**Results Based Financing: an assessment of the evidence**

**By Marcella Distrutti**

**Background**

The objective of this document is to assess the evidence on results based financing schemes in health care. More specifically, it aims to analyze the evidence on arrangements focused on the supply side and targeted at sub-national governments, public primary health care facilities, and health care professionals, in line with the model proposed in the Dominican Republic in the context of the operation “Strengthening of Management for Results in the Health Sector in the Dominican Republic (DR-L1067)”. In this operation, resources are transferred from the Ministry of Health and Social Protection (MSP) to the Regional Health Services (SRS) based on the adscription of the population to primary health care units (in each health region) and the attainment of targets in ten indicators that include both coverage and quality measures. SRS may use up to 10% of these resources at the regional level and up to 50% as incentives for health care. Other direct investments in primary health care units have to be distributed proportionally, according to their level of attainment.

This document is organized in the following manner: introductory remarks, an analysis of the current evidence on results-based financing schemes, the examination of a case study, a section on lessons learned from implementation arrangements of results-based financing schemes, and final comments.

**Introduction**

According to Joseph Kutzin “a critical factor for the performance of health care systems is the extent to which purchasers use their financial power actively to encourage providers to pursue efficiency and quality in service delivery” (2001, pg.183). In recent years, Results Based Financing (RBF) is one of the tools that have emerged as an option for purchasers to persuade providers to contain cost[[1]](#footnote-1), increase the supply of cost-effective interventions, and improve the quality of health care.

RBF has been defined by the World Bank as “the provision of payment for the attainment of well-defined results” (cited in Oxman and Fretheim 2008, pg.16). The fundamental idea behind RBF is that, by rewarding results, it is able to align the incentives of providers with those of the commissioner of care.

RBF has been implemented in a variety of sectors. In health care, it may be targeted at different players, such as users of health care, health care professionals, health care centers, hospitals, private sector organizations, public sector organizations, sub-national governments, and national governments (Oxman and Fretheim 2008). This document focuses on schemes aimed at sub-national governments, public primary health care facilities, and health care professionals.

**Methodology**

This document focuses on schemes aimed at sub-national governments, public primary health care facilities, and health care professionals. Nevertheless, given the low availability of rigorous RBF studies in the literature, this assessment also included papers that evaluated non-for-profit health centers and hospitals (in addition to public primary health care facilities and/or health care professionals). Studies that focused on very specific groups of professionals and/or health areas and that were not related to the intervention proposed in the Dominican Republic, e.g. the effects of financial incentives on prescribing (medicines), were not reported in this document. Further, although there are many incentives associated with RBF in the literature, this assessment focuses on evidence regarding the utilization and quality of care, as these are the main measures included in the model implemented in the Dominican Republic.

**Review of the evidence**

In the literature, there are several incentives associated with RBF, such as cost containment, the supply of cost-effective interventions, improvements in the quality of health care, increases in the productivity of health workers, and increases in the utilization of care, among others. Nevertheless, few rigorous studies of RBF have been conducted to assess the current evidence.

This document revised three comprehensive reviews of the literature that have been conducted recently on the topic. The first one, conducted by Witter et al. (2012), had a very high strength of evidence and found mixed results regarding the effectiveness of RBF. The second one, conducted by Oxman and Fretheim (2008) with slightly less rigorous methods, also found mixed results regarding RBF. The third one, carried out by Gorter et al. (2013), found more positive results regarding RBF. Although Gorter et al. utilized a few studies considered of a low strength of evidence in their analysis; they also included more recent studies considered of medium and high strengths of evidence.

In *2012*, *Witter et al.* conducted a literature review for the Cochrane Collaboration to assess the evidence for the effects of paying for performance[[2]](#footnote-2) on the provision of health care and health outcomes in low and middle-income countries. The review focused on supply-side interventions. To be included, a study had to report at least one of the following outcomes: changes in targeted measures of provider performance, such as the delivery or utilization of health care services, or patient outcomes, unintended effects and/or changes in resource use. Studies also needed to use one of the following study designs: randomized trial, non-randomized trial, controlled before-after study or interrupted time series.

Nine studies were included in the review. There was a large variation in the types of interventions assessed. In four studies (Canavan 2008; Soeters 2005; Soeters 2008; Vergeer 2008) the participants targeted by the interventions were a mixed range of public and faith-based facilities (dispensaries, health posts, health centers, and hospitals). Two focused on primary facilities alone (Basinga 2010; Soeters 2009). The other three focused either on hospitals only or on individual private practitioners; therefore the findings related to these interventions were not reported in this document.

In terms of effect on utilization, the following was reported on Rwanda (Basinga 2010): (i) no impact of performance-based funding on the probability of any prenatal care or on the probability of completing four or more visits; (ii) a statistically significant impact on the probability of institutional delivery; and (iii) for children, a significant increase in the likelihood of a preventive visit in the four weeks prior to the survey, but no impact on the likelihood of full vaccination.

In Burundi (Soeters 2009), a statistically significant difference was found for institutional deliveries, favoring the intervention sites, but in the Democratic Republic of Congo (Soeters 2008), the reverse was found. In Tanzania (Canavan 2008), inpatient admissions were significantly lower in intervention sites. In Burundi, pregnant women were statistically significantly more likely to be fully vaccinated. For all other indicators, however, no statistically significant difference was found.

In terms of quality of care, in Rwanda (Basinga 2010), quality of prenatal care was assessed by comparing activities undertaken during prenatal visits with the local clinical practice guideline and by investigating whether a tetanus typhoid vaccination was given during prenatal check-ups. Significant improvements in both measures were reported for the intervention group. In addition to these measures, the payment of incentives was linked to a composite quality measure, based on quarterly direct observation by district supervisors and medical records review. The other three studies that measured coverage of tetanus vaccination among pregnant women had mixed results.

Witter et al. concluded that the current evidence base is weak to draw general conclusions and that more robust and also comprehensive studies are needed.

In *2008*, *Oxman and Fretheim* conducted as overview of reviews of different types of RBF schemes in health care. They included 10 studies in their analysis, six of which were focused on the supply side - targeted directly at individual or groups of health care professionals or at government or public sector organizations (Sturm 2007; Chien 2007; Petersen et al. 2006; Town 2005; Sempowski 2004; Giuffrida 1999)[[3]](#footnote-3).

Petersen et al. 2006 examined six studies of physician-level financial incentives, five of which found partial or positive effects of incentives directed at individual physicians[[4]](#footnote-4). The authors also analyzed nine studies that evaluated the use of financial incentives directed to provider groups, of which seven found partial or positive effects on measures of health care quality[[5]](#footnote-5). Most of the effect sizes were small. In two studies (Kouides 1998; Christensen 2000) the improvement in the measure of quality of care was statistically significant. In the other five studies (Roski 2003; Clark 1995; McMenamin 2003; Casalino 2003; Rosenthal 2005) there was a partial effect. For example, one found a small improvement in rates of cervical cancer screening between the intervention and comparison groups after the quality incentive program. Improvements in mammography screening rates and hemoglobin A1C testing were not statistically significant. In two randomized trials (Hillman 1998; Hillman 1999), the group-level incentives for preventive health services were ineffective.

Town 2005 searched for studies that had an explicit economic incentive for preventive care targeted at specific individual providers, including direct payments or bonuses to the provider or his/her group. They found six studies, all of which were randomized control trials conducted at the primary care level in the United States[[6]](#footnote-6). All studies, with one exception, were included in the review conducted by Petersen 2006. Town 2005 concluded that the results found by Kouides 1998 in increases in the provision of preventive care (immunization) were statistically significant.

Giuffrida 1999 conducted a comprehensive systematic review of the impact of target payments on the professional practice of primary care physicians and health care outcomes, but only two studies met the author’s inclusion criteria (randomized trials, controlled before and after studies and interrupted time series). Two studies were included involving a total of 149 practices[[7]](#footnote-7). The use of target payments in the remuneration of primary care physicians was associated with improvements in immunization rates (Kouides 1998). The authors found no evidence that the overall linear trend for childhood immunization rates changed as a result of the introduction of target payments in the second study (Ritchie 1992).

Oxman and Fretheim concluded that there are few rigorous studies of RBF in the literature and that RBF schemes should be monitored closely.

More recently, *Gorter et al. 2013* looked at the effects of RBF on maternal and infant health in low and middle income countries. 14 review papers were assessed on positive and negative effects of different RBF approaches, five of which met this document’s criteria. One of the reviews, Witter et al., was already reported in this assessment. Findings from the other four reviews are reported bellow[[8]](#footnote-8).

Toonen et al. 2009 conducted a formative evaluation of performance-based financing experiences, mainly drawing lessons from country study reports on pilot projects. They analyzed five performance-based financing interventions in different provinces of Burundi, three in the Democratic Republic of Congo, one in Tanzania, and one in Zambia. In almost all cases, they identified an increase in health service utilization after the introduction of performance-based financing, such as curative consultations, family planning, antenatal care, and institutional deliveries. However, they found no evidence on improvements in the quality of care. Considering the contextual factors, confounding factors, and the reliability of the available information, the authors concluded that performance-based financing can be instrumental in achieving better results in the health sector if compared to input-based financing approach.

Kinoti 2011 conducted a rapid review of evidence gathered from USAID-funded health projects, the RBF for health programs supported by the multi-donor Health Results Innovation Trust Fund (HRITF)[[9]](#footnote-9), and the World Health Organization publications, among others. The authors looked at various RBF approaches, including demand-side arrangements, and concluded that RBF schemes contribute with increased access, quality, and utilization of maternal health services.

Morgan et al. 2011 conducted an extensive but not systematic review of published and grey literature in English, coupled with an online survey, telephone calls and email exchanges between the authors and program managers, designers, and providers of technical assistance, as well as authors’ knowledge of performance-based incentives schemes in developing countries. They identified and reviewed a number of studies that assessed 28 RBF schemes in at least 23 countries. Despite a wide range of RBF models with varying results, they concluded that the available evidence suggests that responsible application of RBF can increase the use of key maternal health services (family planning, antenatal care, and institutional deliveries) and can improve the quality of these services.

Canavan, Toonen and Elovainio 2008 conducted a comprehensive but not systematic review of peer-reviewed papers and technical reports of RBF schemes in various settings (e.g. DRC, Rwanda, Burundi, Haiti, and Afghanistan). They concluded that the innovative financing approach shows remarkable improvements in health indicators (utilization, coverage, and emergency referrals) with associated enhanced quality of provider performance.

*Gorter et al. 2013* also analyzed 70 individual research papers. Of the studies that met this document’s criteria, four had a medium or high strength of evidence (Soeters 2011; Huntington 2010; Basinga 2010; Basinga 2011).

In a before-after with controls study conducted in the Democratic Republic of Congo (two intervention and two control districts) (Soeters 2011), cash bonus were paid to workers for reaching targets related to output/process indicators. Increase in service utilization was not consistent among key indicators between all participating and non-participating facilities, but increase in (perceived) quality of services for some indicators and decrease in out-of-pocket payments in participating facilities outweighed those of non-participating facilities. Increased transparency and reduced corruption in performance-based financing facilities was also observed.

In Egypt (Huntington 2010)[[10]](#footnote-10), the quality of reproductive and child health services at primary health care units was analyzed through post intervention with controls, using data from key informant interviews with providers and managers and exit interviews with female clients aged 15-49 years. Routine data on service utilization was used to compare the case-load of health workers between the two groups. Measures of various indicators, including technical and inter-personal communication, showed significant improvements in the quality of family planning, antenatal care, and child health services reported by women seen in clinics where the incentive payment scheme was in operation.

Basinga 2010[[11]](#footnote-11) and 2011[[12]](#footnote-12) conducted a before-after with controls (a quasi-cluster RCT), using household and facility survey data (in 2006 and 2008) (difference-in-difference model used to estimate the effect of the intervention). Performance-based financing had a large and positive impact on institutional deliveries and preventive care visits by children and improved quality of prenatal care, but no impact on completion of four prenatal care visits and fully immunized children. It was estimated that performance-based financing contributed to a 23% increase in the number of institutional deliveries and 56% and 132% increase in the number of preventive care visits by children aged below 23 months and aged between 24-59 months respectively in the treatment facilities.

Overall, Gorter et al. concluded that the evidence base of RBF is not yet stabilized and is still growing. The author also mentions that the same result was found in a recent evaluation conducted by the Health Results Innovation Trust Fund (HRITF) in June 2012: “Nonetheless the evidence base for RBF remains narrow and there is still a huge potential and opportunity for the programme supported by the HRITF to draw and learn key lessons by just using the information that is being already generated by the pilots at country level and soon to be generated by impact evaluations supported by the Fund” (cited in Gorter et al., pg.7).

In *2010*, *Scheffler* reached an analogous conclusion in a background paper for the World Health Report 2010, which assessed the literature on results-based financing in health on the supply side. In the author’s opinion, most of the current research on the topic is preliminary since RBF models constitute a new approach and have just now began to be implemented in scale. As a result, most research designs lack the rigor needed for their impact to be evaluated. Often, comparison groups are lacking and/or studies do not isolate the impact of the RBF scheme. For Scheffler, this does not mean that pay-for-performance schemes are not working or that they could be made to work; it means that the evidence may not be available or that the evidence is weak. His main conclusion is that improved research designs are needed to continue to build an evidence-base for RBF.

**Case study – *Plan Nacer* in Argentina**

“Plan Nacer” is a maternal and child health insurance program that has been implemented in Argentina since 2004, with support from the World Bank[[13]](#footnote-13). It covers uninsured mothers during pregnancy and up to 45 days after delivery, as well as children under the age of six. It involves an innovative results-based financing mechanism that includes disbursements linked to the achievement of targets related to performance indicator as well as independent external audits to verify service delivery and compliance with guidelines[[14]](#footnote-14). The implementation of Plan Nacer began in the nine poorest provinces of Argentina in 2004; in 2007, the implementation was extended to the entire country.

Overall, the arrangements proposed in Plan Nacer are very similar to the initiative that is being implemented in the Dominican Republic. The National Ministry of Health signs management agreements with provincial governments and provides funds to the provinces on a per capita basis (US$10 per capita/month) against the enrolment of uninsured mothers and children (60% of the capita) and the attainment of targets related to 10 indicators, which include both coverage and quality measures (40% of the capita).

The provincial governments identify the target population; enroll members into the program; and contract health service providers. In each province, provincial insurance units manage the resources of the program. Health care providers deliver a specified package of cost-effective activities, while increasing quality to attract the beneficiary population. Provincial units reimburse providers on a fee-for-service basis, which the providers can then invest as they see fit to improve productivity and quality[[15]](#footnote-15),[[16]](#footnote-16). The model started being implemented in primary health care units only; but now it also includes hospitals.

*In 2011, Gertler, Martinez and Celhay* published the results of a mid-term evaluation of Plan Nacer. They used administrative data from the provinces of Misiones and Tucumán, which included information on all serviced provided by primary health care units and hospitals and of both, people included and not-included in the program. The study utilized a quasi-experimental design and estimated the effects of the absence of the program in the population not included in Plan Nacer.

The study found substantial evidence of the effects of the program on health indicators. In particular, the authors found that the program increased the earliest capture of pregnant women, with an average increase between the two provinces of 8.5% in the probability of having the first prenatal visit before week 13 and an increase of 17.6% in the probability of having the first control before the 20th week of pregnancy. The program increased the total number of prenatal visits per pregnancy in women beneficiaries by an average of 0.5 controls, which implies an increase of 17.3% relative to control. The study also found indications of improvements in the quality of prenatal care, as measured by increases in the application of ultrasound and tetanus vaccines. Finally, Plan Nacer caused a significant increase in the probability of a child having all consultations/controls established by medical guidelines, especially during the first six months of life.

At the specialized level of care, the authors found that improvements in the quantity and quality of care translated into better results for the newborns, including an increase in the average weight of the child at birth, a reduction in the probability of children born with very low birth weight, improved APGAR measures, and a reduction in early neonatal mortality.

Despite a few methodological limitations, such as the fact that only two provinces were analyzed (the ones that had better information sources), the authors concluded that the results-based financing model that is being implemented in Argentina is effective in expanding coverage and improving the quality of health care delivered to the population.

In 2010, the World Bank reported the following results on the project: (i) more than one million previously uninsured pregnant women and children with basic health insurance and secure access to services; (ii) a rise in the share of expectant mothers in the poorest northern provinces who receive pre-natal consultations by week 20 to 52% (from 3%); (iii) a significant increase in national immunization rates, which have reached 94%; and (iv) a decline in infant mortality, which has fallen 20% since 2002 (to 13.3 per 1,000), with the fastest improvement occurring in the poorest provinces[[17]](#footnote-17).

In the context of the HRITF, a more comprehensive impact evaluation of the Argentinean experience is currently being undertaken.

**Results of the RBF scheme being implemented in the Dominican Republic**

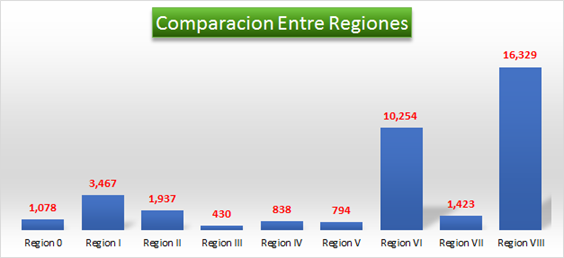
In 2009, the World Bank approved the second phase of an operation to support the health sector reform in the Dominican Republic (PARSS2)[[18]](#footnote-18). The project’s main component was the introduction of a results-based financing mechanism for the first level of care in two Regional Health Services (SRS in the Spanish acronym), with the goal of improving the capacity of SRS to deliver, in a timely fashion, quality services known to improve the health of mothers, children, and people with chronic conditions.

The RBF scheme was designed based on the World Bank’s experience with Plan Nacer in Argentina, and the results yielded by the project have been so positive thus far that the Government of the Dominican Republic has decided to scale up the intervention, with support from the Inter-American Development Bank (IDB), through operation DR-L1067.

After two years of implementation, PARSS2 have shown marked improvements in key indicators, such as:

* Percentage of pregnant women from target population with risk evaluation completed before the 15th week of pregnancy: increase from baseline of 0.43 in 2011 to 13% in 2012;
* Percentage of children from target population under 15 months with vaccination scheme completed according to national protocols: increase from 0 in 2011 to 25% in 2012;
* Percentage of individuals older than 18 years screened for hypertension based on national protocols: increase from 0.89 in 2011 to 38% in 2012; and
* Percentage of individuals diagnosed with diabetes type II under treatment: increase from 0.79 in 2011 to 10% in 2012.

Furthermore, an analysis of the number of consultations carried out at the primary level of care in all SRS of the Dominican Republic show a remarkable difference in SRS number VI and VIII, where PARSS2 have been implemented[[19]](#footnote-19).



**Comparison across SRS**

**2013, month 5th**

**Lessons learned from the implementation of RBF schemes**

Several studies have reported that one of the most important aspects related to the success of RBF schemes is implementation. In order for an RBF model to work, it needs to count with the full engagement of providers, functioning health information systems, motivation and commitment from the Ministry of Health as regulator and steward of the system, and monitoring capacities at facility and district level (Canavan, Toonen and Elovainio 2008). At the end of the day, RBF is also about increased accountability, which requires organizational behavior changes, transparency in the financial and clinical management of health services, and commitment from stakeholders at all levels of the system (ibid).

According to Canavan, Toonen and Elovainio, findings in Afghanistan and Rwanda suggest that performance-based financing is a promising mechanism to boost health facility performance but contingent on simultaneous resource investment in management capacities (2008). Witter et al. 2012 also mentioned, in their literature review, that all of the interventions analyzed had ancillary components[[20]](#footnote-20), such as training, supervision, and feedback.

Toonen et al. 2009 found that a number of institutional issues can have a positive influence on provider performance and outputs of health facilities: autonomy of health providers and other key stakeholders at operational level; creating national ownership from the start of introducing performance-based financing; use of contracts with agreed upon expected results between all actors at different levels; the presence of a local fund holder; the split of responsibilities between providers, purchaser/fund holder and regulator; and a functioning monitoring system.

Strong implementation arrangements are also essential to reduce the risks of undesirable effects, such as distortions (where health workers overly focus on achieving targets and neglect non-incentivized activities) and gaming (improving or cheating on reporting rather than improving performance), among others, which have been reported by several authors as potential adverse consequences of RBF schemes (Oxman and Fretheim 2008; Canavan, Toonen and Elovainio 2008; Campbell 2009).

**Conclusions**

According to Canavan, Toonen and Elovainio, performance based approaches have gained popularity and attention in the past decade because there is an increasing interest on improving approaches to health service delivery, in line with management reforms and related accountability to consumers (2008). In addition, in a scenario of escalating health care costs and increasing financial constraints on the part of governments, topped with growths in people’s expectations, “it is ever more essential that attention is given to determining the relative returns on investment from inputs to the health system, with more attention to output and outcome performance” (Canavan, Toonen and Elovainio 2008, pg.1).

As emphasized by Scheffler 2010 and Gorter et al. 2013, results-based financing is a new approach to financing the provision of health care and an insufficient number of studies have been conducted so far to assess the effectiveness of this mechanism. In the first developing country where it was implemented and taken to scale, Rwanda, there is a reasonable amount of literature that reports on the success of the initiative (Ireland et al. 2011). In Argentina, where RBF has also been implemented earlier and taken to national scale, the existing evidence is promising as well.

For many authors, it is likely that the effectiveness or not of an RBF scheme will depend on the context in which it is implemented, on the level of support and commitment from the stakeholders involved in the process, particularly the Ministry of Health, and on the amount of technical and operational support available to guide implementation efforts. All these pre-conditions are present in the Dominican Republic. Thus far, the initiative that has been implemented in the country has yield extremely positive results and there is a deep commitment from national authorities to invest in the expansion of the model to the entire country.

Through the operation “Strengthening of Management for Results in the Health Sector in the Dominican Republic (DR-L1067)”, the Dominican Republic might become one of the first countries in the world to have taken RBF to national scale, which provides an unique opportunity for the IDB to participate in this initiative, contribute with the current body of knowledge on the topic, and disseminate lessons learned to the entire Latin American region.

**Bibliografia**

# Campbell S, Reeves D, Kontopantelis E, Sibbald B, Roland M. 2009. Effects of pay for performance on the quality of primary care in England. *The New England Journal of Medicine*, 361:368-78

# Canavan A, Toonen J, Elovainio R. 2008. Performance Based Financing: an international review of the literature. Amsterdam: Kit Development Policy & Practice.

Gorter A, Ir P, Meessen B. 2013. Evidence Review, Results-Based Financing of Maternal and Newborn Health Care in Low- and Lower-middle-Income Countries. Study commissioned and funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) through the sector project PROFILE at GIZ – Deutsche Gesellschaft für Internationale Zusammenarbeit.

Ireland M, Paul E, Dujardin B. 2011. Can performance-based financing be used to reform health systems in developing countries? *Bulleting of World Health Organization*, 89:695-698.

Kutzin J. 2001. A descriptive framework for country-level analysis of health care financing arrangements. *Health Policy*, 56: 171-204

Oxman A, Fretheim A. 2008. An overview of research on the effects of results-based financing. Report Nr 16-2008. Oslo: Nasjonalt kunnskapssenter for helsetjenesten.

Oxman A, Fretheim A. 2009. Can paying for results help to achieve the Millennium Development Goals? Overview of the effectiveness of results-based financing. *Journal of Evidence-Based Medicine*, 2:70-83.

Petersen L, Woodard L, Urech T, Draw C, Sookanan S. 2006. Does pay-for-performance improve the quality of health care? *Annals of Internal Medicine,* 145:265-72.

Sheffler R. Pay For Performance (P4P) programs in health services: what is the evidence? 2010. World Health Report 2010 Background Paper 31, Geneva, WHO.

Toonen J, Canavan A, Vergeer P, Elovainio R. 2009. Learning lessons on implementing performance-based financing: from a multi-country evaluation. Amsterdam: KIT Development Policy & Practice.

Town R, Kane R, Johnson P, Buttler M. 2005. Economic incentives and physician’s delivery of preventive care: a systematic review. *American Journal of Preventive Medicine*, 28:234-40.

Witter S, Fretheim A, Kessy F, Lindahl A. 2012. Paying for performance to improve the delivery of health interventions in low- and middle-income countries. Cochrane Database of Systematic Reviews 2012, Issue 2. Art. No.: CD007899. DOI: 10.1002/14651858.CD007899.pub2

1. By not over-supplying, e.g. to request unnecessary exams, and increasing the supply of cost-effective interventions. [↑](#footnote-ref-1)
2. RBF is also referred to as pay-for-performance, performance-based funding, and output-based aid (Oxman and Fretheim 2009). [↑](#footnote-ref-2)
3. Three studies had very specific scopes and their results are not going to be reported in this document. Sturm 2007 looked at the effects of financial incentives on prescribing; Chien 2007 researched the effects of pay for performance and public reporting on racial disparities; and Sempowski 2004 evaluated the effectiveness of programs that provide financial incentives to physicians in exchange for a rural or underserved area return-of-service commitment. [↑](#footnote-ref-3)
4. Fairbrother 1999; Fairbrother 2001; Safran 2000; Pourat 2005; Beaulieu and Horrigan 2005. [↑](#footnote-ref-4)
5. Kouides 1998; Christensen 2000; Roski 2003; Clark 1995; McMenamin 2003; Casalino 2003; Rosenthal 2005. [↑](#footnote-ref-5)
6. Fairbrother 2001; Hillman 1999; Fairbrother 1999; Kouides 1998; Hillman 1998; Grade 1997. [↑](#footnote-ref-6)
7. Kouides 1998; Ritchie 1992. [↑](#footnote-ref-7)
8. These studies were considered of a low strength of evidence by the authors. [↑](#footnote-ref-8)
9. The Health Results Innovation Trust Fund (HRITF) is a multi-donor trust fund created by the World Bank in 2007 to support RBF approaches in the health sector for achievement of the health-related MDGs - particularly MDGs 1c, 4 and 5. Current donors include the Governments of Norway and the United Kingdom (www.rbfhealth.org). [↑](#footnote-ref-9)
10. Selected for analysis by Witter et al. but not included in the review because final data had not yet been published. [↑](#footnote-ref-10)
11. Basinga 2010 was included in the review conducted by Witter et al. [↑](#footnote-ref-11)
12. These studies were commissioned by the World Bank and were published in Lancet and were considered of a high strength of evidence by the author of the review. [↑](#footnote-ref-12)
13. Provincial Maternal Child Health Sector Adjustment Loan phases 1 and 2 (P071025 and P095515 respectively). [↑](#footnote-ref-13)
14. This feature is also present in the model that is being implemented in the Dominican Republic. [↑](#footnote-ref-14)
15. There is a defined guideline on how resources may be utilized, which includes a percentage than can be used as an incentive for health care professional. [↑](#footnote-ref-15)
16. <http://siteresources.worldbank.org/NEWS/Resources/ArgentinaPlanNacer4-7-10.pdf>. [↑](#footnote-ref-16)
17. http://siteresources.worldbank.org/NEWS/Resources/ArgentinaPlanNacer4-7-10.pdf. [↑](#footnote-ref-17)
18. Health Sector Reform Adaptable Program Loan 2 (PARSS2) (P106619). [↑](#footnote-ref-18)
19. The World Bank is currently financing the expansion of the model to SRS VII. [↑](#footnote-ref-19)
20. Apart from one study that was not analyzed in this document. [↑](#footnote-ref-20)