

Results-Based Financing (RBF) in the health sector of a low-income country

From agenda setting to implementation: The case of Tanzania

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Scientific environment

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Dedication

In memory of *Rosemary Chinenere Chimhutu* (1954- 1997), my mother, you lived a short but meaningful and brave life. May God bless and reward all mothers in this world who wish nothing but the best for their children. Researching on policies that aim to improve on the health of mothers has been rewarding and yet a challenging experience, as it has revealed that a lot still needs to be done in this field. The hope is that no woman has to die while giving life to the world.

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Abstract

Background

During the last decade there has been growing concern about lack of results in the health sector of many low-income countries. Prompted by a need to achieve progress, Results-Based Financing (RBF) has become an increasingly popular policy option and has been seen as a solution for the unmet Millennium Development Goals 4 and 5, for child health and maternal health. RBF pays for results of chosen health indicators rather than inputs and therefore appealing to both recipient and donor countries. In 2015, over 30 low-income countries with the majority in sub-Saharan Africa including Tanzania were implementing RBF programmes to improve health services provision.

Tanzania implemented a provider side RBF, aiming to motivate health workers by paying them financial incentives based on predetermined performance targets. Despite the widespread uptake of RBF in low-income contexts, there is little evidence to support that it works. Studies on RBF show mixed results and most of these studies focus on aspects of effectiveness and efficiency of these programmes. What is explored less are the policy processes that lead to the introduction of RBF programmes in low-income countries and how RBF affects the working environment and the interaction between health workers and health service users. This may in turn affect the overall success of RBF programmes.

Aim

The study aim to generate policy relevant knowledge on processes leading up to the introduction of RBF in a resource constrained health sector, and the challenges related to its implementation. To achieve this, the study investigates the roles played by both internal and external policy actors in the RBF policy process in Tanzania. It further critically examines the experiences of health workers with RBF and how they responded to it, paying particular attention to the social and cultural context.

Methods

A qualitative case study design was used in the study. Data was collected in Mvomero and Rufiji districts and Dar es Salaam in Tanzania and in Oslo in Norway. The study followed both the local Tanzanian RBF programme in Mvomero and the donor-funded Pwani pilot in Rufiji district. In-depth interviews (IDIs), focus group discussions (FGDs), policy document reviews and participation in RBF meetings were the main methods for data collection. A total of 70 IDIs and 27 FGDs were conducted between 2010 and 2013. Field notes and informal conversations during fieldwork were other very important sources of data for the study.

Results

The introduction of RBF in Tanzania was controversial. The process was long and contested. The actors, both external and internal, fought for their values and interests. It resulted in tensions, mistrust and frustrations in the health sector partnership, and in the end, Tanzania did not get space to act as an agent of her own development. The results further showed that the two RBF programmes that were implemented in Tanzania, one which received donor support and another which did not, were implemented differently. The locally funded RBF diverted from its programme design and paid health workers flat bonus regardless of performance. This was partly due to lack of capacity and partly due to concerns for equity and fairness. The donor funded RBF adhered to its design, including paying health workers according to performance and contribution towards RBF performance indicators that is, Reproductive and Child Health (RCH) staff, working directly with RBF performance indicators were paid more bonuses than non RCH staff. This system of payment was reported to be unfair and it was revealed that it had affected social relations at health facilities. Leadership at health facilities was concerned this would lead to the disruption of work and preferred a flat rate with a similar logic as in the local RBF programme. Moreover, the study revealed that in the local RBF programme, health workers used coercive strategies in order to meet RBF performance targets. It was noted that these strategies are detrimental to health outcomes.

Discussion

The study showed that understanding processes behind the implementation of RBF is important as these help to explain why RBF programmes may fail or succeed. Additionally, the study revealed that RBF programmes can affect social relations among health workers and with health service users. The Tanzanian experience presents a picture where the country was overwhelmed by external influence in the RBF policy process and in the end could not follow its own development trajectory. As the theory of partnership in development aid posits, donor countries prefer an instrumental version of partnership, which entails imposition of their priorities, while disregarding country ownership. When Tanzania chose to follow her own path by launching a local RBF programme, partners in the Health Basket Fund withdrew their funding.

Tanzania went ahead with the local RBF programme, but with little success. Payment in the programme used flat rates, partly due to lack of resources and partly due to the concern of fairness. The donor-funded RBF was better managed and resourced but the payment system of bonuses, which paid health workers differently by their centrality to performance indicators, was reported as fundamentally unfairness as predicted by workplace social justice theory, the Referent Cognitions Theory. Health workers changed their behaviors in response to RBF, as presumed by the Principal-Agent Theory. In both districts, RBF negatively affected social relations among health workers and with their patients. It was revealed that RBF can lead to the use of coercive strategies as a means to reach performance targets in resource constrained settings. RBF has the potential of disrupting social relations, teamwork and intrinsic motivation among health workers. The Self-Determination Theory and Bourdieu's concept of capital elucidates on how RBF is potentially detrimental to social relations and intrinsic motivation of health workers. Therefore the study recommends that caution is needed when implementing RBF programmes in low-income contexts, and that particular attention has to be paid to policy processes, social-cultural and contextual factors.

List of abbreviations

CHAI- Clinton Health Access Initiative

CHMTs- Council Health Management Teams

DPG- Development Partner Group

GFF- Global Financing Facility

HMIS- Health Management Information Systems

HRITF-Health Results Innovative Trust Fund

IHI-Ifakara Health Institute

IMF- International Monetary Fund

MDGs- Millennium Development Goals

MCH- Maternal and Child Health

MNCH- Maternal, Newborn and Child Health

Norad- Norwegian Agency for Development Cooperation

NPM- New Public Management

OPRAS- Open Performance Review and Appraisal System

P4P- Payment for Performance

PSRP- Public Sector Reform Programme

RCH- Reproductive and Child Health

RBF- Results-Based Financing

RHMTs- Regional Health Management Teams

SAPs- Structural Adjustment Programmes

SASE- Selected Accelerated Salary Enhancement

SDG- Sustainable Development Goals

UHC- Universal Health Care

List of publications

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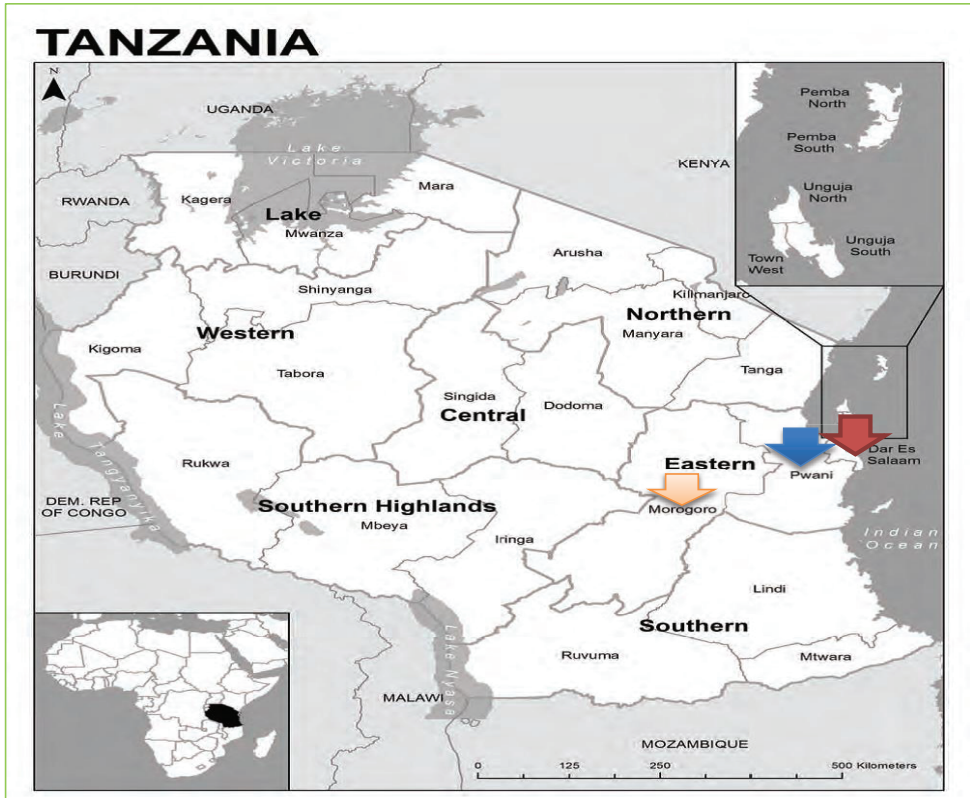
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Map of Tanzania



Source: National Bureau of Statistics (2010: xxvi). In Tanzania, the research was carried out in Mvomero district, Morogoro Region, Rufiji district, Pwani Region and in Dar es Salaam Region (as shown by arrows on the map). The three regions are located in the east of Tanzania

Operational definitions

Results-Based Financing (RBF): This term can be used as a synonym for Payment for Performance (P4P) [1]. However, RBF is considered a wider term which includes a variety of other output-based financing models in the health sector [2]. Tanzania started by using the term P4P and has shifted to RBF in recent years but the focus of the programme is still the same, it targets the provider side (health workers) and offers financial incentives.

Comprehensive definition: RBF involves “any program that rewards the delivery of one or more outputs or outcomes by one or more incentives, financial or otherwise, upon verification that the agreed-upon result has actually been delivered. Incentives may be directed to service providers (supply side), program beneficiaries (demand side) or both. Payments or other rewards are not used for recurrent inputs, although there may be supplemental investment financing of some inputs, including training and equipment to enhance capacity or quality; and they are not made unless and until results or performance are satisfactory” [1]. This comprehensive definition points out to the most important components of RBF programmes and is inclusive of different country experiences with RBF because unlike Tanzania some of the RBF programmes in low-income countries also target health service users.

Condensed definition: RBF is “payment issued upon achievement of a predetermined performance target” [3].

Pay [ment] for Performance (P4P): P4P can be “considered (a) synonym for RBF. Performance in (P4P) means the same thing as results, and payment means the same thing as financing. (This term) do not introduce any additional distinctions” [1].

RBF performance indicators: are selected measures of performance that are used in RBF programmes to measure how well health providers are performing against set targets.

1 Introduction

Results-based financing (RBF) defined as *payment issued upon achievement of a predetermined performance target* [3] has become a popular policy option in many sectors including health. The term is used interchangeably with Payment for Performance (P4P).

In the health sector, RBF programmes aim to improve access to, utilization and quality of targeted health services by providing incentives to the service providers (health workers) or to the health service users, or to both sides [1]. It is noted that expenditure on health through traditional input financing based approaches has increased in many low-income countries, but this increase is not commonly matched by better service delivery [4, 5]. User needs and demands are far from met in many low-income countries, and health systems continue to face many challenges including but not limited to shortages in well-trained and adequately paid workforce, lack of well-maintained and equipped health facilities, robust financing mechanisms, and reliable health management information systems [6, 7]. RBF is argued to have potential to address a number of these health system challenges [6, 8, 9]. It is claimed that in sub-Saharan African countries, health sector directed RBF programmes can potentially act as a catalyst for reforming the whole public sector into an efficient outcome based institution [6]. It is this vast promise of RBF that makes it attractive to politicians and policy makers in low-income contexts.

Additionally, RBF pays for results rather than inputs making it favorable to donor countries, during a time when traditional aid modalities have increasingly come under scrutiny [10-12]. RBF is therefore seen as one of the new innovative modalities in the development aid landscape, considered to help donor countries in justifying how foreign aid is being used [13, 14]. Many bilateral and multilateral agencies as well as public-private partnerships have been promoting the use of RBF programmes. These include but are not limited to the World Bank (mainly through the Health Results Innovative Trust Fund [HRITF]), the Norwegian Agency for Development Cooperation (Norad), the Global Alliance for Vaccines and Immunizations (GAVI), the Global Fund to Fight AIDS, TB, and Malaria (Global Fund), World Health

Organization (WHO), UK Department for International Development (DFID) and the US Agency for International Development (USAID) [2, 15, 16]. As a result, many low-income countries have increasingly been implementing RBF programmes in the health sector. In 2015, over 30 such countries were implementing RBF programmes, with the majority in sub-Saharan Africa [16]. Tanzania is among the countries which have embraced RBF, and this dissertation focuses on the experiences of the country with RBF. In particular it explores experiences relating to the RBF process from agenda setting to the implementation of the programme. In Tanzania, RBF aim to improve outcomes in maternal and child health services.

Before examining the experience of Tanzania with RBF further, it is important to provide an overview of the country and its context. This will enhance the understanding of the forces that made RBF a plausible policy action in Tanzania.

1.1 The country profile and health outcomes of Tanzania

Tanzania is located in East Africa, off the coast of the Indian Ocean. The country has a population of 43,625,354, of which about 75% live in rural areas [17, 18]. Tanzania is classified by UN as a low-income country with an average gross national income (GNI) per capita of US\$920 in 2014 [19]. The total health expenditure per capita was US\$42.5 in 2011, a figure significantly lower than the regional average expenditure of US\$148 in 2006 [20, 21]. The Government of Tanzania's budgetary allocations to health on a yearly basis have been fluctuating between 7-11% of the national budget between 2008 and 2012 financial years [21, 22]. These percentage figures are significantly below the minimum health budget allocation of 15% as pledged by African Union heads of states at the Abuja declaration of 2001 [23].

The country is burdened by diseases such as HIV/AIDS, diarrhea and malaria. In 2012, the four main causes of death were HIV/AIDS (18.2%), lower respiratory infections (8.7), diarrhea (5.2%) and malaria [5.2%] [24]. The life expectancy stands at 52.46 years, which is slightly lower than the regional average of 53.21 years [21]. The four main reasons for outpatient visits at health facilities in Tanzania are malaria

(34%), acute respiratory infections (14%), pneumonia (7%), and diarrhea diseases (5%) [21].

Maternal and child health is a huge health concern in Tanzania. The inception of the now over Millennium Development Goals (MDGs) in 2000 was important in identifying reliable trends and measuring health outcomes in all health related MDGs, especially maternal and child health. More importantly the MDGs brought maternal health at the forefront which was a previously neglected area [25]. Tanzania has witnessed rapid progress in Goal number 4 aiming to reduce the under-five mortality by two thirds from the 1990 level. In 2010, the country's infant mortality was at 51 per 1,000 live births [26], a significantly lower figure compared to the sub-Saharan Africa average of 79,05 per 1,000 live births. Its under-five mortality rate was at 81 per 1,000 live births compared to the region's 125.

However, when it comes to maternal mortality targeted by MDG 5a, of reducing maternal mortality by three quarters of the 1990 levels, Tanzania struggled. In 1996, maternal mortality was 529 per 100,000 live births, and in 2015 it was at 410 per 100,000 live births [24]. In fact in 2008, Tanzania along with 10 other countries, five of which are in sub-Saharan Africa, was responsible for 65% of all maternal deaths in the world [27].

1.2 The Tanzanian health care system structure

Health care in Tanzania is provided by both public and private (not-for-profit and for-profit) health facilities. The health system is organized in a referral pyramid, starting with dispensaries, health centres, district hospitals, regional hospitals, zonal national hospitals [28]. The total number of hospitals in Tanzania is 254, consisting of 140 private owned (for-profit and not-for-profit) and 114 public owned [29]. Below hospitals there are health centres and dispensaries which are important in providing primary health care. As of 2013, there was a total of 711 health centres, 222 private and 489 public and 5,913 dispensaries, 1444 private and 4469 public [29]. Table 1 below summarizes health facilities and ownership type in mainland Tanzania by 2013.

Tanzania has a basic health care infrastructure that extends into peripheral rural areas and this is mainly attributed to the early policies of central planning and equitable access to services spearheaded by the country's first president, Julius Nyerere [30-32]. It is estimated that about 80% of the population has access to basic health services, and that more than 90% lives within five kilometers of a primary health facility [33]. But even if there are structures in place to provide basic health services, the quality of these services are not necessarily good as many of these health facilities are not adequately equipped and staffed [34].

Table 1: Health Facilities: type and ownership in Mainland Tanzania

2012				2013		
Facility Type	Ownership type		TOTAL	Ownership type		TOTAL
	Private	Government		Private	Government	
Dispensary	1358	4322	5680	1444	4469	5913
Health centre	244	498	742	222	489	711
Hospital	129	112	241	140	114	254
TOTAL	1731	2932	6663	1806	5072	6878

Source: Statistical abstract 2013- The United Republic of Tanzania [29]

1.3 Health systems challenges in Tanzania

Tanzania is one of the countries with the lowest density of health professionals, with only 0.3 physicians and 4.4 nurses per 10,000 inhabitants. These figures are significantly lower than regional average of 2.7 physicians and 12.4 nurses per 10,000 inhabitants [35]. It is worth noting, however, that Tanzania has a 'physician type' cadre known as clinical officers (COs). Clinical officers undergo three years of post-schooling (after lower secondary level) training. This cadre although not recognized as physicians, are skilled to manage common medical and reproductive health and simple surgical problems, which in high-income countries may be reserved for physicians [36]. They are, however, legally prohibited from performing caesarean sections [36].

Clinical Officers are more equally distributed than physicians also in rural areas and vital in the health system of Tanzania [37]. Nonetheless, the human resource situation in the health sector is dire and even policy documents of Tanzania describe the shortage of health professionals as a crisis situation [38]. The current *Health Sector Strategic Plan III*, states that only 35% of positions in the health workforce of Tanzania are filled with qualified personnel [33]. A number of studies in Tanzania have pointed to this lack of adequate and qualified staff as a main barrier for the access to and quality of care [34, 39-41].

The acute shortage of health professionals in Tanzania is partly attributed to the severe economic difficulties faced by the country in the 1980s and the implementation of Structural Adjustment Programme in the 90s [30, 38, 42]. These reforms led to reduced funding in the public sector, retrenchments and an employment freeze from 1993 to 1999. The employment freeze resulted in a sharp decline of the health workforce. It is reported that only 16% of health personnel graduates from training institutions in the period between 1995 to 2005 were employed in the public sector [43]. At the same time, Tanzania was also experiencing an increase in the burden of disease [38]

Another reason behind the shortages of trained health personnel is brain drain, although no clear official figures are available for this [38]. It is estimated that Tanzania has 1,264 medical doctors working in the country and 1,356 working abroad, an emigration figure as high as 52% [44]. The emigration of health professionals greatly affects the health system of the country and causes devastating economic loss. Training a medical doctor from primary school through medical school is estimated to cost Tanzania US\$ 27,256 and in total the country is estimated to have lost up to US\$ 3,49 million in training medical doctors now working abroad, mainly in Australia, Canada, the United Kingdom and the United States [44].

Internal migration of health professionals in Tanzania from rural to urban areas is also widespread and this has implications for the availability of qualified health staff and quality of care in rural areas. There is a great variation in health worker

distribution per capita in Tanzania, spanning from 0.3 health workers per 1,000 inhabitants in underserved areas, mainly rural, to 12.3 health workers per 1,000 inhabitants in the best served areas, mainly urban [37]. For example, it is reported that the city of Dar es Salaam has as many as 30 times more medical officers and specialists than any of the rural districts [45]. A similar pattern is also highlighted in official statistics from the government of Tanzania, where Dar es Salaam has a high level of highly trained and specialized health personnel [46]. Other studies from Tanzania report that approximately one third of the existing health workforce in rural health facilities are unskilled [47] and that the number of skilled health workers is disproportionately low [48].

A number of factors act as push factors for health workers to either migrate abroad or internally, varying from low salaries, poor working conditions including poor infrastructure, lack of incentives and proper supervision [49-51]. These conditions negatively affect the access to and utilization of health services in rural Tanzania. Poor working conditions have been reported in many studies in Tanzania as contributory to low levels of work motivation [34, 50, 52-54]. This problem is further compounded by lack of medical equipment and supplies. In Tanzania, basic medicine is available in less than 25% of public health facilities, and in about 48% of private health facilities, which is low even by the standards of other low-income countries [55]. This does affect the motivation of health workers and also reduces health service users' confidence in the national health system, since their expectations are regularly not met [41]. Lack of confidence and trust in the health care system, especially the primary care system, results in low utilization and/or bypassing of primary levels of health care by users [39, 56, 57].

The Government of Tanzania has over the decades carried out public sector reforms, including in the health sector with the aim of improving access to, utilization and quality of health services. The next section will present RBF in the Tanzanian context as part of the public sector reform package.

1.4 RBF in the context of public sector reforms in Tanzania

RBF has to be viewed in light of public sector reforms currently taking place in Tanzania. Before moving into the details on the RBF programme design and implementation process, I will first briefly describe some few reforms relevant in shaping a results-based thinking in the public sector of Tanzania. Tanzania launched its first Public Sector Reform Programme (PSRP I) in 2000 followed by PSRP II in 2008 [58]. The main aim of the public sector reform programme is to make the public service a more effective, efficient and outcome based institution [58, 59]. Two eminent features of the reform are a strong focus on improving service delivery, and the need to improve staff incentive frameworks, including performance related pay [59-61].

The Selected Accelerated Salary Enhancement (SASE) was introduced in 2000 , aiming to incentivize civil servants who were in key positions and perceived important in service delivery in government ministries and agencies [62, 63]. However, as the name suggested, SASE scheme was selective and has been critiqued for benefiting senior level managers and the bureaucratic elite while doing less or nothing to the middle level or frontline workers in ministries [64, 65].

Another scheme under the public sector reform programme aiming to improve performance and motivation of public sector workers is the Open Performance Review and Appraisal System (OPRAS), which was introduced in 2004 and made compulsory in the public sector [66]. OPRAS is an open performance appraisal system that replaced confidential performance appraisals [53, 58, 67]. The results from OPRAS are to be used in recognising individual worker performance, salary increments and promotions among other staff development aspects [68]. However, a study on how OPRAS was experienced by public sector health workers, revealed scepticism towards it as it was perceived not leading to any career advancement or financial gains [53]. In 2007 discussions on the need to introduce Results-Based Financing (RBF) started in Tanzania, and the health sector was to be used for piloting with the potential of scaling it up in the wider public sector [69].

The main aim of RBF in Tanzania is to stimulate and improve service outputs and outcomes in reproductive health [69, 70]. RBF assumes that the motivation of health workers is crucial for their performance. Therefore, increasing health worker motivation through supplement payments improves the utilisation and quality of health services [71]. One of the aims of RBF in Tanzania is:

To provide better motivation and explicit attention to results, by ensuring that health workers and their supervisors are motivated to strive for better results in Maternal Newborn and Child Health services and other health services in the districts [69].

The RBF programme in Tanzania was funded by the Government of Norway, through the Norway-Tanzania Partnership Initiative [71, 72]. It is noteworthy that Tanzania implemented two different RBF programmes. The first RBF was implemented between 2009 and 2011 (in Mvomero district) and was locally funded [72]. The second was a donor-funded pilot in the Pwani region (where Rufiji district is located) implemented between 2011 and 2014. The pilot was managed by the Clinton Health Access Initiative (CHAI) [70]. Currently, the country is scaling-up RBF into several regions including Shinyanga, Mwanza, Kagera, Simiyu and Tabora between 2016 and 2017, with more regions to subsequently follow. However, the scope of this dissertation is limited to the country's experiences with the local RBF in Mvomero and the donor-funded Pwani pilot.

Both the locally funded RBF programme and the donor-funded RBF pilot drew their performance indicators from maternal and child health services such as antenatal care, institutional deliveries, and post-natal care (appendices I and II). The Health Management Information System (HMIS) is another indicator in both programmes. The donor-funded pilot added more indicators on Prevention of Mother To Child Transmission (PMTCT) of HIV and family planning and as a result the design document states that the focus is on reproductive and child health services (RCH) and not only on maternal and child health services, as in the locally funded RBF programme [69, 70]. In both cases there are management teams set up for monitoring

at district and regional levels, and these teams are known as Council Health Management Teams (CHMTs) and Regional Health Management Teams (RHMTs) [69]. Bonus payments are based on performance and targets are set once each year and normally they cannot be changed during the course of the year [70, 73]. In the locally funded design, health facilities had a potential maximum bonus if all targets were met, depending on facility type, i.e., whether they are hospitals, health centres or dispensaries. For example, dispensaries had a maximum bonus limit of TZS 1 million (approx. US\$ 460), health centres TZS 3 million (approx. US\$ 1,400) and hospitals TZS 9 million [approx. US\$ 4,100] [69]. In the donor-funded RBF design maximum potential bonus for hospitals was US\$ 7,900 and of this amount RCH staff would share US\$ 5,300 and non-RCH US\$ 2,600. Health centres could get up to US\$ 2,786 and dispensaries US\$ 686 [70]. Health workers' monthly bonuses would be approximately 10% (about US\$ 30) of their monthly salaries [70]. Payments are made twice a year, following a six months cycle.

Another major difference between the two programmes is that in the donor-funded programme, the bonuses for a health facility were divided into two parts, one for the staff and the other for operations or demand creation activities, while in the local programme all the bonus was for the staff. For the donor-funded programme, in hospitals, 90% of the RBF bonus went to the staff and 10% to operations. In health centres and dispensaries, 75% went to the staff while 25% went to operations [70]. The bonuses for operations were used for demand creation activities such as buying essential medicines or minor infrastructural development. Implications of the differences and similarities of these two RBF programmes are further discussed in sub-studies

The following section presents literature on the origins and implementation of RBF in high and low-income contexts, including RBF's unintended consequences and potential pitfalls.

1.5 Review of previous studies

The search for literature was conducted using many databases and search engines available through the University of Bergen, such as PubMed (Medline), Web of Science, Cochrane, and Google Scholar. Standard searches were done using keywords, while a variety of synonyms were used to cover a range of words similar to the keywords. For example, payment for performance, results based financing, performance-based financing, performance-based incentives, output-based financing, output-based contracting, incentives in the health sector, financial incentives in the health sector were used. Additionally, bibliographies of relevant articles were also examined for other articles that could be useful. Retrieved articles were assessed for both quality and relevance to the study.

1.5.1 RBF in high-income countries: scope and evidence

This section aims to give a general picture on the origins of RBF, and to give general experiences of high-income countries with this phenomenon. I will therefore not delve into country specific details, given a low-income context focus of this dissertation. The US is one of the countries where RBF in the health sector originated from, and the country has many different RBF programmes at different levels of care [74-77]. Although the first RBF programmes in the health sector are traced back to the 1980s, as initiated by private insurers in the US [78], one programme implemented between 2003 and 2009, known as the Health Quality Incentive Demonstration [79-81], is considered a trailblazing programme that inspired many other RBF programmes in the health sector, including the well-known Quality and Outcomes Framework in the UK [82, 83], which was started in 2004 and is still in operation.

Many countries in high-income context including but not limited to Canada, Australia, Israel, New Zealand and several European countries [84-87] are implementing RBF programmes in the health sector at varying levels. The normative rationale for the increase in countries implementing RBF is the need to improve the quality of care. It is noteworthy that in high-income countries, technologies for

performance measurement has improved significantly for the last two decades [78]. These technologies have helped in improving confidence in using RBF in these contexts.

Despite its widespread use in high-income context, debates have been going on from as early as the mid-1990s on whether RBF promote right values in the public sector, including health sector [88-92]. This debate still goes on to date [15, 93-96]. Besides the issue of values, results on the effectiveness of RBF programmes in high-income countries has not been convincing, systematic reviews provide mixed results and cautions that the use of RBF in the health sector requires careful planning, design and consideration [74, 84, 97]. According to Eijkennar and colleagues [98], in order to have a successful RBF programme, three important questions have to be considered; *what to incentivize, who to incentivize and how to incentivize* [98]. While it may be assumed that in high-income context conditions (e.g. capacity and technical expertise, functioning public systems and value systems) maybe suitable to successfully work with and consider these three questions, literature shows that it is far from it [84, 98].

Additionally, what is missing in RBF literature, even from high-income context is convincing evidence on the costs associated with RBF [99]. There are studies that are not necessarily conducted as economic evaluations of RBF programmes, but mention the cost-effectiveness of the programmes [85, 100-105]. From these studies it is clear that the debate on the cost-effectiveness of RBF is yet to be settled.

From the presented literature it is clear that although RBF programmes in the health sector originated from high-income countries over two decades ago, conclusive evidence still lack on whether RBF is beneficial to the health systems of these countries. The next section presents RBF literature from low-income countries which fall within the scope of this dissertation. This literature is particularly relevant for Tanzania and as a result will be presented giving some details of different country experiences.

1.5.2 RBF in low-income countries: scope and evidence

Before moving into the studies, this paragraph presents a contextual backdrop of RBF programmes in low-income countries. This is important as forces that shape these programmes in low-income countries are different than in high-income-countries. RBF is a relatively new phenomenon in low-income contexts, and its introduction was largely driven by the need to improve outcomes in the health-related Millennium Development Goals (MDGs), that were unmet by most of these countries [15, 106]. In the current post-MDG era, where emphasis has been shifted to Universal Health Coverage (UHC) [107], most of these RBF programmes by and large still draw performance indicators from maternal and child health [16, 108]. These targets are now covered by Sustainable Development Goal (SDG) number 3 (as targets 3.1 and 3.2), which focus on good health and well-being [109]. Funding for RBF programmes in low-income countries is mainly provided through the Health Results Innovative Trust Fund (HRITF) and the newly established Global Financing Facility (GFF) in the World Bank [16]. These two Trust Funds are funded by the governments of Norway, United Kingdom, Canada and the US, with the aim of supporting low-income countries to achieve results in maternal, newborn, and child health (MNCH).

RBF studies are still few and knowledge about its effectiveness still limited in low-income contexts. Systematic literature review studies are cautious in their conclusions on whether low-income countries can benefit from RBF programmes [3, 106, 108, 110]. A review study by Oxman and Fretheim [106] concluded that available evidence on the effectiveness of RBF programmes is too weak to draw general conclusions, but that these programmes appear less likely to create sustained changes in health service delivery [106]. A second review study by Witter and colleagues called for more robust studies to provide further evidence [108], while a third review study noted that there is significant uncertainty involved in transferring RBF programmes from developed health systems to less functioning and fragile health systems [3]. These review studies generally noted that low-income countries face different challenges than high income countries that may make it more difficult to implement RBF programmes [3, 106, 110].

One significant difference is that health systems in low-income countries are less functioning, which make it particularly challenging to implement RBF [3, 111-113]. Studies from Cambodia, Benin, DR Congo, Uganda and Tanzania found that the implementation of RBF programmes in these countries was negatively affected by health system challenges which included low technical and monitoring capacities, health worker shortages, inadequate infrastructure, lack of adequate medicines and equipment [111, 112, 114-116]. In Uganda lack of capacity and technical expertise was noted among the main reasons why the RBF failed in the country [111, 117]. While in Tanzania and the DR Congo, it was observed that not only was health systems challenges negatively affecting the RBF pilots but was also likely to affect the scaling up of these RBF programmes [114, 115]. Moreover, RBF depends rather heavily on accurate technologies of measuring performance, which in high-income countries have improved in recent years [78], while it remains a challenge in low-income countries [110]. For example, a study from Cambodia found that lack of sufficient and reliable data to measure performance was a problem in the RBF programme [116].

In addition, some studies have pointed out that many RBF programmes in low-income countries follow priorities set out by donor countries rather than country specific priorities [110, 118, 119]. An exception from this was reported in Cambodia, where the government was able to use its leverage and implement an RBF programme it wanted against the will of donors [120]. The lack of local embeddedness in RBF programmes, especially regarding performance indicators, have led some health workers in Benin and other contexts to reluctantly support RBF programmes, as these performance indicators are perceived to ignore local health problems [110, 119]. Moreover, donor involvement and influence in RBF programmes has raised questions on the sustainability of such programmes in low-income countries [110, 121]. In Burundi, it was noted that although the country has been implementing RBF for a number of years, the programmes remain largely fragmented and donor-dependent, which created challenges for the planned national scale-up [121].

Donor dependent RBF programmes also make the financial costs associated with RBF unsustainable as many of them are implemented through technical support from RBF specialists [110]. For example, in Tanzania, it was found that there were many transactional costs associated with the RBF pilot [122]. The transactional costs in Tanzania were above 50%, and only 22% accounted for the RBF bonus pay-outs [122]. However, these costs are bigger than in other contexts, for example in DR Congo [123]. Other studies from Benin [119] and Cambodia [116] reported big administrative costs associated with RBF programmes, which feeds into the debate on the cost effectiveness of these programmes [110]. Besides the Tanzanian study [122], there is not much literature on the cost-effectiveness of RBF programmes in both low and high-income context

There are few studies that attempt to examine the perceptions and experiences of health workers with RBF programmes in low-income countries, and the few studies available report mixed results [119, 124, 125]. Studies from Cambodia, Burundi, Rwanda and Tanzania reported health workers having positive experiences with RBF. RBF was seen to have led to improvements in income, training, feedback, peer monitoring and teamwork, reducing absenteeism, data management and interaction with patients [116, 121, 124, 126]. It was also been found in Burundi that RBF can empower health facilities regarding decision making [125]. In Cambodia [112] and Burundi [121], the associated positive experiences of health workers with RBF was reported to have, moreover, led to reduced turn-over of health professionals.

However, health workers also reported negative experiences associated with RBF programmes. These negative experiences include but are not limited to increased workload, dissatisfaction with allowances, lack of transparency and clarity regarding procedures leading to payments, and allegations of favoritism in the RBF programme at local health facility level [115, 116, 119]. In Benin, it was reported that two RBF programmes that were being run in parallel in the health sector were paying health workers differently, which led to feelings of injustice [119]. Moreover, it has been reported in Tanzania, Rwanda and Benin that additional activities of documenting

and reporting data did not only increase the workload of health workers, but also potentially were given priority over important tasks of care [118, 119, 122, 126].

Impact evaluation studies on RBF in low-income countries have also reported mixed results on RBF [121, 127-132]. Positive effects were reported in some performance indicators in Rwanda [133], Tanzania [127], DR Congo [115], and in Burundi [121], among other countries. Other studies did not find any effects on RBF on certain performance indicators in Rwanda [134], in Cambodia [120] and in Tanzania [127]. Generally, it was observed that effects were greatest in performance indicators that were under direct control of health workers (e.g. postnatal care), where the potential for improvements was big (e.g. health facility deliveries), and on those with highest pay-outs (e.g. health facility deliveries in Rwanda) and those relatively easy to achieve [127, 132, 133, 135, 136]. However, some studies from Cambodia, Burundi, and Rwanda have cautioned that it is very difficult to disentangle the effects of RBF from other on-going interventions in the health sector [112, 121, 137, 138]. In addition, some studies reported on whether RBF promotes equitable access to and utilization of health services. One study from Tanzania reported that the RBF programme had a potential ‘pro-poor effect’ [127], while studies from Rwanda [138] and Burundi [135], reported that RBF favoured groups of patients from the rich quantiles, who had many advantages including easy access to information and therefore easy to reach [135, 138].

1.5.3 The unintended consequences and potential pitfalls of RBF

Studies across contexts reported unintended consequences associated with RBF programmes. In this section, I will present these unintended consequences drawing from empirical evidence from both high-and low-income countries, as these may vary in the scope but not in nature. Generally, *crowding out* of intrinsic motivation and *gaming* are among these leading RBF pitfalls as presented here.

In the health sector intrinsic motivation plays an important part [139-141]. In fact some health workers describe their work as a vocation and not just mere work [142-144]. RBF can negatively affect this intrinsic motivation in health workers. In RBF

literature this is called crowding-out of intrinsic motivation [78, 110, 131, 145, 146]. Studies from DR Congo and Benin reported that RBF negatively affected the intrinsic motivation of health workers [115, 119]. For example, it was reported that while RBF had some successes in DR Congo, health workers overly relied on the financial incentives which resulted in their intrinsic motivation for care work to diminish [115], while in Benin monitoring of RBF was seen to be too controlling [119], thereby affecting health workers' enjoyment of work tasks. Moreover, using RBF can be equated to a carrot and stick approach to work relations [15, 119, 131], which may further cause resentment and loss of self-esteem in health workers. Meessen and colleagues [147] in a study from Rwanda reported that when monitoring and supervision of RBF was excessively done, it was interpreted as lack of trust by frontline workers. It has been noted in the literature that the health sector relies on trust on varying levels [148, 149] and if such trust and the natural enjoyment of tasks is lost, it can potentially affect the sector's functioning. When health workers' intrinsic motivation is crowded out, it may lead to *gaming*.

Gaming refers to strategies health providers can adopt in order to maximize profit by reaching RBF performance targets [15, 131]. One way of doing this is by prioritizing rewarded services while ignoring or pay little attention to least rewarded or unrewarded services [75, 76, 118, 126, 150]. Basinga and colleagues [133] in Rwanda found that health workers scored very well on performance indicators that had a highest payment and under their direct control. The prioritization of highest paid performance indicators, was also found in other studies in the same context [118, 150].

Additionally, health providers can avoid difficult-to-treat or difficult-to-reach categories of patients, for example, the chronically ill, the poor, those of old age, and noncompliant patients [75, 135, 138, 151-155]. For example a study in the US reported that physicians avoided treating minority patients as they were perceived to be noncompliant [156]. While studies from Burundi and Rwanda reported that RBF had a 'pro-rich' effect, as health workers found it easy to access groups of women

from rich quantiles than the poor [135, 138]. This behavior in RBF literature is popularly referred to as *cherry picking*, when health providers select more *profitable* groups of patients [110, 157-159].

Moreover, health providers can simply inflate (cheat) performance figures to achieve RBF targets [112, 115, 118, 150, 154, 160]. While this can be reduced by increased verification of reported results, many factors can affect the verification process, for example competence as was the case in Uganda [111], or conflict of interest and possible collusion with verifiers, as was alluded in studies from Burundi and Cambodia [112, 125]. Additionally, a thorough verification process can be too costly as was the case in Tanzanian [122]. Studies have also reported health providers holding on to last stocks of medical drugs [118, 150], as a *gaming* strategy to avoid drug stock-outs in cases where this is a performance indicator [110], resulting in patients not getting access to medicines that are in stock. Another risk noted in literature under *gaming* include paying more attention to the quantity of services while paying less to the aspects of quality [96, 147], which may lead health workers being less compassionate towards patients. In addition, RBF can lead to the provision of rewarded services despite the lack of competence to do so [118, 147, 161]. For example if low level health providers are rewarded for institutional deliveries but not for referrals, they may hold on to patients needing comprehensive essential obstetric care at referral level [15]. Moreover, it has been noted that using incentives and targets can potentially lead to the inducement of unnecessary demand for rewarded health services, which curtails the freedom of and potentially harm health service users [147]. For examples, it has been observed that women have been forced to take birth controls even in cases when they have reached menopause, as health providers chased for targets in family planning [15, 162].

Literature in this section has presented an array of aspects that have to be guarded against when implementing RBF programmes across contexts. Predominantly however, the literature in this field is from high-income countries and from the field of economics, and does not cover other salient aspects in particular social settings. To

this end, Eldridge and Palmer [3] called for the need of multi-disciplinary case studies in the RBF field, outlining influential factors for the success or failure of RBF programmes in specific contexts [3]. Additionally, Magrath and Nichter [15] urged for multi-disciplinary studies, which includes some reflections on social theory in order to cover all dimensions of health workers' motivation. With this in mind, the research gaps and study aim are identified and defined in the next section.

1.6 Research gaps and study aim

The existing literature has provided profound insights into the phenomenon under study. However, a number of gaps are identified from this literature. Studies in the RBF field conventionally focus on the effects of RBF programmes [74, 84, 127, 133], while less attention is given to processes, experiences and socio-cultural aspects. It has been noted that if processes leading to reforms in the health sector are not explored, it becomes difficult to understand *why* and *how* these reforms are carried out [163, 164]. In addition, we know from the literature presented that the success of and responses to RBF programmes varies across cultural contexts [15], but as long as studies do not focus on these specific aspects, it is difficult to fully understand *why* this is the case or which context specific aspects to pay particular attention to when designing RBF programmes. Moreover, the majority of RBF programmes reviewed in low-income countries are donor-funded, and therefore heavily influenced by donor preferences [119]. There are to my knowledge lack of studies that attempts to follow locally designed and implemented RBF programmes to see how they pan out. This is of importance as it may point to the likely trajectory donor-funded RBF programmes may take when local national governments took over. Additionally, most of the presented RBF studies are quantitative studies, which do not capture the involved actors' experiences with RBF. While these studies are important and valuable in adding knowledge in the field, we may never fully understand *why* health workers in different contexts behave differently when Results-Based Financing programmes are introduced. Against this backdrop, the following study aim and specific research objectives have been defined:

The main aim of the study is to generate policy relevant knowledge about the processes leading up to the decision to introduce RBF in a resource constrained health sector, and challenges related to its implementation in such a sector. To achieve this aim, the following specific research objectives were pursued in paper I, II and III:

- To investigate the policy process behind the introduction of Results-Based Financing in maternal and child health in Tanzania, illuminating in particular the interests and the roles played by the Norwegian Government, the Tanzanian Government and other involved development partners. **(Paper I)**
- To critically examine how a Results-Based Financing programme funded by local resources with no donor support was implemented and experienced by health workers. **(Paper II)**
- To investigate health workers' behaviour towards health service users and the strategies that they adopt in order to reach RBF performance targets **(Paper II)**
- To explore how health workers perceive and experience the bonus distribution structure of a Results-Based Financing programme, paying particular attention to the social and cultural context and how it affects and/or influences social relations among health workers. **(Paper III)**

1.7 Theoretical Perspectives

The study approached the phenomenon of RBF explicitly and implicitly at different levels. To achieve this, it becomes imperative to use a variation of theories and concepts. Firstly, at policy level, I used the concept of 'new public management', which is rooted in neo-classical economics and neoliberalism [165], to understand the forces that make RBF attractive and appealing for many national governments. This concept however, is not actively used in analyzing RBF, but as a backdrop to the understanding of the origins and the notions to which RBF rests upon. Additionally at this level, I used the concept of partnership to analyze the type of partnership which

exists in the health sector of Tanzania, as RBF was introduced through a partnership (the Health Basket Fund).

Secondly, RBF targets the motivation of health workers and in order to illuminate this aspect I used principal-agent theory, which is the theoretical basis for RBF [15, 110]. The theory defines workers (health workers) as self-interested and individualistic (homo economicus) [110] and therefore only pursues the economic dimension of motivation. To cover other forms of motivation, I used the Self-Determination Theory. Moreover, as RBF involves the distribution of goods (bonus payments) at the workplace, I chose to include a theory addressing justice at workplace, the Referent Cognitions Theory. Finally, all the theories introduced so far, to an extent give agency primacy over structural constraints. In this regard the concept of capital by Bourdieu is used in the understanding that in addition to economic dimension of motivation (economic capital), other form also exists, for example, social capital, which elucidates that individuals have some structural constraints which influence their decisions. Although the concept of social capital is not used in any of the sub-studies, for the scope of the overall study, it becomes imperative to include a concept which locates health workers in a social environment where socio-cultural factors aid or undermine their agency. Descriptions of the theories and concepts are provided below.

1.7.1 New Public Management (NPM)

The theoretical background for NPM is found in the Public Choice School [166, 167] and the Chicago School of Economics [165]. These two schools of thought proffered strong criticism of large public sectors and the public sector governance of the time [165]. While the field of economics played an important role in shaping NPM, the concept is widely recognized as a hybrid where many fields, such as organisational theory, political science, and management theory have contributed [165, 168-170]. NPM is noted as the theory behind the most recent paradigm of how the public sector should be governed [165]. It is argued that the radical nature of NPM's advocating

for the rolling back of the state made it politically appealing to neo-conservatism and neo-liberalism in the 1980s and to date [165, 171].

The United Kingdom under the leadership of Margaret Thatcher has been recognized as the epicenter of the practical realization of early NPM. Thereafter it spread to Anglo-American countries and also into bilateral and multi-lateral institutions, such as the International Monetary Fund (IMF), the World Bank and the Organisation for Economic Co-operation and Development (OECD), which further acted as transfer agencies of the concept globally [165, 168, 170, 172]. The aims of NPM are described as radical due to their neoliberal nature and ambitious [165, 171], and have been associated with limited success in some contexts [170, 173].

Recent major public sector reforms in the African context have to be understood in a NPM perspective [174]. The robust promises of NPM became popular among African governments including Tanzania who aimed to reshape the public sector to deliver efficient and effective public services [175, 176]. Tanzania, for example, has been found to be suffering from both *projectitis*, a situation where a country finds itself running too many development projects at once, and *reformitis*, a situation where a country finds itself implementing too many reforms at the same time [60]. Most of the development projects and reforms are donor-funded [60]. For example, between 1985-1995, Tanzania realized about 20 reforms in the public sector including the structural adjustment programmes [60]. A separate section in this dissertation has discussed a few of these reforms relevant to this study. The involvement of donors serve to illustrate the high dependency of Tanzania on development aid [60, 177]. While the influence of donors on specific reforms is hard to ascertain, several scholars consider the donors' total political and financial influence intrusive and limiting to Tanzania's ability to act as an agent of her own development [177, 178]. RBF as a health sector reform has to be understood in relation to this NPM paradigm and its assumptions.

1.7.2 Conceptualizing partnerships

Partnerships in the field of development aid are often described in binary terms, as either weak or strong [179], or either genuine or instrumental [180, 181]. Partnerships promise an advent of a new type of relationship in aid where the “*power of the purse*” is reduced in favour of the “*power of the owner*” [182]. However, there is scepticism among some scholars as to the reality of this shift in power towards the recipient end, as donors tend to impose conditions to enter into these partnerships [182-184].

According to Abrahamsen, achieving genuine partnership is difficult “*in a context when one party is in possession of the purse and the other the begging bowl*” [181]. Critical voices therefore maintain that partnerships in development aid are simply a disguise of continued dominance of developing countries [179, 181].

As a contested concept, several analytical frameworks have been proffered to examine the nature of partnerships. Crawford [180] developed a framework with four factors that need to be observed and followed if partnerships are to be considered genuine. These factors are: (1) mutual co-operation between multiple constituencies, both internal and external, (2) respect for sovereignty and the right of national actors to determine their own policy options, (3) equitable and meaningful relationship, and (4) time and commitment to build and maintain a strong partnership [180]. In our study, we used this framework to examine the type of partnership that developed between Tanzania and her partners in the health sector as the country opened up for partnerships in pursuing her developmental agenda [185].

The partnership in Tanzania has been termed insidious [186], giving the country little room to manoeuvre due to its heavy reliance on donors [177, 187]. In the health sector, the first partnership was launched in 1999, the so-called Health Basket Fund. The fund’s aims are in close tandem with the 2005 Paris Declaration, which focuses on aid effectiveness and harmonization and giving recipient countries more control [188, 189]. The Health Basket Fund was led by the Ministry of Health and Social Welfare and it initially had six donor-partners: Norwegian Agency for Development Cooperation (Norad), Swiss Agency for Development and Cooperation (SDC),

Danish International Development Agency (Danida), Department for International Development (DFID), Irish Aid, and the World Bank. The Netherlands, Canadian International Development Agency (CIDA), the German Development Bank (KfW), UNFPA and UNICEF joined the partnership later [188]. RBF in Tanzania was introduced through the Health Basket Fund partnership and therefore it is important to understanding the type of partnership that exists between Tanzania and her development partners in the health sector.

1.7.3 Principle- agent theory

RBF as a model borrows heavily from the principal-agent theory. The principal-agent theory seeks to explain how the use of financial incentives may enhance the performance of service providers who are not governed by market forces. According to Eisenhardt [190], there is a lack of alignment of the interests of the principal (employer) and the agent (employee) when it comes to the goals to be achieved by an organisation. In this regard, the principal tries to find ways of aligning the agent's goals to the goals of the organisation [190]. RBF can be seen as coming from this perspective, where health workers as 'agents' are provided with performance bonuses by the principal (employer) in order to achieve health outputs and outcomes. RBF schemes arguably are on three main basic assumptions about human behaviour. RBF assumes that money motivates health workers, that effort can be measured and rewarded, and that financial incentives do not undermine other forms of motivations, for example intrinsic motivation. It is argued that RBF works best in organisations where workers undertake tedious work which output is simple to measure, such as the logging industry, fruit picking and tree planting among others [191-193]. Health workers, by contrast, work in a setting where ethical professional guidelines define their work, a setting where tasks are complex, challenging to perform and difficult to measure [89]. Folbre [194] notes that measuring outputs and quality in the health sector is difficult, as the services offered are sensitive, emotional and individual in nature and therefore impossible to denominate, unlike the "*number of automobiles or pounds of corn*" [194]. If measuring output and quality is difficult in the health sector, it is equally difficult to reward health workers according to effort. The

uncertainty in quality measurement makes the use of proxies attractive [194, 195]. In the health sector, quality care and health outcomes are difficult to ascertain as they are not instantaneous. Therefore, RBF schemes mostly measure quantity as a proxy for quality.

The principal-agent theory does not consider non-financial motivation. In the health sector, there is evidence that forms of motivation other than financial matters. For instance, several studies have pointed to the strong existence of a ‘natural goodness’ or altruism in health sector workers [139-141, 143, 144]. The results from these studies suggest that health workers to an extent may be motivated by non-material motivations, and raise doubts about the correctness of the principal-agent-theory’s assumption that health workers care for financial incentives only.

1.7.4 Self-Determination Theory (SDT): intrinsic and extrinsic motivation

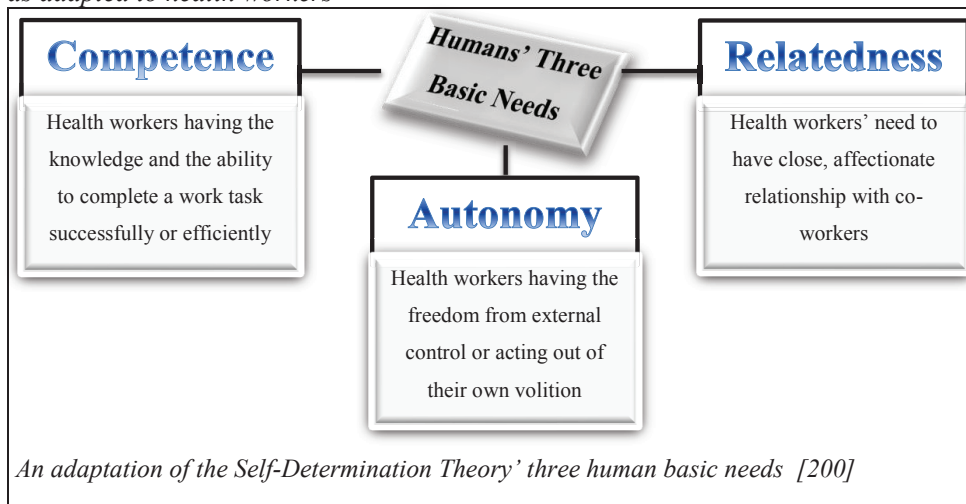
Ryan and Deci postulates that “[t]o be motivated means to be moved to do something. Thus a person who feels no impetus or inspiration to act is characterized as unmotivated, whereas someone who is energized or activated toward an end is considered motivated” [196]. Everyone, either at work or in non-work situations, is faced with the question of how much motivation one has to perform certain tasks [196]. It is important to note that not only do people have different amounts of motivation at different times but also different kinds of motivation, and therefore motivation varies not only in terms of level but also in the orientation of the motivation [196]. For example, a health worker may be highly motivated to treat a patient (i.e., amount of motivation) for the reason that helping someone is inherently enjoyable, or in order to reach a certain performance target that will produce an external reward (i.e., type of motivation). Observe that in this example the level of motivation may not necessarily change but the focus and nature certainly do. It is important for health workers, therefore, to have enough motivation and the right focus in order to provide quality care.

The Self-Determination Theory, developed by Deci and Ryan [197], makes a distinction between intrinsic and extrinsic motivation. Intrinsic motivation, which is

proposed as the most expansive in humans, is defined as “*doing something because it is inherently interesting or enjoyable*” [196]. Extrinsic motivation is defined as “*doing something because it leads to a separable outcome*” [196]. These types of motivation are not exclusive of each other. However, the degree to which one is inclined towards any of these matters for one’s performance and the enjoyment of the task. The right balance between these two forms of motivation is therefore important at the workplace, as they influence each other. For example, increased extrinsic motivation through availability of financial incentives may diminish intrinsic motivation to perform workplace tasks [198].

The SDT proposes three innate needs in humans for autonomy, competence and relatedness [196]. These needs have to be nurtured at the workplace, for workers to maintain intrinsic motivation. Figure 1 shows these three needs as adapted to health workers. Individuals cannot thrive in an environment without obtaining satisfaction of all of them[199]. For example, Ryan and Deci [199] postulates, if a workplace affords competence but fails to nurture relatedness, the result is an impoverishment of well-being.

Figure 1: SDT’s basic psychological needs of competence, autonomy and relatedness as adapted to health workers



Given the significance of intrinsic motivation in the performance and enjoyment of tasks at the workplace, the question becomes: what is the best way to nurture these three innate needs in health workers? As Folbre [194] argued, the health sector is delicate, given the nature of services it offers to the society. While it is good for health workers to afford a decent life, it is better if they do this while enjoying their work and best if the quality of care is improved. While the principal-agent theory emphasizes external motivation as key in achieving organizational goals [190], the Self-Determination Theory goes further, uncovering other forms of motivation important to consider at the workplace [197]. These theories are used in this study to understand the individual and to an extent the social dimensions of motivation, which the RBF scheme in Tanzania seeks to improve.

1.7.5 Referent cognitions theory

While it may be common sense, it is important to note that employees of any organization prefer fair treatment over unfair treatment [201]. The question is what entails fair treatment, as this may be based on subjective experiences and is context specific [201, 202]. The issue of fairness at the workplace is a concern for social justice [203], and many social psychologists have been studying these concerns and proposed theories, commonly known as theories of social justice [204, 205]. However, these theories, tend to focus on issues of distributive justice, that is, emphasizing that outcomes are crucial in the fairness judgement process [203]. Other scholars, including Folger, build their work from this premise, but include procedural justice as another crucial aspect of the fairness judgement process [201, 202, 206, 207]. Procedural justice concerns the perceived fairness of the process leading up to decision making [201]. Folger therefore proposed a link between these two notions of justice at the workplace in the Referent Cognitions Theory [201, 202]

Folger argues for the link on the basis that these two notions (procedural and distributive justices) are not mutually exclusive, as procedures have an effect on the distribution [201]. The theory postulates that when an outcome is seen as unjust or unfair at the workplace, it results in moral outrage and resentment [201]. Therefore,

the experience of resentment towards an unfair outcome can be analyzed in two ways, that is, consideration of an imaginable better outcome that could have been more satisfying (distributive justice), and improper procedures or processes that may have hindered the attainment of the desired outcome (procedural justice) [201, 202]. For example, assuming health workers (or workers in any work context) have received a financial incentive, they may not only judge it as fair or unfair based on *what* has been distributed (distributive justice) but also based on *how* it has been distributed (procedural justice). It has been reported that that workers who feel that they are fairly treated by their organization show more motivation, commitment, and extra-citizenship behavior (taking on voluntary tasks) [208]. Those who experience unfair treatment, by contrast, are more likely to show low levels of motivation and commitment, exhibit anti-normative behaviors, and even leave their jobs [209].

RBF offers financial incentives to health workers upon reaching a predefined threshold in performance, based on certain performance indicators. Generally, only selected groups of health workers are entitled to receive such financial incentives, in this case health workers working with maternal and child health. Both the way in which these groups of employees have been selected and the difference in access to such incentives within a health care facility may impact on individual perceptions of fairness and justice.

1.7.6 The social dimension of motivation: social capital

This dissertation aims to make two central contributions to the knowledge about RBF. Firstly, it critically examines the policy process behind the introduction of RBF in a low-income setting. Secondly, it explores the experiences of health workers with RBF in a specific social environment. The theories presented so far are useful in explaining the phenomenon of RBF and the preconditions and assumptions that shape and drive it. As such, they also highlight one particularly central precondition for RBF programmes, namely the assumption that agents in the health sector are rational actors driven by individually founded motivations. What the theories so far discussed deal less well with is the social dimension of health workers' motivation. The choices

health workers make and the strategies they adopt will be quite heavily influenced by both local culture and the specific social relations at their work place and in the local community [15]. This is the case to an extent that renders purely individualistic models of explanation insufficient (e.g. the principal-agent theory). There is therefore a need to broaden the theoretical base of this dissertation to include contributions that may help explain the social-cultural dimensions of motivation.

Magrath and Nichter [15] have called for the active use of social science theory in order to have a holistic understanding of the motivation of health workers. The relationship between health workers and their social environment may contribute significantly to the explaining of how RBF is perceived and why it is experienced differently across social-cultural settings. The intention with such analyses is not to undermine the fact that health workers have individual agency, but to recognize that social structures implicitly or explicitly have an influence on how individuals choose to exercise their agency when engaging with an RBF programme.

RBF is as noted above based on the precondition that health workers are rational, individualist, self-interest seeking actors. As also noted above, the majority of RBF programmes originate from the US and other western liberal countries [78, 97, 151, 210, 211]. These are countries characterized by well-functioning institutions (public or private), better job opportunities, and high incomes enough to give individuals in these contexts more or better choices. It may be assumed that individuals in such social contexts find it both easy and sensible to accept and relate to the libertarian values [212], RBF is based on. In Tanzania, like in other low-income countries, the situation is very different. Firstly, elements like poor working conditions and fragile infrastructure render public institutions unstable. Secondly, significant remaining 'traditional' elements in the society make modern elements that are introduced work differently than they would have done in more purely 'modern' contexts, often leading to dysfunction. In addition, the collective mindedness that follows from both the remaining significant influence of traditional values and a modernity characterized by scarce resources creates an environment where rational choices will

look different from what they would be in more profoundly ‘modern’, individualist, stable, wealthy western-style societies.

For example, studies from Tanzania have revealed that the introduction of neo-liberal policies in the 1980s, replacing Nyerere’s policies based on *Ujamaa* (African socialism) values, challenged and reshaped the national provision system for public services, including health services [30, 213]. Cultural lag nevertheless causes some of the old, collective values to remain influential, evoking a nostalgic discourse of *ujamaa* [213]. In the same vein, an ethnographic study revealed that health workers in Tanzania, through nostalgia for an ‘egalitarian’ state, still perceive the now neo-liberal state as a fair distributor of goods and services to the whole population [50].

The concept of capital [214] may help to explain the social dimension of motivation and what is at stake when financial incentives are introduced in social settings such as Tanzania. In order to account for the structure and functioning of the social world, one has to acknowledge the existence of other forms of capital aside capital relating directly to economic gains [214]. In addition to the economic capital, other forms exist, such as cultural, social and symbolic [214]. In any given social setting, agents have access to various amounts of the various kinds of capital, and the total amount of capital one controls determines one’s position in the social setting [214, 215]. Cultural capital can be embodied (long-lasting dispositions), objectified (cultural artifacts or goods) and institutionalized (e.g. education, formal or informal) [214]. Social capital refers to the social networks and group memberships, which are important in providing support in time of need. Symbolic capital can be defined as resources available to individuals relating to their honour, prestige and recognition.

It is important to note that these capitals, although distinct, are closely related and can in fact be converted from one form to another [215]. For example, cultural capital can be a means to economic capital, i.e. a health worker can use their knowledge and expertise in exchange for a financial incentive. However, this conversion of capital from one form to another is only possible as long as it is permissible in the social world of the agent in question [214]. If the transaction is carried out anyhow, without

respecting the rules of the game [214], it can affect the actor's other capitals negatively. For example, if an RBF scheme is perceived to be encouraging competition or if the payment is considered to be unequal to the effort [15, 89, 160], social capital among health workers can be affected adversely. Similarly, if the need to meet RBF targets encourages prioritization of rewarded services and neglect of unrewarded services [52, 118, 131, 216], this can affect negatively the social relations between health providers and service users.

Therefore, from a theoretical viewpoint, it is reasonable to assume that in a collectivist society, an individual's reputation (or that of his/her family) may be more valuable than an economic bonus payment at work. If making choices leading to bonus payment implies acts that will reduce the reputation of one self and thereby one's family in the local community, the reasonable choice will be to forfeit the bonus. Moreover, if agents choose to fully embrace the bonus payment regardless of the social risks involved, it is reasonable to assume that they will face stiffer social sanctions than the same acts would have produced in western liberal societies which are highly individualized. As noted elsewhere, Tanzania is a country suffering from *projectitis* [60]. Among other things, this implies that people are used to short-lived projects. This further reduces the chance that they will risk their social capital, which is stable and sustainable, for a few dollars offered by yet another project that no one knows whether will stay or go.

In this regard, the concept of capital [214] helps to illuminate the socio-cultural dimension of motivation salient in this dissertation. It highlights that in a socio-cultural context such as the Tanzanian, a health worker's experiences with and perceptions of RBF may be influenced by a range of other concerns than the highly individualized choices and preferences that RBF, theoretically is based upon. Rather, people's way of relating to RBF programmes must be understood as part of a complex social web, and therefore the actual effects and consequences of such schemes will extend far beyond the health sector, and are very difficult to predict.

2 Materials and methods

2.1 Study design

A qualitative case study design was used in this study. It is stated that good science has to be problem driven and not methodologically driven [217]. That is, as researchers, we begin with a research problem and then search for a suitable methodology. In this study, a case study design was suitable in examining in-depth an ongoing policy implementation [218] in the health sector of Tanzania, RBF. A case study is defined as “*an empirical inquiry that investigates a contemporary phenomenon in-depth and within its real-life context*” [218], it provides detailed and rich information about the studied phenomenon [219]. A qualitative case study methodology has advantages when the study is pursuing the *how* and *why* questions [218], as the case in this study. There are many typologies of case studies [220, 221], and in this study I followed the typology proposed by Thomas [220], as illustrated by figure 2 below.

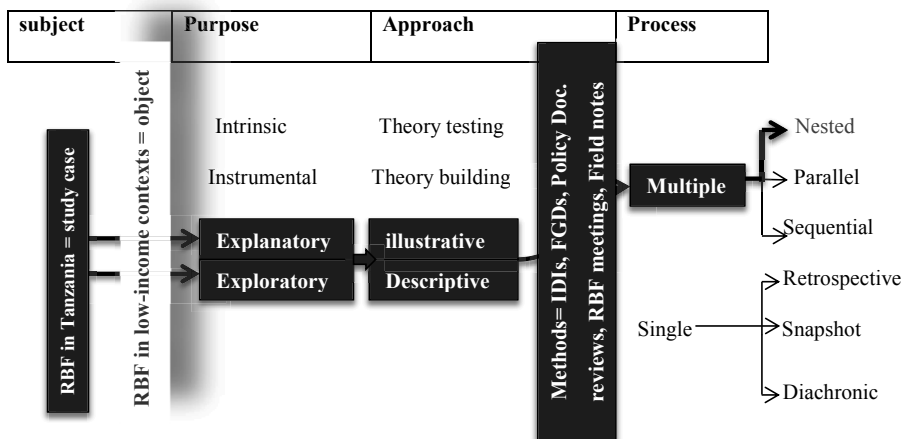


Figure 2: Typology of the case design for this study, adapted from Thomas [220]

Following arrows and boxes (in black) from left to right, the case study is based on RBF in Tanzania (subject), the study is exploratory and explanatory of the study phenomenon (purpose), the case study intends to describe and illustrate RBF in Tanzania (approach). The case study was multi-sited and conducted at multiple-levels (process). It study used sub-cases, the local RBF in Mvomero and the donor-funded

RBF in Pwani (nested cases) to present a whole picture of the Tanzanian RBF. Qualitative case study research design allows the use of multiple methods of data collection [218, 222]. In this study, the main methods used for data collection were in-depth interviews (IDIs), focus group discussions (FGDs), policy document reviews and participation in RBF related meetings, as summarized in figure 2. Using multiple methods of data collection help researchers to achieve triangulation, which improves the credibility of the study [218, 223, 224]

2.2 Study setting

The study was multi-sited and data was collected from two countries, Norway and Tanzania. In Norway data was collected in Oslo while in Tanzania it was collected in Dar es Salaam, Mvomero district in Morogoro region and Rufiji districts in Pwani region. Data for the study was collected in four phases between 2010 and 2013. Three of the phases were conducted by the researcher and one phase by a research collaborator and third author of paper II. In all data collection phases the researchers got help from research assistants. The phases for data collection took place in June-August 2010, July-October 2011, October-November 2012 and January-June 2013. During the first, second and fourth phases, data was collected from Tanzania, and the third phase from Oslo, Norway. Figure 3 gives a summary of the entire research process.

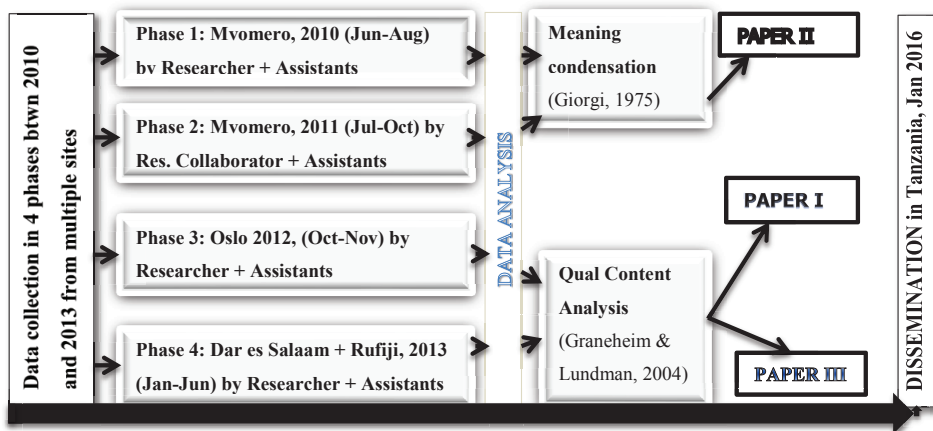


Figure 3: Own illustration of the research process for this study

Mvomero and Rufiji are both rural districts and are both in the Eastern zone regions. Mvomero district was chosen because it is the only known district to have fully implemented the local RBF programme. The donor-funded pilot was conducted in the Pwani region and Ifakara Health Institute (IHI) carried out evaluations in the other five districts of Pwani [114, 122, 127], except Rufiji and the Mafia islands. Therefore, Rufiji remained the only district on the mainland where RBF data had not been collected. For this reason and the need to widen the scope on RBF experiences in the region, I purposively chose Rufiji. The district was also chosen over Mafia for practical reason of geographical accessibility.

2.2.1 Mvomero district

Mvomero is one of the six districts in Morogoro region of Tanzania. The district covers more than 7, 000 square kilometers and has a population of 312 109 [18]. Administratively, Mvomero is divided into 17 wards and 101 villages. The district is bordered by two regions, Pwani to the east, and Tanga to the north. To the southeast it is bordered by Morogoro rural district and to the west by Kilosa [225]. The economy of Mvomero is heavily dependent on subsistence agriculture. The district has a significant population of traditional pastoralists of the Masaai and Sukuma tribes, some of these, who live in villages such as Kambala, Wame-Sokoine and Mela which are as far as 15 km to the nearest functional health facilities [226]. The distance and negative attitudes from health workers, according to our fieldwork accounts, affect the availability, accessibility, acceptability and quality of health care among these groups.

The district has 56 health facilities, including one mission hospital owned by Roman Catholic. It also has five health centres, one owned by a parastatal organization and four public, and 50 dispensaries (42 public, 3 parastatal, 2 private and 3 church-run) [227]. In terms of staff, all cadres have a significant shortage of staff except the medical attendant category, which is adequately staffed. The medical attendant category receives shorter training of at least one year, and the training is either pre-service or in-service [50, 52]. Of the 187 clinical officers required in the district, 87

are available and of the 103 nurses required, 84 are available [46]. In Morogoro region, 98.3% women received antenatal care (ANC) at least once from a skilled provider and nurses and midwives, 83%, were more likely than other health professionals to provide ANC services [26]. In the eastern region of Tanzania, Morogoro had the highest number of women, 0.5%, receiving ANC from unskilled providers, i.e. village health workers and traditional birth attendants [26]. Six out of 10 live births in the region are delivered by a skilled provider, and 27% of mothers in the region seek first postnatal checkup within 48 hours of delivery [26]. Morogoro region's figures given above are above national averages; however, comparatively Pwani region, where Rufiji district lies, performs much better on the access to and utilization of maternal health services.

2.2.2 Rufiji district

Rufiji is one of the seven districts in the Pwani Region. It has a population of 217,274 [18]. The population density is 17.7 people per square kilometer [228].

Administratively, the district is divided into 27 wards, 96 villages and 400 hamlets [18, 228]. The main economic activity of the district is agriculture, and 78% of the inhabitants actively participate in this sector [228]. Accounts from community members and health workers revealed that the district faces a huge challenge with water borne diseases, and that the water is saline due to its proximity to the Rufiji basin, which is the largest catchment basin in Tanzania covering 177,420 km² [229]. The basin is the catchment area for the Rufiji River, which divides the district into two halves. The district has a delta zone and is a hard to reach area [230]. Health facilities in this delta area face enormous challenges in attracting and retaining qualified staff, procuring medical supplies, and communicating with the district health offices.

The district has a total number of 64 health facilities, including two hospitals, five health centres, and 57 dispensaries [228]. Of the two hospitals, one is church-run and the other is public. All the five health centres are publicly owned. Of the 57 dispensaries, 46 are public, four are church-run, four are private-for profit and one is

owned by a non-governmental organization [228]. All cadres in Rufiji have significant shortages except the medical attendant category, which is overrepresented. The staffing requirements for the district are 583 and of these, 301 are filled, a shortage of 49% [228]. In Pwani region, 99.5% women received antenatal care at least once from a skilled provider and nurses and midwives (94%) were more likely than other health professionals to provide these services [26]. Seven out of 10 live births in the region are delivered by a skilled provider, and 42% of mothers in the region seek first postnatal checkup within 48 hours of delivery [26]. All these figures provided are well above national averages, indicating that access to and utilization of maternal and child health services in Pwani are better than other regions in Tanzania. However, it should be noted that on its own, Rufiji is worse off than other districts in Pwani due to the fact that about a quarter of its health facilities are in the delta zone.

2.3 Selection of research participants and study sites

The study aimed to elicit experiences with and perceptions of RBF from two main categories of research participants, that is, policy makers and development experts and health workers. Additionally, the study benefited from health service users' experiences on access to, utilization and quality of health care services. In order to achieve the study aim, the study used purposive sampling in the selection of research participants and research sites. According to Maxwell [231] purposive sampling is a strategy in which "*particular settings, persons, or events are deliberately selected for the important information they can provide that cannot be gotten as well from other choices*". As a result, the researcher can use purposive sampling to select research participants and sites with a specific purpose of answering the study questions [223, 232, 233]. This study benefitted from this advantage of purposive sampling as outlined below.

2.3.1 Policy makers and development experts

Policy makers and development experts were selected with the aim of understanding the policy process behind the introduction of RBF in Tanzania. At the policy level, in-depth knowledge and understanding of the health sector landscape and reforms in

Tanzania was required. Therefore, I was mainly interested in the organizations which had been members of the Health Basket Fund and/or Donor Partner Group for Health in Tanzania for a long time, such as founding members. Irish Aid, Norwegian Agency for Development Cooperation (Norad), Danish International Development Agency (Danida), Swiss Agency for Development and Cooperation (SDC) and the World Bank were selected using this criterion. The Royal Norwegian Embassy and the Ministry of Foreign Affairs of Norway were selected based on Norway's role and influence on the RBF agenda in Tanzania. The German Society for International Cooperation (GiZ) was selected for their immense role and expertise in health sector financial reforms in Tanzania. The Ministry of Health and Social Welfare of Tanzania was chosen as the custodian of the RBF process in the country. The Clinton Health Access Initiative (CHAI) was selected as the organization managing the donor-funded RBF pilot in Tanzania. An overview of organizations and research participants under this category is provided under data collection methods section.

To identify individuals best suited to give information on the RBF process, an e-mail was sent to the organizations requesting an interview on RBF. The organizations responded selecting individuals with the best knowledge on the RBF process in Tanzania, including those who participated in the Health Basket Fund discussions. Three interview guides, for Tanzanian officials, Norwegian Officials and other RBF involved development partners were developed (appendices III, IV and V) to explore issues surrounding main trends and thematic priorities in development aid policy, countries and actors perceived to be proponents in the RBF process, agenda setting in the Tanzanian health basket, and experiences with RBF. Data collected from these informants was used in Paper I. Under this category, it is important to note that some important stakeholders in RBF, who were either supporting or opposing it, declined to participate in the study mainly citing the political sensitivity of the RBF agenda at the time.

2.3.2 Health Workers and Users

The study targeted health workers to understand their experiences with and perceptions of RBF. In 2010 and 2011 we recruited health workers who were primarily working with maternal and child health services as this was the targeted service area for the local RBF in Mvomero (locally funded), and therefore workers in this section had in-depth knowledge on RBF. The 2010-2011 sub-study was aimed at eliciting the experiences of health with RBF before and after bonus payments. Therefore, in 2011 we wanted to re-interview the same health workers as in 2010. However, this was not possible as we only managed to re-interview three out of twelve. The other nine could not be located for a number of reasons, so we ended up recruiting new participants. Although we interviewed new participants, the experiences presented in paper II still provide a picture of the before-and after RBF bonus distribution. However, there is a possibility that this may have affected the quality of our data.

In 2013, we knew that RBF in Rufiji (donor-funded) had been running for two years and that health workers were being paid differently, and because of this we were interested in the experiences of all health workers working in different sections. In addition, we also aimed at gathering information from health facility leadership and from health workers central to the implementation of RBF, for example, those responsible for coordinating Reproductive and Child Health services. This was primarily to map out health facility based RBF implementation challenges or areas of success, in order to pursue these issues further in IDIs and FDGs. To recruit health workers for the study in all cases we had to be introduced to them by their leadership, as permission is required to conduct research at health facilities. However, this raised some ethical concerns on consent as it is difficult to judge if all health workers who participated in the study did so out of their own volition or because they felt obliged to as long as their leader was involved in the recruitment process. We however, made sure that consent was coming also from each research participant. An overview of health workers who participated in IDIs and FDGs is provided under data collection methods.



Figure 4: *IDI with a health worker at a public dispensary in Rufiji District, the provisions at the table were bought by RBF facility funds*

Data was also collected from health service users, and their experiences with care were important in our study. The information we gathered from them was useful for triangulation purposes, and for follow-up interviews with health workers. For example, in paper II we pursued the topic of adverse sanctions towards home birth after this was reported in focus group discussions with mothers. However, no paper in this dissertation explicitly focuses on the experiences of health service users. We recruited health service users mainly through the help of health workers but also through our own social networks established during our stay for the data collection period. Whenever we got help from health workers, we made sure that consent was sought from the research participants themselves and that they voluntarily participated in the research. An overview of FGDs with health service users is provided under data collection methods section.

2.3.3 Health Facilities

Eighteen health facilities were purposively selected in the two districts, seven in Mvomero and eleven in Rufiji. The criteria for the selection of health facilities differed in Mvomero and Rufiji. This is mainly due to the scope and focus of the sub-studies conducted in these districts. Firstly, for the data that was collected in 2010 and

2011 in Mvomero, the emphasis was on primary health care workers' experiences with RBF. Therefore, we targeted dispensaries and health centres. Secondly, the 2010 sub-study was part of my master's thesis in Gender and Development studies and its scope was not as wide as the 2013 sub-study. In the end we covered one church-run health centre and six public dispensaries in Mvomero. Table 2 gives an overview of health facilities that were selected.

Table 2: *Overview of selected health facilities*

Mvomero- 2010 and 2011		Rufiji-2013	
Facility type	Ownership	Facility type	Ownership
Dispensary A	Public	Dispensary A	Public
Dispensary B	Public	Dispensary B	Church-run
Dispensary C	Public	Dispensary C	Church-run
Dispensary D	Public	Dispensary F	Public
Dispensary E	Public	Dispensary G	Church-run
Dispensary F	Public	Dispensary I	Public
Health Centre G	Church-run	Dispensary J	Public
		Health Centre D	Public
		Health Centre E	Public
		Hospital H	Public
		Hospital K	Church-run

The 2010 sub-study, therefore acted as a formative study for the 2011 and 2013 sub-studies. For the Rufiji sub-study of 2013, whose scope and focus was wider, four main criteria were used for selecting health facilities. Firstly we aimed to cover all levels in the health referral system, hence we selected two hospitals, two health centres and seven dispensaries. Secondly, we aimed at covering a wide geographical distribution of health facilities. Thirdly we had obtained the RBF performance report

for cycle 4 for health facilities in Rufiji therefore, we wanted to include both facilities that had been performing well and those not. Fourthly, we included both church-run and public owned health facilities. The rationale behind these selection criteria was to get a comprehensive, in-depth picture of the varying experiences with RBF.

However, in practice it became particularly challenging to meet all these criteria, for example some of the worst performing health facilities in Rufiji district were in the delta zone which was difficult to access.



Figure 5: Entrance to Ikwiriri dispensary in Rufiji district.

2.4 Data collection methods

The methods that were used for data collection included in-depth interviews (IDIs), focus group discussions (FGDs), policy document reviews, participation in RBF related meetings, and field notes and informal conversations. A brief account of these methods is given below.

2.4.1 In-depth Interviews (IDIs)

In-depth interviews (IDIs) were used as a data collection method. In his book, Kvale [234] posed a simple yet fundamental question in social research, “*if you want to know how people understand their world and lives, why not talk with them?*” [234]. IDIs are suitable for eliciting in-depth information on research participants’ experiences and worldview, and in our study all the three papers used data collected through this method. In total, 70 IDIs were conducted; thirteen with policy makers

and development experts for paper I, and 57 with health workers and administrators for paper II and III. IDIs with policy makers and development experts were conducted in English and all took place in the offices of the research participants or meeting rooms at their workplaces. IDIs with health workers and administrators were conducted at health facilities, and the majority of these were conducted in Swahili. Tables 3, 4 and 5 give an overview of participants in IDIs.

Table 3: *Overview of IDIs with policy makers and development experts (Paper I)*

Agency/Organization	Number of Interviews
GiZ Tanzania	2
Swiss Agency for Development & Cooperation (SDC)	1
Ministry of Health & Social Welfare	2
Irish Aid/Health Basket Coordinator	1
Danida	1
Clinton Health Access Initiative (CHAI)	2
World Bank – Tanzania	1
Norad	1
The Royal Norwegian Embassy- Dar es Salaam	1
Ministry of Foreign Affairs (MFA)- Norway	1
Total	13

Table 4: *Overview of IDIs with health workers in Mvomero district (Paper II)*

Category of informants	Number of interviews
Clinical officers (CO)	3
Nursing staff	17
Medical attendants (MA)	2
Laboratory staff	1
Officials from the district health offices	2
Total	25

Table 5: *Overview of IDIs with health workers in Rufiji district (Paper III)*

Category of informants	Number of interviews
Medical officers (MO)	2
Assistant Medical Official (AMO)	2
Clinical Officers (CO)	3
Nursing staff	11
Medical attendants	11
Laboratory staff	2
Officials from the district health offices	1
Total	32

Interview guides were used with health workers covering the following themes: expectations towards RBF, experiences with RBF, prioritization of work within the

health facility, strategies used to attract patients/clients, barriers to quality care, perceptions on individual work motivation, work relations and experiences with bonus distribution (appendices VI, VII, and VIII).

2.4.2 Focus group discussions (FGDs)

Human beings are social and like to gather and belong to a group. Social science has tapped into this naturally occurring behavior and refined it into a research method [235]. Focus group discussions allows the gathering of people with similar background and experiences to discuss a specific topic, and it is a method that reveals information that may be less accessible in interviews [236, 237]. For instance, in our study we discovered that health workers were more willing to reveal what they thought to be problematic with the RBF programme in FGDs than in IDIs. We gathered FGDs data from two categories of participants; health workers and health service users. A total of 21 FGDs were conducted with health service users, between 2010 and 2013. Among these, 15 were with women and six with men. Topic guides were used covering themes ranging from quality of care, access to care, availability and acceptability of care, with an emphasis on maternal and child health services which are targeted by RBF in Tanzania. FGDs with this category of informants were carried at various places but mainly at health facilities and at the house of one of the participants (or local contact person). Research assistants facilitated all the FGDs without my presence sometimes, and reasons for this are discussed under trustworthiness in qualitative research in chapter 4. Table 6 gives an overview of these focus group discussions with health services users.

Six focus group discussions were conducted at five health facilities with health workers as summarized in the table 7. The FGDs were conducted at health facilities in Swahili. Three FGDs were with RCH staff at hospitals and health centres or with workers primarily responsible for RCH services at the dispensary level. Two FGDs were with non-RCH staff and one FGD with non-medical staff at a hospital. The reason for grouping participants as RCH, non- RCH and non-medical was to explore the sensitive topic of bonus distribution, as these groups were paid differently. All

focus groups had an average of five participants, a number encouraged in the literature [236]. To increase the range of information, participants in IDIs were not included in FGDs. A topic guide was used during FGDs exploring the following themes: perceptions of care provision as a profession, experiences with the RBF programme, social relations, strategies to attract patients/clients, and community involvement (appendix IX). Data generated from FGDs with health workers was used in Paper III.

Table 6: *Overview of FGDs with health service users*

Gender	Year			Total
	2010	2011	2013	
Female groups	2	6	7	15
Male groups	1	5	0	6
Total groups	3	11	7	21

Table 7: *Overview of Health workers who participated in FGDs*

FGD number	Category of staff	Location	Participants	Men	Women
FGD 1	RCH	Hospital (public)	5	1	4
FGD 2	RCH	Health Centre (public)	5	1	4
FGD 3	RCH	Dispensary (church-run)	4	0	4
FGD 4	non-RCH	Hospital (public)	6	3	3
FGD 5	non- RCH	Health centre (public)	5	3	2
FGD 6	non- medical	Hospital (church-run)	5	4	1
Total			30	12	18

2.4.3 Policy documents reviews

Policy documents were of utmost importance to the study, and were used mainly from a realist perspective [238], i.e., as a means of understanding the RBF policy and design in the Tanzanian context. Hence, policy documents were essential in providing background information to the study and in defining the questions and trajectories that were pursued [239] in the IDIs with policy makers and development experts.

Policy documents central to our study include: *The Pwani region P4P pilot: design document* [70], *Health sector startegic plan III (July 2009-June 2015)*, *Partnership for delivering the MDGs* [33], *The national road map strategic plan to accelerate reduction of maternal, newborn and child deaths* [240], *Payment for performance strategy 2008-2015* [69], *Implementation guidelines- payment for performance* [241].

These policy documents were instrumental in uncovering the political frames [238] for the RBF process and in supplementing primary data collected [239] from the representatives of the Ministry of Health and Social Welfare. Data collected through policy document reviews was mainly used in Paper I.

2.4.4 Participation in RBF related meetings

In addition to the already presented data collection methods, I participated in meetings on RBF in Dar es Salaam between January-June 2013 both as a *participant* and as an *observer*. Although this method of data collection may seem similar to participant and non-participant observations, in this study I will not specifically use these terms. It has been noted that during fieldwork we generally observe and participate in events, but participant observation requires more than this mere observations and participation [242, 243]. Participant observation requires a systematic way of gathering and using information gained [242], and a great deal of time to immerse with study participants [242-244]. To an extent I did not manage to achieve some of these criteria.

Two meetings were particularly important for me during my fieldwork. The first was a stakeholders' meeting on RBF held in January 2013 which was giving a review on the status of RBF in the health sector of Tanzania. The meeting provided me with an opportunity to identify influential actors in the RBF field. During this meeting initial contacts with potential research participants in Dar es Salaam were made. The meeting also contributed to the identification of potential sources of secondary data for the study. The second meeting occurred when I was requested by the RBF joint assessment committee, which consisted of Norad, the World Bank and USAID, to assist as a resource person to gather literature on RBF in Tanzania and other low income settings. This role was important for gaining access to and building rapport with key informants in the study. The participation in the RBF meetings was therefore important for gathering background information, for refining the research questions, for the identification of potential informants, for the development of the

interview questions [238], and for mapping of secondary data sources, as these were mainly accessed through these meetings.

2.4.5 Field notes and informal conversations

Field notes were taken during data collection. The researcher noted down events that were observed, including informal conversations with or among study informants and community members in the data collection sites. In interviews and FGDs, key issues and statements were noted. These field notes were important at various stages of the research process, such as data collection, and during analysis and report writing. Thus, the field notes were important for data triangulation.

2.5 Data analysis

Analysis in qualitative research is an ongoing process from the first interview and depends to a degree on the conceptual capabilities of the researcher [245]. Beyond the capabilities of the researcher, qualitative analysis has to be rigorous, systematic and credible [245]. The majority of the audio recorded IDIs and FGDs that were conducted in Swahili were transcribed and translated to English by research assistants. These were carefully checked by a research collaborator, a senior researcher at Ifakara Health Institute (IHI) in Tanzania, to ensure the quality of translation [246, 247]. The IHI collaborator also listened to some audio recordings, comparing them to some few transcripts that had been transcribed in Swahili checking for the quality of the transcription process and then translations to English. Transcribed IDIs and FGDs were imported into OpenCode 3.6 [248], for the purposes of data management. Using Computer Assisted Qualitative Data Analysis Software (CAQDAS) makes it easier to store and retrieve data, but caution must be taken as CAQDAS cannot replace the human element and *do* the analysis [249]. If there is over reliance with CAQDAS, there is a danger that the analysis can become superficial and counteract deep engagement with data, which is the crux in qualitative data analysis [249]. The study used two data analysis methods, qualitative content analysis [250], for paper I and III and meaning condensation [234, 251], for paper II. These two methods do not differ so much on their practical applications, but as I

advanced with my PhD training, I found procedures of qualitative content analysis as outlined by Graneheim and Lundman [250] more pragmatic and easy to follow. Inductive analysis was used as it is suitable for both qualitative content analysis and meaning condensation [245]. A brief account of these two analysis methods and steps taken follows.

2.5.1 Meaning condensation

Meaning condensation is a synopsis of the meanings expressed by the informants into shorter formulations. It involves a process of shortening long statements into briefer statements rephrasing what the informant said in fewer words [234]. The method of analysis was developed by Giorgi [251] on the basis of phenomenological philosophy, but this does not limit its use to phenomenological studies [234]. The analysis involves five steps [234]. Firstly, the transcripts were read thoroughly to get a complete sense of the whole, which is the familiarization stage [249]. Secondly, the transcripts were uploaded into the software OpenCode 3.6, where meaning units of the text were determined as expressed by the research participant. Thirdly, the meaning units were coded. The coding was *in vivo*, staying as close as possible to research participants' viewpoint. Sub-themes were extrapolated from these codes. The fourth stage involved the interrogation of the meaning units in terms of the specific purpose of the study. Lastly, mutually exclusive themes were identified and used to present results supported by representative extracts. Themes that were identified are: 1) RBF bonus paid at flat rate, 2) attitudes towards alternative usage of the RBF funds changing after payments, 3) RBF having improved services and cooperation at health facilities and, 4) strategies used to make women deliver at health facilities, which is shown in table 8. These themes were used to structure the presentation of results in paper II. Analysis was conducted by the researcher working closely with a research collaborator and co-author who had collected the data, with experience with various qualitative analysis methods. Working in teams during the analysis facilitates a quality data analysis process [252].

Table 8: *From meaning units to theme in meaning condensation: strategies to make women deliver at health facilities*

Meaning unit	Codes/Condensed meaning unit	Sub-theme	Theme
We said that for those who deliver at home their babies won't be vaccinated and the babies won't get clinical cards, but they still continued to deliver at home. Maybe we should look for other means, like fining them. We should tell them that those who deliver at home will be fined	Denying of live birth cards and vaccination to women who delivered home	Coercive strategies to encourage facility deliveries	Strategies to make women deliver at health facilities
Last year there was a clinical officer who used to tell women that if they give birth at home they will be charged a fine...He was just saying that to scare them. If you tell them that, they are afraid to get the fine. So up till this day there is no one who gives birth at home	Using threats of fines, to scare women and encourage them to deliver at health facilities		
We heard that at "Dispensary B" they have more deliveries these days, so we asked ourselves how are they doing it? How come they are getting safe deliveries, how are they doing it? After inquiring about their successes we are now educating our colleagues. (...) If she won't deliver here, then she won't get a clinical card for the baby. So it is just an educational competition.	Learning from other facilities to deny mothers live birth cards. RBF encouraging competition among facilities		
When we go for seminars we sometimes ask what others do to sensitize the people. So whatever you hear from others, if you haven't tried it yet, then you should also attempt it to see how it works. (...)	Meeting places are channels to learn new strategies for increasing facility deliveries	Positive strategies to encourage facility deliveries	
I don't think fining the mother is a good approach. We should rather educate women by telling them the consequences of delivering at home. There are many ways to mobilize them like telling them that they won't be given a birth card at the dispensary.	Proper health education can increase facility deliveries		
They (women) come here because we sensitize expecting mothers (...) We tell them that here the equipment is sterilized well compared to that used at home, which is not sterilized. They just hang the gloves to dry which is very risky, it can lead to AIDS transmission. Once they hear that they can get AIDS, they come in large numbers.	Educating women on the benefits of facility delivery and risks of home delivery		
The community here is different from that one (where they fine patients). Here, people are quite tricky just a minor thing and he/she will go to the village administration or to the Councillor to report! You ask yourself why you should cause all that?	Some communities report to authorities on the use of threats/fines		

2.5.2 Qualitative content analysis

Graneheim and Lundman [250] provide a concrete analytical framework to analyze and synthesize qualitative data moving from manifest to latent content. The process as always in qualitative data analysis started with a thorough familiarization of data [249] by reading the transcripts several times. After this familiarization stage, transcripts were uploaded into OpenCode 3.6 to continue with the analysis. Paragraphs and pieces of the text referring to specific experiences were then

identified forming meaning units. The meaning units, at manifest level, were then coded. The various codes were refined and sorted into categories [250]. Some transcripts at this stage were coded together with a PhD colleague, which was important in enhancing the quality of the process and inter-coder agreement [252, 253]. The underlying meaning of the categories (latent content) was formulated into themes [250], which were presented as results in the paper I and II. Table 9 shows an example of how the process of analysis moved from meaning units to themes.

Table 9: *Examples of meaning units, condensed meaning units, sub-themes and themes in qualitative content analysis developed for Paper III*

Category: bonus distribution concerns in OpenCode 3.6				
Meaning unit	Condensed meaning unit Description close to the text	Interpretation underlying meaning	Sub-theme	Theme
The report for RBF comes from RCH every end of the month, but when the bonus come it is shared equally, even with security guards	RCH staff do more work	RBF indicators are from RCH	Negative perceptions towards RBF bonus distribution	Perceived unfairness over RBF bonus
I think it is a normal problem for human to fight for money. Sometimes you see someone who doesn't even put an effort at work claiming that they need more bonus share	Money always cause problems	Sharing money is a problem		
RCH's work is important but they cannot accomplish this task alone, why then do they need more bonus than anyone else. Everyone deserves the same RBF bonus.	Flat rates are fair 'everyone toils'	A flat rate need to be used for RBF bonuses		
When we sit and try to solve our problems here concerning RBF bonus, the RCH staff do not support me because RBF favors them. I see this program has some negative impacts. Just imagine you have a family and you give food to one of your child while the others are looking	RBF encouraging conflicts among workers	RBF bonus distribution causing conflicts		
We normally get our bonuses too late. Sometimes, some people can get their money early while others get it late and we wonder how this is possible	The need for RBF bonus to be distributed timeously	Bonus is delayed	RBF management concerns/problems	
Sometimes we do good work and report good data, but during the verification process, somehow we always end up with lower figures. This affects our RBF bonus money. We don't know what they take into consideration	Data is not captured properly	RBF data is not captured properly		
The thing I don't like about RBF is that it doesn't consider the workload. As you can see we are a dispensary here but we do a lot and serve many people, ...sometimes more than a health centre but when RBF bonus money come they don't consider that workload or the number of people we serve	Target setting not fair	The criteria for setting RBF targets not fair		

2.6 Philosophical and ethical considerations

Ethics and reflections on epistemological questions are an integral part of good science. When following a qualitative case study design which aims to understand a study phenomenon in its ‘real-life’ situation [218], it entails the researcher to be in constant contact with research participants [254, 255]. Although this is an advantage in acquiring in-depth knowledge for a case study [219], it raises ethical challenges and concerns on knowledge production. This section outlines these concerns and how they were handled in the study.

2.6.1 Epistemological paradigm

In science it is important to reflect on how knowledge is created and constructed. Reality is not some objectifiable truth waiting to be discovered out there, through a positivist scientific inquiry [256]. Reality is socially constructed [257], and in order to tap into this reality there is need to work in close collaboration with research participants, allowing them to tell their stories, present their experiences and worldviews [221]. A case study naturally relies on context specific knowledge [253, 258], and therefore a constructionist view on knowledge fits well into its design [221]. The epistemological roots of this study are therefore in the constructionism paradigm as also encouraged by leading scholars on case studies such as Merriam [259] and Stake [260, 261]. Besides the constructionism paradigm being in tandem with case studies, the paradigm allows the researcher to be reflexive, knowing that he or she is a tool in the research process. My constant awareness and reflections on these epistemological questions during the research process helped in facilitating trustworthiness in this study.

2.6.2 Ethical clearance

Ethics clearance was sought through the National Institute for Medical Research (NIMR/HQ/R.8a/Vol.IX/1515) (appendix X). Additionally in order to increase the involvement of native Tanzanian researchers in the research project, I approached Ifakara Health Institute (IHI), which provided me with a collaborating partner, a senior researcher at the Institute with qualitative researcher experience. As a

requirement from IHI, my research proposal was submitted to the Ifakara Institutional Review Board and granted institutional clearance [IHI/IRB/No: 24-2012] (appendices XI). Therefore during data collection periods, IHI could monitor if the project was not violating research ethics and guidelines in the country. In Norway, the study did not require ethical clearance, but was however, registered by the Data Protection Official for Research at the Norwegian Social Science Data Services (NSD).

2.6.3 Consent, confidentiality, anonymity and harm

Participants in this study were informed about the research and its objectives. Participation in the research was voluntary and participants were informed about their right to withdraw from the study at any point. Informed consent forms were prepared in both English and Swahili to facilitate access to research participants (appendices XII and XIII). Policy makers and development experts tended to sign and return the consent forms, while frontline health workers and health service users preferred to give oral consent. However, according to Davies [262], it is the participants' voluntary acceptance to take part in the research which is of importance, and not whether it is given orally or in writing. In cases where I used gatekeepers to recruit research participants, for example, health workers and health service users, particular attention was paid that consent was obtained from the research participants themselves. In addition, confidentiality was facilitated, which is challenging when using gatekeepers [263]. For example, health facility leadership may at times show some curiosity wanting to know what would have been talked about in IDIs or FGDs. Under these circumstances I would use my skills to politely refuse to reveal such information. Facilitating confidentiality and anonymity in social research is important in lessening the risk of harming research participants [264].

It was explained to research participants that the IDIs and FDGs will be recorded for academic use only, without the use of names that can lead to the identification of participants. Data collected was anonymized by labeling health facilities by letters, and informants by titles. For policy makers, whose identity could have been revealed

by using their job titles, I referred to them by using their work organizations in the study. However I did not guarantee them anonymity as they would be still identified based on their expertise on RBF or on their opinions on the subject. They too were aware of this and some chose not to participate in the study or requested us not to record certain information (or not to record at all), or they would tell us not to use certain information during the writing process. While this was frustrating sometimes not to record or use the information collected during the study, it was more important to respect the rights of research participants.

2.6.4 Dissemination in local settings

In lay language some researchers have been seen to *smash and grab* research data. That is when researchers collect data for their own benefit with no interest of extending some kinds of benefits to communities involved. A number of promising models to extend research benefits to research participants such as community engagement, are emerging [265]. Given the nature of this study and its main aim of generating policy relevant information, I used the dissemination of results as a means of offering benefits to some of our research participants. The implementation of RBF in Tanzania is on-going and as a result any kind of evidence is needed for immediate use. A number of ways were used to facilitate that policy makers get quick access to the results, including, a dissemination trip to Dar es Salaam and Rufiji in Tanzania, in January 2016. Additionally, alerts for published articles were sent, unpublished manuscripts were provided upon request, and popular science articles were published both in Tanzania and Norway, the RBF funding country, were used as strategies for disseminating research findings. Unfortunately I could not disseminate directly to health workers and users but I facilitated that policy makers had access to their views as expressed in IDIs and FDGs through the representative extracts that are used in my published and unpublished work.

3 Results

3.1 Paper I

Introducing payment for performance in the health sector of Tanzania- the policy process

The introduction of RBF in the health sector of Tanzania was controversial. The actors involved in the process, which include donors in the Health Basket Fund, the Government of Tanzania and high level politicians outside the Health Basket Fund fought for their values and interests. The process was characterized by high political pressure from the Norwegian and Tanzanian political leadership. On the Norwegian side, the Tanzanian RBF agenda was initially driven directly by the Ministry of Foreign Affairs through the Royal Norwegian Embassy in Dar es Salaam, without the technical assistance from Norad. Norad was brought into the discussions later when the agenda faced resistance from other donor agencies in the health partnership.

Our informants noted that the process of introducing RBF was top-down and both middle level bureaucrats and technical staff from the Ministry of Health and Social Welfare in Tanzania and Norad felt left out in the initial stages but were then pressured to introduce and support the RBF agenda in the Health Basket Fund. In the Health Basket Fund, the RBF agenda was heavily resisted by other partners, among them Danida, Swiss Agency for Development and Cooperation and Irish Aid. The main point of contention was that the RBF agenda was being pushed in to the Tanzanian context when there was little evidence to support that such mechanisms work in low income settings. In addition, it was interpreted as utterly disrespectful of Norway, which was just rejoining the Health Basket Fund in 2007 after pulling out in 2002, to introduce such a bold and contentious agenda which would affect how the partnership works. It was argued by other partners in the Health Basket Fund that RBF was introducing ‘neoliberal’ values in the health sector of Tanzania.

Faced with the enormous resistance, Norway showed willingness to find a common ground with other partners. However, the Government of Tanzania was adamant to

continue pursuing the RBF agenda, and in 2009 it launched its local RBF initiative, which is the subject of Paper II. Donors reached a consensus not to support the Government's local initiative. The Government of Tanzania went ahead with the national roll-out, but with no funding the initiative was less than successful and was realized in a few districts, including Mvomero. At this point, alliances in the Health Basket Fund were shifting with the World Bank and USAID supporting Norad on the RBF agenda and other partners showing willingness to learn more about the RBF programme. The donors in the partnership agreed to try RBF as a pilot in one region.

It should be noted however, that the open support for RBF by the World Bank, the main financial contributor in the Health Basket Fund, was perceived as critical in moving the agenda forward. Meanwhile, the failure of the local RBF initiative prompted the Government of Tanzania to go back to the partnership and was prepared for a compromise. All partners reached a consensus for a pilot despite strained relations and in January 2011, the Pwani pilot was launched. Paper III presents the experiences from this donor-funded RBF pilot.

3.2 Paper II

When incentives work too well: locally implemented pay for performance (P4P) and adverse sanctions towards home birth in Tanzania- a qualitative study

Payment for the local RBF in Mvomero did not follow the intended RBF programme design, health workers at health facilities were all given a flat rate instead of prioritizing RBF targets. However, although the health workers were paid a flat rate not based on actual results, we noted that this probably had little impact on how health workers behaved before the payment. This was so because they thought the payments were going to be based on the actual RBF design. Health workers were very grateful for receiving the bonuses despite that it was a reward for their effort. They perceived the RBF bonus as a gift (*zawadi*), something they could not demand but should be grateful for. The district health administration reported that flat rates were used in bonus payments for two reasons, firstly for equity and fairness concern, and secondly due to the lack of capacity to properly run the RBF programme. It was

revealed to us by the district leadership that RBF had been discontinued in Mvomero, but none of the health workers were aware of this and as a result, they were still working expecting new bonus payments.

It was noted that the attitudes of health workers towards RBF changed before and after they had received the payment. In 2010, before the bonus, a large number of our informants were skeptical of RBF. They perceived RBF as a vertical intervention with little impact on health outcomes. In addition, the majority of health workers pointed before RBF payments to severe shortages of medical supplies and equipment and suggested that RBF money could instead be used to procure such supplies, which will make their work much easier and benefit health service users. In 2011, after the bonus payments the majority of health workers preferred getting bonuses over paying for medical supplies. In 2010 some informants were also cautious that RBF may lead to unethical behavior. There were, however, some informants who argued that RBF is a viable strategy to improve health services.

Both in 2010 and 2011, some health workers perceived RBF as a good strategy to foster cooperation and teamwork at health facilities. There was a realization among health workers that the only way an individual can benefit from RBF bonuses was by being a team member, as payments were supposed to be based on health facility performance. This was noted to also encourage peer monitoring, which was seen as important in reducing absenteeism and improving work morale. Some health workers were keen to compete with neighboring health facilities in order to bring in more service users and meet RBF performance targets. In this regard health workers revealed a number of strategies they were using to attract more service users. Some of these strategies were positive, including improving health education, extending outreach programmes and improving their attitudes towards service users including using appropriate and respectful language.

However, it was revealed that health workers could only go as far as resources allowed them to attract service users with positive strategies. In resource constrained settings health workers may resort to coercive strategies or sanctions. It was reported

by health workers that some sanctions were applied, especially towards those giving birth at home, in order to increase facility deliveries which was one of the RBF indicators. No health worker confirmed to us that their facility was applying these negative sanctions, but they pointed out that neighboring facilities did it. However, they acknowledged that they themselves used threats to discourage home deliveries. Such threats would include charging those who gave birth at home up to TZS 10 000 (approximately USD 5), or deny the mothers a live birth card. Some health workers, mainly low-level cadres such as medical attendants, considered that fining women is a good idea as long as it encouraged facility deliveries. Focus group discussions with mothers collaborated that such sanctions were indeed applied, and not only threats. The district health office was also aware of such threats and acknowledged that regardless of whether the sanctions were real or not they nevertheless scare mothers who would have given birth home to seek post-natal care, as a result particular attention is needed on these practices that may discourage the utilization of and access to care.

3.3 Paper III

The inescapable question of fairness in Pay for Performance bonus distribution: Health workers' experiences in Tanzania- a qualitative study

The RBF payment system of the donor funded Pwani RBF pilot was seen by involved health personnel as fundamentally unfair. Health workers were paid differently depending on whether they contributed directly to RBF indicators or not. The reproductive and child health (RCH) staff, who contributed directly to RBF indicators, were paid more than non-RCH staff. Bonus payment was therefore contingent on effort and results towards RBF targets. However, it is important to note that at some health centres and dispensaries all health workers were paid an equal bonus, as it was argued that at lower level health facilities the demarcation of tasks between RCH and non-RCH is blurred.

The majority of RCH staff who were paid equal bonuses with non-RCH staff at health centres and dispensaries considered the payment system as unfair. They argued that they were the ones contributing directly to the achievement of RBF targets and therefore deserved more than their non-RCH counterparts. They were aware that RCH staff at some facilities in the district were paid more than non-RCH staff, and therefore were not happy to be treated differently. On the other hand, the RCH staff who were paid more than non-RCH staff perceived the payment system as fair. They reported that the RBF programme had increased their workload, and that being paid more was a recognition for this and therefore justifiable. In some cases, the RCH staff even complained that the differences in the bonuses between them and non-RCH were very small, and they would like to see the gap increased.

The non-RCH staff, who were getting less RBF bonus payments, reported that the payment systems was fundamentally unfair. They argued that like RCH staff, they put a lot of effort into doing their duties; hence there was no justification for the unequal distribution of RBF bonuses. They reasoned that it was not their fault that all RBF indicators were drawn from RCH. They therefore perceived their smaller bonuses as a punishment for factors out of their control. Non- RCH staff reported to be demotivated by the bonus payment system, as the system was disregarding them while favouring the RCH staff. It was reported that the payment system was causing tensions among health workers. The leadership at health facilities was concerned that RBF was impacting negatively on social relations and teamwork, which in turn greatly affected service delivery and quality. Some health workers and the majority of health facility leadership suggested that a flat rate across board was the fairest way to distribute RBF bonuses. However, the RCH staff vigorously refused this suggestion, arguing that the payments were based on merit.

Besides the bonus payment system, it was also reported that some elements in the management of the RBF programme were unfair. It was reported by some health workers that data verification was not done in an accurate way. They noted many

cases where reported data and paid bonuses were different, which was considered to be a loss on their part. In addition, some health workers reported that bonus payments were regularly delayed. The district leadership collaborated to these reports about delays and explained that this was a pilot and an efficient bonus disbursement system was not yet in place. However, they were working towards such a system. For example, it was explained that some health facilities did not have bank accounts where the money could be deposited or that the committees responsible for verifying health facility payments were taking too long time to do so. The study revealed that the bonus system that was followed by the Pwani RBF pilot was by and large perceived as highly unfair which may have impacted on social relations at the workplace. Therefore, contextual factors are important to consider in an RBF payment system.

4 Discussion

4.1 Methodology

This study builds on the knowledge that was gained from my master's studies on RBF in Tanzania (cf Chimhutu, 2011). To date, I have followed the RBF story as it unfolded for a period spanning six years (between 2010 and 2016), from agenda setting, implementation and evaluation. This study aimed at sharing this story, by providing an in-depth picture. In methodological terms this attempt fits a case study design [219]. During this period, I have been working with a research team (academic supervisors, research collaborators and co-authors) with in-depth contextual knowledge of Tanzania, which has greatly benefitted me as a researcher. However, the credibility of research study is not only based on knowing the context, or on knowing the study phenomenon but crucially on how a researcher can document the procedures that were followed during the research process to facilitate trustworthiness [250], including limitations of the study.

It is noteworthy that case study as a methodology has been questioned [253] on aspects of reliability and validity [217]. The following section gives an account on the procedures I followed in trying to achieve scientific rigor, with full recognition that I was an instrument in the process of generating this knowledge [266].

4.1.1 Trustworthiness in qualitative research

There is a lack of consensus on which concepts to use when describing trustworthiness in science. Quantitative tradition uses concepts such as validity, reliability and generalizability, while the qualitative research tradition is increasingly adopting the concepts of credibility, dependability and transferability to describe trustworthiness [250, 266, 267]. I will use concepts linked to qualitative research inquiry to explain procedures followed in improving trustworthiness of this study.

4.1.1.1 Credibility

In qualitative research, the researcher is seen as an instrument in the research process, and therefore, the credibility of the study depends on the steps taken by the researcher to ensure scientific rigor [266]. Decisions such as the focus of the study, selection of

the research context, research participants and the approach to data collection all have a bearing on the credibility of the study [266]. In order to capture various experiences with RBF in the Tanzanian health sector, three categories of informants were purposively selected. These categories comprised policy actors (mainly members of the Health Basket Fund), health workers (the health workers receiving the performance bonuses) and health service users (the intended beneficiaries of RBF). These three categories of research participants were critical in understanding the introduction and use of performance incentives in the health sector of Tanzania. To further ensure a rich variation of perspectives within these three groups, additional sub-categories were sought. For example, when it comes to health workers, effort was made to ensure that the views of both health workers directly targeted by RBF (Reproductive and Child Health [RCH] services), those working with non-RCH services, and non-medical staff were included.

Triangulation is seen as an important aspect in qualitative research to increase the accuracy and credibility of the research [222, 223]. In this study, triangulation was central to ensure credibility of the study, not only was triangulation important through the purposive selection of study participants but also by using different methods in data collection. Various methods were used for data collection and these include IDIs, FGDs, policy document reviews as well as being a *participant* and an *observer* during the course of the fieldwork.

During the data analysis process, clear procedures were followed to generate presented results which facilitate the credibility of the study. In this regard, this study used illustrations showing the analysis procedures, as presented in tables 8 and 9 under data analysis section in chapter 2. While illustrations make it easy for readers to follow and understand the analysis procedure, it is also important to expand on how the coding exercise was carried. Coding for paper I and III was done with the help of a PhD colleague in four workshops, as part of an advanced qualitative methods course, at the Department of Health Promotion and Development, University of Bergen. After each coding session, we met and discussed the differences and

similarities that were emerging from our coding. While four sessions were not enough to code all the transcripts, the exercise was important in creating an initial coding framework and to serve as a reflective exercise reminding me the essence of keeping my codes grounded in the views expressed by research participants. More often than not as researchers we are tempted to quickly reach a higher level of abstraction in the coding exercise (based on our theoretical and in-depth knowledge of a study phenomenon) which provides a great danger of ignoring the voices of research participants. After developing an initial coding framework, transcripts were uploaded into OpenCode 3.6 software for data management [248], where the coding exercise continued.

Analysis for paper II was done in close collaboration with a research collaborator (and co-author for paper II, who had collected the data in 2011), a senior researcher at the Chr. Michelsen Institute (CMI), with vast experience of conducting ethnographic work in Tanzania and broad knowledge in qualitative data analysis. We followed the same procedures as outlined above until we reached an agreement on which themes were coming out of our data, and used these to present results using representative extracts as expressed by research participants. It is generally agreed that inter-coder agreement in qualitative research facilitates credibility to the analysis process [222, 266]. In addition, the outcome of the analysis process was shared with the research team (academic supervisors) in an effort to increase the transparency and credibility of research findings. Moreover, all the papers in this study have direct representative extracts, which according to Graneheim and Lundman [250] improves credibility of the results and the analysis process.

4.1.1.2 Dependability

Dependability is another concept that is important in increasing the trustworthiness of qualitative studies. This deals with the consistency over time in data collection and decisions the researcher repeatedly made during the research process [250]. In this study, topic guides and interview guides were used, with the realization that important insights salient to the research topic will emerge during the process of data

collection. The guides contained broad questions regarding the phenomenon, which during the course of the study narrowed down to specific insights. For example, in paper II I was able to pursue the issue of home birth sanctions after it was reported in focus groups with mothers. However, the general objectives of the study largely remained the same, and even slight changes were communicated in the research team, which scholars in this area encourage [250].

4.1.1.3 Transferability

Transferability is important for the trustworthiness of research findings.

Transferability refers to the extent to which findings can be transferred to other settings or groups [268]. First and foremost it has to be stated that Tanzania is a big country and that each region and district has its own specific characteristics.

Therefore it is important to scrutinize the study districts noting their own unique characteristics. This according to Malterud [269] is important as it may reveal limitations for the applicability of study findings in other contexts. Seale [270] also posits that a detailed description of the context can facilitate informed decisions on whether research results are transferable to other contexts.

Rufiji shares many common characteristics as many typical districts in Tanzania. For example it is heavily dependent on agriculture, having the same local government and administrative structures. An important distinction about Rufiji is its delta zone, a result of its closeness to the coast. The delta area is hard to reach and faces enormous challenges in providing health services, almost a quarter of dispensaries in Rufiji are located in this area, signifying its vastness. While Pwani region scores well above national averages in many health outcomes, including maternal and child health, Rufiji performs worse than other districts in the region, selected health status indicators for Rufiji and Mvomero districts are provided under study setting in the methods chapter.

Mvomero relies heavily on agriculture and is in Morogoro region, which comparatively has a worse health status profile than Pwani region. The most notable

aspect of the district is a significant population of pastoral communities of the Masaai and Sukuma tribes. These groups have limited access health services, as some walk up to 15 km to access functional health facilities. Additionally, in the eastern region of Tanzania, Morogoro has the highest number of women (0.5%) receiving antenatal care from village health workers and traditional birth attendants. These unique characteristics may have influenced the study results in ways unknown to the researcher, and therefore making the results not relevant in other contexts.

However, our study builds on a good case for transferability. Social-cultural factors were noted to be important dimensions to consider in RBF programmes as these influence how and why these programmes are perceived and experienced in a particular way. This lesson is valuable across cultural contexts. Our results can also be generalized as country experiences in a low-income setting, and therefore can inform policy makers in similar contexts of potential pitfalls in RBF programmes. Moreover, with theoretical backing and well explained research process, readers can make a decision as to whether these findings can be transferred to other settings. To this end, it is important to note that although qualitative research facilitates transferability [250], it is not an end in itself.

4.1.2 Language barrier and the interpreter effect

There are a number of challenges in carrying out research in contexts where you do not have enough linguistic competency [271]. My competency in Swahili is limited. However, I originally come from Zimbabwe and can speak Shona language which shares some similarities with Swahili. My experience in Tanzania is that whenever I stay for more than a month at a time, my level of Swahili significantly improves to the level of following conversations and converse at colloquial level. However, in order to collect quality data, I worked with native research assistants. My research collaborator at Ifakara Health Institute (IHI) has been very helpful in finding suitable research assistants. In most cases I have worked with former IHI research assistants who are not only knowledgeable on the study context but also the study phenomenon, as IHI conducts official RBF evaluation studies in the country. Despite having

knowledgeable research assistants, relying on them influence research in a number of ways, including introducing new nuances in the research [271, 272]. A useful strategy I often employed in checking quality, was to make sure that the first interviews are listened to and/or translated by my research collaborator (or under his supervision) at IHI, who I have been working with on the topic of RBF for a period of six years. This strategy helped a lot to see if the right or intended questions are being addressed and in identifying new unexpected information that may be coming out of IDIs and FGDs worthy exploring further. However, given the exploratory nature of qualitative methods, limited linguistic competency is a significant limitation.

4.1.3 Role of researcher

It is important to reflect on my own role as a researcher and how this may have influenced the study. The researcher can influence data and findings in many ways at various stages of the research process [273]. Intersubjective elements such as gender, perceived social class, values and theoretical background may influence a study in a number of ways unnoticed by the researcher. However, through the process of reflexivity researchers can evaluate ways in which these intersubjective elements may have influenced their research [274].

When conducting FGDs with mothers, sometimes it was difficult for them to be conversant in my presence. This may be related to a number of issues, such as socio-cultural and religious beliefs and values related to gender and gendered hierarchies. The topic guides had discussion issues about the quality of maternal health care, which touches on sensitive issues. As a male researcher, some mothers were not comfortable to discuss these issues in my presence. In these cases I had to leave the focus group to my research assistant who was a female. Leaving the research assistant to facilitate the FGD, even when she was trained, may still have affected the quality of the data collected.

In addition, my background, concerning both theoretical assumptions and practical work experience plays a big part in how I experience and interpret the social world. Theoretically, I am someone who reads literature on development processes and their

impact on social justice and equity. This has an impact on what phenomenon I choose to pursue in my research work and from what angle. Moreover, I have been working in the civil society and very engaged in political and student activism in Zimbabwe, promoting grassroots citizens' rights, their participation in decision making and political processes. This history of grassroots mobilization and advocacy reflects on my research work and can influence the type of knowledge I produce.

Another important issue to reflect on is my lack of professional medical experience or training. When health workers are communicating they may use terms and language not easily accessible to someone with no training in the field. When this happens for example during an interview, you may miss an opportunity to follow-up on an interesting dimension. Moreover, coming from Norway, a country funding the RBF initiative in Tanzania may have influenced research findings. Health workers in Tanzania work under difficult circumstances. In that context, additional financial incentives are important in their lives. When research participants know that the researcher is coming from a programme funding country, they may perceive you as an evaluator and therefore provide overly positive views (or negative ones depending on their motivations) hoping that their views may influence the direction of the programme.

Moreover, during the course of the fieldwork I felt as an *insider-outsider*. Qualitative case study relies on in-depth knowledge of the context and therefore the outsider feeling may affect the process of data collection, for example the limited linguistic competence as noted above. However, as someone born in Zimbabwe, there are a lot of practices I share socially and culturally with some people of Tanzania. Even politically, Zimbabwe in early days of independence pursued some Nyerere inspired socialist policies. Tanzania also played a critical role in Zimbabwe's liberation struggle. With all this I felt as an *insider* and this greatly aided the research process. Therefore every time I go to Tanzania, I feel like I am home, away from home, vacillating between the *insider-outsider* duality.

4.2 Discussion of results

The growing number of RBF programmes in low-income countries cannot be overlooked. This study has shown that understanding processes behind the implementation of these programmes is critical to understanding *why* and *how* such initiatives fail or succeed in different settings. The study also explored the social dimension of health workers' motivation involved in the RBF programmes, *how* and *why* they behaved in the way that was reported in the study and the possible implications of such actions and/or behavior to the quality of care. This section of the dissertation will therefore, raise discussion points that were prominent in the three papers.

4.2.1 Protracted policy process and partnership politics

Paper I showed that the process leading to the introduction of RBF in Tanzania was long and contested. Activities in the Health Basket Fund during this process raise fundamental questions about partnerships in development aid. Partnerships are often seen in the literature in binary terms as either 'strong or weak' or as 'instrumental or genuine' [179, 186]. According to Crawford [180] there are four principles to be observed in genuine partnerships.

Paper I showed that from the beginning the partners in the Health Basket Fund lacked mutual cooperation, which is Crawford's first characteristics of a good partnership. There were two groups fighting for their interests and values, with one group supporting and the other opposing RBF. Not only was there no mutual cooperation in the beginning but alliances continually shifted during the course of the process, making it even harder to achieve mutual cooperation. Norad and the Tanzanian Ministry of Health and Social Welfare fought together to introduce the RBF agenda in the Health Basket Fund but later disagreed on the nature and scope of the RBF programme. While Norad and other donors preferred a pilot, the government of Tanzania was adamant to launch a national RBF roll-out [72].

Tanzania went ahead launching the local RBF addressed in Paper II, which can be interpreted as the country's right to choose her own policy option, the second principle of partnerships [180]. However, the development partners withdrew their funding demonstrating their power, which according to Mercer [186] is insidious. For donors, this is a strategy that works in whipping local national governments in line particularly in contexts where the countries are heavily reliant on development aid [177, 187, 275]. Tanzania is a country known to have a weak negotiating capital when it comes to aid. Her debt and balance-of-payment crises in the 1980s gave donors the opportunity to expand their influence [276]. While on one hand the country is referred to as the unofficial *darling* of donors, getting generous handouts [275], the country on the other hand pays for this by being subservient to its development partners [177]. This warrants a scrutiny of the type of partnership which exists in the health sector of Tanzania. Abrahamsen [181] raised a fundamental question when it comes to the rhetoric of equal partnerships: is it possible to achieve them when one party is holding the *purse* and the other a *begging bowl*? [181]. The insidious expression of power in the partnership is also demonstrated when the World Bank, the largest funder of the Health Basket Fund, changed its position and put RBF as a condition in the partnership. This move by the Bank was seen as critical in moving the RBF agenda forward. However, this ability by the World Bank to coalesce other partners to support the RBF agenda contributes to portraying the partnership as purely self-serving and instrumental. This expression of power disregards Crawford's third principle of equal partnerships, which emphasizes having an equitable and meaningful relationship [180].

Crawford's fourth and final principle of genuine partnerships is the need for time and commitment [180]. This is important in building trust. Norway, which was rejoining the partnership in 2007 after leaving in 2002, was accused of quickly introducing a controversial agenda in the partnership, before gaining trust from her partners. This action was interpreted by other partners as being mischievous and disrespectful. Using this as an example, I argue that this fourth principle was not observed either. It

is therefore clear that according to Crawford's four principles of partnerships, the Health Basket Fund partnership may be classified as weak or instrumental. This may explain why the process resulted in frustrations, tensions, mistrust, and above all, in Tanzania failing to pursue her preferred option.

The instrumental use of partnership is particularly striking and raises fundamental questions on how developing countries can meet the needs of their people when they lack a voice in development partnerships or when expressing such voice calls for retributive measures. At the same time, rhetoric in development aid documents such as Rome Declaration on Harmonization (2003), Paris Declaration on Aid Effectiveness (2005), and the Accra Agenda for Action (2008) [189, 277, 278], continue to emphasize on country ownership. Each succeeding declaration claims to have learnt from the failures of the past declaration, but practice largely remain the same as exemplified by the type of partnership which exist in the health sector of Tanzania.

One strong critic of development aid to the global south, Dambisa Moyo, has put forward a thesis that *aid is dead* [12]. She argues that aid is not doing any good to the global south, if anything it is propping up corrupt regimes, while subverting the citizens' rights of holding their governments accountable [12]. In her argument, the relationship between a donor and recipient country can be seen as symbiotic, but not necessarily good for democracy and development [12]. Tanzania presents a classic case of a country caught up in this conundrum where the country has to ingratiate development aid in exchange of being *a laboratory* of projects and reforms whose effects are unproven. To this end, Therkildsen [60] diagnosed the country with two diseases, of *projectitis* and *reformitis*.

4.2.2 High political pressure with high stakes

There is a general consensus that RBF programmes in low-income contexts were spurred by the need to meet or speed up progress towards health related MDGs, especially goals 4 and 5 [6, 15, 106]. This need may help to explain the high political

pressure towards the RBF programme in Tanzania. The interest can be explained by the concept of *agenda-setting circumstances* from Grindle and Thomas' framework on political economy of reform [279]. The framework is useful in analyzing policy reforms and has the following key elements: *environmental context*, the *agenda-setting circumstances*, and *policy characteristics* [279, 280]. According to the framework, a policy *agenda-setting circumstance* can be perceived to be either a crisis situation or non-crisis. When it is perceived to be a crisis situation, there will be the involvement of policy elites [279].

High level politicians who include the former Prime Minister of Norway, Jens Stoltenberg, and the former President of Tanzania, Jakaya Kikwete, were very much involved in setting the RBF agenda as reported in paper I. Their involvement can be interpreted as what Grindle and Thomas [279] call high stakes which are involved if non action is taken on *agenda-setting circumstances* that are considered to be a crisis situation. I argue that failure to meet health-related MDGs presented high stakes for national governments (Tanzania), and also for countries perceived to have been leading the MDG 4 and 5 agenda such as Norway [281-284]. High political will is important for reforms to be prioritized [164, 279], but if perceived as intrusive, it may lead to unintended consequences, as it did in the case in question. During the RBF policy process in Tanzania, technical people and policy experts felt alienated in the early stages of the RBF agenda and then pressured either to support or implement it. As shown in paper I, Norad was invited into the process quite late by its Foreign Ministry. This happened even though Norad offers the Ministry important technical expertise. This further suggests the highly politicized nature of the decision to implement RBF in Tanzania. I argue that the immense political pressure delayed the RBF policy process in Tanzania rather than aiding it. In addition, both the political pressure and the misunderstandings in the partnership led Tanzania to implement two RBF programmes, which are discussed in the next section

4.2.3 Implementation differences and socio-cultural values

Paper II and Paper III presented two different RBF initiatives in two districts of Tanzania, Mvomero and Rufiji. Paper II presented the experiences with the local RBF in Mvomero, while Paper III presented the donor-funded RBF in Rufiji. There are clear differences in how these two initiatives were managed. First and foremost, for the Mvomero RBF, the Government of Tanzania used its own resources and the district of Mvomero did not receive technical support at any stage. The programme did not adhere to its operational design, for example, no verification of data was carried out, and only sporadic monitoring was reported. In Rufiji, on the other hand, the RBF programme followed its operational design, and was managed by specialists from Clinton Health Access Initiative (CHAI). Data was verified, and there was monitoring and feedback on RBF performance indicators. Even though the donor-funded RBF was better managed, there were substantial complaints about the verification process, payments, and workload among others.

Paper II has shown that with no donor and technical support, the local authorities in Mvomero struggled to manage the RBF initiative. The failure by the Government of Tanzania to manage its local RBF programme ended up being implemented only in one district (Mvomero) raises questions about its ability to manage the RBF programme when it decides to scale-up the RBF programme and took over from CHAI. After all, Tanzania is a country with a history of over relying on donor support on reforms and programme implementation [60, 177]. A cost-effectiveness analysis study of the donor-funded Pwani pilot has since concluded that the cost to manage such programmes are substantial for Tanzania in particular and for low-income countries in general [122]. Therefore, as a country with a high level of donor-dependency both in terms of aid and management of development projects [60, 187], it raises the fundamental question of the sustainability of RBF in Tanzania. As discussed above, donor countries prefer to set agendas at the expense of local national governments [179], and these agendas are mostly influenced by policy shifts in donor countries and not in recipient countries. Therefore if priorities or conditions change in

donor countries, there is a high likelihood that local national governments in recipient may not be able to sustain some of these reforms and programmes. The question of the sustainability of RBF programmes, in case donor countries withdraw external funding has been raised in the RBF literature [9] and it is worth pondering upon.

In paper II it is demonstrated that the local authorities lacked capacity and technical competence to run the RBF initiative. Undue donor interference can also contribute to this inability of local institutions in building this competence. For example, Tanzania's main argument for launching the local RBF was that the country wanted to *learn by doing* [69]. While this *muddling through* approach [285] may be seen as wasteful and risky by donor agencies and countries, it may be a necessity for countries at this stage of development in developing enduring institutions and capacities. Uganda is a good example of a country in the region that failed to develop capacity and technical expertise in its local institutions before implementing a performance-based contracting programme, and as a result the programme failed [111]. In the Ugandan case, the inability to develop capacity was perceived to have been caused by the high speed at which the reform was carried by donors which did not give the country enough time for preparation [111]. Paper I has shown that although the policy process was long in Tanzania, most of the time was used in dealing with politics in the partnership while no one was pushing for capacity building. When the donor-funded RBF pilot started it was largely managed by external experts, with little involvement of the staff from the local institutions. This therefore means that Tanzania will likely face insurmountable obstacles when scaling-up RBF.

Another important difference to note between the two RBF initiatives is that the bonus payment systems were different. The local RBF programme in Mvomero paid health workers a flat rate, while the donor-funded RBF in Rufiji paid according to work tasks. In paper II, health workers did not complain about the flat rate payment system, while in paper III the payment system was reported as unfair. According to

Folger [201] the distribution of money or goods at the workplace, if seen as unfair, can cause resentment (distributive injustice). In addition, procedures leading to the distribution modality can also cause procedural injustice. For example, in paper III non-RCH staff questioned the logic of RBF in prioritizing RCH services only, the prioritization which also led to the perceived unfair distribution of bonuses. The distribution of RBF bonuses in the donor-funded RBF was not only perceived as unfair but consequently affected the motivation of health workers. RBF studies from Benin [119] and Nepal [160] also reported that RBF bonuses can lead to a feeling of social injustice at workplace.

When a group of workers perceive that another group has been favoured, it can diminish their intrinsic motivation. According to the Self-Determination Theory [196], health workers, just like all other humans, need to have a sense of relatedness, i.e., to have a close relationship with co-workers. If a bonus payment system alienates one group, it affects the social relations existing at the health facilities. In the health sector there is a lot of interdependency among and within different sections at health facilities. When social relations among workers are not good, it inevitably affects teamwork, which is significant in health care [286]. Not only did the non-RCH staff reported to be demotivated, they also felt unappreciated. This feeling may lead workers to question their competence at the workplace if their work tasks are not as valued as that of their colleagues with same level of training and qualifications. In this regard the bonus payment system did not only negatively affect the innate need for relatedness but they also led non-RCH staff into questioning the value of their competence. Bertone and Meessen [125] observed that excessive monitoring of RBF may be perceived as too controlling, and can also negatively affect the autonomy of health workers. To this end, Ryan and Deci postulates that when the three needs of relatedness, competence and autonomy are not nurtured in a social environment, the result is reduced intrinsic motivation and the impoverishment of well-being [199]. In the health sector, this may have negative impact on the quality of care provided to health service users and to the health outcomes.

In both papers II and III, the district and health facility leadership preferred paying the bonus through a flat rate, citing fairness concerns. Fairness is an important aspect in many social settings and certainly at workplaces [209, 287]. The socialist recent history based on the philosophy of *African* communal living, *ujamaa*, may further increase the emphasis put on this in Tanzania. Magrath and Nichter [15] emphasized the need to pay attention to the social and cultural contexts in RBF programmes, as these may partially explain why some RBF programmes succeed or fail. Different societies have different fairness principles that prevail in them. In theory, it can be argued that in a society that is libertarian [212], RBF programmes may be viewed as fair, as individuals in these societies may perceive the payments to be based on their performance and effort. On the other hand, in societies that are egalitarian [212], RBF can be seen as unfair because a health worker's effort is not the only decisive factor that determines the achievement of RBF targets, or lack of it.

While no state can be classified as strict egalitarian in modern times, principles of egalitarianism stand strong in socialist societies or those that once followed a socialist path. Such societies have a commonly shared belief that inequality is predominately rooted in an unfair social structure [212]. In a capitalist society, on the other hand, we assume RBF principles to find support, as the libertarian values recognize and reward individual effort and talent [288], even if this creates inequalities. One may counter argue that Tanzania has since fully embraced neo-liberalism after Nyerere. While this is a valid point, it has to be observed that the influence of Nyerere and his ideas are still relevant in the Tanzanian society of today and evoke a nostalgia [213].

Moreover, it has to be noted that Nyerere himself built his political ideas from an *African* philosophy of communal life, which encourages communalism and discourages individualism, a philosophy which endures in many local communities in sub-Saharan Africa until today.

4.2.4 You pay for oranges and get lemons: unintended consequences of RBF

Paper II and III demonstrated that RBF can change health worker behavior, and that this change can either be good or harmful to the quality of care and health service

users. External motivation, including financial incentives, have been documented to influence human behavior and negatively affect intrinsic motivation [198, 289]. In paper II, health workers reported different strategies used to attract service users. Some strategies were positive, including offering health education, improving staff attitudes and using appropriate and respectful language towards patients. However, health workers used these positive strategies only as far as resources could allow them. In a context where resources are limited [39, 52, 114], health workers were forced to use coercive strategies towards those giving birth at home, in order to meet the target on health facility deliveries. Although health workers maintained that the fines were threats and never applied, it was noted that the threats were likely to have prevented those who had home birth to seek post-natal care, out of fear that they will be sanctioned. RBF studies from Rwanda reported that health workers prioritized profitable RBF targeted service areas [150], and neglected non-rewarded services [118]. Therefore, as the *principal-agent* theory predicts, financial incentives can indeed change health workers' behavior, but the conundrum is to what extent is this change positive.

Unintended consequences of RBF programmes have been reported for up to two decades in different settings [89, 93-95]. Nevertheless, RBF initiatives are spreading rapidly in sub-Saharan Africa. This does not mean that there are no success stories of RBF initiatives in sub-Saharan Africa reported in studies [133, 147]. Most of these studies that report positive results in the region are from Rwanda. Therefore particular attention needs to be paid on factors that make Rwanda a stellar example of RBF success. A recent qualitative study from Rwanda by Sayinzoga and Bijlmakers [290] on the drivers for the health sector performance has warned policy makers and scholars not to attribute the success the country has seen in the health sector to a single intervention [290]. They argue that if only one intervention is copied from Rwanda, e.g. RBF, and fast-tracked somewhere else it is likely to fail as the robust model of Rwanda in the health sector is a result of a holistic approach [290]. This argument is in line with our study that an in-depth look into social-cultural and

contextual factors is important in understanding the success or failure of RBF interventions. Additionally, Ssengooba [111] noted that RBFs seem to exemplify one of those interventions being promoted as a success when in reality its performance in many countries has generated mixed effects [3, 291].

4.2.5 Alternative lens and the high acceptability of RBF

Results of this study have presented two important yet irreconcilable insights. Firstly the results have shown that health workers quickly responded to the RBF programme, willing to risk their social relations among themselves and with their patients. This is exemplified by the introduction of sanctions on home birth and when the health workers were *fighting* for their bonus payments. Secondly it has been revealed that social justice and equity are important aspects in Tanzania. This is exemplified when policy officials revealed that one of the reasons that the government wanted a national RBF and not a pilot programme was for equity reasons. Additionally, district and health facility leadership and some health workers also cited equity and social justice as the main reason why flat payments was or would have been the fairest bonus distribution modality.

A paradox between individualism and collectivism values can be discerned from these accounts. The concept of capital by Bourdieu [214] can help in shedding light on this paradox. In this study economic capital can be identified as relating to direct financial benefits from RBF, and social capital as social networks of health workers, which include but is not limited to, their workmates and communities they serve. Forms of capital are intertwined and interdependent, and one form can be converted (or affected by) to another form [214, 215]. However, the conversion has to be permissible in the particular social settings, or otherwise agents can face sanctions [214, 215]. My study has revealed that by pursuing economic capital (RBF bonus) health workers were willing to risk their social capital. This willingness by health workers to engage in behaviors that endanger their social relation has been reported in other contexts [15, 118, 153]. In theory, it may be expected that in a collectivist society, an individual's reputation and that of his/her family may be more valuable

than a financial incentive at work. If making choices leading to bonus payment implies acts that will reduce the reputation of one-self and thereby one's family in the local community, the *reasonable* choice will be to not go for the bonus. Yet in this study health workers benefiting financially from RBF embraced the bonus payments even at the expense of their social capital. Additionally Tanzania as a country that suffers from *projectitis* [60], it can be reasonably assumed that health workers have witnessed a lot of projects that are short-lived, and therefore may be cautious in embracing RBF if it entails jeopardizing their social networks, which may be considered to be stable over time. Again this study does not support this assumption, paper II has shown that the perceptions of health workers about RBF positively changed after bonus payments. In 2010 health workers in Mvomero were skeptical about RBF and proposed that it was better to use RBF funds in improving conditions for service delivery. This position is supported by evidence from Tanzania as barriers to the access of care are predominantly from the provider side [34, 39, 49, 292]. However, in 2011, the majority were supporting RBF bonus payments.

Why then were health workers willing to risk their social capital for RBF bonuses? Health workers in Tanzania work under very difficult circumstances [292] and their salaries are low [50]. Using a pyramid of needs, Kalk and colleagues [118] offered an explanation of why in a low-income context health workers are expected to quickly accept RBF and change their behaviors in response. Salaries for health workers' in these contexts are far lower to cover their basic needs [118]. These salaries barely allow them to feed or educate their children [118], and yet a working person is expected to nearly *feed a village*. Therefore it is reasonable that the acceptability of RBF programmes is high among health workers in countries like Tanzania, as was also observed in Rwanda [150], Burundi [132], DR Congo [115]. This high acceptability, however, does not necessarily mean that health workers in these contexts are more willing to risk their social relations, it only illustrate that their options are limited, than their counterparts in high-income countries. If we imagine giving someone a choice of either watching their children sleep hungry and appease

their work colleagues by allowing them a big portion of performance pay or vice versa. Probably many may choose to feed their children, close social unit, first and then worry about community relations, extended social unit, afterwards. This therefore implies that financial incentives can in fact have great adverse effects in low-income settings, which are observable even in a very short time of implementation as demonstrated in this study. Due to this power in incentives, RBF programmes have been labeled as intrusive, punitive and manipulative [145, 211, 293, 294]. It is therefore more likely that Tanzania and other low-income countries will continue to face these challenges associated with RBF. Some may counter argue that improving the design of the programmes may help to curb the unintended consequences, while this is valid, it may help but to a limited extent. The fact that the Quality and Outcomes Framework RBF programme in the UK, is still associated with many unintended consequences after running for over a decade [211], shows that running RBF schemes is challenging. Once incentives are in play, *gaming* finds a way.

Challenges in the health sectors of low-income countries extend far beyond the motivation of health workers. Ssenooba and colleagues [111] in their study of a failed RBF programme in Uganda, concluded by urging the country not to go the RBF way as it is littered with many hazards. As noted elsewhere, a recent study from Rwanda, a country often cited as a shining star of RBF in the sub-Saharan Africa, emphasized that improvements in the health sector of the country are a result of a holistic approach and not one intervention [290]. Moreover, rural health workers in Tanzania, in a recent study, reported supportive interpersonal environment as one of the most significant factors for job satisfaction [292], and if RBF negatively affect this, it may have wider impacts extending beyond the health sector as health workers are part of a *complex social field embedded in wider social cultural systems* [15].

5 Conclusion

The RBF policy process in Tanzania was protracted, leading to tensions and mistrust among Health Basket Fund partners. External partners played a decisive role, leaving less space for Tanzania to be an agent of her own development. The study demonstrates the dilemma of a donor-dependent country when Tanzania tried her own policy option based on values important to the country, it collapsed due to lack of funding. Should Tanzania choose to scale-up the RBF programme, there is a danger that without specialized support the RBF initiative may fail again given the weak infrastructure and national institutional capacity.

RBF programmes are risky endeavors in resource constrained contexts. As demonstrated in this study, health workers in these contexts may easily be lured by financial incentives, which may compromise not only their intrinsic motivation but their social capital. If health workers perform their work tasks for the sake of financial incentives, it can lead to *gaming* which is detrimental to the quality of care. Additionally, it is important to pay attention on how the bonus payment method addresses the question of fairness at the workplace, as socio-cultural factors play an important part in this. Moreover, the success of RBF may depend on how the programme design balances the need for results and the nurturing of social relations which are important in the health sector. However even if RBF programme designs improve and incorporate these aspects, unintended consequences in RBF programmes across contexts are many and can unsettle health workers more than motivating them.

Holistic approaches rooted in systems thinking may take time to show results but are more sustainable, and Rwanda is a persuasive example of a country that has invested in this approach in the health sector and is beginning to enjoy the benefits. What is happening there does not need to be misinterpreted as a miracle from the RBF magic bullet, for a magic bullet it may not be.

6 Recommendations and future research

Tanzania is at a cross roads. The RBF route is appealing and yet evidence coming from the country does not hold a promise of reaching the intended final destination of social justice and equity in health. The country however, is determined to drive ahead into this intricate labyrinth from lessons learnt so far. Particular attention needs to be paid to the fact that RBF programmes are always challenging to implement, and even more so in resource constrained contexts. Based on this study, the following are my policy recommendations:

- There is a need to broaden the scope of stakeholders that participate at the design stage of RBF programmes to include a multi-disciplinary team, and including frontline health workers and health service users.
- There is a need to broaden the indicators in order to tackle the fairness issue. When indicators are wide enough, all health workers can contribute towards RBF targets and this may reduce conflicts at health facilities.
- Social and cultural factors and the meaning of fairness need to be considered when designing the RBF bonus payment system in local health sectors.
- Effort is needed in reforms that are less divisive and intrusive, reforms that ensure that the ultimate goals of social justice and equity are ensured in the health sector, for example investing more resources in salary reforms.

Future research in this area is needed given the exponential increase in the number of RBF initiatives in low-income countries. Too little is known about adverse consequences, hence there is a need to pursue this in other contexts. Another under researched aspect is on the extent to which the intrinsic motivation of health workers is affected. Lastly but most importantly there is need for more researchers with social sciences or with a multi-disciplinary background to be involved in this field, for a number of years the field has been a preoccupation for scholars from the field of economics and to an extent some aspects, such as processes, cultural and social aspects and holistic approaches have been overlooked.

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Research papers I-III

RESEARCH

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Introducing payment for performance in the health sector of Tanzania- the policy process



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Abstract

Background: Prompted by the need to achieve progress in health outcomes, payment for performance (P4P) schemes are becoming popular policy options in the health systems in many low income countries. This paper describes the policy process behind the introduction of a payment for performance scheme in the health sector of Tanzania illuminating in particular the interests of and roles played by the Government of Norway, the Government of Tanzania and the other development partners.

Methods: The study employed a qualitative research design using in-depth interviews (IDIs), observations and document reviews. Thirteen IDIs with key-informants representing the views of ten donor agencies and government departments influential in the process of introducing the P4P scheme in Tanzania were conducted in Dar es Salaam, Tanzania and Oslo, Norway. Data was collected on the main trends and thematic priorities in development aid policy, countries and actors perceived to be proponents and opponents to the P4P scheme, and P4P agenda setting in Tanzania.

Results: The initial introduction of P4P in the health sector of Tanzania was controversial. The actors involved including the bilateral donors in the Health Basket Fund, the World Bank, the Tanzanian Government and high level politicians outside the Health Basket Fund fought for their values and interests and formed alliances that shifted in the course of the process. The process was characterized by high political pressure, conflicts, changing alliances, and, as it evolved, consensus building.

Conclusion: The P4P policy process was highly political with external actors playing a significant role in influencing the agenda in Tanzania, leaving less space for the Government of Tanzania to provide leadership in the process. Norway in particular, took a leading role in setting the agenda. The process of introducing P4P became long and frustrating causing mistrust among partners in the Health Basket Fund.

Keywords: Payment for performance (P4P), Results-based financing (RBF), Health systems, Low-income contexts, Partnership, Maternal and child health, Health worker motivation, Tanzania

Background

In the last decade, expenditure on health has increased in many low income countries, but this increase is not commonly matched by better service delivery [1]. User needs and demands are far from met, and in many countries the health system continues to be plagued by inefficiency due to worker absenteeism and resource leakage, poor quality of care and inequity in access to health services [2]. There is a growing confidence in Payment for Performance (P4P) as a tool to address these problems [2], both among donor-

and recipient countries. P4P is defined as payment issued upon achievement of a predetermined performance target [3]. While donor countries see the P4P mechanism as an attempt to improve the efficiency of aid by emphasizing measurable results, recipient countries see P4P schemes as an opportunity to fulfil unmet health needs.

There are a number of arguments for and against the use of provider P4P mechanism in the health sector of low income countries and both these arguments are supported by empirical studies. On one hand, it is argued that P4P represents a powerful motivational tool to improve the way health facilities and individual health workers respond to users. It is also argued that P4P can facilitate the

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pooling and integration of resources and thus improve efficiency and the potential spill-over effect into the whole public sector in low income countries [2]. A study carried out in Rwanda concluded that P4P can be an effective tool to strengthen the quality and the use of maternal and child health services [4]. On the other hand, there are strong arguments against introducing P4P in the health sector. Through the introduction of monetary incentives, it is argued that P4P is 'crowding out intrinsic motivation', undermines motivation among workers who are not part of the P4P scheme and erodes social relations and teamwork through competition and envy [5, 6]. Studies in Rwanda and Tanzania have found negative unintended effects of P4P schemes including gaming and the introduction of adverse sanctions [6–8]. The evidence available on P4P schemes in health care is thus inconclusive and cannot be documented across settings [9].

Despite lack of solid evidence on effectiveness, P4P is gaining political support, and a number of countries in sub-Saharan Africa, including Tanzania, are trying out P4P to accelerate the progress towards Millennium Development Goals (MDG) 4 and 5 to improve child and maternal health. Like other low income countries, Tanzania is facing huge challenges in providing good quality health care to its population, and inadequate funds and lack of human and material resources negatively affect the motivation and performance of health workers [10–12]. Less than half of all deliveries are attended by skilled personnel [13], and the quality of birth care is generally poor [14]. Maternal mortality in Tanzania in 2013 was at 390 maternal deaths per 100,000 live births [15] and neonatal mortality in 2013 was at 21 neonatal deaths per 1000 live births [16].

To improve the quality and the utilization of maternal health services a P4P pilot was introduced in Tanzania in 2011 [17]. The decision making process that led to the introduction of P4P involved many bilateral and international partners with different agendas. It has been observed that inadequate attention has been given to policy development processes in the health sector of low income countries [18]. Attention has been paid to the policy contents, ignoring why and how the reforms are carried out and the actors involved [19]. Our study aims to bridge this gap by investigating the policy process behind the introduction of P4P in maternal and child health in Tanzania illuminating in particular the interests and the roles played by the Norwegian Government, the Tanzanian Government and the other development partners. To situate the study we first present the historical ideological context of governance and the more recent partnership model of governance in Tanzania.

From self-reliance to good governance

The Arusha Declaration of 1967 was based on the political philosophy of Julius Nyerere, the first President of the

United Republic of Tanzania, and emphasized central planning and equitable access to services including health care [20–22]. Nyerere and his vision of a self-reliant post-colonial country attracted a lot of attention and aid from countries all around the world [23]. In the 1980s many low income countries adopted structural adjustment policies (SAPs) promoted by the International Monetary Fund (IMF) and the World Bank as a necessary condition for borrowing money and securing economic growth [22, 23]. SAPs involved the scaling down of the public sector and stimulated private sector growth. Nyerere resisted the pressure from IMF and the World Bank to introduce structural adjustment policies in Tanzania [21, 23, 24], but in the wake of the oil crisis in 1973 and a costly military intervention in Uganda to overthrow Idi Amin in 1978–79, Tanzania was in an economic crisis and in need of more aid [23, 25]. Nyerere left office in 1985, paving way for a new administration [23, 24] led by president Ali Hassan Mwinyi, who had no option but to agree to the demands of IMF and the World Bank.

A World Bank report of 1989 [26] defined the development challenges in Africa as a crisis of governments' inability to manage national affairs, or of *governance*, and argued for a new development paradigm based on *good governance* [27]. Good governance is defined as a governing system "epitomized by predictable, open and enlightened policy making; a bureaucracy imbued with a professional ethos; an executive arm of government accountable for its actions; and a strong civil society participating in public affairs; and all behaving under the rule of law" [28]. Under the good governance paradigm, the notion of partnership between development partners is central. Tanzania opened up to this new paradigm.

Partnership in the health sector

The relationship between Tanzania and donor countries has not always been smooth with regard to agenda setting and ownership. In 1995, sour relations between the Government of Tanzania and donors led to the appointment of an advisory group to assess how the development cooperation between the Government of Tanzania and the official donor organizations could be strengthened and improved. The outcome was a report critical to both the donor countries for not giving Tanzania space for ownership and to the Government of Tanzania for not being proactive in providing leadership [29].

About the same time the Government of Tanzania had secured its first World Bank credit in the health sector [29] and in 1999, a sector plan of action was developed with the aim of pooling funds in the health sector. The Health Basket Fund was established as a pooling mechanism aiming to simplify administration and coordination and give more control to Tanzania [30]. These reforms put Tanzania in

the driving seat and worked to increase donor confidence in the country [24].

The Health Basket Fund, as an instrument of Tanzanian ownership of all activities in the health sector, was led by the Ministry of Health and Social Welfare and initially involved six donors: Norwegian Agency for Development Cooperation (Norad), Swiss Development Cooperation (SDC), Danish International Development Agency (Danida), Department for International Development (DFID), Irish Aid, and the World Bank. The Netherlands, Canadian International Development Agency (CIDA), the German Development Bank (KfW), UNFPA and UNICEF joined later [30]. In our study, we are particularly interested in founding members of the Health Basket Fund, as they have insight into the full history of the Health Basket Fund and extensive knowledge of the power dynamics and agenda setting in the Health Basket Fund over time.

Conceptualizing partnerships

Partnerships are often described in binary terms as either 'instrumental' or 'genuine', or as either 'strong' or 'weak' [31, 32]. While the rhetoric of partnership tends to emphasise a strong version which involves reciprocity, policy dialogue and meeting commitments, a weak version implies that decision making processes constantly come under the review of donors, undermining the aim of country ownership [33]. Maxwell and Riddell contend that a weak version of partnership is commonly preferred by donors (24). For partnerships to work well, Crawford propose a framework with four factors indicating a genuine partnership: (1) mutual co-operation between multiple constituencies, both internal and external actors, (2) respect for sovereignty and the right of national actors to determine their own policy options, (3) equitable and meaningful relationship, and (4) time and commitment to build and maintain a strong partnership [31].

Donor-government partnership in Tanzania has been termed a 'contested process,' one which obscures a more 'covert and insidious' expression of power by development partners [33]. The introduction of P4P to improve maternal and child health in Tanzania is a case in point and illustrates a power struggle between shifting alliances within the Health Basket Fund and tensions between the interests of donors and the interests of the country as an agent of its own development.

Methods

Study context

The study was carried out in 2012 and 2013 in two locations: Dar es Salaam, Tanzania, and Oslo, Norway.

Data collection and analysis

A qualitative study design was adopted to explore narratives and perceptions surrounding the introduction of P4P

in Tanzania. In-depth interviews were conducted, observational activities were carried out and reviews of policy document and other relevant secondary data were conducted. Data was collected by the first author in two phases, October–November 2012 in Oslo and January–June 2013 in Dar es Salaam. Below is an account of the method we used for data collection and how these methods are triangulated in the study.

Participation in the meetings on P4P

The first author participated in a number of meetings on P4P in Dar es Salaam in the period of January 2013 to June 2013 both as a participant and as an observer. Two of the meetings were particularly important. The first was a P4P stakeholders meeting, held in January 2013 which gave an overview of the status of P4P in health care in Tanzania and provided an opportunity to identify influential actors in the field. During this meeting initial contacts with potential informants in Dar es Salaam were made. The meeting also contributed to the identification of potential sources of secondary data for the study. The second meeting occurred when the first author was requested by the P4P joint assessment committee, which consisted of Norad, the World Bank and USAID, to assist as a resource person on literature on P4P in Tanzania and other contexts. This role was important for gaining access to and building rapport with central informants in the study.

Overall, the participation in the P4P meetings were important for gathering background information, for refining the research questions, for the identification of potential informants, for the development of the interview questions [34], and for mapping of secondary data sources.

Policy documents

Policy documents were of utmost importance to the study, and were used mainly from a realist perspective [34], that is, as a means to understanding the P4P policy and design in the Tanzanian context. Hence, policy documents were essential in providing background information to the study and in defining the questions and trajectories that were pursued in the in-depth interviews. Policy documents central to our study include: *The Pwani region P4P pilot: design document* [17], *Health sector strategic plan III (July 2009–June 2015) Partnership for delivering the MDGs* [35], *The national road map strategic plan to accelerate reduction of maternal, newborn and child deaths* [36], *Payment for performance strategy 2008–2015* [37], *Implementation guidelines- payment for performance* [38]. These policy documents have been instrumental in uncovering the political frames and in supplementing primary data collected from the representatives of the Ministry of Health and Social Welfare.

In-depth interviews (IDIs)

Detailed information on a range of themes related to the introduction of P4P in the health sector in Tanzania was obtained through IDIs conducted with representatives of organizations and agencies identified during participant observation in the meetings and conferences. The questions that were asked in interviews were tailored to suit the perceived roles played by different actors, and this process was aided by the information obtained in policy documents, and during observations. Three interview guides were designed: one for Government officials in Tanzania; one for Norwegian informants, and one for other development partners and stakeholders. Although these three interview guides had different specific (for detailed interview questions refer to additional files 1, 2, and 3), they were all guided by the following general themes: trends and thematic priorities in development aid policy, countries and actors perceived to be proponents of the P4P scheme, and agenda setting in the Tanzanian Health Basket Fund and the introduction of P4P.

The P4P agenda in Tanzania was first introduced into the Health Basket Fund. In choosing the informants for the study, we used purposive sampling following two criteria. To achieve the objective of the study we were interested in the views of members of the Health Basket Fund who were influential during the P4P introduction process by either supporting or questioning the P4P agenda. Through this criterion, we were able to identify the Ministry of Health and Social Welfare of Tanzania, the World Bank, the Norwegian Agency for Development Cooperation (Norad), the Danish International Development Assistance (Danida), the Swiss Agency for Development and Cooperation (SDC), German International Cooperation (GIZ) and Irish Aid. All these members (with the exception of GIZ) were formative members of the Health Basket Fund in 1999. They were selected based on the assumption that they therefore possessed more knowledge on the founding principles of the Health Basket Fund than members that joined at a later stage. Secondly, we were interested in organizations/agencies outside the Health Basket Fund that appeared to be important stakeholders in the P4P agenda setting and the subsequent P4P pilot. Based on this criterion we identified the Clinton Health Access Initiative (CHAI), an organization managing the P4P scheme in Tanzania on behalf of the Ministry of Health and Social Welfare. In addition, we included the Norwegian Embassy in Dar es Salaam, and the Norwegian Ministry of Foreign Affairs, who played an important role in introducing and funding the P4P programme in Tanzania. From these 10 organizations/agencies, a total number of 13 in-depth interviews with key-informants were conducted, 11 of these in Dar es Salaam and two in Oslo. Informant selection in the organizations focused on individuals knowledgeable of the P4P agenda setting and process in Tanzania, and the

majority of our informants were representatives of their organizations in the Health Basket Fund. An overview of the interviews conducted is summarized in Table 1.

All interviews were conducted in English and based on informed consent, and all except two were recorded. The two interviews were not recorded due to the preference of the informants. In addition to recording, rapid note taking was used in all interviews. The recorded IDIs were transcribed verbatim and error checked. The analysis of the material started with a review of transcripts which were later imported to NVivo 10 for data management purposes. Qualitative content analysis was undertaken, looking for both manifest and latent content [39]. Coding units were identified and condensed [39]. Sub-themes were developed from the codes and defined into themes that we used in presenting our results.

Research ethics

Research clearance was granted in Norway through the Norwegian Social Science Data Services and in Tanzania through the Ifakara Institutional Review Board, and the National Institute for Medical Research (NIMR/HQ/R.8a/Vol.IX/1515). Individual consent was sought and obtained free of coercion.

Results

The introduction of P4P in the health sector in Tanzania was controversial. The actors involved, including the bilateral donors in the Health Basket Fund, the World Bank, the Government of Tanzania and high level politicians outside the Health Basket Fund, fought for their values and interests and formed alliances that shifted in the course of the process. In the following we will describe the process with emphasis on 1) the role of high political pressure, 2) the conflicts and changing alliances in the Health Basket Fund, and 3) consensus building.

Table 1 Overview of IDIs

Agency/Organization	Interviews
Ministry of Health and Social Welfare- Tanzania	2
World Bank – Tanzania	1
Ministry of Foreign Affairs – Norway	1
The Royal Norwegian Embassy – Tanzania	1
Norad	1
Danida	1
Irish Aid	1
GIZ Tanzania	2
Swiss Agency for Development and Cooperation	1
Clinton Health Access Initiative (CHAI)	2

High political pressure

The history of Norwegian development aid to Tanzania goes back to the early years after independence, and Norway remains among the most influential donor countries in Tanzania. The idea of P4P in Tanzania originated from the Norwegian-Tanzanian health sector partnership initiative (NTPI) which was signed in 2007 by the President of Tanzania and the Norwegian Prime Minister. The aim of the partnership was to enhance progress to reach MDGs 4 and 5 using P4P mechanism. As all informants pointed out, this was a top-down process. The P4P agenda was defined by high level politicians both from Tanzania and Norway. The prominent role of high level politicians led to a considerable amount of political pressure to introduce P4P in Tanzania. As one informant in the Norwegian Embassy noted:

[Former] Prime Minister Stoltenberg of Norway and President Kikwete of Tanzania met in 2007, so as you can see the engagement was at a very high level regarding P4P. After this meeting we were requested to support the health sector [through P4P] in Tanzania, but prior to this, the embassy wasn't really visible in the health sector in Tanzania. (Staff, Royal Norwegian Embassy, Dar es Salaam)

The strong engagement of high level political actors in the P4P agenda kept the involvement of technical actors in defining and shaping the agenda on a low level. In Norway, the Ministry of Foreign Affairs was said to have bypassed the Norwegian Agency for Development Cooperation (Norad), which provides technical support to the Ministry. Norad was not consulted about the P4P agenda and Norad staff expressed great scepticism to its introduction in Tanzania. As one informant pointed out:

We were raising some questions around P4P since we had a feeling that the treatment was prescribed before the diagnosis, because they said let's do P4P in Tanzania. Really, without even looking at what are the barriers to the quality of services, to the delivery of services and so on and so forth, but the recipe was already coming, and we quietly and quickly realized that we cannot maneuver much outside this P4P thinking. (Official, Norad)

In Tanzania, the consensus among some high level bureaucrats and technical staff in the Ministry of Health and Social Welfare was that the health system was not ready for P4P, as it was perceived as a piecemeal reform. It was pointed out that there was need for a reform that takes a systems approach to the challenges in the health sector of Tanzania, as highlighted by the following quote:

The primary problem that we are facing in Tanzania is a health system that isn't working well. If you think of the six building blocks of a health system, all those, including financing, infrastructure, health management information systems, among others, P4P could have worked well if all these blocks were functioning well, so around P4P you need to get the system working well for desired results. (Official - Ministry of Health and Social Welfare, Tanzania)

Partners in the Health Basket Fund, among them Danida, SDC and Irish Aid, were not happy about how the P4P agenda was introduced. The partners felt that P4P was being pushed from above without adequate evidence showing that such mechanisms work in low income contexts. Officials from these international development agencies interact with officials from the Government of Tanzania regularly; hence there was a common understanding that the P4P agenda was driven by high level politicians. The understanding was that technical staff in the Ministry of Health and Social Welfare in Tanzania was not in a position to oppose or refuse the P4P agenda. As one informant put it:

The thing is that there is political drive and political push to go for that [P4P] and this political push comes from Norway and therefore the government [of Tanzania] was not in a position to say no despite that the basic foundations to support P4P, either at health facilities or in the health system were not available. (Official, Danida)

Our reviews of policy documents showed a marked lack of progress in health outcomes relating to MDG 4 and 5 in Tanzania [35, 36] and there was great pressure on the Government of Tanzania to find a way of improving these health outcomes and reach the international targets in child and maternal health. The need to document better health outcomes stimulated and justified a search for new strategies. As one official expressed:

People were saying we are not achieving enough and we were mainly concerned that we might not reach targets for health related MDGs, especially goals 4 and 5. Because of this we were thinking of a way to accelerate progress towards these targets. (Official - Ministry of Health and Social Welfare, Tanzania)

When politicians in Tanzania were searching for ways to make progress in MDG 4 and 5, politicians in Norway were looking for partners willing to use P4P schemes in maternal and child health. One informant recalls how Tanzania was chosen as a potential P4P partner:

The Norwegian government wanted to go into countries that were really struggling with child mortality as well as infant mortality, and so countries were picked according to that. India was one, and then Pakistan was chosen, and then there was a need for some countries in Africa. Tanzania became the obvious choice, because it is a relatively easy country to work in, in terms of stable political conditions, and also quite strong leadership, with a strong President. (Official, Norad)

Conflicts and changing alliances in the health basket fund

The Government of Norway pulled out of the Health Basket Fund in 2002, but re-joined in 2007, presumably for the purpose of financing the P4P scheme in the health sector. The Ministry of Foreign Affairs engaged Norad as the Norwegian partner in the Health Basket Fund with the assignment of introducing the P4P agenda to the Health Basket partners. The move was not positively received by the majority of actors in the Health Basket Fund:

Norad was just rejoining the health basket at the time when we introduced the P4P agenda. People did not approve of that, especially coming with such an agenda of P4P, some of the donors were totally against it, like the Danes, they were appalled by it both politically and otherwise. Even the World Bank and USAID could not come openly to support us for fear of a backlash. The Dutch were furious, saying we were not serious, calling us names, and saying we were trying to hijack the Health Basket Fund. (Official, Norad)

Other development partners perceived it as disrespectful to introduce such a highly value-laden and politically charged agenda without broad consultation. Pushing the P4P agenda through the Health Basket Fund was interpreted as going against the values of the partnership, especially the earmarking of funds in the basket. The introduction of the agenda was therefore met with resistance in Health Basket Fund.

In addition to conflicting values, opponents of the P4P agenda pointed to the need to evaluate the feasibility of P4P in the health sector of Tanzania in particular and low income contexts in general. In response, Norad commissioned two evaluations in 2008, whose findings did not support the introduction of P4P scheme in Tanzania. The reports concluded that there was lack of evidence on the effectiveness of P4P [40] and that the health system in Tanzania was not ready for a full scale national P4P scheme [41].

However, preparatory work for a full scale national P4P scheme had already started after the signing of the NTPI. In 2008, the Ministry of Health and Social Welfare produced two policy documents: *the Payment for*

performance strategy 2008–2015 [37], *Implementation guidelines- payment for performance* [38]. The Government of Tanzania was ready to start the implementation of a full scale national P4P scheme. The Health Basket Fund partners, notably Danida, SDC, and Irish Aid which were and still are among the leading contributors of funds the Health Basket continued to resist the agenda. In addition, the position of the Norwegian partner on the agenda was changing mainly because the results from the evaluations did not support a full scale national P4P scheme. Instead, Norad proposed a P4P pilot in one region. This suggestion was openly supported by some of the members in the Health Basket Fund among them The World Bank and USAID, but was rejected by the Government of Tanzania:

The government's position back then was that there were too many pilots in the country and if there was going to be anything it has to go full-scale. A pilot would mean that one district or region would benefit. Tanzania has a strong feeling about equity issues, you know from our history, and because of this the government was determined to go ahead with a full-scale implementation. (Official - Ministry of Health and Social Welfare, Tanzania)

While acknowledging the lack of adequate conditions to implement a full scale national P4P scheme, the Government of Tanzania was adamant that they do not need perfect conditions to start the scheme, instead they preferred a “*learning by doing-approach*”. In 2009, the Government of Tanzania went ahead attempting the implementing of a full scale national P4P scheme. The Health Basket Fund partners were not happy about this move, including Norad:

P4P came with pressure such that the government was forced to go full scale with P4P. Yet the system was not ready and it didn't function and the basket partners said we cannot do it. We pulled out and did not finance that. This was a real blow because it created tensions between basket partners and the government. I really feel sorry. We lost valuable time, energy and confidence in this process. (Official, Swiss Development Cooperation)

The attempted full scale national P4P scheme did not receive funding from the Health Basket Fund, but a few districts implemented the scheme from 2009 to 2011. With no funding and without a proper Health Management Information Systems in place, the full scale national P4P scheme faced a number of challenges.

The common position against the Government of Tanzania's full scale national P4P scheme improved relations among donor partners in the Health Basket Fund. Most notably was the open support of the World Bank to

the proposal of Norad for a P4P pilot in one region. Being the main funder of the Health Basket Fund, the support of the World Bank was important in redirecting the P4P agenda in Tanzania. The interest and active pursuit of the P4P agenda by the World Bank was not well received by all members in the Health Basket Fund as some were still skeptical to the agenda.

The World Bank is now putting P4P as a condition for funding the basket. P4P may not be bad as such, but we would expect the Bank to come with a lot of expertise and negotiate with all the partners to get that [the agenda] through, but it was not exactly like that. It was discussed with the partners but I am not sure if there was broad consensus on this approach. It was pushed on the Basket and now we have to make the best of it. (Official, Swiss Development Cooperation)

As the full scale national P4P scheme became increasingly difficult, the Government of Tanzania softened its stance on the scope of the P4P scheme. Together with the World Bank, Norad and USAID plans for a P4P pilot in the Pwani Region were started. In 2011, the Pwani Region pilot was introduced in Tanzania with the aim of scaling up after evaluation. The pilot was a result of constant changes in alliance among members in the Health Basket Fund.

Building consensus

The potential of scaling-up the P4P pilot meant that a common position regarding the agenda needed consensus among members of the Health Basket Fund. This consensus building process had begun during our data collection period. The Government of Tanzania, the World Bank, Norad, and USAID were leading this process, as the following statement illustrates:

Things were not very clear when P4P was introduced. People needed more understanding of the design and operations of the program, which was not readily available. Many were skeptical of the design, so Norway, which is one of the members in the Basket, asked if we could look more into the concept and this is how the pilot came about. Now as we do these assessments, we see that more donors are coming in and a taskforce for P4P has been formed by the Ministry and we have partners like USAID, the World Bank and Norway, the Germans. Also the chair of the basketeers [Irish Aid at the time] is being co-opted. (Official, World Bank Tanzania)

In one of the meetings of the Joint Assessment committee comprising USAID, the World Bank and Ministry

of Health and Social Welfare, the possibility of inviting other development partners to take part in recently established 'National P4P Taskforce' was discussed. Senior level politicians in Tanzania who had strongly argued for a full scale national P4P scheme gradually changed position and increasingly supported the views of their technical staff as shown by the following extract:

There is an emerging consensus that P4P needs to be viewed within the broader health systems reforms... there is need to make sure facilities receive essential medicines in time, are well equipped and meet minimum staffing standards so that they can perform and deliver quality services. [Former Minister of Health and Social Welfare, Tanzania [42]]

Opponents of P4P in Tanzania were calling for a whole systems approach in implementing the P4P scheme. The argument was that P4P must not be seen as the panacea to problems facing the health sector of Tanzania; as such the scheme has to be integrated in the existing efforts. With high level political officials in Tanzania calling for a whole systems approach to P4P, the scheme seems to be approaching a large degree of consensus.

Discussion

In this section we will discuss Norway's interest in the P4P agenda and partnership contestations, and the role of the government of Tanzania in the P4P agenda setting linking it to the question of ownership.

Norway's interest in the P4P agenda and partnership contestations

Our data demonstrates that Norway played an important part in bringing the P4P agenda to Tanzania. Norway's interest in P4P schemes in the health sector can be traced to Jens Stoltenberg, who was the Norwegian Prime Minister 2000–2001 and 2005–2013. Stoltenberg, an economist by training, supported the idea that saving the lives of children in developing countries is a moral and political imperative which carries economic benefits [43, 44]. In 2007, Stoltenberg launched the *Global Campaign for the Health Millennium Development Goals*, a campaign promoting different initiatives, including P4P schemes, to ensure 'value for money' while reaching the most vulnerable groups [45]. In addition to substantial financial support to the UN, global child and maternal health campaigns, and global health initiatives such as GAVI and the Gates Foundation, Norway was and still is engaged in bilateral partnerships with several countries lagging behind in MDGs 4 and 5, including India, Tanzania, Nigeria and Malawi [43, 46].

Through the Norwegian Government's involvement in health related MDGs, in particular goals 4 and 5, Norway emerged as a prominent player promoting the introduction

of innovative financing mechanisms in health and other sectors globally [44, 47, 48]. One should note that there was high interest in the Norwegian policy environment relating to outcomes of MDGs 4 and 5. We will examine this interest using the *agenda-setting circumstances* concept in Grindle and Thomas's framework on political economy of reform. The framework is used in analyzing policy and organizational reforms in developing countries and its key elements are *environmental context* of reform, the *agenda-setting circumstances* and the *policy characteristics* [18, 49]. We find the *agenda-setting circumstances* adaptable to the global policy agenda setting. According to the framework, the policy *agenda-setting circumstances* can be perceived as either a crisis situation or not [49]. When an *agenda-setting circumstance* is seen as a crisis situation, there is high political interest and the involvement of policy elites. In such circumstances, there is a sense of urgency to 'do something' as political and economic stakes are high for inaction [49]. We argue that the possibility of failing to meet the health related MDGs could be interpreted as a crisis situation, especially by the actors that had been actively supporting them. In the same regard, a perceived crisis situation calls for innovative strategies [49], such as using P4P in the health sector of low income countries to accelerate progress towards MDGs 4 and 5. To this end, the concept of *agenda-setting circumstances* helps to explain the high level political interest in P4P on the Norwegian as well as the Tanzanian side.

The other development partners in Tanzania did not share this strong political interest in P4P. Our data show that these actors in the Health Basket Fund did not approve of the way P4P was introduced in the Health Basket Fund. The introduction was perceived to have been largely politically motivated and not following the principles important in a partnership. To further shed light on this, we apply Crawford's framework on genuine partnership.

Crawford [31] proposed four principles guiding genuine partnerships. The first principle emphasizes mutual co-operation between actors. Our data suggests that different actors in the partnership had different interests. Alliances were constantly shifting in the Health Basket Fund. It was perceived that Norway 'pushed' the P4P agenda before seeking broad consensus and co-operation from all partners. In the eyes of other long-term and major financial contributors in the Health Basket Fund, such as Danida, SDC and Irish Aid, Norway did not respect mutual co-operation, a principle considered to be fundamental for a genuine partnership. This, in our view, contributed to the derailing of the P4P agenda in Tanzania.

The second principle of partnership concerns the sovereignty and right of national actors to make their own policy choices. In the context of the P4P agenda in Tanzania, none of the international donors in the Health Basket Fund observed this important principle. On different

occasions the P4P agenda was driven by international actors in the Health Basket Fund and not by the government of Tanzania. Norway and the World Bank took turns in pushing the agenda while the other development partners constantly opposed the P4P agenda, even at times when the Government of Tanzania had resolved to implement the P4P reform. It can be argued that this stance by international actors neutralized the Government of Tanzania's prerogative to determine its own policy options.

The third principle by Crawford on genuine partnership emphasizes equality. Our data support an image of the Health Basket Fund in Tanzania as a power arena where partners fought to promote their own values and ideologies [31]. This is illustrated in particular by the moment when the World Bank officially showed interest in the P4P agenda which immediately gained momentum. We argue that by being the largest funder in the Health Basket Fund, the World Bank had more bargaining power and clout to impose its worldview. As the process unfolds, we see international actors engaging in power games in leading or resisting the P4P agenda leaving Tanzania as a less equal partner.

The fourth and final principle on a genuine partnership encourages investment of time and commitment in the building of a strong partnership [31]. Norway did not observe this principle. As a former member that re-joined the partnership, Norway was expected to build trust through showing commitment to the basket fund partners over time. When Norway rushed to introduce the P4P agenda despite heavy resistance, Norway sought alliance with the World Bank, a powerful actor in the Health Basket Fund. This alliance over time increased the pro P4P pressure beyond what Norway's status as single donor country would allow. This was interpreted by other partners as manipulation of a partnership platform supposed to be based on consensus and mutual interest.

Partnership theory tends to see strong partnerships as the ideal or 'real' partnerships, while in practice, according to Maxwell and Riddle, donors tend to prefer weak partnerships as it makes it easier to dominate agenda setting [32]. The approach by Norway when introducing P4P to the Tanzanian health sector appears to be a text-book example of this.

It is important to try to understand why the Government of Tanzania was not in control of the P4P agenda, despite a clear interest in it as expressed in the policy documents and by the engagement of high level political actors in the Tanzanian context in setting the P4P agenda.

The role of the Tanzanian Government in P4P agenda setting

National governments have important roles to play as planners and executors of national welfare systems, and this remains their role also when they engage in partnerships

such as the one under scrutiny here. According to partnership theory, the recipient government is supposed to play a pivotal role in priority setting and consensus building among the partners and in assuming ownership to the programs and strategies developed by the partnership [31, 50]. It is therefore important for a proper understanding of the P4P agenda setting to analyze how Tanzania played out its role in the process.

The data presentation above clearly reflects a significant level of ambivalence and indecision on the part of the Tanzanian government. Most informants identified the P4P agenda as owned by the Norwegian government rather than the Tanzanian. Moreover, the attempts actually made by the Tanzanian government to influence the process, such as its initiative to launch a nationally owned P4P scheme, and its later insistence that the program should go to scale, were over-ruled by the other partners in the Health Basket Fund. It is demonstrated that at technical and bureaucratic level, the Government of Tanzania would have preferred a systems approach to health sector challenges and not a standalone P4P initiative. This all suggests that the Tanzanian Government was unable to play the leading role in the process that it was supposed to according to partnership principles. This may have several reasons.

In a recent study of eight African countries' negotiation capital in aid using the country's economic, political, ideological and institutional factors as parameters, Tanzania ranked among the weakest states [51]. This strongly suggests that even if it wanted to, the Government of Tanzania's ability to take a leading role in the negotiations around the introduction of P4P, thereby contributing to making the Health Basket Fund a strong partnership was rather limited. However, and perhaps paradoxically, this may not have been in their interest. As discussed above, donor partners tend to prefer weak partnerships to strong ones because they are more easily managed. Donors, obviously, also control the funding of the partnerships, and may withhold funding or pull out if they find that the partnership moves in a direction they do not approve of, as exemplified by the Tanzanian P4P pilot that the Health Basket Fund refused to fund. Hence, although the partnership model emphasizes the importance of mutual respect, cooperation and sovereignty [31], recipient partners may in fact gain most in terms of funding and goodwill if they give up leadership of the process and ownership of the agenda and follow the lead of the donor partners.

There are several examples in the literature of Tanzania following similar strategies in similar contexts [25, 52] which further suggests that this may in fact be the country's most preferred and rational approach in development partnerships. This could also illuminate why Tanzania is sometimes referred to as an unofficial 'darling of the donor

community' [52]. Donor countries tend to find the Government of Tanzania receptive to their ideas and agendas, and respond by maintaining a high level of aid to the country.

Study limitations

The study lacked the contributions of some of the stakeholders in the Donor Partners Group for Health, which were mentioned in our informants' narratives such as USAID and the Netherlands, whose views would have enriched our study. In addition, our data could have been enriched if we had managed to include more actors from the Government of Tanzania. However, concerted efforts were made during the course of the fieldwork to get in touch with these organizations with limited and varying success.

Conclusion

The process of introducing the P4P scheme in Tanzania was fraught with tension, contestations, and mistrust. The donor - government partnership in Tanzania as expressed in the case of the Health Basket Fund, was by and large dominated by donor countries and agencies. This left less space for Tanzania to be proactive as an agent of its own development. The study also demonstrates that while high political interest is important in stimulating reforms, this does not always translate into quick policy decisions.

Additional files

Additional files 1: Interview guide for Norwegian Officials. (DOC 30 kb)

Additional files 2: Interview Guide for Tanzanian officials. (DOC 29 kb)

Additional files 3: Interview guide for other officials. (DOC 32 kb)

Competing interests

The authors declared that they have no competing interests.

Authors' contributions

VC, MT, KMM developed the study design; VC collected and analyzed the data. VC wrote the first draft of the paper with substantial contributions in the subsequent drafts from NGS, KMM, MT and MM. All authors reviewed and agreed to the final version before submission. All authors read and approved the final manuscript.

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PAPER II

RESEARCH ARTICLE

Open Access

When incentives work too well: locally implemented pay for performance (P4P) and adverse sanctions towards home birth in Tanzania - a qualitative study

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Abstract

Background: Despite limited evidence of its effectiveness, performance-based payments (P4P) are seen by leading policymakers as a potential solution to the slow progress in reaching Millennium Development Goal 5: improved maternal health. This paper offers insights into two of the aspects that are lacking in the current literature on P4P, namely what strategies health workers employ to reach set targets, and how the intervention plays out when implemented by local government as part of a national programme that does not receive donor funding.

Methods: A total of 28 in-depth interviews (IDIs) with 25 individuals were conducted in Mvomero district over a period of 15 months in 2010 and 2011, both before and after P4P payments. Seven facilities, including six dispensaries and one health centre, were covered. Informants included 17 nurses, three clinical officers, two medical attendants, one lab technician and two district health administrators.

Results: Health workers reported a number of strategies to increase the number of deliveries at their facility, including health education and cooperation with traditional health providers. The staff at all facilities also reported that they had told the women that they would be sanctioned if they gave birth at home, such as being fined or denied clinical cards and/or vaccinations for their babies. There is a great uncertainty in relation to the potential health impacts of the behavioural changes that have come with P4P, as the reported strategies may increase the numbers, but not necessarily the quality. Contrary to the design of the P4P programme, payments were not based on performance. We argue that this was due in part to a lack of resources within the District Administration, and in part as a result of egalitarian fairness principles.

Conclusions: Our results suggest that particular attention should be paid to adverse effects when using external rewards for improved health outcomes, and secondly, that P4P may take on a different form when implemented by local implementers without the assistance of professional P4P specialists.

Keywords: Payment for performance, Results-based financing, Motivation, Tanzania, Mvomero, Home birth, Working conditions, Public health, Reproductive health, Maternal health

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Background

Performance-based payments (P4P) are seen by leading policymakers as a potential solution to the slow progress in achieving the main target of Millennium Development Goal 5: reducing the maternal mortality ratio by two-thirds by 2015 [1-3]. The basic principle behind P4P is that payments are contingent on performance. For example, an increase in the utilization of health services can trigger a bonus to the responsible health workers/managers [4]. It is assumed that payments to health-care providers will induce them to offer maternal health-care services of a higher quality, and that this in turn will increase the number of women and children who receive high-quality care. In Africa, 17 countries are now implementing P4P, 14 of them as pilots, and three as nationwide programmes [5].

Critics argue that P4P need not result in improved health outcomes, and that it can have adverse effects [6-10]. In particular, P4P may crowd out motivation and/or attention for tasks for which health workers are not paid. Health workers may also play with the books and alter numbers and not behaviour. Lastly, P4P programmes are criticized for focusing on the quantity- rather than the quality of care.

Proponents of P4P refer to a relatively limited number of studies that demonstrate that P4P can have a substantial effect on the utilization of health-care services and to some extent on health outcomes [11-15]. A weakness of these studies, however, is that they do not tell us precisely *how* or *why* these changes take place. If we obtain a better understanding of what health providers think about P4P programmes [16], and what they actually do to make changes occur, it will help us shed some light on any potential adverse effects, as well as helping us understand why P4P appears to work well in some settings and not in others.

The majority of P4P studies that have found positive results in terms of utilization and/or outcomes have used data from programmes in which substantial technical and managerial resources accompany the intervention. In countries with weak health sector institutions, this is unlikely to be the case during nationwide roll-out organized by both national and local governments. It is therefore important to also study interventions that are implemented by governments in low-income countries using their own resources.

This paper offers insights into two of the aspects lacking in the current literature on P4P: Why changes may occur in response to the introduction of P4P, and how the intervention plays out when implemented by local government as part of a national programme that does not receive donor funding. The paper is structured as follows: The first section looks at the underlying conceptual framework of P4P, while the second section describes the

nationally funded P4P programme in Tanzania. The third section lays out the methods that we employed, whereas the fourth section reports on the findings from the in-depth interviews with health workers and health administrators. The fifth and sixth sections offer a discussion of the results and concluding remarks.

Conceptual framework

Payment for performance (P4P), or performance-based payment (PBP), can be defined as: "the transfer of money or material goods conditional upon taking a measurable action or achieving a predetermined performance target" [17]. Underlying P4P is the *principal-agent* model. The principle behind this model is that there is a lack of alignment of the preferences (interests) of the *principal* (employer) and the *agent* (employee) when it comes to the goals to be achieved by an organization. The *principal* therefore attempts to find ways of aligning the *agent's* goals to the goals of the organization [18]. In the context of P4P, health workers, or *agents*, are provided with performance bonuses by the *principal* in order to achieve health outputs and outcomes.

Nevertheless, even if a health worker is strongly motivated by the reward the principal offers and changes his behaviour in response, the intervention may not necessarily improve health outcomes.

First, financial incentives may crowd out attention to tasks important for high-quality care. Health workers may focus on aspects of health care for which they are rewarded, while ignoring other aspects of care for which they are not rewarded yet are nonetheless important for quality [7]. Holmstrom and Milgrom coin the former type of behaviour multitasking, and argue that financial incentives may not be very effective in the health sector, as employers pay for input rather than for health outcomes [19].

Second, external rewards may crowd out health workers' intrinsic motivation to do the job [20]. Clearly, if health workers were intrinsically motivated to deliver high-quality health care, there would be no need for employing financial incentives as a motivator. Studies comparing what health workers in low-income countries *can* do with what they actually do [21-23] suggest that the intrinsic motivation for the average health worker is low. However, the use of external rewards may still crowd out the motivation for those health workers who *are* intrinsically motivated, and if the use of external rewards for some reason is discontinued, motivation and effort may end up being lower than before these rewards were introduced.

Third, P4P is vulnerable to corruption, i.e. health workers may be changing the numbers rather than the indicators themselves (see Oxman and Fretheim for a review of adverse effects [6]). Fourth, a major assumption of P4P is that workers are able to offer high-quality care if they choose to. This may not be the case, as knowledge of guidelines

and access to equipment and medication may be inadequate. Lastly, P4P presupposes that if health workers deliver high-quality care, women will come to the facility. This may not be the case since women may deliver at home for reasons outside the control of health workers.

In conclusion then, agency theory tells us that offering health workers an incentive for an increase in the number of deliveries need not result in improved health outcomes, primarily because the incentive is related to effort and not to outcomes.

P4P in a Tanzanian context

The productivity of health workers in Tanzania has been proven to be low. One study shows that less than 60% of working hours are used for productive activities, ([24]:3) whereas another demonstrates that few health workers follow clinical guidelines, and that low motivation is a central factor [23]. Lastly, a number of studies have shown that health workers in Tanzania are unhappy with their working environment and their salaries [25,26].

Norway, one of Tanzania's long-term development partners, took a leading role in introducing the idea of result-based financing in the country's health sector in 2008 [2,27]. The government of Tanzania was very receptive to the idea and wanted to launch a national P4P pilot programme in 2009 [28]. Tanzania's development partners in the health sector were reluctant to endorse the idea due to many contested issues. First, there was a strong feeling that the state of Tanzania's health management information system (HMIS) was not ready for P4P, which had been documented in an appraisal study carried out in 2009 [2]. Second, other perceived preconditions for a successful P4P, such as a satisfactory staff situation and adequate access to essential drugs, equipment and supplies, were lacking [2]. The government of Tanzania was therefore not allowed to use the funds in the health basket earmarked for P4P. While acknowledging that the proper conditions for P4P were lacking, the government of Tanzania proceeded with the implementation of P4P in 2009, choosing to employ a 'learning by doing approach' [28].

The donor community requested that the government of Tanzania halt P4P [27]. At this point, however, the government of Tanzania had already issued a directive that P4P should be included as an activity in the districts' Comprehensive Council Health Plan (CCHP) for 2009/10. Even so, not all the districts followed the directive, and in some places health workers were eagerly awaiting a P4P programme that was never implemented [29]. On the other hand, the district administration in Mvomero District decided to follow the directive and P4P was consequently budgeted for in the health plan and implemented in 2009, and health workers received their first bonuses in 2010. To distinguish the P4P scheme that we

study from the donor-funded scheme which was later launched as a pilot in Pwani Region in 2011 [30], we will refer to it as the 'locally funded P4P'.

The design of the locally funded P4P in Tanzania (2009–2011)

The main aim of the locally funded P4P in Tanzania was to "provide better motivation and explicit attention to results, by ensuring that health workers and their supervisors are motivated to strive for better results in Maternal, Newborn and Child Health Services and other health services in the districts" [28]. The bonuses were to be paid based on achievements using the following indicators: antenatal care, institutional deliveries, post-natal care, and Health Management Information Systems (HMIS). Council Health Management Teams (CHMTs) were to monitor and ensure that health facilities in their mandated area were submitting their reports in time, and they were also to review and verify the reports. In turn, the CHMTs were to be monitored by the Regional Health Management Teams (RHMTs) [31].

At the facility level, a maximum annual bonus was to be achieved if the facility met all the targets for all the indicators, whereas a partial bonus was to be paid if only some of the targets were met. For deliveries, the target for dispensaries was that 60% or more of all the expected deliveries of the catchment area should take place at the dispensary. At the national level, 51% of all women with a live birth received delivery care from a skilled provider in 2010, although the percentages vary between 21% and 91% across regions [32]. New targets were to be set at the beginning of each year and the basic rule for target setting was the requirement of improvements from the previous performance [31]. Furthermore, the bonuses were to differ according to facility type. Dispensaries had a maximum bonus limit of T.Shs 1 million (approximately USD 676) and health centres, CHMTs and RHMTs' maximum annual bonus was T.Shs 3 million (USD 2,000), while hospitals had the highest maximum annual bonus of T.Shs 9 million (USD 6,000). Payments at the health facility were to be shared equally among the staff regardless of grade, qualifications or position. If a health facility reached all targets, each individual was supposed to get a maximum annual bonus of approximately T.Shs 200,000 (USD 136) [31].

Methods

Study context

The study was conducted in Mvomero, a rural district in the Morogoro Region of Tanzania. The district covers more than 7,000 square kilometres, and the population is approximately 300,000. Administratively, Mvomero is divided into 17 wards and 101 villages. There are 56 health facilities in the district, including three hospitals,

four health centres and 49 dispensaries [33]. Six out of 10 live births in the region are delivered by a skilled provider [32]. Except for a woman's first delivery and her fifth delivery and upwards (which should take place at a hospital), Tanzanian health authorities recommend that women with uncomplicated pregnancies who have gone through regular antenatal care deliver at their closest dispensary. Dispensaries are usually headed by a Clinical Officer (three years of medical training). As a general rule, nurses are in charge of deliveries, but the Clinical Officer will be asked to assist if a delivery does not proceed normally.

Data collection and analysis

Since we were interested in health workers' perceptions and experiences with P4P, as well as their strategies to meet set targets, we chose individual interviews as our primary methodology. Moreover, because nurses are in charge of the majority of services targeted by the locally funded P4P (antenatal care, deliveries, postnatal care and vaccinations), we focused on this profession. In June 2010, when P4P had been introduced but payments had not yet been made, the first author conducted 12 in-depth interviews with health workers at four public dispensaries and one faith-based health centre (10 nurses, one medical attendant and one lab assistant). The interview guide was informed by the existing literature on P4P and focused on expectations related to the introduction of P4P, including the potential effect of P4P on the prioritization of work within the health facility, nurses' perceptions and experiences of midwifery and provision of care, in addition to perceptions about the access to-, acceptability of- and quality of care provided to women in childbirth.

In October 2011, after health workers had received their first bonus payments, the third author conducted a total of 14 IDIs with health workers at five public dispensaries (including a total of three clinical officers, 10 nurses and one medical attendant). Three of the facilities and three of the nurses had been part of the 2010 study. The interview guide covered the following themes: health worker's knowledge about the P4P scheme (goals, rewarded tasks), actions that had been taken to reach the goals (particularly in relation to increasing deliveries), multitasking, perceptions about the bonus that had been received and how it had been spent, and the perceived effects on co-operation within the facility and communication with the district authorities.

Health workers were specifically asked about sanctions against women who give birth at home. The background for including this question was information that we had gained through focus group discussions (FDGs), which were conducted with the help of research assistants in the period from July to early October 2011. A total of 11

focus group discussions (six with women, five with men) in four different villages were conducted, focusing on the perceptions of maternal health services in the district and the potential benefits and challenges of P4P. Due to the scope of the journal article format, the findings of the FDGs will not be included here. However, the FDGs provided important background information for our IDIs with health workers. For example, we learned from two of the FDGs that health workers had announced that any woman who gave birth at home would be fined. Hence, health workers were asked about fining and other forms of sanctions directed at home births.

The health facilities were located between one and three hours by car from each other, mostly in different wards. The facilities were partially on the basis of acquaintance through previous visits, which improved their rapport with informants, and partially on the basis of convenience. In general, all the health workers who were present at a given facility at the time of the fieldwork were interviewed.

In addition to IDIs with health workers and FDGs with community members, we carried out individual in-depth interviews with two district health administrators, including the District Medical Officer. The interviews focused on the process of implementing the government funded P4P, including lessons learned and the reasons why the scheme was discontinued.

All interviews were conducted in Swahili. The first author speaks Swahili on a high level, while the third author is fluent in the language and has conducted a number of long-term ethnographic fieldworks in Tanzania over a period of 20 years. All IDIs were recorded, transcribed and translated to English. In addition, rapid note taking during interviews was done. The third author checked all transcripts and verified the translations. The study used meaning condensation as the mode of analysis [34], which was assisted by the use of software OpenCode 3.6. The transcripts were subjected to a thorough review and systematic coding. After coding, the content was assigned to categories, and central themes were identified from these categories. During the course of the study, relevant national policy and design documents by the Ministry of Health and Social Welfare were reviewed in a systematic manner, including the Payment for performance strategy [28], the Implementation guidelines for payment for performance [35] and the Results-based bonus design, implementation and budget [31].

Research ethics

Research clearance was granted in Norway through the Norwegian Social Science Data Services (NSD) and in Tanzania through the Ifakara Institutional Review Board (IHI-IRB), the National Institute for Medical Research (NIMR) and the Commission for Science and Technology (COSTECH), and oral consent was given. We have

depersonalized the data by labeling the health facilities by letters and the informants by title.

Results

Bonuses were given at a flat rate, yet health workers were satisfied with the payments

The P4P bonuses in Mvomero were paid in February 2011. The District Medical Officer (DMO) and the District Treasurer turned up at each facility and distributed the money in cash. Even though health workers had been told that payments were contingent on performance beforehand, this turned out not to be the case. In contrast to the way that the P4P programme was designed (presented above), the bonus was given at a flat rate and was unrelated to the actual results. Nevertheless, we observed that although payments failed to be contingent on performance, we can still expect the scheme to have worked as performance pay, as long as health workers *thought* payments would be contingent on performance. However, future effects are another matter entirely. The district administration gave the following reason for paying the bonuses at a flat rate:

In 2009–10 we paid all facilities, they all qualified.

We saw how many vaccinations they had given, if they had brought the reports timely, etc. We also looked at deliveries. Some people qualified in some respects and not in others, and since this was like a motivation for the employees, we just paid all the facilities the same amount (...). For the case of last year, we were not able to pay P4P because it was not in the budget (a new ambulance was prioritized). If we had continued with P4P we would have been stricter, we would have put more efforts to check whether they had really improved or not. (District Administrator, 2011)

Each dispensary was given T.Shs 500,000, while each health centre was given T.Shs 700,000 to be equally distributed to all staff members at the facility regardless of rank. These bonuses were approximately 50% of the maximum bonuses stated in the P4P planning documents. Depending on the number of staff who shared the bonus at each facility, the actual sums that individual health workers received varied considerably between the facilities we visited, from T.Shs 18,000 to T.Shs 169,000, with the vast majority receiving more than T.Shs 100,000. In comparison, interviewees had a take home monthly salary varying between T.Shs 380,000 to 450,000. The bonus thus constituted 5–40% of what health workers would usually receive per month. Nonetheless, it should be noted that many of our informants had taken loans to finance their children's education, and after the deductions of these loans the performance bonuses were even more significant. The majority of the health workers

used the bonus for their daily requirements, while three had used the money to move one of their children to a school that was either of higher quality and/or closer to where they worked.

Informants expressed gratitude for having received the payments. While many said that it was "like a dream", something that they had hoped for but not fully trusted that they would receive (due to a prior experience of non-payment of allowances), others expressed that they had been quite confident that they would get the bonus:

I wasn't surprised, as we were told that if we do well this would follow. (Nurse 3, Dispensary C, 2011, received 60,000)

Some respondents brought in the question of unpaid overtime, saying that P4P showed that the government actually cares about them after all:

I think P4P is good because it motivates the workers and makes them realize that the government cares about them. (CO, Dispensary C, 2011, received 169,000)

While some informants hinted that the bonus should preferably have been a bit higher, others emphasized that the bonus was a gift (*zawadi*) and not part of their regular salary, and therefore not something that they could demand:

I was so glad to see that our superiors considered us, the people at the bottom. (...) And whatever a father decides to give to his son – that is something that cannot be forced. Personally, therefore, I am so happy to have received that reward and I saw the sum as large and satisfactory because I did not expect it to happen. (Nurse 2, Dispensary B, 2011, received 100,000)

None of the interviewed health workers had been informed about the discontinuation of P4P, and many said that they expected new bonus payments to be made. The district administration confirmed that they had not sent out any written information about the discontinuation of the scheme, but that they had attempted to orally inform health workers during supervisions.

Attitudes toward alternative usage of the funds changed after payments were made

In 2010, before the bonus payments had been made, a good number of our informants expressed scepticism towards the idea of P4P. Some informants warned against rewarding health workers in isolation:

P4P is just addressing health workers, but we do not work alone or with no assistance. For example, we are

assisted by traditional birth attendants and traditional healers. But if the government had said, OK, we have some incentives for these traditional health workers...ohh surely we would not miss these targets. (Nurse 1, Dispensary D, 2010)

In 2011, a number of our informants said that they had approached Traditional Birth Attendants (TBA) to encourage them to bring women in labour to a health facility, though none argued that TBAs or healers should be given P4P. Another area where the tone has changed is the question of equipment. A number of studies have shown that dispensaries in Tanzania often lack equipment and medicines, and health workers often identify a lack of laboratories as a major hindrance for offering quality care [23]. In 2010, some informants argued that the resources that were to be spent on P4P would have little effect if the equipment situation was not improved as well:

I think P4P will help, but first of all the equipment situation at the facilities has to improve. You know, so that P4P can be successful. But if there is no equipment, we will not be able to give the proper treatment and care needed, and then you can't reach the target. (Nurse 1, Dispensary C, 2010)

After the bonus payments had been made, however, all but one of our informants were in favour of this way of spending health funds. When asked whether some of the money should instead be used for equipment, the respondent quoted above had this to say:

The fact is that it (P4P) is a good approach. It's an encouragement since working in a village is tedious. Therefore, when they decided to encourage usthat was really motivating. It should be continued and it shouldn't be stopped (in favour of buying equipment). (Nurse 1, Dispensary C, 2011, received T.Shs 38,000)

Other informants were more outspoken when arguing that P4P was a good investment compared to spending money on equipment:

Equipment...? For what? We're really not in need of equipment. (Nurse 1, Dispensary A, 2011, received T.Shs 125,000)

In 2010, some informants expressed concerns that P4P could lead to unethical behaviour in health care. These health workers felt that P4P was aiming at making them more result-oriented, thereby forcing them to

prioritize results over quality care. One nurse expressed this reservation in the following way:

It is not good to use targets. For example, if you are told to treat 100 patients per day, I don't think you will treat them accordingly, you will just rush them to reach the right number. I don't think it's a good idea to put targets in health care. (Lab Assistant, faith based Health Centre, 2010)

When asked whether the forging of data was another possible pitfall of P4P, several informants agreed that this could be a real danger:

They have to think of something that can motivate us and not the P4P-way which says 'when you produce this, then we will give you a bonus'. I think it creates problems where people will forge data at health facilities to meet the target. (Nurse 1, Dispensary A, 2010)

In 2011, the tone had changed considerably. While the above informant said that there may be a chance of forgery since "people need money and some aren't trust worthy", the great majority argued strongly that for practical reasons forging data is impossible. Similarly, while many informants agreed in 2010 that P4P might make health workers concentrate on tasks that are rewarded at the expense of other tasks (crowding out), no informants saw this as a problem in 2011.

Informants claim that P4P has improved services, enhanced cooperation and fostered a spirit of competition

Many informants view P4P as a competition between health facilities. They feel that in order to attract clients, they need to offer better services than other primary health facilities in the same area. In the words of one clinical officer:

P4P is part of a competition and every person wants to be a winner. (...) We have several health facilities and we have the same design and the same indicators, and most health workers will say 'why not here'? Every health facility will want to score better than the other. Due to that spirit, some changes will happen in health service provision. (CO, Dispensary A, 2010)

In 2011, when asked whether P4P had entailed competition between facilities, several informants argued that P4P had indeed improved services and that their facility now attracted patients from outside of their catchment area:

P4P has made people be more thorough in the work that they do. Patients decide to go where they find the

best treatment. For example, we get patients who aren't happy with the services elsewhere and they come to our facility for better treatment. We get expecting mothers who were supposed to be treated at Mkindo, but we can't tell them to go back. (Nurse 1, Dispensary A, 2011)

Poor staff attitudes have been noted in the literature as one of the reasons why expectant mothers prefer to deliver at home without assistance from qualified personnel as opposed to facility delivery. In 2010, nurses explained that they sometimes had to "be a bit hard" on women who were delivering or to raise their voice:

You know patients are so different and difficult. A mother may come in the labour room at the stage of contractions. Some of them get confused, so when you try to tell her something and she doesn't understand or refuse [...] then sometimes you have to be a little bit hard on her. This is to avoid infections and to help her deliver the baby safely. (Assistant Nurse 1, Dispensary B, 2010)

In 2011, nurses still argued that they often needed to be strict with women who come to give birth, that women could not choose birthing position but had to lie down on the delivery bed, and that they would generally not allow relatives to enter the delivery room. At the same time, positive staff attitudes were seen by health workers as one of the strategies to increase service utilization, which would again enable them to meet P4P targets. As one medical attendant puts it:

If you are being given incentives you need to realize that you must have good attitudes towards work and desist from bad behavior, like using bad language to clients. If you do not change you will let your workmates down. (Medical Attendant 1, Dispensary C, 2011, received T.Shs 18,000)

P4P then, appears to have encouraged unity of purpose at the health facility level since the programme was designed to offer incentives to individuals as a result of team performance.

Strategies to make women deliver at facilities

An important aim of the second round of interviews was to find out what measures, if any, health workers had taken to make more women deliver at their facilities. Some informants say that they have increased outreach activities and sensitized women on the dangers of giving birth at home:

They (women) come here because we sensitize expecting mothers (...) We tell them that here the

equipment is sterilized well compared to that used at home, which is not sterilized. They just hang the gloves to dry which is very risky, it can lead to AIDS transmission. Once they hear that they can get AIDS, they come in large numbers. (Registered Nurse 3, Dispensary C, 2011, received T.Shs 60,000)

One informant said that such health education made some women decide to deliver at a health facility, even if her husband or relatives did not see the importance and wanted her to deliver at home. However, the need to attract more clients in order to reach P4P targets has entailed that many health facilities in the district have developed negative strategies to attract and/or force clients to utilize their services. In fact, the staff at all of the five facilities we visited in 2011 admitted that women had either been told that they would be fined if they delivered at home, or that they would be denied a live birth card and/or vaccination for their newborn.

As for fining, focus group participants in the catchment areas of dispensaries E and F told us that health workers had announced that women who delivered at home would be fined T.Shs 10,000. The health workers we interviewed confirmed that this had been announced, but that it was only a threat, and not something that was actually carried out:

Last year there was a clinical officer who used to tell women that if they give birth at home they will be charged a fine, and that they should come to give birth at the dispensary because it is free of charge. He was just saying that to scare them. (...) If you tell them that, they are afraid to get the fine. So up till this day there is no one who gives birth at home. (Assistant Nurse 2, Dispensary F, 2011)

The reason why the fining had not been carried out was that in order to actually fine someone, one would need to involve the Village Government, which had not yet been done. The health workers got the idea to criminalize home birth from colleagues from a neighbouring district, Morogoro Rural, where fines for home birth had been passed as a by-law by local authorities:

When we go for seminars we sometimes ask what others do to sensitize the people. So whatever you hear from others, if you haven't tried it yet, then you should also attempt it to see how it works, (...) but only after involving the village leaders. There are some things - even if it hasn't been decided at the district level - that we can make a decision about and then involve the village leadership. (Registered Nurse 1, Dispensary E, 2011)

Other health workers argued against fining, but were positive towards other forms of sanctions:

I don't think fining the mother is a good approach. We should rather educate women by telling them the consequences of delivering at home. There are many ways to mobilize them like telling them that they won't be given a birth card at the dispensary (...). Instead they will have to get it from the Ward Executive Officer, a more tasking process. If she doesn't do that, she will end up not getting a clinic card for the baby. We can manage to mobilize them to a large extent using these threats. (Nurse 3, Dispensary C, 2011)

Also in this case, the strategy was something the health workers had learned from others:

We heard that at "Dispensary B" they have more deliveries these days, so we asked ourselves how are they doing it? How come they are getting safe deliveries, how are they doing it? We investigated how they succeed to have safe deliveries. How come there are fewer midwives, but they perform better? (...) After inquiring about their successes we are now educating our colleagues. (...) If she won't deliver here, then she won't get a clinical card for the baby. So it is just an educational competition. But there is no forcing of the mothers. (Nurse 2, Dispensary C, 2011)

At dispensary A, the same approach had been adopted, but the informant felt that it hadn't had the expected outcome:

We said that for those who deliver at home - their babies won't be vaccinated and the babies won't get clinical cards, but they still continued to deliver at home. Maybe we should look for other means, like fining them. We should tell them that those who deliver at home will be fined. (Nurse 1, Dispensary A, 2011)

Health workers, particularly those with a low level of education, appeared to have little scruples about sanctioning women who deliver at home. The various methods were weighted against each other on the basis of the degree to which they were feasible in practice. A medical attendant had the following response to whether fining would be a good way to make women deliver at a facility or not:

The community here is different from that one (where they fine patients). Here, people are quite tricky - just a minor thing and he/she will go to the village administration or to the Councillor to report! You ask yourself why you should cause all that? (...) But fining

is good (...), since to be fined - when even money for food is a problem - they will just decide to do what they are told. (Medical Attendant 1, Dispensary C, 2011)

When we asked the district health authorities what they thought about strategies such as fining, their response revealed that they were ambivalent and undecided, and that they did not appear to do anything about these practices:

I don't know much about it. It is not according to the government guidelines, we don't have any regulations on that. But people say it helps (...). On the other hand, if the woman doesn't have the 10,000 shillings she will not take her child to the clinic (for vaccinations, in fear of the fine). (Official from district health office, 2011)

The fact that the council health management team (CHMT) also benefits from health facilities' good performance may be one reason why the monitoring and follow-up of such practices is limited.

Discussion

Our findings suggest that health workers did alter their behaviour in response to the intervention. However, to shed further light on how the intervention worked, two questions warrant further discussion: Why did health workers focus on coercive methods to increase deliveries at facilities? And why didn't the local authorities pay bonuses according to the set targets as outlined in the directives from the Ministry of Health and Social Welfare?

Change in health worker behaviour

Although the payments ended up not being performance based, health workers were told that they would be, and they responded to the intervention much as the theory predicts that they would: They increased effort in areas where they would receive payments (with a focus on quantity), while strategies to improve the quality of care (for which they were not rewarded) appear to have been largely ignored. Similar results were also reported in a P4P impact evaluation study on maternal and child health in Rwanda where the highest improvements in indicators were observed for those indicators with the highest expected payment [12].

Health workers reported numerous strategies to attract women to the clinics. One of the strategies they reported was to offer better services, educating women about the benefits of delivering at a clinic and positive attitudes toward women attending the clinic. The use of positive strategies to persuade women to give birth at clinics may certainly increase the number of facility births as some studies in Tanzania have found negative staff attitudes to be among the barriers against facility deliveries [36,37].

However, attracting more women to deliver at facilities does not necessarily ensure that the clinical quality of care is high. Due to the difficult circumstances under which many health workers work - lack of equipment, medication, and skills [38] - it may be difficult to deliver high-quality care even if they want to. In fact, prior to the intervention, health workers were afraid that they would not be able to deliver a high quality of care due to a lack of equipment.

Health workers not only engaged in positive strategies to induce women, coercive strategies were also employed, and these strategies were copied between clinics. While other studies have noted that incentive structures may entail coercive strategies, [39,40], to our knowledge, our study is the first to identify coercive practices against home birth in connection with a P4P scheme in Tanzania. Health workers threatened to fine women who did not give birth at a facility or to withhold vaccinations and/or clinical cards for babies who had been born at home. While health workers in Mvomero claim that the threats were meant to "scare" people and that they have not been carried out in actual practice, the district health administration argue that these threats may have kept women from coming to the clinic for postnatal care and vaccinations of their babies after having delivered at home, because they were afraid of being fined.

The effectiveness of both positive and coercive strategies on health outcomes crucially depends on the quality of care offered, which was not directly targeted by the intervention. During our fieldwork in 2011, a woman died of untreated eclampsia because the medical attendant at the dispensary where the woman came to give birth did not recognize the signs of preeclampsia. Since poor quality may be an explanation for why women choose not to deliver at the clinic, health workers could potentially improve the quality to attract more women. However, if health workers offer a low quality care because they are *unable* to deliver a high quality, coercive strategies forcing women to deliver at the clinic may be perceived as the only strategy they have at hand. Such strategies need not improve health outcomes.

Observe that even if health workers reported that they had implemented various strategies to attract women to the clinics, the strategy that would involve the least amount of effort would be to forge the numbers. Before health workers received payments, they were worried that a convenient strategy to fulfill the delivery indicator would be to forge the numbers. After having received the P4P payments, however, health workers were adamant that this did not take place. Certainly, health workers had a vested interest in making this argument. An assessment of the donor-funded pilot undertaken in the Pwani Region suggests that verification and data validation has been a problem and that forging has indeed taken place [41].

Why wasn't P4P implemented in the way that it was designed?

Contrary to the directives from the Ministry of Health, the district administration ended up paying bonuses to all facilities at a flat rate, which means of course that the payments were not performance based. The district administration's explanation for giving a flat rate was that all health facilities did well in at least one indicator, and that they would be "stricter" if P4P was to be continued. In our view, two factors were behind this decision.

First, as documented in an appraisal study commissioned by donors in 2009, the Health Management Information System (HMIS) in Tanzania is too weak to handle a proper monitoring of a P4P programme [2]. A weak health infrastructure has been identified as one of the major threats to the effectiveness of P4P [40]. We witnessed that the health administrators in Mvomero were too busy with other work to take on the additional burden of monitoring P4P. Hence, for an under-resourced district such as Mvomero, monitoring P4P with the help of the district's own resources probably proved impossible.

Second, the district administration argued that a flat rate was given since the P4P initiative was to be a financial motivation (*motisha*) for the health workers, and that all had done well with at least one indicator. Under P4P, health workers are rewarded for a change in indicators. The extent of change a single facility is able to achieve will be a function of factors both inside and outside health worker control. For a variety of reasons, some facilities will find it difficult to increase the utilization of services (i.e. long distances/lack of transport, strong preferences for home birth among the local population, etc.), while others may find it easier. In clinics where the knowledge gap is high and low utilization is explained in part by a low motivation, there may be a high potential for achieving an increase in indicators.

The extent to which bonus payments are perceived as fair - even in cases where they depend upon factors that are partly outside the control of the health workers - depends upon the type of fairness principle that prevails in a particular culture. Based on different ideas about what individuals should be held responsible for, notions of fairness can be divided into two broad categories: libertarianism and egalitarianism [42]. According to libertarianism, performance-based incentives will be viewed as fair since individuals receive payments based on how they perform in relation to a predefined target. On the other hand, according to strict egalitarianism, P4P will be perceived as unfair since people should not be held responsible for factors such as talent or other external aspects outside of their own control. An egalitarian fairness principle may stand strong in socialist societies, where individual behaviour is believed to be shaped by society, and inequality as such is a function of an unfair

societal structure rather than being due to any fault of the individual. By contrast, in capitalist societies where ideas of liberalism and libertarianism stand stronger, pay for performance may be viewed as a fair way to differentiate income, which according to libertarianism should be distributed in relation to effort and talent (see Nozick [43] for a defence).

Due to its sociocultural setup and political history, Tanzania is characterized by an egalitarian mode of thought. The local government in Mvomero did not appear compelled to reward good performance and withhold money if the performance was not optimal; instead, they stated that they wanted to display gratitude for what they saw as a positive effort. In addition to the practical limitations mentioned earlier, it is possible that the social relationships between local policymakers and health workers made it difficult for the health administration to pay some facilities less than others even if they had not met the set targets.

Because principles of fairness vary across cultures and countries, P4P may be viewed as fair in some places, while being perceived as deeply unfair in other settings. The literature reports a number of cases where health workers are demotivated by P4P programmes because the rewards are perceived as being unfairly allocated [40]. When we told our informants that the bonuses had been given at a flat rate that disregarded actual performance, none of them argued that this was unfair; nor did informants contest the practice of distributing the bonus equally to all staff members at the facility. One reason for this may be that we focused on nurses. There is the possibility that medical doctors at the three hospitals in the district would have expressed more negative attitudes toward a system where they receive the same bonuses as non-clinical staff.

If it is correct that an egalitarian fairness principle shaped the way that the locally funded P4P was implemented, then P4P may work very differently when implemented by local agents compared to when it is implemented by external entities. The donor-sponsored P4P in the Pwani Region is being piloted and led by professional external agents. Based on our experience from the locally funded P4P in Mvomero, we expect that the intervention may work very differently if/when it is taken over by the government in its entirety.

Our study has a number of implications for the design of P4P in Tanzania and other low-income contexts, and for the studies of such schemes. Firstly, contextual factors affect the nature and operation of a P4P scheme (such as a country's sociocultural context) and it is therefore important for these factors to be taken into account during the design to achieve sustained results. Secondly, in cases where a P4P design is supply-side oriented (such as the Tanzanian case), there is need to accommodate and

promote community views and participation in order to safeguard against coercive practices. Thirdly, our study to a certain extent implies that P4P is prone to adverse effects when introduced in a context where systems constraints are substantial. Finally, the above points suggest that studies of P4P impact on beneficiaries should not only measure utilization of services, but include both health outcomes and a qualitative element, as paying for increased utilization does not necessarily improve health outcomes.

Study limitations

Our study has a number of limitations. Firstly, only three of the 26 health workers we interviewed for this study were interviewed both before and after the bonus payments were made contrary to the original design. This was due in part to the fact that some of the health workers interviewed in 2010 had moved or were absent during our visit in 2011. Another reason was that we wanted better geographical representation, and therefore decided to cover a larger area for our 2011 interviews in order to capture local variations within the district (i.e. the type of sanctions that had been introduced against home birth). Lastly, study informants were purposively selected and may not be representative of other individuals or settings, hence the study lacks external validity.

Conclusion

Many scholars have argued that P4P may have adverse effects. This study has contributed to this body of literature by showing how health workers in a low-income setting use coercive strategies in order to reach set targets for deliveries. While P4P in Mvomero may have contributed to an increase in the number of institutional deliveries, the overall health outcomes may not have been positive. Our study has also demonstrated that qualitative studies of P4P interventions should preferably include both community and health worker components since information from community members may be essential in order to ask health workers the right questions – and vice versa. The study has also demonstrated that the P4P programme deviated substantially from the original design when implemented by local authorities – partly due to limited resources, and partly due to fairness ideals that differ from the basic principles of P4P. This lesson is most likely relevant for the nationwide roll-out of P4P programmes in other African countries.

Competing interests

The authors declare that they have no competing interests. While most of this work was conducted at the Chr. Michelsen Institute and at the Department of Health Promotion and Development (HEMIL), IL is currently employed at Norad's evaluation department. The evaluation department is an independent body within Norad.

Authors' contributions

VC planned and designed the 2010 study as part of his MA thesis in Gender and Development at the University of Bergen [36]. He conducted the data collection in 2010 with the help of a research assistant. VC, IL and SL designed the 2011 study. SL conducted the 2011 interviews with the assistance of two research assistants as part of her post-doc within the project *Strengthening human resources for health: A study of health worker availability and performance in Tanzania* (funded by the Norwegian Research Council). VC had the main responsibility for the data analysis, with assistance from SL. VC and SL developed the first draft of the article. During the review process, IL rewrote the discussion after which IL and SL revised the article critically. All the authors read and approved the final manuscript.

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Disclaimer

The content of this article does not reflect the official opinion of Norad. Responsibility for the information and views expressed in the article lies entirely with the authors.

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