9

Haiti: Going to Scale with a Performance Incentive Model

Rena Eichler, Paul Auxila, Uder Antoine, and Bernateau Desmangles

Highlights

Rewarding NGOs for increasing access to a package of basic services and paying them for achieving population-based performance targets can result in significant increases in essential services such as immunizations and assisted deliveries.

Paying NGOs for results strengthens institutional capacity to deliver services from the bottom up.

Changes in the design throughout the six years offer lessons for other contexts.

Paying for performance in Haiti is part of a package of interventions in a bilateral health project funded by the U.S. Agency for International Development (USAID) and implemented by Management Sciences for Health that aims to increase coverage and quality of health services. Starting in 1999, payment to contracted nongovernmental organizations (NGOs) changed from simple reimbursement for documented expenditures to payment partly conditional on targets being reached. Remarkable improvements in key health indicators have been achieved over the six years that performance-based payment has been phased in. Now reaching 2.7 million people, NGOs in the project network provide

essential services to the Haitian population in the complicated context of violence, poverty, and limited government leadership. The experience in Haiti contributes to understanding whether paying for results works and provides important lessons for the design and implementation of other efforts.

Haiti is one of the poorest and most vulnerable countries in the world: 80 percent of its rural population survives on less than $1 per day (Collymore 2004). Life expectancy at birth is estimated at fifty-three years, infant mortality is 80 per 1,000 live births, and the maternal mortality ratio is 523 per 100,000 live births, seven times higher than in the Dominican Republic (PAHO 2007). According to the Pan American Health Organization, approximately 40 percent of the population has no access to basic health care services. Chronic malnutrition is estimated to affect 25 percent of children under five, and acute respiratory infections and diarrhea cause half of the deaths of young children. Compounding poor child and maternal health is the reality that Haiti has the largest number of people living with HIV/AIDS in the Caribbean, with estimated prevalence between 2.5 and 11.9 percent of the population between fifteen and forty-nine years of age.

In 1995 concern about these indicators and the inability of the Haitian government to ensure access to basic health services motivated USAID to fund a project to contract NGOs to deliver essential services, enhance the capacity of the government to oversee the health sector, and strengthen health service organizations. Immediate needs at the time were critical health services, including maternal and child health, reproductive health, and family planning services. Support was provided to develop public sector–led local health organizing committees, which had the mandate to develop district plans to ensure access to an essential package of services by coordinating public and NGO providers.

Following competitive tenders, USAID awarded management of this three-phase (1995–99, 2000–04, 2005–07) project to Management Sciences for Health, a U.S.-based NGO that strengthens health services in developing countries. USAID included a contractual requirement in the initial phase that specified a shift in payment terms to NGOs from expenditure-based reimbursement to output-based payment. Initially, NGOs were reimbursed for documented expenditures up to a ceiling that was essentially a negotiated budget. The vision of the project was eventually to pay NGOs based on services provided (outputs). This shift was envisioned to occur when NGO capacity could ensure both accountability for results and responsible management of U.S. government funds.

Management Sciences for Health piloted a change in payment based partly on performance, with three NGOs responsible for providing services to roughly half a million people in the final year of the first phase. Promising results led USAID

and Management Sciences for Health to integrate payment for results into future phases. Subsequent phases progressively added additional NGOs and experimented with changes in design and implementation. By 2006, all NGOs supported by the program were involved in the strategy, which is now being adapted to fund the public sector. Presented here are six years of experience implementing payment for performance in the challenging Haitian context with lessons learned throughout the process of refining and experimenting with the approach.

Why was improved performance thought to be possible? A 1997 population-based survey found that performance of the NGOs financed by the project was extremely uneven. Some, for example, achieved vaccination coverage of only 7 percent of the target population, but others reached 70 percent; one NGO taught only 44 percent of mothers about oral rehydration therapy (ORT), while another taught 80 percent (Eichler, Auxila, and Pollock 2001).

That some NGOs were performing adequately indicated that improvements were possible for others too. Project staff hypothesized that part of the reason for poor performance was a payment system that placed too much emphasis on transparent documentation and not enough on results. To change this, a new approach was piloted that switched from reimbursing expenditures to payment based partially on the attainment of targets, complemented by technical assistance and data validation.

The Pilot (1999)

The three NGOs chosen to pilot performance-based payment—Centres pour le Développement et la Santé, Comité Bienfaisance de Pignon, and Save the Children—were perceived to have demonstrated the leadership and institutional capacity needed to respond to the new system and were committed to participating in a pilot that linked payment to what they also valued: health results. Believing that it would be important for the NGOs to view the change in payment as advantageous, the project adopted a collaborative approach to design, negotiations, and implementation. The NGOs were invited to participate in meetings and asked their views about participating in the pilot. Because the meetings were held after contracts for the 1999 funding cycle were signed, the NGOs were willing to renegotiate only if the proposed contract had the potential for more funding. Agreement was therefore reached on a model that imposed some financial risk but also offered the potential for more funding (Eichler 2002).[1]

1. This is an example of the type of compromise that was needed to be able to move forward.

Table 9-1. *Performance Indicators and Relative Weights in Haiti*

Indicator	*Target*	*Relative weight*
Percentage of mothers using oral rehydration solution to treat cases of children with diarrhea	15 percent increase	10 percent of bonus
Full vaccination coverage for children ages birth to eleven months	10 percent increase	20 percent of bonus
At least three prenatal visits	20 percent increase	10 percent of bonus
Reduction in the level of discontinuation rate for injectable and oral contraceptives	25 percent reduction	20 percent of bonus
Number of institutional service delivery points with at least four modern methods of family planning and number of outreach points with at least three or more modern methods	All institutional service delivery points with four or more; 50 percent of outreach points with three or more	20 percent of bonus
Reduction in average waiting time before providing attention to a child (in hours and minutes from arrival to beginning of attention)	50 percent reduction	10 percent of bonus
Participation in establishment of local community health units and coordination with the Ministry of Health	Defined by each local health organizing committee	10 percent of bonus

Source: Authors.

The NGOs agreed on a new contract that would pay 95 percent of the budget established under the existing expenditure-based reimbursement contract and including the possibility of a bonus of as much as 10 percent of the budget. NGOs were thus assuming the risk of losing 5 percent of the agreed budget if they did not reach targets, but they stood to gain an additional 5 percent if they did (Eichler, Auxila, and Pollock 2001).

Seven performance indicators and targets were defined, and NGOs could receive a predefined percentage of the potential bonus for achieving the target increase in each indicator (see table 9-1). Five indicators related to improving health impact, one related to increasing consumer satisfaction by reducing waiting time, and one related to improving coordination with the Ministry of Health. Two of the indicators of health impact were related to family planning: availability of modern methods and reduction in the rate of discontinuation. The latter was chosen to address findings from a series of focus groups suggesting that new family planning

acceptors frequently discontinued use because of side effects and poor counseling. The goal was to improve the quality of care. Each NGO separately negotiated performance targets for each indicator, and payment for reaching each target was all or nothing.[2]

Measurement

To ensure that indicators accurately represented performance and to ensure credibility of the pilot, the project contracted an independent survey research firm—Institut Haitien de l'Enfance (IHE)—to measure baseline and end-of-pilot performance. IHE followed the standard World Health Organization cluster sampling methodology to sample households to establish baseline measures and results and used immunization cards and reports from caretakers. The percentage of women using ORT for diarrhea was determined by exit interviews in service delivery institutions. Coverage of pregnant women with three or more prenatal visits was determined through household interviews and sample records. Discontinuation rates for oral contraceptives and injectables were determined by reviewing family planning registers. Average waiting time was determined by measuring waiting times in a sample of institutions at different intervals.

The project had to rely on official government projections about population figures in service areas, however imperfect, in the absence of a recent census. These rough figures for the number of each target population group, such as children younger than one and pregnant women, are the denominator of the performance measures, which are expressed as a percentage of a priority population group that receives the intended services.

Results

Table 9-2 presents baseline measures, targets, and results for each participating NGO. Most striking were the increases in immunization coverage beyond performance targets for all three NGOs. In two of the three service areas, the proportion of mothers who reported using ORT and using it correctly increased. Performance in the number of prenatal visits and reduction in the discontinuation rates for oral contraceptives and injectables was relatively weak, although the availability of modern contraceptive methods increased substantially.

2. Lack of consensus among the USAID community about whether this indicator complied with the Tiahrt Amendment (see chapter 3) caused the project to eliminate this indicator in subsequent periods.

Table 9-2. *Results from Performance-Based Payment Pilot in Haiti*[a]

	NGO 1			*NGO 2*			*NGO 3*		
Indicator	*Baseline*	*Target*	*Results*	*Baseline*	*Target*	*Results*	*Baseline*	*Target*	*Results*
Immunization coverage	40	44	79	49	54	69	35	38	73
Three or more prenatal care services	32	38	36	49	59	44	18	21	16
Family planning discontinuation	32	24	43	43	32	30	26	20	12
Use of ORT	43	50	47	56	64	50	56	64	86
Correct use of ORT	71	80	81	53	59	26	61	67	74
Institutions with four or more modern family planning services	6	9	9	2	5	5	0	5	5

Source: Eichler, Auxila, and Pollock (2001).

a. Baseline is as of September 1999; results are as of April 2000.

This pilot demonstrates that it is not necessary to get all the details right from the outset to be effective. One of many examples of learning and change to the performance-based payment approach in Haiti is that two indicators were found to be invalid and thus eliminated. The indicator of waiting time was dropped from the scheme because people often chose to wait rather than return from long distances for laboratory test results; patients saw long waiting times at one NGO as an indicator of quality rather than poor service. The bonus associated with the indicator that measured community participation and collaboration with the Ministry of Health was given to each NGO. Although all agreed that participation and collaboration were important, a measurable and verifiable indicator was difficult to determine.

All three NGOs received more revenue than they would have under the previous expenditure-based scheme, although none received the bonus for all indicators. Because performance was measured by examining a sample of the population, confidence intervals made it difficult to determine whether results were statistically significant. When the results attained fell below the target but were within one confidence interval, the NGO was given the bonus. This challenge was one of the reasons the method of measuring performance was refined in subsequent phases.

Reactions

NGOs supported continuing performance-based payment, believing that focusing on results inspired them to question and experiment with their models of service delivery. They strongly endorsed the expanded managerial and budgetary flexibility and the increased motivation of staff, who became more attentive to their organization's objectives and more innovative about achieving them, for example, by increasing community participation. Everyone emphasized the need for good data and information for decisionmaking. Over the course of the pilot, modifications were made, and the three NGOs shared what they learned.

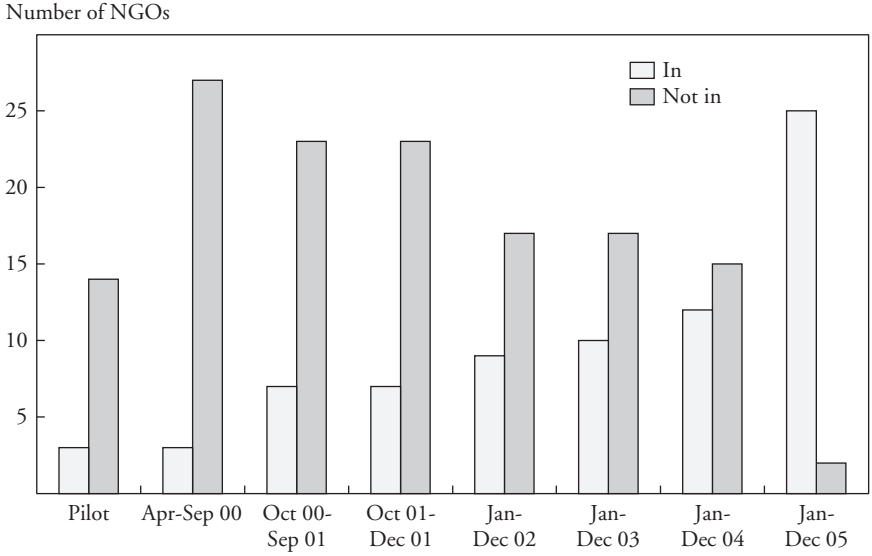
To achieve performance targets, two of the three created bonus schemes for staff. One implemented a bonus scheme for local organizations with whom they collaborated. Another did the same for community health agents, cutting their salary in half and reserving the rest for bonuses tied to performance. But the poor results from transferring this degree of risk to relatively low-paid staff led the NGOs to increase the fixed proportion of payment and reduce the proportion of bonuses. One reported that imposing excessive financial risk was demotivating. All wished to allocate a proportion of any earned bonus to improving clinic infrastructure.

Performance-based payment did motivate NGOs to request technical assistance. Being demand driven, such assistance proved particularly effective at strengthening NGO institutional capacity. It also helped the project to be more strategic and cost-effective in providing support aligned more directly with the results to be achieved.

An Evolving Approach (2000–06)

Encouraged by pilot results and NGO endorsement, performance-based payment was adopted as a core strategy in 2000. Figure 9-1 presents the gradual addition of NGOs into performance-based payment during the eight contract periods of the project, beginning with the 1999 pilot year. The 2005 period shows a radical shift from twelve to twenty-five NGOs being paid based on performance and a concurrent reduction in the number of expenditure-based NGOs from fifteen to two. Through the period, changes were made to how performance-based payments were designed and implemented to increase effectiveness and adapt to changing realities, such as the interpretation of donor regulations and recalculation of NGO target populations. By the end of 2005, this project supported delivery of basic

Figure 9-1. *Scaling Up Payment for Performance*



Source: Authors.

health services to 2.7 million people by contracted NGOs, with results reaching twice the national average for some indicators.

What Changed and Why?

The seven contract periods that followed the initial pilot cover four distinct phases, each of which introduced changes in design and implementation.

—In phase one (April 2000 to December 2001), expensive community-based surveys gave way to self-reporting by NGOs, complemented by audits from an independent firm.

—In phase two (January 2002 to December 2003), the number of NGOs under performance-based payment increased to nine, and changes were made in performance indicators. Payment was linked to performance on a randomly selected group of technical output and management indicators.

—In phase three (2004), two packages of indicators were defined to serve each priority population group, with either one being randomly chosen for evaluation.

—In phase four (2005), the number of NGOs paid based on results jumped from twelve to twenty-five as a consequence of project efforts to make all NGO partners ready to be paid partially on results. Uniform performance targets were set for all NGOs, regardless of their baselines, and the amount of payment at risk increased.

What follows is a more detailed discussion of how NGOs were selected to be included in performance-based payment, the performance indicators used, how performance was evaluated, the payment terms used, and the reasons for the changes in design introduced in each phase.

Selection

Standardized tools were developed and refined to assess readiness and, throughout 2004, NGOs were selected based on this assessment process. In phase one, the project developed an institutional assessment guideline with technical assistance from a local subcontractor, Group Croissance. Under it, NGOs needed to provide a minimum package of services and have a defined target population, sound technical performance, a record of good audit reports and financial review results, adequate monitoring, data, and management information systems and capabilities, as well as the expressed commitment of senior management to participate under changed terms. (There was no predetermined number of NGOs that would be eligible to be paid based on performance.) In phases two and three, the assessment tool was further refined. In phase four, all NGOs in the project

network were paid based on performance, eliminating the need for assessments of institutional readiness.

Indicators

In addition to technical output indicators, management indicators were added and refined over the phases. In all cases, the previous period's result was the next period's baseline. Targets for the coming year, however, were sometimes set at lower than baseline because of factors such as migration, unreliable population figures, and political instability.

In phase one, the availability of modern methods of family planning was eliminated because the goal was so easily achieved, making it a weak indicator of improved service. The other indicators of technical service output were the same as those used during the pilot. The indicator of reduced waiting time for child visits was dropped because of its poor indication of quality, and the indicator specifying collaboration with the local public sector was dropped because of difficulty in measurement. Six performance indicators were included:

—Full immunization coverage for children under one,
—Three or more prenatal care visits,
—Reduced discontinuation of modern family planning methods,
—Postnatal care visits,
—Assisted deliveries by trained birth attendant, and
—Percentage of children weighed and enrolled in nutritional recuperation programs.

In phase two, management indicators were added to ensure that paying more attention to short-term improvements was not resulting in the neglect of key management functions and investments in needed capacity. Special efforts were directed at promoting the long-term sustainability of NGOs:

—Strengthening drug and commodities management,
—Ensuring timely and correct submission of technical and financial reports,
—Encouraging application or adaptation of guidelines developed by the project in financial management, human resources management, and essential drugs logistics,
—Ensuring that management audit recommendations were addressed,
—Strengthening organizational structure, and
—Promoting the use of the cost and revenue analysis tool.

In addition, the family planning target of reducing discontinuation was eliminated because of lack of clarity about whether this complied with U.S. government regulations.

In phase three, the list of technical indicators was expanded and organized into two "packages" covering different target population groups. In phase four, the same performance benchmarks were applied to all NGOs to streamline monitoring and payment, and the financial risk and possible awards in payment were increased. Targets were the same for NGOs starting with a low as well as a high baseline because considerable technical assistance had been provided to all. It was found, however, that uniform targets placed significant stress on low-performing NGOs. In 2006 the project began to reassess and revise its use of customized performance targets. The overall results have been outstanding.

Measurement

NGOs report results that are verified by random audits, thus reducing the costs of verification. In phase one, technical output indicators were no longer measured by an independent firm. Performance was instead self-reported by NGOs and confirmed through random audits. Any concerns about inflated results proved unfounded. In phase two, the project randomly chose indicators from an expanded list to ensure that NGOs did not neglect any essential services. Performance on management indicators was assessed by both an independent local firm and the project team. In phase three, one of two packages of indicators was randomly chosen for evaluation. In phase four, an independent firm verified the accuracy of NGO-reported technical indicators through random audits, and the project team assessed management indicators.

Payment

The payment instrument is a fixed-price contract plus an award fee. Types of indicators, the approach to choosing the indicators, and the amount of financial risk imposed on NGOs changed throughout the phases. In phase one, the payment instrument was a fixed-price contract plus award fee, with roughly 10 percent of payment "at risk," conditional on performance targets. In phase two, a new feature was incorporated: 5 percent of the award fee (the withhold) was tied to achieving performance on management indicators, and the other 5 percent (the bonus) was tied to health results. In phase three, these contract terms were maintained. Although the potential reward for health results was reduced in comparison with phase one, uncertainty about which indicators would be chosen was introduced,

Table 9-3. *Performance Benchmarks, Targets, and Payment Links in Haiti, 2005*

Benchmark	*Proportion of annual negotiated budget*
Sign contract	10 percent
Submit annual action plan	15 percent
Submit monthly reports	1/12 of 10 percent of approved budget each month
Recommendations on financial system strengthening applied	No money
Quarterly requests for payment submitted	March 1, 2005: 20 percent; July 1, 2005: 20 percent; October 1, 2005: 13 percent; November 30: 6 percent
80 percent of children under one completely vaccinated (same target for all NGOs)	1.5 percent
50 percent of pregnant women receiving three prenatal care visits (same target for all NGOs)	1.5 percent
Random choice of one indicator from the following list:	3 percent
50 percent of children under five weighed according to guidelines	
63 percent of deliveries are assisted by a trained attendant	
44 percent of women with new births receive a home postnatal care visit	
50 percent of pregnant women are tested for HIV during a prenatal care visit	
75 percent of new positive TB patients are also tested for HIV	
Timely submission of quarterly reports to the project	No money
Supervision system with specified criteria in place	No money
Additional bonus if *all* previous targets are met	6 percent
Maximum possible	106 percent of negotiated budget

Source: Authors.

weakening the incentive associated with the payment approach. In phase four, NGO payments were linked to a specific milestone in program implementation, a contract management function, or a service delivery result. Table 9-3 lists the 2005 performance targets and the portion of the budget associated with each indicator.

Management

The project has nine staff members who are part of one of three administrative units responsible for finance, contracting, and information monitoring.

Table 9-4. *Finance, Contract Administration, and Monitoring in Haiti: Staffing, Functions, and Interactions*

Issue	*Finance*	*Contract administration*	*Monitoring*
Staffing	Accounts payable, financial analyst, chief accountant, and chief of finance	Contract administrator, program assistant	Monitoring unit chief, data operator, data analyst
Functions	Process payments, monitor implementation of audit recommendations, part of the team to negotiate contract terms	Prepare contract, request USAID approvals, authorize payments in accordance with contractual clauses (based on the predefined deliverables), part of the team to negotiate contract terms	Depending on the weaknesses identified, provide field-based technical assistance for data collecting and reporting, review and validate the data reporting, process and analyze data, produce information for monitoring and measuring the accomplishment of objectives
Interaction	Ensure constant availability of funds to process payment requests received, ensure that payment is authorized by contract administration	Ensure that technical reports are acceptable to the monitoring unit, ensure that payment requests are transferred to the finance team	After review and acceptance, send a copy of the technical reports to contract administration to process payment
Technical assistance	Technical assistance cuts across the three functions. It is provided on request and based on field visits and assessments made by the project technical team. Based on the information generated by monitoring and evaluation unit on a quarterly basis, meetings are organized with the technical team to discuss results, provide formal feedback to NGOs, and assist NGOs to make programmatic decisions to improve performance of the institutions.		

Source: Authors.

Table 9-4 describes the staffing and functions of these units and shows how they interact with other units in the project, integrating these administrative functions into the technical strategies of the project. This point is extremely important, as clear links with the team that provides technical assistance facilitates strategic planning of technical assistance interventions and timely support to the NGOs.

Table 9-5. *Demographic and Health Survey and Project Results in Haiti*
Percent

Source of data	*Immunization*	*Prenatal*	*Deliveries*	*Postnatal*
Demographic and Health Survey, 2000	34	29	58	9
Project				
April–Sept 2000	63	47	56	n.a.
October 2000–September 2001	80	46	65	11
October–December 2001[a]	87	91	99	38
2002	65	50	64	34
2003	91	41	57	37
2004	92	48	63	42
2005	100	60	77	50
Demographic and Health Survey, 2005	41.3	84.5[b]	60	n.a.

Source: Authors.
n.a. Not available.
a. Two-month contract period.
b. The 2005 Demographic and Health Survey measures percentage of pregnant women receiving at least one prenatal care visit.

Results

NGOs in the project network performed considerably better than all of Haiti in a sample of four key indicators: full immunization coverage, prenatal care, assisted deliveries, and postnatal care. A comparison between 2000 and preliminary 2005 Demographic and Health Survey data for Haiti and aggregate performance of the NGOs in the project network during each of the post-pilot contract periods indicates considerably better performance in three indicators and slightly better performance in one indicator, as shown in table 9-5. Overall project performance was best in 2005 when the majority of NGOs were under performance-based payment.

The Evidence

To understand whether performance-based payment arrangements are associated with better results, a series of comparisons and econometric tests were run. A number of confounders that complicate the interpretation of simple comparisons are important to bear in mind:

—First, the two are not necessarily equivalent. NGOs were not selected randomly but, instead, were chosen because they were perceived to be ready to graduate into the new payment regime. One explanation for better per-

formance among those in the program could be that they were already better performers.

—Second, because NGOs want to graduate to performance-based payment arrangements, the incentive effect may improve performance early and color the results of the earlier period.

—Third, recalculating NGO baselines and targets skews year-to-year comparisons. Because population figures forming the denominator of NGO targets and performance results are both imperfect and in flux, changes in performance from year to year may be driven partly by a newly calculated population in an NGO catchment area.

—Fourth, performance-based NGOs aggressively negotiate for feasible baselines and targets because payment is affected by whether targets are reached. Their counterparts, by contrast, tend to accept passively whatever targets are proposed.

—Fifth, performance data are likely to be more reliable for performance-based NGOs because of audits.

—Last, environmental factors may explain the changed performance, as may the circumstances in a given contract period, such as the security situation or whether vaccines are available.

To understand whether being paid based on results is associated with better performance, data for the four indicators—full immunization coverage, prenatal care, assisted deliveries, and postnatal care—were compared for each period. NGOs were separated on the basis of performance-based and expenditure-based reimbursement, and a mean was then calculated to establish the average performance for each group. The number of NGOs changes in each period as some graduate to performance-based payment arrangements. This number also varies depending on the indicator, because not all NGOs provide the full package of services. In 2005 most were paid based on performance, and only two were paid based on cost. Table 9-6 shows the number of NGOs in each group in each contract period, which are the data used for the calculations in figures 9-2 through 9-5.[3]

NGOs in performance-based payment arrangements do better with immunization coverage, on average, than those under expenditure-based reimbursement

3. Not all NGOs are included because either they were not evaluated on the specified indicators or their reported performance when "not in" performance-based payment was more than 20 percentage points higher than the highest performance value recorded for an NGO during a period in performance-based payment. These NGOs were dropped because of concerns about data quality in the absence of an audit.

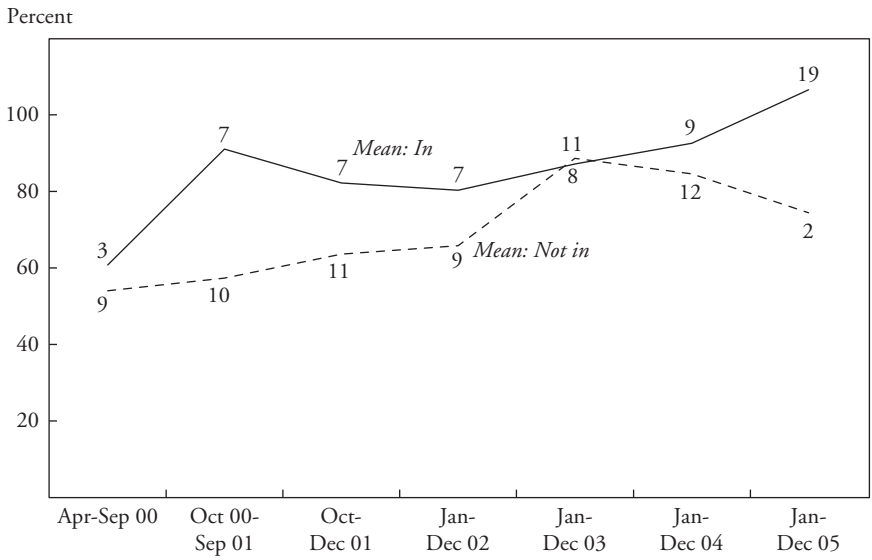
Table 9-6. *Number of NGOs in Performance-Based Payments Schemes in Haiti*

	Immunization		*Prenatal*		*Deliveries*		*Postnatal*	
Time period	*In*	*Out*	*In*	*Out*	*In*	*Out*	*In*	*Out*
April–September 2000	3	9	4	10	n.a.	n.a.	n.a.	n.a.
October 2000–September 2001	7	10	7	11	6	8	5	7
October–December 2001	7	10	7	11	6	8	5	9
January–December 2002	7	9	9	10	8	7	8	12
January–December 2003	8	11	9	12	8	12	8	15
January–December 2004	9	12	10	13	9	14	10	15
January–December 2005	19	2	21	1	22	1	23	1

Source: Authors.
n.a. Not available.

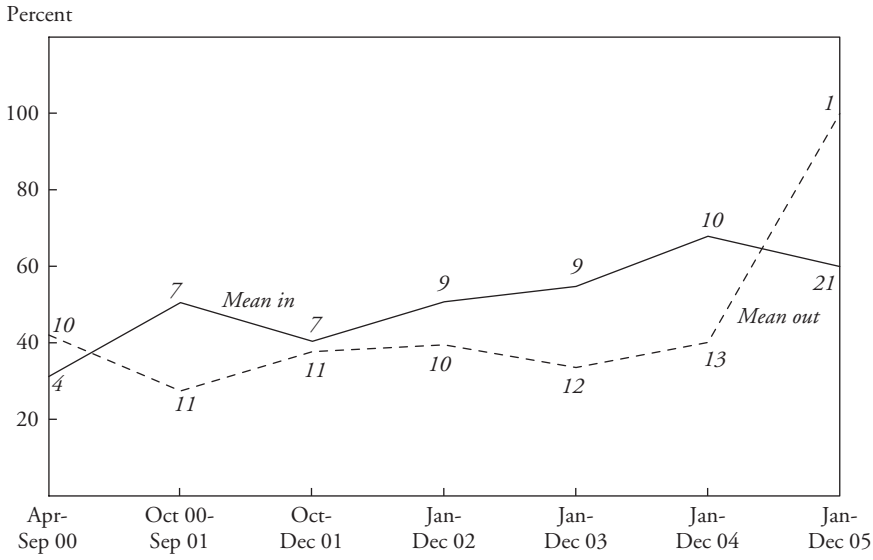
in every period except 2003 (see figure 9-2). In 2002 and 2003 the potential reward was reduced and the uncertainty about which indicators might be chosen for assessment increased, possibly resulting in this deterioration in performance. Overall performance improved substantially over the period, suggesting that the focus on performance and associated award contributed to the results. NGOs

Figure 9-2. *Immunization Comparison*



Source: Authors.

Figure 9-3. *Prenatal Comparison*

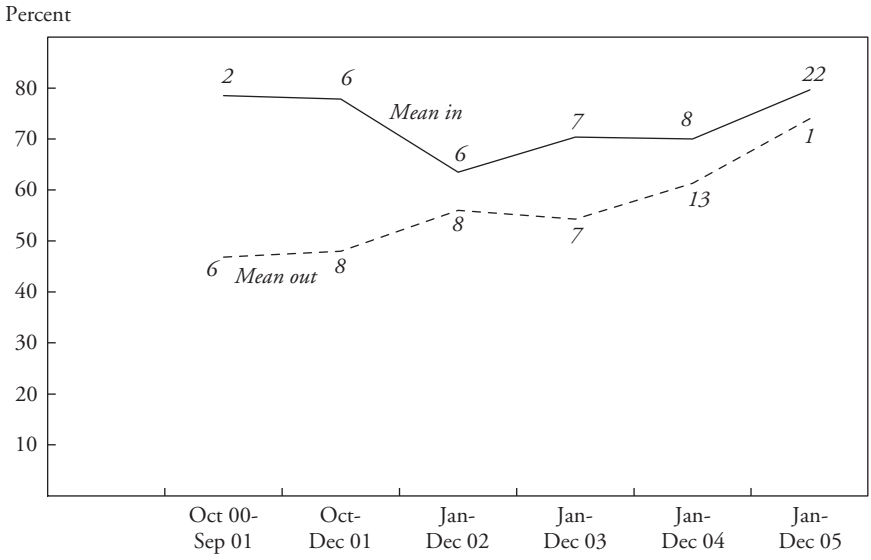


Source: Authors.

under performance-based payment exhibit consistently better results than their counterparts, except in the initial contract and final period, although the strong performance among those with expenditure-based arrangements was of one NGO, whereas the performance-based mean was of twenty-one NGOs. Results for performance-based NGOs almost doubled between the first contract period and 2005. In deliveries assisted by a trained attendant, performance-based NGOs outperformed expenditure-based NGOs throughout the five years (see figures 9-3 and 9-4). Overall performance for performance-based NGOs improved only slightly, from 78.5 to 80 percent. This change is more striking, however, in light of the fact that only six NGOs were included in the initial period and twenty-two were included in the final period. In postnatal care, performance of both groups improved dramatically, from 21 percent initially to 57 percent in 2005 (see figure 9-5).

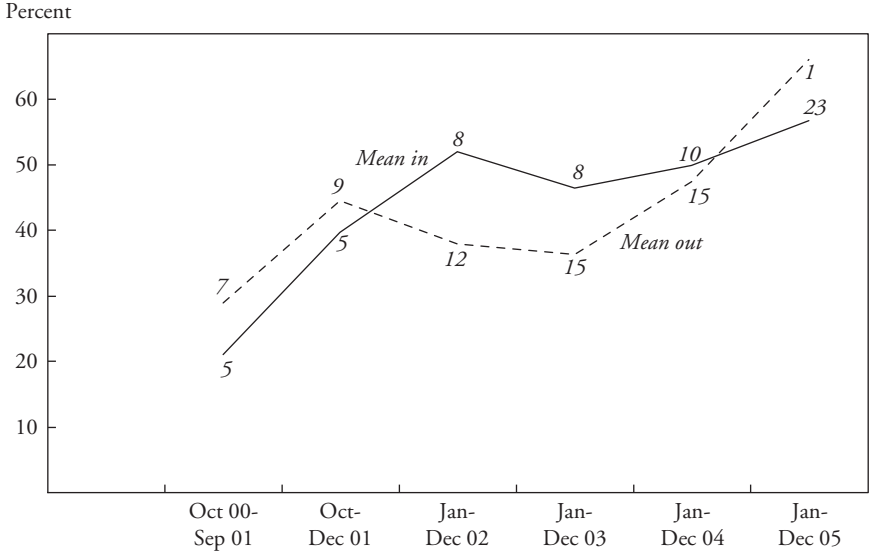
As a point of comparison with previous years, 2005 is ideal because almost all NGOs were by then performance based. In previous years, NGOs were selected based on readiness; thus if the results of performance-based NGOs were better than those of expenditure-based NGOs, those results could be attributed to something other than performance incentives. In 2005 this selection problem no longer

Figure 9-4. *Assisted Delivery Comparison*



Source: Authors.

Figure 9-5. *Postnatal Comparison*



Source: Authors.

Table 9-7. *Average Change in Performance in Haiti*

Indicator	*Immunizations*	*Prenatal*	*Deliveries*	*Postnatal*
Number up	11	10	10	16
Number down	4	6	5	4
Stayed the same	1	1	1	
Total NGOs that exhibited changes[a]	16	17	16	20
Average percentage change in performance of NGOs in the year prior to, and first year in, performance-based payment[b]	20	15	20	12
Average percentage change in performance for the project over all contract periods[c]	6.2	2.2	3	7.8

Source: Authors.

a. NGOs under performance-based payment for the entire period were not included.

b. For each NGO, changes in performance were calculated from the year prior to entrance into performance-based payment and the first year in performance-based payment. This period differs by NGO and spans all contract periods. For cases when NGOs entered and exited twice, the final contract period was used.

c. Changes in project-level performance between each contract period were calculated, and the overall average change in performance is presented for comparison.

existed, and performance was even better. Although one year of experience is not enough to conclude that tying financial incentives to performance contributes to results, the evidence is supportive.

Another way to explore the question is to compare an NGO's performance on specific indicators in the year before performance-based payment was introduced and in the first year after that. Table 9-7 shows this average change on the four indicators, and the change for performance-based NGOs is considerably larger than that of the project NGOs as a whole. The average jump between the year before and the first year after suggests that at least part of the improvement is driven by the change in payment method.

Regression results that control for NGO-specific characteristics and contract period effects indicate that being paid based on performance is associated with large and significant increases in immunization coverage and assisted deliveries.

To further examine whether payment based on performance is associated with improved results, panel regressions were run covering eight contract periods. Regressions adjust for selection bias arising from characteristics specific to an individual NGO and for contract period effects. The regressions include NGO fixed

Table 9-8. *Regressions of Results (Standard Errors)*

Indicator	*Pay for performance*	*Constant*	*Number of observations*	*Number of groups*	R^2
No contract period					
Full immunization	0.243***	0.672***	138	23	0.133
	(0.053)	(0.033)			
Three or more prenatal visits	0.109***	0.415***	151	26	0.052
	(0.042)	(0.025)			
Attended deliveries	0.269***	0.538***	126	24	0.087
	(0.057)	(0.036)			
Postnatal visits	0.099**	0.391***	126	26	0.024
	(0.05)	(0.031)			
Contract period					
Full immunization	0.132***	0.856***	138	23	0.315
	(0.053)	(0.049)			
Three or more prenatal visits	0.034	0.54**	151	26	0.09
	(0.045)	(0.042)			
Attended deliveries	0.196***	0.651***	126	24	0.087
	(0.61)	(0.056)			
Postnatal visits	0.023	0.51***	126	26	0.09
	(0.052)	(0.047)			

Source: Authors.
***$p < 0.01$
**$p < 0.05$

effects (table 9-8, rows 1 through 4) and contract period time effects (table 9-8, rows 5 through 9). Table 9-9 corresponds to table 9-8, except that the result attained is measured relative to the established target.

Results suggest that being paid based on performance is associated with a 13 to 24 percentage point increase in immunization coverage and a 17 to 27 percentage point increase in attended deliveries.

The effects are less consistent for prenatal and postnatal care. A highly significant 11 to 13 percentage point increase in prenatal care visits in the specification with NGO fixed effects is eroded when contract period effects are added. Postnatal care exhibits even weaker results that are further eroded when contract period effects are added. Possible explanations could be that returning for a minimum of three prenatal visits is determined less by the behavior of providers than by the action of patients. An additional challenge is that postnatal care was not included as an indicator in the first two contract periods.

Table 9-9. *Regressions of Difference between Results and Targets (Standard Errors)*

Indicator	*Pay for performance*	*Constant*	*Number of observations*	*Number of groups*	R^2
No contract period					
Full immunization	0.218***	–0.076**	125	23	0.120
	(0.052)	(0.032)			
Three or more prenatal visits	0.132**	–0.07***	169	26	0.035
	(0.033)	(0.034)			
Attended deliveries	0.218***	–0.073***	115	24	0.033
	(0.065)	(0.043)			
Postnatal visits	0.081	0.004	96	26	0.014
	(0.051)	(0.034)			
Contract period					
Full immunization	0.182***	–0.003***	125	23	0.179
	(0.056)	(0.051)			
Three or more prenatal visits	0.095	–0.005**	139	26	0.052
	(0.061)	(0.056)			
Attended deliveries	0.174***	0.008	115	24	0.047
	(0.69)	(0.063)			
Postnatal visits	0.07	0.21	96	26	0.026
	(0.057)	(0.049)			

Source: Authors.
***$p < 0.01$
**$p < 0.05$

Stakeholder Perceptions

Feedback from NGOs in 2005—Centres pour le Développement et la Santé, Comité Bienfaisance de Pignon, and the Haitian Health Foundation—strongly endorses performance-based payment (Bourdeau, Alfred, and Vincent 2005; Comité Bienfaisance de Pignon 2005; Despagne 2005).

—Pressure to achieve performance indicators resulted in strategies to motivate staff and fostered team spirit.

—Strong information systems developed to fulfill reporting requirements on health indicators resulted in the generation and use of reliable data.

—The burden of financial reporting was considerably reduced.

—Flexibility was gained in the use of funds.

—Valuable technical assistance became available, especially for self-assessment, program management, and supervision of family planning initiatives.

—The partners network contributed significantly to learning across organizations.
—The targets set were attainable and designed collaboratively.

Certain disadvantages were also mentioned, however, especially the institutional stress from the pressure to achieve results. NGOs pointed out that they sometimes had to work during bad weather and under challenging conditions to avoid losing the bonus. They expressed frustration at the all-or-nothing payment terms, which risked payment on an indicator that might be only a small fraction under the established target. They also noted that they were sometimes hindered by factors not under their control, citing their dependency on other institutions for certain commodities.

Project staff observed that although all NGOs receive a package of capacity-enhancing interventions, those participating in the performance-based payment scheme made more strategic choices in their technical assistance requests than their counterparts. Senior management in NGOs paid for results appear motivated to apply the adviser's recommendations rapidly. Specific areas of focus include the desire to strengthen information systems, stimulate staff interest in using program and financial information to make management decisions, and increase overall efficiency.

Another feature of the project that NGOs particularly valued was that they were frequently brought together as partners to share information, see how they performed relative to others, and learn from each other.

Conclusions

Paying for performance in Haiti is part of a package of interventions aimed at strengthening institutions to deliver quality health services to the Haitian population. Remarkable improvements in key health indicators have been achieved over the six years that payment for performance has been phased in. Now reaching 2.7 million people, NGOs in the project network provide essential services in the complicated context of violence, poverty, and limited government leadership.

This project offers a unique opportunity to examine trends over a period with progressively more NGOs graduating into performance-based payment. Performance on all indicators was stronger for the project as a whole than performance on similar indicators for the entire country. On average, performance-based NGOs in each contract period performed better than expenditure-based NGOs.

As with almost all evaluations of such programs, unambiguously concluding that performance-based payment is responsible for the results achieved or any portion

of them is not possible. This is because other interventions were implemented simultaneously—such as technical assistance, opportunity to participate in a network and in cross-fertilization activities, and increased funding—making it hard to attribute improved performance to the incentive, to other interventions, or to a combination.

Evaluating NGO performance with self-reported data from NGOs, relying on audits to verify accuracy, is less expensive than contracting an independent firm to perform community and provider surveys. It also encourages NGOs to strengthen information systems and use information effectively to track performance and to know where to intervene. The impact of other design changes is less clear, however. The project made many changes in performance targets, moving from specified indicators to a combination of some fixed and some randomly selected indicators. But it is not possible to conclude from the data which approach to selecting indicators generated the largest improvement.

In addition to the recorded results, anecdotal evidence and results of recent field assessments suggest that performance-based payment has played an important catalytic role in the organizational development of the institutions involved. This is reflected in the changed behavior of managers and service providers at all levels, who are observed to be more proactive, innovative, and focused on being more accountable for results. These behavioral changes have resulted in improved information systems and the effective use of data for decision-making; strategic use of technical assistance; improvements in human capacity development and management (including training, decentralization, delegation, and supervision); stronger financial management; and increased cost-effectiveness. All of these changes will likely contribute to the long-term viability of these organizations.

Possible future enhancements of the project include introducing performance-based payments for the public sector and experimenting more with incentives tied to both HIV and tuberculosis care. Lessons will continue to be learned.

References

Bourdeau, Royneld, Casmir Alfred, and Jean Frenel Vincent. 2005. "Haitian Health Foundation Experience in PBF." Presentation to donors providing health sector support. Port-au-Prince, Haiti, May 16.

Collymore, Yvette. 2004. "Haiti's Health Indicators Reflect Its Political and Economic Pains." Washington: Population Reference Bureau. (www.prb.org [October 2008].)

Comité Bienfaisance de Pignon. 2005. "Experience en performance base." Presentation to donors providing health sector support. Port-au-Prince, Haiti, May 16.

Despagne, Pierre D. 2005. "Financement basé sur la performance: L'expérience des CDS." Presentation to donors providing health sector support. Port-au-Prince, Haiti, May 16.

Eichler, Rena. 2002. "Why Pay for Inputs When Better Health Comes from Paying for Results? Effective Steering through Strategic Purchasing Improves Health Indicators in Haiti." Washington: World Bank, Inter-American Development Bank, Pan American Health Organization, and International Graduate School of Management in Barcelona.

Eichler, Rena, Paul Auxila, and John Pollock. 2001. "Promoting Preventive Health Care: Paying for Performance in Haiti." In *Contracting for Public Services: Output-Based Aid and Its Applications,* edited by Penelope J. Brook and Suzanne Smith. Washington: World Bank.

PAHO (Pan American Health Organization). 2007. "The Challenge of Haiti." Washington. (www.paho.org/english/d/csu/TheChallengeofHaiti.pdf [October 2008].)

CENTER FOR GLOBAL DEVELOPMENT
1800 Massachusetts Avenue, N.W.
Washington, D.C. 20036
www.cgdev.org

Performance Incentives for Global Health: Potential and Pitfalls may be ordered from:
BROOKINGS INSTITUTION PRESS
c/o HFS, P.O. Box 50370, Baltimore, MD 21211-4370
Tel.: 800/537-5487; 410/516-6956; Fax: 410/516-6998; Internet: www.brookings.edu

Library of Congress Cataloging-in-Publication data
Eichler, Rena.
Performance incentives for global health : potential and pitfalls / Rena Eichler, Ruth Levine and the Performance-Based Incentives Working Group.
p. ; cm.
Includes bibliographical references.
Summary: "Describes the rationale for introducing incentives tied to achievement of specific health-related targets, and provides guidance about designing, implementing, and evaluating programs that provide incentives to health care providers and patients. Presents case studies that focus on recent uses of incentives addressing a range of health conditions in diverse countries"—Provided by publisher.
ISBN 978-1-933286-29-7 (pbk. : alk. paper)
1. Medical economics. 2. World health. 3. Health promotion. I. Levine, Ruth, 1959– II. Center for Global Development. Performance-Based Incentives Working Group. III. Title.
[DNLM: 1. Delivery of Health Care—economics. 2. Program Evaluation—economics. 3. Reimbursement, Incentive—economics. 4. World Health. W 84.1 P4376 2009]
RA410.5.E43 2009
338.4'73621—dc22 2009000907

9 8 7 6 5 4 3 2 1
The paper used in this publication meets minimum requirements of the American National Standard for Information Sciences–Permanence of Paper for Printed Library Materials: ANSI Z39.48-1992.

Typeset in Adobe Garamond

Composition by Circle Graphics, Inc.
Columbia, Maryland

Printed by Versa Press
East Peoria, Illinois