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Kadungure, A, Brown, GW orcid.org/0000-0002-6557-5353, Loewenson, R et al. (1 more author) (2021) Adapting results-based financing to respond to endogenous and exogenous moderators in Zimbabwe. *Journal of Health Organization and Management*, 35 (3). pp. 287-305. ISSN 1477-7266

<https://doi.org/10.1108/jhom-06-2020-0215>

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Adapting Results-Based Financing to respond to endogenous and exogenous moderators in Zimbabwe

Introduction

Results Based Financing (RBF) has become increasingly popular in global health financing as a purported mechanism to stimulate broader health system reform (World Bank 2005; 2006; Scott et al., 2011; Witter et al., 2012). It is generally defined as the transfer of resources (money, material goods) based on pre-specified performance targets (Toonen et al., 2012; Shroff et al., 2012; Witter et al., 2013; Renmans et al., 2017; Bertone et al., 2018). More widely, RBF is considered as a supply side health systems reform that focuses on predefined services and quality, often with measures that aims to increase community involvement, decentralize to health service providers, which is also often structured in a way that allows division of functions between the purchaser, provider and verifier of services (Bertone et al., 2018; SINA Health, 2019). Various terms are used to signify this type of funding modality in the global literature, including performance-based funding; performance-based financing; pay for performance; and results-based funding. These terms are often used synonymously. We use RBF due to the use of this term in Zimbabwe.

The popularity of RBF in the sphere of development aid for health has grown significantly over the last decade, particularly in its application to health systems strengthening in LMICs (Soucat 2017; Shroff et al., 2017). RBF schemes have been applied in a number of contexts, including low-and-middle income countries (LMICs) that are resource limited, fragile or susceptible to economic shocks (Witter et al., 2013; Paul et al., 2018). Currently,

RBF programmes are being implemented in 43 LMIC countries worldwide, including in more than three quarters of the countries in Africa (SINA Health, 2019). Despite its popularity there is still debate and mixed evidence about the effectiveness and efficiency of RBF (Witter et al 2012., 2013; Paul et al., 2018; Paul et al., 2020). As part of this debate it is widely acknowledged that exogenous factors impact on the implementation and responsiveness of RBF programmes and that greater research is required to better understand how these factors impact performance (Borghi et al., 2018; De Allegri et al., 2018; McMahon et al., 2016; Renmans et al., 2016). Where there has been research, it has tended to focus on how exogenous factors affect outcomes and initial implementation, with less attention on how these factors shape the revision of the programme and its adaptation over time. As a result, what is often missing, and what is crucial to understanding RBF performance, is evidence on how moderating factors are identified and the ways that responsive adaptations can be made to counter these moderating effects.

We understand *exogenous* factors as elements outside the designed programme that could affect implementation and outcomes, which can range from political instability, health system weaknesses, the introduction of concurrent programmes and / or cultural practices that have unforeseen or greater than expected effects (Sabot et al., 2018). By *endogenous* programme level factors, we mean factors affecting the performance of RBF which are internal to the programme itself, such as accuracy of underwriting design assumptions, unintended (dis)incentive structures and management blockages. We note that RBF programmes are not homogeneous “one size fits all” health system interventions

(Renmans et al., 2017; Bertone et al., 2018; SINA Health, 2019) and understand that many factors unique to a particular setting can moderate how RBF operates, presenting exogenous programme moderators that are key in influencing programme delivery and in many instances, affecting health outcomes (Renmans et al., 2017). As a result, RBF programmes are implemented within complex health systems (Bertone et al., 2018) and settings where an ability of the RBF programme to adapt to endogenous and exogenous factors is critical for long-term programme success.

That said, the role of endogenous and exogenous factors on RBF programme performance and adaptation remains understudied (Borghetti et al., 2018) and although there has been increased research on RBF implementation conducted in Africa (Ssenkooba et al. 2012; Paul et al., 2014; Anselmi et al., 2017) there still remains limited literature on how these factors influence RBF design and adaptation strategies (Renmans et al., 2017; Coulibaly et al., 2020; Singh et al., forthcoming). A recent realist review of 41 RBF programmes confirmed that there is currently little research evidence specifically tasked to assess how, why, and under what circumstance RBF works in LMIC settings, although the existing evidence did suggest that PBF will not improve health services and strengthen health systems if preexisting system capacity is poor (Singh, et al., forthcoming). As RBF schemes evolve in size and scale within LMICs, it is important to understand how stakeholders identify, reflect, adapt, and revise the operation of RBF programmes. This article presents evidence on the experience of the Zimbabwe RBF programme from 2010 to December 2017 and the adaptations made to arising endogenous and exogenous issues, which offers unique lessons for other low income

countries, especially countries like Zimbabwe, who are implementing RBF within a weakened health system after a period of economic downturn.

RBF Programme in Zimbabwe

The Government of Zimbabwe in collaboration with the World Bank initiated the RBF programme in September 2010 to support Zimbabwe's health ministry 'to improve the availability, accessibility and quality of key reproductive and child health services and their optimal utilisation' (MoHCC et al., 2011, p 23). RBF was adopted to support the Zimbabwe National Health Strategy 2009-2013 and the Investment Case for Health 2010-2012. The original areas of focus for the RBF programme were child and new-born health with a focus on immunization, growth monitoring, antenatal care, post-natal care, treatment of acute respiratory infection, vitamin A supplementation, human immunodeficiency virus testing and malaria treatment during pregnancy (World Bank, 2016). It also aimed to reduce maternal mortality by increasing institutional deliveries and improving the referral system (MoHCC et al., 2012). The programme aimed to revive decentralization of structures under a Government of Zimbabwe (GoZ) programme on results based management initiated in 2004 by strengthening the role of district health executives (DHEs), which is the most decentralized level of regulation in the Ministry of Health and Child Care (MoHCC) in Zimbabwe, and to enhance application of social initiatives to improve health services. This was meant to enable districts to collect health information data and to supervise rural health centers to incentivize quality primary care services in an effort to build capacity. RBF also aimed to support district hospitals to provide emergency obstetric care and referral service (MoHCC et al., 2012).

The RBF programme was introduced in three phases. In Phase One, from July 2011 to March 2012, RBF was initiated as a pilot in two rural districts. In Phase Two, from March 2012 to June 2014, the programme was rolled out to sixteen other rural districts, bringing the total number of districts under the RBF programme to eighteen and representing a total catchment population of about 3.5 million people (World Bank, 2016). In Phase Three, from April 2014 to present, the programme was rolled out to the last 42 rural districts not covered under earlier phases so that RBF covered all rural districts in Zimbabwe. Phase One and Two were largely financed by the World Bank with co-funding from the Government of Zimbabwe. Cordaid was the programme National Purchasing Agent (NPA). Phase Three RBF rollover to the 42 districts was financed from a pooled multi-donor Health Development Fund (HDF) with Crown Agents acting as the NPA for the new districts (Cordaid remained NPA for their existing districts). At national level, the RBF programme is overseen by a multi-stakeholder National Steering Committee (NSC).

The design of the RBF programme consists of three main components. First, like most RBF schemes, the programme is based on results-based contracts. In a division of functions, Cordaid and Crown Agents as NPAs sign performance contracts with provincial health executives (PHEs), DHEs, district hospitals and rural health centers/health centre committees (HCCs). Similar to a majority of RBF programmes, a payment bonus is attached to each incentivised service indicator. On an ongoing basis health centres declare the number of services they supplied in the MoHCC Information System. After verification by NPAs, health facilities are then paid a quarterly quantity bonus by adding

the number of services supplied by the unit price for all incentivised indicators. The programme assesses the quality of delivered services through the use of a quality checklist. The PHE supervises the DHE which in-turn supervises the rural health centre. Performance based subsidies (75% institutional / 25% staff bonuses - the latter phased in after a period of facility readiness) are paid directly to health facilities conditional on meeting RBF indicators as agreed within operational plans in terms of pre-agreed supervisory services in respect of the provincial and district health executive. The NPAs carry out internal verifications whilst external verifications are conducted by an independent organization contracted by the NPA (MoHCC, 2016). When the RBF programme started, one of the key assumptions was that a minimum of 60% of the overall RBF payments were to be utilized at rural health centres and a maximum of 40% of overall payments to district hospitals (World Bank, 2012). Second, the RBF programme was designed to enhance and revive results-based management and capacity building through new financing incentives, specifically by decentralising financing governance in all MoHCC structures giving greater control to community-based organisations (CBOs) and the district steering committees (DSC). The latter are multi-stakeholder RBF oversight and advisory structures within all districts that aim to strengthen the health system for effective implementation of the RBF programme. The capacity support includes RBF training, with protocols for strengthening of data quality, reporting systems and financial management (MoHCC, 2016). Third, the programme was designed to enable learning through scheduled impact monitoring and evaluation, combined with process and qualitative reviews and external counter verification. The RBF programme aimed to capture the effect of the programme on health outcomes and on various aspects

of the health system. This RBF component was aimed at supporting the impact evaluations of the RBF programme as a whole with the intention to allow on-going adaptations to maximize outcomes. This paper largely draws on the experiences of the Zimbabwe RBF programme in relation to this last adaptive component (MoHCC, 2016).

Methods

The study is based on a desk review of published and grey literature and 28 multi-stakeholder interviews carried out between 2017 and 2019. The interviews were aimed to fill in existing gaps in knowledge from the desk review and to further explore why key adaptations took place and how.

The desk review involved an extensive online search for published papers via Google, Google Scholar, PubMed and Medline databases and grey literature on the Zimbabwe RBF programme. The review used RBF related search terms such as 'results based financing in Zimbabwe', 'RBF in Zimbabwe', 'PBF in Zimbabwe', 'results based management in Zimbabwe', 'results based financing', and 'Zimbabwe results based management'. Relevant documents were located based on a preliminary reading of each document by two members of the research team. Additional searches were conducted online for reports and evaluations conducted by Cordaid, Crown Agents, the Global Fund, RBF stakeholders in Zimbabwe, the World Bank and local non-governmental organisations. A further search was conducted for any documentation pertaining to RBF design, implementation and procedure manuals used by Cordaid, Crown Agents and the World Bank. MoHCC strategy documents (health plans) were downloaded from public

websites. A time period from 2004 to January 2018 was defined in the initial search to narrow the searches to those documents most associated with RBF and results-based management programmes in Zimbabwe. Documents were further obtained directly from key RBF stakeholders in Zimbabwe via our MoHCC partners. Snowballing techniques were used to identify other key or widely cited documents. Documents were systematically categorised, collated, read and analysed thematically by three members of the research team (Kadungure, Brown and Loewenson). Thematic analysis focused on locating key programme adaptations, the underlying issue that required programme alteration, whether that issue was understood as exogenous or endogenous, and the stated objective of that adaptation. Additional information was also captured on how adaptation was implemented and with what reported effect. A total of 64 documents were analysed, including nine programme evaluations and review reports, twenty-six quarterly, biannual, counter-verification and programme financial reports, thirteen GoZ/MoHCC strategy/policy documents, four RBF programme implementation manuals, eight published/journal reports on Zimbabwe RBF, and eight RBF national steering committee meeting minutes.

The time period from 2004 to 2018 was selected because the RBF programme underwent a major transition in 2019, moving from a World Bank and MoHCC funded programme, to a multi-funder programme with greater steer from the MoHCC. This transition is now implementing extensive revisions to the programme, including an increase in the range of indicators and the formulation of a new implementation manual. These reforms are still nascent and in-transition. As a result, we focus here on a twelve-year historical ‘snapshot’

between 2004 and 2018. The post-2019 RBF period is the focus of current research and data collection, which is preliminary and unsuitable for inclusion here.

To supplement the review findings a total of 28 triangulated one-hour semi-structured interviews were conducted with a cross-section of stakeholders, including MoHCC officials at national (n=4), provincial (n=5), district (n=4) and facility levels (n=2), the two NPAs (n=6); RBF funders (n=2); civil society organisations (n=3); academics in Zimbabwe (n=1) and a representative of a UN Agency (n=1). Fifteen respondents were male and thirteen were female, yet gender was not part of our selection criteria. A cross-section of stakeholders were identified via a stakeholder assessment during the desk review, which generated a master list of all RBF stakeholders, their affiliations, roles, and geographical location. The key informant list was reviewed by four members of the research team where a priority list of 35 triangulated cross-sectional interviewees was produced (Kadungure, Brown, Loewenson and Gwati).

Interviews were semi-structured and followed a question guideline generated from remaining knowledge gaps identified from the desk review. This guide was reviewed by all members of the project team and was specifically tailored to each stakeholder group. This additional tailoring was done to help isolate and target key questions most suitable for individual stakeholders and their experiences with RBF in Zimbabwe. A semi-structured interview technique was used so as to allow respondents flexibility to raise unforeseen issues and to allow more in-depth conversation in areas considered of most relevance to respondents.

Except for two interviews conducted by phone, all interviews were conducted by Kadungure at the stakeholder's location of choice in Zimbabwe. All interviews were recorded, with transcription by Kadungure taking place as close to the interview date as possible. The original recordings and corresponding transcripts were immediately uploaded onto the University of Leeds secure drive. The interviews were reviewed on an on-going basis by two additional members of the research team (Brown and Loewenson) and continued until there was consensus that data saturation had been reached.

Analysis of the interviews was conducted under the same thematic categories as the desk review, with the aim to locate any key programme adaptations that may have been missed in the desk review, to explore the underlying issues that required programme alteration, to determine whether the respondent perceived the underlying issue to be exogenous or endogenous and why, and the objective of that adaptation. Additional information was also captured on how adaptation was implemented and with what reported effect. Thematic analysis was conducted by three members of the research team (Kadungure, Brown and Loewenson) with inter-rater agreement determined by consensus. To further confirm and further expand our knowledge, the findings were presented at a national workshop in Zimbabwe for review, discussion and input by 40 key country stakeholders and international funding partners. The findings were then enhanced in light of insights resulting from the stakeholder workshop (MoHCC et al., 2018). The research was implemented after ethical approvals to conduct the research from the research ethics

committee at the London School of Hygiene and Tropical Medicine UK and the Medical Research Council of Zimbabwe (MRCZ/A/2225).

The RBF programme in Zimbabwe had a component that specifically aimed to monitor and document the performance of the programme. Although the RBF programme was designed to capture key information and to document this for review by the national steering committee, the NPA and World Bank, the policy documents associated with the programme did not specifically track how this process identified and responded to emerging exogenous moderations that affected the performance of RBF. In fact, it was also often the case that other programme level endogenous factors that triggered adaptation were not specifically detailed or elaborated upon within the documentation.

Below we outline a number of key RBF programme changes that occurred between 2010 and 2017, identifying what these adaptations were responding to and the ways in which the adaptations were addressed and implemented. In particular, we highlight the procedural mechanisms within the RBF structure that allowed for this process to take place, whether these mechanisms for adaptation were predicted and expected and how responsive the process was to these emerging issues. In doing so, we seek to further determine whether these issues were driven by endogenous programme factors, by exogenous factors, or whether they were compounding, suggesting that in some cases the driver for adaptation is indeterminable or mutually reinforcing. We also examine whether the adaptation and responsiveness were built into governance processes or whether they emerged organically once problems were identified in the RBF programme.

Results

Decentralised control of funds and streamlining of accountability processes

In January 2013, the annual facility operational plan with quarterly reviews was introduced to replace the quarterly operational plans outlined in the original 2012 RBF implementation manual. Prior to this change, facilities would have to generate quarterly operational plans in collaboration with their corresponding HCCs. However, it was quickly reported by health service managers to the NSC as being 'extremely burdensome' with a considerable increase in workload (World Bank et al., 2012). According to interviewed respondents, these additional RBF reporting burdens were compounded by human resource shortages and already high workloads. In response, an operational plan review template was introduced in 2013. The duration of contracting of health facilities by NPAs was increased from quarterly to yearly (World Bank et al., 2012). As with the operational plans, changes in contracting were introduced in response to reports of high workloads and high staff allocation costs associated with quarterly contracts. The stated aim of these changes was to give health facilities more time to concentrate on service provision (World Bank et al., 2013).

Data verification by community, district, regional and national managers

In July 2013, RBF governance was adapted to introduce a risk-based verification strategy that targeted evaluation and accountability mechanisms for facilities, with routine reporting of errors or inconsistent performance outcomes. Prior to this, the NPA, through its local purchasing unit (LPU) would verify each RBF indicator across all facilities. After

two years in operation this mechanism was found to be a costly feature of the RBF programme. In addition, the data verification was deemed to be too time consuming by both the health facilities and the NPA. Again, the existence of already high workloads and national level human resource shortfalls created heightened opportunity and transaction costs away from service delivery. In response, a risk-based verification strategy was designed to be less frequent and more targeted towards high risk verifications. According to the interviewed respondents, the new verification strategy was introduced to cut down on increased workloads associated with RBF paperwork and the shift of time input from service provision that this led to. The aim of the risk based verification process was to ensure that verifications targeted facilities with high error rates and reporting of irregular performance. The frequency of the verifications would be reduced over time, depending on the prevalence of risk factors at each facility in the programme, thus requiring less personnel dedicated to verification exercises (World Bank et al., 2012).

What is incentivised

In July 2016, in an attempt to enhance programme efficiency, a mobile application for the quality checklist was added to the programme. As part of this change, the quality checklist was entered into the application by an administrator, where the forms were downloaded onto the main server. These forms were designed to be almost identical to the paper register. Upon entering the data, the process allowed for real-time data sharing (Cordaid, 2016). This adaptation was instituted as a means to reduce high programme verification costs as well as to reduce workloads which were reported by respondents as already under considerable strain with potential to further undermine quality of care. In the same

month, quantitative data verification was transferred from independent CBOs to the Sister in Charge of Community (SCC), a government health worker embedded in local communities. This adaptation was deemed by the NSC to be more cost effective due to the fact that SCCs were already in place (MoHCC, 2016). It was also seen as a more effective means to transition RBF responsibilities away from the NPAs to the MoHCC (World Bank et al., 2016), helping to meet aspirations for sustainable capacity building.

Review and level of subsidies and bonuses

In 2012, a technical review of the programme was carried out to assess progress, to document lessons learned from the two front runner districts and to recommend technical and operational improvements. The joint review team consisted of two external RBF experts, three MoHCC staff, and two Cordaid personnel (World Bank et al., 2012). The review observed that the distribution of RBF subsidies between health facility levels were outside the recommended 60%-40% guideline. District hospitals were found to be earning 56% of the resources while rural health centres were earning only 44%. The official RBF programme documents reviewed did not show any evidence of neglect of non-incentivized services at the expense of the incentivised ones. However, evidence from the interview respondents and the national workshop indicated that incentivised services got more attention than non-incentivised services. Yet, interestingly, even within the incentivised services, some incentivised services were reported to have received more attention than others. The evidence from the interviews suggest that this preference was less about financial incentive than time required to execute tasks. It was also related to a lack of training to perform a task. In a majority of interviews, health workers reported that

they were already working at full capacity and thus favoured tasks that required less time. In some cases, respondents reported existing religious beliefs as reasons why certain tasks were ignored or underperformed, particularly relating to family planning indicators.

In response, *indicator prices were reviewed* in June 2012 leading to the introduction of new prices for the following incentivised indicators;

- an increase in the amount paid out to primary level indicators (that is indicators for rural health centres) and a decrease in the amount paid out to secondary level or district hospital indicators in order to achieve the 60%/40% rural health centre/district hospital incentives targets which were off track as noted above.
- Introduction of two new indicators under the primary service level contract; which were 1) “first ANC visit before the first 16 weeks of pregnancy” and; 2) “acute malnutrition, cured & discharged”.
- Introduction of a new indicator called “high risk perinatal referrals - feedback note arrived at rural health clinic from hospital” under the secondary service level contract.
- Removal of community sensitization meetings from the CBO indicator list from January 2013 (World Bank, 2013).

A second change in indicator pricing was implemented in July 2013 based on recommendations from the 2012 technical review report. The reasons for the staged implementation of the price review were not spelt out explicitly in any of the documents reviewed. Respondents suggested that it was linked to the total budget/financial resources available for the programme, namely, that prices were reduced due to overall

budget constraints. The July 2013 pricing review resulted in most indicator prices being reduced. The major reduction was in the price for long-term family planning, which was reduced from US\$50 to US\$5. Other indicators affected by price changes included outpatient department, HIV voluntary counselling and testing in antenatal care, prevention of mother-to-child transmission, post-natal care, family planning short term, and safe deliveries. That same month the NSC recommended the implementation of staff incentives at hospital level, based on the recommendations from pilot districts and in response to requests from other districts. Prior to this, hospitals were getting facility incentives for the services they were providing. For example, they received US\$25 for every normal delivery done and US\$80 for every complicated delivery. The income derived was used by the hospital, based on guidelines provided. Hospital staff did not get any direct financial incentives. After this review, hospital health workers were allowed to share 25% of the total subsidy income earned during the quarter. These direct health worker incentives became active in all districts in October 2013 (World Bank, 2013). This revision was in response to complaints from hospital health workers who were unhappy about the discrepancy with their counterparts in rural health centres.

Another marked adaptation of the programme design happened in 2016, with the addition of new incentivised indicators such as paediatric ART, TB, vasectomy as a long-term family planning method, post abortion care and visual inspection with acetic acid and cerviography. From the interview respondents, it appeared that these areas were considered priority areas by the GoZ. Due to limited funding at the beginning of the RBF programme, and the focus on MNCH by the World Bank, however, these areas could not

be included in earlier iterations of the RBF programme. With continued lobbying and additional support from the HDF, the new indicators were then added to the basket of incentivised indicators.

With the completion of a national census in 2012, the new census population figures were used to calculate the coverage for each indicator. Prior to this, the RBF programme relied on estimates and projections. Analysis of the achievements by indicator was done using the health facility catchment population as approved by the DHEs and calculated using the 2012 census data. Zimbabwe conducts a national census once every ten years with inter-censal population projections between censuses (World Bank et al., 2013).

The 2012 technical review recommended the use of a threshold-based graduated method for quality, which embeds quantity with quality. The underpinning rationale was that the quality score would be used to stimulate performance by applying it in a positive manner and not as a punishment. Interviewees suggested that this change was in part a response to reports of diminishing staff morale and that negative framing via penalties was less effective in overall behavioural change than positive reinforcement. As part of this alteration, health facilities would only receive a bonus if quality scores were above 50% (World Bank et al., 2013). In September 2013, this recommendation was implemented. Facilities scoring 76% or above received a bonus of 25%, facilities scoring 61-75% received a bonus of 20% and facilities scoring 51-60% received a bonus of 15%.

Financial incentives to health workers linked to targets

In July 2012, health workers at primary level health facilities started receiving *staff salary incentives* which were calculated at 25% of the total received subsidies. The calculation of each health worker's earnings took into account their individual contribution in terms of working days, responsibilities and qualifications (Cordaid et al., 2013). Prior to this adaptation, all incentives were for health facility improvements only and no financial incentives were being paid directly to health workers. From the interviews, this graduated incentive schedule had been planned as a means to improve facility readiness for full RBF implementation. Yet, internal pressure from health workers, who were poorly remunerated from government resources, became a key driver for accelerating this change. Based on information from the interviews, the GoZ originally did not want the RBF programme to include direct financial incentives to health workers for at least 9-12 months. The reason for this was to allow health workers to better understand the RBF programme, as well as to prepare facility infrastructure before full implementation. This was based on the fact that the Zimbabwe health system was recovering from financial hardships and health facilities had limited capacity in terms of medicines and infrastructure to provide quality health care. After three quarters of the RBF programme implementation and coincidentally in line with the 9-12 months' initial design timeline for the introduction of direct staff incentives, health service managers, provincial medical directors and district medical officers raised concern that RBF had increased workloads and thus advocated for the introduction of the staff incentives. An analysis of how the incentives would be introduced was done by the World Bank sharing with the MoHCC how staff incentives had been introduced in other countries. The MoHCC did quality assessments on the best way to introduce them and this led to their final introduction.

Governance

Prior to 2014, the Zimbabwe RBF programme was being implemented by Cordaid with financing from the World Bank and the GoZ. However, with the national rollout in 2014, Cordaid was supplemented with a second NPA, Crown Agents, with funding now channelled through the HDF, a US\$350 million pooled multi-funder fund for health in Zimbabwe. The addition of Crown Agents meant that the two programmes needed to be harmonised at the national level. In 2014, as part of this harmonization, the NSC added the EU, DFID and UNICEF as new members, joining other stakeholders from the Cordaid administered programme. This adaptation was not planned. It was a response to the realisation that a national RBF programme needed to have one NSC to guide standards and to improve shared learning and programme improvements, especially when there were two NPAs acting as implementing agents (and potentially competing agents).

As part of a transition for the Zimbabwe RBF programme to be administered by the GoZ through the MoHCC, an RBF national management team (NMT) was introduced in 2016. The NMT supported implementation by contributing to key technical, financial and management decisions. It is the operational arm of the NSC and follows up on all NSC recommendations. Members of the NMT are mid to senior level financial and technical level staff in the MoHCC from different directorates working on policy, planning and expenditure management. They received RBF training/orientation and are directly involved in supporting national level management technical, financial management aspects (MoHCC, 2016).

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Discussion

One result from this review relates to the fact that there was often a tendency in the Zimbabwean RBF evaluation documentation to underspecify or confuse internal programme-specific moderators (such as design and/or implementation shortcomings) with non-scheme-related exogenous factors. This tendency for under-specification is commiserate with the results of a realist review of performance-based financing in 41 LMICs, which found a lack of research specifically designed to study pathways through which programme outcomes were achieved as well as how exogenous factors moderated those outcomes (Singh et al., forthcoming). This suggests that RBF evaluations could benefit from methodologies associated with implementation science, which would add analytical depth to how RBF implementation is influenced by various factors and contexts. As one example, the Consolidated Framework for Implementation Research (CFIR), helps to distinguish between: (i) intervention characteristics; (ii) outer setting; (iii) inner setting; (iv) characteristics of individuals; and (v) process (Damschroder et al., 2009), allowing for greater specification of how various internal and external moderators interacted with a programme intervention. As part of our study in Zimbabwe we respond to RBF underreporting by attempting to locate the source triggering RBF programme adaptation as experienced and understood by key RBF stakeholders on the ground and to catalogue these changes inductively, namely, by whether participant's understood adaptations as responding to internal and endogenous programme design factors and unintended consequences (corresponding to CFIR i, iii, iv, v) or if the adaptations were

understood to be a response to emerging exogenous (corresponding to CFIR ii, iv), multiple compounding or indeterminable factors.

In terms of endogenous programme level factors, our results located a number of programme moderations or inefficiencies that required adaptation, including: overly burdensome accounting mechanisms and reports; costly verification processes; the need to shift RBF expenditures to realign programme to expected payments between district hospitals and rural health clinics; discovered budgetary restraints requiring price alteration; the need to include hospitals in RBF staff bonuses to counter perceptions of inequality; the need for positive incentivization as opposed to penalties, and; the need for enhanced and more harmonised governance.

In terms of exogenous factors, our results identified a number of factors requiring programme adaptation, including: human resource constraints leading to high workloads undermining RBF effectiveness and quality of care; lack of medical training to perform RBF tasks; high workloads where considerations of time/effort undermined payment incentivisation; indicator underperformance due to religious beliefs; funder restrictions on indicator options causing misalignments with national priorities, and; national level remuneration shortfalls necessitating the accelerating of staff bonus rollout.

A number of adaptations located in our study could be attributed to either programming shortcomings or exogenous pressures, suggesting that some drivers for adaptation are compounding or indeterminable. For example, a number of consistent moderating effects

in Zimbabwe involved low staff numbers, poor remuneration and increased workload demands involved in RBF processes resulting from a general lack of staff, underscoring the fact that existing human resource deficiencies can significantly undermine RBF performance (Witter et al., 2020). However, it is not immediately clear whether these staff shortages are best attributed to initial underestimations and poor assumptions made within the RBF programme design (programme fault), and/or whether staff shortages should be attributed to broader health system conditions that affected the results of an otherwise properly designed RBF scheme (exogenous). An additional compounder involved issues surrounding a general lack of budgetary support and the need to unexpectedly reduce indicator payments. This is because it could be argued that more accurate price/budget assumptions should have been factored in the original RBF budget design, reducing the need for the second payment reduction and its reported negative effect on staff morale and performance. Alternatively, the shortfall in RBF budgetary support and its appropriateness to incentivise performance could also be attributed to the general financial situation in Zimbabwe in 2011, in which the health system as a whole was under financial stress and lacked resources needed to properly pay and retain staff (Witter et al., 2019a). Furthermore, the problem of initial budget assumptions could be attributed to the lack of population figures and uncertainties about catchment demand prior to the 2012 census, requiring inexactness which led to budget deficits. Lastly, the reported lack of training to perform certain indicator services leading to some RBF underperformance can be attributed to unrealistic capacity assumptions made within the RBF design phase, a lack of a service training component within RBF implementation,

and/or, attributed to broader capacity constraints resulting from a general lack of training opportunities at the national level.

In terms of potential lessons for adaptation in LMICs, it is important to note that we found that a majority of RBF adaptations on the Zimbabwe programme were planned and implemented gradually so as to support staff and facility readiness before full programme implementation. For instance, the initial design of the programme anticipated and planned for the introduction of staff incentives after a level of capacity building and programme understanding had been achieved through RBF reporting, training and facility incentives. Although originally not supported by the World Bank, the gradual implementation of RBF with a focus on facility readiness was eventually included at the insistence of the MoHCC, who recognised that many facilities required initial investments prior to rolling out staff bonuses. Furthermore, despite the results of the 2012 RBF technical review, which highlighted the need to review indicators, the first pricing adaption in October 2012 was not immediate. It was instead gradual, phased and strategic, allowing for better communication and implementation.

Our research showed, however, that the second indicator price adaptations in July 2013 were not planned nor phased in gradually, which did negatively influence staff-motivation and results. Reviews were initiated throughout the programme as a means to stimulate priority interventions in line with the national health strategy or to counter reports of a shift in attention to particular services due to incentives. Nevertheless, these later reviews did not clarify what balance was considered between 'value for money', staff motivation and

reducing task-shifting due to the incentives. Interviews revealed a common negative perception that overall RBF budgetary restrictions motivated the reduction of indicator prices in 2013 and that programme efficiency was a secondary consideration. This finding supports those of Witter et al. (2020) that found that overall budgetary restrictions limited RBF in Zimbabwe as a strategic purchasing instrument.

The price review adaptations in Zimbabwe depict a process led by national level stakeholders, yet with limited input from and participation by lower levels of the health system. Local level health workers or community leaders had limited space for input to the design changes, which supports other findings in Zimbabwe that found a lack of local engagement and participation (Witter et al., 2019b). This lack of buy-in may have affected staff motivation, as reported in the interviews. This is consistent with findings that insufficient preparedness of people and processes for the changes in RBF design and other adaptations can constrain managers and workers' performance (Kane et al., 2019), worse so if communication on the changes to local health systems levels is poor as reported in the interviews. As a result, our findings support those of Kane et al. (2019) who conclude that irrespective of the driver of any local programmatic or exogenous adaptation to RBF design, systematic efforts should be put in place to enable and facilitate the absorption of changes in the system. This can be done through building processes and personnel capacities, reconfiguring the decision space available at all levels, and enhancing accountability relationships. This may also improve the ownership of RBF programmes to avoid the negative perception of limited country ownership reported in other studies (Barnes et al., 2015a; Paul et al., 2018) as well as by our respondents.

A further factor that emerged from this study is the role and agency of national actors in RBF programme design. From the interviews, MoHCC officials identified the areas that the RBF programme had left out from its design. These were priority areas for the health system, such as paediatric ART, HIV/AIDS, environments for health, non-communicable diseases and others. These key priorities could not be included in the initial programme design, given the specific focus of the World Bank on child and maternal health and associated budgetary restraints. Thus, state actors had to identify high impact areas within the confines of the funders' target areas and performance-based financing model, which has been a limitation and critique of many RBF programmes (Barnes et al., 2015) and which limits RBF's role as a strategic purchasing instrument (Witter et al., 2020). The fact that RBF was initially limited to World Bank priority areas despite the identification of other priority areas by the MoHCC also supports recent research critical of the proliferation of 'travelling models' such as RBF, which often promote a one-size-fits all approach leaving recipient countries with limited negotiation capacity (Barnes et al. 2015a) and potentially undermined perceptions of ownership (Gautier and Ridde, 2017), as well as suffering from a lack of local specificity, underestimated contextual and practical considerations, and overly rigid procedures in terms of what adaptations are permissible (de Sardan et al. 2017; Barnes et al. 2015).

With increased government funding of the RBF programme and the coming in of new funds from the HDF, the MoHCC saw an opportunity to adapt RBF toward priority areas that had been originally left out. This suggests that the programme space to include and

reward alternative indicators to meet national priorities has greater adaptability when more than one funding source is available or where funding is appropriately large enough to capture priorities outlined in the National Strategic Plan. This also suggests that single donor co-financing models are more susceptible to diminished agency and negative perceptions of national ownership, particularly in resource limited LMICs, since a single donor and national level champions may have disproportionate leverage in pushing through RBF programme features due to conditions of acute financial need, a lack of viable alternatives, and/or a lack of other influential voices (Gautier and Ridde, 2017).

That said, national ownership, influence and capacity building by the GoZ was enhanced through increased local funding of the programme, which is commiserate with findings from a recent scoping review that recommended a need for states to increase their 'coordination and domestic funding mobilization roles' (Gautier and Ridde, 2017:1). The role of increased programme agency in Zimbabwe is demonstrated by adaptations relating to the review of the NSC and the subsequent addition of the NMT in 2016. The NMT consisted of mid to senior level financial and technical level staff at MoHCC head office working on policy, planning and expenditure management aspects, increasing the scale and scope of MoHCC technical involvement in RBF policy. The NMT was considered as the operational arm of the NSC responsible for following up on all NSC recommendations. Countries emerging from economic downturns may thus increase their agency in RBF programme design and adaptation through increased domestic funding and such mechanisms for institutional control of these programmes.

We note two study *limitations*. First, the majority of the documents reviewed were obtained from organizations that were implementing the programme, specifically the two NPAs, the MoHCC, and the World Bank. Although independent sources were consulted, interviewed, and triangulated where possible, most RBF evaluations in Zimbabwe were conducted by implementers, which may increase the potential for bias. Second, we were unable to access a number of documents that were referenced in the policy documents, notably, 9 NSC minutes and twelve NPA documents, which could have provided additional information on how RBF adapted to identified moderators.

Conclusion

The findings from this study provide an example of a programme that experienced substantive adaptation during the course of the programme, demonstrating a significant level of responsiveness in an effort to increase efficiency as well as to respond to unforeseen factors that undermined other stated RBF goals. One explanation for why the Zimbabwe programme was able to be adaptive relates to the MoHCC's insistence on a gradual and phased approach of the RBF design, which could provide lessons for other LMIC countries or countries similarly emerging from economic downturns like in Zimbabwe post 2008. In particular, a phased approach can prioritise early programme readiness through facility and training capacity building prior to the introduction of direct bonuses to health workers. This planned approach avoided some initial capacity shocks generally associated with rapid implementation of RBF in LMIC settings that have historically led to unintended outcomes, stalled implementation or poor RBF performance. Our findings also suggest that national level technical processes in RBF design and

adaptation need to be balanced with effective involvement and participation of lower levels of health systems to ensure ownership by health workers and to achieve intended outcomes. This is because identified moderating factors, either endogenous or exogenous to the programme, require effective communication upwards if policy adaptations are to be successfully targeted with intended outcomes. Moreover, given that overall system capacity remained a consistent moderator on RBF performance, the study helps support the findings of a recent realist review of RBF in 41 countries, which reports that if health system inputs are vastly underperforming pre-RBF, then they are unlikely to improve only on the basis of RBF (Singh et al., forthcoming). This raises additional challenges to historical narratives associated with performance-based financing in LMIC settings, especially where there are crucial under-investments in health systems and personnel. Namely, it challenges former narratives that championed RBF as 'a catalyst for comprehensive health care reform' (Meessen et al., 2011). Lastly, this study further supports existing knowledge that exogenous and contextual circumstances matter in RBF design and that responsive adaptation is thus an important aspect of success. Yet, one important outcome of this study is that there is significant underreporting of exogenous factors and blurred distinctions between programme level and exogenous moderators, suggesting that there is a need for them to be more systematically examined and reported within RBF projects (Borghini, et al., 2018). While there are wider policy debates on the effective and efficient role of RBF in health systems that we do not address in this paper (Paul et al., 2020), improved understanding of programme level and exogenous factors through enhanced documentation, can improve response during the implementation

process, and regular reporting of these factors in RBF projects could be an important tool for improving how RBF can bring positive outcomes in health systems.

References

Anselmi, L., Binyaruka, P., and Borghi, J. (2017) Understanding causal pathways within health systems policy evaluation through mediation analysis: an application to payment for performance (P4P) in Tanzania. *Implement Sci*;12:10. doi:<https://doi.org/10.1186/s13012-016-0540-1>.

Barnes, A., Brown, GW., and Harman, S. (2015) *The Global Politics of Health Reform in Africa: Participation and Performance*. Palgrave, London.

Barnes, A., Brown GW., Harman, S. (2015a) "Locating health diplomacy through African negotiations on performance-based funding in global health", *Journal of Health Diplomacy*, Vol. 1, Issue 3. <http://eprints.whiterose.ac.uk/122323/>.

Bertone, MP., Falisse, J B., Russo, G., Witter, S. (2018), "Context matters (but how and why?) A hypothesis-led literature review of performance-based financing in fragile and conflict-affected health systems", *PLoS ONE*, Vol. 13. No 4: e0195301. <https://doi.org/10.1371/journal.pone.0195301>.

Brown, GW. and Loewenson, R (2018) Applying a Theory of Change in results-based financing: Findings from Zimbabwe. *PEMBA report*, Harare, Zimbabwe.

Borghi, J., Singh, NS., Brown, GW., Anselmi, L., and Kristensen, S. (2018) "Understanding for whom, why and in what circumstances payment for performance works in low and middle income countries: protocol for a realist review", *BMJ Global Health*, Vol. 3, No. 3:e000695. doi:10.1136/bmjgh-2017-000695.

Chansa, C., Sisimayi, C., Mutasa, R., Sobuthana, B., Nguyen, HTH., and Das, A. (2013) "Zimbabwe Results Based Financing RBF Pricing Review Technical Review Mission Report". Cordaid, Harare.

Cordaid (2016), Cordaid RBF Programme Rapid Assessment. Cordaid Harare.

Cordaid (2016), Report on Development of a Quality Supervision App. Cordaid Harare.

Cordaid and World Bank (2015), Results Based Financing (RBF) Lighter Verification Manual. Cordaid Harare.

Cordaid, MoHCC, World Bank (2012), Results Based Financing in Zimbabwe: RBF Programme Biannual Progress Report July to December 2012. MoHCC, Harare.

Cordaid, MoHCC, World Bank (2013) Results Based Financing in Zimbabwe: RBF Programme Biannual Progress Report January to June 2013. MoHCC, Harare.

Cordaid, MoHCC, World Bank (2013) Results Based Financing in Zimbabwe: RBF Programme Biannual Progress Report July to December 2013. MoHCC, Harare.

Cordaid, MoHCC, World Bank (2014) Results Based Financing in Zimbabwe: RBF Programme Biannual Progress Report January to June 2014. MoHCC, Harare.

Cordaid, MoHCC, World Bank (2014) Results Based Financing in Zimbabwe: RBF Programme Biannual Progress Report July to December 2014. MoHCC, Harare.

Cordaid, MoHCC, World Bank (2015) Results Based Financing in Zimbabwe: RBF Programme Biannual Progress Report January to June 2015. MoHCC, Harare.

Cordaid, MoHCC, World Bank (2015) Results Based Financing in Zimbabwe: RBF Programme Biannual Progress Report July to December 2015. MoHCC, Harare.

Cordaid, MoHCC, World Bank (2016) Results Based Financing in Zimbabwe: RBF Programme Biannual Progress Report January to June 2016. MoHCC, Harare.

Cordaid, MoHCC, World Bank (2016) Results Based Financing in Zimbabwe: RBF Programme Biannual Progress Report July to December 2016. MoHCC, Harare.

Coulibaly A, Gautier L, Zitti T, Ridde V. (2020) Implementing performance-based financing in peripheral health centres in Mali: what can we learn from it? *Health Res Policy Syst.* Jun 3;18(1):54. doi: 10.1186/s12961-020-00566-0. PMID: 32493360; PMCID: PMC7268714.

Damschroder, L.J., Aron, D.C., Keith, R.E. *et al.* (2009) Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implementation Sci* 4, 50. <https://doi.org/10.1186/1748-5908-4-50>

De Allegri, M., Bertone, M. P., McMahon, S., Mounpe Chare, I., and Robyn, P. J. (2018) "Unravelling PBF effects beyond impact evaluation: results from a qualitative study in Cameroon", *BMJ global health*, Vol. 3, No. 2: e000693. <https://doi.org/10.1136/bmjgh-2017-000693>.

De Sardan, J, Aïssa, D. and Moha, M. (2017) "Travelling models and the challenge of pragmatic contexts and practical norms: the case of maternal health", *Health Research Policy and Systems*, 15 (Suppl 1):60. DOI 10.1186/s12961-017-0213-9.

Fritsche, GB., Soeters, R., Meessen, B. (2014) Performance-Based Financing Toolkit. *World Bank, Washington DC*.

Gautier, L. and Ridde, V. (2017) 'Health financing policies in Sub-Saharan Africa: government ownership or donors' influence? A scoping review of policymaking processes', *Global Health Research and Policy*. 2:23 DOI 10.1186/s41256-017-0043-x

Kane, S., Gandhidzanwa, C., Mutasa, R., Moyo, I., Sismayi, C., Mafaune, P., et al. (2019) "Coming full circle: how health worker motivation and performance in results-based financing arrangements hinges on strong and adaptive health systems", *International Journal of Health Policy and Management*, Vol. 8, No. 2: 101-111. doi: 10.15171/ijhpm.2018.98.

Looij, F., Mureyi, D., Sisimayi, C., Koot. J., Manangazira, P., Musuka, N. (2015) "Early evidence from results-based financing in rural Zimbabwe", *African Health Monitor Issue 20*: <https://www.semanticscholar.org/paper/Early-evidence-from-results-based-financing-in-Looij-Mureyi/121e1e6eee37a255055090f42255ad44f6f77a83>. Last accessed May 30, 2020.

Madhekeni, A. (2012) "Implementing Results-Based Management Systems in Zimbabwe: Context and Implications for the Public Sector", *International Journal of Humanities and Social Science*, Vol. 2 No. 8. <https://repository.uwc.ac.za/xmlui/handle/10566/4801>. Last accessed May 30, 2020.

McMahon, SA., Brenner S., Lohmann, J., et al. (2016) "Evaluating complex health financing interventions: using mixed methods to inform further implementation of a novel PBI intervention in rural Malawi", *BMC Health Services Research*, Vol.16, 414: <https://doi.org/10.1186/s12913-016-1612-2>.

Meessen, B., Soucatb, A. and Sekabaraga, C. (2011) Performance-based financing: just a donor fad or a catalyst towards comprehensive health-care reform? *Bull World Health Organ* 2011;89:153–156 | doi:10.2471/BLT.10.077339.

MoHCC (2009) Zimbabwe National Health Strategy 2009-2013 Equity and Quality in Health, A People's Right. MoHCC, Harare.

MoHCC (2010) Zimbabwe Health Sector Investment Case 2010-2012: Accelerating Progress Towards the Millennium Development Goals: Equity and Quality in Health, A People's Right. MoHCC, Harare.

MoHCC (2014) Project Implementation Manual Zimbabwe National Results-Based Financing Programme (May). MoHCC Harare.

MoHCC (2016) Project Implementation Manual Zimbabwe National Results-Based Financing Programme (January). MoHCC, Harare.

MoHCC (2016) The National Health Strategy for Zimbabwe 2016-2020: Equity and Equality in Health Leaving No One Behind. MoHCC, Harare.

MoHCC, Cordaid, World Bank (2011) Project Implementation Manual Zimbabwe National Results-Based Financing programme, Version I (November). MoHCC, Harare.

MoHCC, Cordaid, World Bank (2012) Project Implementation Manual Zimbabwe National Results-Based Financing Programme, Version II (September). MoHCC, Harare.

MoHCC, NIHR, TARSC (2018) National Workshop on Results-Based Financing (RBF) and Health Systems Strengthening in Zimbabwe, *Workshop Report*, 01 March. TARSC, Harare.

Paul, E., Sossouhounto, N. and Eclou, DS. (2014) Local stakeholders' perceptions about the introduction of performance-based financing in benin: a case study in two health districts. *Int J Health Policy Manage*;3:207–14.

Paul, E., Albert, L., Bisala, BN., *et al.* (2018) “Performance based financing in low income and middle-income countries: Isn't it time for a rethink?”, *BMJ Glob Health*, Vol. 3:e000664. <http://dx.doi.org/10.1136/bmjgh-2017-000664>.

Paul, E., Brown, GW., Ensor, T., Ooms, G., Van de Pas, R. and Ridde, V. (2020) “We shouldn't count chickens before they hatch: Results- based financing and the challenges of cost-effectiveness analysis”, *Critical Public Health*. doi: 10.1080/09581596.2019.1707774.

Renmans, D., Holvoet, N., Orach, CG., and Criel, B. (2016) “Opening the ‘black box’ of performance-based financing in low- and lower middle-income countries: a review of the literature”, *Health Policy and Planning*, Vol. 31, No. 9: 1297–1309, <https://doi.org/10.1093/heapol/czw045>.

Renmans, D., Holvoet, N., Criel, B., and Meessen, B. (2017) “Performance-based financing: the same is different”, *Health Policy and Planning*, Vol. 32, No. 6: pp. 860–868: doi:10.1093/heapol/czx030.

Sabot et al. (2018) “Contextual factors in maternal and new born health evaluation: a protocol applied in Nigeria, India and Ethiopia”, *Emerging Themes in Epidemiology*, Vol. 15, no. 2. 15: doi:10.1186/s12982-018-0071-0.

Scott, A., Sivey, P., Ait Ouakrim, D., et al. (2011) The effect of financial incentives on the quality of health care provided by primary care physicians. *Cochrane Database Systemic Review* (9):CD008451. doi:10.1002/14651858.CD008451.pub2.

Ssengooba, F., McPake, B. NS Palmer, N. (2012) ‘Why performance-based contracting failed in Uganda--an “open-box” evaluation of a complex health system intervention’, *Soc Sci Med*. 2012;75:377–83.

Shroff, ZC., Tran, N., Meessen, B., Bigdeli, M., and Ghaffar, A. (2017) "Taking Results-Based Financing from Scheme to System", *Health Systems & Reform*, Vol. 3, No. 2: pp. 69-73. DOI: [10.1080/23288604.2017.1302903](https://doi.org/10.1080/23288604.2017.1302903).

SINA Health (2019) Performance-Based Financing in Action: Theory and Instruments. January. SINA Health, The Hague. <http://www.sina-health.com/wp-content/uploads/PBFCourseBookSINATheoryActionEngVF100817.pdf>. Last accessed May 30, 2020.

Singh, N., Kovacs, R., Borghi, J., Brown, GW., Anselmi, L., and Kristensen, S (forthcoming). A realist review to assess for whom, under what conditions and how pay for performance programmes work in low-and-middle-income countries, *Social Science and Medicine*.

Soucat, A., Dale, E., Mathauer, I., and Kutzin, J. (2017) "Pay-for- Performance Debate: Not Seeing the Forest for the Trees", *Health Systems & Reform*, Vol. 3, No. 2: pp. 74-79: doi:10.1080/23288604.2017.1302902.

The AIDSTAR-Two project (2011) The PBF Handbook: Designing and Implementing Effective Performance-Based Financing Programs Version 1.0. Cambridge: Management Sciences for Health, Cambridge. <https://www.msh.org/resources/the-pbf-handbook-designing-and-implementing-effective-performance-based-financing-programs>. Last accessed May 30, 2020.

Toonen, J., Van der Wal, B. Eds. (2012) Results-Based Financing in Healthcare. Developing an RBF Approach for Healthcare in Different Contexts: The Cases of Mali and Ghana. KIT Publishers, Amsterdam.

Witter, S., Fretheim, A., Kessy, FL., and Lindahl, AK (2012) Paying for performance to improve the delivery of health interventions in low-and-middle-income countries. Cochrane Database Review:CD007899. doi:10.1002/14651858.CD007899.pub2.

Witter, S., Bertone, M., Namakula, J., Chandiwana, P., Chirwa, Y., Ssenyonjo, A., et al. (2019a) "How does RBF strengthen strategic purchasing of health care? Comparing the experience of Uganda, Zimbabwe and the Democratic Republic of the Congo", *Global Health Research Policy*, Vol. 4, No. 3: <https://doi.org/10.1186/s41256-019-0094-2>.

Witter, S., Chirwa, Y., Chandiwana, P., Pepukai, M., Munyati, S. and Bertone, M. (2019b) "The political economy of results-based financing: the experience of the health system in Zimbabwe", *Global Health Research and Policy*, Vol. 4, No. 20: <https://doi.org/10.1186/s41256-019-0111-5>.

World Bank (2016) Rewarding Provider Performance to Improve Quality and Coverage of Maternal and Child Health Outcomes: Zimbabwe Results-Based Financing Pilot Programme Evidence to Inform Policy and Management Decisions. June 17. MoHCC, Harare.

World Bank, Cordaid and MoHCC (2012) Joint Technical Review: Results Based Financing Programme Zimbabwe. June. Cordaid, Harare.

World Bank, Cordaid and MoHCC (2013) Learning from Implementation: Process Monitoring and Evaluation of Zimbabwe's Results Based Financing (RBF) Project: The case of Mazowe, Chipinge, Zvishavane, Binga and Kariba Districts. December. Cordaid, Harare.

World Bank, MoHCC and Cordaid (2015) Learning from Implementation: Process Monitoring and Evaluation II of Zimbabwe's Results Based Financing (RBF) Project: The Case of Mutoko, Chirezi, Nkayi and Kariba Districts. MoHCC, Harare.

World Bank, MoHCC, Cordaid (2013) Zimbabwe Health Sector Development Support Project: Results-Based Financing Mid Term Review. Cordaid, Harare.