Thinking Strategically About Monitoring Health Results-Based Financing (RBF) Schemes: Core Questions and Other Practical Considerations

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The focus of this paper is the continuous monitoring and documentation of RBF scheme implementation and the outputs produced. A forthcoming paper will discuss evaluation and the prospects and challenges of measuring key population- and facility-based outcomes (such as improvements in coverage with high impact interventions, quality of care, and health promoting behavior change) and long-term results (such as infant, child, and maternal mortality reduction).

Results-based financing (RBF) encompasses a range of financial and non-monetary incentives targeted to providers, payers, or consumers conditional on their taking one or several measurable, health-promoting actions. In some countries, governments have signed performance-based contracts or agreements with health care teams or health workers, whereby additional funding or bonuses are paid after achieving and/or exceeding predetermined service delivery targets of specified quality. In other countries, governments have transferred incentive payments to insurance entities based on their achievement of enrollment targets. Consumers who have used specific health services or have adhered to treatment regimens can also benefit from incentive payments, as has been the case most frequently in Latin America. Finally, incentives have been used to improve the performance of national managers and supervisors, district and provincial health management teams, health centers and hospitals, and community service organizations.

To be effective, RBF schemes must be grounded in sound design. Detailed guidance on the strategic and tactical steps in designing RBF schemes is available elsewhere (Eichler, Levine et al., 2009; Eichler and De, 2008). RBF schemes face numerous implementation challenges, both institutional (Brenzel et al., 2009) and technical (Oxman and Fretheim, 2008), and they must identify and mitigate a number of potential pitfalls (Eichler, Levine, et al., 2009; Meessen et al., 2007). Finally, more evidence is needed on the potential of RBF to accelerate progress toward reaching the health Millennium Development Goals (MDGs)(Eichler, Levine, et al., 2009).

To generate this evidence, RBF schemes require systematic monitoring and documentation of scheme design and implementation, as well as rigorous evaluation of effects. According to a recent review of RBF mechanisms within the World Bank's Health, Nutrition and Population portfolio (fiscal years 1995 through 2008), none of the projects adequately documented implementation processes and evaluation was deficient (Brenzel et al., 2009). The increasing visibility and promise of RBF to speed progress towards MDGs 4 and 5 (Eichler, Levine, et al., 2009), combined with interest in scaling up successful experiences, necessitate expanded attention to and more concerted efforts in monitoring and evaluation.

Overview

Following an operational definition of monitoring that will be applied throughout and a brief description of the multiple purposes of monitoring, this paper proposes three core questions around which to build a practical monitoring and docu-

mentation strategy. The value of monitoring for evaluation, the importance of developing and using a simple monitoring plan, and the challenges in executing the plan, are then discussed. The paper concludes with a discussion of three complementary areas of investigation that are either included within the broad scope of monitoring, or which find themselves at the intersection between monitoring and evaluation of RBF schemes.

Definition of Monitoring

In this paper, the following definition of monitoring will be used: "The systematic collection of information on a program's inputs, activities, and outputs, as well as the program's context and other key characteristics" (Centers for Disease Control and Prevention, 2008). This description of the mechanics and functioning of a program over time is also commonly referred to as "process evaluation." Monitoring or process evaluation should be an integral component of the overall evaluation of any RBF scheme.

Purpose of Monitoring

Continuous monitoring and documentation of RBF scheme implementation serves multiple purposes. Monitoring identifies operational and other problems that can be addressed by corrective actions early in implementation. Monitoring also serves to keep government officials and development partners regularly informed of progress toward objectives. Monitoring information provides the needed context for better interpretation and understanding of evaluation findings, particularly if intended effects are not achieved. Finally, by providing rich description of the mechanics of RBF implementation—inputs, activities and outputs—and the context in which this unfolds, monitoring helps answer the question of why such schemes succeed or fail. This information is critical when assessing the extent to which such schemes can be replicated in different settings, and in responding to requests for detailed information about how to implement them.

Core Monitoring Questions

A large amount of information could be collected through monitoring. It is important, therefore, to be strategic. Designers of RBF schemes should try to distinguish between essential and complementary information to guide the choice of indicators, methods to be used, and budget decisions. Three core questions around which a practical strategy can be built are proposed here. Complementary areas of investigation commonly included within the broad scope of monitoring, or which find themselves at the intersection of monitoring and evaluation for RBF, are described later in the paper.

Core monitoring questions: Inputs? Activities? Outputs?

- *Q1: What pre-implementation resources were secured and decisions or actions taken to facilitate implementation?* **[Inputs]**
- *Q2. What activities were undertaken to facilitate service use and delivery, and what were the facilitating and constraining factors encountered in executing these activities?* **[Activities]**
- *Q3. To what extent were the services linked to performance targets used and delivered, the accuracy of reporting verified, and financial or non-monetary incentives provided and received as planned?* **[Outputs]**

Each question will be discussed briefly in turn.

Q1: WHAT PRE-IMPLEMENTATION RESOURCES WERE SECURED AND DECISIONS OR ACTIONS TAKEN TO FACILITATE IMPLEMENTATION? [INPUTS]

The monitoring and documentation strategy should be sufficiently robust to capture the nature, amount, and timeliness of the various resources that the RBF scheme mobilized, as well as the kinds of decisions and actions taken to facilitate implementation, including, if possible, their associated costs. Although "paying for results" is at the center of RBF schemes, experience has shown that many will require some up-front investment in inputs. Furthermore, these inputs are not necessarily limited to the funds, staffing, and other material resources that are normally required to ensure that there will be an adequate supply of quality health services to meet demand.

For example, successful implementation of an RBF scheme may require some *a priori* modification of existing laws, regulations, and/or health policies and procedures. In many cases, health officials will be called upon, some for the first time, to develop and sign performance agreements, quasi-contracts, and contracts (Loevinsohn, 2008). The current data collection, recording, analysis, and reporting system (HMIS) may need to be upgraded to produce credible reports that will be used to transfer financial and non-monetary incentives. Financial management procedures may need to be reviewed and revised. Budgets must be developed and funds secured. Some schemes may require that health facilities open local bank accounts. Input indicators measure the various resources that were invested in the scheme.

...current data collection, recording, analysis, and reporting systems may need to be upgraded…

Q2. WHAT ACTIVITIES WERE UNDERTAKEN TO FACILITATE SERVICE USE AND DELIVERY, AND WHAT WERE THE FACILITATING AND CONSTRAINING FACTORS ENCOUNTERED IN EXECUTING THESE ACTIVITIES? [ACTIVITIES]

Performance agreements or contracts should specify the actual events that will need to occur to achieve the desired outputs. The monitoring strategy should collect information on whether and to what extent these intended activities, often summarized in work plans with timelines, have been implemented as planned, as well as document any facilitating and constraining factors. Implementing a performance agreement may require a range of activities.

For instance, a thorough orientation for health workers about what to expect from their participation in this scheme, including potential rewards and sanctions, is essential. Health workers also may require additional or special training and supervision. Information, education and communication (IEC) activities, as well as outreach efforts, are often carried out in communities and households to increase demand for services. In some schemes, transport subsidies are provided to women to help them overcome obstacles to accessing services. The nature and extent of technical assistance provided, from both internal and external sources, should also be documented.

In addition, RBF schemes can generate innovative, often improvised solutions to obstacles that impede service provision and use. These actions may be simple, low-cost efforts undertaken at the point of service delivery or in households and communities. Although usually unpredictable, and therefore not specified in performance agreements or contracts, attention to their documentation will provide much needed clarity about the true nature of the intervention that was applied to achieve outputs.

Q3. TO WHAT EXTENT WERE THE SERVICES LINKED TO PERFORMANCE TARGETS USED AND DELIVERED, THE ACCURACY OF REPORTING VERIFIED, AND FINANCIAL OR NON-FINANCIAL INCENTIVES PROVIDED AND RECEIVED AS PLANNED? [OUTPUTS]

Outputs are the direct products of the scheme's activities. The credibility of RBF schemes depends upon high quality, reliable, and valid information on services provided and used (i.e., outputs), as specified in performance agreements or contracts, and whether timely disbursement of payments was made to the right beneficiaries, for the right reason, at the

right time. At a minimum, this information must be collected by every scheme. Factors that may have enhanced or impeded achievement of these outputs also should be documented.

Under RBF schemes, financial payments and non-monetary incentives are given contingent on verifiable delivery of targeted services or achievement of targets for pre-determined output indicators as specified in performance agreements or contracts. These outputs may include a range of nutritional, child health, maternal, and newborn services, particularly in schemes that are focusing on MDGs 4 and 5. Outputs may also include explicit, expected changes in health system functioning.

Many schemes that have defined service delivery indicators, either alone or in combination with indicators of health system changes, rely on administrative service data generated and recorded at the point of service delivery, and eventually entered into the health management information system (HMIS) through routine reporting to higher levels of the health system. One advantage of relying on the routine HMIS is that it may help to spur improvements in the system, particularly when financial and technical support are provided to obtain these improvements.

…the limitations of routine administrative data on services are well known…

At the same time, the limitations of routine administrative data on services are well known (Gething et al., 2006). Furthermore, the introduction of financial and non-monetary incentives to increase service use and quality may result in perverse incentives to over-report. To address this problem, the reliability of reporting in these schemes is usually verified before payments are released, although this is not always the case.

Ideally, verification is a two-step process, which includes 1) assessing the reliability or consistency of reporting, and 2) confirming or validating that services were actually delivered and received, usually through household and patient spot checks or more formal surveys. Where verification has been implemented, it has almost always included the first step, which usually involves some kind of periodic, independent audit, often conducted on a random basis by one or several third-party entities, internal and/or external to the health system. Audits usually assess the consistency of reported data, within and from the point of service delivery, to different levels in the health system, particularly in cascade schemes that include beneficiaries at different levels.

The second step, validation, is more complicated and can be expensive. It has occurred less frequently in past and current RBF schemes (Brenzel et al., 2009).

At present, definitive best practice for ensuring the reliability of reporting in these schemes remains elusive. A recent data quality audit experience of a major results-based donor-to-government aid scheme that was applied in numerous countries (Ronveaux, 2005) underscores the challenges in getting even the first step right. In support of its performance-based strategy of rewarding eligible countries with $20 for each additional child vaccinated, GAVI instituted the *Data Quality Audit* or "DQA." The DQA is a tool for independently assessing the proportion of nationally reported 3rd dose diphtheria-tetanus-pertussis (DTP3) vaccine administered that could be verified by written documentation at health facilities and districts. Two independent companies conducted twenty-five country audits during 2002–2003. In sixteen of these, the proportion of confirmed doses administered was less than 85%. Moderate over-reporting (confirmation rates of 70%–84%) was documented in seven of these sixteen audits, while substantial over-reporting (confirmation rates of < 70%) was documented in nine. More work is needed to identify and document good practice in results verification. The World Bank is hoping to carry out such a review beginning in the Fall of 2009.

RBF monitoring systems also must be able to report whether beneficiaries received regular, timely, and appropriate payments. When payments are not made in a timely fashion or in the amount intended, the credibility of the RBF scheme, which is grounded in the intimate link between performance and incentives, may be at risk. RBF schemes

may incorporate sanctions, such as withholding a portion of payments, when achievements are not reached at the level intended. In cases of "gaming" or fraud, further sanctions may be taken, such as removing providers from the scheme or suspending beneficiaries. These difficult decisions must be based on high quality monitoring information. A summary of each step in the monitoring process as reflected in the three core questions, and the relationship between monitoring and evaluation, are presented in Figure 1.

The Value of Monitoring for Evaluation

In an environment where an impact evaluation is incorporated into an RBF program roll-out, evaluation design decisions are based on the original program design, prior to implementation. Changes to the original design often occur during implementation. A sound monitoring system not only allows scheme managers and implementers to identify potential problems during implementation that may result in corrective operational actions, but also can inform evaluators of what changes have occurred and when. When possible, evaluators may use this information to control for the change in the analysis. If revisions to program design are significant, however, such as an expanded beneficiary age range or a revised incentive structure, evaluators may need to make significant changes to the evaluation methodology.

A Monitoring Plan: Design and Implementation

Scheme-specific "logic" models, which specify the network of operational variables and their causal connections, serve as the guiding framework for developing a monitoring plan. An example of a logic model for an RBF scheme is presented in Figure 2.

A sound monitoring plan should include for each input, activity, and output indicator (Figure 1) definitions, data sources, frequency of data collection, and responsibilities for reporting. An example of a simple monitoring plan is presented in Figure 3.

Continuous monitoring and documentation of RBF schemes should not be unduly burdensome for managers or implementers. Furthermore, parallel systems for collecting and reporting information should be avoided. Whenever possible, monitoring should rely on available information and complement existing mechanisms and systems that routinely collect data on scheme implementation (such as the HMIS). Schemes may need to identify one or more individuals who can periodically compile, synthesize, document, and disseminate monitoring information. An adequate budget should be set aside to support the costs associated with this critical task. In-country costs for monitoring core inputs, activities, and outputs are usually affordable. Internal and external verification of the reporting on outputs should be viewed as part of the cost of implementing an RBF scheme.

Every effort should be made to monitor inputs, activities, and outputs prospectively: attempts to reconstruct implementation after the fact have proven to be onerous and plagued with biases. Periodic, retrospective "snapshots" within an overall prospective design may be an approach worth pursuing. Also, managers should be on the lookout for any and all opportunities to coordinate monitoring activities with existing data collection activities or studies funded through other means.

Complementary Areas of Investigation

Three additional areas often included within the broad scope of monitoring for RBF, or which find themselves at the intersection of monitoring and evaluation, are described below. In most cases, supplementary data collection methods and funding are usually required to collect information in these areas.

First, because RBF is a high profile, dynamic innovation, governments and development partners are keen to know about the decisions and processes (both technical and political) underpinning RBF *design*. Some illustrative questions that have been raised about the design process in the World Bank's current work on RBF are presented in Box 1. Ideally, this information should be collected prospectively, using a variety of methods at country level, and not too long after design decisions have been made to avoid recall problems. In reality, budget and other constraints may preclude such an approach. One alternative that might be considered is a structured country or regional workshop that includes designers and other stakeholders associated with the design process. Responses to a sample of the questions presented below could be elicited and documented in a short period of time. Cross-country comparisons could be drawn from individual country workshops or a regional activity and disseminated widely.

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Second, there is considerable interest in capturing not only the anticipated efforts and effects of RBF schemes, but also the *unintended events and effects* resulting from RBF implementation. Some illustrative examples of unintended processes and spillover effects resulting from RBF are presented in Box 2. Some of these questions may be incorporated into rigorous impact evaluation designs, while others may require special operational studies or investigations.

Third, RBF schemes vary considerably from one country to another. It is important that *contextual information* be collected periodically on factors that might influence RBF scheme implementation and achievements (Johns Hopkins University, 2009). For example, the following kinds of events may have occurred within the health sector concurrent with scheme implementation:

- An epidemic
- Other MDG 4 and 5 programs operating in the same areas,
- Other performance-based programs operating in the same areas,
- Changes in access to health facilities,
- Changes in human resource policies and policy execution,
- Changes in user fee policies, and
- Major sectoral policy reforms.

Beyond the health sector, other events that may have occurred simultaneous with the RBF scheme include humanitarian crises, natural disasters, major political economy changes, and demographic changes.

Core (ring-fenced) and complementary monitoring and documentation activities, as described in this paper, are brought together in Figure 4.

Conclusion

Information gleaned from the documentation and ongoing monitoring of RBF implementation, when disseminated in a timely and user-friendly form, can satisfy the diverse needs of government officials, managers, implementers, beneficiaries, development partners, and the global community. Monitoring strategies in each country may need to distinguish between core and complementary questions, considering the potentially large amount of information that could be collected, budget constraints, feasibility, and a range of implementation and evaluation imperatives. Practical strategies for how best to collect, analyze, and disseminate monitoring information within the context of a functioning RBF scheme need to be identified and negotiated in advance. In addition, adequate financing for monitoring and documentation will need to be secured.

When combined with evaluation findings, monitoring data can advance scheme-specific and global learning about the value and mechanics of RBF, especially when comparable monitoring and evaluation strategies are applied across

countries. Those engaged in monitoring and documenting RBF experiences need periodic opportunities to discuss the challenges they face and to share the lessons they learn. At present, such opportunities are rare. The World Bank's RBF website (www.rbfhealth.org) is one place where monitoring plans, reports, and other documented experiences can be posted for the benefit of those directly or indirectly engaged in planning, implementing, monitoring and evaluating performance-based incentives for health.

BOX 1 | **ILLUSTRATIVE QUESTIONS ABOUT RBF DESIGN**

- Why did the government decide to pursue an RBF project and what previous experience, if any, does the government have in this area?
- What were the major characteristics of the design process?
  - Who was involved?
  - Who exercised ultimate responsibility for producing the design?
  - How long did it take?
  - How were decisions made?
  - Were there any major impediments or significant delays?
  - Were there any major lessons learned from this process?
- What challenges or risks were identified and what risk mitigation strategies, if any, proposed?
- Were design alternatives considered? If so, why were they rejected in favor of the current design?
- What was done to build support for and reduce opposition to the design among project stakeholders? What were the major concerns and were they satisfactorily addressed and broad buy-in achieved?
- What criteria were applied in choosing the intervention and control sites of the project?
- What was the justification for the choice of project indicators, targets and measurement methods?
- What was the justification for the choice of beneficiaries in this project?
- How was the contracting mechanism developed?
  - Negotiating procedures and bidding processes?
  - Selection criteria?
  - Contractor evaluation and reporting?
  - Duration?
- Managerial authority? What was the justification for the type and size of the incentive payment chosen; decisions about eligibility; responsibilities and procedures for disbursement; triggers for payment; frequency of payment; degree of discretion in using payments; and intended use of payments?
- What was the justification for the choice of management structure, project oversight, operational procedures, data collection and reporting, and management information system (existing or parallel) for tracking results over time?
- What was the justification for the method chosen for assessing the reliability of the reporting of results (auditing procedure)?
- To what extent did the requirements for the design of the impact evaluation affect the overall design of the project?

BOX 2 | **ILLUSTRATIVE EXAMPLES OF UNINTENDED PROCESSES AND EFFECTS RESULTING FROM RBF**

1. What, if any, were the positive and negative spillover effects of RBF implementation for different actors at different levels in the system? For example, is there evidence of change in any of the following areas:

- Management behavior?
- Accountability?
- Local autonomy, authority, flexibility?
- Financial management?
- Information management?
- Other administrative activities or processes?

2. To what extent were there any negative, unintended effects associated with RBF implementation, as follows:

- To what extent was "gaming the system" a problem? If it was a problem, what measures were taken in response to evidence of gaming?
- To what extent did the scheme induce unnecessary provision of or demand for RBF-remunerated services?
- To what extent were RBF-remunerated services delivered despite insufficient capacity?
- To what extent was there a bias toward the quantity of RBF-remunerated services provided at the expense of acceptable quality?
- To what extent were essential non-remunerated services neglected?
- To what extent did certain sub-populations benefit from RBF-remunerated services at the expense of other deserving populations?
- To what extent did the project displace financial or other support from other programs in the RBF areas?

3. To what extent were payments associated with any of the following changes:

- Motivation of staff to provide services or consumers to use them?
- Provider absenteeism?
- Provider dual practice?

Figure One

A COMMON MONITORING AND EVALUATION FRAMEWORK FOR RBF

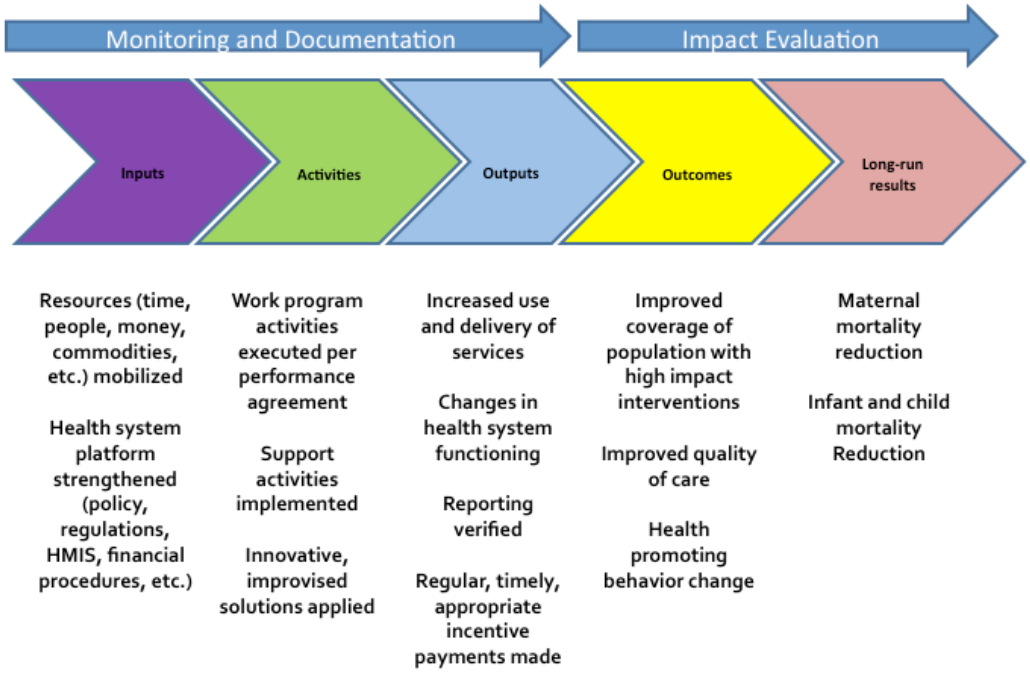


Figure Two

MADAGASCAR RBF PROJECT CAUSAL MODEL

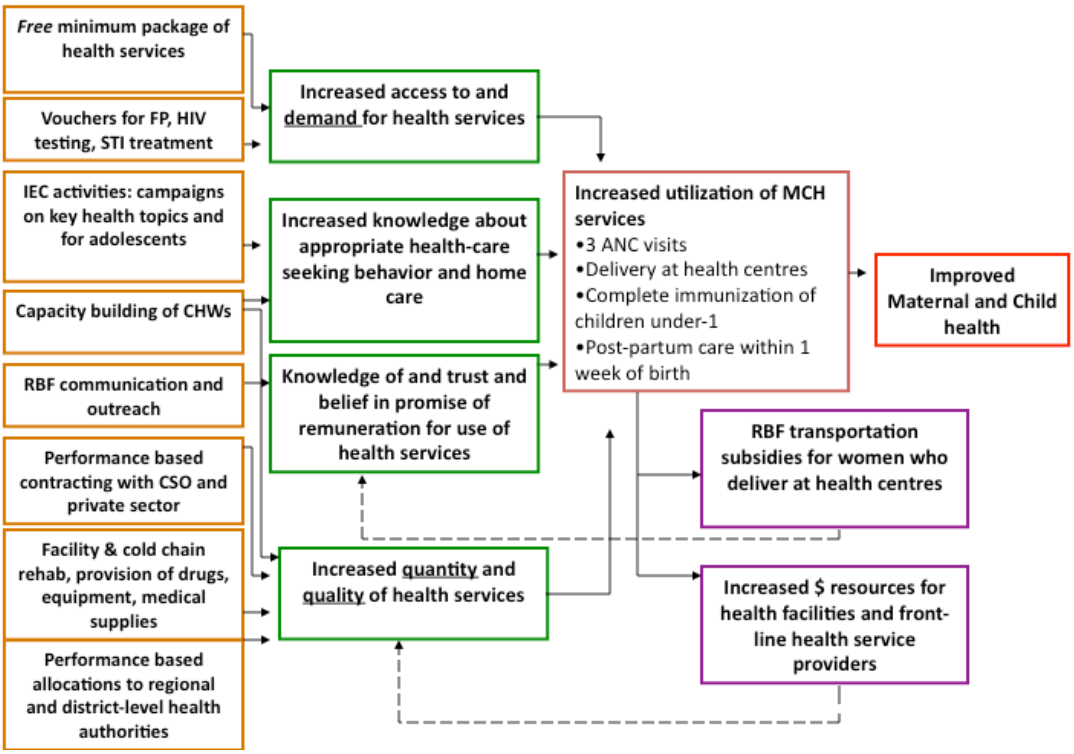


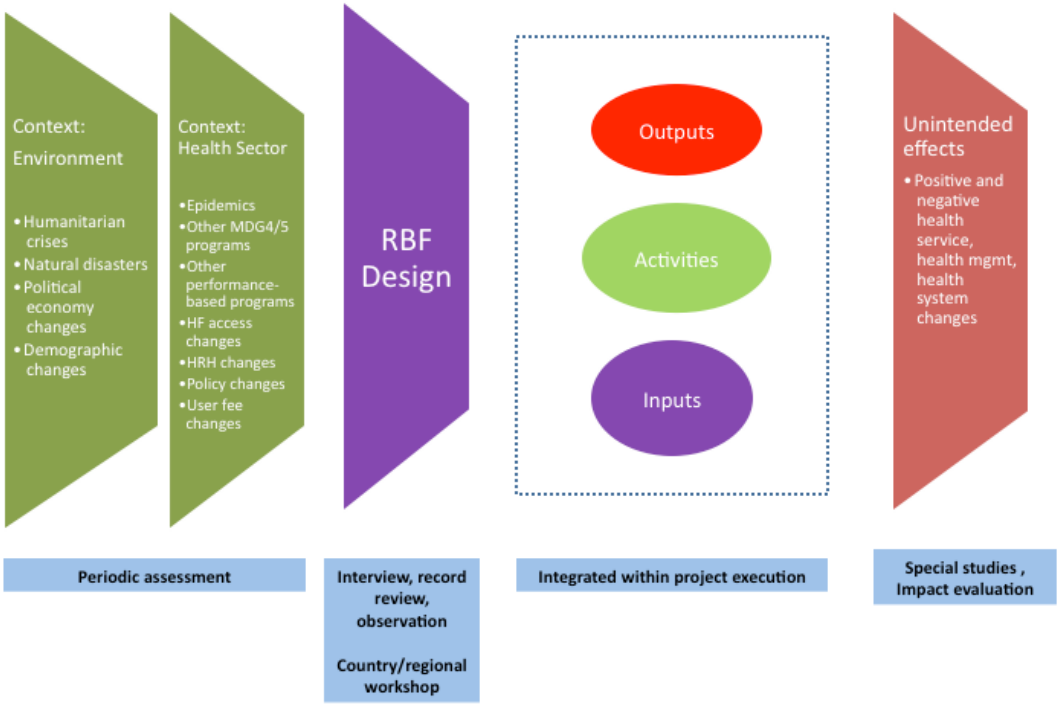
Figure Three

A MONITORING AND DOCUMENTATION PLAN

Domain	Measure	Description	Data Source	Frequency
Inputs	# of health facility bank accounts opened	How many local bank accounts were opened during period?	Controller's records	Semi-annually
Activities	# of transport vouchers distributed to women	How many transport vouchers to improve access to services were distributed during the period?	Controller's records, interview	Quarterly
Outputs (Results)	# of vaccinations provided	How many children under 1 received the measles vaccine?	HMIS	Quarterly
Outputs (Payments)	# of payments made on time and in appropriate amount	Of all the payments made to beneficiaries during the period, how many were on schedule and in the proper amount?	Controller's records, interview	Quarterly

Figure Four

COMPONENTS OF A COMPREHENSIVE RBF MONITORING STRATEGY



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