and records were influenced by other variables. The results provide the magnitude of influence the independent variables had on these two derived measures of performance. Although the limitation of ordinal scores is acknowledged, the standardised scores generated by factor analysis provided an extended range of ordered scores from -3.0 to +3.0 that is approximate to interval data. Within these limits, the models indicate the essential factors influencing performance variables i.e. scores for “workload” and “records vigilance” at baseline and post-baseline.

For interpretation purpose, perceptions favourable to PBC success are those that indicate a climate of performance that is much less from the hypothetical efficiency frontier implied in the measurement scale. The following predictions would aid success in attaining PBC targets:

1. Positive correlation between performance variables and staff satisfaction variables (table 8.8) i.e. more staff satisfaction with greater/heavier workloads or “records vigilance”. This would imply that greater staff satisfaction is associated with higher performance.
2. Negative correlation between performance variables and different work units. This would indicate that staffs in these work units perceive less heavy workloads or “records vigilance” compared to staff in other units/hospital. Relative to other hospitals/units, this would imply that more room exist to expand performance in the units with negative correlations. Negative correlations indicate work units operating below their optimal efficiency frontier (Clewer and Perkins 1998; Chu and Spires 2003).

Table 8.10 presents the demographic, staff motivation factors (from section 8.3.1) and work-unit variables used in the regression models for workload and records. The staff motivation factor scores range from -3 to +3 with two thirds of the scores falling between -1 and +1 with a mean of zero. By implication, negative mean scores for staff motivation factors for 2005 (table 8.10) imply that the perceptions for these factors in 2005 were relatively lower compared to the range of factor scores in the combined (total) sample. Dummy variables were created for different types of hospital departments (work units) and for hospital affiliation to Government, UCMB, PNFP and PBC Bonus group (Experiment-arm). The dummy variables for work-units (hospital departments) enable the perceptions of staff in different work teams and variable proximity to PBC targets to be examined. For instance, OPD, Maternity and ANC/MCH departments can be considered to house the PBC targets for OPD, Maternal Delivery, and Antenatal Care respectively. Support departments included mostly laboratory and pharmacy staff. Variables such as age and duration of stay were

checked for normality and the latter was log-transformed to achieve optimal normal distribution (skewness 0.744 and - 0.678 respectively).

**Table 8.10 Variable definition and descriptive statistics**

Variable	Definition	Percent /mean (SD)	
		2005 survey	2006 survey
<b>Demographics</b>			
Age	Years (Mean)	32.1 (8.3)	35.0 (9.4)
Sex	Male =1		67.6 %
	Female =2	69.3% female	female
Duration of stay	Log years	0.57 (0.61)	0.65 (0.59)
<b>Staff motivation factors</b>			
Fac_Gov	"Performance Governance"	-0.072	0.051
Fac_Sat	"job Satisfaction"	-0.067	0.048
Fac_Avl	"Drug/tools availability"	-0.013	0.009
Fac_Fst	"Financial Satisfaction "	-0.054	0.038
<b>Dummy for work unit or department</b>			
Dp_Adm	(% Administrative staff =1)	10.24%	9.28%
Dp_Opd	(% OPD Dept staff =1 )	14.90%	18.42%
Dp_ANC	(% ANC/MCH Dept staff =1)	4.28%	4.50%
Dp_Mat	(% Maternity Dept staff =1)	12.85%	11.60%
Dp_Ped	(% Paediatrics Dept staff =1)	10.06%	8.87%
Dp_InP	(% In-patient Depts staff =1)	23.65%	21.56%
Dp_Sup	(% Support Depts staff =1)	19.18%	20.19%
Dp_Svd	(% Other service Depts staff =1)	4.84%	5.59%
<b>Dummy for hospital ownership</b>			
DmGovt <sup>†</sup>	% Government =1		
	% Otherwise = 0	35.0%	40.1%
DmPNFP	% PNFP hospitals = 1		
	% Otherwise = 0	61.2%	60.0%
DmUCMB	% UCMB hospitals =1		
	% Otherwise = 0	49.0%	35.3%
DmTreat	% PBC Bonus hospitals = 1		
	% Otherwise = 0	16.7	23.2

<sup>†</sup> Excluded variables included for multicollinearity

### 8.6.1 Regression Results

Linear regression technique was used with all variables entered together as a block. Extracted factor scores for "workload" and "records vigilance" were used as the proxy dependent variables for staff perceptions about their performance. Regression results explaining the main drivers of the performance are summarised in table 8.11. The model fits were generally weak accounting for between 8 to 19 percent variation in the dependent variables. Although the models account for less variation in the performance variables, they are all statistically significant – F statistic less than 0.001.

#### Dynamics for Workload Perception

These regression results indicate that perceived higher (heavier) workload in 2005 was negatively correlated with several significant variables - mostly staff motivation factors and particular work-teams in the hospitals. Controlling for other variables, a unit increase in the factor scores for "performance governance" and "financial satisfaction" were responsible for 10.2 and 14.0 percent increase in higher workload perceptions respectively. In contrast, a unit

increase in the factor scores for “Job satisfaction” and “drugs & tool availability” would lead to a decline of 20.5 and 9.0 percent respectively for workload perception scores. These findings imply that perceptions for job-satisfaction and drug availability would be adversely affected as workload perception increase. In contrast, better governance and financial satisfaction would infer positive perception of heavier workloads. Extrapolation to the PBC pilot, this implies that betterments in governance and financial satisfaction factors would engender favourable perceptions of workload.

**Table 8.11: Linear regression results: 2005 and 2006 surveys**

	Workload Scores				Records Scores			
	2005		2006		2005		2006	
	B	SE	B	SE	B	SE	B	SE
(Constant)	0.481	0.451	-1.639	0.551	-0.624	0.501	-0.046	0.479
Age in log years	0.010	0.008	0.018**	0.006	-0.002	0.009	-0.005	0.005
Q44 Sex of respondent	-0.075	0.122	0.186*	0.096	0.115	0.135	-0.090	0.084
Duration of stay at this hospital	0.001	0.010	0.005	0.007	-0.002	0.011	-0.002	0.006
Governance factor score FAC_Gov	0.102**	0.049	0.047	0.044	0.253**	0.054	0.230**	0.038
Job Satisfaction factor score FAC_Sat	-0.205**	0.049	-0.027	0.046	0.055	0.055	0.076*	0.040
Drugs & tools availability factor score FAC_Avl	-0.090*	0.053	-0.012	0.044	0.290**	0.058	0.216**	0.038
Financial Satisfaction	0.140**	0.054	0.040	0.042	-0.071	0.060	-0.050	0.037
Administration Department	-0.587*	0.352	0.445	0.514	0.392	0.391	0.578	0.447
OPD Department	-0.539*	0.323	0.536	0.497	0.611*	0.360	0.442	0.432
ANC/MCH Department	-0.011	0.390	0.562	0.528	0.888**	0.433	1.107**	0.459
Maternity Department	-0.429	0.331	0.386	0.502	0.429	0.368	0.369	0.436
Pediatrics Department	-0.421	0.336	0.639	0.505	0.290	0.374	0.371	0.439
Other In-patient Depts.	-0.642**	0.318	0.516	0.496	0.015	0.354	0.252	0.431
Support Depts.	-0.761**	0.322	0.537	0.497	0.455	0.358	0.288	0.432
Other Service Depts.	-0.880**	0.425	0.251	0.525	0.358	0.472	0.436	0.456
Dummy PNFP group	-0.089	0.188	-0.176	0.141	-0.198	0.209	0.089	0.123
Dummy UCMB group	0.025	0.160	0.229*	0.122	0.362**	0.178	-0.060	0.106
Dummy Bonus group	0.119	0.155	0.357**	0.127	0.169	0.172	-0.061	0.111
R Square	0.137		0.081		0.191		0.179	
N	355		554		354		554	

\* P value <0.10; \*\* P value <0.05.

Further still, 2005 findings show an inverse correlation between heavier workload perceptions and several dummy variables representing work units for administration, OPD, in-patient (wards) and staff working in “service departments” (ie pharmacy, laboratory and X-ray). For example, staff affiliation to “other service department” would reduce the perception of heavier workload by 88 percent (other factors being constant). By implication, these units, relative to other units, are more likely to have spare capacity to expand their workload.

From the perspective of implementing PBC pilot that sought to expand the workload by increasing service volumes as defined by PBC targets, these findings suggest that the context

can be made more hospitable for successful PBC intervention by mitigating staff dissatisfaction through:

1. Paying careful attention to improving availability of drugs and supplies if heavier workloads are to be acceptable to the staff.
2. Better governance and financial satisfaction are likely to make heavier workload more acceptable to staff.
3. Channelling more work to departments (work units) with relatively less perceived workload i.e. in Administration, OPD, In-patient wards and staff working in “service departments” (e.g. pharmacy, laboratory and X-ray) would be a feasible option for higher outputs (performance).

By 2006, the findings show changes in the variables correlated with workload perceptions. Although not statistically significant, most correlations became positive. Statistically significant findings reflect that staff in UCMB hospitals and staff in hospitals that received PBC bonuses (PBC experiment arm) were more likely to perceive higher workloads in 2006. Controlling for other variables in the model, belonging to UCMB and to PBC Bonus Group would increase workload perception scores by 23.0 percent and 35.7 percent respectively. Age and sex of the staff were also correlated with heavier workload perceptions. These findings suggest that:

1. Relative to other hospitals, increase in workload was less feasible from UCMB and Hospitals that were in the Bonus (treatment) group of the PBC pilot. Staff in these hospitals already perceived higher workload (during 2006), implying a situation closer to their optimal workload frontier. By extension, expansion of workloads in these groups as specified by the annual targets would be less feasible compared other groups.
2. Participation in the PBC pilot was associated with higher staff perception about workload especially in 2006. This findings implies that PBC as implemented was associated with increased workload perceptions among the staff in the case-study hospitals that received performance bonuses. This could have resulted from an increase in the clients handled by each staff at these hospitals or a reduction in the staff numbers (see section 7.3 and 7.4) or both. Increased awareness of the performance targets may likewise influence the workload perception – especially as sustaining the increased targets becomes more challenging.
3. Older (in age) and female staff (sex) were more likely to perceive higher workload relative to younger and male staff.

#### **Dynamics in for Perception about Service Records**

The regression models for staff perceptions towards “records vigilance” show some similarity over the two survey rounds. In both surveys (2005 and 2006), factor scores for performance governance, drugs/tools availability and working in ANC/MCH departments show positive



and statistically significant coefficients. Other factors being constant, the governance factor was associated with 25.3 percent and 23.0 percent (both P values < 0.0005) increase in the perception scores for higher records vigilance at baseline and post baseline respectively. Likewise, the “drugs and tools availability” factor was associated with 29.0 percent and 21.6 percent higher scores (both P values < 0.0005) for attention to service records for the respective survey periods.

In both rounds, the coefficient for ANC/MCH department (work unit) is highest and statistically significant – implying a most powerful influence in the models for records vigilance factor. Controlling for other variables in the model, working in ANC/MCH department was associated with an increase in perception scores for “records vigilance” of 88.8 percent (p value 0.041) at baseline and 110.7 percent (p value 0.016) one year after the baseline survey. Similarly, belonging to UCMB at baseline was associated with a 36.2 percent (p value 0.042) increase in factor scores for records vigilance. However this influence was not noticeable in 2006 for among staff of UCMB.

From this perspective of perceived efforts on service records as measured in this study, these findings show that:

1. Higher efforts on service records are consistently perceived in contexts of higher/better perception scores for Governance Factor by the hospital staff. By extension, better governance is likely to make the attainment of PBC targets successful by enabling more efforts (improvements) in the service records.
2. Availability of Drugs and Tools is also essential for the perceived higher efforts on records. Likewise, better resourcing of drugs and tools would make service records better able to support PBC pilot.
3. Relatively higher perception scores on service records among staff working in ANC/MCH departments, and staff working among UCMB hospitals shows that PBC targets in these units are less likely to succeed relative to other work units and non UCMB hospitals. From the efficiency perspective, UCMB staff and staff working in ANC/MCH indicate a perception for records performance that is closer to their efficiency frontier relative to staff in other units/hospital.

Regression models for baseline (2005) and post-baseline (2006) show that there was marked dynamism in the factors driving the perceptions scores during the two survey periods. For instance, the model for Workload at baseline (2005) shows mostly negative (inverse) performance influences on workload compared to the positive (proportionate) model for 2006.

## **8.7 Summary and Implications**

This chapter, using the perceptions of the hospital staff has provided additional insights about the performance of the hospitals during the period of PBC implementation. From their perceptions, important factors responsible for motivation and performance were extracted. Exploratory factor analysis extracted four factors to summarise the major variables underlying staff perceptions (motivation) measures developed. These were described as “Performance governance”, “Job satisfaction” “Drugs/tools availability” and “Financial Satisfaction”. In a similar manner, proxy variables for Performance were extracted and described as “Workload” and “Records vigilance”. Taking the proxy performance variables as dependant variables, regression analysis provided some insights into the dynamics of the extracted factors for staff motivation between baseline and post baseline periods. From the perspective of evaluating the success of the PBC, these findings are interpreted below:

### **1. Performance governance:**

Table 8.7 reports changes in means for the extracted factor score between 2005 and 2006 and shows that “performance governance” improved significantly for PNFP, UCMB and Bonus hospitals but declined significantly among government hospitals. As shown in table 8.5, the performance governance factor was mostly composed on variables measuring institutional rules and supervision i.e. supervision frequency, content and quality (table 8.3). The performance governance factor had positive and statistically significant correlation with perception scores for the proxy performance scores i.e. workload (2005) and records vigilance (both 2005 and 2006). In general, these findings imply that managers in non-governmental hospitals were perceived by their staff as providing better performance governance.

### **2. Job satisfaction:**

The extracted factor measuring job satisfaction (table 8.7) showed that there was relatively more dissatisfaction at baseline (2005) compared to post-baseline. This improved markedly especially in UCMB hospitals (t-test 1.98, p. value 0.048) and marginally among all the PNFP hospitals (t-test 1.51 p. value 0.131). There was no change in the level of satisfaction in government hospitals between these two time periods. From the regression results, perception scores for job satisfaction was particularly correlated with workload performance at baseline (table 8.10). At baseline, and holding other factors constant, job satisfaction was responsible for 20.5 percent decline in workload perception scores (t-test -4.15; p value 0.000). Job satisfaction also had a statistically significant correlation with performance factor score for records vigilance in 2006.

### **3. Drugs/tools availability:**

The major change in drugs/tools availability was only perceived among hospitals that received PBC bonuses (pilot experiment arm). Drugs availability was perceived to have improved in 2006 by 2.3 times relative to baseline (t-test 0.021). This group of hospitals also

had the lowest mean for drug availability at baseline – which partly explains their capacity to improve. For example, the mean at baseline for drug availability for hospitals eligible for a PBC bonus was -0.53 and this improved to -0.21 post-baseline (table 8.7). The improved factor scores for drug availability in 2006 for the same hospital group was still below the combined sample mean (zero). Among the regression results, availability of drugs and tools had strong and positive correlation with the perceived performance towards “records vigilance” in both survey rounds. However, the influence towards workload was generally negative for both survey rounds. For instance, controlling for other factors in the regression model (table 8.11), a unit increase in factor scores for drugs availability was responsible for a decline of nine percent (t-test 1.71; p-value 0.087) in the perception scores for workload at baseline. A similar unit increase was associated with 29 percent and 21 percent increase in records vigilance at baseline and at post-baseline respectively. The implications of these findings are:

1. Although workload is expected to increase with more drugs availability, this finding implies a relative ease with which tasks are completed in an environment that was perceived as well resourced with drugs, medical supplies and other tools for health care provision.
2. More attention is paid to filling the service records in the context of better resources for health care provision. This may be driven by a need to account for these resources especially in contexts where such reports are used for calibrating the next disbursement financial and in-kind resources like drugs. Staff may be less driven to fill the service records in situations of low or insufficient resources such as drugs and medical supplies.
3. Taken together, these findings imply that more patient care resourcing is necessary for PBC to inspire more effort (or tolerance for heavier workload and filling service records) from the staff.

#### 4. Financial satisfaction:

The factor that captured the variability due to Financial Satisfaction showed weak statistical significance for the changes between the two periods. The biggest change from baseline was seen among government hospitals. There was an increase in the scores for financial satisfaction from baseline of 42 percent (P-value 0.154) among government hospitals. Among the regression models, a unit increase in Financial Satisfaction factor scores had a 14 percent (t-test 2.6; P-value 0.010) improvement in the perceptions scores for Workload at baseline (other factors constant). Although not statistically significant, financial satisfaction was inversely related to the models for Records Vigilance.

#### 5. Work-unit level differences:

The dummy variables for Department that was added to the regression models provide additional information about the performance perceptions for Workload and Records among different work-units (teams). From the regression results, all work-units had negative (inverse) relationship with workload scores at baseline but all improved to positive

coefficients in 2006. In particular, the coefficients for OPD, Administration, In-patient wards and Support Departments were statistically significant at p-value of 5 or 10 percent. However none of these work unit variables was significant for workload in the 2006 survey. The regression models for Records Vigilance indicated that there was high and stable correlation with this dependent variable from ANC/MCH department. This dummy variable comprised of mostly Midwives working in small-specialised teams to provide immunisation and antenatal services. These services are associated with special reporting requirements (eg for MOH League Table) that are driven by service statistics thus necessitating more effort on the service records. For example, immunisation requires several efforts on Service Records - tallying the official immunisation register, logging information onto the client-owned Immunisation Card and plotting baby weights for growth monitoring. Similarly, ANC visit requires logging information onto official MOH registers for ANC and PMTCT and logging details onto the client-owned ANC Card. It is possible that the more intensive engagement with records by staff in this department explains the statistically significant correlations from this group on both rounds. A second explanation may be that the long standing performance management pressure arising from measuring performance on these two services had trickled down to staff in these work units in form of more effort on service records. For example the Uganda National Expanded Programme for Immunisation (UNEPI), PMTCT programme and MOH League Tables regularly use these indicators for performance monitoring of programmes.

#### **6. Hospital affiliation to different performance frameworks:**

The dummy variable for PNFP, UCMB and PBC bonus (pilot experiment group) were included in the regression model. Statistically significant coefficient was noted for workload model in 2006 for staff in UCMB affiliated hospitals. Other factors being constant, affiliation to UCMB was responsible for 36 percent improvement in the Records Vigilance scores at baseline. Likewise, UCMB affiliation was responsible for 23 percent improvement in Workload performance scores in 2006. Hospitals that received PBC performance bonuses were associated with statistically significant results for Workload scores for the post-baseline survey (2006). Other factors being constant, affiliation to the PBC bonus hospitals was responsible for 35.7 percent (t-test 2.8; p-value 0.005) improvement in the Workload scores.

### **8.7.1 Implications**

From the perspectives of hospital staff, these findings show that the essential performance drivers were Performance Governance, Job Satisfaction; Availability of Drugs and Tools and Financial Satisfaction. In relation to work units the performance towards service records was most likely to be high in the antenatal and childcare clinics. In general the findings showed that belonging to hospitals owned by UCMB and hospitals receiving PBC bonuses was associated with significant perceptions of higher workload especially in 2006. This might indicate that these hospitals were already feeling higher constraints to improve their performance. The findings also show marked dynamics in performance perceptions between

baseline and post-baseline. The baseline findings showed that performance drivers such as Job Satisfaction, Availability of Drugs and Financial Satisfaction were mostly negative (inverse) – implying a general dissatisfaction with workload at baselines compared to post-baseline. Findings also show that less capacity for performance (workload) improvements was mostly in work units related to the targeted services by PBC pilot i.e. ANC, maternity and childcare. This would imply less optimal effectiveness of PBC Pilot in this context. Viewed from the perceived staff efforts towards to improve service records less improvement in performance would arise from the same work units targeted by PBC. This is important especially given the centrality of service records (information systems to the performance measurement).

## **Chapter 9: Discussion**

### **9.0 Introduction**

This discussion aims to address the two broad questions that have guided this research – i.e. 1) will hospitals respond to PBC? and 2) how will they respond? To address question 1, chapters 4, 5 and 6 assessed the performance-related influences on the hospitals from external context, the internal governance and implementation effectiveness of PBC pilot respectively. The second study question required an in-depth case study of two hospitals to identify the strategies adopted to attain PBC targets. These findings were the focus in chapters 7. To understand the performance drivers in all hospitals, perceptions and motivations the staff to accomplish higher performance targets is the focus of chapter 8. The discussion is structured to address these two broad questions that guided the study. This discussion is structured along three sections:

- 1) The substantive discussion is related to the research questions and objectives. These covered performance governance and management contexts within the broad health system and within the hospital Boards; how effectively PBC was implemented and how the hospitals responded to PBC pilot mechanisms. Additional objectives were related to perceptions and motivation of hospital staff about their capacity to improve performance.
- 2) The theoretical discussion seeks to draw generalisable implications for adapting, designing and implementing performance-based contracting as a tool for reforming the health systems. This part of the discussion compares the observed pattern of response actions predicted by economic theory of Agency and those predicted by Organisation Process Theories. These two theoretical domains provided alternative propositions that guided this study.
- 3) The methodological discussion provides insights gained from the evaluation of complex interventions like PBC that seek to achieve results within real world settings characterised by complex and dynamic health systems.

### **9.1 Performance Management and Multiple Performance Objectives**

PBC was being introduced into the health system that has several performance objectives. Understanding the broad health system performance objectives was essential to assess the fit and synergy of PBC. At the state level, outcome measures like reduced mortality and improved health status were expected from the health sector investments. The indicators for the health sector plan were of necessity defined to be process indicators as outlined in the League table. The objections to the league table by the district health managers provided insights into the differences in performance expectations at the district level. For example client satisfaction and service coverage were considered more important at this level. The implication of MOH league table and its strong influence on local governments was that – a small set of the sector performance was being drilled down to the hospitals with little attention to other objectives that the hospital serve. If hospitals were sensitive to the league

table, this might blind them against other hospital service objectives which were not subjected to performance assessment. These include services like in-patient care, surgeries, diagnostic services, and measures of efficiency such as bed occupancy rates. Likewise, client satisfaction and better coverage of interventions were not given priority despite being desirable at the district level. Like MOH league table performance indicators, PBC targets included OPD attendance, immunisation and maternity services – thus achieving good alignment and synergy.

### **9.1.1 Quality as a Desirable Performance Dimension**

At the district level, disbursement of operational funds, staffing levels, availability of drugs and satisfaction of clients and better coverage were important performance indicators. In general these relate to quality of care provided. Although quality becomes a more explicit performance expectation at the district level, the capacity to assess it was not well established. Diverse projects were found trying to push hospitals to pay attention to quality issues. These included the UCMB experimentation with client satisfaction surveys and clinical audits. Other players were trying to use maternal mortality audits, and provision of project related drugs like antiretroviral for HIV/AIDS and antimalarials. The Yellow Star programme was starting to scale-up among study hospitals. The Yellow Star programme was employing a broad range of quality assessment indicators that were being transformed into a public report-card aimed at branding provider-quality to the communities (DISH 2002; McNamara 2006). The programme was trying to assess internal process of care, provider-client interaction, client satisfaction, and community activities.

These findings show that PBC was being implemented in a context with several other performance related interventions. Although PBC did not specify the quality of services, its objectives overlapped significantly with those espoused by programmes like UCMB and Yellow Star that had a focus on quality. At best PBC would provide a synergistic effect by pushing targets based on service volumes while other programmes push the quality dimension. From the evaluation perspective, however, the attribution of performance improvements to PBC can be difficult among hospitals subjected to multiple interventions.

The range of mechanisms for enforcing performance expectations in a decentralised system of government call for careful designs of financing arrangements and incentives to ensure complementarities and synergy among different agencies that seek to influence the same service provider organisations like hospitals.

### **9.2 Implications of Weak Governance**

At the interface between Board of Governors (BOGs) and Hospital Management teams (HMT), governance of hospital performance was assessed. Findings in chapter 5 imply the existence of significant barriers in these governance structures for the performance framework to function in the manner assumed by PBC. For example, PBC as implemented in Uganda and elsewhere assumed a “hands-off” approach – where the incentive (bonus) is sufficient to drive performance improvement among hospitals (Soeters, Habineza et al. 2006).

Entrepreneurial science provides a basis for performance governance and organisational control that is vested in the Boards of Trustees or Boards of Governors and the managers as the executives (Young, Beekun et al. 1992; Taylor 2000; Eldenburg, Hermalin et al. 2001; Eeckloo, Van Herck et al. 2004; Alexander, Ye et al. 2006). The performance bonuses may not be a sufficient incentive or mechanism to overcome governance constraints described in chapter 5. Problems included composition of Boards, capacity to provide effective oversight for hospital performance and weak information exchange with hospital managers. Organisational theory and management science perspectives regarding the development of governance systems are useful additional prerequisites for performance-based contracting to work more effectively in improving hospital performance. The implications of the findings for weak governance are well captured by Taylor (2000):

*"Over 100 years of organisational theory building and theory testing by some of the greatest minds in managerial sciences have resulted in one consistent finding: as ambiguity increases with and/or across the structure of an organisation, so does the probability of strategic error, fraud, negligence, anarchy, destructive power struggles, bureaupathic layering, inaction, decreased accountability and responsibility taken for decisions and total organisational collapse when under economic stress" (Taylor 2000 pg 108).*

From this perspective, strengthening of institutional capacity for good governance need to be part and parcel of the performance-based incentive schemes. Studies from Rwanda, Guatemala and recently Haiti have focused on the governance structures both at the up-stream and downstream to make PBC schemes sustainable and more effective (La Forgia, Mintz et al. 2005; Meessen, Musango et al. 2006; Rusa, Schneidman et al. 2009).

### **9.3 PBC Implementation: Measurement of Performance**

Measurement of performance is central to the PBC intervention. For measurement to function there must be data systems and instruments to measure the desired performance from hospitals. Hospitals serve various objectives. In terms of health programmes, they have nursing care, preventive and promotive objectives. Under nursing care, they espouse objectives related to paediatrics, obstetrics, gynaecology, surgery, emergency and chronic care. In addition they service acute care needs such as OPD consultation and emergency treatment for accidents. In the Uganda context and indeed globally, hospitals are being asked to contribute more to the prevention and promotion aspects of health in communities (McPake 1996; McKee and Healy 2000; Hanson, Atuyambe et al. 2002; WHO 2003; Alia 2005a page 13). Chapter 6 illustrated among other findings the problems of metering performance by the PBC pilot. Metering performance is the central mechanism of performance-based contracting and more broadly, pay-for-performance approaches (Penelope and Murray 2002; La Forgia, Mintz et al. 2005; Palmer and Mills 2005; Soeters, Habineza et al. 2006). The findings show big challenges with the feasibility of measuring performance among hospitals.



### **9.3.1 Feasibility of Measuring Performance**

In general, measurement difficulties were experienced at all levels of performance management. The centrality of metering performance is captured in Lawler's comments:

*"The key to any successful reward system is effective performance measurement – and indeed, the most common reason that individual pay-for-performance systems fail is their lack of good appraisal system"*(Lawler 1989 pg 57).

Ease of measurement, access and regularity of data availability for performance assessment were major constraints at all levels. The ease of measuring performance was critical for performance indicators that were being used at the national, sector and sub-national levels. At the national level, the periodic national surveys for economic, health and demographic monitoring enabled the tracking of outcome measures such as mortality, fertility and morbidity patterns (UBOS 2000; UBOS 2001; UBOS 2002; UBOS 2003).

Given its decentralised governance and service provision, measures selected at the sector level by MOH were driven by the need to track indicators at the level of the district using the well established Health Management Information Systems (HMIS). Such measures also had to be available annually for the national league table (NLT) to be constructed and presented in the Annual Sector Reports and to the Annual National Health Assembly (MOH 2003b; MOH 2004). The focus of the national and district level performance assessment on a limited set of process and service volume indicators (see league table 4.5) implied that the overriding performance expectations of MOH were contained in the league table. Vigorous assessments of the measures in the NLT influenced local governments to focus on similar measures. Since the PBC pilot was using a similar set of measures to those in the League table, it could benefit from the existing NLT incentives as well as supplement them. At the same time, the NLT measures faced marked dissatisfaction from those that it assessed – the district health managers. The dissatisfaction was mostly due to ambiguities in the measures - especially external factors that influenced success for the measured indicators. For example, the delayed and erratic disbursement of grants by Finance Ministry, was vital for district and hospital performance and success on most NLT indicators.

### **9.3.2 The Best as the Enemy of the Good: Performance Measures for PBC Pilot**

Above all the difficulties encountered in the implementation of PBC pilot, performance measurement posed the greatest constraint. In particular, the use of primary records for performance verification raised the workload beyond the capacity of the available financial and human resources for the pilot. The findings in chapter 6 illuminated several sources of measurement difficulties for the desired outcomes – PBC targets. Performance assessment together with impact surveys were contracted to the local research institution. As a prerequisite, from the lens of expectancy theory, the measurements needed to be fair, valid and consistent. These conditions were not achieved during PBC implementation.

1. **Fairness:** Several approaches used to measure the output volumes were not fair to hospitals. For instance, the measurements were based on primary registers even when the contract document stated otherwise. Non-availability of the registers on the day the performance verification team (PVT) visited was punished with a zero performance score. The failure by the verification team to read or understand a diagnosis in the register also meant under-assessment for the provider's performance.
2. **Validity:** Validity requires that the measured performance arise from and encompass all the dimension relevant to the efforts towards a measurable objective (Smith and Street 2006). The main finding on validity related to problems in the format of the data in the registers and the behaviours of some members in the PVT. For instance some essential variables for computing the service targets such as "age of patients" were not routinely recorded. The PVT was taking pervasive shortcuts that included instances of forging performance data. Given the problems in the registers, steep workload and the opportunist behaviours of the PVT, the performance measurement process lacked validity.
3. **Consistence:** Reliability was a problem due to several adjustments that were made during implementation period. As the performance verification teams acquired some expertise in dealing with the registers, they were more likely to understand the service records and diagnoses and shorthand used to record performance data. This improvement among the performance auditors meant that the data they collected was not comparable across time – and by extension not reliable to compute percentage changes in the service-output volumes (performance) of provider organisations. Given the complaints about the decline in cooperation (not providing data and refusing to be interviewed) by the provider organisations in subsequent pilot activities, additional problems in reliability were likely.
4. **Confusion of roles:** The findings in chapter 6 show that there was a confusion of roles within the performance verification team (PVT). Performance-verification and impact-assessment were merged and undertaken as one activity by the PVT. This caused a tension between proper implementation of the pilot and the evaluation of its impact. From the findings, the activities for impact evaluation seem to have clouded-out those aimed at auditing the performance and providing feedback.
5. **Intrusive approach:** It emerged from the descriptions (6.1.3.2) that the PVT was disruptive to the provider organisations by trying to accomplish several activities in one short visit. Findings indicate that the service provision activities were nearly halted in order for the PVT to do its performance audits. Some implications of these problems were observed among the narratives of respondents:

*"sometimes you find that in the middle of a busy clinic, the research assistants (PVT) are collecting all the registers, stops the clinic to talk to (interview) the staff. The health workers find it very difficult to organise themselves. The other issue was the exit interviews. These were very few simply because they had taken away all the staff for interviews and there was no one left to see the patients and therefore no exit patients. Some of these units have 2 or 3 staff only. At the exit poll, the patients were very tired, .. waited for too long and did not cooperate" ( Member, Pilot Implementation Team).*

Resentment and lack of cooperation had emerged in the subsequent rounds of performance validation (data collection), with reported decline in compliance with pilot activities. As the extract above shows, volume targets may be counterproductive. Client satisfaction could be worsened by the PBC approaches themselves.

### **9.3.3 Implication of Measurement Problems:**

Problems in the measurement of the baseline performance and the records used for this purpose had negative credibility implications for the rest of the pilot. For example, contestations of the assessed (verified) performance were a key feature during the feedback meetings held early in 2005. From the findings of chapter 6, performance verification activities that were central to the pilot and contracted targets were eclipsed by a need to collect lots of data to assess the impact of PBC.

The implication of these measurement problems especially at baseline is that performance “improvements” observed in the subsequent pilot activities potentially arose partly from the improved capacity of the PVT to audit the records and not necessarily from more clients being served by the participating health facilities. These findings support the proposition that the changes in the service output volumes generated by the PVT reflected its capacity to handle the records as well as changes in the service outputs produced by the participating health facilities.

## **9.4 Hospital Response to PBC**

At the outset, the propositions for why and how hospitals would respond to PBC were framed along five objectives. Among the factors examined albeit in a qualitative manner, were the costs and size of the financial incentive implied in the PBC bonus. The “how” question was closely related to the effectiveness of the implementation mechanisms for PBC intervention. The following section outlines the major findings related to these objectives. The findings also show that incentives that are explicitly or implicitly attached to performance measures can be demotivating if viewed from a different context. The following illustrates the range of influences observed in the findings and their potential effects:

### **9.4.1 Effective Performance Influences**

In a resource constrained environment as Uganda’s health system, the financing of the activities that lead to performance is probably the most direct influence on provider organisations like hospitals and the intermediate agencies that support them. In this respect, global level providers of international aid for health programmes and National Treasury have strong influences on national and sub-national performance. In this respect, the provision of funds or withholding funds for health programmes wields strong influence and provides high powered incentives for agencies to respond to performance expectations. The withholding of funds by the Global Fund provided a powerful incentive to streamline performance and governance related problems in the Uganda’s HIV programmes supported by the Global Fund (GFATM 2003 page 5; UAC 2006). Similarly, MOH has effective performance influence on

hospitals due to its central procurement role and discretion to allocate budgets (drug credit lines and salaries) and resource inputs such as drugs, vehicles and other hardware goods to districts and hospitals. Availability of drugs, for example, has a direct effect on the performance as measured by OPD attendance (Nazerali, Oteba et al. 2006).

#### **9.4.2 Incentive Package for Performance Development**

In general, UCMB case study in section 4.4 suggests that “a package approach” to organisational development and performance improvements is more effective for successful response from hospitals. As put by Grol et al (2007) “Extra resources, support, training in skills, redevelopment of care processes, temporary support or consultants, information materials for patients” are necessary for change to be effectively sustained. The case study of UCMB also shows an example of a package of incentives that attracted high compliance. The multi-component package as contained in the UCMB accreditation regimen (section 4.4) boosted the power to influence performance among Catholic health facilities. The UCMB case study also showed that building a strong institutional base was required for performance improvement activities. In particular, the institutional change processes championed by UCMB involved supporting activities for the basic building blocks of the organisational units such as revising hospital missions, constitutions, operations manuals, training for managers and provision of computers and e-mail capabilities for information systems. UCMB mobilised financial resources to support hospitals during the processes of institutional change and during the process of reducing user-charges for improved access (UCMB 2003). There was good compliance for UCMB’s accreditation which suggested a powerful set of performance incentives (Giusti, Lochoro et al. 2004; UCMB 2006). The multi-component (package) approach of UCMB change process was assisted by its affiliation to Uganda Catholic Church (UCC) – which signalled authority and credibility among Catholic health facilities. This credibility and authority was also boosted by a broad range of technical support, training and information sharing UCMB provided to its members.

#### **9.4.3 Weak Performance Influences**

The national league table (NLT) and the performance bonuses did not espouse strong performance influences relative to those discussed above. These parameters are expounded on below:

##### **9.4.3.1 National League Table**

In general, the influence mechanisms that were not associated with financing, technical support or material resource benefits had weak or moderate power to influence performance expectations. Although it ignited performance-related discussions and accountability among district leaders, the league table faced strong contestations to its measures. The locus of control for improving the National League Table (NLT) indicators was not totally in the hands of those whose performance it assessed. For instance, delays in financial disbursements, poor drug stocks and capping of staff recruitments were strong performance inhibitors external to

the control of districts and hospitals. Some findings also indicate that perverse incentives were associated with the NLT. One district health officer complained that the best performing districts on the NLT received token awards (placards and certificates) while the worst performing districts were awarded vehicle/ambulances and new project to finance improvements in health care provision. The misalignment of rewards for the NLT indicates a tension between performance-based incentives which *promote competition and favour* high-capacity organisations, and the equity motives which favour the *provision of support* to weak organisations that perform poorly.

But the fact that the NLT was quickly adopted by the districts shows that it had some influence on performance. This may be due to its “name and shame” strategy especially at the National Health Assembly – a forum that attracted most political and civic leaders and with high media coverage. Despite the weakness in the NLT, it represented a useful tool for performance monitoring for the district-level political leaders. It was able to provide them with a relative measure of performance that enabled peer comparison among local governments and a basis for dialogue with district health managers. Findings show that political leaders had started to ask performance-related questions to their technocrats in charge of district health services (section 4.2.3). The district health technocrats were also sensitive to the ranking they received from MOH and were quick to adopt the NLT approach within their performance management system at the district level.

#### **9.4.3.2 Awards and Recognition**

The least power to influence performance was at the local government or district level. The mechanisms at this level were mostly weak and limited by strong constraints external to districts. When available, project-based financing was assisting the district health managers to hold performance review meetings and to award certificates of recognition to health facilities that posted good performance. Most of these mechanisms of influence were financed through projects such as the Yellow Star Programme and thus vulnerable due to irregular financing and weak sustainability. When rewards are not reliably linked to performance measures, such rewards fail to motivate agents (Lawler 1989). Nonetheless, when received, recognition awards enjoyed durable impact. Several years later, a certificate, placard or trophy continue to motivate and symbolise appreciation of progress (DISH 2002; Ekochu 2005; UCMB 2005b).

#### **9.4.3.3 PBC Bonuses, their Financing and Size**

Although performance bonuses are known to motivate improved performance, they are prone to design and implementation failures (Marsden and Richardson 1994; O'Donnell and Shields 2002; Petersen, Woodard et al. 2006; Roen, Arai et al. 2006). For instance, bonus payments evaluated in this study were coupled to performance feedback activities which caused delays in bonus payments. Design failures were also explicit in the lack of secure funds for paying performance bonuses. The findings in (section 6.1.4) show that securing the bonus was transaction-intensive and negatively affected the implementation of several pilot activities.

Despite doubling the bonus size, the amounts remained small compared to the total hospital revenues. For instance the total bonus receipts accounted for 3.3 percent of revenue for the case-study hospital that succeeded in achieving 10 out of a maximum of 11 bonus points. It was not possible in this study to establish the costs of generating a five or 10 percent increase among the PBC service targets. Such information would be useful to make firm conclusion about the bonus size in relation to the volume of outputs that are required for achieving these targets. However, the findings also show that the two case study hospitals in chapter 7 were responsible for 82 percent of the entire bonus funds paid out to a total of 19 health facilities. As such, efforts seeking to measure the impact and cost-effectiveness of performance bonuses (PBC innovation) need to pay more attention to the hospitals.

#### **9.4.3.4 Bonus Management by Hospitals**

Regarding the value placed on the rewards (bonuses), the findings show that there was need for the hospitals to test the benefits of the rewards before undertaking purposeful actions for performance improvement. For example, before the case study hospitals received their first bonuses, there was limited awareness of the performance expectations of the pilot. Attention to the pilot's performance targets was galvanized after the case study hospitals received their first bonuses. When the bonus benefits were made visible and shared by all staff, there were improvements in the records system of one case study hospital. Also managers in this hospital gained leadership capital from the bonuses and were able to use this capital to demand performance improvements from their staff. Having appreciated the benefits of the first bonus, both hospitals started to actively create awareness about the performance requirements of the pilot. This may have design implications for the early phases of PBC policy implementation. For instance, PBC implementers need to assist organizations to use the bonuses in a manner to secure valued benefits by staff early in the process of policy scale-up. Active internal awareness about the bonuses and the performance expectations (targets) within the hospitals is also required.

Additional effects of the performance bonuses are related to the PBC pilot design. The randomised experiential design that was used to implement PBC pilot created sentiments that reflected a potential for causing dissatisfaction especially among the control groups (This is further discussed in the methodological section below). Such effects call for a careful understanding of the effects of performance bonuses in different contexts. Findings in the UK also show that financial incentives may result in less than optimal performance outcomes. For example, the safety of donated blood worsened when financial incentives were introduced to replace voluntary (free) donations (Titmuss 1970; Kingma 2003; Le Grand 2003).

Findings from this study show that receipt of a bonus can ignite an internal decision-making process for its allocation. This decision-making process is critical to understanding the effects of performance-bonuses that are awarded to the organisation as a whole in contrast to those awarded to individual workers or employees. The hygiene of the decision-making processes

may boost, dampen or totally negate the performance improvement effect of the bonus (Lynch, Eisenberger et al. 1999; Gardner and Schermerhorn 2004).

*".. on the basis of the reciprocity norm, employees who perceive that their organisation values their contributions and cares about their well-being are obligated to increase their (..) performance. In contrast, repeated indications that the organisation does not value employee contributions and fails to reward increased performance reduce employees' perceived obligations (Lynch, Eisenberger et al. 1999 page 469)*

The findings also showed that there were differences in the value placed on performance-related benefits between the managers and the clinical staff. Exhibitionist rewards such as trophies, buildings and or status symbols such as star-ratings used by the Yellow Star Programme were more valued by managers. In contrast, clinical staff valued workplace improvements such as social events (parties) and social amenities (kettles for tea) at their workplace.

### **9.5 Response Actions and Role of the Context**

The basis for performance success with PBC was generally a contingent phenomenon. The response to PBC targets can be described in part as hitchhiking on more fundamental performance levers the study hospitals were experiencing. The efforts to enhance hospital performance were many and varied in their capacity to address more critical constraints to performance. Both success and failure of performance was attributed to a number of contextual variables, such as increased costs, staff exodus and the flow and size of the government grants. Other contextual interventions like Yellow Star Programme (YSP) and UCMB's organisational development programmes also provided concurrent synergies and alternative drivers for addressing performance improvements among hospitals.

Among the critical constraints were the increase in the cost of hospital service delivery and high dependence on uncertain financial flows (grants) from the government. Erratic financial flows probably posed one of the greatest constraints to performance among all hospitals during the period of this study. The reduction of user-charges among PNFP hospitals in this study also created additional constraints. The reported increase in service utilisation and outputs due to the reduction in user-charges also increased the variable costs of inputs like drugs. Additional increase in the cost of service delivery among PNFP hospitals was due to a substantial increase in staff salaries (about 30 – 50%) as attempts were made to catch-up with the much increased salaries of health workers in the government sector (UCMB 2006).

The dynamism in staff movement in and out of the study hospitals was another major source of contextual contingency. Improvements and failures in performance were likewise attributed to this problem. Staff movements hit a peak during 2005, the year before the presidential elections. Through a presidential directive, money was made available to increase the salaries of health workers in the public sector. Likewise, about 3.4 billion shillings were made available to recruit about 1,800 health workers into the public sector.

These two actions precipitated what was described as staff exodus from the PNFP hospitals and health centres (Guisti 2007). About 60 percent of the health workers recruited into government service were from PNFP health sub-sector (MOH 2008). The loss of staff with managerial experience especially affected the continuity of the internal strategies to improve performance against PBC service targets (section 7.2). For example, an internal champion for PBC strategies in one case study hospital moved out for different employment thus precipitating leadership vacuum for PBC targets. Acute staff attrition in the early phase of this study escalated the work burden for the remaining staff, making the response to PBC more complicated. The findings show that service records – the basis for determining performance, were more likely to be ignored by the overburdened staff. The implication of this action was likely to understate the service outputs of the hospitals. Indeed the purposeful actions to respond to PBC in one case-study hospital were related to efforts to improve service records as opposed to actions to serve more clients. The focus on records in one of the case study hospitals was also synergised by the prevailing district-wide efforts to improve the service records and routine systems for reporting of service outputs. These district-wide efforts were being driven by a need to improve district performance scores on the national MOH League Table. Likewise, the observed strategy in another case study hospital i.e. to re-organise and reduce clients' waiting time was also contingent on the prior infrastructure developments for expanding hospital space and a prior internal study that provided additional rationalisation for re-organisation of client flow to enhance client satisfaction.

Marketing of the hospital services was one of the strategic response behaviour to PBC in both case study hospitals. Findings (section 7.3.1) show that the marketing strategy was being pushed by several contextual contingencies. These included the need to make the communities more aware about the reduction in service charges that had been recently introduced and the explicit objective by the Yellow Star Programme (YSP) to create service-quality literacy in the community. Availability of grants (from YSP and Govt PHC grant) to finance the community-level activities was a strong synergistic factor for a successful marketing strategy for attaining PBC service targets. Additional synergistic factors included quality assessment, feedback and technical support from YSP to hospitals. This support led to the development and monitoring of action plans whose aim was to fix performance gaps identified by the YSP assessment. The findings show that preparation of actions plans, financial support to fix quality gaps and active monitoring by YSP were essential to the high priority and prompt responses to the YSP and UCMB programmes. In a sentence, micro-management and a package of supportive actions of YSP and UCMB generated more responsive performance action from hospitals relative to arms-length approach by PBC.

How respondents explained their performance successes, failures and processes for bonus allocation were indicative of the contingencies in the context and precedents within the



organisations. From a rational perspective, the findings about the context in which the hospitals were responding to PBC innovation support strategies to cut costs and/or cutting back on service outputs (performance). Indeed strategies to screening against high cost clients were explicitly being adopted in some of the study hospitals. Given the increased costs of service provision, increases in the size of the grants (government and donors) seemed to hold a powerful lever for future performance improvements relative to the PBC bonus.

### **9.6 Response Action and Organisational Precedents**

The potential for case study hospitals to increase their service outputs (performance) was partly explained by the precedents in the organisation trajectories. Precedents are events in the history of the organisation that have influence on current actions and behaviours (Scott 2001). For example, lower performance baseline in the years prior to PBC was a factor in both case study hospitals. Increases in the size of financial grants from Government in the years prior to PBC pilot were also important considerations. Improvements in the hospital infrastructure were also used to explain successes in improving performance of the hospitals in the years prior and during PBC pilot.

The processes of handling the bonuses illuminated yet another perspective for understanding organisational precedents in responding to PBC. Despite the bonus amounts being a meagre proportion relative to the overall hospital budgets, the internal processes of decision-making were driven by organisation precedents. The decision-making process and outcomes of the bonus allocation were a potential source of success or failure to respond appropriately to PBC innovation. The two case studies displayed internal processes that could ignite both staff satisfaction and dissatisfaction with PBC. For example, in the hospital where the participatory decision making processes and consensus outcomes were overridden by administrative directives (HOSP-1), perceptions of dissatisfaction among staff were created and risked ignoring PBC innovation. Poor handling of the bonuses seemed to fracture the trust between staff and those in administration. Given this unsatisfactory precedent, the decision-making regarding the allocation of the second bonus was confined to a few persons in administration department as opposed to broad consultations used for allocating the first bonus. The information about the second bonus was not communicated to staff. Nonetheless, the administration attempted to redeem some of the fractured trust by hosting a party in accordance with the popular staff decisions made in relation to the first bonus.

Implicit in the chain of events in this hospital is the fact that, the internal management cultures and precedents can influence the handling of the bonuses and can drive performance on a downward spiral if the internal processes of bonus allocation are considered unfair. The use of arms-length tools like performance-based financial incentives (bonuses) needs to consider the institutional competence to handle such financial incentives. Institutional economist Williamson captured this point:

*"... high powered incentives found to be effective in market organisation give rise to dysfunctional consequences if introduced into the firm. ... Whereas market organisations are associated with higher-powered incentives, and lesser controls, internal organisation joins lower powered incentives with greater controls. The choice (of market or firm) necessarily must make allowance for these respective incentive-and-control syndromes" (Williamson 1996 page 178).*

This case study provides evidence that financial incentives introduced in the wrong institutional context can do more harm than good. Effective "hands on" or bureaucratic controls in form of governance are needed inside the firm. Organisation process theorists treat this issue as a matter of building trust in organisation systems to overcome wary employee perceptions (Guest 1998; Lynch, Eisenberger et al. 1999; Rousseau 2001; O'Donnell and Shields 2002).

*"The culture and history of the organisation can influence responses to factors interpreted as threatening within the facility. The internal climate that exists within a facility can determine the ability of the staff to accept change in a positive manner. Poor morale, lack of trust, and a feeling of disengagement with the organisation are internal factors that influence the organisation's ability to reform and succeed. ... A secretive senior management also may lead to distrust on the part of employees as opposed to an open communication model in which staff are kept apprised of events that may impact their future" (Stanfill-Edens 2005 page (web page)).*

The different approaches used to make decisions about the allocation of the bonus in the case study hospitals also reflected the organisational precedents. The precedent of open and participative decision-making processes in one hospital (HOSP-2) illustrated the potential for enhanced visibility of PBC bonus within the hospital and a potential for all staff to internalise and increase commitment to the PBC innovation. In this hospital, the bonus allocation decisions hitchhiked on the well established internal communication system. The outcomes of bonus allocation showed optimism for innovation and visibility within the organisation. The positive leadership elements displayed in this hospital – i.e. participatory processes, communication that linked performance to the PBC bonus – seem to have emerged as a result of learning from a negative historical event namely a staff strike two years prior to the introduction of PBC pilot. The strike was mostly about poor communication between people in management and the staff.

### **9.7 Theoretic Perspectives and Their Utility in PBC Pilot Evaluation**

To understand the context and its influence on both the implementation of and the effects arising from PBC, a conceptual framework was used to guide and provide the key dimensions for the assessment of the hospital response to PBC pilot. Performance governance assessment examined the key relationships the hospitals had with their main external or up-stream stakeholders such as the central ministries and district health officers (DHOs), down-stream relationships i.e. UCMB and Yellow Star Programme and stakeholders internal to the hospitals such as the Boards of Governors (BOG) management teams and staff. Given the interdependence of the hospitals to the broad health sector management, additional insights

about performance governance were examined at the health sector ministry. The main elements examined in these relations included performance expectations, support, influences and control mechanisms. The utility of the theoretical frameworks and the emergent themes are discussed below.

Although the framework (see figure 3.1) was vital for structuring the domains and limiting the scope of this study, building functional explanations of how and why hospitals responded to PBC required the use of functional conceptualisations within the various study domains. In this respect, Agency-based theories and Process-based theories were set up as alternatives ways to explain the hospital responses with contrasting propositions (see section 3.4). As will become apparent below, agency-based theories and process-based theories had elements that exhibited different and contracting explanations while in some respects, they both provided complimentary explanations.

#### **9.7.1 Strategic Intentions and Their Control**

As a means of examining why and how hospitals respond to performance-based contracting, two theoretical lenses from different perspectives were used in this work. These are (1) agency-based theories, which are economics-oriented approaches, and (2) process theories that reflect both the sequential nature of events as well as the social-psychological mechanisms necessary for sustainable performance of organisations. For example, satisfactory social-psychological perceptions are vital for durable employment contract (Rousseau 2001).

#### **9.7.2 Agency-based Theory Applications: Use of Bonuses**

The linkage between rewards and performance is a primary concern of agency theory. Better linkage boosts the power of incentives to influence performance. In practice, the best incentive alignment is achieved by calibrating the reward in accordance to the measured performance of the agent (Frant 1996; Gauri 2001; Smith 2002; Stark 2002; Jacobs and Dawson 2003; Kingma 2003). Individualisation of incentives such as performance bonuses is central to the principle of self-interestedness on which neoeconomic/institutional theory is built (Williamson 1985). Incentives achieve optimal power to induce behaviour if there are individualised and strictly linked to performance (Sappington 1991). Group incentives have a problem of reducing the power of incentive and overall, reducing the productivity of the organisation (Dixit 1996; Sinclair-Desgagne 2001). In the context of PBC pilot, high powered incentives as predicted from agency theory would imply that the bonuses would be allocated to individual workers or departments in accordance to their particular contribution (effort) to achieve the PBC targets. By extension, the bonus would lead to winners and losers within the organisation. Winners would be those that have made significant effort to the generation of the service targets. Losers may include individuals or departments that had little to do with the achievement of PBC targets.

### **9.7.2.1 High-powered Versus Low-powered Incentives**

The major finding from this work shows that the use of high-powered incentives as predicted by agency theory was debated but discarded in both hospitals. Low-powered incentives were used instead. The use of the bonuses indicated some common features in both case-study hospitals. Discussions about the criteria for allocating the bonus included “nomination of best performers”, giving the money to the “departments” where the targets were generated, or buying equipment for those departments that were associated with the selected targets. These would fit practices predicted from agency theory. Nonetheless, both case-study hospitals agreed to use the bonuses for staff celebration (party/picnic), managers insisted on allocating bonus funds towards infrastructure/operational expenses and both groups rejected the use of bonus funds for “glorifying” selected individual or groups on the criteria such as “hardworking” or “departments” responsible for the achievement of PBC targets. By rejecting the use of performance-related criteria for allocation of the bonus, case-study hospitals illustrated a preference for low-powered incentives. The findings such as “everyone needs to be recognised” or “if you get the prize, you work alone” showed that the justification for not using performance-related criteria for bonus allocation was to uphold equity and team spirit among the staff. From the perspective of the managers, the staff were being protected from feeling unappreciated and from dysfunctional team spirit.

Equity in the allocation of the bonus funds is the antithesis of high-powered incentives. Upholding equity in the use of performance-base bonuses indicated that the hospitals preferred low-powered incentives. Both hospitals generated innovative schemes – as predicted by process-based theories – to transform the PBC bonuses into low powered incentives. Celebrations (party/picnic) were the popular choices for spending the bonus money by staff members in both hospitals. Additional means of distributing the bonus equitably involved the use of “randomization” to remove bias from the selection of the beneficiaries of the items purchased using the bonus funds. For instance, one hospital bought bales of second-hand clothes. The clothes were sorted into male and female items, 3-cloth item packages were made and wrapped, and each staff randomly picked a package. The use of random allocation of packages in this case was interpreted as a signature for equity – i.e. optimising fairness in the allocation of PBC bonus benefits. In general, the allocation of bonuses towards celebrations, clothings, building staff accommodation, kettles for making tea on the wards, farewell gifts for retiring staff, building a fence around the hospital and paying arrears for National Social Security Fund have one thing in common – staff welfare. Thus, improving the staff welfare and the collective work environment can be inferred from the various allocations of the financial bonuses. From the allocation of the bonuses, the proposition that economic rationale i.e. the use of high-powered incentives would drive the behaviour of the hospitals was not carried. Instead the equity in the work place predicted from process theories fit the observed behaviours better. Extrapolation from these observations suggest that in contexts similar to the case study hospitals, performance-based

incentives should address staff welfare benefits within a framework that optimise process fairness and teamwork among hospital staff.

### **9.7.3 Process Theory Applications**

Process-based theories try to explain how events must be planned and sequenced to ensure effective performance outcomes. For change to be effective communication, participation and leadership are important. Structures for governance or leadership and individual champions for the change process help to accelerate integration of new innovation. The receiving context for the new innovation is also essential. The following findings from this work show the relevance of applying the lens of Process theories to PBC pilot.

#### **9.7.3.1 PBC Implementation and Dynamic Action Theory**

The findings about the implementation of PBC pilot shows marked variation in the sequence and organisation of pilot activities. There were numerous adaptations, coupling and unbundling of some activities. The findings show that the de-facto implementation markedly diverted from the de-jure plan that would engender greater effectiveness. Examples here include the coupling of performance feedback and performance verification activities – that reduced the time or period necessary for hospitals to act on the feedback to improve their performance. The performance accountability to the local government officials that was considered necessary for the visibility and local sustainability of the pilot at the local government level were eliminated from the subsequent pilot activities. Supervision and support that was expected to ensure success of hospital plans and strategies for PBC was not provided. Financial insufficiency for the pilot was a major reason for these pervasive adaptations and omissions. Reimbursement-based financing for pilot activities by WBRG was considered “unfriendly” to the pilot implementers who did not have big financial reserves to drive activities. Oversights in the design and financing of the pilot left critical activities such as the performance bonuses unfunded. Lack of flexibility about the need to change the selected service target also got the hospitals locked into a set of targets for which little improvement was possible or necessary. For example, some hospitals were scaling-up community-based malaria control which would mitigate the need for malaria treatment at the hospital, while PBC targets demanded the exact opposite.

In general the processes of implementing the pilot activities did not fulfil the logical and ordered sequence of events for optimal effectiveness of the pilot (de-jure). On the contrary the findings fit better the theory for complexity and dynamic actions that predict that PBC pilot implementation may differ from the planned ones due to contingencies and constraints in the context and among agents. Indeed the seminal work on implementation by Pressman and Wildavsky (1978) also concluded that:

*“the planning model does not recognise the point that many, perhaps most, constraints remain hidden in the planning stage, and are only discovered in the implementation process. Moreover, feasibility conditions keep changing over time: Old constraints disappear or are overcome while new ones emerge. The solution space undergoes continuous transformations, shrinking in one direction, expanding in another” (page 180).*

From this perspective, the design and evaluation of innovations like PBC should build methods to assess the contextual variables and factors that may constrain (or enable) agents from acting in a manner to optimise the effectiveness of the innovations.

### **9.7.3.2 PBC Implementation and Expectancy Theory Application**

At the minimum, expectancy framework requires a 3-stage process: 1) The process of decision making must assure that the effort is linked to accomplishment of performance goals; 2) the accomplishment of goals are linked to rewards and 3) the rewards are valued in relation to the effort spent or satisfy important needs/wants. The 3-step process is glued together by information to make the staff aware of the linkages if expectancy is to motivate performance improvement. The case studies in chapter 6-7 showed a mix of practices in communicating the link between performance expectations of PBC and the bonuses as well as the link between the bonuses and benefits to the hospital staff.

#### **1. Linking performance to rewards:**

The findings in this study show that the link between bonus and performance targets or communication to the effect that attaining the targets would lead to receipt of rewards was not actively made until the hospitals received their first bonus. Subsequent to their first bonus receipt, the linkages were made in one hospital (Hosp-2). However, these links were not made in another hospital (Hosp-1) despite two events of bonus receipt. The major genesis of the failure to make the linkages in the early phase of the pilot was partly due to a long period of uncertainty about the pilot implementation. The findings show (section 6.2.2), that nearly a year elapsed from the time hospitals signed the performance contract to the time the pilot activities resumed. During this period, expectations of the bonus and memory of the contents of PBC pilot contract diminished. The predicted perceptions from expectancy theory that attaining the PBC targets would lead to bonus award were not fulfilled in the early phase of the pilot. Resumption of the pilot activities especially the award of the first bonus (or provision of first performance feedback) was a wakeup call for managers to start active innovations to succeed in the subsequent rounds of performance audits. However, the implementation and scheduling of pilot activities did not provide enough time for internal innovations. Performance feedback to hospitals was tightly coupled with performance auditing, thus reducing the capability to use the feedback as a basis for internal learning and improvement. These findings show that theoretic link between internal decision making and performance improvement was weakened by the design of the pilot.

## 2. Reward attribution problems:

Contrary to the theorised motivating effects of performance rewards, findings in this work show that *collective* rewards may lead to positive or negative effects on performance. Due to the nature of hospital work and its accomplishments, performance rewards at the level of the organisation have an attribution problem. How should a hospital manager decide how to allocate a performance bonus to various work-units that may have direct and indirect contribution to the attainment of a performance target? The attribution problem is more pronounced if the rewards are meant to stimulate more effort from the entire organisation as opposed to an individual worker. Although tools such as Annual Performance Appraisal for individual staff performance have been used as the basis for awarding performance-related bonuses in organisations, the same tools have limited value for appraisal of clinical teams that may be responsible for achieving a target of 10 percent increase in child immunisations. For the purpose of rewarding performance that requires collaborative effort of many individuals, team-based performance appraisal is needed. A performance target for a surgical team may be easily stated as a number of surgical procedures and rate of post-operation complications. If the target is achieved and a financial bonus is awarded, the managers will have a long list of legitimate claimants: - the surgeons, the anaesthetists, theatre nurses and recovery-room staff. Other claimants include staff from the laboratory, blood bank, laundry, procurement (for right tools and surgical supplies) and staff on the convalescent wards that deal with care of the surgical wounds. For the bonus to be allocated fairly, the manager requires a robust system of measuring the relative contribution of all these work-units (Bokhour et al 2006). If the allocation is perceived as unfair to any of the team members in the work chain, the manager risks causing dissatisfaction and fracturing the collaboration and team work needed for quality outcomes.

From the findings of this study, there were deliberations of how to link the bonus to the direct implementing units or persons but failure of how to “identify performers” was partly a problem of lack of valid measures across collaborating work-units for a joint output such as OPD, ANC, or Delivery. Similar findings have been found in USA. Hospital managers that were conscribed into pay-for-quality schemes to improve quality of care outcomes failed to pay any bonuses to the hospital staff due to lack of an objective means to fairly distribute the bonuses (Bokhour, Burgess et al. 2006). As a consequence, the returns on investments in the pay-for-quality schemes were poor (Grossbart 2006). Among the UK nurses, there was indifference to financial incentives that were aimed at individual nurses to improve care in home care setting (Kingma 2003). In Rwanda, performance bonuses given to the health centres were allocated to individuals on the basis of staff ranks and not on the basis of personal or group performance criteria (Meessen, Musango et al. 2006).

## 3. Communication: awareness of targets and rewards:

From the findings, the prerequisites of expectancy theory – ie awareness of the targets and rewards - were not observed early in the process of pilot implementation. Findings show that the pilot implementation schedules suffered time delays and hospital managers did not create awareness about the targets until after a bonus was received – albeit without much evidence of purposive strategies. Effective communication and sufficient time for internal adjustments are important features for effective implementation of PBC interventions.

*“... Effective communication with physicians is essential for the success of [pay for performance] programmes and that policymakers need to build enough resources and time into the implementation process to accomplish this. ... findings also highlight the need to consider the “starting point” for physicians when designing rewards” (Christianson 2007 page 530).*

#### **9.7.4. Trust or Audit based Control Systems**

Comparison with other performance improvement frameworks found in this study suggests alternatives approaches to performance management of hospitals. Measuring performance of contracted agents is a central control mechanism for performance-based contracting. From the perspective of agency theory, ability to measure or observe the effort of the agent mitigates the agency problem i.e. ensures that the agent exert the required efforts in pursuit of the principal's objective. By implication sharp mechanisms such as audit-based approaches are used to objectively verify performance (Lawler 1989; Le Grand 2003).

By contrast, organisational process theories prescribe soft and bureaucratic processes for performance assessment. Efforts are invested in the “hygiene” of the processes to grantee good performance. In knowledge-intensive industries, the cultivation of trust, group norms or culture are vital forms of control for production processes (Ouchi 1980; Weaver and Sorrells-Jones 1999). Compared to PBC pilot, UCMB and Yellow star programs employed alternative approaches to improving hospital performance. Below are the key reflections about the main differences in the conceptual frameworks behind these alternative approaches.

##### **9.7.4.1 UCMB: Trust-based Performance Control**

The difficulties of metering performance especially in complex and knowledge-based organisations like hospitals pose enormous challenges. Although these difficulties were not eliminated (table 6.3), the case study of UCMB's performance framework showed that the measurement difficulties were minimised by its reliance on the routine reports of service outputs. This was possible due to UCMB's investment in supportive infrastructure for data capture and processing. Computers, email communication and training to strengthen the information system among member organisations had been invested. Greater dependencies between UCMB and its members also enabled higher level of trust to build-up over a period of about seven years. Trust in the data submitted by the member hospitals enabled UCMB to use less sharp approaches like data auditing and instead resort to soft bureaucratic methods for data verification. For example, verification of the submitted performance data was done through fulfilment of accreditation requirements e.g. endorsement of reports by the



chairperson of the Board of Governors before their submission to UCMB and to the districts. Additional bureaucratic control and verification of performance data was given to the Diocesan Health Coordinators who also have access to the hospital boards. "Faithfulness" to the CCU was a mobilizing symbol for compliance and trust building for technical assessment of hospital performance. For example, some findings show that "values-based" code of conduct or "mission" of the CCU were transformed into "objectively measurable" performance indicators that were used to demonstrate "faithfulness" to the Mission (see section 4.4.3.4). In a sentence, long term institutional relationships enabled UCMB to control performance by a mix of tools i.e. measurement built on trust in the routine performance data as well as using low powered incentives like training and resource support to its members. Similarly, in Rwanda, the implementation of performance-based contracting required building up the institutional framework for the interventions to work optimally. Efforts were made to establish structures of accountability within the community and health facilities (Meessen, Musango et al. 2006).

#### **9.7.4.2 Yellow Star: Cultural-cognitive and Market-based Performance Controls**

The Yellow Star programme (YSP) on the other hand was designed to provide a report-card to the community about provider quality. In its design, information to the community was a central element. External to the hospitals, the YSP was built around symbols, education, communication and information about what good quality health services should be. Internal to hospital, the programme had an explicit strategy of building a culture for quality improvement (Kunda 1999). Several quality measurements were based on behaviours such as staff courtesy, following protocols, providing information and some outcomes such as client satisfaction. The YSP team also incorporated a peer review element by including clinicians as assessors of quality. Again symbolic awards are given to the staff that exhibit the behaviours judged as pro-quality. If successful, the desired responses would cause clients and resources to shift away from the poor quality providers, thus evoking competitive pressure to improve quality. As such, the YSP framework sought to gain performance control via both cultural engineering and market-based competition via social-marketing approaches for branding hospital quality in the community (McNamara 2006). Although adopted by the Ministry of Health as a programme, the institutionalisation of YSP was still uncertain due to its dependence on external aid.

#### **9.7.4.3 PBC Pilot: Audit based Performance Control**

Unlike UCMB and Yellow Star Programme, PBC pilot used an audit-based approach to assess performance. The suspicion of forging results led the PBC implementation team to shift from using monthly service output reports to using a more rigorous approach based on primary records (Patient Registers) as the basis for their performance audit. The same lack of trust was implied among the PBC team that was conducting the performance verification. Findings in chapter 6 show that forging of performance data was a behaviour adopted by

pilot implementation team. Faced with a heavy workload during the auditing tasks, short-cuts and opportunistic behaviours started to arise among the auditing time (box 6.2).

By implication, the audit-oriented approach to work well, it also needed to be audited and monitored closely. With time, this would evolve into a multi-level tiered system – whereby secondary auditors are contracted to audit the primary auditors in order to mitigate the distortion of performance data by the former. Sustaining a system akin to *auditing the auditor* would increase the costs of PBC in the health system. While referring to United Kingdom's National health service (NHS), Saltman made a similar observation in relation to market-like reforms that were sweeping the NHS in late 1990s:

*"As a result of the shift to a more entrepreneurial environment both within the public sector and beyond, requires not only a similar level of state activity but substantially more sophisticated types and levels of activity. This requires better training and motivated personnel, better information and greater financial and accounting expertise. All of these in turn requires considerable funding. Thus the new regulatory role for the state is likely to be equally if not more expensive than the old command-and-control model. This suggest that adopting markets-style incentives as a central mechanism to manage a health care system is not a poor state's game" (Saltman 2002)pg 1682).*

It can be urged that audit-oriented performance verification processes such as those used by PBC pilot constitute a cost premium for overcoming the lack of trust. The use of monitoring and the formalisation of vertical metering may be perceived as an act of distrust (Zucker\* 1986; McMaster and Sawkins 1996). These authors also urge that some industries like health care suffer from a "high trust syndrome" due to a broader scope of legitimate discretionary actions. Broader discretionary actions create unstable or "highly plastic" outputs/performance that in turn complicates performance measurement.

*"... certain dimensions of agents' overall outputs (...) are conceptually impossible to measure. Imperfections in the metering function carry their own implications. (...) In plastic activities (like health care), the setting of performance targets is also subject to considerable inaccuracies. Where inappropriate targeting occurs, the system simply generates inefficiencies inefficiently!" (Zucker 1986 page 154).*

### **9.7.5 Integration as a Form of Performance Control**

The issue of integration was seen at the district level where district-level donor projects tended to take over the roles of collecting and analysing service output data (performance) from health facilities, and/or financing the Performance Review Meetings on behalf of the District Health Office. The two districts with this practice had attracted a project whose success depended on the health service output data of these districts. A similar pattern of integration was also found at the national level ministries in the name of Sector-wide Approaches (SWAPs) where sector donors were integrated into the sector planning and performance review processes as a means of accessing performance information and directly influencing the sector plans (Oliveira-Cruz 2007). The UCMB influence mechanisms also enabled it to integrate itself into the Boards of Governors at the hospital level through the Diocesan Health Coordinators as its agents. Integration of the higher-level authority

(principal) with her subsidiaries (agents) was understood to be a means for the principal to directly influence performance variables important to her and to access performance information. Several institutional economists and process theorists both agree and advance a theory that vertical integration is an essential factor to production of goods within organisations as opposed to buying such goods from the market (Ouchi 1979; Williamson 1985; Klein 1993; Hillman and Dalziel 2003). As put by Klein;

*“vertical integration, by shifting ownership of an organisational asset (into a firm), permits transactors to avoid the transaction costs associated with hold-up in the presence of specific investments. ... Firms (as opposed to markets) eliminate the need for contracts and create an increased ability to flexibly direct production” (Klein 1993 page 223).*

From these findings, cultivation of trust, engineering appropriate culture, auditing of outputs and vertical integration – between the principal and the agent(s) are alternative approaches that need to be considered as alternative mechanisms for securing performance improvements from hospitals and similar institutions.

#### **9.7.6 Theoretical Complementarities: Agency and Process theories**

From the foregoing discussion, it can be deduced that agency theory occupies a higher-level in providing explanation as to why the agent may be motivated by an incentive scheme to undertake a particular task. To that effect, it provides a high-level policymaker with sufficient explanations why an incentive scheme may drive improved performance. Nonetheless, agency theory is insufficient in providing the guidance about how an implementer of the above incentive scheme should organize and plan the scheme to succeed in providing sustainable motivation within a given context and for ongoing exchange relationships. Intermediate-range theories i.e. process-based theories are vital to the implementers – ie providing operational guidance about how to plan and sequence events in a manner that fits the value-set of the organization, optimise process-hygiene and fairness, and assure satisfactory and continues performance outcomes. In this study, Expectancy theory provided an intermediate-range theory to benchmark the internal process of utilizing a bonus to spur improved hospital service outputs. Likewise, Complexity theory and the related theory of Dynamic Response provided process-based variables to benchmark the implementation effectiveness of the pilot. How the incentive scheme interact with an individual's motivation to exert effort and meet organizational performance objectives required yet another level of theory building or application (Grol and Bosch 2007, Judge and Bauld 2001, Pawson and Tilley 2004). This “micro-level” theory was required to explain how and why incentives are useful (or not) to the individual worker or work-team. Herzberg's theory about a person's motivation for work was employed here to provide the variables for assessing the changes in perceptions among the hospital staff during the PBC pilot. In sum, complex health system interventions require multiple levels of theory application (or building) for meaningful design, implementation and evaluation.

## 9.8 Methodological Insights

Evaluation of complex interventions within the realm of health systems creates challenges from many perspectives. From the perspective of generating rigorous evidence, robust scientific methods drive the design of the evaluations in the direction of a “black box” approach. For instance evaluations based on randomised controlled trials strive to wipe out contextual and confounding variables through random allocation to ensure *ex ante* similarities between control and experimental groups. Strict implementation protocols are developed and there is unwavering efforts to insure implementation fidelity to the protocols. This pharmacoepidemiological approach provides robust measures of the EFFECT of the intervention and there is rarely a need to explain HOW the intervention works. This is done usually separately in the early phase of the research and development (R&D) process usually in laboratory or animal models. In contrast to health system, the questions of HOW the intervention works and what effects it generates are coupled together. Interventions in health system target upstream levers such as regulation, financing, information and procurement system with little room for randomisation or controlling the contextual dynamics. Measures of effects of intervention are generated at the same time as the intervention protocol is being tested – i.e. R&D are inseparable. The context of such experiments plays an important role in the outcomes and their replication. As illustrated below, policy practitioners and health development agencies desire to learn from both the Research (intervention effectiveness) and Development (how to implement the intervention). Among policy practitioners, evidence and details of HOW the intervention works and under what CONTEXT is given more value. For example, NHS regulators in the Health Development Agency noted that the evaluation of interventions should provide contextual factors relevant for transferability of the innovation:

*“It is important to understand the context in which a public health intervention operates, and thus move beyond the ‘black box’ within which much traditional health economic evaluation sits. In particular, there is a need to gather information on process outcomes and factors influencing changes in the behaviour of individuals and populations, as well as the institutional arrangements that may influence both the costs and effectiveness of interventions. Such information can help decision makers identify whether a successful (or unsuccessful) initiative undertaken in one locality might be generalisable to other settings” (Kelly, McDaid et al. 2005 page 5).*

*“The [evaluation] aim is not only to help with interpretation of the success of the programme as it evolves, but also to build additional factors into models that might be used to consider the programme’s transferability to other settings. Such approaches may increase the costs of studies considerably, and may not be appropriate for all public health interventions (Hawe, Shiell et al. 2004).*

### 9.8.1 Lessons from Mixed Methods

A mixed methods approach was used in this evaluation. From the start it was clear that PBC intervention was complex and required several perspectives to understand its implementation as well as the response among hospitals. During the actual study processes, addition methods were added and some were dropped. For example, the rigorous measurement of hospital output was dropped given the major differences in the required data systems needed to assess

numeric increases to PBC targets. The discretionary selection of three service targets out of six services created a situation that demanded much more resources than was available for this study. On the other hand, opportunities for comparative case studies were discovered during the study, thus prompting additional efforts to compare PBC with the performance framework for YSP and UCMB. In relation to the methods for evaluation complex health system interventions, the following lessons stand out.

1. Multidisciplinary frameworks were necessary to build explanations that fit the data. The multiplicity of variables at different levels of the intervention requires constant iterations between findings, and the explanatory frameworks (sections 3.2 and 3.3). This research started with two theoretic frameworks for understanding PBC implementation and its outcomes i.e. economic one (of agency) and organisational process. During implementation, additional frameworks were needed to deal with the complexity of analysis of the observations and changes in the intervention and in the context overtime. Complexity theory and the theory of dynamic action (Litaker, Tomolo et al. 2006; McPake, Blaauw et al. 2006; Leykum, Pugh et al. 2007) were useful to distill contextual and emergent variables. The challenges though have been many. These have included exploration of new tools and different ways of thinking from other disciplines like organisational anthropology, psychology, organisational politics, as well as business and entrepreneurial sciences. These were explored to the extent suitable to make progress on the analyses or interpretation of research findings. Special skills were sought in workshops and meetings and through special literature in journals and books. The researcher actively participated in a series of workshops and seminars about the analysis of qualitative research. These workshops were held under the auspices of Prof Jude Green at LSHTM and included sharing and learning analysis skills among doctoral students with qualitative research topics.
2. Triangulation of different opinions among respondents, findings from interviews, documents and observations was an ongoing process from data collection, analysis and during the drafting the report. Triangulation was enabled by having alternative templates or theories against which to compare the findings. The prospective nature of the study also allowed the researcher time to clarify and follow-up additional leads - like annual reports or special studies in the past to understand why particular actions or omissions were observed or why some opinions were in conflict of the common view among respondents. For example, some of the response strategies to PBC that were mentioned by hospital managers had long been in plan but PBC pilot provided additional synergy to these plans to be executed. Evidence like new buildings and internal studies recommending that some clinics be decongesting and client flow reorganized showed that the effect of PBC pilot in such a context was to help tip the balance for the planned

actions to get executed. The difference was that the hospital managers had the opportunity to earn a financial bonus for this planned actions - courtesy of PBC pilot.

3. Conflicting or divergent findings emerged especially given the wide breadth of the study, multiple methods and the complexity of the intervention that was being evaluated. This is not unusual especially given the multiple perspectives and complexity of the real world of implementation and respondent experience (Pawson and Tilly 2004). Specifically, data from in-depth qualitative enquiry among the two case-study hospitals (section 9.4) indicated that there was a divergent response – one hospital responding early and getting off track, while the second responding late but with more promising strategies. However, the quantitative survey findings shows that the staff perceptions of workload from the two hospitals (table 8.11) subjected to PBC bonuses were statistically higher and significant in 2006. The implication of the latter finding was that the pilot had impact on the workload among the two case-study hospitals although the qualitative findings did not provide obvious explanations as to why this was the case. Possible explanation for higher workload perceptions may be related to the reduction in the number of staff in these hospitals as opposed to the increase of clients being served. Narratives among HMTs indicated that there was a “staff exodus” especially as PNFP hospital staff were crossing to government employment data collection in 2005. An alternative explanation can be linked to the “Ratchet effect” where successful performance in the prior period provides even higher targets for the subsequent period. Meessen et al (2007) referred to this problem as “pushing the carrot further and further” – a phrase used to describe the moral hazard whereby the principal cheats the agent (Allen 2009).
4. Comparative case study approaches greatly enhance the value of this research. Research need to explore comparative cases especially for interventions that lead to similar outcomes or with similar mechanisms (Anderson, Crabtree et al. 2005). In this analysis, the inclusion of UCMB and Yellow Star programme provided added value and made the deductions for policy and programmes more practical. With three different interventions all trying to improve performance, it was easier to synthesize the commonalities, the positive and negative differences with PBC.
5. A lot can be learnt about the ongoing implementation of complex intervention. The approach used in this research – i.e. going from behind the implementation activities as well as observing key events is a promising approach to learn and accumulate evidence about how the intervention is working to generate its outcomes. This approach is recommended as a source of information for faster normalization of complex interventions by generating evidence on practicality, rationale and contextual integration within health care settings (Hawe, Shiell et al. 2004; Kelly, McDaid et al. 2005; May 2006).

*"Such analysis should retain the shape and feel of a traditional economic framework, but will need enough flexibility to capture the multi-dimensional, complex and layered outcomes of public health policies and interventions. (Kelly, McDaid et al. 2005 page 5)."*

*"... outcomes of community intervention trials have been small or non-significant. Part of this is simply because investigators go into communities with intervention designs and theories too weak and unsophisticated for the scale of the change process they are seeking to bring about. With better planning and theorising, 'trial and error learning' in community intervention trials could be minimized" (Hawe, Shiell et al. 2004 page 793).*

6. To be even more useful, such an approach needs to be linked to the decision-making and appropriate adaptations for the implementation of the intervention. Without this linkage, there is a potential for the approach to frustrate the researcher and generate ethical dilemmas if the generated evidence is not able to make a difference on the ongoing implementation activities. Such frustrations were encountered albeit with little capacity to influence the ongoing intervention.
7. Although qualitative research is discounted as a means for assessing causal links, there are promising prospects in explicating causal links in prospective interviews approaches. From the perspective of health system intervention, causal triggers for decisions, actions and omissions are vital in the generation of evidence for implementation of innovations. The prospective approach to inquiry i.e. questions about futuristic strategy or "planned action" and after a lapse of time, the researcher returns to conduct "after action reviews" was useful to understand how and why the planned strategies for securing a bonus were fruitful or not. This was made possible by conducting in-depth interviews (every after 5-6 months) with the same persons in management positions (hospital executives) during the 12 month period. Typical questioning was "your plan last time to ensure that you get a bonus was XX. How did that plan work out?" By assembling together the responses on these questions and earlier plans or strategies, some level of causal inferences started to emerge (George and McKeown 1985). In one case study hospital (HOSP-2), it was possible to prove that efforts to improve clients' records had indeed been implemented. Prospective qualitative interviewing of the same group of actors also enabled the accumulation of evidence and build-up causal linkages for key decisions and actions. For example, earlier evidence of lack of funds for paying the bonuses and the post-expenditure reimbursement of expenses by the pilot financiers caused financial insufficiency for pilot operations. Subsequent efforts to mobilise funds from alternative sources provided a strong causal factor for the observed adjustments in the pilot design such as scaling down the participants at the performance-feedback sessions at district level. The prospective approach is recommended by qualitative experts (Hamel, Dufour et al. 1993; Yin 2003; Anderson, Crabtree et al. 2005) and Mitchell 1983).

8. The multi-level approach to understanding the system processes helps to relate upstream actions to downstream one. In this study effort was made to link national, district and organisational level perspectives and how they inter-relate. This traversing the vertical system is essential to understanding entry points, sources of synergies and barriers to effective response to health systems interventions.

*"The analytical and evaluation problem is that upstream interventions to improve the circumstances in which people live may not be a sufficient condition to produce health improvements, but a precondition for other downstream interventions to be effective. (This) has implications for how interventions are designed and evaluated. Evaluating single initiatives may fail to capture effects that rely on multiple interventions"* (Kelly, McDaid et al. 2005 page 1)

In this study it was possible to illuminate conflicts in objectives among agents at different levels. It was also possible to gauge how "incentives" at the national level can become disincentives at the district or organisational levels. For example, incentives attached to the League Table (table 4.4) provided public recognition for districts that performed well but provided more valuable benefits like ambulances, more budgets and projects to those that performed poorly.

9. Although more is still to be mastered, the survey tool development process from theoretical constructs and techniques for Factor Analysis and interpretation were very useful skills for organisational analyses. However, given this highly technical field, there is more to be learnt especially in terms of confirmatory factor analysis and approaches to refine the item-responsiveness in survey instruments. Despite this shortcoming, the analysis of perceptions of staff using this approach provided vital additional evidence for supplementary interventions to ensure that performance-based contracting pilot delivers effective response among its internal customers at the organisational level. Where relevant, this method should be explored and mastered to provide additional evidence of the effects of PBC at the organisational level.
10. A potential to demotivate the participants in the control groups was a constant feature of the PBC pilot in Uganda. The randomisation of some hospitals not to receive a bonus despite good performance against their targets (or via routine feedback) was perceived as unfair by those in control groups of the PBC experiment. In many instances, the health centers in the control group had performed better than the ones that were randomized to receive the bonuses – a situation that violated the tenet of expectancy theory – i.e. fairness or instrumentality. Some findings show poor cooperation during the later part of the pilot from the control groups. District managers were also concerned about the negative implications the pilot could generate among good performers in the control group. These findings show a potential for doing harm if interventions in the health system are not well designed or implemented. Active monitoring of adverse outcomes as is done in clinical trials need to be extended to interventions within the health system. As the call for more robust experimental evidence with control groups is advocated to evaluate PBC, a keen



interest should be placed on the possibility of experimental fallacy – where the intervention makes the control groups worse-off and leads to erroneous conclusion that the intervention was effective relative to the controls.

## Chapter 10: Conclusions

Conclusions are extracted from the discussion chapter and study findings on the basis of the theoretical principles that underpinned this work. Alternative theoretical propositions were used to filter the evidence and their policy implication. For instance, the principles underlying Agency Theory predicted that money-metric incentives and capacity to measure performance would drive the implementation patterns and response behaviours or actions. If this proposition fits the data, it would imply that policy to rollout PBC would need to fix the size of the monetary incentives (bonuses) and perfect the measurement of the specified performance. On the contrary, if the proposition about Organisational process theories is carried, we would expect that findings fit the conclusion that “getting the processes right” drives the implementation and response to PBC. From this perspective, it is not the measurement of the effects that matter for the generalization across other PBC interventions but the mechanisms, designs and ideas that drive effective implementation and response actions of organisations similar to study hospitals and Ugandan context (Mitchell 1983; Yin 2003). As expressed by Highhouse, (2007) “ *Theoretical propositions are the vehicles for generalization to the real world. The ability to generalise from one situation to another requires an understanding of the underlying principles and recognising which principle apply in which situation*” (Highhouse 2007 page 556).

Although the findings in this study do mostly fit the proposition for organisational process theories, there are clearly some findings that fit Agency Theory. The implication of this is that financial incentives do ignite performance responses. It is, however, important to focus on supplementary process-oriented interventions to ensure that financial incentives ignite the right responses. Process-oriented interventions like governance relationships, optimal resource inputs, and maintaining a conducive organisation environment for the workers - form the foundation upon which to build effective performance-based initiatives. The following are conclusions that attempts to provide practical and policy-level guidance from the findings.

### **1. A broader package is required for optimal effectiveness of PBC:**

Comparative findings about PBC and similar interventions such as YSP and UCMB shows that a broader package of supportive activities such as training, action plans and supplementary resource inputs generated more responsive actions from hospitals relative to performance bonuses used by PBC pilot. A broad set of tools such as institutionalised systems for accreditation of hospitals enabled UCMB to receive the necessary data for performance measurement with good compliance from its members. UCMB's incentive package included investments in management training for the managers, information technology to support performance data systems and performance reporting, and recognition for good performance within its network of health facilities. In addition, support was

provided to UCMB hospitals to generate organisational mission statements and charters, and to establish operating guidelines and manuals for financial and human resource management. Strengthening the capacity for institutional governance was also developed as part of the performance improvement processes. From this perspective, efforts to improve hospital performance need to design a broader set of support activities capable of addressing the multiple drivers that constrain hospital performance.

**2. Direct investments need to be directed to the performance drivers:**

From the findings about the allocation of bonus money (chapter 7), whether these decisions were realised or not, it is possible to speculate that the case study hospitals' performance constraints lay in 1) hospital infrastructure (i.e. building staff houses and hospital gate), 2) operational costs (NSSF arrears) and 3) energising staff ( i.e. gifts and parties to celebrate). The findings from the internal clients of the hospitals – i.e. the survey of hospital staff – the main drivers of performance improvements were perceived as related to 1) performance governance, 2) job satisfaction, 3) availability of medicines and supplies and 4) extent of financial satisfaction. These factors map onto the “hardware”, “software” and “welfare” domains of the hospital functioning. For optimal outcomes of PBC, these findings suggest that the strategic entry points for performance improvements in the Uganda hospitals during the study period needed to invest in these factors for performance improvement. Findings show that financial resources for the study hospitals were not conducive to improving performance. In contexts where expenditure per capita on health care services ranges from \$ 8 - \$11, there is a low ceiling within which efficiency gains can drive performance improvements. PBC innovations will have limited impacts if the financial and other resources are not concurrently increased to the required \$30 - \$40 per capita (MoH 2001d). “Tokenism” in the form of performance bonuses that account for as little as 3 percent of the annual hospital expenditures may not overcome the insufficiency of funds that are required to address the above factors for better performance of hospitals.

**3. Hands-on approaches have a role in improving hospital performance:**

The findings show that hands-on or micro-management approaches like assisting hospital teams to generate action plans for performance improvements, targeted financial assistance to fix quality gaps and active monitoring and support supervision by YSP and UCMB – were essential for eliciting prompt performance responses needed by the YSP and UCMB programmes. In a nutshell, micro-management and a package of supportive actions of YSP and UCMB generated more responsive performance actions from the hospitals relative to hands-off approach by PBC pilot in Uganda. Similar micro-management approaches were reported in one of the PBC pilot in Rwanda where technical assistance programmes worked closely with the health centre managers and provided on-going support (Rusa, Schneidman et al. 2009).

**4. Investing in building trust and institutional relationships may be more cost-effective than audit-based mechanisms for performance control:**

Long-term institutional relationships enabled UCMB to control performance of its member hospitals by relying more on trust and bureaucratic controls like accreditation, training and technical support to its members. Given the difficulties in metering performance that this study describes (chapter 6), the high costs of regular auditing of service outputs and the need to build supportive relationships between the hospitals and their stakeholders, investing in building trust and mutual support systems may yield better performance outcomes. Audit-based systems without supportive actions to the agencies being audited may not align well with the mutual dependencies needed for health system functioning. Some authors urge that auditing approaches espouse values such “assumption of fraud” that may not align well with the values needed for support supervision i.e. “expert-junior mentoring” (Meessen, B., W. Van Damme 2006).

**5. Innovators with PBC should pay attention to contextual factors for its success:**

Organisational precedents and contextual factors and their dynamics played a key role in the response to PBC pilot. How hospital managers explained their performance successes, failures and processes for bonus allocation were indicative of the contingencies in the context and precedents within the organisations. In the hospital where communication and governance systems were relatively dysfunctional, the decision-making processes for bonus allocation was associated dissatisfaction among the staff. The continuity of the innovation was further affected by the organisational contingencies like the loss of institutional memory as well-informed persons and champions of PBC left the hospital. In such contexts, it is impossible for the organisational stakeholders to sustain commitment to PBC innovations. The implications of these findings are two-fold; 1) implementation of PBC and similar system-level innovations need a conducive context and 2) research about the contextual variables before, during and after the intervention may help to explain the (in)effectiveness, magnitude and sustainability of impacts of innovations similar to PBC.

**6. Allocating money-metric (high-powered) incentives to individuals can fracture team-based functions:**

From the findings about the allocation of the bonuses, the proposition that economic rationale i.e. the use of high-powered incentives would drive the behaviour of the hospitals was not supported. Instead the low-powered incentives predicted from process-based theories fit the observed behaviours better. For example, imperatives to preserve equality and “team spirit” or collaborative relationships caused the rejection of high-powered incentives such as allocating the bonus monies on the basis of individual-level effort or “hard work”. Extrapolation from these observations suggest that in contexts similar to the case study hospitals, performance-based incentives should address staff welfare benefits within a framework that optimise fairness and teamwork among hospital staff. For settings where teamwork and joint effort is a norm, high-powered incentives may achieve sub-optimal performance if the incentives are not designed to encourage these norms.

**7. More research is needed about the internal incentivisation of team-based functions:** More research work is required to fully understand the best approaches for performance incentives in the context of team-based tasks in hospitals. Team-based tasks being an institutional feature of hospital operations, has implications for the allocation of financial bonuses that are awarded based on an organisation-wide performance criteria. The processes of allocating a bonus awarded to an organisation may engender negative performance risks. As illustrated in chapter 7, if organisation-wide bonuses are not handled transparently and used/allocated in a participatory manner there is a potential for negative consequences for team-based performance outcomes within the organization. Organisation-wide monetary rewards (bonuses) for performance may spur internal contestations and conflicts between the different interdependent work teams and between organization executives and governance boards. Findings in section 7.4 indicate the emergency of these conflicts in both case study hospitals. On the other hand, monetary bonuses may work by boosting the capacity or legitimacy of the executives (managers) in their performance governance efforts – providing resources that could be used to strengthen the psychological contract of the work-teams to achieve organisational goals. More research is required to explore the pathways and contextual prerequisites for group-based monetary bonuses to optimise performance and mitigate against undesired consequences.

**8. Handling the Bonus may generate poor performance impacts:** Internal handling of the bonus can drive performance on a downward spiral if the internal processes of bonus allocation are considered unfair. The use of arms-length tools like performance-based financial incentives (bonuses) needs to consider the institutional competence to handle such financial incentives. Decision-making processes in one case study hospital provided evidence that financial incentives introduced in the wrong institutional context can do more harm than good i.e. may triggering worse performance among hospital staff. Market-driven, high-powered incentives may need to be transformed into low-powered incentives within organisations that depend on cooperative efforts like hospitals. Organisational processes to build trust in the handling of the bonuses will be required to strengthen the psychological contract (expectancy) required at the level of individual staff members. If the hospital workers do not trust their administration (executives) to handle the financial bonuses from PBC initiatives, the innovation may not generate the required effort among the workers. Likewise, if the executives do not communicate the size and the criteria for receipt of performance bonuses, the work teams may have no reason to change their performance or task-related behaviours. Where internal trust and leadership is weak, hands-on (as opposed to hands-off) approaches are required to strengthen intra-organisational processes (e.g. collective decision making) alongside the expansion of monetary incentive schemes like performance bonuses.

**9. Early exposure to performance bonuses may boost the response to PBC innovations:**

After received their first bonuses, both case-study hospitals started to actively create awareness about the performance requirements of the PBC pilot and design internal strategies to improve performance (section 7.4). This may have design implications for the early phase of PBC innovations. For instance, PBC implementers need to let the hospitals “get a feel” of the benefits (picnic, celebrations gift items etc) from the bonuses early in the process of implementing the innovation by creating “quick wins” and guiding the processes of allocating the bonus funds towards valued and visible benefits within the hospitals. From findings in this work, better impact on hospital performance may be generated by guidelines that reward early-phase activities such as staff awareness of targets, boosting the leadership capital of the facility managers and optimising the allocation of bonus funds towards welfare needs and resource-inputs (medicines and tools) valued by the work-teams.

**10. Non-financial rewards have a role to play in performance incentivisation:**

Exhibitionistic rewards such as events for public recognition, trophies or status symbols such as Star-ratings used by the Yellow Star Programme were found to enjoy wide and durable organisational pride relative to financial rewards from the PBC bonuses. More research work is required to fully understand the best approaches for performance incentives in the context of poorly resourced countries like Uganda. Saltman’s advice is relevant here:

*“ ... adopting markets-style incentives as a central mechanism to manage a health care system is not a poor state’s game” (Saltman 2002)pg 1682).*

**11. Micro view of the implementation versus macro view of impact:**

For pilot studies that test policy feasibility within health systems it is essential to learn what works and how it works in the particular context. Micro studies of implementation should be routinely commissioned for high-stake policy pilots that intervene in complex environments. This will generate on-going knowledge for the implementers to adjust their implementation arrangements and refine the designs to ensure context relevance and appropriateness. This has implications for agencies that commission policy pilots to fix up-stream health system functions like Health Financing. A broader decision space would be required for implementers of up-stream pilot studies to enable them to adapt and evolve their activities as they learn from implementation research embedded within these pilots. Fidelity to an implementation protocol should not be a pre-condition for system level innovations and interventions as this may “lock in” pervasive and unintended outcomes.

**12. Innovations targeting health system should have greater flexibility for adjusting:**

Rather than designing “one-size-fit-all” interventions that require adherence to a rigid, pre-set course of action, creating broader flexibility for implementers to make appropriate adjustments to fit their environment may engender less adverse results. Implementers of performance-based programmes like PBC and incentive-based innovations like The Global Fund, GAVI and similar programmes should be allowed to adjust or deviate from a set plan as results and lessons from their activities dictate. This may lead to more effective change. The recommendation of Leykum et al (2007) is also relevant to the findings in this work -

*"We suggest that thinking about the intervention as a participatory, adaptive process rather than a set blueprint will lead to more effective interventions" (page 13). Similar advice is provided by Pressman and Wildavsky: "the implementer's left hand must be probing constantly the feasibility boundaries while his right hand tries to assemble the various programme components" (Pressman and Wildavsky 1978 page 180). This calls for active operations research programmes alongside key interventions operating at the health systems level. Design of system level innovations should have broader flexibility to apply new lessons from the operations research programs as well as from experiences of those involved in the innovations.*

### **13. Case study design, mixed methods and theory-driven evaluation of complex interventions:**

In general the processes of implementing the PBC pilot activities were complex and required a tailor-made assembly of research methods. Multiple theoretical frameworks guided the development of tools, analysis and synthesis of findings as a means of building explanations for actions in this study. For example, some implementation activities of PBC did not fulfil all the predictions of organisational process theories (expectancy theory) or the agency-base theories (high powered incentives). Likewise, implementation activities for the pilot required a different theoretical framework to explain the logic and sequence of events in the pilot implementation (theory of dynamic response). The findings support a non-linear implementation process – i.e. pilot events may differ from the planed ones due to contingencies and constraints in the context. From this perspective, the designers and evaluators of innovations like PBC should build appropriate theory-driven methods to assess the structural and contextual factors that may constrain organisations and agents from responding to innovations. Case study design provided an adequate methodology platform upon which to incorporate the mixed methods to build explanations through triangulation of findings and resolving conflicts thereof.

### **14 Complexity, multi-level theory and flexible intervention:**

This work used a theory driven approach to assess PBC pilot that intervened in a complex set of variables that influence the service outputs (production) of hospitals. Hospitals too are complex organization units with multiple products, processes, work-teams and stakeholders. This work applied the principles of realistic evaluation by building explanations of a complex intervention by applying theoretical constructs at different levels in the health system to explore the mechanisms, contexts and outcomes of the PBC pilot. The PBC innovation sought to influence the prioritization of the set of activities (service targets) for the hospitals by using the different elements of PBC including a financial bonus, performance audit and feedback. The results in this work support the proposition that the design of complex interventions aimed at system-level improvements (like performance-based financing) would benefit from a multi-level theory building (up-stream and down-stream) to increase the likelihood of successful implementation by up-stream and down-stream agencies. For

example, the inter-dependencies of the hospitals to up-stream agencies that provide the resource-inputs like finances, medicines, health workers and guidelines - requires that an evaluation of a singular innovation (like PBC) is embedded in a realistic framework that encompass the dynamics in the context, the evolution in the mechanisms as well as the *intervention outcomes*.

**15 Health system innovations and the “Do no Harm” principle:**

There are findings in this study that show a potential for doing harm if interventions in the health system are not well designed or implemented. For example, the design that required PBC bonuses to be allocated to a selected set (intervention arm at randomisation) of hospitals generated more negative emotions among “control group” hospitals, a situation that had a potential for demotivating them to perform less well compared to the time before PBC was implemented. Within one study hospital, poor handling of the bonus funds generated similar dissatisfaction among staff – a situation that was not evident before the PBC bonuses were introduced. Participants in the control group were dissatisfied by the pilot – especially because of unfair bonuses allocation only to “intervention group” even though performance was better among the “control group”. Unintended effects of interventions at the scale of the health system have system-wide potential for harm and need to be closely monitored. Institutional mechanisms that govern ethical conduct of research and innovations (IRBs) should routinely request for a statement of “possible system-level side-effects” and institute mechanisms to monitor and to mitigate such effects in the event they arise. This will build more responsibility in the design and implementation of health system interventions and mitigate the negative impacts before they become too pervasive.



## References

- Adam, C. and J. W. Gunning (2002). "Redesigning the Aid Contract: Donors' Use of Performance Indicators in Uganda." World Development 30(12): 2045 - 2056.
- Akashi, H., T. Yamada, et al. (2004). "User fees at a public hospital in Cambodia: effects on hospital performance and provider attitudes." Soc Sci Med 58(3): 553-564.
- Akidi, H. H. (2005). Fipro Training Workshop Report UCMB Accredite the 4th group. UCMB Bulletin. 8: 19.
- Alchian, A. and H. Demsetz (1972). "Production, information costs, and economic organization." The American Economic Review 62: 777-795.
- Alexander, J. A. and S. D. Lee (2006). "Does Governance matter? Board configuration and performance in not-for-profit-hospitals." The Milbank Quarterly 84(4): 733 - 758.
- Alexander, J. A., Y. Ye, et al. (2006). "The effects of governing board configuration on profound organizational change in hospitals." J Health Soc Behav 47(3): 291-308.
- Alia, R. (2005a). Performance-based Study of contracting health services in Uganda (2003-2006). Monthly Report Vol 1-5/2005 Reporting Period February to August 2005. Kampala, MOH Uganda, World Bank,.
- Alia, R. (2005b). Performance based contracting study in Uganda: End of Project Report - Policy Component. Kampala, World Bank, CIDA & Ministry of Health
- Allen, P. (2002). "A socio-legal and economic analysis of contracting in the NHS internal market using a case study of contracting for district nursing." Social Science & Medicine 54: 255-266.
- Allen, P. (2009). "'Payment by Results" in the English NHS: the Continuing Challenges." Public Money and Management (May 2009): 161 - 166.
- Amone, J., S. Asio, et al. (2005). "User fees in private non-for-profit hospitals in Uganda: a survey and intervention for equity." Int J Equity Health 4(1): 6.
- AMREF (2004). Tracking Human resources and wage bill management in the health sector. Kampala, Study commissioned by Ministry of Health, Uganda.
- Anand, P. (1992). The Politics of Waiting Lists,. Oxford Health Care Management Institute, Templeton college. Oxford.
- Anderson, R., B. Crabtree, et al. (2005). "Case study research: the view from complexity science." qualitative Health Research 15(5): 669 - 685.
- Arrow, K. J. (1963). "Uncertainty and the welfare economics of medical care." American Economic Review 53(5): 941-973.
- Ashton, T. (1998). "Contracting for health services in New Zealand: a transaction costs analysis." Social Science and Medicine 46(3): 357-367.
- Bartlett, W. and J. Le Grand (1994). The performance of trusts. Evaluation of the NHS reforms. R. Robinson and L. G. Julian. Nr. Newbury, Kind's Funds Institution.
- Baysinger, B. D. and H. N. Butler (1985). "Corporate Governance and the Board of Directors: Performance Effects of Changes in Board Composition." J Law Econ Organ 1(1): 101-124.
- Beekes, A. (2003). At whose expense? a study of the developments in efficiency of catholic hospitals in uganda 1997/98 - 2001/02. Kabale, Uganda
- Bennett, S., L. M. Franco, et al. (2001). The development of tools to measure the determinants and consequences of health worker motivation in developing countries. Bethesda Maryland, Partnership for Health Reform: Major applied research 5, Technical paper 2.
- Bokhour, B. G., J. F. Burgess, Jr., et al. (2006). "Incentive Implementation in Physician Practices: A Qualitative Study of Practice Executive Perspectives on Pay for Performance." Med Care Res Rev 63(1\_suppl): 73S-95.

- Bryman, A., Ed. (1989). Research Methods and Organization Studies. London, Routledge.
- Bryman, A. and D. Cramer (2002). Quantitative data analysis with SPSS Release 10 for Windows: a Guide for Social Scientists. East Sussex, Routledge.
- Burgess, R. (1984). In the Field: An Introduction to Field Research.
- Business Synergies (2002). Drug Tracking study - final report. Kampala Study commissioned by Ministry of Health, Uganda.
- Castle, N. (2006). "An instrument to measure job satisfaction of nursing home administrators." BMC Medical Research Methodology 6(1): 47.
- Castro-Leal, F., J. Dayton, et al. (2000). "Public spending on health care in Africa: do the poor benefit." Bull World Health Organization 78(1): 66-74.
- Chan, C., K. McBey, et al. (2004). "Nursing Crisis: Retention Strategies for Hospital Administrators  
" Research and Practice in Human Resource Management 12(2): 31-56.
- Chapin, J. and B. Fetter (2002). "Performance-Based Contracting in Wisconsin Public Health: Transforming State-Local Relations." The Milbank Quarterly 80(1): 97-124.
- Christianson, J. B. (2007). "Evaluating Pay-For-Performance In Medicaid Through Real-World Observation." Health Aff 26(4): w528-531.
- Chu, P. C. and E. Spires (2003). "Perceptions of accuracy and effort of decision strategies " Organizational Behavior and Human Decision Processes 91(2): 203 - 214.
- Clewer, A. and D. Perkins (1998). Economics of Health Care Management. London, Prentice Hall.
- CMH (2001). Macroeconomics and Health: Investing in Health for Economic Development. Report of the Commission on Macroeconomics and Health (CMH). CMH. Geneva, World Health Organization
- Coles, J. W., V. B. McWilliams, et al. (2001). "An examination of the relationship of governance mechanisms to performance." Journal of Management 27(1): 23-50.
- Crilly, T. and J. Le Grand (2004). "The motivation and behaviour of hospital Trusts." Social Science & Medicine 58(10): 1809-1823.
- CUAMM (2002). Naggalama hospital experience: Cutting fees and increasing revenues. Hospital Managers Meeting January 2002, International Conference Center.
- Cyert, R. M. and J. G. March (1963). Behavioral Theory of the Firm. Englewood Cliffs, NJ, Prentice Hall International.
- Dawson, D., M. Goddard, et al. (2001). "Improving performance in public hospitals: a role for comparative costs?" Health Policy 57(3): 235-248.
- Dawson, D., H. Gravelle, et al. (2005). Developing new approaches to measuring NHS outputs and activity. CHE Paper 6. York Center for Health Economics.
- Dawson, S. and C. Dargie (2002). New Public Management: A Discussion with Special Reference to UK Health. New Public Management: Current Trends and Future Prospects. K. McLanughlin, P. Osborne and E. Ferlie. New York, Routledge. Ed: 35-55.
- Dawson, S. and C. Dargie (Ed.). New Public Management: A Discussion with Special Reference to UK Health. New Public Management: Current Trends and Future Prospects. K. McLanughlin, P. Osborne and E. Ferlie. New York, Routledge: 35-55.
- DCPP (2006). Priorities in Health Disease Control Priorities in Developing Countries D. T. Jamison, D. Evans, J. G. Breman and A. Mills. Washington DC, The World Bank
- World Health Organization,  
Population Reference Bureau  
Bill Merinda Gates Foundation
- DISH. (2002). "From Start to STAR: encouraging first results of the Yellow Star Program." Yellow Star Project Retrieved 15 Nov, 2006, from <http://www.ugandadish.org/FromStarttoSTAR.doc>

- DISH. (2002). Good Quality Health Care. Health Matters, DISH Project, Uganda Ministry of Health and USAID. 5: 1-4.
- Ditzel, E., P. Strach, et al. (2006). "An inquiry into good hospital governance: A New Zealand-Czech comparison." Health Research Policy and Systems 4(1): 2.
- Dixit, A. K. (1996). The making of economic policy: A transaction - cost politics perspective. Cambridge, Massachusetts USA MIT Press.
- DKA Austria (1999). Maracha Hospital Arua Diocese: Situation analysis. D. Austria. Vienna DKA & Austrian Development Cooperation.
- Dobie, T., K. McFarland, et al. (1986). "Raw Score and Factor Score Multiple Regression: An Evaluative Comparison." Educational and Psychological Measurement 46(2): 337-347.
- Dobrow, M. J., V. Goel, et al. (2006). "The impact of context on evidence utilization: A framework for expert groups developing health policy recommendations." Social Science & Medicine 63(7): 1811-1824.
- Douma, S. and H. Schreuder (2002). Economic Approaches to Organizations. Essex, Pearson Education Ltd.
- Eeckloo, K., G. Van Herck, et al. (2004). "From Corporate Governance To Hospital Governance.: Authority, transparency and accountability of Belgian non-profit hospitals' board and management." Health Policy 68(1): 1-15.
- Eichler, R., P. Auxila, et al. (2001). Output-based health care: paying for performance in Haiti. Washington DC, World Bank Publication.
- Eichler, R., R. Levine, et al., Eds. (2009). Performance Incentives for Global Health: Potential and Pitfalls. Washington DC, Center for Global Development.
- Ekochu, E. (2005). The Yellow Star Program: Stakeholders in Quality Improvement. Health Systems: Putting pieces together, Washington DC, Global Health Council.
- Eldenburg, L., B. E. Hermalin, et al. (2001). Hospital governance, Performance objectives and organizational form. National bureau of Economic Research. Cambridge Massachusetts.
- Eldridge, C. and N. Palmer (2009). "Performance-based payment: some reflections on the discourse, evidence and unanswered questions." Health Policy and Planning (Advance access Feb 7th 2009).
- Ellis, R. P. and T. G. McGuire (1986). "Provider behaviour under prospective reimbursement: cost sharing and supply." Journal of Health Economics 5: 129-159.
- Ellstrand, A. E., L. Tihanyi, et al. (2002). "Board structure and international political risk." Academy of Management Journal 45(4): 769-777.
- Ensor, T. and P. B. San (1996). "Access and payment for health care: the poor of Northern Vietnam." Int J Health Plann Manage 11(1): 69-83.
- Epping-Jordan, J. E., S. D. Pruitt, et al. (2005). "Improving the quality of health care for chronic conditions." Qual Saf Health Care 13: 299-305
- Etzioni, A. (1964). Modern organizations. Englewood Cliffs, N.J., Prentice-Hall.
- FCS (2005). Best practices and trends in performance based contracting Washington, Solution Oriented Consulting, Office of Financial Management.
- Fehr, E. and S. Gächter (2002). Do incentive contracts undermine voluntary cooperation? Zurich, Institute for empirical research in economics, University of Zurich: working paper 34.
- Filmer, D. (2001). Fever and its treatment among the more and less poor in Sub-Saharan Africa. Development Research Group. Washington D.C.
- Flynn, R. (1992). Medical autonomy and managerial encroachment. Structures of Control in Health Management. R. Flynn. London, Routledge: 23-53.

- Foss, C. and B. Ellefsen (2002). "The value of combining qualitative and quantitative approaches in nursing research by means of method triangulation." J Adv Nurs 40(2): 242-248.
- Franco, L., Miller, S. Bennett, et al. (2002). "Health sector reform and public sector health worker motivation: a conceptual framework." Social Science & Medicine 54: 1255-1266.
- Franco, L. M., S. Bennett, et al. (2004). "Determinants and consequences of health worker motivation in hospitals in Jordan and Georgia." Social Science & Medicine 58: 343-355.
- Frant, H. (1996). "High-powered and low-powered incentives in the public sector." Journal of public administration Research and Theory 365(6): 368 - 381.
- Galvin, R. S. (2006). "Evaluating the Performance of Pay for Performance " Medical Care Research and Review 63(Suppl 1 Feb): 126S-130S.
- Gardner, W. L. and J. R. Schermerhorn (2004). "Unleashing Individual potential: Performance gains through positive organizational behavior and authentic leadership." organizational dynamics 33(3): 270 - 281.
- Gauri, V. (2001). Are Incentives Everything? Payment Mechanisms for Health Care Providers in Developing Countries. Policy Research Working Paper 2624. Washington, D.C., World Bank, Development Research Group.
- George, A. (2003). "accountability in health services: Transforming relationships and contexts." HCPDS Working Paper Series 13(1).
- George, A. and T. McKeown (1985). "Case Studies and Theories of Organizational Decision Making." Advances in Information Processing in Organizations 2: 21-58.
- GFATM. (2003). "Guidelines for Performance-based Funding." Retrieved 16th Nov, 2006, from [http://www.theglobalfund.org/pdf/7\\_pp\\_guidelines\\_performancebasedfunding\\_4\\_en.pdf](http://www.theglobalfund.org/pdf/7_pp_guidelines_performancebasedfunding_4_en.pdf)
- GFATM (2003). Guidelines for performance-based funding. Global fund to Fight AIDS, Tuberculosis and Malaria. Geneva.
- Gibson, J. J. (1979). The ecological approach to visual perception. Boston MA Houghton, Mifflin.
- Gibson, J. L., D. K. Martin, et al. (2005). "Priority setting in hospitals: Fairness, inclusiveness, and the problem of institutional power differences." social science and Medicine 61: 2355-2362.
- Giusti, D. (2003). Fundamentals of contract negotiations. Introductory Workshop: Study of performance-based contracting, Fairway Hotel Kampala, 17th & 18 July 2003.
- Giusti, D. (2008). Between a rock and a hard place: Commitment of Catholic Health Services to Primary Health Care. Mid-Term Review of Health Sector Strategic Plan 2008, Imperial Royale Hotel Kampala, March 2008, Uganda Catholic Medical Bureau
- Giusti, D. and P. Lochoro (2002). Public Private Partnership in Health: What is its effects on the performance of the health sector? Uganda Health Bulletin. Health Policy Analysis Unit. Kampala Uganda Ministry of Health. 2002.
- Giusti, D., P. Lochoro, et al. (2004). "Pro-Poor Health Services: the Catholic Health Network in Uganda." Development Outreach. Retrieved 27 Nov. 2006, 2004, from <http://www1.worldbank.org/devoutreach/march04/article.asp?id=237>.
- Goddard, M., R. Mannion, et al. (2000). "Enhancing performance in health care: the theoretical perspective on agency and the role of information." Health Economics(9): 95-107.
- Good, C. M. (1991). "Pioneer medical missions in colonial Africa." Social Science & Medicine 32(1): 1-10.
- Govt of Uganda (2005). Health Management Information Manual Kampala, Ministry of Health

- Graneheim, U. H. and B. Lundman (2004). "Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness." Nurse Education Today 24, : 105-112.
- Green, A. (1987). "The Role of Non-governmental Organizations and Private Sector in the Provision of Health Care Services in Developing Countries." International journal of Health Planning and Management 2: 37-58.
- Green, A. and S. Bennett, Eds. (2007). Sound Choices: enhancing capacity for evidence-informed health policy Geneva, World Health Organization
- Green, A. J. S. F. D. C. C. (2002). "A shared mission? Changing relationships between government and church health services in Africa." The International Journal of Health Planning and Management 17(4): 333-353.
- Grol, R. P. T. M., M. C. Bosch, et al. (2007). "Planning and Studying Improvement in Patient Care: The Use of Theoretical Perspectives " The Milbank Quarterly 85(1): 93-138.
- Grossbart, S. R. (2006). "What's the Return? Assessing the Effect of "Pay-for-Performance" Initiatives on the Quality of Care Delivery." Med Care Res Rev 63(1\_suppl): 29S-48.
- Guest, D. E. (1998). "Is the psychological contract worth taking seriously?" Journal of Organizational Behavior 19(S1): 649-664.
- Guest, D. E. (1999). "Human resource management - the workers' verdict." Human Resource Management Journal 9(3): 5-25.
- Guisti, D. (2006). PNFP Health sub-Sector Memorandum: Areas of Concern, Resolutions, Recommendation and Appeal. Technical Review Meeting 27 April 2006, Grand Imperial Hotel Kampala, Ministry of Health
- Guisti, D. (2007). "Human Resources for Health in the Non-profit Health Sector in Uganda: Grappling with Inextricable complexities." Bulletin of Medicus Mundi 104(May 2007).
- Gwatkin, D. R. (2003). Free Government health services: are they the best way to reach the poor? Poverty-net World Bank. Washington DC.
- Hamel, J., S. Dufour, et al. (1993). Case study methods. London, SAGE Publications.
- Handel, M. (2003). Introduction. The Sociology of Organizations: Classic, Contemporary and Critical Readings
- M. Handel. London, SAGE Publications.
- Handy, C. (1993). Understanding Organization. London, Penguin Books.
- Hanson, K., L. Atuyambe, et al. (2002). "Towards improving hospital performance in Uganda and Zambia: Reflections and Opportunities for Autonomy." Health Policy 61: 73-94.
- Hanson, K., L. Atuyambe, et al. (2002). "Towards improving hospital performance in Uganda and Zambia: reflections and opportunities for autonomy." Health Policy 61(1): 73-94.
- Harding, A. and A. Preker (2003). A conceptual framework for the Organizational reforms of Hospitals. Innovations in Health service delivery: the corporatization of public hospitals. A. Harding and A. Preker. Washington, D.C., The World Bank.
- Hargreaves, S. (2003). "Three trusts deliberately misrepresented data, says Audit Commission." BMJ 326(8): 517.
- Harris, J. E. (1977). "Internal organization of the hospitals: some economic implications." Bell Journal of Economics 8: 467-482.
- Hauck, K. and A. Street (2006). "Performance assessment in the context of multiple objectives: A multivariate multilevel analysis." Journal of Health Economics 25(6): 1029-1048.
- Hawe, P., A. Shiell, et al. (2004). "Methods for exploring implementation variation and local context within a cluster randomised community intervention trial. ." Journal of Epidemiology and Community Health 58: 788-793.
- Hays, R. D., J. B. Brown, et al. (2006). "Classical Test Theory and Item Response Theory Analyses of Multi-item Scales Assessing Parents' Perception of thier Children's Dental Care." Medical Care 44(3 suppl): 60 - 68.

- Hecht, R., A. Baston, et al. (2004). "Making Health care accountable: Why performance-based funding of health services in developing countries is getting more attention." Finance and Development March: 16-19.
- Hennessy, D., C. Hicks, et al. (2006). "A methodology for assessing the professional development needs of nurses and midwives in Indonesia: paper 1 of 3." Human Resources for Health 4(1): 8.
- Henson, R. K. and J. K. Roberts (2006). "Use of Exploratory Factor Analysis in Published Research: Common Errors and Some Comment on Improved Practice." Educational and Psychological Measurement 66(3): 393-416.
- Herzberg, F., B. Mausner, et al. (1959). The motivation to work New York, John Wiley & Sons.
- Hicks, C., D. Hennessy, et al. (1996). "The development of a psychometrically valid training needs analysis instrument for use with primary health care teams." Health Services Management Research 9: 262 - 272.
- Highhouse, S. (2007). "Designing Experiments That Generalise." Organizational Research Methods 12(3): 554 - 566.
- Hillman, A. J. and T. Dalziel (2003). "Boards of directors and firm performance: Integrating agency and resource dependence perspectives." Academy of Management Review 28(3): 383-396.
- Hodak, M. (2005). "Letting go of norms: how executive compensation can do better than "best practice"." Journal of Applied Corporate Finance 17(4): 115-124.
- Homans, G. C. (1941). The Hawthorne Experiments. California, Sage Publications Inc.
- Homstrom, B. and P. Milgrom (1991). "Multitask principal agent analyses: incentives contract, asset ownership and job design." The Journal of Law Economics and Organization 7: 24-52.
- Horizons International Ltd (2001). Tracking study for primary health care (PHC) conditional grants 1999/2000 and 2000/2001. Kampala, Study commissioned by Ministry of Health, Uganda.
- Horwitz, F. M., C. T. Heng, et al. (2003). "Finders, keepers? Attracting, motivating and retaining knowledge workers." Human Resource Management Journal 13(4): 23-44.
- HPD. (2003-5). "The Health Policy and Development Journal." Retrieved 23 Nov 2006, from <http://www.fiuc.org/umu/faculties/hsm/healthpolicy/index.html>.
- ICEBeRG (2006). "Designing theoretically-informed implementation interventions." Implementation Science 1(4): The Improved Clinical Effectiveness through Behavioural Research Group (ICEBeRG).
- IOM (2006). Performance Measurement: Accelerating Improvement. Pathways to Quality Health Care Series. Washington DC, Board on Health Care Services and Institute of Medicine, : National Academic Press.
- IOM (2006-a). Rewarding provider performance: Aligning incentives in Medicare. Pathways to Quality Health Care Series. Washington DC, Board on Health Care Services and Institute of Medicine, : National Academic Press.
- Jacobs, B. and N. Price (2003). "Community participation in externally funded health projects: lessons from Cambodia." Health Policy and Planning 18(4): 399-410.
- Jacobs, B. and N. Price (2004). "The impact of the introduction of user fees at a district hospital in Cambodia." Health Policy Plan 19(5): 310-321.
- Jacobs, B. and N. Price (2006). "Improving access for the poorest to public sector health services: insights from Kirivong Operational Health District in Cambodia." Health Policy Plan 21(1): 27-39.
- Jacobs, R. and D. Dawson (2003). "Hospital efficiency targets." Health Economics 12(8): 669-684.
- Jacoby, S. M. (1997). Modern manors: Welfare capitalism since the new deal. Princeton, , Princeton University Press.

- Johnson, J. L., C. M. Daily, et al. (1996). "Boards of directors: A review and research agenda." Journal of Management 22(3): 409-438.
- Judge, K. and L. Bauld (2001). "Strong theory, flexible methods: evaluating complex community-based initiatives. ." Critical Public Health, 11(1): 19-38.
- KCH (2005). Hospital Charter: Kyamuhunga Comboni Hospital: . Bushenyi Uganda, Roman Catholic Diocese of Mbarara.
- Kelly, M., D. McDaid, et al. (2005). Economic Appraisal of Public Health Interventions. Briefing Paper. H. D. Agency. London, Health Development Agency, National Health Service UK.
- Kingma, M. (2003). "Economic incentive in community nursing: attraction, rejection or indifference?" Human Resources for Health 1(1): 2.
- Klein, B., Ed. (1993). Vertical intergration as organizational ownership: the Fisher Body - General Motors relationship Revisited. The Nature of the Firm: Origins, Evolution, and Development. New York, Oxford University Press.
- Komakech, I. (2005). "The curse of the league tables: how uganda missed the point." Health Policy and Development 3(2): 164 - 169.
- Kunda, G., Ed. (1999). Engineering Culture: Control and Commitment in a High-Tech Corporation. The Sociology of Organizations: Classic, Contemporary and Critical Readings London, SAGE Publication.
- La Forgia, G., P. Mintz, et al. (2005). Is the perfect the enemy of the good? A case study on large-scale contracting for basic health services in rural Guatemala. Washington D.C., The World Bank.
- Landrum, L. B. and S. L. Baker (2004). "Managing complex systems: Performance Management in Public Health " J Public Health Management Practice 10(1): 13-18.
- Latham, G. P., J. Almost, et al. (2005). "New developments in performance management." Organizational Dynamics 34(1): 77-87.
- Lawler, E. E. (1971). Pay and organizational effectiveness: a psychological view. New York, McGraw-Hill.
- Lawler, E. E. (1989). "Pay for performance: Making it work." Compensation Benefits Review 21( 55 - 60).
- Le Grand, J. (1998). Learning from the NHS Internal Market: a reveiw of the evidence. London, King's Fund Institute.
- Le Grand, J. (2003). Motivation, Agency and Public Policy: Of Knights & Knaves, Pawns & Queens, Oxford University Press.
- Lee, M. L. (1971). "A conspicuous production theory of hospital behaviour." social Economic Journal 38: 48-58.
- Leykum, L. K., J. Pugh, et al. (2007). "Organizational interventions employing principles of complexity science have improved outcomes for patients with Type II diabetes." Implementation Science 2(28 ): 2-28.
- Lim, S. S., D. B. Stein, et al. (2008). "Tracking progress towards universal childhood immunisation and the impact of global initiatives: a systematic analysis of three-dose diphtheria, tetanus, and pertussis immunisation coverage." The Lancet 372: 2031-2046.
- Litaker, D., A. Tomolo, et al. (2006). "Using Complexity Theory to Build Interventions that Improve Health Care Delivery in Primary Care." J GEN INTERN MED 21(S30-34).
- Lochoro, P. (2004). "Measuring patient satisfaction in UCMB health institutions " Health Policy and Development 2(3): 243 - 248.
- Lochoro, P., J. Batalingaya, et al. (2006). Public-Private Partnership in Health: Workin together to improve health sector performance in Uganda. Health systems reforms in Uganda: processes and outputs. T. C. Kirunga, F. Ssengooba and V. Oliveira-Cruz. Health Systems Development Program, London School of Hygiene and Tropical Medicine, UK.

- Loevinsohn, B. and A. Harding (2005). "Buying results? Contracting for health service delivery in developing countries." The Lancet 366(9486): 676-681.
- Low-Beer, D., H. Afkhami, et al. (2007). "Making Performance-Based Funding Work for Health." PLoS Medicine 4(8): 1308 - 1311.
- Lu, M. and C. T. Ma (2002). "Consistency in performance evaluation reports and medical records." J Ment Health Policy Econ 5(4): 141-152.
- Lu, M. and C. T. Ma (2006). "Financial incentives and gaming in alcohol treatment." Inquiry 43(1): 34-53.
- Lynch, P. D., R. Eisenberger, et al. (1999). "Perceived Organizational Support: Inferior Versus Superior Performance by Wary Employees." Journal of Applied Psychology 84(4): 467 - 483.
- Lynch, P. D., R. Eisenberger, et al. (1999). "Perceived organizational Support: inferior Versus Superior Performance by Wary Employees." Journal of Applied Psychology 84(4): 467-483.
- Lyroutdi, K., N. Glaveli, et al. (2006). "The productive performance of public hospitals in Greece: a case study." Health Services Management Research 19: 67-72.
- Macneil, I. R. (1974). "The many futures of contracts." Southern California law review 47: 691-816.
- Mandelli, A. and D. Giusti (2005). "Using HMIS For Monitoring and Planning: The Experience of Uganda Catholic Medical Bureau." health Policy and Development 3(1).
- Marini, G. and A. Street (2007). "A transactions costs analysis of the changing contractual relations in the English NHS." Health Policy 83: 17 - 26.
- Marsden, D. and S. French (1998). What a performance: Performance related pay in the publis services. London, Center for Economic Performance, London School of Economics and Political Science (LSE).
- Marsden, D. and R. Richardson (1994). "Performing for pay? the effects of 'merit pay' on motivation in a public service." British journal of Industrial Relations 32(2): 243-261.
- Marshall, M. N., P. G. Shekelle, et al. (2003). "Public Reporting On Quality In The United States And The United Kingdom." Health Aff 22(3): 134-148.
- May, C., R. (2006). "A Rational Model for Assessing and Evaluating Complex Interventions In Health care." BMC Health Serv Res 6(86).
- May, T. Y.-M., M. Korczynski, et al. (2002). "Organizational and occupational commitment: knowledge workers in large corporations." Journal of Management Studies 39(6): 775-801.
- McGuire, A. (1985). "The Theory of the hospital: a review of the models." Social Science & Medicine 20(11): 1177-1184.
- McKee, M. and J. Healy (2000). "The role of the hospital in a changing environment." Bulletine of the World Health Organization 78(6): 803-810.
- McMaster, R. and J. Sawkins (1996). "The Contract State, Trust Distortion, and Efficiency." Review of Social Economy LIV(2): 145-167.
- McNamara, P. (2006). "Provider-specific report cards: a tool for health sector accountability in developing countries." Health Policy Plan. 21(2): 101-109.
- McPake, B. (1996). "Public Autonomous Hospitals in sub-Saharan Africa: Trends and Issues." Health Policy 35: 155-177.
- McPake, B. (1997). The role of public sector in health service provision. Private health providers in developing countries: Serving the public interest? S. Bennett, B. McPake and A. Mills. London, Zed Books: 21-39.
- McPake, B., D. Blaauw, et al. (2006). Recognising patterns: health systems research beyond controlled trials. . HSD Working Paper HSD/WP/10/06. London, Health Systems Development Programme, London School of Hygiene and Tropical Medicine



- McPake, B., L. Kumaranayake, et al. (2002). Health Economics: International Perspective, Routledge.
- McPake, B. and E. E. Ngalande (1994). "Contracting out of health services in developing countries " Health Policy and Planning 9(1): 25-30.
- McPake, B. I. (1996). "Public autonomous hospitals in sub-Saharan Africa: trends and issues." Health Policy 35(2): 155-177.
- Meessen, B., J.-P. I. Kashala, et al. (2007). "Output-based payment to boost staff productivity in public health center: contracting in Kabutare district, Rwanda." Bulletin of the World Health Organization 85: 108-115.
- Meessen, B., L. Musango, et al. (2006). "Reviewing institutions of rural health centres: the Performance Initiative in Butare, Rwanda." Tropical Medicine & International Health 11(8): 1303-1317.
- Meessen, B., W. Van Damme, et al. (2006). "Poverty and user fees for public health care in low-income countries: lessons from Uganda and Cambodia." Lancet 368(9554): 2253-2257.
- Milgrom, P. and J. Roberts (1988). "Economic Theories of the firm: past, present and future." Canadian Journal of Economics 21(3): 444-458.
- Mills, A. (1997). Contractual relationships between government and commercial private sector in developping countriied. Private health providers in developing countries: Serving the public interest? S. Bennett, B. McPake and A. Mills. London, Zed Books Ltd.: 189-213.
- Mintzberg, H. (1981). "Organization Design: Fasion for Fit." Harverd Business Review Jan-Feb: 103-116.
- Mitchell, J. (1983). "Case study and situational analysis." socioical Review 31: 187 - 211.
- MOFP&ED (2001). "Poverty Eradication Action Plan (2001-2003) Volume 1." Ministry of Finance Planning and Economic Development, Kampala Uganda.
- MOFP&ED (2003). Infant and maternal mortality in Uganda: Causes, interventions and strategy for the way forward. Task Force on infant and maternal mortality. Kampala Ministry of Finance, Planning and Economic Development
- MOH-c (1999). "Minimum Health Care Package in "Health Sector Strategic Plan 2000/01 to 2004/05". " Ministry of Health Kampala Uganda.
- MoH-f (2003). "Health Sector Strategic Plan 2000/01 - 2004/05." Midterm Reveiw Report.
- MOH (1999a). "Minimum Health Care Package in "Health Sector Strategic Plan 2000/01 to 2004/05". " Ministry of Health Kampala Uganda.
- MOH (1999b). Memorandum of Understanding. Primary Health Care Planning Guidelines. M. o. H. Uganda. Kampala.
- MoH (2001d). "Health Financing Strategy for Uganda (Draft)." Ministry of Health Kampala Uganda.
- MOH (2003). Annual Health Sector Performance Report: financial year 2002/2003. Annual Health Sector Performance Reports M. o. H. Uganda. Kampala, Ministry of Health, Uganda Government
- MoH (2003a). Health Sector Strategic Plan 2000/01 - 2004/05 Midterm Reveiw Report. Kampala Uganda Ministry of Health, Republic of Uganda.
- MOH (2003b). Annual Health Sector Performance Report 2002-2003. Kampala, Ministry of Health, Uganda
- MOH (2004). Annual Health Sector Performance Report Financial year 2003/2004. Ministry of Health. Kampala Uganda Government.
- MOH (2005). Annual Health Sector Performance Report Financial year 2004/2005. Ministry of Health. Kampala Uganda Government.
- MOH (2006). Draft Hospital Policy Ministry of Health. Kampala Uganda Government
- MOH (2007). Annual Health Sector Performance Report: Financial Year 2006/2007. Kampala, Ministry of Health, Republic of Uganda.

- MOH (2008). Annual Health Sector Performance Report: Financial Year 2007/2008. Kampala, Ministry of Health, Republic of Uganda.
- MOH MTR (2003). Mid-term review report of the health sector strategic plan. Government of Uganda Kampala: , Ministry of Health,.
- Moody, R. C. (2004). "Nurse productivity measures for the 21st century." Health Care Manage Rev 29(2): 98-106.
- Moody, R. C. and D. J. Pesut (2006). "The motivation to care: application and extension of motivation theory to professional nursing work." J Health Organ Manag 20(1): 15-48.
- Mooney, G. and R. Mandy (1993). "Agency in health care: getting beyond first principles." Journal of Health Economics 12: 125-135.
- Mooney, G. and M. Ryan (1993). "Agency in health care: getting beyond first principles." Journal of Health Economics 12: 125-135.
- Morrissey, M., D. Conrad, et al. (1984). "Hospital Rate Review: A theory and an empirical review." Journal of Health Economics 3: 25-47.
- Moss, A. C., T. Dugal, et al. (2005). "Attitudes to peer review as a competence assurance structure--results of a survey of Irish physicians." Ir J Med Sci 174(3): 43-46.
- MSH, Ed. (2002). Creating a work climate that motivates staff and improves performance. The Manager Boston Massachusetts, Management Sciences for Health
- Mugisha, J. (2004). "Reduction of user fees in the private not for profit hospitals in Uganda: implications for equity and sustainability " Health Policy and Development 2(3): 209-216.
- Nakafeero, J. F. (2002). Strategic Analysis in the service sector: the potnetial to competitive advantage A study of NNY Hospital in Lugazi Diocese. Faculty of Business Administration and Management. Nkozi, Uganda Martyrs University. Masters of Business Administration: 94.
- Natasha Palmer, A. M. (2003). "Classical versus relational approaches to understanding controls on a contract with independent GPs in South Africa." Health Economics 12(12): 1005-1020.
- Nazerali, H., M. O. Oteba, et al. (2006). Medicines - driving demand for health services in Uganda? Health systems reforms in Uganda: processes and outputs. T. C. Kirunga, F. Ssengooba and V. Oliveira-Cruz. Health Systems Development Program, London School of Hygiene and Tropical Medicine, UK.
- Newhouse, J. P. (1970). "Towards a theory of nonprofit institutions: an economic Model of a Hospital." American Economic Reveiw 60: 64-74.
- Nolte, E., S. Wait, et al. (2006). Investing in Health: Benchmarking Health Systems. E. Nolte, S. Wait and M. McKee. London, The Nuffield Trust for Research and Policy Studies in Health Services.
- Nunnally, J. C. (1978). Psychometric theory New York, McGraw-Hill.
- O'Donnell, M. and J. Shields (2002). "Performance Management and the Psychological Contract in the Australian Federal Public Sector." Journal of Industrial Relations 44(3): 435-457.
- Odaga, J. and E. Maniple (2003). Faithfulness to the Mission, Effect of Reducing User Fees on Access to PNFP Health Services. Kampala Uganda Catholic Medical Bureau (UCMB).
- OECD (1999). Performance contracting: lessons from performance contracting case studies, a framwork for public sector performance contracting. Organization for Economic Co-operation and Development. Paris.
- OGAC (2005). President's Emergency Plan for Aids Relief (PEPFAR)- Fiscal Year 2005 Operational Plan. Washington DC, Office of the Global AIDS Coordinator (OGAC).
- Okuonzi, S. A. and H. Birungi (2000). "Are lessons from the education sector applicable to health care reforms? The case of Uganda." The International Journal of Health Planning and Management 15(3): 201-219.

- Oliveira-Cruz, V. (2007). Agency theory and the relationship between national governments and development partners – case study of Uganda. Public Health and Policy. London, London School of Health and Tropical Medicine **PhD**.
- Ouchi, W. G. (1979). "A conceptual framework for the design of organizational control mechanisms." Management Science **25**(6): 833 - 848.
- Ouchi, W. G. (1979). "Markets, Bureacracies and Clans." Administrative Science Quarterly(25): 129-141.
- Ouchi, W. G. (1980). "Markets, Bureacracies and Clans." Administrative Science Quarterly(25): 129-141.
- Oxman, A. and A. Fretheim (2008). An overview of research on the effects of results-based financing: A systematic review. Report Number 16-2008. Oslo Norway Norwegian Knowledge Centre for the Health Services
- Paleologou, V., N. Kontodimopoulos, et al. (2006). "Developing and testing an instrument for identifying performance incentives in the Greek health care sector." BMC Health Services Research **6**(118).
- Palmer, N. (2000). "The Use of Private Sector Contracts for Primary Health Care: Theory, Evidence and Lessons for Low Income and Middle Income Countries. ." Bulletin of the World Health Organization **78** (6): 821-829.
- Palmer, N. and A. Mills (2005). "Contracts in the real world: Case studies from Southern Africa." Social Science & Medicine **60**(11): 2505-2514.
- Palmer, N., L. Strong, et al. (2006). "Contracting out health services in fragile states." British Medical Journal **332**: 712 - 721.
- Parkin, M., M. Powell, et al. (2000). part 3: Organizing production. London, Addison - Wesley.
- Patton, M. Q. (1999). "Enhancing the quality and credibility of qualitative analysis." Health Serv Res **34**(5 Pt 2): 1189-1208.
- Patton, M. Q. (2002). Qualitative Research and Evaluation Methods London, Sage Publication Inc.
- Pauly, M. and M. Redisch (1973). "The Not for Profit Hospital as a Physicians' Cooperative." American Economic Reveiw **63**(1): 87-99.
- Pawson, R. and N. Tilley (2004). A history of Evalation in 28 ½ pages Realistic Evaluation R. Pawson and N. Tilley. London, SAGE Publication Ltd.
- Pawson, R. and N. Tilley (2004). How to construct realistic data Realistic Evaluation. R. Pawson and N. Tilley. London, SAGE Publication Ltd.
- Pawson, R. and N. Tilley, Eds. (2004). Realistic Evaluation London, SAGE Publication Ltd.
- PBC-MPR (2005b). Performance based contracting study in Uganda: End of Project Report - Policy Component. Performance-based Contracting - Monthly Progress Report (PBC-MPR) End of project report. Kampala, World Bank, CIDA & Ministry of Health
- Penelope, J. P. and P. Murray (2002). Output-based Aid: Precedents, Promises and Challenges. Washington DC, World Bank Publication.
- Peter Waalwo Kajula, F. K. J. B. S. N. (2004). "Political analysis of rapid change in Uganda's health financing policy and consequences on service delivery for malaria control." The International Journal of Health Planning and Management **19**(S1): S133-S153.
- Petersen, L. A., L. D. Woodard, et al. (2006). "Does Pay-for-Performance Improve the Quality of Health Care?" Ann Intern Med **145**(4): 265-272.
- Plsek, P. E. and T. Wilson (2001). "Complexity, leadership, and management in healthcare organisations." BMJ **323**: 746-749.
- Podsakoff, P. M., M. Ahearne, et al. (1997). "Organizational citizenship behavior and quantity and quality of work group performance." Journal of Applied Psychology **82**(2): 262-270.

- Preker, A. and A. Harding (2000). The Economics of Public and Private Roles in Health Care: Insights from Institutional Economics and Organizational Theory. HNP Discussion Paper, The World Bank.
- Pressman, J. and A. Wildavsky, Eds. (1978). Implementation: How great expectations in Washington are dashed in Oakland. Second Edition, Barkeley, Los Angeles, London, University of California Press.
- Reinikka, R. and J. Svensson (2003). Working for God? Evaluating Service Delivery of Religious Not-for-Profit Health Care Providers in Uganda. World Bank Working Papers 3058. Washington.
- Rhoades, D. L., P. L. Rechner, et al. (2001). "A meta-analysis of board leadership structure and financial performance: are "two heads better than one"?" Corporate Governance-an International Review 9(4): 311-319.
- Rifat, A., K. Ohiri, et al. (2008). Integration of Health Systems and Priority Health, Nutrition and Population Interventions: A Framework for Analysis and Policy Choices. Washington DC, World Bank
- Ritva, R. and J. Svensson (2002). Working for God? Evaluating Service Delivery of (Religious) Not-for-Profit Health Facilities in Uganda Development Research Group. Washington, D.C., World Bank
- Roen, K., L. Arai, et al. (2006). "Extending systematic reviews to include evidence on implementation: methodological work on a review of community-based initiatives to prevent injuries. .  
." Social Science and Medicine 63(4): 1060-1071. .
- Rosenthal, M. B., R. G. Frank, et al. (2005). "Early Experience With Pay-for-Performance: From Concept to Practice  
10.1001/jama.294.14.1788." JAMA 294(14): 1788-1793.
- Rousseau, D. M. (2001). "Schema, promise and mutuality: The building blocks of the psychological contract." Journal of Occupational and Organizational Psychology 74: 511-541.
- Rummel, R. J. (1970). Applied Factor Analysis, North-western University Press, Evanston, IL.
- Rusa, L., M. Schneidman, et al. (2009). Rwanda: Performance-based Financing in the Public Sector. Performance Incentives for Global Health: Potential and Pitfalls. R. Eichler, R. Levine and Performance-based Incentive Working Group. Washington DC, Center for Global Development.
- Saltman, R., B. (2002). "Regulating incentives: the past and present role of the state in health care systems." Social Science & Medicine 54: 1677-1684.
- Sanchez, E. (2004). "Performance-Based Service Contracting: A Challenge." Contract Management 56-57.
- Santini, S. (2002). Naggalama hospital experience: Cuting fees and increasing revenues. Hospital Managers Meeting January 2002, International Conference Center.
- Sappington, D. (1991). "Incentives in Principal-agent Relationships." Journal of economic perspectives 5(2): 45-66.
- Schneider, E. C., V. Riehl, et al. (1999). "Enhancing Performance Measurement: NCQA's Road Map for a Health Information Framework." JAMA 282(12): 1184-1190.
- Scott, R. W. (2001). Institutions and Organizations. London, Sage Publication.
- Scott, T., R. Mannion, et al. (2003). "Implementing culture change in health care: theory and practice." Int J Qual Health Care 15(2): 111-118.
- Scott, W. R. (1998). Organizations: rational, natural and open systems. New Jersey Upper Saddle River, Prentice Hall.
- Seale, C. (2000). The Quality of Qualitative Research. London, SAGE publications.

- Sexton, J., R. Helmreich, et al. (2006). "The Safety Attitudes Questionnaire: psychometric properties, benchmarking data, and emerging research." BMC Health Services Research 6(1): 44.
- Shaw, P. R. (1999). *New Trends in Public Sector Management in Health: Applications in Developed and Developing Countries*. World Bank Institute. Washington DC.
- Sheila, M. B., D. Cox Sir, et al. (2005). "Performance indicators: good, bad, and ugly." Journal of the Royal Statistical Society: Series A (Statistics in Society) 168: 1-27.
- Shen, Y. (2003). "Selection Incentives in a Performance-Based Contracting System." Health Services Research 38(2): 535-552.
- Sinclair-Desgagne, B. (2001). *Incentives in common agency*. Scientific Series, CIRANO, 2001s-66, ISSN 1198-8177. Montreal.
- Smith, P. (1995). "On the unintended consequences of publishing performance data in the public sector" Int J Publ Admin 18: 277-310.
- Smith, P. and A. Street (2006). *Concepts and challenges in measuring the performance of health care organizations*. The Elger companion to health economics A. M. Jones. Cheltenham, UK, Edward Elger Publishing Ltd.
- Smith, P. C. (2002). "Performance management in the British health care: Will it deliver." Health Affairs 21(3): 103-115.
- Smith, P. C., A. Stephan, et al. (1997). "Principal-agent Problems in Health Care Systems: An International Perspective." Health policy 41: 37-60.
- Soeters, R. and F. Griffiths (2003). "Improving government health services through contract management: a case from Cambodia." Health Policy Plan 18(1): 74-83.
- Soeters, R., C. Habineza, et al. (2006). "Performance-based financing and changing the district health system: experience from Rwanda." Bulletin of the World Health Organization 84(11): 843-889.
- Ssengooba, F. (2004). "Uganda's Minimum Health Care Package: Rationing Within The Minimum? Health Policy and Development." 2 1(14-23).
- Ssengooba, F., L. Atuyambe, et al. (2002). "What could be achieved with greater public Hospital Autonomy: Comparison of Public and PNFP Hospitals in Uganda." Public Admin. & Dev. 22: 414-428.
- Ssengooba, F., A. S. Rahman, et al. (2007). "Health sector reforms and human resources for health in Uganda and Bangladesh: mechanisms of effect." Human Resources for Health 5 (3 ): 1478-4491.
- Ssenono, V., P. Petit, et al. (2005). *Uganda 2002 population and housing census: special analysis on health workers Kampala Developing Human Resources for Health Project*, Ministry of Health, Uganda
- Stanfill-Edens, P. (2005). "Workplace Reengineering, Reorganization, and Redesign From Nursing Management: Principles and Practice." Medscape Critical Care 6(2): <http://www.medscape.com/viewarticle/511808>.
- Stark, A. (2002). "What is the New Public Management." Journal of public Administration Research and Theory 12(1): 137-151.
- Steinwald, A. B. and L. A. Dummit (1989). "Hospital case mix change: sicker patients or DRG reep?" Health Affairs 8(2): 35-47.
- Strong, N. and M. Waterson, Eds. (1987). Principals, Agents and Information. Economics of the firm. Oxford, Blackwell.
- Struyk, R. J. (2002). Managing think tanks: Practical guidance for maturing organizations. Washington DC, The Urban Institute,.
- Talisuna, A. (2001). "The Health Management Information System in Uganda: Is it tailored to the requirements for monitoring the Health Sector Strategic Plan?" MOH Draft Report.

- Taylor, R. (2003). performance goals and bonus payments: setting performance goals and calculating bonus payments. Introductory workshop: study of performance-based contracting in Uganda, Fairway Hotel, Kampala 17th - 18th July 2003.
- Taylor, R. J. (2003). Contracting for Health Services. Private Participation in Health Services. A. Harding and A. S. Preker. Washington DC, The World Bank: 157-218.
- Taylor, W. (2000). "Facts, myths and monsters: understanding the principles of good governance." The International Journal of Public Sector Management 13: 108-124.
- Teleki, S. S., C. L. Damberg, et al. (2006). "Will Financial Incentives Stimulate Quality Improvement? Reactions From Frontline Physicians." American Journal of Medical Quality 21(6): 367-374.
- Telesi, J. A. (2006). "Overview of Quantitative Measurement Methods: Equivalence, Invariance and Differential Item Functioning in Health Applications." Medical Care 44(11 suppl3): 39 - 49.
- The Global Fund (2005). Press Release: Joint Press Statement by the Global Fund and the Government of Uganda on developments relating to the Global Fund grants. The Global Fund Media Center. WHO Geneva. 31 August 2005.
- The Global Fund (2008). Review of the Suspension/Termination processes of the Global Fund Grants. Geneva The Office of the Inspector General, The Global Fund, .
- Thorpe, K. E. and C. E. Phelps (1990). "Regulatory intensity and hospital cost growth." Journal of Health Economics 9: 143-166.
- Titmuss, R. (1970). The gift relationship: from human blood to social policy. London, Allen and Unwin.
- UAC (2006). Addendum to the Proposed Long Term Institution Arrangements for the Global Fund Program on HIV/AIDS TB and Malaria in Uganda: Structural and Institutional Framework of the Uganda HIV/AIDS Partnership. National HIV Partnership Committee 2007. Kampala Uganda AIDS Commission.
- UBOS (2000). "Uganda Household Survey 1999/2000." Uganda Bureau of Statistics, Entebbe Uganda.
- UBOS (2001). "Uganda Demographic and Health Survey 2000-2001." Uganda Bureau of Statistics, Entebbe Uganda, ORC Macro Calverton, Maryland, USA.
- UBOS (2002). "Uganda census 2002, preliminary report." Uganda Bureau of Statistics, Entebbe Uganda.
- UBOS (2003). Uganda Household Survey 2002-03. Uganda Bureau of Statistics. . Entebbe, Uganda Ministry of Finance. Planning and Economic Development
- UCMB (1999). Mission Statement and Policy of the Catholic Health Services in Uganda. Kampala Uganda Catholic Medical Bureau: 3.
- UCMB (1999). Mission Statement and Policy of the Catholic Health Services in Uganda. Kampala Uganda, UCMB.
- UCMB (2003). Faithfulness to the mission: accelerated reduction of Userfees to increase access to the poor to out facilities Joint UCMB, UPMB and UMMB, Kampala Uganda
- UCMB (2005). UCMB Bulletin. Newsletter for the Uganda Catholic Medical Bureau. 8.
- UCMB (2005a). Open letter of the religious leaders to the Government of Uganda regarding private not-for-profit health services. The New Vision. Kampala. 6th May,.
- UCMB (2005b). St Luke Health Center Bombo-Namaliga Celebration of Yellow Star Award. UCMB Bulletin, Newsletter for the Uganda Catholic Medical Bureau. 8: 54-55.
- UCMB. (2006). "Theme: Holding fast for faithfulness to the mission: the time for bold and critical (painful) decisions for faithfulness to the mission." Retrieved 7th November 2006, from <http://www.ucmb.co.ug/data%20on%20ucmb/Reports/AGM/UCMB%20AGM%20Mach%202006%20Report.pdf>.

- UCMB (2006b). Effects of Global initiatives projects on the Roman Catholic Hospitals in Uganda - 2005-2006 Monitoring Report. UCMB Reports. Kampala, Uganda Catholic Medical Bureau.
- Uganda Government (2003). Uganda's Progress in attaining the PEAP Targets in the Context of the Millennium Development Goals. Background paper for the Consultative Meeting for Revision of PEAP. M. o. F. P. a. E. Development. Kampala
- Uganda Government (2005). Health Sector Strategic Plan II 2005/06 - 2009/2010. M. o. Health. Kampala
- Uganda Govt (2005). Joint Assistance Strategy for the Republic of Uganda (2005 - 2009). Kampala Ministry of Finance, Planning and Economic Development.
- Uganda, R. o. (2002). Draft Policy for Public Private partnership in Health. Ministry of Health. Kampala Uganda.
- UNDP (2003). Millennium Development Goals: A compact among nations to end human poverty Human Development Report 2003. UNDP. Geneva United Nations Development Programme.
- UPMB. (2005). "Uganda Protestant Medical Bureau Bulletin." UPMB Bulletin Retrieved 8 Nov 2005, from [www.upmb ug/downloads/newletter\\_issue1\\_Nov2005.pdf](http://www.upmb ug/downloads/newletter_issue1_Nov2005.pdf).
- USAID. (2006). "The President's Malaria Initiative (PMI)." USAID Fact Sheet, from <http://www.usaid.gov/press/factsheets/2006/fs060608.html>.
- van Montfort, G. P. W. P. (1981). "Production functions for general hospitals." Social Science & Medicine 15C: 87-98.
- Vandemoortele, J. (2008). "Making Sense of the MDGs." Development 51: 220 - 227.
- Veldhoven, M. (2005). "Financial performance and the long-term link with HR practices, work climate and job stress." Human Resource Management Journal 15(4): 30-53.
- Vining, A. R. (2003). "Internal market failure: A framework for diagnosing firm inefficiency." Journal of Management Studies 40(2): 431-457.
- Vroom Victor (1964). Work and motivation. New york, Wiley.
- Wagner, J. A., J. L. Stimpert, et al. (1998). "Board composition and organizational performance: Two studies of insider/outsider effects." Journal of Management Studies 35(5): 655-677.
- WDR (2004). Making services work for poor people. World Bank. Washington DC.
- Weaver, D. and J. Sorrells-Jones (1999). "Knowledge Workers and Knowledge-Intense Organizations, Part 2: Designing and Managing for Productivity. ." Journal of Nursing Administration 29(9): 19-25.
- Weiner, B. J. and J. A. Alexander (1993). "Corporate and philanthropic models of hospital governance: a taxonomic evaluation." Health Serv Res 28(3): 325-355.
- West, J. C., J. E. Wilk, et al. (2003). "Economic grand rounds: financial disincentives for the provision of psychotherapy." Psychiatr Serv 54(12): 1582-1583, 1588.
- Westphal, J. D. (1999). "Collaboration in the boardroom: Behavioral and performance consequences of CEO-board social ties." Academy of Management Journal 42(1): 7-24.
- WHO. (2000). "How do health systems perform?" The World Health Report 2000: Health Systems: Improving Performance Retrieved 26/10/2006, 2006, from [http://www.who.int/whr/2000/en/whr00\\_ch2\\_en.pdf](http://www.who.int/whr/2000/en/whr00_ch2_en.pdf) )
- WHO (2003). Measuring hospital performance to improve the quality of care in Europe: a need for clarifying the concepts and defining the main dimensions. Bacerona, Spain, WHO Regional Office for Europe  
10 - 11 January 2003.
- WHO and World Bank (2004). World health report on road traffic injury prevention. World Health Report Joint World Health Organization and World Bank. Geniva, WHO.
- Williamson, O. (1979). "Transaction cost economics: the governance of contractual relations." Journal of Law and Economics 22(2): 233-261.

- Williamson, O. E. (1985). The Economic Institutions of Capitalism. New York, The Free Press.
- Williamson, O. E. (1996). The Mechanisms of Governance. New York, Oxford University Press.
- Williamson, T. (2003). Targets and Results in Public Sector Management: Uganda Case Study. Working papers. ODI. London, Overseas Development Institute
- World Bank (1993). "World Development Report 1993: Investing in Health." The world Bank Washington DC.
- World Bank (2001). World Development Report 2000/2001: Attacking Poverty World Development Report. World Bank. Washington, World Bank
- World Bank (2003). The frameworks for service provision, . World Development Report 2004 : Making services work for poor people. World Bank. Washington DC. WDR 2004: 46-53.
- World Bank and MOH Uganda (2003). Performance-Based Contract Addendum to the standard Memorandum of Understanding Between the district and Health Service providers Fiscal Year 2003/2004. Kampala, *World Bank and MOH Uganda*
- World Bank, MOH Uganda, et al. (2004). Contracting for Health Service Delivery: draft Health Facility Questionnaire, Wave 1 2004.
- Xu, K., D. B. Evans, et al. (2006). "Understanding the impact of eliminating user fees: Utilization and catastrophic health expenditures in Uganda." Social Science & Medicine **62**(4): 866-876.
- Yates, R., T. C. Kirunga, et al. (2006). The Uganda health systems reforms: Miracle or mirage? Health systems reforms in Uganda: processes and outputs. T. C. Kirunga, F. Ssengooba and V. Oliveira-Cruz. Health Systems Development Program, London School of Hygiene and Tropical Medicine, UK.
- Yin, R. K., Ed. (1984). Case study research: Design and methods. Beverly Hills CA: Sage.
- Yin, R. K. (2003). Case study research design and methods (Third edition). London, SAGE publications.
- Young, G., R. I. Beekun, et al. (1992). "Governing board structure, business strategy, and performance of acute care hospitals: a contingency perspective." Health Serv Res **27**(4): 543-564.
- Zucker\*, L. G. (1986). "Production of trust, Institutional Sources of Economic Structure 1840-1920." Research in Organizational Behavior **8**: 53-111.

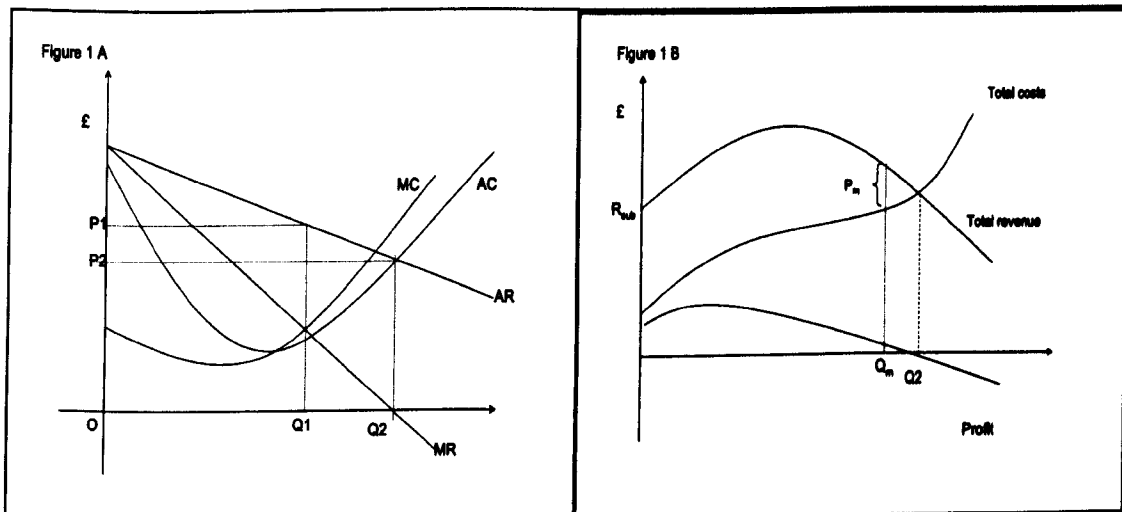


## Annex 1

### Production costs and revenue considerations in PBC response

Consideration of concepts of average and marginal revenue; and average and marginal costs, provides a framework to explain the hospital choice of strategy in responding to targets and their pay-offs. In this hypothetical model PNFP hospitals are assumed to be monopolies and can set output and price independent of other hospitals. This assumption is not unrealistic since hospitals usually have gazetted service area/population by way of health system planning but there is evidence that they face some competition on simpler services – a situation that may resemble oligopoly (McPake, et al. 2002, Zwanziger, et al 1994). The hospital as a production firm faces a downward sloping demand curve equal to the average revenue curve – AR (figure 1A). The hospital can fix its price and output to maximise its surplus (profit) or revenue.

**Figure Annex:10.1 A and B: Short-run costs and revenue relationships**



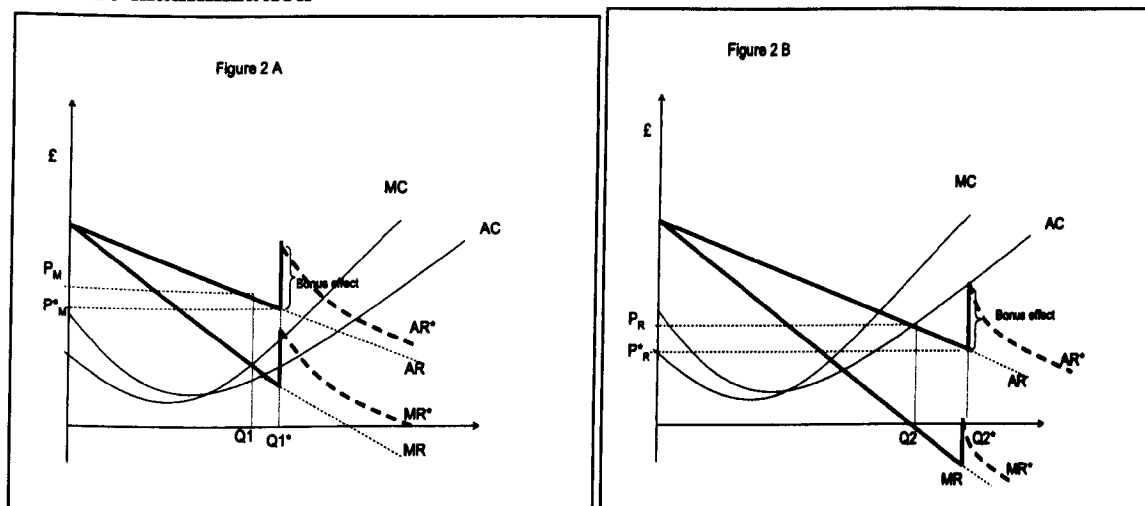
Source (Clewer and Perkins 1998)

If surplus maximization is assumed as the goal, the hospital would set its output at Q1 such that marginal revenue equals marginal cost ( $MR=MC$ ) and charge price P1. For a revenue maximization objective, the hospital would set output Q2 such that average revenue equals average costs ( $AR = AC$ ). At Q2, the marginal revenue is zero. Production beyond Q2 would lead to a deficit. If a hospital is subject to making a small surplus, as a measure of financial viability, it would set output Qm that is consistent with a minimum profit Pm (figure 1B). Figure 2 A and B, illustrate the effect of the bonus (additional revenue) for output target Q1\* and Q2\* for a hospital maximizing surplus (figure 2 A) or revenue (figure 2 B) respectively.

The bonus amount if received allows the hospital to maximise surplus or revenue at a lower price  $P^*_M$  and  $P^*_R$  for surplus or revenue maximising respectively<sup>32</sup>.

Strategies which increase input costs such as increasing quality of inputs and outreach visits would shift the cost curves upwards and MR curve to the left with a steeper slope.

**Figure Annex 10.1: (A) Bonus effect under surplus maximization and (B) Under revenue maximization**



The effect of these strategies would increase price and reduce output in general. However, if the effect of higher quality or outreach on output is large relative to increased costs and reduced revenue, a price reduction might be predicted if the bonus is much larger. In summary, micro-economic considerations of revenue, cost and quality show that the chosen strategy is influenced by price, quality and distance (for the outreach option) elasticities of demand as well as the marginal costs of quality improvement and outreach activities.

<sup>32</sup> The effect of the bonus can induce the MR curve to cross the MC curve a second time which indicates that the strategy to reduce client price e.g.  $P^*_M$  can be a viable strategy to attain target in surplus maximising hospital. A similar bonus effect for revenue maximization would lead to price  $P^*_R$

## **Annex 2 Unstructured Questionnaire Guide for In-depth Key Informant Interviews**

### **Consent statement**

#### **Managers, Board Members and Department Heads**

My name is Freddie Ssengooba of Makerere University Institute of Public Health, Mulago hospital.

The objective of the study is to find out how hospitals are responding to the Performance-Based Contracts that the Ministry of Health and World Bank are testing in this hospital and several Non-profit hospitals in Uganda. This study is covering 10 hospitals in Arua, Mukono, Jinja and Bushenyi districts. The study will contribute information for designing better ways to improve hospital performance by understanding how contracting affects stakeholders interactions, resources and hospital performance.

Your participation by providing truthful information will assist the future use of performance contracts in a way that will be relevant to you and your hospital situation. If information about you or your hospital is wrongly portrayed, the best alternatives to improve the situation of your hospital and others may be lost. This survey is part of a study for academic degree by the investigator below.

If you accept to participate in this study, the information you provide will be kept in **strict confidence** and will not be shared with any other person within or outside this hospital. Your name and that of the hospital will not be identified in the reports or publications that will arise from this study. The questions you are asked seek your opinion and perceptions regarding your work and support you get from the hospital, managers and colleagues at work.

If you agree to respond to this questionnaire, please answer as much as possible. You are free to decline answering questions you do not feel comfortable about or to stop the interview at any time. It should take between 35 – 45 minutes of your time. Your participation and answering as many questions as possible, will be greatly appreciated.

If you have any concerns about the study you can ask me to explain more or contact the following:

- Prof Fred Wabwire-Mangen Chairman Ethics Review Committee, Makerere University, Institute of Public Health, Tel 041 543872.

**Would you like to volunteer answers to this study?      Yes      No**

## **Respondent: Members of the Board of Trustees**

1. Please tell me about the Board of Trustees/Governors for (named) hospital.
  - a. What do you see as the main role of the Board for (named) hospital?
2. How would you describe the interaction between the Board and hospital management?
  - a. Content and objectives of interactions
  - b. Frequency
  - c. Information exchanged
3. How successful is the hospital management in running the hospital?
  - a. What interests do the Board ensure?
  - b. What is the basis for judging success?
    - i. What are the objectives to be attained?
    - ii. What information is exchanged?
    - iii. What is the monitoring system?
4. How does the Board ensure that the managers do the right things?
  - a. Any use of financial inducements?
  - b. What is the contract for managers like (job security)?
  - c. Any sanctions used?
5. How effective is the Board in supervising the hospital managers?
  - a. Who is more involved directly?
  - b. What information is regularly exchanged?
6. In your views, how can the hospital increase the volume of its services?
7. What is your opinion regarding the financial situation in (named) hospital?
8. What is your opinion regarding the financial relationships between the (named) hospital and the Ministry of Health /DDHS?
  - a. Revenue and cash flows
  - b. Fee reduction
  - c. Contractual arrangements
  - d. Service targets
9. In your opinion, how does a performance-based contract (and service targets) affect the hospital?
  - a. Check for awareness of PBC
  - b. Opportunity for monitoring performance
  - c. Risks in financial flows

### **Details of respondent**

<b>Name</b>	<b>Main interests in being on the board</b>	<b>Status on board i.e. chair, treasurer etc</b>	<b>Professional background</b>

**Respondent: Hospital Superintendent /Administrator/ Matron**

1. Please tell me about your job as a manager in this hospital?
  - a. What do you see as your main role(s) as a manager of the (named) hospital?
2. How would you describe your performance in these roles?
  - a. Basis for opinion on performance
  - b. What evidence for performance
3. How would you describe your relationship with the board of trustees?
4. How do you in the management team prepare for board meetings?
5. If I was to sit in your board meetings, describe for me what would be the major discussion issues on the agenda
  - a. Finance/budget issues
  - b. Staff issues
  - c. Quality of services
  - d. Service to community
6. How does the board judge the performance of the hospital management team?
  - a. What information is provided
  - b. How regularly is information exchanged
7. In your opinion, what are the main interests of the Board in this hospital?
  - a. What shows these are their interests?
  - b. How do they protect these interests
8. How would you describe the financial situation of this hospital in the last 2-3 years?
  - a. Revenues, User-fees as a percentage
  - b. Government subsidy as a percentage
  - c. How big were the surplus or loss
  - d. What is the total budget required to run?
9. What expenditures have been adjusted (up or down) in the last 2-3 years and why?
  - a. Salaries
  - b. Development
  - c. Drugs and supplies
  - d. Equipment and maintenance
  - e. Administration costs
10. How would you describe the interaction between management and clinical staff in the hospital?
  - a. Frequency of meetings
  - b. Opinion on cooperativeness and teamwork
11. If I was to attend a number of your staff meetings what common issues of discussion would I hear being discussed
  - a. Issues of interest to managers
  - b. Issues of interest to clinical staff (nurses, doctors support staff)
12. How do you in management judge the performance of the clinical units?
  - a. Opinion on general performance of clinical staff
  - b. What aspects of performance are you interested in?
  - c. What information is used
  - d. How regularly is this information sought
13. How do you as a manager ensure that the clinical staffs do the right things?
  - a. How responsive are the clinical groups
  - b. What incentives/sanctions are used
14. How do you motivate the clinical units to do better?
  - a. How widely are these motivators used in the recent past?

- b. Is the motivators appreciated/valued?
  - c. Is the motivator effective in motivating higher performance?
  - d. Did you have any social events (parties etc) last year? How many?
15. How would you describe the capacity of this hospital to handle more patients from its current workload?
- a. What are the main constraints and potential
16. In you opinion what is the best way to expand the volume of patients coming to this hospital as:
- a. What strategies for increasing volume of patients
  - b. Comment about the service targets your hospital selected?
  - c. What was the basis for your choice of targets?
  - d. Who was involved in choosing of the targets?
  - e. What effects does the selected targets have on your budget?
17. How is the MOH service targets affecting this hospital?
- a. Does the hospital care about success with service targets?
  - b. As a manager, how is your roles affected by the service targets?
  - c. How are the staffs responding to the service targets?
  - d. How are drugs and staff deployments affected?
  - e. How did the board and DDHS react to your hospital's performance in the last survey?
18. What is you comment about records and recoding practice in this hospital?
- a. What would you wish to change regarding records? -- And Why?

### **Regarding Bonus**

19. What comments do you have about the bonus your hospital received in the last round?
- a. Amounts received (targets achieved)
  - b. How was bonus used? Why? Who was involved in decision?
  - c. How did the clinical staff react to this way of using bonus?
  - d. (Check frontline vs non-frontline departments and conflicts)

### **Details of respondent**

Name	Management title	Duration as a manager	Professional background

### **Respondent: Departmental leaders (In-charge)**

1. How would you describe the interaction between management and clinical staff in this hospital?
  - a. Frequency of meetings
  - b. Opinion on cooperativeness and teamwork
2. How do you as a department leader, ensure that your clinical staffs do the right things?
  - a. How responsive are the clinical groups
  - b. What incentives/sanctions are used
3. How do you motivate your staff to perform better?
  - a. How widely are these incentives used in the recent past?
  - b. Is the incentive appreciated/valued?
  - c. Is the reward effective in motivating higher performance?
  - d. Number of social events (parties etc) last year
4. How often do you hold meetings with your staff
5. If I was to attend a number of your departmental meetings what common issues of discussion would I hear being discussed?
  - a. Issues of interest to managers
  - b. Issues of interest to clinical staff (nurses, doctors support staff)
6. How do you judge the level of performance of your clinical unit?
  - a. Opinion on general performance of clinical staff
  - b. What aspects of performance are you interested in?
  - c. What information is used
  - d. How regularly is this information sought
7. How would you describe the capacity of this hospital to handle more patients from its current workload?
  - a. What are the main constraints and potential
8. In your opinion what is the best way to expand the volume of patients coming to this hospital for the following services:
  - a. Out patients
  - b. Immunisation
  - c. Antenatal
  - d. Deliveries
  - e. Malaria treatment especially in children
  - f. Family planning
9. Can you please explain to me what you understand about service targets that this hospital is supposed to achieve?
10. How service targets affecting what you are supposed to do?
  - a. Do you care about success with service targets?
  - b. As a dept. manager, how is your roles affected by the service targets?
  - c. How are the staffs responding to the service targets?
  - d. How did the hospital administration react to your hospital's performance in the last survey?
  - e. What would you recommend that would ensure this hospital succeed with the service targets?
11. What is your comment about records and recoding practice in this hospital?

### **Regarding Bonus**

12. How was the last bonus used by the hospital?
  - a. Why used this way?

- b. How did the clinical staff react to this way of using bonus?
- c. (Check frontline vs non-frontline departments and conflicts)

Details of respondent

Name initials	Department	Duration as a Head of Dept.	Professional background



## **Annex 3 Structured Questionnaire**

### **Staff Questionnaire**

I am writing to kindly request you to participate in an important national research by providing information about your work at this hospital. A form for you to fill is attached. This is a second time this information is being collected from you and the hospital. We are interested to know how staff responses have changed since the last survey (ie 6-8 months ago).

The objective of the study is to find out how hospitals are responding to the Performance-Based Contracts that the Ministry of Health is testing in several Non-profit hospitals in Uganda. This study is covering 10 hospitals in Arua, Mukono, Jinja and Bushenyi districts.

Your participation by providing truthful information will assist the future use of performance contracts in a way that will be relevant to you and your hospital situation. If information about you or your hospital is wrongly portrayed, the best alternatives to improve the situation of your hospital and others may be lost. This survey is part of a study for academic degree by the investigator below.

If you accept to participate in this study, the information you provide will be kept in **strict confidence** and will not be shared with any other person within or outside this hospital. Your name and that of the hospital will not be identified in the reports or publications that will arise from this study. The questions you are asked seek your opinion and perceptions regarding your work and support you get from the hospital, managers and colleagues at work.

If you agree to respond to this questionnaire, please answer to all questions - as much as possible. It should take between 25 – 35 minutes of your time. Your participation is greatly appreciated.

This study is led by Dr Freddie Ssengooba of Makerere University Institute of Public Health, Mulago hospital.

If you have any concerns about the study please contact:

- Dr Freddie Ssengooba, Principle Investigator, Tel 077509 316 OR
- Director, Makerere University, Institute of Public Health, Tel 041 543872.

**Would you like to volunteer answers to this study?      Yes      No**

*If you agree to volunteer, please fill this form and after filling it, seal it in an envelope that has been provided to you before submitting it to \_\_\_\_\_ (the person assisting Dr Ssengooba).*

Thank you very much.

**(signed)**

Dr. Freddie Ssengooba  
Makerere University, Institute of Public Health

**Please Answer All Questions by filling in the spaces**

QUESTION		CODING CATEGORIES				
4.1	Date of filling this form/Interview	Date[____], month[____], Year [____]				
4.2	Your Hospital's name	[_____]				
4.3	Your department in the hospital (eg maternity ward)	[_____]				
4.4	Your Sex (please circle)	Male		female		
4.5	Your Date of Birth	Date[____], month[____], Year [____]				
4.6	Your Cadre of Staff (eg Enrolled Nurse, Registered Midwife, Dr etc)	[_____]				
4.7	When did you start working in this hospital?	Year [____] month [____]				
4.8	Do you have administrative responsibilities (eg In-charge of a ward; etc ) ?	No	Yes	If Yes, specify [_____]		
<b>A Regarding Staff Deployments (across departments)</b>						
4.9	In the last one week, how many days did you work in the following departments:  (Please insert number of days against the department on the left you can indicate fractions i.e. 0.5 (for half a day) 1.25( for one and a quarter days) Etc	Department			Days last week	
		1. Out-patient department				
		2. Antenatal clinic				
		3. Immunisation clinic				
		4. Family planning clinic				
		5. Outreach station				
		6. Maternity /labour suite				
		7. Children's ward				
		8. Male ward				
		9. Female ward				
		10. Theatre				
		11. Other hospital activity (specify .....)				
<b>B Regarding capacity to do more tasks</b>						
<b>For the statements below, please indicate your opinion by Ticking in the appropriate column (like this ✓ in one of the rows)</b>		<b>Very low</b>	<b>Low</b>	<b>Moderate</b>	<b>High</b>	<b>Very high</b>
4.10	What is your opinion about the <b>workload</b> you are required to clear daily in the last 2 months?					
4.11	What is your opinion about the <b>level of courtesy</b> your patients receive from the hospital staff?					
4.12	To what extent were the <b>drugs available for patients</b> in your department in the last 2 months?					
4.13a	To what extent does the hospital provide the necessary supplies and equipment for your tasks to be completed satisfactorily?					
4.13b	To what extent can you afford an increase of 10 percent to your current daily clinical tasks (or patient numbers)?					
4.14	To what extent do Nurse Assistants (or trainees) help out on regular nursing tasks in your department?					
4.15	To what extent did you work beyond normal expectation in the last 2 months?					
<b>C Regarding Records of clinical activity in the last TWO MONTHS</b>						
4.16	In the last 2 month, to what extent did you fill (complete) the required records associated with your tasks (eg tallying, registers etc )?					
4.17	To what extent did your colleagues in your department fill (complete) the required activity records (eg tallying, registers etc )?					
4.18	In your opinion, to what extent were records changed to indicate					

	more than the true number of activity in your department?					
<b>D Regarding Support from Managers in last <i>TWO MONTHS</i></b>		Very low	Low	Moderate	High	Very high
4.19	To what extent did the working conditions in this hospital meet your expectations?					
4.20	To what extent did you receive supervision from your superiors?					
4.21	To what extent did your superiors have confidence in your work?					
4.22	To what extent did your department hold meetings to evaluate clinical activities?					
4.23	To what extent did your superiors show appreciation for your work?					
4.24	To what extent were rules and regulation fairly applied to workers?					
4.25	To what extent does your job-contract provide security for your work?					
4.26	To what extent did superiors encourage hard-working persons (or departments)?					
4.27	To what extent were your superiors friendly to their staff members?					
4.28	To what extent did your superiors entrust responsibilities to junior staff to enable the juniors to gain expertise?					
<b>E Regarding Cooperation from fellow staff in last <i>TWO MONTHS</i></b>		Very low	Low	Moderate	High	Very high
4.29	To what extent did your workmates cover your duty hours if you request them to help?					
4.30	To what extent did conflicts exist among workmates in your department?					
4.31	What degree of cooperation existed between <b><i>your department</i></b> and the following departments?					
a	OPD					
b	Children ward					
c	Maternity ward					
d	Male ward					
e	Female ward					
f	Other (specify) _____					
4.32	What degree of cooperation did you get from the following departments:					
a	Laboratory					
b	Pharmacy					
c	Laundry					
d	X-ray					
e	Theatre					
f	Administration					
<b>F Regarding Satisfaction With Your Job in last <i>TWO MONTHS</i></b>		Very Low	Low	Moderate	High	Very High
4.33	To what extent did your job provide you satisfaction?					
4.34	To what extent does working at this hospital improve your professional status?					
4.35	In your view, how much more satisfaction would you get if your					

	supervisors and superiors showed appreciation for your work?					
4.36	In your view, how much more satisfaction would you get if your fellow staff were more cooperative and supportive to you?					
		Very Low	Low	Moderate	High	Very High
4.37	In your view, how much more satisfaction would you get if your job contract was extended by 5 years?					
4.38	How much more satisfaction would you get if administrative rules were made more flexible?					
4.39	How much satisfaction would you get if you were entrusted with more responsibilities at work?					
4.40	How much more satisfaction would you get if you received a trophy as one of the most hardworking person in your department?					
4.41	How much more satisfaction would you get if your hospital was recognised by MOH as the best performer in the country?					
4.42	How much more satisfaction would you get if your salary was increased by 10 percent from its current level?					
4.51	How much more satisfaction would you get if there was more in-kind benefits such as a staff party ?					
4.43	To what extent does your job benefits (salary etc) cover your basic needs?					
4.44	To what extent are the job benefits (salary etc) different among your colleagues doing similar jobs?					
4.45	To what extent do you supplement your hospital salary by doing private activities to earn more income?					
<b>G Regarding service targets, please indicate your opinion</b>		Very Low	Low	Moderate	High	Very High
4.46	How well informed are you about the total number of service outputs (targets) this hospital is required to achieve during this financial year?					
4.47	In the last 2 months, to what extent did you work beyond your normal experience because of these service targets?					
4.48	To what extent have service targets made your colleagues work beyond normal levels?					
4.49	To what extent have service targets made you improve records and registers?					
4.50	How likely are you to get a reward (or benefit) if the hospital achieves the service targets?					
4.51	To what extent are you willing to contribute in achieving this year's service targets?					
<b>H Suppose that the hospital is given a bonus of 10 million shillings for outstanding performance by the Ministry of Health. Indicate your preference for spending the money :</b>		Very Low	Low	Moderate	High	Very High
4.52	Use money to purchase drugs that are in short supply					
4.53	Use money to make a party for all hospital staff					
4.54	Use money to repair hospital building or equipment					
4.55	Divide and pay the money directly to each department					
4.56	Divide and pay the money directly to each staff member					
4.57	Leave the administration to decide how to use the money					
4.58	Leave the clinical staff to decide how to use the money					
4.59	The administration and clinical staff should decide together how to use the money					

**Thank you for your time**