



## RESULTS-BASED FINANCING FOR HEALTH

## Signed, Sealed, Delivered?

## Evidence from Rwanda on the Impact of Results-based Financing for Health

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*Excitement is growing about results-based financing (RBF) for health, a financing mechanism that turns the traditional donor approach of paying for inputs on its head. RBF for health is a cash payment or non-monetary transfer made to a national or sub-national government, provider, payer, or consumer of health services after predefined results have been attained and verified. Payment is conditional on measureable actions being taken.<sup>2</sup> Where RBF has been tried, experience suggests it can improve health outcomes and strengthen health systems. But there is little rigorous evidence on its impact and many questions remain: Does focusing on some health interventions lead to the neglect of others? Will the approach encourage people to cheat to receive the incentive? Is it cost-effective? Will it diminish workers' intrinsic motivation? What about unintended consequences?*

On May 8, 2009, the results of one of the first rigorous, scientific evaluations of RBF in one country were unveiled in the Rwandan capital of Kigali. Rwanda began paying for performance at the health facility level in 2006, in an effort to improve maternal and child health. The evaluation shows that the program had a significant impact on the use and quality of maternal and child health services, with initial results indicating improvements in child health outcomes. The global health community now has strong evidence from one country that RBF can work. So how did it all begin?

## Beginnings



Rwanda is a country of lush jungle hills that roll like a drumbeat around the capital city of Kigali. It is hard to imagine, walking down these honeysuckle streets, motorbikes tut-tutting along, that it was here that people once ran for their lives, dodged the swift cut of machetes, and crouched in corners for fear of dying. The 1994 genocide killed an estimated 800,000 people, decimated Rwanda's fragile economy, severely impoverished the population, particularly women, and eroded the country's health system.

Out of the devastation, Rwanda has made remarkable progress, but is still one of the poorest countries in the world. And despite some important achievements in health—a downward trend in the HIV/AIDS prevalence rate and a fall in infant mortality, from 107

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<sup>2</sup> Brenzel, L. "Taking Stock: World Bank Experience with Results-based Financing (RBF) for Health" June 17, 2009.

to 86 deaths per 1,000 live births between 2000 and 2005—Rwanda remains far from achieving Millennium Development Goals 4 or 5, which call for a reduction in the under-five mortality rate by two-thirds, and in the maternal mortality ratio by three-quarters by 2015.

One of the biggest problems is the fragility of the health system. There are shortages of both health workers and facilities (only 36 hospitals and 369 health centers, in a country of 9 million people; and only one doctor per 50,000 inhabitants<sup>3</sup>); many lack access to care; and the quality of care is often low.

In 2001, three non-governmental organizations (NGOs) working in Rwanda attempted to address the problem by raising health worker salaries. Nothing changed. Then they tried linking the bonus directly to performance—for example, if the health worker or facility could show that ten more women had given birth in a facility, rather than at home where women risk dying from complications, they would receive a bonus.<sup>4</sup> Paying for performance, or “l’approche contractuelle” as it is called in Rwanda, worked.

## Creating a National RBF Program: The Players Commit to an Evaluation

The Rwandan Ministry of Health (MOH) took notice and decided to create a nationwide program and policy for RBF. Dr. Louis Rusa, the RBF coordinator at the MOH, was in charge of managing the delicate process of bringing the development partners and NGOs together, identifying lessons learned from the three pilots, and hammering out a unified national program.



When the government announced its plan to extend RBF nationally it got a cool response from some donors who were concerned it was too risky, too complex, and too hard to implement. The government decided to go ahead anyway. The MOH “advanced like a train,” says Christel Vermeersch, a World Bank economist who helped design and execute the evaluation. Kampeta Sayinzoga, Director of Microeconomics in the Rwandan Ministry of Finance, says: “Rather than trying to find the lowest common denominator among donor programs, they determined what the priority was and went ahead.”

In designing the program, Rusa and the RBF team had a crucial decision to make: they could roll it out all at once, and thus expose all districts to RBF equally, or they could roll it out in phases and allow for a rigorous impact evaluation. After many meetings and long, sometimes tense, conversations, they opted for the latter. “We knew that as a new strategy, we needed to know if there is an impact related to its implementation,” says Rusa.

Agnes Soucat, a physician and health economist, and then World Bank health task team leader for Rwanda, strongly supported the idea, and approached Paul Gertler, an economics professor at the University of California at Berkeley who had just started as Chief Economist of the Human Development Network at the World Bank, asking him to lead the evaluation. Gertler, a recognized expert in impact evaluation, had spearheaded the well-reviewed evaluation of Mexico’s conditional cash transfer program, Progresa, which showed remarkable results and ensured the program’s survival, even through a change in government. Gertler agreed, and enlisted Christel Vermeersch, another World Bank economist, to help design and execute the evaluation. From a purely research perspective, Gertler and Vermeersch felt the evaluation was an exciting opportunity, both because the RBF concept seemed so promising and because there was little evidence on its impact.

Gertler and Vermeersch hired the Rwandan School of Public Health (SPH) to conduct the health facility survey. The SPH assigned Paulin Basinga, a young researcher and PhD student in international health, to lead the data collection. Basinga

<sup>3</sup> Paul Gertler, “Paying Health Care Providers for Performance: Evidence From Rwanda,” 2009.

<sup>4</sup> In 2002 the NGO’s Cordaid and HealthNet introduced RBF for general health services in health centers in the provinces of Cyangugu and Butare respectively. In 2005, the Coopération Technique Belge (CTB) introduced RBF in the provinces of Kigali, Kigali Ngali and Gitarama. Also, in 2005, RBF was also introduced in Cyangugu for HIV/AIDS Services.

was bright, engaging, and creative—and, after having spent his childhood in exile in the Democratic Republic of Congo, committed to Rwanda's future. Over the course of data collection, Paulin became a key collaborator with Gertler and Vermeersch on the RBF evaluation.

"The strong interest [in evaluation] from all parties reinforced each other. Sometimes one side is more interested than the other and the weakest link breaks the chain. That was not the case here," says Vermeersch.

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But it was not all smooth sailing. Claude Sekabaraga, a World Bank senior health system specialist who worked with the Ministry of Health at the time the evaluation was being considered and planned, says: "When [a policy plan] is to conduct a study like an impact evaluation, which needs to delay implementation in some area because of comparability, the decision is not easy." First, they had to address the issue of equity—giving some districts additional funds and not others. To compensate the facilities that would not receive the RBF program until the end of the evaluation, and to isolate the incentive effect from the resource effect, it was decided that the phase two, comparison facilities' traditional budgets would be increased by an amount equal to the average RBF payments paid to the phase one treatment facilities.

Another issue was securing commitments from donors operating in the comparison districts to honor the evaluation by not introducing RBF in their areas in order to keep those districts as comparisons. Says Rusa: "Some districts in phase two tried to imitate the way RBF was being implemented in phase one and gave money from the grant they received; but this was at the beginning, they finally understood the role of being a control zone and waited their turn."

Basinga says this collaboration was at the heart of RBF's success in Rwanda: "The main reason of success of this process is the leadership and coordination of all stakeholders working in the health sector...All the health stakeholders working in Rwanda were very cooperative and supportive of the roll out plan, despite some tensions and disagreements."

And the commitment and leadership of the Rwandan government kept the train moving through difficult times. Vermeersch remembers returning to Kigali in the fall of 2007, to present the results of the baseline data: "I was flabbergasted...I went into a meeting with the Ministry of Health...it had been two years and I'd forgotten some of the terminology in the evaluation and they explained it to me! It had become part of how they talked."

## The RBF Scheme and Evaluation

The evaluation set out to test the effect of incentives on maternal and child health care, specifically on prenatal care utilization, the quality of prenatal care, institutional delivery, preventive child care and growth monitoring, and immunization.



Eighty facilities (treatment) were enrolled in RBF in 2006, and another 86 facilities (comparison) were enrolled two years later. Baseline and end-line data were collected from the 166 facilities (out of a total of 401 facilities in Rwanda) and from a random sample of thirteen households in each facility's catchment area for a total of 2,158 households.

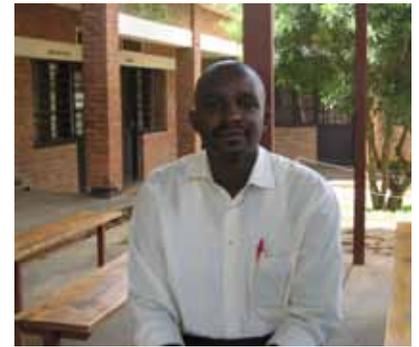
Health facilities' performance was measured on fourteen maternal and child health indicators. The first seven indicators involved the use of key services, includ-

ing curative care, prenatal care, family planning, institutional delivery, and child preventive visits. The second set of seven indicators involved services provided during those visits. Facilities received a payment for each indicator that was met, and had the opportunity to increase their budgets by 25 percent.

Facilities filed monthly reports to the district RBF steering committee, which was responsible for authorizing payment. To verify reporting, the committee audited each facility's report on a quarterly basis. False reporting was penalized by publicly identifying the facility and director who made the false report. (An assessment found very low levels of false reporting.)

Quality of care was assessed through the regular monitoring and supervision of primary care facilities by district hospitals. Every quarter, supervisors from district hospitals visited each facility on an unannounced, randomly chosen day, and assessed quality indicators through direct observation and review of patient medical records. At the end of the visit, they discussed their findings with personnel at the facility, and provided practical recommendations on how to improve the quality of services.

Implementing RBF and producing data to evaluate it required significant effort upfront from health facility personnel. Was it too large a burden to place on already stretched staff? "In the beginning it was seen as extra work but now it is becoming routine," says Dr. Diane Gashumba, who has served as Director of the Kibagabaga district hospital in Kigali since 2006. "What RBF is asking us is what we were supposed to do even without RBF...but before RBF it was done according to the feelings of practitioners, according to the time they had...we had many bad practices in our routines, but now with RBF it is good practice that is becoming routine. It's not extra work; it is what we were supposed to do."



RBF payments went directly to facilities, and there were no restrictions on how they used the additional funds. Typically facilities used about one-quarter of the funds to increase overall expenditures and three-quarters to increase personnel compensation.

## Unveiling the Results: A (Very) Public Dissemination

The results were unveiled at a packed out, day-long conference in Kigali at the Serena Hotel. Two sessions were organized; the first brought together fifteen representatives of international agencies (WHO, UNICEF, UNAIDS, GTZ, and DFID, among others) to discuss the evaluation results and the potential to strengthen evidence-based policy in Rwanda. The Rwandan Minister of Health was there, along with the Permanent Secretary, Agnes Binagwaho. Minister Sezibera opened by outlining the importance of results-based financing, saying that it: "is not simply about the money...it is about a culture of performance [and] is a very wise use of resources." The second session, in addition to presenting the results of the evaluation, also explored how to use evaluation results for policy decision making; mainstreaming impact evaluation and evidence-based policy into government systems; and evaluation design. Twenty district hospital directors participated, along with representatives of the RBF technical working group.<sup>5</sup>

Gertler and Basinga (who had successfully defended his PhD dissertation three weeks before) then presented the results. The evaluation showed that RBF had a large and significant positive impact on institutional deliveries (the number of mothers who give birth in health facilities) and preventive care visits by young children, and improved the quality of prenatal care. The program had "a significantly larger impact than any other intervention I've ever seen," said Gertler. "[And] we were able to ascribe causality to the intervention. Most evaluations in these contexts

<sup>5</sup> FHI, MS, ICAP, INTRAHEALTH, EGPAF, HDP, CIERES, GTZ, DREW CARE, HEALTHNET TPO, CTB, the MOH senior management team, ACCESS, and Lecturers from the School of Public Health.

don't let us do that...most are small pilot programs in one small district in an ideal area, which aren't what we need to say whether programs work at scale or not."

While the evaluation revealed no effect on some of the RBF indicators, including the number of women completing four prenatal care visits or on the number of children fully immunized <sup>6</sup>, the improvement in the *quality* of care was striking and crucial. Even with the necessary inputs, putting knowledge and equipment to use depends on whether health workers are motivated to provide quality care for those who need it. Providing incentives encouraged providers to translate their knowledge about prenatal care into better practice. With RBF, "we can get more with what we already have if we close the productivity gap and improve performance," says Gertler.

The high-level attendance at the dissemination conference in Kigali, and the focus on public discussion of lessons learned, illustrates the political will in Rwanda to commit, not only to this particular RBF program and evaluation, but to evidence-based policy more broadly. Indeed, the RBF team is using the evidence generated by the impact evaluation to contribute to the design of the next phase of RBF in Rwanda, partially financed by the Norwegian Health Innovation Trust Fund. The Rwandan MoH is also taking the lessons learned from what worked and what didn't in the health facility RBF scheme, and applying those lessons to the introduction of community health worker incentives and demand-side incentives for utilization of maternal health services, including family planning . Says Soucat: "RBF has really triggered a culture of results."

## Secrets of Success

The design and implementation of the results-based financing program and its evaluation benefitted greatly from the Rwandan government's commitment to improving the health of its population, willingness to try new things, and firm will to lead donors to align behind its national plan. Says Gertler: "When I arrived in Rwanda, what I found was

an unusually activist government...very thoughtful, very interested in data and evidence." Agnes Soucat agrees and says that the government's flexibility also played a key role in triggering reforms: "Rwanda fifteen years ago came out of a severe civil conflict, so it was pretty much ground zero. It operated very much on a clean slate...there's always been a lot of flexibility in the way the system was rebuilt, because there was not all of the historical constraints of a well entrenched system."

The desire among Rwandans to lead their own development process is strong. When I asked Dr. Gashumba what she thinks is the most important thing donors can do to help Rwanda, she said: "[they] should understand our problems and needs, and follow our needs, not help us in some field because they want to support that field. They should understand first the priorities of the country and the policies of the central government."

The RBF program and evaluation also benefitted from the support of champions in key institutions, who were able, through months and years of hard work, to hold together a commitment from donors to honor the evaluation. Convincing donors to align behind country priorities is never easy, particularly in the health sector, which has large amounts of off-budget support, and myriad partners and projects. But by forging its own path—and by providing evidence of results—Rwanda helped demonstrate to donors that one of the essential ingredients to better health in Rwanda is linking incentives to results. "Harmonization by content works better than harmonization by process," says Sayinzoga.

## Is Rwanda Special or Can RBF Work in Other Countries Too?

Are there factors, such as the unusually strong leadership of the Rwandan government, or the fact that it is a relatively small country, that make Rwanda a special case? Did the stars simply align or can Rwanda's success be replicated? "I

<sup>6</sup> Child vaccination rates were already extremely high in Rwanda -- close to 65 percent -- and the payment for getting women to clinics for four prenatal visits was low and probably not deemed worth provider effort.

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think it can happen elsewhere,” says Vermeersch. “It doesn’t take 1,000 people to get it going. You need a few people who are motivated on each side.”

Gertler concurs, and emphasizes that RBF can enhance public health programs that already exist in developing countries. “Most of our health care interventions in countries like Rwanda have been to provide more training and more things...these interventions are going to have much more powerful impact if we provide some minimal performance incentives. Other governments may not want to implement as sophisticated a system as Rwanda, but having some performance incentives is definitely exportable to other countries.”

### **The Bottom Line**

The results of one of the first rigorous impact evaluations of results-based financing in one country suggest that paying health facilities for results is a feasible and effective way to improve health outcomes and health system performance. Crucially, the evaluation shows that incentives are key—the same results could not have been achieved by simply increasing the amount of resources provided to health facilities. Performance incentives encouraged providers to translate their knowledge and resources into better practice, which led to improved health among the people they served. Policymakers looking for practical ways to address problems of health sector performance may want to consider results-based financing as a way to achieve more impact from their investments and better health in poor countries. “The bottom line,” says Basinga, “is that if well designed, implemented and monitored...RBF is an effective way of financing primary health care in poor setting countries.”