

**FINAL**

**TAKING STOCK: WORLD BANK EXPERIENCE WITH  
RESULTS-BASED FINANCING (RBF) FOR HEALTH**

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## Abbreviations

AFR	Africa Region, World Bank
AIDS	Acquired Immune Deficiency Syndrome
ALOS	Average Length of Stay
APL	Adaptable Program Loan
ANC	Antenatal Care
CCP	Conditional Cash Payment
CCT	Conditional Cash Transfer
DOTS	Directly Observable Treatment, Short course therapy
DR Congo	Democratic Republic of the Congo
DTP3	Third dose of Diphtheria-Pertussis-Tetanus vaccine
EAP	East Asia and Pacific Region, World Bank
ECA	Eastern Europe/Central Asia Region, World Bank
ERL	Emergency Relief Loan
FP	Family Planning
FY	Fiscal Year
GP	General Practitioner
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HNP	Health, Nutrition, and Population, World Bank
IBRD	International Bank for Reconstruction and Development
ICR	Implementation Completion Report
IDA	International Development Association
IMR	Infant Mortality Rate
LAC	Latin America and the Caribbean
LCR	Latin America and the Caribbean Region, World Bank
LGU	Local Government Unit
MCH	Maternal and Child Health
MDG	Millennium Development Goal
MOH	Ministry of Health
MMR	Maternal Mortality Ratio
MNA	Middle East and North Africa Region, World Bank
MNCH	Maternal, Neonatal and Child Health
NGO	Non-Governmental Organization
ODA	Official Development Assistance
OECD	Organization for Economic Co-operation for Development
PAD	Project Appraisal Document
PBA	Performance-Based Aid
PID	Project Information Document
PRSC	Poverty Reduction Strategy Credit
RBF	Results-Based Financing
SAR	South Asia Region, World Bank
SBS	Seguro Basico de Salud (Basic Health Insurance- Bolivia)
SIL	Sector Investment Loan
SIM	Sector Investment Management Loan
TB	Tuberculosis
TPC	Targeted Performance-based Contracting (Indonesia)
TT	Tetanus Toxoid vaccine
U5MR	Under-5 Mortality Rate
UK	United Kingdom

## **Executive Summary**

Since the adoption of the Millennium Declaration in 2000, total development assistance for health has more than doubled, and expenditures for maternal and child health have grown. Nevertheless, many countries, especially those in Africa, risk not achieving the Millennium Development Goals (MDGs) for maternal and child health by 2015. Achieving health results requires a well-organized, financed, and functioning health system capable of responding to the needs of the population in an equitable way. Results-based financing is one possible approach for increasing the impact of health investments

RBF for health is a cash payment or non-monetary transfer made to a national or sub-national government, manager, provider, payer, or consumer of health services after predefined results have been attained and verified. Payment is conditional on measureable actions being undertaken.

The evidence on the effectiveness of RBF strategies is emerging. For instance, conditional cash transfer (CCT) programs have demonstrated positive effects on utilization of health services, particularly preventive care, and on child health outcomes. The evidence is mixed and less clear on the effects of supply-side performance incentives, including those that improve provision and quality of care. In addition, RBF mechanisms may result in unintended effects on behavior and health service delivery.

This paper presents the findings of a review of 260 Health, Nutrition, and Population (HNP) projects with a health sector performance theme (148 active and 112 closed operations) approved by the World Bank Board between FY95 and FY08. The purpose of the review is to understand the nature and extent of World Bank experience with RBF for health, and to draw lessons from ongoing and past projects for strengthening design, implementation, monitoring and evaluation of projects in the future.

Project documents, such as Project Appraisal Documents (PADs), Staff Appraisal Reports (SARs), Project Information Documents (PIDs), Implementation Completion Reports (ICRs) and other relevant documentation were obtained from the Project Portal. Projects were reviewed to see whether they supported one or more of the following types of RBF activities: 1) transfers of loan proceeds to governments based on verified achievement of targets for predefined indicators; 2) results-based budget transfers from national to sub-national government administrative units (provincial or district health offices) and/or their managers on the basis of achieving targets for predefined indicators; 3) transfers from Ministries of Health or Finance to insurance entities based on achievement of insurance enrollment targets; 4) performance-based contracting between national or sub-national governments with public or private facilities (including non-governmental organizations-NGOs), managers, and health workers; 5) payments from government agencies to community-level organizations responsible for achieving results; and 6) payments to households and consumers after specified treatments and services have been provided.

Of the 260 projects reviewed, 40 contained RBF activities: 28 active projects and 12 closed projects in 29 countries. The LAC region had the most projects with RBF activities (15), followed by EAP (9), and AFR (8) and SAR (8). The analysis identified 24 HNP projects in 19 countries between FY95-08 that provided ‘substantial support’ to RBF activities (17 active and 7 closed operations), either because RBF was the focus of the entire project or the project had several components related to RBF. Operations in the LAC region predominated in this sub-group.

The most common type of RBF mechanism in the sample was performance-based agreements between central and sub-national government administrative entities (21% of mechanisms), followed by performance-based contracting of public facilities (18%) and performance based contracting of NGOs (16%). The LAC region had the largest number of RBF mechanisms (30 out of 64, or 33%), followed by SAR (22 mechanisms or 24% of the total). Nine different demand-side RBF mechanisms were identified as well. Most projects featured financial incentives, but a smaller portion also included non-monetary rewards. The poor were targeted in approximately half of these projects. Impact evaluations were planned in less than a third of projects.

Most Bank operations supporting RBF relied on investment lending (SILs, SIMs, APLs). The total value of projects identified with RBF activities was \$3.7 billion, with the lion’s share from IDA. It was not possible to attribute funding directly to RBF mechanisms because of the way in which project budgets were constructed.

The following lessons emerged from a review of ICRs of closed projects with RBF activities:

**Political commitment and country ownership** at national and sub-national levels are essential to good design, effective implementation, and sustainability of RBF elements.

**Involvement of all relevant stakeholders in the design** of the RBF scheme helps to mitigate resistance and facilitate understanding of the mechanism.

**The need for a focused and gradual approach** is a common lesson from the sample of closed project documents, as it appears useful for layering reforms and needed institutional requirements for creating the right environment. However, RBF mechanisms have been established quickly in fragile states and post conflict environments.

**Adequate organizational structures and institutional capacity are key** for RBF mechanisms to work well.

RBF projects need to focus on **improving quality of services provided** in addition to increasing overall service provision and utilization.

**Selection of performance indicators is critical. Independent validation of achievement** of indicators linked to performance-based contracts is necessary to mitigate gaming and perverse incentives to over-report results.

**Adequate and appropriate monitoring and evaluation frameworks are critical** for demonstrating results to stakeholders and for fostering sustainability.

The main conclusions for the World Bank from this review are the following:

1. The World Bank has supported results-oriented operations in health for nearly 20 years. The level of support has increased in recent years, and is expected to rise with the Health Results Innovation Grant funded by the Government of Norway.
2. There have been some missed opportunities to do more in the way of RBF in project design. Projects that contract with NGOs could add a performance element, and projects that support improved budgeting and expenditure management might consider tying transfers more closely to achievement of results.
3. Evaluation of projects with RBF elements has been weak. Although project documents suggest that projects with RBF activities have increased utilization, strengthened service provision and quality of care, increased enrollment of beneficiaries, and enhanced the overall institutional and policy framework, the lack of robust impact evaluation has prevented the Bank from contributing to the evidence base on RBF in any significant way to date.
4. Most RBF mechanisms require resources not only to finance the additional incentives, but also to set up the accompanying systems required for successful implementation, such as management and health information systems. Design of RBF mechanisms needs to take sustainability more seriously and reflect how the cost of these schemes will be integrated within national plans and budgets.
5. None of the projects with RBF mechanisms examined the cost-effectiveness of the intervention relative to other types of strategies that could strengthen health sector performance and achieve health outcomes, particularly for MDGs 4 and 5. Future analysis is encouraged to build up the evidence base and to support further investment in RBF.
6. Few projects documented possible gaming or perverse incentives created by the RBF mechanisms (with the exception of a few projects in Argentina, Armenia, and the Russian Federation). Additional attention needs to be paid in the future to documenting unanticipated results and quickly putting in place mitigating measures.
7. The 2007 HNP Strategy encouraged Bank financing for well-evaluated pilot efforts of output- and performance-based financing in HNP projects and

programs. The 2007 Strategy estimated a baseline of four active RBF projects in FY06 and proposed a target of at least 14 active projects by FY2010. Current trends in World Bank support for RBF mechanisms in health should achieve or exceed the 2010 target proposed in the Strategy.

The following actions are recommended:

1. Additional support needs to be provided to Bank operations staff in developing adequate monitoring frameworks for RBF components or projects. This support could include, but is not limited to staff training, development of guidelines, and technical exchanges. Alternative and innovative approaches to obtaining robust results on health impact and health system performance need to be further explored. All RBF projects or pilots should have baseline estimates of indicators.
2. Consideration needs to be given as to whether RBF projects and components have an adequate national and sub-national commitment and ownership, relevant poverty focus, appropriate indicators, feasible mechanisms for disbursing against results, required institutional frameworks and capacities, and adequate evaluation strategies during quality enhancement reviews. A checklist could be developed as a guide.
3. The design process for RBF mechanisms and pilots need to involve all relevant stakeholders and to build their capacity in RBF principles in order to improve understanding and success of the mechanism.
4. Additional focus and documentation of possible unintended and unanticipated consequences on quality of care and access of the population to services, and perverse incentives for providers and consumers, is warranted in future RBF projects.
5. The design of RBF mechanisms needs to reflect how these schemes will be sustained financially as Bank support declines over time. At a minimum, the cost of the RBF mechanism, both during and after the project period, needs to be assessed as part of project design to estimate the incremental recurrent costs and fiscal impact of the incentive scheme.
6. Tools and approaches for evaluating the cost-effectiveness of RBF mechanisms, and for identifying and assessing unintended consequences of performance-based incentives need to be developed.
7. Capacity building on design, implementation, monitoring aspects of RBF mechanisms needs to continue, perhaps through cross-country exchanges. The Global Development Learning Network may be a useful platform for this.
8. More effective ways of prospective tracking and monitoring characteristics of Bank HNP projects that have RBF elements need to be developed. This could

include developing approaches for monitoring funding allocations to RBF components and mechanisms in Bank projects. A further review of reproductive health and nutrition projects would help identify additional RBF projects.

9. An informal Bank-wide community of practice for RBF in health could be established to foster greater cross-regional sharing of experiences. Bank staff needs to be engaged in a discussion about how to operationalize disbursing against results. Priorities for strengthening design and implementation of projects also should be identified. Findings from this report should be disseminated within the World Bank and posted on the Results-Based Financing website.

## **Section 1: Introduction**

Since the adoption of the Millennium Declaration in 2000, development assistance for health has more than doubled from \$6.8 to \$16.7 billion [1]. Funding for maternal, newborn and child health (MNCH) services increased by 63% between 2003 and 2006 [2]. However, this funding increase has not translated into the health outcomes expected.

Many countries, especially those in Africa, risk not achieving the Millennium Development Goals (MDGs) for maternal and child health by 2015. Recent studies suggest that only 24% of 68 priority countries are “on track” to reduce child mortality [3]. Sixteen low-income countries have made no progress at all, and in five countries, child mortality rates have increased. In addition, only 2% of countries have made moderate progress toward reducing maternal mortality [4].

The Task Force on International Innovative Financing has recently issued a report that suggests that health systems strengthening investments are critical for achieving health goals [5]. Achieving health results requires a well-organized, financed, and functioning health system capable of responding to the needs of the population in an equitable manner. Traditionally, government and donor investments to improve service delivery have focused on increasing the availability of critical inputs, such as infrastructure, equipment, vehicles, training, supplies, drugs and vaccines; and, on building household knowledge on the use services through information and education strategies in order to increase access, coverage, and quality of services. Despite significant global and domestic investments, the poor have unequal access to health services, quality of services is low, service delivery is inefficient, management capacity needs strengthening, and households face impoverishment due to limited financial protection in health systems in low- and middle-income countries [6,7].

In addition to financing critical health system inputs, new approaches, such as RBF, will be needed in the future to achieve greater results in health. RBF mechanisms shift the performance risk to service providers, and provide them with incentives to organize and produce services more efficiently and effectively [8]. Paying for results rather than inputs has the potential to improve accountability between payer and provider and consumer of services [9]. By focusing on achieving higher coverage levels, RBF mechanisms also have the potential to target the poor and address equity objectives, though there is currently insufficient evidence in this regard.

The World Bank has supported strengthening of health systems in low- and middle-income countries for the past thirty-five years. The World Bank’s policies, strategies, and lending for Health, Nutrition, and Population (HNP) have evolved in phases over this time. During the 1970s, the emphasis was on improving access to family planning services because of concern about the adverse effects of rapid population growth on economic growth and poverty reduction. During the second phase, from 1980-86, the Bank directly financed health services, with the objective of improving the health of the poor by improving access to low-cost primary health care. During the next phase from

1987-1996, the Bank focused more on strengthening health systems, including support for health reforms [9]. In the 1990s, the World Bank was the largest supporter of health, nutrition and population programs worldwide [10]. The 1997 World Bank HNP Strategy gave more emphasis to results-oriented approaches in order to obtain health outcomes and value for money [11].

The Bank's 2007 HNP strategy-- *Healthy Development: The World Bank Strategy for Health, Nutrition and Population Results* brought achieving results into sharp focus [12]. This strategy reiterated a growing consensus in the Bank and the international health community that developing countries and their development partners should be concerned with the impact of health investments on results, particularly for the poor. The 2007 Strategy insisted that a well-organized and sustainable health system was essential for achieving results on the ground. The Strategy also stressed that the Bank needed to give top priority to areas of its comparative advantage, such as health systems strengthening and health financing.

Despite significant lending for health sector performance and policy emphasis on results, there is limited knowledge presently about the nature and extent of Bank involvement in RBF in the health sector. This paper reviews HNP project lending for RBF for health since FY 1995 in an attempt to fill gaps in our understanding of Bank support for RBF. Specifically, this review aims to address the following questions:

1. What policy or health system issues were RBF mechanisms trying to address in countries?
2. What is the scale, scope and types of RBF mechanisms that have been supported by the World Bank across regions?
3. Who are the beneficiaries of RBF mechanisms and to what extent are the needs of the poor being addressed?
4. What type of lending instruments has been used and what is the level of World Bank lending for RBF?
5. What were some of the design features of the RBF mechanisms?
6. What has been the experience with monitoring and evaluating RBF mechanisms?
7. What results have been achieved in these projects?
8. What have been the challenges in the design and implementation of RBF mechanisms?
9. What are the lessons learned from the review of projects, and what are the prospects for sustainability?
10. What are some recommendations for the way forward for the World Bank on RBF?

The intended results of this review are 1) to provide useful information for Bank staff interested in supporting countries in the design, implementation, monitoring and evaluation of RBF operations; 2) provide important inputs into the ongoing work program of HDNHE in the area of RBF; and, 3) help to establish a baseline for monitoring progress in implementing the HNP Strategy (2007).

This paper is not intended to provide a comprehensive review of the literature on financial incentives and health, nor present a full discussion of the economic basis of RBF. The paper also does not set out to evaluate the impact of RBF mechanisms on

health outcomes. Rather, it offers a descriptive review of the major characteristics of HNP projects supporting RBF.

The main audience for this review paper is Bank staff and management. The findings and lessons learned from the review also may be of interest to policymakers, program managers, and their development partners. A secondary audience is the wider global health community, including researchers and those in academic institutions, who may be interested to learn more about what the World Bank has been doing with respect to RBF in the health sector.

The paper is organized as follows. Section 2 describes the role that RBF can play in health systems strengthening, discusses the role of incentives and why performance-based contracting might help to address the principal-agent problem; defines RBF and presents a typology of RBF mechanisms used in this review. Section 3 presents the methods used for the review, and highlights some limitations of the approaches taken. Findings of the review are presented in Section 4. Section 5 describes and compares lessons learned from the review of Bank support for RBF. Conclusions and recommendations are presented in Section 6.

## Section 2: Potential Promise and Challenges of RBF for Health

### 2.1 Incentives and the Principal-Agent Problem in Health Care

Motivation is an invisible force that determines the strength and direction of consumption and production behaviors. Individuals are motivated by both intrinsic and extrinsic factors. Intrinsic factors are self-generated, and stem from professionalism, pride, beliefs, and the satisfaction of meeting people's needs, among other factors. Extrinsic factors are those which encourage or discourage individual behaviors, such as status, reward, and financial incentives, among others [13, 14].

Motivation is also affected by incentives inherent in the organizations and institutional arrangements in which people work, how they are paid, and how they are monitored. In many low-income countries, health staff may have a strong intrinsic motivation to provide good care, but work in daily isolation with little supervision, receive little recognition and have low or irregular salaries. In these settings, more training, equipment, materials and supplies, while necessary inputs, may not necessarily translate into better health results. Financial incentives, such as bonuses paid to providers conditional on achieving certain quantity and quality targets, may provide the additional extrinsic motivation needed to reinforce professional pride and desire to deliver quality care.

Agency theory is useful for thinking about how financial incentives can help align interests and behaviors in health care. For instance, patients and health care providers have different preferences and objectives [15]. The patient (principal) has very little knowledge about various treatments and their efficacy as well as the skill of the health care provider (agent), but must rely on the provider to behave in his or her best interest to be treated [16, 17]. When the assumptions of agency theory are violated,<sup>1</sup> the agent may undertake opportunistic behavior that works against the welfare of the principal, leading to moral hazard and adverse selection.

There are many principal-agent relationships in health care, including between the provider and the financier of health services [17]. In order to align the interests of the principal and the agent, given asymmetries of information, different risk preferences, and challenges in monitoring all behaviors and interactions, incentive compatible contracts are needed [18,19]. Because the principal may not be able to observe and verify the efforts of what the agent is actually doing, contracts must be based on observable outcomes and monitoring is required.<sup>2</sup>

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<sup>1</sup> The five assumptions of agency theory are: 1) both the principal and agent are utility maximizers; 2) income and effort are two major arguments in the utility functions of both, and are in conflict; 3) the principal knows perfectly what actions should be undertaken by the agent, but information is only available to the agent; 4) outcome is perfectly correlated with the agent's efforts and is observable; and, 5) the principal and agent enter into a contract voluntarily.

<sup>2</sup> The level and type of remuneration in these incentive compatibility contracts will be a function of whether the provider is maximizing utility, maximizing income, has a target income in mind, or is maximizing profit. Transaction cost and property rights theory also will have bearing on the nature of the contract [20].

On the demand side, information and education campaigns usually are targeted to low-income households and women in particular. Although such efforts may be necessary, they are rarely sufficient to change behaviors toward appropriate health care seeking. Utility-maximizing households may fail to consume the optimal quantity and quality of health services deemed because of lack of information, the principal-agent problem,<sup>3</sup> or the presence of positive externalities [19]. In addition, financial barriers and opportunity costs may prevent households from seeking care. Financial incentives alter the direct cost of care, and reduce the time and opportunity cost of seeking care. Overall consumption of health care may increase as a result of a household income or substitution effects.

Thus, financial incentives can be a powerful motivator for households to seek care, and for health care providers to deliver services in a more efficient and effective manner.

## 2.2 Evidence on RBF

Financial and non-monetary incentives have been shown to affect the behaviors of consumers, financiers, managers, and providers of health care services leading to better or worse health outcomes [13, 14, 17, 21, 22, 23, 24, 25]. OECD countries and developing countries alike have employed financial and other incentives to strengthen the performance of health systems by improving efficiency, quality, equity, financial protection, sustainability and containing costs; as well as altering the behavior of consumers.

While there is a growing interest in RBF within the health community, there is a lack of robust evidence regarding effectiveness of various mechanisms and their impact on health status in low-income countries. A limited review of the published literature may be summarized as follows.

Performance-based contracting with private and public health facilities has been associated with increases in service utilization. In Cambodia, coverage rates for health services, such as immunization, were much higher in districts with performance-based contracting of NGOs than in government-managed districts. Performance-based contracting also was associated with equity gains as poorer households obtained more services [26]. In Haiti, tying funding of NGOs to their performance on a limited set of indicators resulted in a 13 to 24 percentage point increase in immunization coverage and a 19 to 24 percentage point increase in women delivering in facilities since 1999 [27]. A performance-based contracting approach based on fee-for-service payments for facility outputs in Gakoma District, Rwanda was associated with substantial increases in use of family planning services, institutional births, assisted deliveries, and DTP3 coverage, among other services. These increases were much higher than rising trends found in the rest of the country [28].

By contrast, a recent experience in Uganda with contracting private, not-for-profit health services providers showed no statistical difference in utilization between those facilities

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<sup>3</sup> Parents may have different utility functions of their children. Preventive and promotive health care services may be under-consumed in this case.

with and without a performance bonus. The authors speculated this might be related to the small size of the bonus, complexity of the contracts, or short duration of the incentive period [29, 30].

Financial incentives have been used in industrialized countries to improve the quality of care provided to consumers [15]. For instance, the Quality and Outcomes Framework of the National Health System in the UK incorporates performance incentives to reduce quality gaps [17]. While a recent review of 36 published articles with strong research designs found few significant impacts on quality, there was some evidence that financial incentives were effective in improving the delivery of preventive services [31].

Conditional cash transfer programs (CCTs) have been the most extensively studied type of RBF mechanism. Many have been evaluated using experimental study designs (such as randomized control trials) and quasi-experimental study designs. CCTs have been found to have a marked impact on utilization of essential preventive child health services [22, 32]. In Nicaragua, the CCT increased immunization coverage for children traditionally hardest to reach, who live farthest from health facilities, and whose mothers had not completed primary school [33]. The CCT program in Mexico was associated with a lower incidence of childhood illness, and the program in Colombia was associated with reductions in acute diarrhea [34,35]. Finally, CCTs are associated with significant increases in household food consumption and increased height [22, 32, 35].

On the other hand, CCT programs have significant management requirements, including a need for adequate financial management and information systems, methods for targeting and paying beneficiaries, among others. They are complex and present several management challenges [22, 36]. Because of the complexity of the institutional arrangements and the potential high cost of the transfers, there is some question as to whether CCTs can be scaled-up and sustained in low-income countries [23, 37]. In addition, beneficiaries may incur costs in complying with the condition [22]. Removal of an incentive may result in reversion to former, less health-promoting behaviors, and cash transfers may be difficult to remove once they have been introduced [38].

Voucher schemes have been less well evaluated than other demand-side RBF mechanisms, but appear to have had a positive impact on utilization of health services. For instance, in Yunnan Province, China, vouchers covered the cost of antenatal, intra-partum and postpartum care, and care of children at hospitals and clinics. Results indicate large increases in use of services. Furthermore, treatment of diarrheal disease among the poor rose by 20% [39]. A Safe Motherhood Project in Indonesia enhanced access and use of midwifery services by the poor through the use of vouchers for a basic package of mother and child care and family planning services. Nevertheless, demand for services may exceed the capacity of the health system to provide them, potentially compromising the quality of care [40].

Financial and non-monetary incentives have been shown to have a positive effect on patient adherence to TB and AIDS treatment protocols, as well as to motivate use of screening services (such as mammograms). There is mixed evidence as to the

effectiveness of financial and non-monetary incentives on other types of individual health behaviors, such as smoking cessation or weight loss [17, 41].

RBF mechanisms, particularly those that pay health facilities on a fee-for-service basis, may result in unintended behaviors, distortions, and gaming, such as over-provision of targeted services at the expense of activities that are not remunerated; cream-skimming; reduction in the quality of services; or, falsification of records relating to remunerated activities. Consumers may pursue unhealthy behaviors to retain eligibility in a program, and providers may misuse payments [28, 37]. Finally, such schemes may crowd out intrinsic motivation and convey a lack of trust on the part of management [23].

In summary, RBF mechanisms appear to increase utilization of priority MCH services, and CCTs have been shown to have positive effects on health child outcomes. The evidence is less clear, however, on the effects of performance incentives on the quality of care. In addition, RBF mechanisms may result in unintended effects on behavior and health service delivery.

### 2.3 Definition of RBF for health used in the review of HNP projects

There are many terms and definitions describing results-based financing, for health such as output-based aid, performance-based financing, performance-based incentives, and others [15, 42]. The Center for Global Development defines performance-based incentives as monetary payments or other material rewards that are provided on the condition that one or more indicators of performance change, that pre-determined targets are met, or both [17]. The focus of this definition is on strengthening the relationship between a health care provider and patient to achieve better results.

A more general definition of results-based financing (RBF) for health that applies to both supply- and demand-side strategies as well as to international assistance is the following: ***RBF for health is a cash payment or non-monetary transfer made to a national or sub-national government, manager, provider, payer, or consumer of health services after predefined results have been attained and verified. Payment is conditional on measureable actions being undertaken.*** Through this mechanism, donor agencies, Ministries of Finance, Ministries of Health and other government or non-government agencies are able to pay directly for results rather than for purchase of inputs. By linking financing to results, results-based financing represents a shift in emphasis to outputs and outcomes of health systems and away from a solitary focus on inputs.

For purposes of this review of World Bank HNP projects, the scope of RBF is narrowed further to exclude payments to individuals for changing health behaviors, such as smoking cessation, or improving compliance with TB or HIV treatment protocols. World Bank projects in HNP with prospective provider payment reforms have been excluded from this review, as payments are not necessarily conditional on results achieved or have the same focus on achievement of indicators and targets and their verification (see Annex 1 for further discussion). The Bank has been active in providing technical and financial support to conditional cash transfer (CCT) programs, but this support has been primarily

through the Social Protection sector. Furthermore, substantial new analysis of CCTs is available elsewhere [22]. Finally, although performance-based aid (PBA) or output-based disbursement is a type of RBF, this paper focuses on tools national governments can use rather than donor-to-country disbursement mechanisms developed for improved aid effectiveness. The review only refers to this mechanism when a country incorporates other types of complementary and concomitant RBF approaches. A review of output-based aid in Bank projects, including the health sector, was recently completed [42].

Table 1 presents the typology of both supply- and demand-side RBF mechanisms used in the review of HNP projects that have the potential to improve utilization, coverage, and quality of health services and interventions. These mechanisms reflect the various recipients of results-based incentives, including:

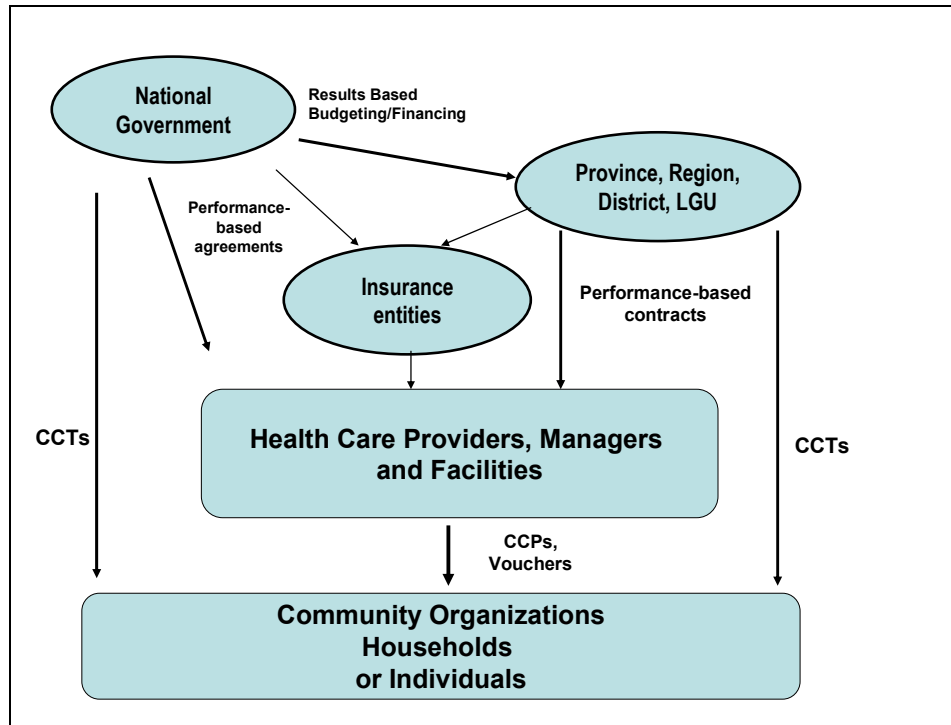
- Transfers of loan amounts to governments based on verified achievement of targets for predefined indicators;
- Results-based budget transfers from national to sub-national government administrative units (provincial or district health offices) and/or managers on the basis of achieving targets for predefined indicators
- Transfers from Ministries of Health or Finance to insurance entities based on achievement of insurance enrollment targets;
- Performance-based contracting between national or sub-national governments with public or private (including NGO) health care providers, managers, and health workers, whereby additional funding or bonuses are paid based on achieving and/or exceeding predetermined service delivery targets of specified quality;
- Payments from government agencies to community-level organizations responsible for achieving results; and,
- Payments to households and consumers after specified treatments and services have been used, and that encompass voucher payments or a more comprehensive conditional cash transfer program.

**Table 1: Results-Based Financing Mechanisms Used in the Review of Bank HNP Projects**

<b>Recipients</b>	<b>RBF Mechanism</b>	<b>Behavior Change</b>
<b>National Government</b>	Transfer of a portion of the loan or grant on the basis of verified achievement of health targets from a set of pre-specified indicators	National government puts in place the necessary policy framework and programmatic support to achieve results.
<b>Ministry of Health Administrative Levels</b> (entities that manage, support, and supervise delivery of services at central, provincial, district levels, and/or their managers)	Portion of budgets or performance bonuses received at sub-national administrative levels contingent on achievement of pre-agreed performance targets often codified within a contracted arrangement. Sub-national administrative levels often have performance agreements with health facilities.	Central, provincial, and/or district level managers have an incentive to support achieving results and to organize their planning, budgeting, supervision and monitoring systems accordingly
<b>Health Insurance Entities</b>	Payments made to health insurance entities conditional on their meeting pre-agreed targets for numbers of new enrollees per period.	Health insurance entity organizes itself to meet coverage targets
<b>Health Facilities</b> (entities that deliver services, such as hospitals, health centers and clinics, group practices, public and private sector, including NGOs)	Payments made to health facilities (fee-for-service or target-based payments) on the basis of providing an agreed-upon type, level, and quality of services. Payments are retained in the health facility to improve quality of services and performance.	Facility organizes itself to deliver services and/or meet performance targets and achieve results to receive payment or bonuses.
<b>Health Care Workers</b> (individuals, managers, or the team as a whole)	Payments (performance bonuses or in-kind rewards) made to individual health workers, managers, or to teams of health workers on the basis of services provided or achieving/ exceeding pre-agreed targets and results between the health facility and the health worker(s).	Health workers motivated to provide specified types and quality of services, and to be present at the facility
<b>Community-level organizations</b>	Payment provided to community-level organizations conditional on achievement of results spelled out in agreements between the community and the health facility or other administrative level in the government.	Community groups solve problems and organize themselves and community members to achieve results
<b>Households</b>	Financial payments made to households as a welfare transfer conditional on household members utilizing specific health and education services (CCTs)	Households are motivated to seek and use services to receive the welfare transfer that has both a price effect (the cost of seeking care and the opportunity cost of time is wholly or partially subsidized) and an income effect (transfer is large enough to affect household income and alter intra-household resource allocation toward healthier consumption)
<b>Consumers/patients</b>	Payments made to an individual through a voucher, one-time cash payment (CCP) or in-kind payment conditional upon use of specific health service (e.g., institutional deliveries) or to complete a specific treatment protocol (e.g. compliance with DOTS)	Individual is motivated to use a service because of a price effect (the cost of seeking care and the opportunity cost of time is wholly or partly subsidized)

Figure 1 provides a generic model of potential relationships between RBF payers and recipients in a health system. While each RBF mechanism will be country-specific, this figure illustrates the multiple levels of the health system in which RBF mechanisms can operate within a country. Countries may combine mechanisms at different levels into a cascading scheme of initiatives from national to sub-national level, from insurer to health care provider, and from district health office to community or household levels to reinforce and strengthen the results-focus in a comprehensive manner.

**Figure 1: Simplified Structure of Relationships between Payer and Recipient in RBF Mechanisms**



*Supply-side RBF Mechanisms*

Governments are becoming more and more interested in establishing performance-based contracts with both public and private health care providers, where payment is made after targets are achieved for a limited set of pre-specified indicators. Performance-based financing mechanisms can be structured between the Ministry of Health (MOH) and sub-national government administrative levels (provincial health offices, district health offices). In these cases, some portion of the budget transfer is conditional on achieving targets, such as an increase in the percent of pregnant women receiving antenatal care. In some cases, there is a risk that the full amount of funding will not be transferred if quantity and quality of services or enrollment targets are not met.

RBF mechanisms also can be structured through performance agreements between the Ministry of Health and health insurance entities. For example, *Plan Nacer* in Argentina began by providing basic health services to the poorest groups in the poorest provinces in the north of Argentina through a maternal and child health insurance program. Funding is provided by the MOH to provincial level health insurance agents on the basis of the agents achieving enrollment targets [43].

At the facility level, performance-based bonuses above routine financing of facilities can be based on performance agreements that spell out indicators against which payments will be made, service targets and the time period for achievement. For example, in

Rwanda, performance bonuses are awarded to facilities on the basis of the quantities of services provided adjusted for quality [44, 45]. In Haiti, a portion of NGO facility budget is withheld, and the remaining financing distributed to facilities upon the achievement of results [28]. In many cases, the performance-based payment is used to upgrade the facility and provide better quality care to attract more patients, or it is divided among staff as a salary bonus, or both. In DR Congo, incentives are allocated among health workers according to a specified formula.

*Demand-side RBF Mechanisms:*

On the demand-side, RBF provides payments or transfers to individuals, households, or communities once a pre-condition in terms of service use has been met. CCT programs provide cash transfers to poor families, conditional on their use of preventive and curative health services (e.g., antenatal and postnatal care, immunization, well-child visits, growth monitoring); school enrollment; and nutrition supplementation (Gertler 2000). Payment of the transfer is usually to women who also benefit from health education in some schemes. CCTs have been most commonly implemented in Latin America and have been extensively studied. On a smaller scale, conditional cash payments (CCPs) are one-time payments made to households or household members, dependent upon use of a particular service, such as delivery in a health institution.

Voucher schemes act on both the demand- and supply- sides. Typically, vouchers are provided to households to obtain free or highly subsidized health services, such as treatment of TB and sexually transmitted infections (STI), use of impregnated bed nets, or delivery in institutions [40, 46]. The health facility retains these vouchers and is paid by the government or a private organization on the basis of the number of services provided within a specified time period, or relative to a target. A health insurance entity may also provide premium subsidies for the poor or informal workers on the demand side, and payment of the provider would then be based on serving this population group.

The community also can play a role in setting norms and expectations about health seeking behavior and in facilitating access by households to services. Performance agreements can be developed between district health offices and community organizations, whereby payment to the community is based on achievement of health care utilization targets and other actions to improve health and well-being.

### **Section 3: Methods for the Review of HNP Projects**

This section describes the methods for the identifying HNP projects with RBF activities. The initial criteria for inclusion in this review were all closed and active World Bank lending operations in the HNP sector approved by the Board between FY95 and FY08 that were classified as having a primary health system performance theme (code 67).<sup>4</sup> Projects with this code include programs and policies that aim to bring about improvements in the management, financing and overall functioning of health systems [47]. This theme was selected because HNP projects with RBF activities were more likely to be captured by this category.

The application of these criteria generated a total of 260 HNP projects (148 active projects and 112 closed projects). Documents for these 260 projects, including Project Appraisal Documents (PADs), Staff Appraisal Reports (SARs), Project Information Documents (PIDs), Implementation Completion Reports (ICRs) and other relevant documentation were obtained from the Project Portal. The lead author reviewed these documents to determine whether the project intended to support activities and implementation of any of the types of RBF mechanisms described in Table 1.

Application of the typology of RBF mechanisms resulted in a sample of HNP Projects with RBF activities (n=40). These projects were reviewed more extensively, and project information was entered into Excel-based spreadsheets in order to facilitate cross-country comparisons. The following information was collected and reviewed for this smaller sample of active and closed projects: 1) basic project information (project identification number, dates of World Bank Board approval, date of project effectiveness, lending amounts (IBRD, IDA, or grants), proportion of the project allocated to health, task team leader, lending instrument); 2) rationale for pursuing an RBF strategy; 3) beneficiaries and whether the project focused on poor or vulnerable groups; 4) description of RBF mechanisms; 5) whether the project focuses on monetary or non-monetary incentives; 6) scope of the RBF (entire project, component, pilot activities, studies); 7) development and project indicators; 8) type of evaluation foreseen; 9) financing and disbursement; 10) implementing agency and project management; and, 11) prospects for sustainability. For the sample of closed projects, additional information was collected on lessons learned; factors affecting implementation and challenges; and project results.

Because of the large number of initial projects and limited time, it was not feasible to structure the review of projects to generate inter-reviewer reliability scores. However, given the in-depth nature of the review supplemented with feedback from task managers, and secondary reviews by co-authors, we believe a high degree of face validity was achieved in the identification of projects with RBF activities.

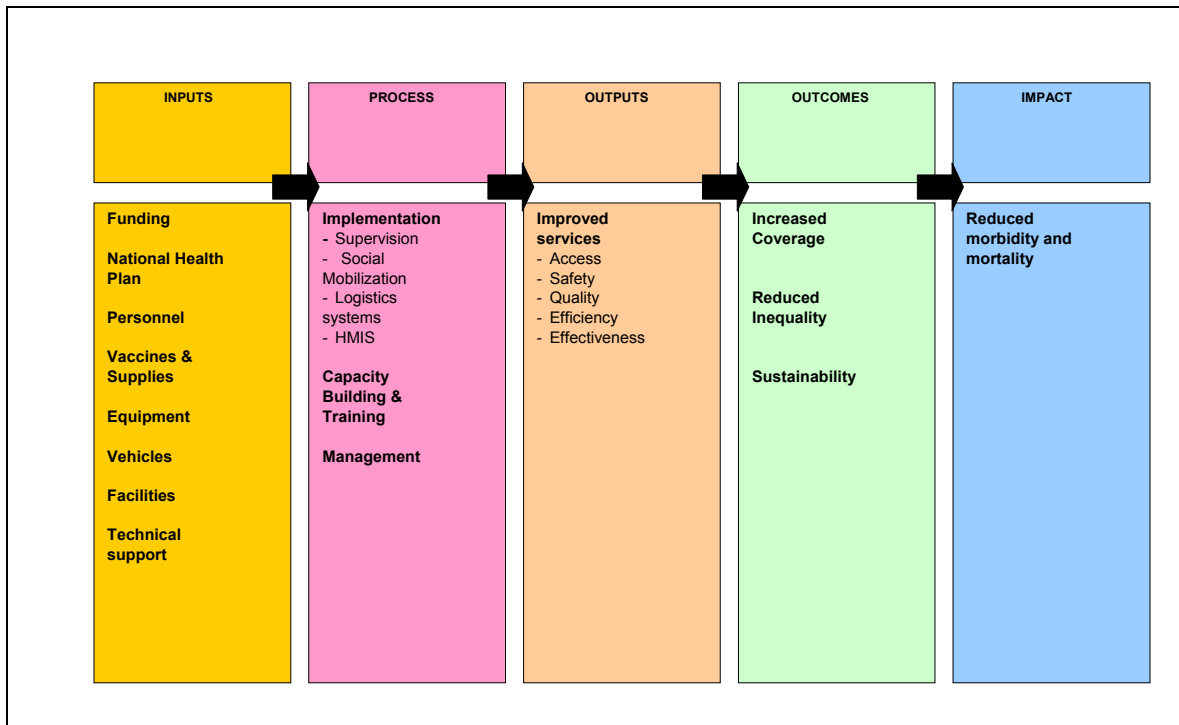
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<sup>4</sup> Bank HNP lending and sector work is classified by the task manager into one of the following primary themes: child health, health system performance, HIV/AIDS, injuries and non-communicable diseases, malaria, nutrition and food security, other communicable diseases, population and reproductive health, and tuberculosis. A project can also have secondary and tertiary themes, but these were not explored in the analysis.

There are several limitations to the approach taken in this review. First of all, for active projects, the documentation reviewed, such as PADs or PIDs, provides a description of the intentions of the project, but does not indicate whether the project was able to successfully implement the RBF mechanisms. Implementation Completion Reports (ICRs) reflect project evaluator’s assessments and interpretations. Also, it was not possible, given time and resource constraints to drill-down into the implementation details of each project, so that an in-depth analysis of Aides Memoires, mid-term reviews, ISRs, project correspondence, or Operating Manuals was not part of the approach. Additional details regarding implementation arrangement are likely to be found in these documents. Finally, reviewing only projects with health systems performance as the primary theme will miss some projects classified in other thematic areas. Therefore, the findings represent a conservative estimate of World Bank support to RBF in health.

The review of HNP projects focused on identifying RBF mechanisms that condition payments on achieving health outputs and outcomes (increased services provided, improved quality, increased coverage of programs, and changes in use of services). Changes in outputs and outcomes are a proxy to health impact. RBF mechanisms that link payment to outputs and outcomes place the financial incentive as close as possible to achievement of health impact, along the chain from inputs, processes, outputs, outcomes, and impact as depicted in Figure 2.

**Figure 2: Progression from Health Inputs to Health Impact** <sup>(15)</sup>



Source: Adapted from IHP+ [48].

## **Section 4: Summary of World Bank Activities in RBF**

This section reports is organized as follows: 1) summary of basic information for the sample of active and closed projects that have RBF activities; 2) summary of information on projects with ‘substantial support’ for RBF; 3) presentation of qualitative information on project design and implementation; and, 4) presentation on results achieved in a subsample of closed projects alone.

### **4.1 Basic Information on the Sample of HNP Projects Identified with Activities in RBF**

Of the 260 HNP projects with health sector performance as the primary theme, 40 contained RBF activities: 28 active projects (70%) and 12 closed projects (30%) in 29 countries (Table 2).<sup>5</sup> Details on these projects are found in Annex 2. Projects with an RBF focus accounted for 15% of HNP projects with health system performance as a primary theme: 19% of active and 11% of closed projects.

**Table 2: Description of HNP Projects with an RBF Element**

<b>Indicator</b>	<b>Active</b>	<b>Closed</b>	<b>Total</b>
Total HNP projects reviewed	148	112	260
HNP projects with an RBF element	28	12	40
Percent of HNP projects reviewed with an RBF element	19%	11%	15%
Countries with an HNP project with an RBF element	19	10	29
HNP projects with a substantial RBF element	17	7	24
Projects with a substantial RBF element as a percent of HNP projects reviewed	11%	6%	9%

Source: Authors calculations.

All World Bank regions, except MNA had HNP projects that supported RBF activities (Table 3). The LAC region had the most projects (15), followed by EAP (9), and AFR (8) and SAR (8). Projects with RBF elements are more recent in SAR, as all projects identified were in active status.

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<sup>5</sup> Estimates of numbers of Bank projects with RBF elements were based on the number of distinct project codes, even when projects are implemented in the same country in phases. For instance, the APL in Bolivia was counted as three distinct projects. Therefore, the number of countries with RBF mechanisms will be less than the number of projects.

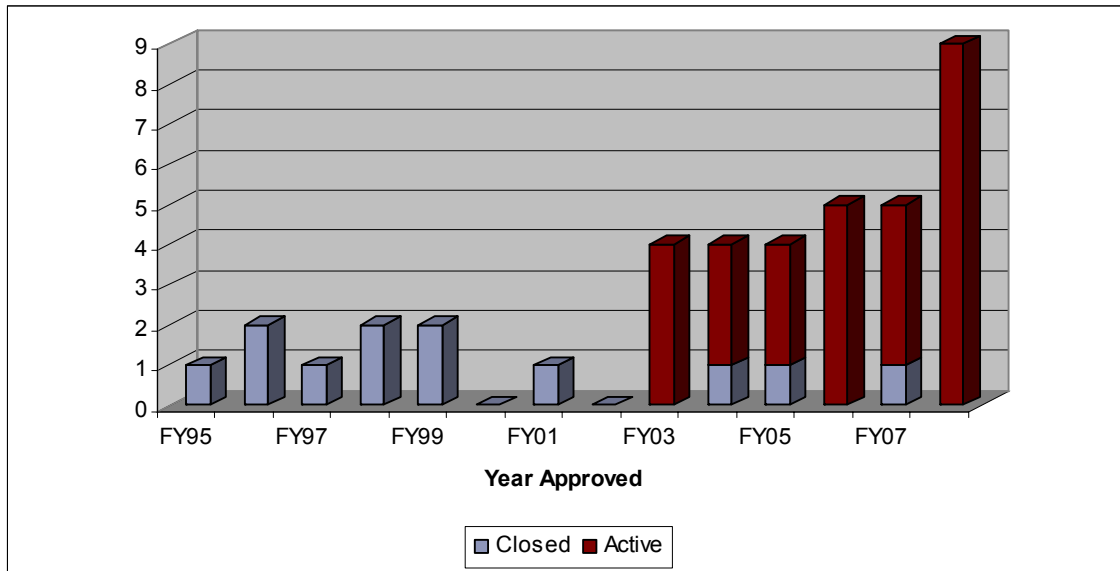
**Table 3: World Bank Projects with RBF Elements in Health (FY95-FY08)**

Region	Active	Closed	Total	Percent	Substantial RBF	Percent Substantial
AFR	7	1	8	20%	4	50%
EAP	7	2	9	22.5%	6	67%
ECA		2	2	5%	1	50%
LCR	6	7	13	32.5%	10	77%
MNA						
SAR	8	0	8	20%	3	37.5%
Total	28	12	40	100%	24	
Percent	70%	30%	100%		60%	

Source: Authors calculations.

Figure 3 shows that the number of HNP projects identified with an RBF element hovered between one and two approved by the World Bank Board per year between FY95 to FY01. Beginning in FY03, the number of projects identified jumped to four to five per year until FY08, when nine projects were approved. The upward trend in the number of active Bank operations with RBF elements began in 2003 with support to Cambodia, Afghanistan, Brazil, and Indonesia. No projects with an RBF focus were identified within the portfolio for FY00 or FY02.

**Figure 3: Evolution of World Bank Support to RBF in Health**



Source: Authors' calculations.

In the 40 HNP projects supporting RBF activities, there were a total of 90 different mechanisms identified in both active and closed HNP projects between FY95 and FY08 (Table 4). This represents 2.3 mechanisms per project. Among active projects, 64 mechanisms were identified; and among closed projects, 26 mechanisms identified. Trends in the most common type of mechanisms were similar in both groups.

The most common type of RBF mechanism was performance-based agreements between central and sub-national government entities (21% of mechanisms), followed by performance-based contracting of public facilities (18%) and performance based contracting of NGOs (16%). The LAC region had the largest number of RBF mechanisms (30 out of 64, or 33%), followed by SAR (22 mechanisms or 24% of total).

**Table 4: Range of RBF Mechanisms in Active and Closed HNP Projects (FY95-FY08)**

Region/ Type	AFR	EAP	ECA	LAC	SAR	Total	Percent
<b>Loan Disbursement Based on National Government Performance</b>	2	0	0	4	2	8	8.9%
<b>Performance Agreements with Sub-national Government Administrative Entities</b>	3	5	0	8	3	19	21.1%
<b>Performance Agreements with Insurance Entities</b>	1	0	1	5	0	7	7.8%
<b>Performance-based Agreements with Public Facilities</b>	4	1	2	7	2	16	17.8%
<b>Performance-based Agreements with Private Providers</b>	3	0	0	4	3	10	11.1%
<b>Performance-based Agreements with NGOs</b>	6	1	1	1	5	14	15.6%
<b>Performance-Based Health Worker Incentives</b>	1	3	0	0	2	6	6.7%
<b>Performance-based Agreements with Communities</b>	0	0	0	0	1	1	2.5%
<b>Vouchers and conditional cash payments</b>	1	3	0	0	1	5	12.5%
<b>Conditional cash transfer</b>	0	0	0	1	3	4	10.0%
<b>Total</b>	<b>21</b>	<b>13</b>	<b>4</b>	<b>30</b>	<b>22</b>	<b>90</b>	<b>100.0%</b>
<b>Percent of mechanisms</b>	23.3%	14.4%	4.4%	33.3%	24.4%	100.0%	

Source: Authors' calculations.

Nine different demand-side RBF mechanisms were identified: five voucher schemes and four projects that supported CCTs. On the other hand, performance-based health worker incentives were most often supported in operations in the EAP region. Only one project in South Asia included performance-based agreements with community-level workers.

Most projects supporting RBF activities provided monetary incentives (95%). Approximately 15% of projects also included non-monetary benefits, such as better housing, additional schooling, among others, as motivation for improving coverage and utilization of health services. Non-monetary benefits were part of RBF mechanisms in six projects (two in EAP and SAR, and one each in AFR and LCR).

In 48% of projects, RBF represented at least one component of the project. In one-third of cases, RBF encompassed the entire project. Piloting of approaches was also an important feature in 38% of projects. A few projects included study tours, workshops, or other exploratory exercises rather than full-fledged pilots of RBF mechanisms (Table 5).

**Table 5: Types of Incentives and Scope of RBF Activities in Identified Projects**

Region/ Characteristic	Monetary Incentives	In-kind Incentives	Entire Project	Project Component	Pilot Activities	Exploration and Studies
AFR	7	1	2	5	2	1
EAP	8	2		4	6	1
ECA	2			2	1	
LCR	13	1	8	3	3	2
SAR	8	2	2	5	3	2
Total	38	6	12	19	15	6
Percent	95%	15%	30%	48%	38%	15%

Source: Authors' calculations.

Table 6 shows that most Bank operations supporting RBF relied on investment lending (finance of goods, works, and services in support of development objectives). Nearly one-half (48%) of projects used Specific Investment Loans (SILs); 20% used Adjustable Program Loans (APLs)<sup>6</sup> or Sector Investment Management Loans (SIMs).<sup>7</sup> Emergency Relief Loans (ERLs) served as the basis for RBF projects in Afghanistan. The LAC Region made the greatest use of APLs, while the EAP Region made most use of SILs. Two projects (Rwanda and Argentina) relied on Development Policy Lending instruments (Poverty Reduction Strategy Credits, PRSC and SAD). These are a series of single-tranche operations that focus on policy and institutional reforms and capacity

<sup>6</sup> APLs provide phased support for long-term development, and involve a series of loans that build on the lessons learned from the previous loan(s) in the series. Subsequent loans are phased on the basis of satisfactory progress in meeting the defined milestones, benchmarks or triggers.

<sup>7</sup> SIMs focus on public expenditure programs and aim to bring expenditures, policies, and performance in line with a country's development priorities. They also focus on strengthening institutional capacity to plan, implement, and monitor an expenditure program.

building that allow for flexibility and adjustment to new information and changing circumstances during implementation.

**Table 6: Lending Instruments Used in World Bank HNP Projects with RBF Elements**

Region/ Type	SIL	SIM	APL	ERL	PRSC	Total
AFR	4	1	2		1	8
EAP	7	2				9
ECA	2					2
LCR	3	3	6		1	13
SAR	3	2		3		8
<b>Total</b>	<b>19</b>	<b>8</b>	<b>8</b>	<b>3</b>	<b>2</b>	<b>40</b>
Percent	47.5%	20.0%	20.0%	7.5%	5.0%	100.0%

Source: Authors' calculations.

The total value of active and closed projects supporting RBF activities during this period was \$3.79 billion: \$2.29 billion for active projects with RBF activities and \$1.5 billion for closed projects. IDA funding accounted for 68% of total project funding, but only 9% of project funding for the closed projects in the sample. This suggests that RBF activities for health are being utilized increasingly in poorer IDA countries.

Levels of financial support for RBF activities were extremely difficult to determine from the documents reviewed. Often, RBF activities were part of a component, and the costing of the component did not have a sufficient level of disaggregation to assign specific amounts to RBF. In other cases, performance-based funding might be one type of innovative financing mechanism to pilot among a range of other activities. Therefore, the historical level of support for RBF mechanisms within the Bank is still not known with certainty.

#### 4.2 Projects with Substantial Support to RBF Mechanisms

Of the 40 projects identified with RBF activities in the sample, 24 projects (17 active and 7 closed) in 19 countries provided 'substantial support' to RBF activities, either because RBF was the focus of the entire project or the project had several components related to RBF.<sup>8</sup> Annex 3 provides a description of these projects. The total value of this sub-

<sup>8</sup> These projects include: Cambodia Health Sector Support Project (P07052); Afghanistan Health Sector Emergency Rehabilitation (P078324); Brazil Bahia Health Development (P054119); Tanzania Health Sector Development II (P082335); Argentina Provincial Maternal and Child Health Investment Loan (P071025); Philippines Second Women's Health and Safe Motherhood (P079628); Burkina Faso Sector Support and AIDS Project (P093987); DR Congo Health Sector and Rehabilitation Support (P088751); India Karnataka Health Systems (P071160); Argentina Essential Public Health Functions (P090993); Uganda Reproductive Health Vouchers in Western Uganda (P104527); Lesotho GPOBA Health (P104403); Tanzania Health Sector Development II—Additional Financing (P105093); Cambodia Second Health Sector Support Project (P102284); Afghanistan Health (Supplement II) (P110658); Bolivia Expanding Access to Reduce Health Inequalities (P101206); Panama Health Equity Performance Improvement (P106445); Mexico Basic Health II (P007689); Armenia Health (P050140); Ecuador Health Services Modernization Project (P039084); Bolivia Health Reform APL I (P060392); Bolivia Health

sample of projects is \$2.4 billion, or 63% of the total value of the 40 projects initially identified.<sup>9</sup>

**Table 7: Mechanisms Identified in HNP Projects Providing Substantial Support to RBF (FY95-FY08)**

Region/ Type	AFR	EAP	ECA	LAC	SAR	Total	Percent
Loan Disbursement Based on National Government Performance	2	0	0	4	1	7	9.9%
Performance Agreements with Sub-national Government Administrative Entities	3	3	0	8	1	15	21.1%
Performance Agreements with Insurance Entities	3	0	1	5	0	7	9.9%
Performance-based Agreements with Public Facilities	1	1	1	6	1	12	16.9%
Performance-based Agreements with Private Providers	3	0	0	4	2	9	12.7%
Performance-based Agreements with NGOs	4	1	1	2	3	11	15.5%
Performance-Based Health Worker Incentives	2	1	0	0	2	5	7.0%
Performance-based Agreements with Communities	0	0	0	0	1	1	1.4%
Vouchers and conditional cash payments	1	1	0	0	0	2	2.8%
Conditional cash transfer	0	0	0	1	1	2	2.8%
<b>Total</b>	<b>19</b>	<b>7</b>	<b>3</b>	<b>30</b>	<b>12</b>	<b>71</b>	<b>100%</b>
<b>Percent of mechanisms</b>	26.8%	9.9%	4.2%	42.3%	16.9%	100.0%	

Source: Authors' calculations.

The types of RBF mechanisms supported in the sub-sample of substantial projects were similar to those of the original 40 projects identified, except there are fewer demand-side interventions (Table 7). There are more projects in AFR and LAC regions than there are in the full sample. Projects with substantial support to RBF accounted for 80% of total RBF mechanisms (71 out of 90). There was a greater number of RBF mechanisms used per project (3) in the sub-sample. Performance-based agreements with sub-national

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Reform APL II (P074212); Argentina Provincial Maternal-Child Health (P072637); Rwanda PRSC I DPL (P085192).

<sup>9</sup> Substantial support is not a reflection of funding for RBF as it was difficult to determine exact funding levels specifically for RBF (see Section 3).

government entities, public facilities, and NGOs were the most common type of RBF in the sub-sample.

A smaller proportion of projects in the sub-sample focused on monetary incentives (88% compared to 95% of projects in the full sample). A greater share of projects in the sub-sample was entirely focused on RBF (50% of projects versus 30%) and a much smaller share of projects were implementing pilot activities (17% compared to 38%). Table 8 illustrates these findings by region.

**Table 8: Types of Incentives and Scope of Activities in Projects with Substantial RBF Support**

Region/ Characteristic	Monetary Incentives	In-kind Incentives	Entire Project	Project Component	Pilot Activities	Exploration and Studies
AFR	6	1	2	5	1	0
EAP	3	1	0	3	1	0
ECA	1	0	0	1	0	0
LCR	8	1	8	2	0	0
SAR	3	1	2	1	2	1
Total	21	4	12	12	4	1
Percent	87.5%	16.7%	50%	50%	16.7%	4.2%

Source: Authors' calculations.

Finally, a greater proportion of projects in the sub-sample relied on APLs (29% compared to 20% in the full sample) and a smaller share used SIMs (Table 9).

**Table 9: Lending Instruments Used in World Bank HNP Projects with Substantial RBF Activities**

Region/ Type	SIL	SIM	APL	ERL	PRSC	Total
AFR	3	1	2	0	1	7
EAP	2	1	0	0	0	3
ECA	1	0	0	0	0	1
LCR	2	2	5	0	1	10
SAR	1	0	0	2	0	3
<b>Total</b>	<b>9</b>	<b>4</b>	<b>7</b>	<b>2</b>	<b>2</b>	<b>24</b>
Percent	37.5%	16.7%	29.2%	8.2%	8.2%	

Source: Authors' calculations.

### 4.3 Qualitative Findings in Projects Identified Supporting RBF

This section compares characteristics of the 40 projects supporting RBF activities, such as the rationale for pursuing an RBF, project objectives, beneficiaries, indicators and monitoring frameworks, evaluation approaches, and implementation issues.

*Rationale for pursuing an RBF for health:* Because RBF is only one mechanism for financing health services and for improving the performance of the health system, it is useful to identify the factors leading to a choice to pursue RBF strategies. However, in many cases, it was difficult to tease out separately the rationale for the RBF activity from the rationale for the project as a whole (Table 10).

**Table 10: Rationale for Pursuing RBF Strategies in Selected Countries**

Country/Project	Rationale for the RBF
Afghanistan	With the removal of the Taliban government at the end of 2001, the Afghan health system faced enormous challenges. Around 50% of children were malnourished, the under-5 mortality was 257, and the maternal mortality rate was 1,600. Poor physical infrastructure (13% of the population had access to safe drinking water and 12% had access to adequate sanitation facilities), poor health service quality and access to care (about one-third of health facilities had been damaged by war or earthquake and only about 30% of the facilities offered a comprehensive package of maternal and child health services) were contributing factors, as were poor accountability mechanisms.
Argentina	The RBF aimed to halt recent increases in the national rate of infant mortality and reduce the rate by 20% at the national level and by at least 30% in the participating northern provinces over a period of 10 years; and, change the dynamic of financing and providing health services at the provincial level.
DR Congo	Health-related MDGs are very poor. Under-five mortality (2002-06) was 148 per 1,000 live births, the prevalence of chronic malnutrition among under-five children is 45% and maternal mortality in 2001 was 1,289 per 100,000 live births. In many poor and rural areas, there are shortages of skilled workers due to the low purchasing power of the population. Performance-based contracts were developed to improve service provision and address some health worker issues.
Rwanda	To increase service delivery for the poor, performance based financing was introduced as a way to ensure quality of care, and a mechanism for overcoming some of the negative effects of obligatory pre-payment schemes on provider behavior; and as a way to motivate the underpaid workforce. At the time, Rwanda was not on track for achieving the health MDGs. Pilot schemes in two districts showed promising results.
Russian Federation	Health status of the Russian population is worsening (declines in life expectancy and IMR); and health resources highly skewed toward hospitals with limited preventive health services. Performance-based contracting with general practitioners for providing a basic package of health services was intended to mitigate these trends.

In active projects, RBF mechanisms were pursued to address the unacceptably high levels of infant, child and maternal morbidity and mortality, or under-nutrition (Argentina); to achieve greater efficiency and equity of the health system, and as a way to increase access and lower costs of services (Armenia); and to bring basic health services to the population, particularly in post-conflict settings. For instance, in Afghanistan and DR Congo, where government health services were weak or non-existent, performance-based contracting of NGOs was pursued. In Rwanda, also a post-conflict environment, NGOs piloted performance-based contracting mechanisms before they were scaled up into the current national program.

*Objectives of the projects to which the RBF activities belong:* The Project Development Objectives fell into two categories: 1) those projects supporting changes in health system outputs (improved access, utilization, or quality of care); and, 2) those focusing on achieving specific health outcomes, such as reducing infant mortality rates. Health systems outcomes featured more prominently as objectives (55%). For closed projects, objectives focusing on health systems outcomes were more prevalent (75%) than for active projects which focused more on health outcomes (54% of total) (Table 11).<sup>10</sup>

**Table 11: Objectives of Projects with RBF Activities**

Objectives	Active Projects (n=28)	Closed Projects (n=12)	Total (n=40)
Health systems outcomes	13 (46%)	9 (75%)	22 (55%)
Health outcomes	15 (54%)	3 (25%)	18 (45%)

Source: Authors' calculations.

*Beneficiaries:* Project beneficiaries, and by extension, beneficiaries of the RBF mechanisms, also varied in the sample. Many projects had a cascading design of multiple beneficiaries, such as MOH administrative levels, public and/or private health facilities, and health care workers. Households in a particular geographical area and poor households were beneficiaries in 48% of sample projects. Women and children were the focus of 38% of projects, and health care workers or clients the beneficiaries in 5% of projects. One project focused on HIV-positive individuals (Guinea). The focus on poorer households is slightly greater for the sample of active projects; while, the focus on mothers and children represented a greater share of closed projects (Table 12).

**Table 12: Beneficiaries of Projects with RBF Activities**

Beneficiaries	Active Projects (n=28)	Closed Projects (n=12)	Total (n=40)
Geographical area	13 (46%)	6 (50%)	19 (48%)
Health care workers/clients	1 (3.5%)	1 (8%)	2 (5%)
Poor households	15 (54%)	4 (33%)	19 (48%)
Women and Children	10 (36%)	5 (42%)	15 (38%)
Other	1 (3.5%) Population with HIV		1 (3%)

Source: Authors' calculations.

*Indicators used in monitoring the RBF mechanisms:* A comprehensive assessment of the appropriateness of indicators selected by each project as the basis for financial payments in the RBF was beyond the scope of this paper. In three projects (Uganda, Lesotho, and Nepal), indicators were not described in the project documents.

Performance indicators can be defined in a performance agreement between the payer and the recipient. Table 13 illustrates that projects which had both performance-based agreements between national and sub-national levels, as well as agreements between sub-national levels and providers focus on results related to the quantity, and quality of both preventive and curative services. The number of indicators ranged from six to ten, and

<sup>10</sup> These differences may also reflect changes in project policy guidance from OPCS over this period.

most focused on maternal or child health service outputs. Twenty-nine indicators were used in Afghanistan performance-based contracting scheme, while 185 indicators were employed in the Rwanda mechanism, including 10 HIV/AIDS service indicators. The specificity of indicators varied, with some indicators that included targets specifying age group and time frame (such as Apgar score within 5 minutes of birth). Indicators also varied by the manner in which they measured change (i.e., numerator data alone that counted numbers of visits, or numerator and denominator data that were used to estimate percent change).

**Table 13: Indicators Used in Selected World Bank Projects with Performance Agreements Between National, Sub-national Levels and Providers**

<b>Project</b>	<b>Tracer Conditions/Indicators for Payment</b>
Argentina Provincial and Maternal Health	9 Tracer conditions: number of deliveries of eligible women with ANC prior to 20 weeks; number of newborns with Apgar score of 6 after 5 minutes; number of newborns weighing > 2500 grams; number eligible pregnant women receiving VDRL and TT vaccine; number of auditing of maternal and newborn deaths; number of eligible children receiving measles vaccination; number of postpartum women receiving sexual health information; number of <1 children receiving all well-child visits; number of facilities serving Indigenous Population with Sanitary Agents.
DR Congo Health Sector Rehabilitation	6 Output indicators at facility level (process indicators not included here): No. of new consultations for curative care – 10% of total maximum payment No. of facility-based deliveries – 10% No. of patients referred to the hospital or referral Health Centre - 10% No. of pregnant woman vaccinated against tetanus toxoid (2-5) – 10% No. of children correctly treated for fever, diarrhea and ARI -10% Targets reached for all immunization objectives in the preceding month – 10%
India Karnataka Health Systems	9 Tracer Conditions turned into a service level index: % of safe deliveries; % institutional deliveries; % of mothers and newborns receiving postpartum visit from a trained health worker; % of children immunized; % of outpatient visits; % of inpatient attendances; malaria prevalence rate; % women receiving information on HIV/AIDS; % TB cure rate.
Bolivia Expanding Access to Reduce Inequalities	6 indicators: ratio of pregnant women in project areas receiving 4 ANC visits compared to country; ratio of % of institutional deliveries compared to rest of country; % of children receiving exclusive breastfeeding; % of children taller than -2Z scores; % of population enrolled in health insurance; health insurance reports generated by software system.
Panama Health Equity and Performance Improvement	Targets for 10 indicators for payment of 35% of incentive to health regions: % of pregnant women covered with 3 ANC visits; % of pregnant women enrolled in government program prior to 20 weeks; % pregnant women who receive complete vaccination; % pregnant women delivering with trained birth attendant; % of women >20 years with annual PAP smear; % children <1 covered with 4 development and growth monitoring visits; % children <1 with full vaccination; % children 1-4 with at least 2 development and growth monitoring visits; % of children 1-4 years fully vaccinated; % of TB patients covered by DOTS.
Afghanistan Health	Facility performance is measured using a Balanced Scorecard (BSC) of six domains (namely patients and community; staff; capacity for service provision; service provision; financial systems; overall vision) comprising 29 indicators. Facilities are rated on a scale of 0-100. The annual performance bonuses are paid on the basis of achieving quantity and quality targets within these six domains. The once-off bonus at the end of the contract period is paid on the basis of an index that adjusts the BSC measure by achievement of targets.
Rwanda PRSC	There are 185 composite indicators across 13 different services. For primary

	<p>health care, there are 14 indicators at the health center level and 10 HIV/AIDS indicators. Targets are negotiated on an annual basis with each facility from baseline values for indicators such as: Number of new cases (curative services); Number of new prenatal care patients; Number of women with 4 antenatal care (ANC) visits; Number of women who have received the 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, or 5<sup>th</sup> tetanus toxoid (TT) vaccination; Number of pregnant women receiving the 2<sup>nd</sup> dose of Sulfadoxine Pyimethamine; Number of at risk pregnant women referred to hospital before 9 months; Number of children 12-59 months visiting the health center for growth monitoring; Number of new family planning (FP) subscribers; Number of continuing FP users; Number of children completely vaccinated; Number of assisted deliveries at the health center; Number of children 0-59 months referred for severe malnutrition.</p>
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Source: Project documents; [44, 45, 49, 50].

The most common indicators relate to:

- Proportion or number of deliveries with a skilled birth attendant
- Immunization coverage (DTP3, TT, measles, or pentavalent3)
- Number of women receiving a specified number of antenatal care visits
- Number or percent of outpatient visits
- Number of children receiving required number of well-child visits
- Number of patients covered with DOTS (Directly Observable Treatment, Short course therapy)

*Monitoring and validation process:* Most projects intended to rely on changes in administrative statistics to measure progress in achieving output indicators. Except in a few cases, project documents did not provide enough information on how achievement of output indicators would be monitored and verified.

In Rwanda, the volume of services provided is assessed on a monthly basis, and a district hospital evaluates the quality of services provided on a quarterly basis using an assessment tool that measures 111 composite indicators. Hospital performance is assessed through peer review. In Afghanistan, an independent, 3<sup>rd</sup> party team carries out an annual health facility survey using a “Balanced Scorecard” to determine annual payments [49, 50, 51]. In DR Congo, the project management unit (PMU) conducts periodic independent data audits, including periodic surveys of beneficiary participation and satisfaction.

Several projects (such as India, Philippines, Cambodia, DR Congo, Afghanistan) included household coverage surveys either to assess client satisfaction or to validate administrative reporting of services delivered and estimated coverage achieved.

*Types of evaluations planned or conducted:* Given that RBF mechanisms represent an innovation in management and delivery of services, it is useful to compare the types of evaluations planned and/or undertaken in the sample of projects. The gold standard for project evaluations are true experiments, such as randomized controlled trials (RCTs), whereby geographical areas not included in the RBF intervention or ‘treatment’ areas serve as controls. RCTs have been conducted for CCT programs in several Latin American countries.

One-third of projects with RBF activities planned to conduct annual assessments of project performance based on reporting of project indicators. Pre-post evaluations were intended in 15% of the sample and impact evaluations were planned in less than one-third of the sample projects.<sup>11</sup> While 35% of projects had conducted or were planning to conduct a baseline study, not all of those translated into pre-post evaluations or impact evaluations (Table 14).<sup>12</sup> In the sample of projects, other types of evaluations included assessment of pilots in Russian Federation and Indonesia; lot quality sampling in Cambodia; poverty mapping in Philippines; expenditure tracking (Guinea); and third party evaluations (Afghanistan). Proxy means tests monitor the efficiency of targeting beneficiaries, particularly in those projects with a strong insurance component [44, 45].

**Table 14: Types of Evaluations Planned or Conducted in the Sample of Projects with RBF Activities**

Type of Evaluation	Active Projects (n=28)	Closed Projects (n=12)	Total (n=40)
Annual assessment of project performance	10 (36%)	3 (25%)	13 (33%)
Pre/post evaluation	5 (18%)	1 (8%)	6 (15%)
Baseline survey	14 (50%)	0	14 (35%)
Impact evaluation (randomized controlled trial)	8 (29%)	4 (33%)	12 (30%)
Other evaluations	6 (21%)	2 (17%)	8 (20%)

Source: Authors' calculations.

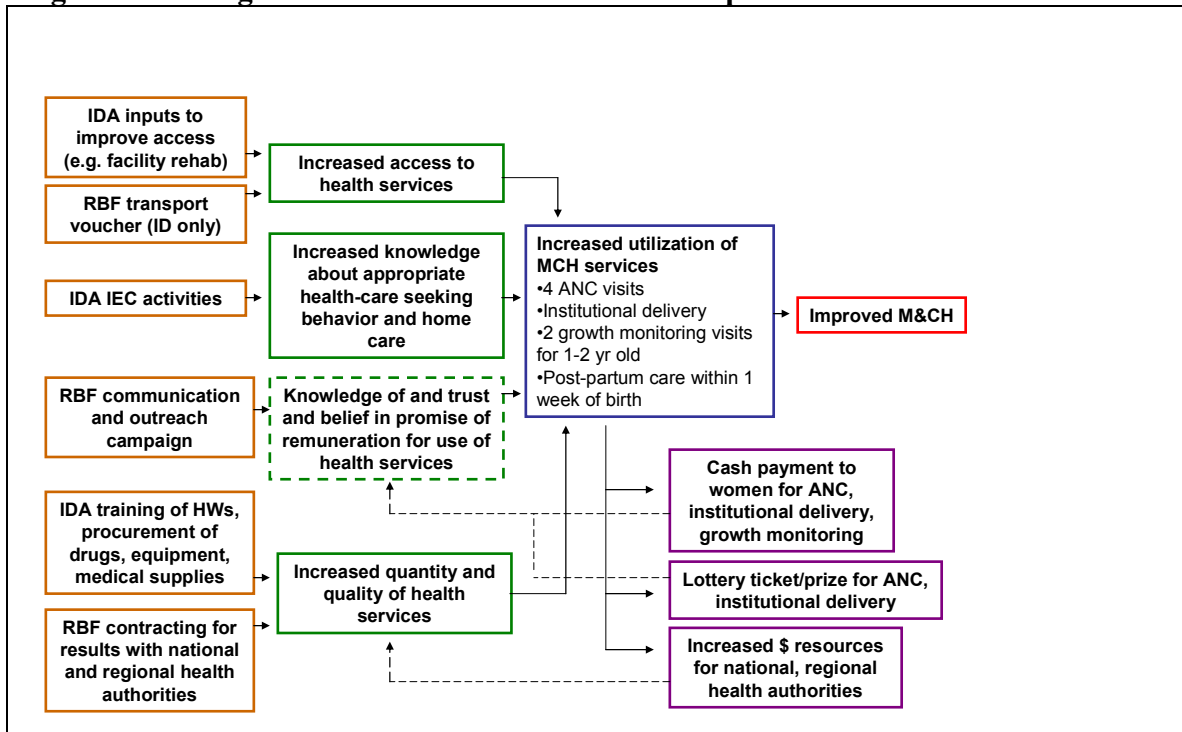
Measuring the impact of RBF mechanisms on health services and outcomes is challenging because of the complexity of the behavior change sought, differences in mechanisms, and environmental factors that may affect outcomes. Figure 4 illustrates the linkages between the RBF incentive and MCH outcomes in one country, and demonstrates how complex these pathways are and how difficult they will be to evaluate.

While thorough impact evaluations have not been routinely conducted for Bank-supported RBFs, randomized study designs may not be possible in all cases for ethical or other reasons. Other evaluation methods need to be developed to obtain the necessary learning and evidence needed. These findings suggest that the World Bank is not doing enough to evaluate and document the outcomes of investments.

<sup>11</sup> Impact evaluations were planned in Argentina, Indonesia, Bolivia and Rwanda (closed projects); and Argentina, Philippines, DR Congo, India, East Timor, Bolivia and Panama (active projects).

<sup>12</sup> In Rwanda, the baseline survey was added after Board approval and funded separately.

**Figure 4: Linkages between RBF Incentives and Improved MCH Outcomes**



*Amount of incentive and disbursement:* Several projects (such as Panama, Ecuador, and Argentina) undertook an in-depth cost analysis of a basic package of health services prior to the project to estimate the size of the capitation payment to be paid to providers upon verification of results. Average unit costs were estimated using input costs and expected use rates by the target population. Periodic disbursements of capitation payments from the World Bank to the country were usually made every three to four months. Disbursements were based on the total enrolled beneficiaries for the corresponding period and the average unit cost.

In these countries, performance agreements between central and regional levels were negotiated annually and included specific health output and outcome targets linked directly to delivery of the health services package. At the regional level providers, received capitation payments in two installments. The first installment (between 60 to 80 percent) was calculated based on certified numbers of beneficiaries and the average unit cost. The second installment (between 20 to 40 percent) was based on achievement of results by health care providers. Not every regional level provider received 100% of the second installment; some received a smaller percentage when targets were not met. To ensure accountability and transparency in the use of resources, two types of external concurrent audits were included. The first was a management and financial audit certifying that the list of beneficiaries was composed of eligible individuals from the target population. The second was a continuous system of spot checks to ensure that services were actually provided to the target populations; services for which the regional

health providers claim payments were actually delivered with agreed quality standards; and health targets were accomplished at the agreed-upon levels [43].

In these projects, capitation payments are based on the relative level of targets achieved. For instance, if a provider achieves 50 percent of targets, none of the remaining balance is paid. If a provider achieves 50-80 percent of targets, then 50% of the remaining balance is paid; if more than 80 percent of targets are achieved, 100% of the remaining funding is paid. To ensure that providers are fully operational, they usually receive full funding during an initial period before the performance-based financing starts.

Alternatively, other projects provide financial incentives on a fee-for-service basis, such as Guinea and Rwanda. In Rwanda, fee-for-service payments are made ranging from 100 Rwandan (\$0.18) for a new curative consultation to 3,750 Rwandan (\$6.87) for each new adult treated with antiretroviral drugs (ARVs). The level of fees was set in consultation with health workers and based on the relative level of effort. The annual performance bonus paid to NGOs in Afghanistan represented 1% of the contract value over the cost of delivering service. An additional 5% bonus can be rewarded for outstanding performance at the end of the contract period. Contracts with NGOs can be annulled if performance does not meet standards of quantity and quality.

In other contexts, the size of the financial incentive is related to geographical location. For instance, in India, the size of the incentive paid to women and health workers increases for rural areas and poorer states.

*Financing arrangements:* Project documents typically described overall financing arrangements for the project, but not necessarily for the specific RBF component or mechanism. More detailed information about how projects disbursed against results may have been available in the operations manuals for each projects, which were not reviewed for this paper. A common mechanism is to establish special accounts established at national and sub-national levels that are reimbursed on the basis of Statements of Expenditure. Usually, a several-month advance is made to sub-national levels in order to support service provision initially, so that forthcoming payments can be made upon achievement of results.

Because the level of performance is unknown at the beginning of the project, the exact size of transfers/disbursements from the Bank to the country is uncertain. Consequently, several Bank projects have built in a level of flexibility in the project budget through various line items to capture variability in potential size of incentive payments needed (i.e., through budget lines such as incremental operating costs or contingency, among others).

*Management and implementing agencies:* The Ministry of Health at national level was the main implementing agency in the sample of projects with RBF activities. In active projects, the regional or provincial department of health was engaged in 29% of these projects (Indonesia, Afghanistan, Argentina, Philippines, Bangladesh, Burkina Faso, Laos, and Argentina). District health offices were responsible for implementation in 11%

of active projects (Indonesia, DR Congo, and India). Inter-agency and multi-partner committees had implementing responsibilities in 29% of projects. In Rwanda, multiple levels of the health and administrative system are involved in the RBF: the President has a performance agreement with mayors (IMIHIGO); district health offices manage performance-based contracting with facilities (health centers and hospitals); and the national government has performance agreements with districts.

*Prospects for sustainability:* Compared to the description of other characteristics of the RBF mechanisms, the prospects for sustainability were not well analyzed or presented in the documents reviewed. For example, in most cases, sustainability was thought to be ensured simply because of the commitment of the Minister of Health or the national government. Ownership, use of country systems, as well as integration within the national policy framework was thought to ensure greater sustainability. Macroeconomic growth was linked to affordability of additional project costs.

For instance, performance-based contracting in Cambodia was primarily donor driven and supported, with little attention to long-term sustainability. Subsequent phases of this project are looking more closely into the issue of sustainability.

In a handful of projects, the incremental recurrent costs were compared with government budget. The project in Bolivia identified the need to discuss the fiscal and recurrent cost implications and the need for long-term financing options to be discussed with the government as part of the operation. In Mexico, incremental recurrent costs were estimated to reach \$77.5 million over five years to support additional staffing, incentives, drugs and other inputs. Recurrent costs were to be financed by the World Bank on a declining basis over the project period to ensure sustainability. For the Russian Federation, an increase in recurrent costs of 43% was expected as a result of expanding coverage. Economic growth rates and growth in the MOH budget were thought to be sufficient to cover these additional costs. The cost of delivering the basic package of health services through the performance-based contracting approach in Afghanistan was estimated to cost about \$4 per capita to implement [49].

#### 4.4 Results Achieved in Projects with RBF Activities

This section summarizes results reported in the Implementation Completion Reports (ICRs) for the full sample of closed projects with RBF activities (n=12). The findings reported in the ICRs are based on a review of administrative statistics, pre-post surveys, or special surveys, and interviews, and reflect achievements of the project, not just those pertaining to the RBF mechanism *per se*. Without the use of control groups, attribution of achievements in health service coverage, utilization, and quality of care as a result of project activities and investments is tenuous.

*Uruguay (P008161):* Evaluation of 10 public hospitals showed performance-based agreements achieved over 80% of objectives for institutional strengthening (compared to 31% at baseline). Savings of 8.5% were achieved in annual budgets, with pharmaceutical expenditures were reduced by 20% on average. Ambulatory visits increased 60%;

surgeries increased 10%; and, average length of stay (ALOS) declined by 20%. The average cost per consumer declined 19% from baseline levels.

In addition, performance-based contracting placed more emphasis on institutional responsibility and accountability, and was associated with a greater degree of autonomy and decentralization of accredited providers. Hospital directors gained new responsibilities for selecting personnel and transferring funds between line items. Greater accountability measures were undertaken for consumers (grievance officers, scheduled appointments, consumer satisfaction surveys, etc), and there was a shift toward computerization of information on beneficiaries. Purchasing and provision functions within the MoH also were separated.

*Mexico (P008814)*: The project was inextricably linked with *Progresa* (the CCT program). Services provided by the project were those that households needed to obtain to qualify for conditional cash transfers. Mexico was one of the first countries to adopt a cost-effective basic package of health care. The project successfully provided services to the poorest, and achieved 90% of target beneficiaries (9 million by 2001). Health care visits nearly doubled. States assumed their share of responsibility for financing, management, and delivery of services. Long-term institutional sustainability was assured through creation of new cadre of government-supported health workers. The project contributed to significant increases in use of services.

*Russian Federation (P039084)*: Implementation of output-driven cost conscious provider payment mechanisms was limited and the project time frame too short to see health results. Average length of stay declined and share of health expenditures for outpatient services increased. The GP performance bonus payment pilot was thought to be too complicated and it was not easily understood by GPs. There also was concern regarding the validity, reliability and administrative feasibility of monitoring and tracking indicators for payment.

*Armenia (P050140)*: The project achieved most outcome indicators. There was evidence of increased efficiency and reduced costs for patients under the new PHC model. Immunization rates and other impact indicators were maintained or increased during the project. A purchase-provider split was accomplished and facilities were successfully contracted. Selective contracting was thwarted by special interest groups. Communities became involved in decision-making and contributed to financing of PHC development. The project appears to have unintended consequences, as there was some evidence of informal and out-of-pocket payments because of underfunding of the health services and low reimbursement rates.

*Ecuador (P039084)*: At the end of the project, there was a 33% reduction in MMR; 34% reduction in IMR and 29% reduction in U5MR. Approximately 1.6 million benefited from the project. No provinces, however, had fully implemented organizational changes and restructuring, as originally envisioned by the project.

*Indonesia (P003967):* Staff incentive schemes were implemented very late in the project and were at embryonic stages. Voucher schemes for institutional deliveries and postpartum care were piloted. Support for pilots was weak among local government units, and scaling-up was unlikely.

*Bolivia APL1 (P060392):* The project succeeded in increasing municipal health participation and introducing reforms throughout the country. IMR dropped from 67 to 54/1000. The project exceeded targets each year in 6 out of 8 indicators. Overall, substantial progress was made in increasing coverage of health services. There were three innovations of the project: 1) Development Credit Agreement in which progress was measured against targets and benchmarks, with remedial action based on non-achievement of targets; 2) performance agreements based on targets with each of nine departments-- signed by MOH and regional health director and annually reviewed; 3) establishment of Seguro Basico de Salud (Basic Health Insurance- SBS) with a results-based focus.

*Argentina (P072637):* Financing of health services was targeted to the poor. The project reached 1.3 million children <2 with milk supplementation, 4.7 million children with immunization, more than 457,000 uninsured mothers and children (12,000 indigenous pop), 12,000 TB patients and 23,000 HIV patients with their respective treatments. A law on sexual rights and reproductive health (covering 1.9 million women) was established. 2000 health care providers signed performance agreements with provinces, and 1,100 were billing for services rendered. Declines in IMR were achieved over the 3-year period. Cost recovery was instituted in hospitals, a beneficiary database was created, discretionary subsidies eliminated, and risk adjustment accomplished. The incentive system was functioning in 22 out of 24 provinces. Enhanced coordination and collaboration between central and provincial levels was achieved. The Maternal Child Health Insurance Project was fully implemented with 78,400 beneficiaries enrolled, transforming the incentives structure of the health structure at the provincial level.

*Rwanda (P085192):* Successful performance-based schemes were rolled out nation-wide. *Mutelles* (community-based health insurance) were scaled up and coverage reached 75% of the population. Contraceptive prevalence increased from 7 to 28%, and assisted deliveries increased from 29 to 52%. Fertility is on the decline as is HIV prevalence, malaria incidence, and child mortality. Between 2005 and 2007, under-5 mortality declined from 198 to 103 per 1000 live births and immunization (DTP3) coverage increased from 83% to nearly 100%. Use of insecticide treated bed nets increased from 4% to 65%, and utilization rates from 0.4 to 0.7 per capita. While four closed projects planned an impact evaluation, only Rwanda has completed the evaluation [52].

*Indonesia (P036956):* Although the number of deliveries attended by trained health personnel increased, only 4 out of 10 districts achieved the 50% target increase level. The number of cases of obstetric complications was kept low. The targeted performance-based contracts (TPC) pilot was successful and has been studied extensively. 74% of poor women who received vouchers used them for skilled deliveries. However, contracted

midwives did not necessarily perform better with respect to indicators such as the number of ANC visits.

Between 2002 and 2007 in *Afghanistan*, the number of primary care facilities more than doubled from 496 to 1,169, and a female doctor, nurse or midwife was present in over 80% of these facilities. The number of outpatient visits increased to almost one visit per resident per year. Quality of care, measured through a Basic Scorecard improved by 32% between 2004 and 2007. Household surveys revealed a doubling of the rate of use of a skilled birth attendant at delivery, and a tripling of the contraceptive prevalence rate and the proportion of women receiving prenatal care. Under-5 mortality rate fell from 250 to 191 per 100,000 live births between 2002 and 2005 [48, 49].

## **Section 5: Lessons Learned and Implementation Challenges Gleaned from Closed HNP Projects with RBF Activities**

Bank lending in health to support RBF mechanisms has been highly varied both in the type and complexity of the mechanism, organizational arrangements, monitoring and evaluation, and the relative success and impact on health outcomes. This section discusses some of the implementation challenges and lessons learned that emerged from reviewing the ICRs of closed projects.

**Implementation challenges:** First, high turnover rates within the Ministry of Health, other government agencies, and the government itself adversely affected implementation of projects with RBF components in Ecuador, Bolivia, Argentina, and the Russian Federation. The macroeconomic recession and financial crisis in the 1990s also affected availability of counterpart funding for projects in Argentina, Indonesia, Armenia and the Russian Federation. Counterpart funding delays also occurred in Bolivia.

**Other challenges** included lack of coordination and clarity on roles and responsibilities of various institutions involved in implementing RBF mechanisms (Indonesia, and Uruguay), and weak district level capacity (Indonesia and Rwanda). Perverse incentives related to the RBF mechanism were identified in Armenia. Lack of a monitoring and evaluation framework hampered measurement of project results in Argentina and Russian Federation). Finally, unanticipated opposition from the private sector and government agencies delayed implementation in Argentina, Armenia, and Uruguay.

The main lessons learned from the review of 24 closed projects with RBF elements are the following. Annex 5 provides details.

**Political commitment and country ownership** are essential to good design, effective implementation, and sustainability. The shift to a results focus requires substantial changes in how ministries and health care providers relate to their work. High-level political commitment and ownership can facilitate and support these changes. Success in Rwanda with RBF is linked to the strong political commitment of the President, who has performance-based contracts with each individual mayor. Annual presidential review of progress with mayors has generated local government commitment to RBF. Armenia's provider payment reforms were linked to political commitment. In Mexico, the success of the project was attributed to the alignment of the reforms with the government's reform agenda. By contrast, in Russia, project ownership at federal level was hampered because capacity for key policy functions was weak. In Indonesia, lack of ownership at the provincial level was detrimental to project implementation.

**Involvement of all relevant stakeholders in the design** of the RBF scheme helps to mitigate resistance and facilitate understanding and communication of the mechanism. This is particularly so when changing the way health care providers or insurers are paid. In Armenia, involvement of local authorities, MOH and hospital management in both technical and political processes facilitated consensus building and significantly

increased ownership and cooperation. A good communications strategy is essential so that all relevant actors understand the incentive scheme and performance-based contracts.

Projects that are designed to increase utilization of health services are more effective when they are **complemented by support to improve the quality and quantity of services**. For instance, the project in Mexico was designed to enhance the provision of services through a supply-side component to the CCT (*Progresa*). Without this project, the supply of health services may not have been able to keep up with the increased demand created by the cash transfer; nor would demand have been sustained if quality health services were unavailable. In India, the voucher scheme has led to a massive increase in utilization of institutions for delivery, but in some areas, this demand may outstrip the ability of the health system to cope (personal communication). Panama plans to build on this lesson by ensuring adequate attention to improving the supply of services.

The starting point for the design of the RBF should be an **analysis of the current incentives** that exist in the health system and their relationship to health system performance, provision and utilization of services. In Indonesia, one of the main lessons learned was that the design of the mechanism did not build on existing incentives that existed already. The size of the financial incentive relative to current incentives and payments also needs to be considered carefully. In Uganda, the performance bonus was 11 percent of the base grant or between 5 to 7 percent of operating costs for Ugandan NGOs. The small size of the bonus incentive was thought to be one of the reasons why the RBF was unsuccessful in raising utilization of health services [38].

Several health projects with RBF schemes were facilitated by **complementary reforms**, such as decentralization and financial autonomy of health facilities for sub-national health authorities that established the necessary foundation for implementation. These reforms allowed for greater management control and impetus to change in response to financial incentives. The RBF scheme in Rwanda was facilitated by full-scale decentralization of the health system and autonomy of health centers which allowed the local hiring and firing of health workers. The RBF scheme also became the impetus for civil service reforms in that country.

On the other hand, reforms (decentralization), may pose challenges for mechanisms that rely on local government units (LGUs) to finance performance bonuses. In many cases, LGUs lack the capacity as purchaser of health care services through contracts, and the ability to evaluate and verify health information reporting.

**A focused and gradual approach** is a common lesson from the sample of closed project documents, as it appears useful for layering reforms and needed institutional requirements for creating the right environment. RBF schemes are not stand-alone, time-limited efforts, but require fine-tuning to strengthen design, implementation, and monitoring to ensure incentives work and to mitigate perverse effects. This may require a longer time-frame than the initial project period. For instance, the expansion of a results-oriented approach in Bolivia was achieved through several phases of an APL, with progress to the next phase contingent on achievements in prior phases. The development

of *Plan Nacer* in Argentina evolved from the Maternal and Child Health Insurance Program and efforts to strengthen the stewardship functions of the provincial health authorities. This is in contrast to the case of Afghanistan, where NGO contracting was put in place in a relatively short period of time in a conflict situation.

**Adequate organizational structures and institutional capacity are key** for RBF mechanisms to work well. The mechanisms require fundamental decisions on legal status, organizational arrangements, and governance structures before changes can be introduced. Provider management and accounting systems need to be strengthened, performance and quality standards established, and adequate provider reporting and information systems introduced to allow for appropriate performance monitoring and transparency. In Armenia, the project focused on technical aspects of the design (such as payment systems) at the expense of organizational and institutional aspects, such as governance and autonomy.

Piloting innovations such as RBF is often undertaken to see whether the mechanism works and has the desired impact. However, it is much easier to implement externally financed pilots at the local level, than to convince local governments to take up and sustain these initiatives after project completion (Indonesia). In some cases, **pilot efforts were not well-connected with the broader health sector context**, so translating the pilot into larger-scale efforts was challenging. In Russia, pilots were conducted but there was no scope to incorporate learning into project implementation.

On the other hand, the Rwanda national RBF program was based on combining characteristics of successful pilot projects from different parts of the country. The pilots were supported by different NGOs and each was interested to see its RBF mechanism replicated and scaled-up. A national workshop to examine each pilot in detail and to determine which elements to retain and how to design the national scheme was a critical, but challenging step.

**Adequate and appropriate monitoring and evaluation frameworks are critical for demonstrating results to stakeholders and for fostering sustainability.** Many early attempts at greater results-orientation in projects in the mid-1990s did not have adequate monitoring frameworks, nor did they include baseline data against which to measure changes in indicators linked to the RBF mechanism. In Indonesia, the absence of a carefully developed monitoring and evaluation framework seriously compromised project implementation, contributing to delays in crucial pilots and policy reforms.

**Selection of performance indicators is critical.** Indicators need to be relevant and attributable to the outcomes of interest, as well as measurable and verifiable. For instance, in Tanzania, weak monitoring and evaluation undermined the performance-based financing effort. In Burkina Faso, the HMIS system was weak and unable to provide needed information. In Russia, performance bonuses for general practitioners were based on 35-45 indicators, but the system for tracking these indicators was administratively cumbersome and complicated. Physicians did not understand the system, which hampered their behavioral response to the new performance incentives. Some

indicators also reflected outdated health care practices and should have been excluded. One of the major lessons from the APLs in Bolivia is the need for careful selection of a few indicators.

**Perverse incentives and gaming** will arise during implementation and steps need to be taken to mitigate these.<sup>13</sup> Perverse incentives occur in relation to the quantity and types of services provided, and the temptation to exaggerate or falsify reports to receive payment. First, if providers are paid on a fee-for-service basis, there will be a tendency to focus service provision on those services that result in payment at the possible expense of providing other needed services. Patients with conditions not covered in the RBF payment scheme may be referred to other providers or not treated. Quality of services provided also might suffer as the incentive is to provide greater quantity to increase the level of the financial reward. The ICRs for projects in Argentina and Armenia cited the possibility of gaming and corruption that needed to be addressed.

Because providers or sub-national governments usually receive payment based on their reports of services, there may be the tendency to exaggerate services provided to obtain higher rewards. **Independent validation of achievement** of indicators linked to performance-based contracts is necessary to mitigate gaming and perverse incentives to over-report. Validation can encompass the use of a 3<sup>rd</sup> party to assess reported statistics, household and patient surveys to document services delivered, and peer and community reviews on quality and quantity of services provided. In Argentina, validation of quantity and quality of services is achieved through an independent assessment using a Balanced Scorecard. In Panama, timely audit processes were needed to allow health networks to be more responsive to community' needs. Concurrent audits not only include a review records, but also involves spot checks to confirm services provided. Validation processes are stronger when they combine multiple sources of data.

**Evaluation of the impact of Bank project support to RBF has been lacking.** Only five projects included impact evaluation in their design and implementation. Despite the level of investment in RBF for health so far, there is insufficient evidence as to whether it has an impact on health systems or health status, and to what extent RBF represents a cost-effective approach to strengthening health system performance.

Results-based financing and a shift to a results-orientation requires **a change in the mindset of both Bank staff and borrowing countries.** Developing a results-based culture and orientation takes time and up-front policy dialogue, as well as capacity building on the ground. Borrowers and Bank staff are used to an input-based project orientation, and are governed by rules that reinforce input-monitoring. In Bolivia, the implementation of performance agreements has changed the logic of health sector interaction between the national level and departments, and the results-based focus has started to replace the traditional sector emphasis on inputs. Focusing on results also changes the nature of project supervision: policy dialogue around project outcomes can become more interesting and rewarding to Ministry of Health and Ministry of Finance officials.

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<sup>13</sup> For a useful discussion on perverse incentives and gaming in RBF, please see Eichler and Levine (2009).

## **Section 6: Conclusions and Recommendations**

This paper reports the findings of a review of 260 HNP active and closed projects with primary theme of health systems performance approved by the Bank Board between FY95 and FY08. A total of 40 projects were identified that included RBF activities for health, encompassing entire projects, project components and pilot activities. Among these projects, 24 of them appeared to provide substantial support to RBF for health (17 active projects and 7 closed projects). World Bank support for RBF has evolved and increased over time from one project per year in FY95 approved to nine projects with RBF focus approved in 2008.

RBF mechanisms supported by the World Bank have been implemented in a range of countries, from high- to low-income settings and fragile states. Performance-based contracting of NGOs in Rwanda, DR Congo, Afghanistan, and Cambodia suggests that this approach is a feasible option for achieving health results in conflict and post-conflict situations when government ministries have weakened capacity and government health services have been destroyed or are minimal in remote areas.

The World Bank HNP sector has supported performance-based mechanisms and pilots to increase quantity and quality of services delivered, and less on the demand-side to incentivize households and household members to seek specific services.

In addition to the lessons learned for the design and implementation of RBF mechanisms discussed in the previous section, the main conclusions for the World Bank from this review are the following:

1. The World Bank has supported results-oriented operations in health for nearly 20 years. The level of support has increased in recent years, and is expected to rise with the Health Results Innovation Grant funded by the Government of Norway.
2. There have been some missed opportunities to do more in the way of RBF in project design. Projects that contract with NGOs could add a performance element, and projects that support improved budgeting and expenditure management might consider tying transfers more closely to achievement of results.
3. Evaluation of projects with RBF elements has been weak. Although project documents suggest that projects with RBF activities have increased utilization, strengthened service provision and quality of care, increased enrollment of beneficiaries, and enhanced the overall institutional and policy framework, the lack of robust impact evaluation has prevented the Bank from contributing to the evidence base on RBF in any significant way to date.

4. Most RBF mechanisms require resources not only to finance the additional incentives, but also to set up the accompanying systems required for successful implementation, such as management and health information systems. Design of RBF mechanisms needs to take sustainability more seriously and reflect how the cost of these schemes will be integrated within national plans and budgets.
5. None of the projects with RBF mechanisms examined the cost-effectiveness of the intervention relative to other types of strategies that could strengthen health sector performance and achieve health outcomes, particularly for MDGs 4 and 5. Future analysis is encouraged to build up the evidence base and to support further investment in RBF.
6. Few projects documented possible gaming or perverse incentives created by the RBF mechanisms (with the exception of a few projects in Argentina, Armenia, and the Russian Federation). Additional attention needs to be paid in the future to documenting unanticipated results and quickly putting in place mitigating measures.
7. The 2007 HNP Strategy encouraged Bank financing for well-evaluated pilot efforts of output- and performance-based financing in HNP projects and programs. The 2007 Strategy estimated a baseline of four active RBF projects in FY06 and proposed a target of at least 14 active projects by FY2010. Current trends in World Bank support for RBF mechanisms in health should achieve or exceed the 2010 target proposed in the Strategy.

The following actions are recommended:

1. Additional support needs to be provided to Bank operations staff in developing adequate monitoring frameworks for RBF components or projects. This support could include, but is not limited to staff training, development of guidelines, and technical exchanges. Alternative and innovative approaches to obtaining robust results on health impact and health system performance need to be further explored. All RBF projects or pilots should have baseline estimates of indicators.
2. Consideration needs to be given as to whether RBF projects and components have an adequate national and sub-national commitment and ownership, relevant poverty focus, appropriate indicators, feasible mechanisms for disbursing against results, required institutional frameworks and capacities, and adequate evaluation strategies during quality enhancement reviews. A checklist could be developed as a guide.

3. The design process for RBF mechanisms and pilots need to involve all relevant stakeholders and to build their capacity in RBF principles in order to improve understanding and success of the mechanism.
4. Additional focus and documentation of possible unintended and unanticipated consequences on quality of care and access of the population to services, and perverse incentives for providers and consumers, is warranted in future RBF projects.
5. The design of RBF mechanisms needs to reflect how these schemes will be sustained financially as Bank support declines over time. At a minimum, the cost of the RBF mechanism, both during and after the project period, needs to be assessed as part of project design to estimate the incremental recurrent costs and fiscal impact of the incentive scheme.
6. Tools and approaches for evaluating the cost-effectiveness of RBF mechanisms, and for identifying and assessing unintended consequences of performance-based incentives need to be developed.
7. Capacity building on design, implementation, monitoring aspects of RBF mechanisms needs to continue, perhaps through cross-country exchanges. The Global Development Learning Network may be a useful platform for this.
8. More effective ways of prospective tracking and monitoring characteristics of Bank HNP projects that have RBF elements need to be developed. This could include developing approaches for monitoring funding allocations to RBF components and mechanisms in Bank projects. A further review of reproductive health and nutrition projects would help identify additional RBF projects.
9. An informal Bank-wide community of practice for RBF in health could be established to foster greater cross-regional sharing of experiences. Bank staff needs to be engaged in a discussion about how to operationalize disbursing against results. Priorities for strengthening design and implementation of projects also should be identified. Findings from this report should be disseminated within the World Bank and posted on the Results-Based Financing website.

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## Annex 1: RBF for Health and Provider Payment

An important goal of the health system is to assure the right incentives for providers. Provider payment mechanisms belong to a class of strategies that has been used to improve health system performance for many years in developed and developing countries. The objective of these incentive payments to providers is to improve the quality, affect the quantity and type of services provided, increase access to target populations, reduce the cost and improve the efficiency of service delivery. By altering how providers are paid, a portion of the risk of non-performance is shifted from the payer to the provider (Schneider, 2008; Langenbrunner, et al, 2004). RBF mechanisms on the supply-side are a type of provider payment mechanism.

Provider payments are categorized as either prospective or retrospective. Prospective payments are a set amount established before services are provided, such as capitated or case-based payments (Barnum, Kutzin, and Saxenian 1995). Retrospective payments, typically referred to as fee-for-service payments, are made after the services have been provided.

Table A.1 compares selected provider payment mechanisms according to how performance is measured; the type of output or result expected; and potential consequences of the payment mechanism and ways of mitigating them.

**Table A1: Selected Provider Payment Options**<sup>14</sup>

<b>Modality</b>	<b>Performance Measure</b>	<b>Result or Outcomes Achieved</b>	<b>Consequences</b>	<b>Possible Response</b>
<b>Salary</b>	None-salary paid regardless of service provision	Uncertain number and quality of services provided	If salary is too low or salary payments delayed, could result in shirking, absenteeism, under-the-table payments to providers	Change the way providers are paid
<b>Capitation</b>	Number of persons covered (could be risk adjusted) but paid regardless of service provision	Uncertain number and quality of services provided but may increase cost efficiency, access of the population, particularly the poor, focus on cost-effective care, and social protection	Declines in types of care provided to save costs; cream-skimming; increase referrals outside area	Risk adjusted payments; defined benefits packages; shift to fund-holding status by providers; contracting
<b>Fee-for-Service (FFS)</b>	Units of output (visits, tests, surgeries, tests, etc.)	Increased access to care; increased productivity; increased provision of cost-effective services	Potential negative effect on quality of care; overprovision/over-consumption of care; incentives to over-report services provided; higher administrative costs; increased cost of care	Cap overall payments made per provider; instigate co-payments for consumers; quality reviews
<b>Target based payments</b>	Quality and quantity of service provided relative to target	Increased focus on health outcomes; increased access to care	Exclusive focus on targeted services at the expense of other services; decreased quality of care; incentives to over- or mis-	Random audits of performance; verification of reporting; redefinition of targets

<sup>14</sup> Other provider payment mechanisms include case-based approaches, such as Diagnostic Related Groups, or through global budgets. See Langenbrunner and Liu (2004) for further discussion.

Adapted from Schneider, 2007; Langenbrunner, et al. 2004.

Payment of inputs, including salaries, is not tied to provision of services and is not performance-based. Health workers can be highly productive or provide no health services and still receive their salary.<sup>15</sup> While salary remuneration has the advantage of predictability and relatively low administrative cost, low salary levels without additional financial or non-financial incentives may contribute to shirking, absenteeism, and under-the-table payments.

Capitation payments are made for provision of a specified package of health services for a pre-defined population. Because the total amount given to a provider is capped, this mechanism helps to control health care costs. Capitation also shifts the financial risk to the provider, as cost over-runs for treatment will be paid by the provider. The incentive effect is heavily dependent on the package of services for which the provider is at risk. This mechanism creates an incentive to treat less costly cases and refer patients elsewhere in order to save costs. Risk-adjustment mechanisms, penalties and bonuses, and full as opposed to partial capitation are ways to mitigate such perverse incentives.

Fee-for-service (FFS) rewards providers for the number of services of a specified type they provide (usually adjusted for quality) within a time frame. FFS requires that the individual's contribution to production is separable, measureable and standardized. While it is easy to understand, and can lead to substantial increases in productivity and access to services by the poor, studies suggest that FFS is associated with lower efficiency, higher costs, loss of quality (Schneider, 2007; Liu and Mills, 2007; Langenbrunner and Liu, 2004) and perverse incentives to over-report achievements. Validation, auditing, and quality control become important aspects of implementing FFS payments in RBFs. In some RBF mechanisms, the FFS payment is in addition to regular budget or salaries, as a bonus payment.

Target payments are an all-or-nothing payment made to providers when all targets are achieved, and can be additional to budgets or salaries. Part of the budget might be withheld pending achievement of targets which provide additional incentives for service provision. On the downside, exclusive focus on targets creates an incentive not to address other health services, and strategies such as random audits or shifting targets need to be introduced to overcome this tendency.

Thirteen health operations in the ECA region focused on prospective provider payment reforms other than FFS to improve health system performance. Other regions were also supporting these other types of provider payment reforms (non-RBF according to our definition).

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<sup>15</sup> Assuming hiring and firing of health workers is not based on performance.

## Annex 2.1 Closed Projects with RBF or Incentive Elements (FY95-08)

Country	Proj ID	Year Approved	Project Title	Docs Reviewed	TTL	Lending Instrument	Lend Ins Type	Total Lending or Grant
Uruguay	P008161	FY95	UY-HEALTH SECTOR DEVELOPMENT	ICR, SAR	URIBE	SIL	Investment	28.00
Argentina	P006030	FY96	AR-Prov. Health Sector Development	ICR, SAR	GIRALDO	SIM	Investment	101.40
Mexico	P007689	FY96	MX: BASIC HEALTH II	ICR, SAR	MARQUEZ	SIM	Investment	310.00
Russian Federation	P008814	FY97	HEALTH REFORM PILOT	ICR, SAR	LANGENBRUNNER	SIL	Investment	66.00
Armenia	P050140	FY98	HEALTH	ICR, SAR	PALU	SIL	Investment	10.00
Ecuador	P039084	FY98	EC- HEALTH SERVICES MODERNIZATION PROJ.	ICR, PAD	BORTMAN	SIM	Investment	45.00
Indonesia	P003967	FY99	ID-FIFTH HEALTH PROJECT	ICR, PAD	MARZOEKI	SIL	Investment	44.70
Bolivia	P060392	FY99	BO- HEALTH REFORM-APL I	ICR, PAD	URIBE	APL	Investment	25.00
Bolivia	P074212	FY01	BO-Health Sector Reform APL II	PAD (ICR Pending)	BORTMAN	APL	Investment	35.00
Argentina	P072637	FY04	AR-Prov. Maternal-Child Hlth Adj PMCHSAL	ICR	GOMEZ-MEZA	SAD	Dev Pol Lend	750.00
Rwanda	P085192	FY05	RW-PRSC 1 DPL (FY05)	ICR	SOUCAT	PRC	Dev Pol Lend	65.00
Indonesia	P036956	FY07	Safe Motherhood Program	ICR	MARZOEKI	SIL	Investment	42.50

### Annex 2.2: Active Projects with RBF or Incentive Elements (FY95-08)

Country	Proj ID	Yr Approved	Project Title	Docs Reviewed	TL	Lending Instrument	Total Lending or Grants
Indonesia	P073772	FY03	ID-Health Workforce & Services (PHP 3)	PAD	MARZOEKI	SIL	105.60
Cambodia	P070542	FY03	KH-Health Sector Support Project	PAD	PALU	SIM	27.00
Afghanistan	P078324	FY03	Afghanistan Health Sector Emergency Reha	PID; Memo and Recommendation of the President; Technical Annex	CAPOBIANCO	ERL	59.60
Brazil	P054119	FY03	BR BAHIA DEVT(HEALTH)	PAD	LAVADENZ	APL	60.00
Tanzania	P082335	FY04	TZ-Health Sector Development II (FY04)	PAD	HAAZEN	APL	65.00
India	P050655	FY04	RAJASTHAN HEALTH SYSTEMS DEVELOPMENT	PAD	KUDESIA	SIL	89.00
Argentina	P071025	FY04	AR-Provincial Maternal-Child Hlth Inv Ln	PAD	CORTEZ	3 Phase APL	135.80
Guinea	P065126	FY05	GN-Health Sec Supt SIL (FY05)	PAD	MAGAZI	SIL	25.00
Philippines	P079628	FY05	PH-2ND WOMEN'S HEALTH & SAFE MOTHERHOOD	PAD	JOHNSTON	SIL	16.00
Bangladesh	P074841	FY05	HNP Sector Program	PAD	NAIR	SIM	300.00
Burkina Faso	P093987	FY06	BF Health Sector Sup. & AIDS Proj (FY06)	PAD	SUBAYI-CUPPEN	SIM	47.70
Congo, Democratic Republic of	P088751	FY06	DRC-Health Sec Rehab Supt (FY06)	PAD	MULLEN	SIL	150.00
Lao People's Democratic Republic	P074027	FY06	LA-Health Services Improvement Project	PAD	LINDELOW	SIL	15.00

Philippines	P075464	FY06	PH-NP Support for HNP	PAD	JOHNSTON	SIM	110.00
Afghanistan	P098358	FY06	Afghanistan Health (supplement)	PID	CAPOBIANCO	ERL	30.00
India	P071160	FY07	Karnataka Health Systems	PAD	BELLI	SIL	141.83
India	P075060	FY07	Reproductive and Child Health Second Phase	PAD	RAJAN	SIL	360.00
Argentina	P090993	FY07	AR-Essential Public Health Functions	PAD	LAVADENZ	SIL	220.00
Uganda	p104527	FY07	Reproductive Health Vouchers in Western Uganda	PID	OKWERO, P.	SIL	6.00
Lesotho	P104403	FY08	GPOBA W3 - Lesotho Health	PID	ZHAO	SIL	6.25
Tanzania	P105093	FY08	TZ-Health Sector Dev II - Add Fin (FY08)	PID	HAAZEN	APL	60.00
Cambodia	P102284	FY08	KH-Second Health Sector Support Program	PAD	PALU	SIL	110.00
Timor-Leste	P104794	FY08	TP-Health Sector Strategic Plan Support	PAD	JOHNSTON	SIL	1.00
Afghanistan	P110658	FY08	Afghanistan Health (supplement II)	PID	CAPOBIANCO	ERL	20.00
Nepal	P110731	FY08	NP - Health Sector Additional Financing	PID	VOERTBERG	SIM	50.00
Bolivia	P101206	FY08	BO-Exp. Access to Reduc Hlth Ineq (APL3)	PID	BORTMAN	APL	18.50
Brazil	P083997	FY08	BR Alto Solimoes Basic Services and Sust	PAD	GAMBRILL	APL	24.25
Panama	P106445	FY08	PA Hlth Equity & Performance Improvement	PAD	MONTENEGRO TORRES	SIL	40.00

### Annex 3: Description of HNP Projects with Substantial RBF Effort (FY95-08)

Country	Proj ID	Status	Yr Approved	Project Title	Project Development Objective	Description of Type of RBF Mechanisms/Elements
Cambodia	P070542	Active	FY03	KH-Health Sector Support Project	Improve health status of the population by increasing accessibility and quality, and assisting the government to implement its national health plan, including management of resources.	Performance-based contracting & incentives to improve quality of services; support to expansion of previous pilots; use of Health Management Agreements (HMAs). Accreditation of providers.
Afghanistan	P078324		FY03	Afghanistan Health Sector Emergency Reha	Reduce child and maternal mortality and morbidity, child malnutrition and fertility through expanding delivery of a basic package of health services and improving equity of service delivery (capacity building and stewardship functions of the MOH).	Performance-based partnership agreements (PPAs) with NGOs selected through a competitive bidding process. 3-year contract for the bid amount + 10% payment upon improvements in service delivery. Evaluation of performance through regular assessments and balanced score card. Agreements also with provincial level to implement BPHS with possibility of bonus incentives permitted if consistent with government decrees. Seven PPAs selected on basis of quality and cost-based selection (QCBS). Implemented in the seven underserved provinces.
Brazil	P054119	Active	FY03	BR BAHIA DEVT(HEALTH)	Improve access of the poor to basic health care services as measured by 10 performance indicators that measure coverage and quality of health interventions with most impact on mortality and morbidity; reduce inequities in allocation and improve efficiency and quality of services.	APL1 will improve the operations of the Performance Agreements with municipalities and strengthen the system of municipal incentives for basic care. APL2 will consolidate and expand on use of performance agreements. 50% of Pactos must achieve 80% of target/tracer indicators. PACTOS are based on capitation-based payments based in achievement of targets, with the possibility of sanctions (not receiving payment) if targets not met. Project emphasizes capacity building for data collection & measurement, verification, and auditing functions as well as accreditation of providers.
Tanzania	P082335	Active	FY04	TZ-Health Sector Development II (FY04)	To achieve improvements in the provision of quality health services through continuing to support the reforms, capacity development, and improved management of resources while focusing on quality.	APL1: District level block grants based on achievement of performance targets (30% of districts); APL2: financial and non-monetary incentives for health workers; extension of block grants
Argentina	P071025	Active	FY04	AR-Provincial Maternal-Child Hlth Inv Ln	Halt increases in national IMR rates by focusing on MCH services in the poorest provinces; and change the operational culture by implementing an incentive based framework	Scaling up of the Maternal and Child Health Insurance Program (MCHIP) and implemented in 9 of the poorest provinces of northern Argentina. Enrollment in MCHIP is voluntary for children <6, pregnant women, and new mothers. Provinces to agree on Nomenclador of respective service prices. Capitation payments made to participating provinces (those meeting requirements of participation) by MSN, adjusted for achievement of 10 tracer conditions. Capitation based on average cost of providing a basic package of health services (CPB). Performance contracts from the provincial level to authorized public and private providers made on an annual basis through negotiated agreements on levels of targets.

Philippines	P079628	Active	FY05	PH-2ND WOMEN'S HEALTH & SAFE MOTHERHOOD	Demonstrating a sustainable, cost-effective model for safe motherhood services for poor households	Piloting of performance-based grants for delivery of an integrated women's and safe motherhood package of services. Performance-based grants will include payments to the Women's Health Team (WHT) attending facility-based deliveries by poor women, and a matching grant to LGUs that meet their targets for enrollment in PhilHealth's Sponsored Program, and grants for LGUs that undertake contraceptive procurement. Operating rules described in the PIP. Payment to the WHT covers women's transport costs and costs of providing services.
Burkina Faso	P093987	Active	FY06	BF Health Sector Sup. & AIDS Proj (FY06)	To support national health and HIV/AIDS policies to accelerate progress toward achievement of the MDGs	MOU signed between the government, partners and the AIDS Council on pooling of resources; the National AIDS council to enter into performance-based contracts with ministries, regions, districts, public and NGO providers with agreed targets and monitoring indicators. PB contracting for HSSMAP part of decentralization process. Incentives for provision of key services will be strengthened through piloting of output-based payments.
Congo, Democratic Republic of	P088751	Active	FY06	DRC-Health Sec Rehab Supt (FY06)	Ensure the target population of selected zones have access to and utilize a well-defined package of quality health services.	MOH finances performance-based partnerships between NGOs (Implementing Partners) and service providers (public, NGO, and private) in 10 districts or 83 health zones to provide Essential Health Services (MCH, HIV/AIDS, other disease control) according to norms and standards provided by the MoH. Package can be provided \$2-3/capita annually. Implementing partners are NGOs and they do not provide services directly. Independent external evaluation agency will be contracted to measure the performance of the IPs on the basis of pre-determined indicators. Bonus payments to IPs will be tied to performance and the funds can be used in any way by the IPs in consultation with the community and providers.
India	P071160	Active	FY07	Karnataka Health Systems	Increase use of essential health services (preventive, curative, and public health) in poor and underserved areas to accelerate achievement of the MDGs	Results-based approach in the Dept FW; tracer conditions; identify objectively verifiable outputs and outcomes to monitor, and progressively link incremental financing to improvements in performance, thus strengthening accountability. Districts must submit Service Improvement Plans to receive funding over a 3-phase process. In Phase 2, if a district does not achieve level of performance expected, they need to state how they will do better. In Phase 3 only those districts that have satisfactory performance will receive funding. Non-performing districts will be required to take corrective actions in order to funding to be received. Zilla panchayats make the determination of satisfactory performance. Innovative funds (Service Improvement Challenge Fund- SICF) can be used to generate financial and non-monetary incentives to physicians for working with the government in remote areas. New, performance-based contracting to providers of PHC services in remote areas.

Argentina	P090993	Active	FY07	AR-Essential Public Health Functions	Increase coverage of prioritized 10 priority public health programs; reduce population exposure to risk factors; and improve stewardship function of the government. Supports Argentina's Federal Health Plan in reduction of morbidity and mortality.	Disbursements under Components 2 & 3 are results and performance-based. Component 2: loan disbursement for financing of medical supplies at the national level would be performance-based, with the amount disbursed linked to progress to strengthen information systems on procurement in the provinces. Component 3 piggy-backs onto Plan Nacer structure. MSN provides financing to the provinces for operating costs (based on aggregated unit costs for public health functions). MSN to have Annual Performance Agreements on each key intermediate indicator (4) with each of the provinces. If after two years an indicator is not met by the province, it would trigger a 25% reduction in allocation-- not meeting all 4 indicators would result in no further transfers from MSN for public health function activities. A total of 45 Public Health Activities are included in the package and their unit cost is the average non-wage cost based on norms.
Uganda	p104527	Active	FY07	Reproductive Health Vouchers in Western Uganda	To improve mother and child health and effectively treat STIs	Selling vouchers for safe delivery and treatment of STIs to the poor target group for a nominal price. Builds on a current KfW pilot program. Holders of vouchers are entitled to ANC and PNC as well as an attended birth by a professional. Emergency obstetric care is included in the package of services provided. The project works with a number of certified providers including private providers and NGOs. Project to provide 170,000 safe motherhood vouchers, and 100,000 vouchers for treatment of STIs. Project will sell vouchers to poor women at a nominal price.
Lesotho	P104403	Active	FY08	GPOBA W3 - Lesotho Health	To assist the new referral hospital (PPP) to increase the access, range and quality of services; increase the value of spending on these services; and leverage private sector expertise.	The hospital will serve 50,000 population. Design, construction and operation of a greenfield hospital and 2 filter clinics for 15 years. Payment to the hospital will be based on delivery of services, tied to volume and quality.
Tanzania	P105093	Active	FY08	TZ-Health Sector Dev II - Add Fin (FY08)	Support to GoT's national strategic plan for health for an additional two years with additional financing to expand reforms and systems/ capacity development for better management of resources and quality improvements.	Extension of earlier project for 2 more years: focus on improving service contracts with NGOs and employing incentives for staff motivation. At regional level, includes performance audits and quality assurance program.
Cambodia	P102284	Active	FY08	KH-Second Health Sector Support Program	Support the government's strategic health plan (2008-2015) to improve health outcomes through strengthened institutional capacity by which government and DPs can achieve more efficient and effective sector performance.	Phasing in of Service Delivery Grants from provincial to health centers and hospitals in operating districts (contracting-in) will replace contracting out with NGOs. Technical and financial performance will be verified by independent teams. Contracts will be established on the basis of service delivery costs. Performance Agreements exist between MoH and Provincial Health Departments. In transitioning from NGO to public sector contracting, performance incentives expected for staff. Merit-based performance incentive scheme is a performance-based employment incentive for health workers: salary incentives based on performance evaluation. Community-based performance assessment of HCs. Support to a results-based culture.

Afghanistan	P110658	Active	FY08	Afghanistan Health (supplement II)	Reduce rate of infant, child, and maternal mortality; improve stewardship of the MOH; and strengthen capacity of Afghan workers to better provide and manage health services.	Extend current contracting with PPAs and MOH-SM delivery models to learn from them. In Helmand region, CCT program to households for well-child visits, and for mothers to deliver in a facility. A performance-based incentive scheme for CHWs. Performance grants to 12 NGOs selected through a competitive and transparent process. MOH-SM delivery includes payment of health workers at similar rates as NGO employees; competition from NGOs set a standard; slightly higher financing than NGOs; assistance with procurement; and, management support.
Bolivia	P101206	Active	FY08	BO-Exp. Access to Reduc Hlth Ineq (APL3)	Reduce critical risk factors affecting child and maternal health; reduce chronic malnutrition; increase insurance coverage; introduce a new incentive environment for providers and networks of providers; upgrade the national HMIS.	Nationwide; 166 poorest municipalities; 6 peri-urban areas. New incentive environment: conditional transfers to GOB/MSD where the amount of the disbursement depends upon achievement of results/indicators. Performance agreements between MSD Direction of Planning, departments and large municipalities. PAs involve a set of indicators carefully defined; matrices developed to consolidate data on indicators; workshops held to explain indicators and their verification; departments establish internal mechanisms to meet these indicators. SBS system of financing. An additional payment of \$2 per enrollee if all indicators satisfied.
Panama	P106445	Active	FY08	PA Hlth Equity & Performance Improvement	Improve access of targeted underserved areas to quality MCH services, and support development of planning, regulatory, and monitoring mechanisms known to improve health systems performance.	Financing of capitation payments on a declining basis. Loan proceeds for capitation payment is against a list of certifiable enrollees (to the MOH). The MOH would then disburse capitation payments to health regions adjusted on the basis of achievement of agreed-upon targets. An initial payment would be made to regions to define beneficiaries and to provide services. Verification through concurrent medical audits. Package of services includes preventive, curative, and health education and promotion.
Mexico	P007689	Closed	FY96	MX: BASIC HEALTH II	Support equitable access to a cost-effective package of quality basic health services for the poor and uninsured; decentralization of technical, managerial, and financial responsibilities to the States; modernization and restructuring of the central health ministry (SSA).	Health services required by Progres a were supported by this project; Policy studies on incentives to improve quality and productivity of health care workers;
Armenia	P050140	Closed	FY98	HEALTH	Support implementation of the governments health and primary care reform program: improve efficiency, transparency, and targeting of public health spending by introducing performance based provider payment methods	Support the Government's health finance reform by shifting from input-based to performance-based payments of health care providers, including separation of provision and financing based on a basic package of health services. Piloting of performance contracts between PHCDP and Facility Management Board (involving communities in management and financing of agreements). Facilities that meet benchmarks will be eligible for second tranche of financing to support recurrent costs (5%). Expected to cover 70 facilities. Operational Manual on details. The State Health Agency (a quasi-autonomous public body will be established and be responsible for implementing a performance-based contracting system between health care purchasers and providers. Design and testing of alternative performance-payment mechanisms. A basic benefits package was

						defined and a financial management system put in place.
Ecuador	P039084	Closed	FY98	EC- HEALTH SERVICES MODERNIZATION PROJ.	To build on FASBASE to improve access, efficiency, and quality of ambulatory and hospital MCH services by developing new health care organization, financing and managerial models in selected provinces and municipalities.	Performance agreements with public and private providers for delivering program of essential health care services. Demonstration in 10 provinces and 8 hospitals. Provincial or municipal health boards responsible for integrating public and private providers into a network operating under performance agreements for delivery of essential health services (RH/MCH, nutrition) to population group. Contracts to specify type, frequency of services, quality, prices and other aspects. Hospital modernization would include creation of incentives and a new payment mechanism based on outputs.
Bolivia	P060392	Closed	FY99	BO- HEALTH REFORM- APL I	APL1: To reduce infant and child mortality by complementing other activities in education, rural development, and water and sanitation. To increase coverage and quality of health services to improve the health status of the population.	Performance contracts with districts that quantify targets, assign specific responsibility for achieving those targets, and assign resources to achieve those targets. The project emphasizes a results-oriented approach during project implementation by setting out annual targets for 8 performance indicators designed to measure the outcomes of key interventions to achieve reductions in infant and child mortality. In 1999, the MOH signed annual performance agreements with each of Bolivia's nine regional department heads that are monitored semi-annually. Transfers to municipalities made for health.
Bolivia	P074212	Closed	FY01	BO-Health Sector Reform APL II	APL2: To reduce infant and child mortality by complementing other activities in education, rural development, and water and sanitation. To increase coverage and quality of health services to improve the health status of the population.	Continues second phase of APL in a results-oriented approach - expanding geographically with special efforts launched in underserved areas. The Basic Health Insurance Program would expand its benefits package to provide greater coverage of services to the poor; new forms of delivery of care using indigent agents; Performance agreements would be made with larger municipalities as well. New vaccines would be nation-wide and fully financed by the government. Pilot focusing on mother and children expanded to national level, focusing on interventions to reduce perinatal mortality. Performance Agreements are signed by the Minister of Health, the Regional Health Director, and donors working in project areas. SBS is financed by a municipal set-aside of 6.4% of central government transfers. Facilities keep track of 75 (expanding to 92) services provided to patients who are outside of formal insurance systems. They are reimbursed for these services. Program is managed by the MOH.

Argentina	P072637	Closed	FY04	AR-Prov. Maternal-Child Hlth Adj PMCHSAL	To respond to the urgent needs of the poor, particularly uninsured mothers and children, while simultaneously assisting the Government to modify the incentive framework for financing and delivery of health services.	Introduced a federal-provincial financing arrangement that was results-focused, as well as performance contracting of health care providers (start of Plan Nacer) through Maternal and Child Health Insurance Program (MCHIP). Financing is increasingly linked to results. Eligible provinces had to sign performance agreements with the national government in order to participate. Innovative federal-provincial financing would link to local providers of services based on achievement of targets.
Rwanda	P085192	Closed	FY05	RW-PRSC 1 DPL (FY05)	Implement key policy actions specified in the PRSP: Improving quality, equity, and coverage of basic health services to achieve the MDGs.	PRSC1- Pilot performance-based contracting of health facilities (Butare and Cyangugu) with donor funding; make provisions for transferring 50% of cost to the 2005 budget; increase DTP3 coverage to 80% . PRSC2-Conducted comparative evaluation of the pilots and expanded pilots to other areas; ensure the 2006 budget covers 75% of the cost. PRSC-3- seek endorsement of comparative review and scale-up performance-based contracting to at least 3 additional provinces with an impact evaluation nested within the scale-up. Performance-based budgeting through the MTEF sector budgets. Block grants based on needs and on performance so that performance grants were bonuses that could be used by health facilities as needed. Many used them for salary supplements and improving quality of services.

#### **Annex 4: Future Support to the World Bank for RBF: The Health Results Innovation Trust Fund (TF)**

The level of RBF activities and projects in HNP in the Bank are expected to increase with the support of a multi-donor trust fund focusing on RBF for health. The Government of Norway is the first donor to contribute to this trust fund with an NOK 586 million grant (US\$ 95 million) for the period 2008-2013. The Trust Fund has three objectives: 1) support selected governments to design and implement a sustainable RBF mechanism; 2) increase learning and sharing of country and global knowledge about RBF through monitoring, rigorous impact evaluation of RBF programs, and broad dissemination of information via workshops, case studies, Web sites and other channels; and, 3) explore the feasibility and value of an “IDA-friendly financing platform” that links a focused health trust fund to broader IDA operations.

RBF trust fund grants are linked to existing or new IDA operations. This results in two major positive features: the grant is managed within the Bank’s operational framework, which includes management oversight and rigorous design and implementation support; and grants can leverage additional IDA funds for health. Overall, the \$55 million in grants funding allocated through the Trust Fund in CY08 resulted in approximately \$30-50 million in additional IDA allocations for HNP.

A total of eight pilot projects have been selected to be supported by the Health Results Innovation TF (Afghanistan, Benin, DR Congo, Eritrea, Ghana, Kyrgyz Republic, Rwanda, and Zambia). Each pilot will include monitoring activities and up to \$1 million for rigorous impact evaluation and cost-effectiveness assessments to provide governments and development partners with real-time information and needed evidence on the impact of the RBF on health outputs and outcomes. An Evaluation Network of experts will support these evaluation efforts.

### Annex 5: Lessons Learned from a Review of Closed HNP Projects

Main Lessons Learned	Countries (Closed Projects)
Government commitment at national and sub-national levels and country ownership are critical to changing toward a results-orientation	Uruguay, Argentina, Ecuador, Indonesia, Mexico
Provincial level reforms require provincial level government commitments. It is not enough to have national commitment to reforms in these cases.	Argentina
Design of the RBF needs to be simple, focused, flexible, and easy to communicate and understand. Some projects were too optimistic in what could be achieved through reforms and orientation towards results within the project timeframe.	Uruguay, Argentina, Armenia, Russian Federation, Indonesia, Bolivia, Rwanda, Mexico
Objectives of the RBF should be linked to the national health policy framework	Uruguay, Argentina, Ecuador, Mexico
Capacity to implement reforms can be limited. Because of institutional capacity constraints and complexity of reforms, a gradual approach to developing and strengthening a results orientation is useful. Capacity for purchasing health services needs to be strengthened at national and sub-national levels. Benchmarking of progress is useful.	Uruguay, Argentina, Armenia, Indonesia, Bolivia, Rwanda, Indonesia, Ecuador
A crisis may be a golden opportunity for reforms.	Argentina, Rwanda, Afghanistan
Pilot studies on RBF should be linked to the larger health and investment program so that results can be incorporated and scaled-up if merited	Uruguay, Argentina, Russian Federation
It is insufficient to focus only on increasing the quantity of services provided through RBF mechanisms—there also needs to be a focus on improving the quality of these services. Quality of care reforms require multi-pronged approaches.	Russian Federation, Ecuador
Design of institutional aspects more important than technical aspects in an RBF. Important not to have too many agencies involved in implementation to improve feasibility and to have clarity in roles and responsibilities.	Armenia, Indonesia, Ecuador
RBF mechanisms are strengthened when there is increased decentralized decision-making, including to the community level	Ecuador, Bolivia
Monitoring and evaluation of the RBF is critical. There needs to be early discussion and agreement of indicators against which payment of incentives will be based.	Ecuador, Bolivia, Indonesia
Incorporation of both supply- and demand-side mechanisms can strengthen the success of the project.	Indonesia
Good governance is a pre-requisite for successful design and implementation of an RBF mechanism	Rwanda
Cultural barriers need to be overcome in design	Bolivia
Gaming needs to be addressed. Validity, reliability and monitoring of indicators is critical.	Argentina, Russian Federation, Armenia
Time frame for achieving results needs to be sufficiently long and might require more than one project.	Russian Federation, Armenia
RBF mechanisms need to focus both on purchasing of services through contracting, as well as improving accountability of providers.	Armenia
The financial incentive needs to be large enough to make a difference and to change behavior.	Armenia, Uganda

Source: Authors' calculations