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ZAMBIA PILOT STUDY OF PERFORMANCE-BASED INCENTIVES

QUALITY ASSURANCE PROJECT

OPERATIONS RESEARCH RESULTS

DECEMBER 2006

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December 2006

Rebecca Furth, PhD

DISCLAIMER

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EXECUTIVE SUMMARY

There are many challenges to fostering performance improvement in resource-poor settings, and yet it is in these very contexts that staff are most in need of some sort of encouragement to perform their jobs well. Low salaries, poor working conditions, weak or non-existent management and supervision, and lack of decision-making authority, among other things, provide disincentives for staff to invest time and energy in improving health service delivery.

To encourage staff to work in the public sector and to perform their jobs well despite low salaries, the Zambian Government integrated a staff "bonus" program into its healthcare reforms in the mid-1990s. This bonus was to be derived from the national cost-sharing plan and amounted to 10% of the total amount of fees collected by a health facility. Each month this 10% was returned to the health facility and divided among staff as a bonus. Unfortunately, the 10% amounted to very little money (less than US$ 1 per provider per month) and thus failed to provide the incentive that the government had hoped for.

The Performance-based Incentives Pilot Study was developed with the support of the Zambian Central Board of Health (CBOH) and the U.S. Agency for International Development (USAID) to test other mechanisms for providing incentives to healthcare workers. The pilot took place in two different districts in Lusaka Province. Two models of incentives were tested in the pilot: financial incentives derived from 10% of user fees with modifications in distribution and non-financial awards in the form of trophies. The piloted performance-based incentives system was designed to fit into and reinforce existing performance management systems that had been initiated by the CBOH in recent years. Health centers and districts are expected to work in teams in Zambia, so the performance awards were presented to teams, rather than individuals. The teams then had authority to decide how to "share" the performance award. To keep the process simple but address qualitative as well as quantitative elements of performance, awards were based on process as well as outcome indicators with which staff were already familiar. Lastly, systems to encourage transparency were developed to increase staff's perception of fairness and their understanding of the performance-based incentives program.

The pilot ran over a period of 12 months. To assess the motivational effects of the interventions, staff interviews were conducted prior to the study and following the first quarterly award, the second quarterly award, and the fourth quarterly award. In addition, interviews with district health team managers and health center in-charges were conducted to learn more about how easy or difficult the process was to implement.

Implementation of and staff response to the pilot varied greatly in the two districts. In Luangwa, a small district that tested non-financial awards, the pilot was well received. Staff felt motivated and encouraged by the provision of the awards. District managers felt that the process helped guide them in their work, and staff felt they were getting more and better support from district supervisors as a result of the process. In Chongwe, a large district where financial incentives were provided, staff expressed considerable frustration with and suspicion of the process. The district health management team (DHMT) experienced difficulty in providing routine support to health centers, making implementation of the performance assessment system difficult. Information on the incentives system and details of how health centers were scored was not shared with health center staff, as it was in Luangwa, contributing to a much greater degree of distrust of the system and the widespread perception that it was not a fair process. While staff motivation increased in Luangwa over the period of the pilot study, it remained virtually unchanged in Chongwe.

The study resulted in several key findings. First, the study findings confirmed other work on performance incentives that stresses the importance of strong leadership and performance management systems as requisites for successful performance-based incentives programs (Hammer and Jack 2001; Martinez 2003; Martinez and Martineau 2001). The relative weakness or strength of leadership in the two districts had a direct correlation with the success of program implementation and staff perceptions of fairness.

Secondly, the study found that staff responded positively to performance-based awards founded on indicators collected by all health centers, which were already a part of the district performance management system and which health center staff were already involved in monitoring. Not burdening staff with additional indicators and data collection systems is important to garner staff support for a performance-based award program. Importantly, the study found that staff motivation improved substantially with even small gestures of support and encouragement from district supervisors. For example, non-financial awards were as motivating, if not more motivating, for staff than financial awards and did not generate as much conflict, suspicion, or frustration. Staff also felt encouraged by knowing that the DHMT was monitoring their performance and could provide targeted support based on their actual needs. Lastly, the study found that district managers felt that the performance-based award program, which was linked to the district performance management system, helped guide them in their work, provided direction for supervisory visits, and helped them monitor health facility and district performance.

The study resulted in the recommendation that performance-based incentives continue to be piloted in Zambia, but that any further development of the program should include support to DHMTs in management and supervision; should proffer non-financial awards until district and health facility staff are familiar with the system, are implementing it well, and feel it is fair; and should continue to focus on both process and outcome indicators to promote continual performance improvement and team collaboration.

I. INTRODUCTION

The application of effective performance appraisal systems in developing country contexts faces many challenges (Martinez and Martineau 2001). To succeed, performance management systems need strong commitment and leadership; require local-level management, planning, supervision, and decision-making capacity; and demand careful monitoring. Incentives are often an important part of staff motivation to perform well; however, effective incentives also require effective performance management systems. The establishment of effective management systems is perhaps the greatest challenge for developing nations wishing to provide performance incentives to staff members. Throughout the 1990s many nations in sub-Saharan Africa realized healthcare reforms, including decentralization. However, in many cases, the transformation of these systems has not yet achieved functional management systems at the local level (Martinez 2003). Without well-functioning, facility-based, and—at the very least—district-level decision making and performance management, the implementation of effective performance appraisal and incentives systems is, at a minimum, difficult.

In addition, the literature suggests that the results of performance incentives are not always positive. Martinez (2003) points out that individual performance rewards are often more discouraging than encouraging to staff. They can "introduce tensions and grievances whenever achievements of outcomes is the responsibility of a team rather than an individual responsibility, or wherever rewards are highly substantial or insignificant relative to the salary package" (Martinez 2003: 212). In order to be successful, performance incentives systems must reasonably respond to service provider needs for rewards and perceptions of fairness. Also, the structure of such a system needs to fit into existing performance systems so that staff feel that they are being judged according to known expectations.

Despite these constraints, it is widely understood that staff are encouraged to perform well when their work is recognized, when they experience a sense of achievement, and when they feel they have responsibility for their achievements (Hicks and Orvill 2003). Performance incentives are no panacea for poor working conditions and human resources management, but—particularly in settings where staffs are underpaid, have poor working environments, and have limited flexibility in their jobs—performance incentives can boost morale, foster teamwork, and help workers take ownership of work activities.

Keeping all these factors in mind, the Zambia Performance-based Incentives Pilot Study was designed to fit into and to reinforce existing performance management systems. As health centers and districts are expected to work in teams in Zambia, the performance awards were presented to teams. The teams then had authority to decide how to "share" the award. Systems to encourage transparency were developed to increase staff's sense of fairness and their understanding of the incentives program.

ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
CBOH	Central Board of Health
CDE	Contracted Daily Employee
DHMT	District Health Management Team
HIV	Human Immunodeficiency Virus
HMIS	Health and Management Information System
HS	High School
HSS	Health System Strengthening
IMCI	Integrated Management of Childhood Illness
KW	Kwacha
MOH	Ministry of Health
ND	No Data
OPD	Outpatient Department
QAP	Quality Assurance Project
RHC	Rural Health Center
STI	Sexually Transmitted Infection
TBA	Traditional Birth Attendant
USAID	United States Agency for International Development
ZNS	Zambia National Service

II. BACKGROUND

The Zambian Government began substantial health system reforms in the mid-1990s. These reforms included building the management capacity and responsibilities of district health management teams (DHMTs), training community health workers to provide essential health services, and cost sharing. The sometimes daring steps taken by the Zambian Government in relation to decentralization and community participation in the public health system have attracted a great deal of attention and admiration. However, there has been growing recognition that the health reforms have not yet led to significant improvements in the quality of health services or health indicators. The Ministry of Health (MOH) is looking toward performance improvement to develop healthcare quality and results in the country.

The introduction of cost sharing was an important component of the Zambian health reforms undertaken in the 1990s. The policies governing cost sharing include the following requirements:

1. That 90% of all revenues accrued by a health center from user fees must be used by that health center to improve health services provided in ways that are seen as important by the catchment communities, and
2. That the remaining 10% of the total fees collected may be used to pay a bonus to the staff of the health center from which the money was collected.

Health system planners anticipated that the bonus would encourage staff to perform well by providing an incentive for providers to attract and serve more clients. At most health centers, staff divided the 10%; depending on the facility, sometimes non-qualified personnel—such as contracted daily employees (CDEs), cleaners, and guards—were included in sharing the bonus, other times they were not. But even when divided equally among only qualified staff, the 10% of the monthly fee income for each health center amounted to so little that it did virtually nothing to motivate staff to come to work, let alone perform. For example, in the district of Luangwa, in Lusaka Province, the average monthly fees collected by health centers came to 109,388 kwacha (US$ 23/month or US$ 69/quarter). The 10% thus came to a mere US $2.30 per health center per month, and when this was divided among the three to five workers at health facilities, it amounted to less than a dollar per provider per month.

In the last few years, the Zambian Central Board of Health (CBOH) has also adopted a performance management system. Performance management refers to the process of "measuring, monitoring and enhancing the performance of staff, as a contributor to the overall organizational performance" (Martinez 2003: 208). In Zambia, performance management systems include health facility action planning and self-assessments aimed at assisting staff to monitor and improve their own performance and the overall performance of their health facility. In this system, staff were supposed to report on selected indicators and processes on a quarterly basis; annual work plans were to be reassessed and updated each quarter; and staff at health facilities were to work together as a team to plan, assess achievements, and develop solutions to problems. District supervisors conducted quarterly supervision visits to health facilities to review action plans and achievements, provide support, and assist staff in resolving problems. The overall focus was on team performance, rather than individual performance.

III. STUDY PURPOSE AND OBJECTIVES

The purpose of the Performance-based Incentives Pilot Study was to develop and test a process for motivating staff and increasing performance through financial and non-financial performance awards.

The study was framed around two principal objectives:

1. To test the effects of financial and non-financial awards on healthcare worker motivation, and
2. To examine the impact of performance-based awards on health center performance and achievement of selected health indicators.

IV. STUDY DESIGN AND METHODOLOGY

A. Study Phases

The study was organized in three phases:

- Phase 1, study preparation, encompassed the study design, definition of indicators, and guidelines for making awards, orientation of districts, and collection of baseline data;
- Phase 2, implementation, covered the period when districts implemented the performance-based incentives program; and
- Phase 3, analysis and reporting, included the analysis of staff motivation surveys and health center indicators.

B. Conceptual Framework

Timeline: The study was originally designed to cover three quarters of 2004, but to compensate for delays in implementation, it was extended to cover the entire 2004 period. The delays were mainly attributed to constraints encountered by district staff and are detailed in the Findings section.

Site selection: Two districts, Luangwa and Chongwe, were selected for the pilot study. Sites were selected for: 1) interest of provincial and district directors in participating in the pilot (both Luangwa and Chongwe are in Lusaka Province) and 2) proximity to Lusaka with a minimum qualification that the distance of the district from Lusaka make follow-up feasible and low cost.

Luangwa is a small district with eight health centers and one mission hospital, situated a five-hour drive from Lusaka. The district is made up of very poor rural communities, located along the Luangwa and Zambezi Rivers, that subsist from fishing and farming. Seven of Luangwa's eight health centers are situated along the 80-kilometer dirt road that connects Luangwa to the main road. One health center, Kavalamanga, is located 13 kilometers off the main dirt road on the other side of a game reserve and is the least accessible health facility in the district.

By contrast, the district of Chongwe has 23 health centers and one mission hospital (with a district hospital also planned). It covers a vast area, extending more than 100 kilometers from the outskirts of Lusaka to Luangwa Bridge (the Luangwa turnoff). A few of the health centers in Chongwe are located on or near the main road, but several others are situated north and south of the main road, some as far as 40 kilometers from the tarmac, and are quite remote and difficult to reach. While most of the health centers in Luangwa cover very rural and poor communities, health centers in Chongwe are more varied, with some serving peri-urban populations and others covering very remote areas.

The pilot study only included health centers. Hospitals were excluded because their staff, roles, and responsibilities were different enough from health centers' to make comparison between the two types of facilities unproductive.

C. Awards

Award categories: To recognize good performance and encourage continual improvement, the study team, in collaboration with Lusaka Province and the districts, defined two awards, the first for the best performing health center and the second for the most improved health center. In accordance with the DHMT activities, awards would be provided each quarter at routine meetings held between district and health center staff.

Award types: The study sought to test financial awards in Chongwe and non-financial awards in Luangwa. This decision was based on an assessment of user-fee income in the two districts for the year 2003. Annex 1 provides the analysis of user fees for each district. The accumulation of user fees in Luangwa was so small that the study team determined that even if aggregated and divided among staff at one or two health centers, the amount would still provide little incentive to health workers. Revenues from Chongwe were more substantial, and the greater number of health centers meant that 10% of the sums collected from user fees for all health centers, when aggregated, came to about 1.2 million kwacha per quarter (US$ 255) in 2003. The district decided to divide this money evenly between the best performing and most improved health centers.

While financial incentives based on 10% of the aggregate of user fees for all health centers were determined for Chongwe District, Luangwa District decided to purchase trophies to award best performing and most improved health centers. With existing funds, the district purchased two trophies and two shields. District managers decided that a shield and a trophy would be presented to the best performing and most improved health centers for each quarter and would rotate to different winners in different quarters.

D. Systems Integration

A main objective of the study design was that the system for assessing performance be fully integrated into the national health system and based on existing systems. This integration took two forms. First, the indicators selected for measuring performance were derived from the national health and management information system (HMIS) and the national *Integrated Technical Guidelines* for health service provision. In other words, they were indicators that health centers were either already collecting data on or were familiar with. Second, assessment of indicators and performance was integrated into the District Health Management performance assessment process.

The indicators defined under the Performance-based Incentives Pilot Study are listed in Table 1.

Table 1: Performance Indicators

Indicator	Source
Malaria incidence	HMIS
Antenatal care (first visits)	HMIS
Supervised deliveries	HMIS
Postnatal attendance	HMIS
STI incidence	HMIS
Full immunization	HMIS
Rational prescription of antibiotics	IMCI guidelines
Health center hygiene and safety	Performance assessment checklist
Client satisfaction	New
Health center self-assessment	HMIS procedures
Health center action plans	Action planning handbook

Note: IMCI is the integrated management of childhood illness; STI is sexually transmitted infection.

As part of their existing responsibilities, DHMTs are scheduled to visit health centers on a quarterly basis to conduct performance assessments. During these visits, DHMTs they are supposed to review health center achievements on key indicators and review health center self-assessments of achievements and action plans. Building on this existing system, the study was designed so that district managers would record achievements in selected indicators and on the appropriateness and effectiveness of health center

actions during these visits.[1] Each district also agreed to hold quarterly meetings with all health centers to discuss plans and achievements. It was anticipated that the award ceremony would be integrated into these quarterly meetings, thereby reducing the cost and logistical constraints that might be posed by a separate awards ceremony.

E. Scoring

National objectives for the HMIS indicators were used as a basis for scoring. Performance scores of 0 to 5 were applied to indicator results depending on how close the results came to meeting these objectives or standards. Because the processes of self-assessment, action planning, and problem resolution are central to performance improvement, actions designated for each of the indicators were also assessed and scored. Scores for actions ranged from 0 to 2. Health facilities that demonstrated good results or improvements in health indicators, such as the percentage of pregnant women attending antenatal care (ANC) clinics, were awarded more points if their success was based on a well-defined action (see example in Figure 1). A complete list of the indicators and scores is in Annex 2.

Figure 1: Scoring Example

Zambia has a high average antenatal care attendance, 93%. In order to score the maximum number of points, health centers had to meet or exceed this average. They also had to have taken appropriate actions to maintain or increase their ANC results.

ANC Attendance	Score
≤ 49%	0
50–59%	1
60–69%	2
70–79%	3
80–89%	4
≥ 90%	5

Appropriateness of Actions	Score
None of the actions appropriately addressed the problem or issue	0
Some of the actions appropriately addressed the problem or issue	1
All of the actions appropriately addressed the problem or issue	2

F. Simplicity and Objectivity (Fairness)

A concern of the study team was that the system for assessing performance be simple enough that districts and health centers could understand it with minimal orientation, but that it still be considered fair and objective. Simplicity was addressed by: 1) using indicators that health centers were either already monitoring or with which they were already familiar, 2) developing a scoring system based, where applicable, on national targets for different service areas, and 3) automating this scoring system in a simple Excel spreadsheet. (Each district was trained to score manually first, and instructions for manual scoring were provided so that district staff could fully understand the process and could carry out scoring in the case of electrical or computer failures.)

[1] Quarterly meetings of DHMT and all facilities are recommended but not required by the CBOH.

To ensure objectivity and fairness to the greatest degree possible, the study:

1) Required that all facilities be judged according to the same criteria, with the exception that compensation points were defined for health centers with hard-to-reach populations or fewer staff for the population served (see 2 below);
2) Defined compensation points and applied them to qualifying health centers to account for:
    a) Health centers that had smaller staff-to-population ratios than the average for all health centers in the district and
    b) Health centers that had hard-to-reach populations within their catchment areas;
3) Required that health centers be provided with written guidelines (developed by the study team) for how performance would be assessed and scored under the pilot study and that health centers receive an orientation to the scoring process at the first award ceremony; and
4) Requested that districts provide copies of scoring sheets, on which the performance of all health centers was recorded, to each health center so that health centers could verify that their performance was accurately represented and compare their performance to that of other facilities.

G. Cost-effectiveness

Given that districts did not have separate budgets for the pilot study and that the study provided no financial resources to districts for implementing the program, cost-effectiveness was imperative to the program's success. Districts were encouraged to integrate performance-based incentive activities into their routine performance assessment visits to health centers so that additional transport would not have to be arranged. The awards ceremony was likewise to be integrated into the districts' routine quarterly meeting with health centers. The cost of the program was anticipated to include mainly photocopying of forms and information.

H. Staff Motivation

One of the main objectives of the pilot was to test whether performance incentives improved health worker motivation. Five staff motivation surveys were planned to monitor staff responses to the program. These included a baseline assessment of staff motivation and subsequent surveys conducted after the provision of each award.

In actuality, only three award ceremonies took place, and as a result, only four of the five planned staff motivation surveys were conducted. For Luangwa, awards ceremonies included the first and second quarter performance awards individually and a third ceremony for the third and fourth quarter awards combined. Chongwe District was unable to complete data collection for quarter 4; therefore, awards were only provided for quarters 1, 2, and 3.

V. FINDINGS

A. Awards

Table 2 lists the health facilities that won awards for each of the quarters included in the study and the type or amount of award received.

Table 2: Awards by District and by Quarter

Luangwa	Q1	Q2	Q3	Q4
Best performing	Kavalamanga	Kasinsa	Kasinsa	Sinyawagora
Most improved	Kasinsa	Kasinsa	Luangwa Boys	Mandombe
Award	Trophy and shield	Trophy and shield	Trophy and shield	Trophy and shield
Chongwe	**Q1**	**Q2**	**Q3**	**Q4**
Best performing	Lukwipa	Lukwipa	Lukwipa	No award
		Chongwe	Rufunsa	
Most improved	Lukwipa	Kankumba	Rufunsa	
		Kampekete	Shikabeta	
Award	3.7 million KW	2.4 Million KW	1.8 Million KW	

Note: KW is kwacha.

In Chongwe, Lukwipa health center won awards for both best performing and most improved health center in the first quarter of the pilot. This led staff to question the fairness of the award process. Staff questioned Lukwipa's award and expressed frustration that one health center received such a large amount of cash. In response, the district decided to provide two awards under each of the award categories for quarters 2 and 3. Criteria for awards were expanded to include the first and second best health facility in each category, and district staff decided that the user-fee pool would be divided equally among these four health facilities.

B. Financial Awards

The amount of money awarded in each of the three quarters in Chongwe varied greatly. In quarter 1, 3.7 million kwacha was given to Lukwipa, while in quarter 2 only 2.4 million was available for awards. User-fee collections do vary from quarter to quarter, but discussions with district staff indicate that the first award may have included funds from the first quarter of the year and funds left in the account from previous quarters. According to national guidelines, 10% of user fees are to be returned to health facilities at the end of each quarter and are not to remain in district bank accounts. The first award thus appears to reveal errors in district financial management.

In addition, while staff were pleased about the addition of awards for second most improved and second best performing health center, they were dissatisfied with the sums received for the awards. Divided among four health centers, the 10% of user fees did not seem to motivate staff.

Health centers that received financial awards were given no instructions on how they should use the money. Most divided a portion of the award money among the staff. Usually the sums differed according to the roles and responsibilities of the provider, with in-charges receiving a little more than other health providers. Almost all health centers also set aside a portion of the funds to purchase needed supplies or equipment for the health facility. Items purchased included cleaning supplies, mats, curtains, and a water container for hand washing. One health center also mentioned that staff had purchased clothes for newborns to give to mothers who delivered at the facility. They hoped these gifts would attract women to the center and increase their rates of attended deliveries.

C. District Management and Supervision

The provision of awards was complicated by constraints in management and logistics at the district health offices. The first awards were delayed in both districts because district supervisors had difficulty making the routine quarterly visits to health facilities in which they were supposed to collect information on HMIS indicators and assess action plans, among other things.

Luangwa: In Luangwa, the district did make these visits, but only two staff members were routinely collecting information and reviewing action plans, so additional visits had to be scheduled. After the first quarter, Luangwa experienced fewer difficulties, in part due to better planning of supervisory visits and because of a better understanding of how the award process could be integrated into other activities. Nonetheless, throughout the process they continued to experience problems, such as delays, which the district director attributed to the fact that, viewing the study as a one-time pilot, he and the team had not fully made the awards process part of their routine responsibilities.

Chongwe: In Chongwe, a much larger district, district staff had difficulty coordinating visits, had trouble with transportation, and tended to focus on a few health centers per quarter rather than all health centers in their normal supervision visits. In order to collect the information on which the awards were to be based, the district health information officer had to arrange special visits to health facilities. Chongwe staff attributed their difficulty to a lack of leadership; they were without a district director for nine months. The district of Chongwe was also involved in assisting with a malaria control project, a tuberculosis research project, and an HIV/AIDS (Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome) program, all of which provided incentives for district staff members to make field visits. Staff suggested that they were reluctant to make supervision visits without these financial incentives. This raises the concern that as district staff obtain financial incentives for assisting with health projects or programs, they may turn their backs on their routine responsibilities, whether for lack of time or lack of interest.

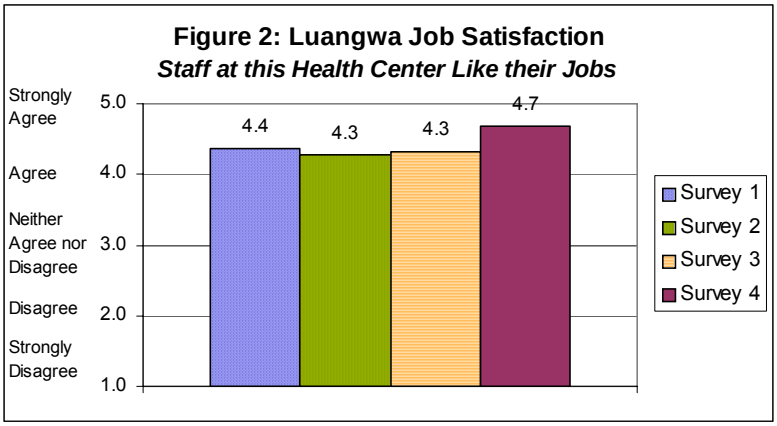
Other constraints that restricted district staff from conducting routine performance assessment activities included: 1) changes in programming or new programs required by the MOH or the province; 2) workshops and trainings for different health programs, which took district staff out of their posts for up to a month at a time; 3) the implementation of health projects supported by donor agencies, which often require substantial investments of district staff time without consideration of how activities should fit into routine district activities; and 4) district staffing constraints. While districts have different budgets depending on the size of their populations, DHMTs tend to have comparable numbers of management staff, regardless of the number of health facilities and personnel these staff are supposed to oversee.

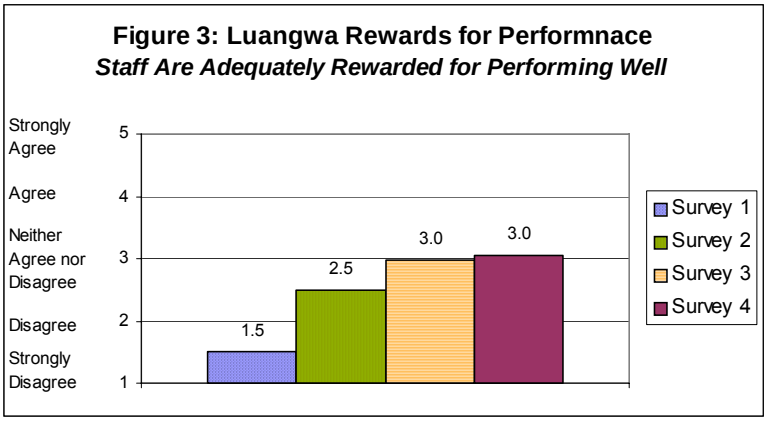
D. Staff Motivation

Responses to the performance award pilot differed greatly in the two districts.

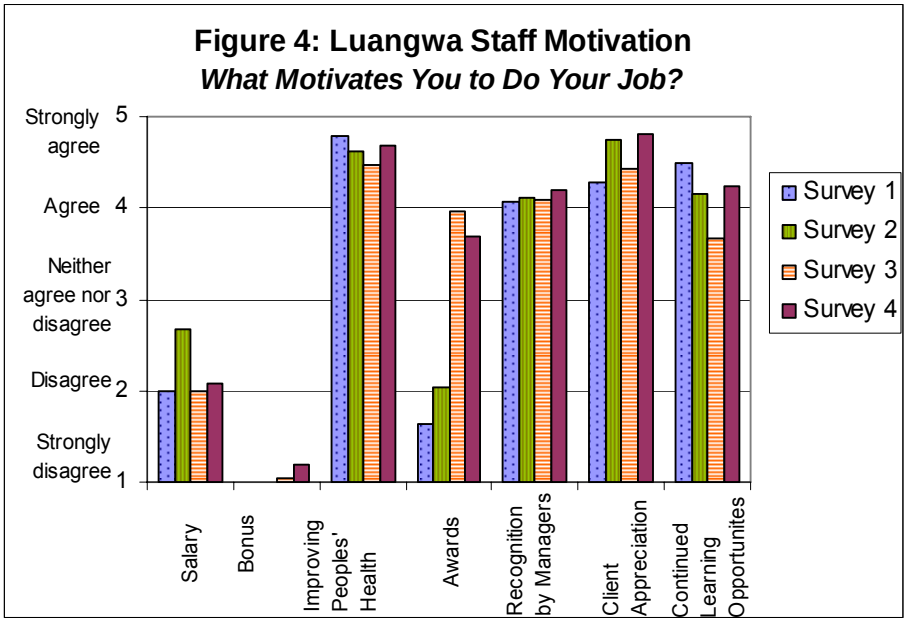
Luangwa: Luangwa staff expressed enthusiasm for the award program and stated that they wanted the district to continue providing quarterly awards. Specifically, staff liked the competition that the award program generated. They felt that the program “kept them on their toes” and made them consider more closely their activities and results. They also noted that the printouts of achievements by all health centers, provided by the district after each award, reassured them of the fairness of the process, helped them identify where they needed to improve, and enabled them to focus their energies on problem areas. The sheets also provided health center staff with information on other health centers that performed well in particular areas and galvanized inter-facility communication and strategy-sharing. Lastly, staff in Luangwa noted that since the beginning of the award program, they felt the district was paying more attention to them, by regularly making routine visits, discussing findings with staff, and encouraging staff to improve by providing awards.

Over the course of the award program, staff in Luangwa expressed increasing satisfaction with their jobs and with recognition for good performance. Staff members were asked to respond to the statement, "Staff at this health center like their jobs," on a scale of 1 to 5 with 1 indicating strong disagreement with the statement and 5 indicating strong agreement. As Figure 2 shows, staff satisfaction started out relatively high at 4.4; after the first award, satisfaction declined slightly as staff at non-winning health centers realized that they were not performing as well as they had previously perceived. Over time, as staff learned to recognize problems and to monitor improvements, staff satisfaction increased. By the last review, the average score for satisfaction had reached 4.7.





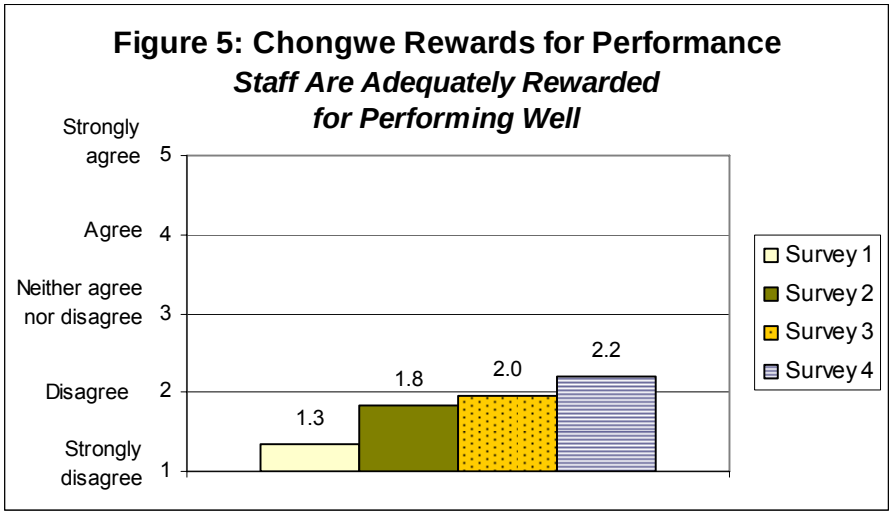
Staff's feeling that they were adequately rewarded for performing well improved over the course of the pilot from disagreement with the statement that they were adequately rewarded for performing well, (averaging 1.5, as seen in Figure 3), to a neutral, though substantially improved, attitude (averaging 3.0) toward the statement by the time of the second award.

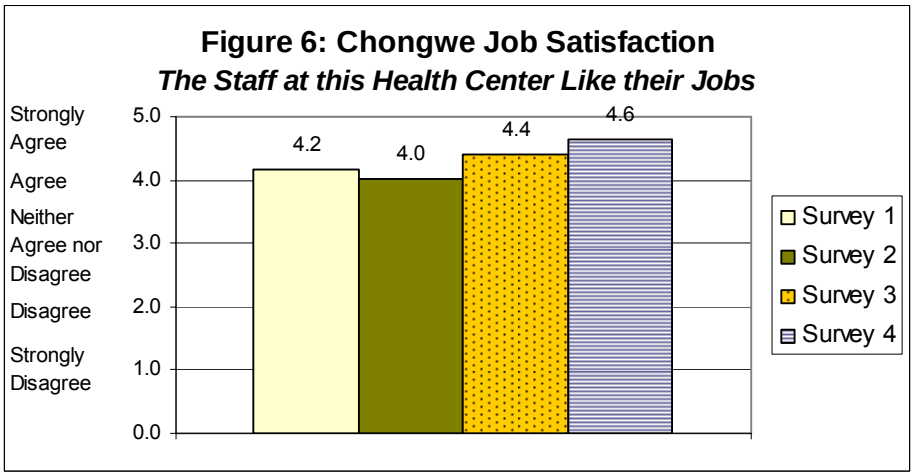


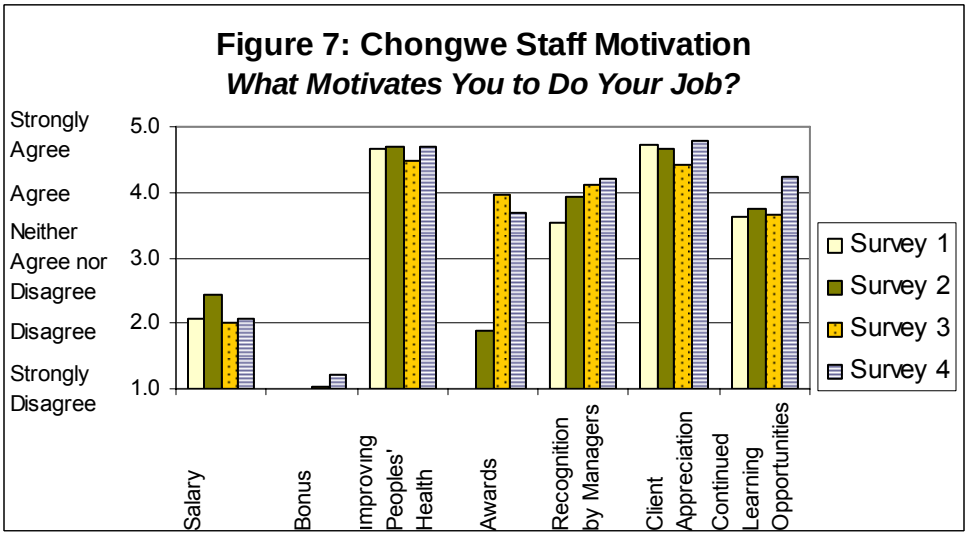
Awards for performance also became increasingly important to staff motivation (see Figure 4). At the beginning of the pilot study, improving people's health and continued learning opportunities, such as training, were the factors that most motivated staff to perform their jobs. Bonuses, awards, and salary were stated as the least significant factors in driving staff to do their jobs. It is important to note that staff were asked to list what currently motivated them to do their jobs, not what would motivate them do their jobs. Before the beginning of the pilot study, salary,

bonuses, and awards were not motivating because they were either low, insignificant, or non-existent. Over the course of the study, awards increased as a motivating factor.

Chongwe: Staff in Chongwe expressed conflicting feelings about the performance award program. Many staff felt dissatisfied with the process because one health center, Lukwipa, continually won awards. This led them to question the fairness of the process. Unlike in Luangwa, where non-financial incentives were awarded, staff in Chongwe continued to feel that they were not adequately rewarded for performing well (Figure 5). Before the start of the program, staff strongly disagreed with the statement that they are adequately rewarded for performing well. After the last award, staff simply disagreed. Nonetheless, staff expressed increasing satisfaction with their jobs as the program progressed (Figure 6) and increasingly cited awards as a motivating factor (Figure 7).

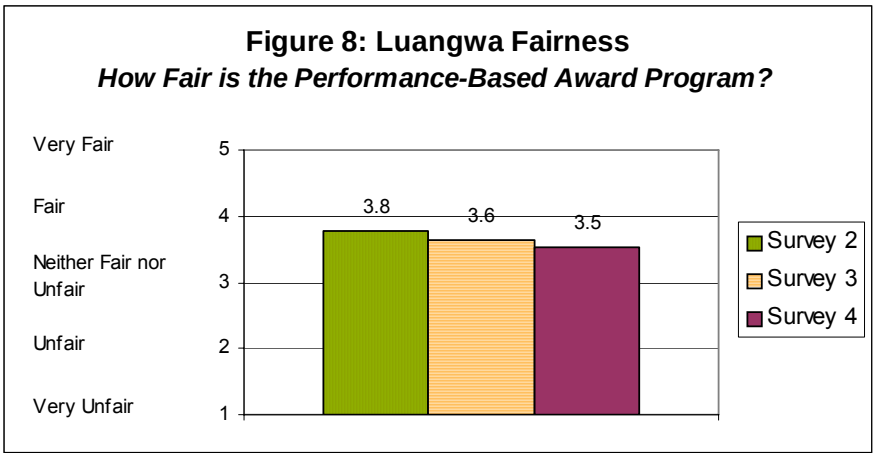


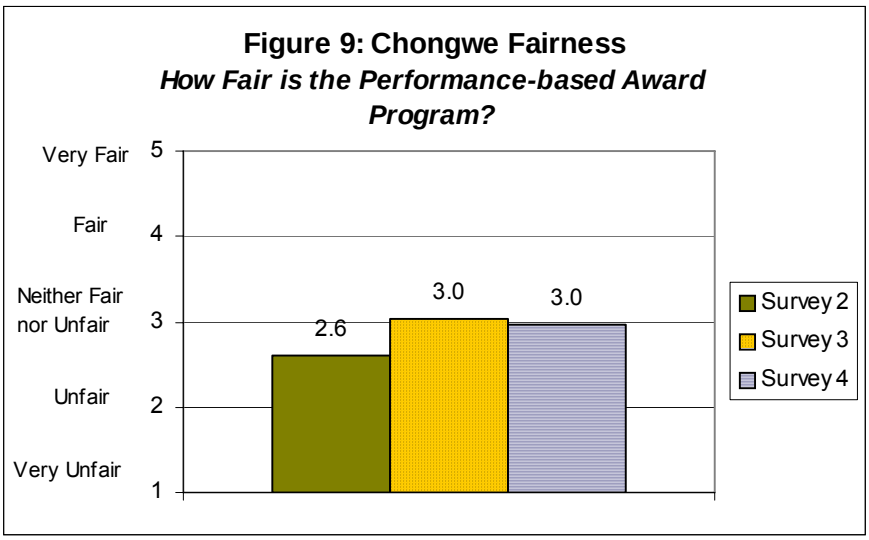




E. Fairness

Staff perceptions of the fairness of the performance-based award program also differed in the two districts (Figures 8 and 9). In both districts, staff questioned fairness when one health center won both awards. They expressed frustration and skepticism that one health center could be both the best performing health center and the most improved. In Luangwa, for example, staff perceptions of fairness declined after Kasinsa health center won both awards in quarter 2 (Survey 3).[2] Staff noted that while they initially questioned Kasinsa's achievement, they felt more at ease when the district provided them with copies of the performance and scores for each indicator. Several staff noted that after reviewing the score sheets they realized Kasinsa deserved the awards and gained a better understanding of how the awards process worked. In both Luangwa and Chongwe, staff liked that the award system was based on health indicators familiar to them and that every health facility was assessed according to the same criteria.





However, overall, staff in Luangwa had a slightly stronger view of the fairness of the performance-based award program than did staff in Chongwe. Many staff in Chongwe noted that they suspected that other health facilities "cooked the books," meaning that they manipulated service statistics in order to make their performance look better than it really was. Staff in Luangwa, on the other hand, said they did not believe other health facilities lied about their performance.

[2] Because Survey 1, the baseline survey, took place prior to the provision of awards, no information on fairness was collected. Survey 2 results reflect the awards provided in quarter 1; Survey 3 results reflect the awards provided in quarter 2; and Survey 4 results reflect the awards provided in quarter 3.

Several factors contributed to the distrust of the process demonstrated in Chongwe. First, the financial basis of the awards there clearly made staff more suspicious of cheating than did the non-financial awards in Luangwa. Second, the failure of the district to distribute completed score sheets to each of the health facilities following awards decreased transparency. Although facilities in Chongwe were provided with scoring guidelines, during the final staff motivation survey, not a single health facility could find them. In Luangwa, by contrast, each health facility had a Performance-based Incentives Pilot Study file where they kept the guidelines for scoring, score sheets from each awards program, and results from each supervision visit recording which actions were deemed appropriate and which not, and how their results and plans met or fell short of targets. Lastly, the continued success of one health center in Chongwe led other facilities to question the fairness of the process.

F. Performance Results

The study found that performance in key indicators did not change in any consistent manner in the three or four quarters for which data were collected, but some important changes were taking place. Annex 3 provides indicator results for Luangwa and Chongwe over the four quarters of the study. In Luangwa, where staff understood the Performance-based Incentives Study better, personnel were able to explain interventions they were making to improve performance in their indicators. For example, to improve supervised deliveries, health facility managers mentioned that they were:

- Assisting traditional birth attendants (TBAs) with record keeping to ensure that clients seen by TBAs were appropriately recorded and could be fed into the HMIS data kept at the health center.
- Working with TBAs to improve information and referral for services. Health center staff were trying to be more consistent about telling ANC clients to either come to the health center to deliver or see their local TBA. TBAs, in turn, were encouraging clients to return to the health center for postnatal care.
- Working with neighborhood health committees to encourage women to deliver with a TBA or at the health facility.

The most significant performance improvements were in the areas of rational antibiotic prescription, health center hygiene and safety, and client satisfaction. None of these indicators was consistently monitored by district staff prior to the pilot. Tools for assessing each indicator were provided to the district and to health facilities (Annex 4). For health center hygiene and safety, health facility managers noted that they reviewed cleaning tasks with cleaning staff, and they made sure that needle disposal boxes were available in each room and that clean water was available at the facility. Cleaners noted that they understood their tasks better and made sure that the facility was swept and mopped on a daily basis, that cobwebs were removed from rafters, and that the facility grounds were free of trash and tall grass. In the area of rational prescription of antibiotics, health facilities had begun posting IMCI guidelines on the health center walls and reviewed the guidelines with all staff, including contracted daily employees. (CDEs: These are not qualified health professionals, but health facilities are grossly understaffed, and CDEs are often left alone in facilities when qualified staff are at meetings, conducting outreach visits, or away on training.)

Two process indicators were also scored. These related to the health center self-assessment and planning. Tables A10–A12 in Annex 3 show changes in performance over the course of the study. The results indicate that almost all health centers in Luangwa were doing their self-assessments but that not all facilities were using the results of the self-assessment to adjust their action plans for each quarter. Self-assessments are supposed to be done by the health center staff as a team, rather than, say, the health center in-charge. Table A10 suggests that over the course of the performance-based award program, health centers improved in this area, although they appear to have struggled in the area of team planning. Lastly, Table A12 shows that health centers improved in making all staff aware of the results of the self-

assessment, a result that corresponds to the increase in team involvement in the process. However, staff knowledge of plans and objectives outlined in quarterly plans remained weak.

Results for Chongwe were more difficult to assess in part because the data on these indicators were only collected for the first and second quarters. DHMT members noted that they forgot to collect them for quarter 3. Tables for Chongwe are also presented in Annex 3.

Overall, many DHMT staff had some difficulty in assessing actions and two other process indicators: self-assessment and planning. Part of the problem seemed to stem from their own lack of understanding of what constitutes a good action and how to discuss actions with health facility staff. In theory, district supervisors are supposed to be trained to provide this kind of supervision, but in reality they have little training or experience in action planning or performance assessment. With regard to self-assessment, the performance assessment required that DHMT staff actually examine the documents and ask different staff members about their participation in and awareness of the processes and strategies. DHMT staff were accustomed to checking if the documents were there, but not to assessing their content or to discussing the process with staff members, and this created some additional confusion.

G. Scoring

While both districts experienced logistical difficulties in conducting routine performance assessment visits, scoring performance proved relatively simple. Both districts used the electronic scoring system to score the performance of their health centers. District staff had little problem with the scoring process. A one-day orientation had been provided to district staff in Lusaka before the first awards were given. In addition, a study team member went to each district to assist with the first scoring process. After that initial assistance, district staff in Luangwa had no difficulty scoring health center performance on their own. District staff in Chongwe continued to request assistance, but their concern seemed mainly one of time and the need for an extra person rather than a technical constraint or limited knowledge.

VI. STUDY SIGNIFICANCE

The study confirms previous studies stressing the importance of strong, functioning performance management systems for the success of staff performance appraisal systems (Martinez 2003; Martinez and Martineau 2001). The cases of Luangwa and Chongwe Districts underscore the importance of district leadership and functional performance management systems to successful performance assessment. In Luangwa, where district staff were able to carry out basic performance management tasks, although not without complications, the award process worked more smoothly, was received by staff more positively, and contributed to an increase in staff motivation. In Chongwe, on the other hand, where a crisis of leadership and organization constrained district staff in carrying out routine supervisory visits, any future efforts to develop or expand performance incentives will require capacity building for DHMT staff in performance management.

However, it is also important to note that staff in Luangwa District felt that the award process, because it was linked to performance management activities, actually helped them focus their efforts, improve supervision, and monitor health center performance. If appropriately integrated into existing performance management systems, a performance award system has the potential of helping build the capacity of both health facility and district staff to carry out routine performance management activities.

Perhaps most importantly, the study found that even small increases in staff support by the district and district recognition of health center performance boost health worker motivation and job satisfaction. Non-financial awards were motivating and significantly less controversial than financial awards.

VII. SUMMARY OF FINDINGS AND RECOMMENDATIONS

1. *Staff morale and motivation improve substantially with even small gestures of support and encouragement from district supervisors.* Even in health facilities that did not receive awards, staff expressed enthusiasm and satisfaction with even small amounts of additional attention being provided by DHMT staff. Non-financial awards were more motivating.

2. *Awarding performance based on indicators and actions reinforces the importance of problem identification and resolution through action planning and implementation.* To ensure continued quality improvement, staff need to be rewarded based on improvements in processes and services as well as results. Integrating process indicators into the award program will strengthen staff's knowledge of what they should be doing; improve supervision by district teams; and, ultimately, improve health services.

3. *Rewarding for both best performing and most improved health facilities stresses the importance not only of achievement but of continual improvement and encourages health facility staff to work together as a team.* Staff liked that they were rewarded for improving and not just for being best. It gave them a sense that the efforts they were making, even if not perfect, were being recognized.

4. *Non-financial awards are as motivating, if not more motivating, for staff than financial awards and do not generate as much conflict, suspicion, or frustration.* The trophy and shield awards provided by Luangwa District were prized by staff that took them to neighborhood health committee meetings, displayed them prominently in health centers, and vied to win them away from other health centers. Nonetheless, staff receiving non-financial awards also requested some sort of financial support, if only to finance a small celebration for their achievement.

5. *Financial awards generate a greater degree of suspicion and distrust than non-financial awards.* Staff in Chongwe District were much more skeptical about the fairness of the awards process than staff in Luangwa. Although the nature of the award was not the only reason for this skepticism, staff noted that they would feel more comfortable if non-financial awards were also provided.

6. *Districts may want to consider beginning a performance award program with non-financial awards, leaving open the possibility of transitioning to financial awards after the award process works smoothly and staff are comfortable with the system for assessing performance and its fairness.* Staff in both sites mentioned that they would like a combination of financial and non-financial awards, but greater concern and frustration were expressed over financial awards. Given that districts would need a year or more to adjust to a performance-based award program and get it working smoothly, it may be most prudent to begin awards with non-financial incentives. Later, if the system works and funds can be arranged, the district may consider either switching to or integrating financial awards.

7. *Without district leadership and proper management of district-based performance assessments of health facilities, the regular assessment and provision of performance awards will fail.* Performance-based incentives programs are dependent on regular assessment of performance. If structures and processes for performance assessment are not clearly defined and carefully followed, performance-based incentives will halt and staff will be very frustrated. Careful planning is required at both the central and district level to ensure that districts can consistently conduct performance reviews.

8. *Larger health districts frequently have the same number of management staff as smaller health districts.* Therefore, it may be considerably more difficult for larger health districts to carry out routine supervision and performance assessment tasks. Some consideration must be given to inequalities in staffing at the district level. Districts with a smaller ratio of management staff to health facilities will face greater difficulty in providing support to those facilities.

9. *Payment for supervision offered by other programs, such as the tuberculosis control program, presents a constraint to routine district management activities.* Staff dedicate more time to activities for which they receive allowances or bonuses and, as a result, neglect routine responsibilities. For a performance-based incentives program to be successful, consideration must be given to clearly integrating this responsibility into district health management team job descriptions and expectations.

10. *Basing performance awards on existing health indicators and processes is feasible, considered fair by health facility staff, and is simple enough for both district and health center staff to understand.* Staff were pleased that the indicators they were being evaluated on were familiar to them and did not add to their work. They also felt that clear criteria had been set for evaluating all health centers.

11. *Integrating performance assessment activities into routine district responsibilities is a cost-effective way to implement a performance incentives program.* Although they encountered problems, both districts noted that they believed that with better planning they could integrate activities more effectively and further reduce costs.

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ANNEX 1: 2003 USER FEES

User Fees Collected by Each Health Center in Luangwa District: 9/2002–8/2003

Health Center	Total	Average Fees/Month	Average Fees/Quarter
Luangwa Boma	4,312,250	359,354	1,078,063
Luangwa Boys High School	3,401,000	283,416	850,250
Katondwe Outpatient Department (OPD)	1,265,300	105,441	316,325
Sinyawagora	766,500	63,875	191,625
Chitope	533,500	44,4581	133,375
Kasinsa	494,500	41,208	123,625
Mphuka	480,000	40,000	120,000
Mandombe	374,000	31,166	93,500
Luangwa Bridge	229,000	19,083	57,250
Kavalamanga	138,000	11,500	34,500
Total all health centers	11,994,050	999,504	2,998,513
Total excluding Katondwe OPD	10,728,750	894,062	2,682,188
Total excluding Katondwe OPD and Luangwa Bridge	10,499,750	874,979	2,624,938

Notes: Amounts are in Zambian kwacha. Luangwa Bridge is staffed by the police but provides services to the general public as well as to police staff. All use-fee income is retained by the district as compensation for the drugs supplied free to the health center.

User Fees Collected by Each Health Center in Chongwe District: 9/2002–8/2003

Health Center	Total	Average Fees/Month	Average Fees/Quarter
1. Chongwe Rural Health Center (RHC)	5,873,000	489,416	1,468,248
2. Chalimbana RHC	3,684,500	307,042	921,126
3. Zasti RHC	780,000	65,000	195,000
4. Nyangwena RHC	3,681,000	306,750	920,250
5. Shikabeta RHC			-
6. Mpango	1,998,000	166,500	499,500
7. Kanakantapa	1,899,000	158,250	474,750
8. Kasisi	4,127,000	343,917	1,031,750
9. Palabana	1,411,500	117,625	352,875
10. Chinyunyu	3,899,000	324,917	974,750
11. Rufunsa	1,324,000	110,333	331,000
12. Kampekete	3,208,000	267,333	802,000
13. Katoba	1,884,000	157,000	471,000
14. Chainda	3,019,000	251,583	754,750
15. Lwiimba	3,828,000	319,000	957,000
16. Kankumba	507,000	42,250	126,750
17. Waterfalls			None yet
18. Chikumbi	325,300	27,108	81,325
19. Kasenga	819,000	68,250	204,750
20. Ngwerere	3,504,000	292,000	876,000
21. Ngwewere Post	1,535,500	127,958	383,875
22. Zambia National Service Chongwe	527,000	43,917	131,750
23. Zambia National Service Airport			None
24. Lukwipa	888,000	74,000	222,000
25. Mikango Hospital	429,000	35,750	107,250
Total	49,148,800	4,095,899	12,287,699

Notes: Amounts are in Zambian kwacha. Mpanshya Hospital does not submit its OPD fees back to the district. Waterfalls clinic is newly opened and has no history as yet in fee collection. Shikabeta does not collect much at all. ZNS Airport does not submit any fees back to the DHMT.

ANNEX 2: SCORING GUIDELINES FOR DISTRICTS AND HEATH CENTERS

INTRODUCTION

The performance of health workers is key to the provision of quality health services. Yet, health worker performance is often tied to how well they are appreciated, whether they are rewarded or recognized for performing well, and how much feedback they receive about their performance. The Performance-based Incentives Pilot Study aims to test out whether rewards influence the performance of health center staff. The objective of the pilot is to test out systems that may help to: 1) boost health provider morale and performance by recognizing health facilities that perform well and 2) provide a system for measurement and review of health center performance. To this end, the two categories of best performance are identified in the Performance-based Incentives Pilot Study: 1) the best performing health center and 2) the most improved health center.

The "Best Performing" and the "Most Improved" health centers will be identified and awarded in Chongwe and Luangwa District every quarter for the calendar year 2004.

EVALUATION CRITERIA

The Best Performing and the Most Improved health centers are identified every quarter in the piloted district. The evaluation is expected to be transparent. Therefore, health centers are evaluated based on their performance in 8 of the HMIS indicators and 3 additional indicators that address priority areas as defined by CBOH.

STEP 1. Compensation Points

The Performance-based Incentives Pilot Study recognizes that not all health professionals work in the same context. The number of providers per the population and the accessibility of the catchment population influence a health center's achievements. Therefore, two "handicaps" have been built into the evaluation system to account for variability these conditions.

Compensation 1. Health Center Population Classification

The more staff a health center has to provide services to its population the better it is likely to perform. Therefore, health centers that have fewer staff in relation to the population are at a disadvantage. This compensation is calculated by dividing the population of the district by the number of trained staffing in the district as a whole. It then compares the ratio of population to staff for each health center to the district average.

Population to Trained Staff Member Ratio	Score
If the total population of the health center catchment area ÷ number of trained health providers assigned to the health center is equal to or less than the district average (district population ÷ number of trained health providers in the district).	0
If the total population of the health center catchment area ÷ number of trained health providers assigned to the health center is greater than the district average (district population ÷ number of trained health providers in the district by up to 49.9%).	1
If the total population of the health center catchment area ÷ number of trained health providers assigned to the health center is greater than the district average (district population ÷ number of trained health providers in the district by 50% or more).	2

Compensation 2. Health Center Population Accessibility

Accessibility in this case refers to distance, geographical access (i.e., bridges, mountains, etc.), and infrastructure conditions between the catchment population to the health center.

Accessibility	Score
85% or more of the health center population is generally accessible.	0
70–84% of the health center population is generally accessible.	1
69% or less of the health center population is generally accessible.	2

ACTIONS

At the end of every quarter, health centers identify problem areas and plan activities for improvement. Actions planned the previous quarter and undertaken in the quarter under review to achieve results obtained in the quarter for the 11 indicators are reviewed by the DHMT to assess their appropriateness in relation to the problem. Actions are scored as follows:

Actions Undertaken	Score
None of the actions appropriately addressed the problem or issue.	0
Some of the actions appropriately addressed the problem or issue.	1
All the actions appropriately addressed the problem or issue.	2

Actions are appropriate if:

- They are relevant to the stated issue.
- They are capable of addressing the stated issue in a cost-effective and timely manner.
- They have not been used before with limited or no result.
- They don't overburden health center resources/negatively impact other initiatives.
- They include a reasonable strategy.

Please note that scores for actions are applied to both the Best Performing and Most Improved categories.

INDICATORS: BEST PERFORMING CATEGORY

Quarter achievements are calculated and scores given as follows:

	Indicator	Formula	Scoring
1	**Malaria incidence**	Number of cases in quarter ÷ number of cases in same quarter of previous year × 100.	
2.	**STI incidence**	Number of cases in quarter ÷ number of cases in same quarter of previous year × 100.	

Achievement(%)	Score
≥100	0
90–99	1
85–89	2
80–84	3
75–79	4
≤74	5

For malaria and STI only

	Indicator	Formula	Scoring
3	**First antenatal coverage**	Number of first-time antenatal clients ÷ number of expected pregnancies for the quarter × 100.	
4	**Rational antibiotics prescribing**	Number of antibiotic prescriptions that conform to national standards ÷ 20 × 100.	
5	**Health center hygiene and safety**	Number of environmental conditions met ÷ 20 × 100.	
6	**Client satisfaction**	Add percentage ratings from 1 to 10 ÷ 10 × 100.	

Achievement(%)	Score
≤ 49	0
50–59	1
60–69	2
70–79	3
80–89	4
≥90	5

For first antenatal coverage, rational antibiotics prescribing, health center hygiene and safety and client satisfaction only

	Indicator	Formula	Scoring
7	**Supervised deliveries**	Number of deliveries actually supervised ÷ number of expected deliveries in quarter × 100.	

Achievement(%)	Score
≤ 14	0
15–24	1
25–34	2
35–44	3
45–54	4
≥55	5

For supervised deliveries only

	Indicator	Formula	Scoring
8	**Postnatal attendance**	Number of first-time postnatal attendees ÷ number of expected deliveries × 100.	

Achievement(%)	Score
≤ 4	0
5–9	1
10–14	2
15–19	3
20–24	4
≥25	5

For postnatal attendance only

	Indicator	Formula	Scoring
9.	**Full immunization coverage 0–11 months**	Number of immunized children 0–11 months ÷ total number of children 0–11 months estimated in the quarter × 100.	Achievement(%) / Score ≤39 / 0 40–49 / 1 50–59 / 2 60–69 / 3 70–79 / 4 ≥80 / 5 For full immunization only
10	**Self-assessment** **a. Sub-indicators**	Was the self-assessment done for the previous quarter? Was the self-assessment done by a representative team of health center staff? Are health center staff aware of the results of assessment?	No = 0 Partially = 1 Yes completely = 2 No = 0 Yes = 2 No staff aware = 0 Some staff aware = 1 All staff aware = 2
11.	**Planning**	(Quarter 1) Does the health center have activities based on their annual action plan planned for the first quarter? (Quarter 2,3, & 4) Were appropriate adjustments made to the quarter's action plan based on the self-assessment for the previous quarter? Did a representative team of health center staff do the action plan? Are all health center staff aware of the goals and objectives outlined in the action plan?	No/None = 0 Partially/Some = 1 Yes/All = 2 No = 0 Yes = 2 No staff aware = 0 Some staff aware = 1 All staff aware = 2

INDICATORS: MOST IMPROVED CATEGORY

	Indicators	%		%		%	
1	Staff to population						Score
2.	Accessibility						Score
3.	Malaria incidence	Result same quarter previous year	_	Quarter result	=	Improvement	≤0 = 0 1–5 = 1 6–10 = 2 11–15 = 3 16–20 = 4 ≥21 = 5

4.	First antenatal attendance	Quarter result	_	Result previous quarter	=	Improvement	≤0 = 0 1–5 = 1 6–10 = 2 11–15 = 3 16–20 = 4 ≥21 = 5
5.	Supervised deliveries	Quarter result	_	Result previous quarter	=	Improvement	≤0 = 0 1–5 = 1 6–10 = 2 11–15 = 3 16–20 = 4 ≥21 = 5
6.	Postnatal attendance	Quarter result	_	Result previous quarter	=	Improvement	≤0 = 0 1–5 = 1 6–10 = 2 11–15 = 3 16–20 = 4 ≥21 = 5
7.	STI incidence	Result same quarter previous year	_	Quarter result	=	Improvement	≤0 = 0 1–5 = 1 6–10 = 2 11–15 = 3 16–20 = 4 ≥21 = 5
8.	Full immunization coverage	Quarter result	_	Result previous quarter	=	Improvement	≤0 = 0 1–5 = 1 6–10 = 2 11–15 = 3 16–20 = 4 ≥21 = 5
9.	Rational antibiotic prescription	Quarter result	_	Result previous quarter	=	Improvement	≤0 = 0 1–5 = 1 6–10 = 2 11–15 = 3 16–20 = 4 ≥21 = 5
10.	Environmental health	Quarter result	_	Result previous quarter	=	Improvement	≤0 = 0 1–5 = 1 6–10 = 2 11–15 = 3 16–20 = 4 ≥21 = 5
11.	Client satisfaction	Quarter result	_	Result previous quarter	=	Improvement	≤0 = 0 1–5 = 1 6–10 = 2 11–15 = 3 16–20 = 4 ≥21 = 5
12.	Self-assessment						Total score
13.	Planning						Total score

COMPILING FINAL SCORES

The health center with the highest points in each category wins the award.

Section Header	Column Header	ADD
Classification	HC Population to staff	+
	Accessibility of Population	+
Malaria	Score	+
	Action	+
First antenatal attendance	Score	+
	Action	+
Supervised deliveries	Score	+
	Action	+
Postnatal attendance	Score	+
	Action	+
STI incidence	Score	+
	Action	+
Full immunization coverage	Score	+
	Action	+
Rational antibiotic prescription	Score	+
	Action	+
Environmental health	Score	+
	Action	+
Client satisfaction	Score	+
	Action	+
Self-assessment	Points	+
	Points	+
	Points	+
Planning	Points	+
	Points	+
	Points	+
TOTAL		

ANNEX 3: INDICATOR RESULTS

Luangwa Performance Results

Table A1: Luangwa ANC Results

	ANC%					ANC Actions			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
KAVALAMANGA	57	80	75	43		0	2	2	0
LUANGWA BOMA	49	45	69	91		0	2	2	1
MANDOMBE	72	126	79	95		0	1	2	1
MPHUKA	56	71	96	109		0	0	1	1
LUANGWA BOYS	88	83	121	36		1	1	1	1
CHITOPE	126	92	83	71		1	0	1	1
KASINSA	96	82	82	54		1	2	2	1
SINYAWAGORA	117	180	106	89		1	1	1	1

Table A2: Luangwa Malaria Results

	Malaria%					Malaria Actions			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
KAVALAMANGA	73	137	78	273		1	1	1	1
LUANGWA BOMA	82	76	98	82		1	1	1	1
MANDOMBE	150	195	132	89		1	1	0	1
MPHUKA	78	164	109	105		1	0	1	1
LUANGWA BOYS	79	108	84	99		0	1	1	1
CHITOPE	78	114	43	95		0	1	1	0
KASINSA	93	94	50	98		2	1	1	1
SINYAWAGORA	108	131	87	123		1	1	1	1

Table A3: Luangwa Supervised Deliveries Results

	Supervised Deliveries%					Supervised Deliveries Actions			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
KAVALAMANGA	23	62	60	68		1	2	2	2
LUANGWA BOMA	63	59	49	59		1	2	1	0
MANDOMBE	61	22	32	33		1	1	2	0
MPHUKA	33	27	41	45		0	2	1	0
LUANGWA BOYS	44	34	75	89		1	2	1	0
CHITOPE	33	33	42	74		0	2	2	1
KASINSA	40	40	36	32		2	1	1	1
SINYAWAGORA	29	35	83	29		0	1	1	2

Note: 0 = No; 1 = Partially; 2 = Yes, completely.

Table A4: Luangwa Postnatal Attendance Results

	Postnatal Attendance %					Postnatal Actions			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
KAVALAMANGA	100	100	77	68		1	1	2	2
LUANGWA BOMA	39	51	88	76		0	2	0	0
MANDOMBE	47	103	4	4		0	2	0	0
MPHUKA	21		50	46		0	0	1	0
LUANGWA BOYS	21	44	89	109		0	2	0	1
CHITOPE	153	52	52	61		1	0	1	1
KASINSA	62	19	36	45		1	2	0	1
SINYAWAGORA	60	106	89	53		1	1	0	0

Table A5: Luangwa STI Results

	STI%					STI Actions			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
KAVALAMANGA	ND	ND	133	ND		1	2	1	0
LUANGWA BOMA	94	139	81	64		1	1	1	2
MANDOMBE	ND	ND	ND	46		1	0	1	1
MPHUKA	167	80	28	ND		1	2	1	2
LUANGWA BOYS	70	67	23	23		1	1	1	2
CHITOPE	150	250	189	250		0	2	2	1
KASINSA	450	125	50	75		1	2	1	0
SINYAWAGORA	113	217	118	33		0	2	0	1

Table A6: Luangwa Immunization Results

	Immunization %					Immunization Actions			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
KAVALAMANGA	90	60	156	98		2	1	1	2
LUANGWA BOMA	45	87	118	85		1	1	2	2
MANDOMBE	62	142	81	104		1	1	2	1
MPHUKA	40	32	81	99		1	2	1	2
LUANGWA BOYS	52	96	120	28		1	2	2	2
CHITOPE	56	152	82	110		1	1	2	2
KASINSA	15	98	83	80		1	2	1	2
SINYAWAGORA	138	302	138	177		1	1	1	2

Note: 0 = No; 1 = Partially; 2 = Yes, completely.

Table A7: Luangwa Rational Antibiotic Prescription Results

	Antibiotic Presc. %					Antibiotic Actions			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
KAVALAMANGA	100	95		85			2	1	2
LUANGWA BOMA	45	65	65	75			2	2	2
MANDOMBE	55	75	65	80			0	2	2
MPHUKA	65	90	85	80			0	0	0
LUANGWA BOYS	55	40	80	65			2	0	2
CHITOPE	75	90	64	65			2	2	2
KASINSA	70	90	95	90			2	2	2
SINYAWAGORA	90	90	90	90			2	2	2

Table A8: Luangwa Health Center Hygiene and Safety Results

	Hygiene %					Hygiene Actions			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
KAVALAMANGA	75	90	80	80			1	0	2
LUANGWA BOMA	85	90	60	80			1	1	1
MANDOMBE	30	75	70	65			0	0	2
MPHUKA	30	70	75	70			0	0	2
LUANGWA BOYS	65	75	60	80			1	2	0
CHITOPE	70	90	95	55			0	0	0
KASINSA	75	90	75	85			2	0	2
SINYAWAGORA	70	80	80	90			0	0	2

Table A9: Luangwa Client Satisfaction Results

	Client Satisfaction					Client Satisfaction Actions			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
KAVALAMANGA	79	90	55	nd			1	1	nd
LUANGWA BOMA	72	76	48	nd			2	2	nd
MANDOMBE	64	80	79	nd			2	2	nd
MPHUKA	66	68	82	nd			0	0	nd
LUANGWA BOYS	84	65	75	nd			0	2	nd
CHITOPE	83	71	91	nd			0	0	nd
KASINSA	84	95	99	nd			0	0	nd
SINYAWAGORA	87	81	62	nd			2	2	nd

Note: “nd” is no data; 0 = No; 1 = Partially; 2 = Yes, completely.

Table A10: Luangwa Self-assessment and Planning 1

	Was the self-assessment done for the previous quarter?					(Quarter 1) Does the health center have activities based on its annual action plan planned for the first quarter? (Q 2,3,4) Were appropriate adjustments made to the quarter's action plan based on the self-assessment for the previous quarter?			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
KAVALAMANGA	2	2	2	2		2	2	1	2
LUANGWA BOMA	2	2	2	2		2	0	2	0
MANDOMBE	2	2	2	2		2	2	0	2
MPHUKA	2	2	2	2		2	2	0	0
LUANGWA BOYS	2	2	2	2		2	2	2	0
CHITOPE	2	2	2	2		2	2	2	0
KASINSA	2	2	2	2		2	2	2	2
SINYAWAGORA	1	2	2	2		2	2	2	2

Table A11: Luangwa Self-assessment and Planning 2

	Was the self-assessment done by a representative team of health center staff?					Did a representative team of health center staff do the action plan?			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
KAVALAMANGA	2	0	0	2		2	0	0	2
LUANGWA BOMA	2	2	2	2		2	0	2	0
MANDOMBE	2	2	2	2		2	1	0	2
MPHUKA	2	1	2	2		2	0	0	0
LUANGWA BOYS	2	1	0	2		2	1	1	0
CHITOPE	0	2	2	2		0	1	2	0
KASINSA	2	2	2	2		2	1	2	0
SINYAWAGORA	2	1	2	2		2	1	2	2

Note: 0 = No; 1 = Partially; 2 = Yes, completely.

Table A12: Luangwa Self-assessment and Planning 3

	Are health center staff aware of the results of the assessment?					Are all health center staff aware of the goals and objectives outlined in the action plan?			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
KAVALAMANGA	0	0	0	2		0	0	0	1
LUANGWA BOMA	1	1	1	2		1	0	1	0
MANDOMBE	0	1	2	1		0	1	0	2
MPHUKA	1	1	2	2		0	0	0	0
LUANGWA BOYS	1	1	0	2		1	1	1	0
CHITOPE	1	2	2	2		0	1	2	0
KASINSA	0	2	2	2		0	1	2	0
SINYAWAGORA	0	1	2	2		0	1	2	1

Chongwe Performance Results

Table A13: Chongwe Malaria Results

	Malaria					Malaria Actions			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
Kasisi/Post	149	300	83			0			
Ngwerere/Post	98	237	97			0			
Chalimbana RHC	81	91	75			1			
Chainda RHC	90	209	99			2			
ZASTI RHC	107	99	121			0			
Palabana RHC	86	97	50			2			
Katoba RHC	109	117	120			1			
Lwiimba RHC	70	83				1			
Kampekete RHC	76	163	107			2			
Lukwipa RHC	114	180	87			2			
Kankumba RHC	119	81	70			2			
Chongwe RHC	46	186	93			0			
Rufunsa RHC	137	127	83			1			
Chinyunyu RHC	88	109	81			2			
Nyangwena RHC	91	140	127			1			
Kanakantapa RHC	164	119	86			0			
Shikabeta RHC		115	123						
Mpango RHC	77	140	104			2			

Note: 0 = No; 1 = Partially; 2 = Yes, completely.

Table A14: Chongwe ANC Results

	ANC					ANC Actions			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
Kasisi/Post	99	86	84			2			
Ngwerere/Post	77	99	85			1			
Chalimbana RHC	80	76	74			1			
Chainda RHC	47	68	52			0			
ZASTI RHC	59	18	42			0			
Palabana RHC	44	60	56			0			
Katoba RHC	76	50	50			1			
Lwiimba RHC	135	123				2			
Kampekete RHC	63	93	63			1			
Lukwipa RHC	116	111	109			2			
Kankumba RHC	171	213	27			0			
Chongwe RHC	98	118	89			2			
Rufunsa RHC	102	87	98			2			
Chinyunyu RHC	96	118	115			2			
Nyangwena RHC	115	123	116			2			
Kanakantapa RHC	65	64	46			1			
Shikabeta RHC		72	88						
Mpango RHC	88	87	94			2			

Table A15: Chongwe Supervised Deliveries Results

	Supervised Deliveries					Supervised Deliveries Actions			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
Kasisi/Post	21	33	32			0			
Ngwerere/Post	2	7	9			0			
Chalimbana RHC	87	43	35			2			
Chainda RHC	15	13	24			1			
Zasti RHC	0	3	5			0			
Palabana RHC	6	8	24			0			
Katoba RHC	20	24	26			1			
Lwiimba RHC	6	1				0			
Kampekete RHC	13	38	39			1			
Lukwipa RHC	67	101	64			2			
Kankumba RHC	9	31	14			1			
Chongwe RHC	58	82	60			2			
Rufunsa RHC	25	18	13			2			
Chinyunyu RHC	25	18	13			1			
Nyangwena RHC	24	54	46			1			
Kanakantapa RHC	8	8	26			0			
Shikabeta RHC		23	55						
Mpango RHC	24	21	29			1			

Note: 0 = No; 1 = Partially; 2 = Yes, completely.

Table A16: Chongwe Postnatal Attendance Results

	Postnatal					Postnatal Actions			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
Kasisi/Post	75	62	22			1			
Ngwerere/Post	99	28	17			2			
Chalimbana RHC	15	37	15			0			
Chainda RHC	22	49	11			1			
Zasti RHC	0	35	67			0			
Palabana RHC	12	26	29			0			
Katoba RHC	8	41	5			0			
Lwiimba RHC						0			
Kampekete RHC	99	169	19			2			
Lukwipa RHC	120	53	123			2			
Kankumba RHC	45	116	12			2			
Chongwe RHC	71	62	112			2			
Rufunsa RHC	9	62	37			0			
Chinyunyu RHC	26	18	4			1			
Nyangwena RHC	98	102	21			2			
Kanakantapa RHC	46	24	7			2			
Shikabeta RHC		60	96						
Mpango RHC	47	49	6			1			

Table A17: Chongwe STI Results

	STI					STI Actions			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
Kasisi/Post	260	900	136			1			
Ngwerere/Post	41	33	54			1			
Chalimbana RHC	57	80	160			1			
Chainda RHC	157	118	88			0			
ZASTI RHC	250	0	89			1			
Palabana RHC	63	45	114			1			
Katoba RHC	83	360	157			1			
Lwiimba RHC	66	119				1			
Kampekete RHC	64	100	100			1			
Lukwipa RHC	100	171	143			1			
Kankumba RHC	215	371	45			2			
Chongwe RHC	92	26	93			2			
Rufunsa RHC	0	233	3			2			
Chinyunyu RHC	65	31	79			2			
Nyangwena RHC	68	18	0			1			
Kanakantapa RHC	119	80	70			0			
Shikabeta RHC									
Mpango RHC	63	310	123			2			

Note: 0 = No; 1 = Partially; 2 = Yes, completely.

Table A18: Chongwe Immunization Results

	Immunization					Immunization Actions			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
Kasisi/Post	116	84	146			2			
Ngwerere/Post	102	101	124			1			
Chalimbana RHC	19	134	65			0			
Chainda RHC	115	81	73			2			
Zasti RHC	231	113	95			1			
Palabana RHC	40	26	14			0			
Katoba RHC	99	73	47			2			
Lwiimba RHC	47	81				0			
Kampekete RHC	61	126	87			1			
Lukwipa RHC	112	183	193			2			
Kankumba RHC	62	85	70			1			
Chongwe RHC	100	80	54			2			
Rufunsa RHC	19	125	213			0			
Chinyunyu RHC	118	125	88			2			
Nyangwena RHC	170	178	189			2			
Kanakantapa RHC	65	69	61			1			
Shikabeta RHC		83	31						
Mpango RHC	51	101	99			0			

Table A19: Chongwe Rational Prescription of Antibiotics Results

	Antibiotic					Antibiotic Actions			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
Kasisi/Post.	70	85	90			0			
Ngwerere/Posts	80	60	90			1			
Chalimbana RHC	60	60	75			0			
Chainda RHC	70	70	60			0			
Zasti RHC	25	30	65			0			
Palabana RHC	55	40	80			0			
Katoba RHC	95	100	80			2			
Lwiimba RHC	70	55				0			
Kampekete RHC	40	65	65			0			
Lukwipa RHC	100	100	100			2			
Kankumba RHC	60	50	90			0			
Chongwe RHC	60	75	85			0			
Rufunsa RHC	45	65	40			0			
Chinyunyu RHC	60	70	70			0			
Nyangwena RHC	50	50	85			0			
Kanakantapa RHC	25	45	30			0			
Shikabeta RHC		65	90						
Mpango RHC	85	65	35			2			

Note: 0 = No; 1 = Partially; 2 = Yes, completely.

Table A20: Chongwe Health Center Hygiene and Safety Results

	Hygiene					Hygiene Actions			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
Kasisi/Post.	90	80	95			1			
Ngwerere/Posts	70	95	80			0			
Chalimbana RHC	80	85	70			1			
Chainda RHC	65	70	80			1			
Zasti RHC	80	70	95			1			
Palabana RHC	89	85	65			2			
Katoba RHC	94	65	70			2			
Lwiimba RHC	84	80				2			
Kampekete RHC	84	85	65			2			
Lukwipa RHC	89	75	95			2			
Kankumba RHC	60	85	90			1			
Chongwe RHC	60	100	60			0			
Rufunsa RHC	68	55	95			1			
Chinyunyu RHC	75	80	90			2			
Nyangwena RHC	50	70	70			1			
Kanakantapa RHC	85	40	55			2			
Shikabeta RHC		65	90						
Mpango RHC	80	85	80			2			

Table A21: Chongwe Client Satisfaction Results

	Client Satisfaction					Client Satisfaction Actions			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
Kasisi/Post	71	70	89			0			
Ngwerere/Post	70	83	57			0			
Chalimbana RHC	73	59	79			0			
Chainda RHC	63	61	65			1			
Zasti RHC	80	55	87			1			
Palabana RHC	74	67	39			1			
Katoba RHC	87	67	74			2			
Lwiimba RHC	66	48				1			
Kampekete RHC	70	58	90			1			
Lukwipa RHC	60	78	75			0			
Kankumba RHC	75	50	90			1			
Chongwe RHC	57	54	70			0			
Rufunsa RHC	38	78	85			0			
Chinyunyu RHC	90	73	73			2			
Nyangwena RHC	74	62	65			1			
Kanakantapa RHC	68	48	45			1			
Shikabeta RHC		93	90						
Mpango RHC	68	50	82			1			

Note: 0 = No; 1 = Partially; 2 = Yes, completely.

Table A22: Chongwe Self-assessment and Planning 1

	Was the self-assessment done by a representative team of health center staff?					Did a representative team of health center staff do the action plan?			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
Kasisi/Post	2	2				0	0		
Ngwerere/Post	2	0				0	0		
Chalimbana RHC	2	0				2	0		
Chainda RHC	2	2				2	0		
ZASTI RHC	2	2				0	0		
Palabana RHC	0	0				0	2		
Katoba RHC	2	0				2	0		
Lwiimba RHC	0	0				2	0		
Kampekete RHC	0	0				2	2		
Lukwipa RHC	2	2				2	2		
Kankumba RHC	2	2				0	2		
Chongwe RHC	2	2				0	2		
Rufunsa RHC	0	2				0	0		
Chinyunyu RHC	2	2				2	2		
Nyangwena RHC	0	0				2	0		
Kanakantapa RHC	0	2				0	2		
Shikabeta RHC		2					0		
Mpango RHC	2	2				0	2		

Table A23: Chongwe Self-assessment and Planning 2

	Are health center staff aware of the results of the assessment?					Are all health center staff aware of the goals and objectives outlined in the action plan?			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
Kasisi/Post	2	0				0	0		
Ngwerere/Post	2	2				0	2		
Chalimbana RHC	2	0				0	0		
Chainda RHC	2	0				0	2		
Zasti RHC	0	2				0	0		
Palabana RHC	0	0				0	0		
Katoba RHC	2	0				2	0		
Lwiimba RHC	0	0				0	0		
Kampekete RHC	0	0				2	2		
Lukwipa RHC	2	2				2	2		
Kankumba RHC	0	2				2	0		
Chongwe RHC	2	2				0	1		
Rufunsa RHC	0	2				2	0		
Chinyunyu RHC	2	2				2	2		
Nyangwena RHC	0	0				0	0		
Kanakantapa RHC	0	2				0	2		
Shikabeta RHC		2					1		
Mpango RHC	2	2				2	0		

Note: 0 = No; 1 = Partially; 2 = Yes, completely.

Table A24: Chongwe Self-assessment and Planning 3

	Was the self-assessment done for the previous quarter?					(Quarter 1) Does the health center have activities based on its annual action plan planned for the first quarter? (Q 2,3,4) Were appropriate adjustments made to the quarter's action plan based on the self assessment for the previous quarter?			
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
Kasisi/Post	2	2				2	0		
Ngwerere/Post	2	2				2	2		
Chalimbana RHC	2	2				2	0		
Chainda RHC	2	2				2	2		
ZASTI RHC	2	2				0	0		
Palabana RHC	2	0				0	2		
Katoba RHC	2	2				2	2		
Lwiimba RHC	0	2				2	0		
Kampekete RHC	0	2				2	2		
Lukwipa RHC	2	2				2	2		
Kankumba RHC	2	2				2	2		
Chongwe RHC	2	2				0	2		
Rufunsa RHC	2	2				2	0		
Chinyunyu RHC	2	2				2	2		
Nyangwena RHC	2	2				2	0		
Kanakantapa RHC	2	2				2	2		
Shikabeta RHC		2					0		
Mpango RHC	2	2				2	2		

Note: 0 = No; 1 = Partially; 2 = Yes, completely.

ANNEX 4: SCORE CHART EXAMPLES

SCORE SHEET BEST PERFORMING HEALTH CENTER LUANGWA QUARTER 3

	Classifications		Malaria			ANC				Supervised Deliveries				Postnatal Attendance					STI Incidence			
HEALTH CENTER	HC Population to Staff Classification	HC Population Accessibility Classification	Quarter Result	Score	Action	Quarter Result		Score	Action	Quarter Result		Score	Action	Quarter Result		Score	Action		Quarter Result		Score	Action
Kavalamanga	0	1	78%	**4**	1	75	%	**3**	2	60	%	**5**	2	77	%	**5**	2		133	%	**0**	1
Luangwa Boma	0	0	98%	**1**	1	69	%	**2**	2	49	%	**4**	1	88	%	**5**	0		81	%	**3**	1
Mandombe	2	2	132%	**0**	0	79	%	**3**	2	32	%	**2**	2	4	%	**0**	0		ND	%	**0**	1
Mphuka	2	2	109%	**0**	1	96	%	**5**	1	41	%	**3**	1	50	%	**5**	1		28	%	**5**	1
Luangwa Boys	1	2	84%	**3**	1	121	%	**5**	1	75	%	**5**	1	89	%	**5**	0		23	%	**5**	1
Chitope	2	2	43%	**5**	1	83	%	**4**	1	42	%	**3**	2	52	%	**5**	1		189	%	**0**	2
Kasinsa	2	2	50%	**5**	1	82	%	**4**	2	36	%	**3**	1	36	%	**5**	0		50	%	**5**	1
Sinyawagora	0	1	87%	**2**	1	106	%	**5**	1	83	%	**5**	1	89	%	**5**	0		118	%	**0**	0

	Full Immunization Coverage			Rational Antibiotic Prescription			Health Center Hygiene and Safety				Client Satisfaction				Self-assessment				Planning				
HEALTH CENTER	Quarter Result	Score	Action	Quarter Result	Score	Action	Quarter Result		Score	Action	Quarter Result		Score	Action	1	2	3		1	2	3		Best Performing Health Center
Kavalamanga	156%	**5**	1		**0**	1	80	%	**4**	0	55	%	**1**	1	2	0	0		1	0	0		**42**
Luangwa Boma	118%	**5**	2	65%	**2**	2	60	%	**2**	1	48	%	**0**	2	2	2	1		2	2	1		**46**
Mandombe	81%	**5**	2	65%	**2**	2	70	%	**3**	0	79	%	**3**	2	2	2	2		0	0	0		**44**
Mphuka	81%	**5**	1	85%	**4**	0	75	%	**3**	0	82	%	**4**	0	2	2	2		0	0	0		**50**
Luangwa Boys	120%	**5**	2	80%	**4**	0	60	%	**2**	2	75	%	**3**	2	2	0	0		2	1	1		**56**
Chitope	82%	**5**	2	64%	**2**	2	95	%	**5**	0	91	%	**5**	0	2	2	2		2	2	2		**61**
Kasinsa	83%	**5**	1	95%	**5**	2	75	%	**3**	0	99	%	**5**	0	2	2	2		2	2	2		**64**
Sinyawagora	138%	**5**	1	90%	**5**	2	80	%	**4**	0	62	%	**2**	2	2	2	2		2	2	2		**54**

SCORE SHEET: MOST IMPROVED HEALTH CENTER: LUANGWA, QUARTER 3

HEALTH CENTER	Classification		Malaria					ANC Attendance					Supervised Deliveries					Postnatal Attendance				
	HC Population to Staff Classification	HC Population Accessibility Classification	Result Same Quarter Prev Year	Quarter Result	Improvement	Score	Action	Result Previous Quarter	Quarter Result	Improvement	Score	Action	Result Previous Quarter	Quarter Result	Improvement	Score	Action	Result Previous Quarter	Quarter Result	Improvement	Score	Action
Kavalamanga	0	1	ND	78	-78	0	1	80	75	-5	0	2	62	60	-2	0	2	100	77	-23	0	2
Luangwa Boma	0	0	116	98	18	4	1	45	69	24	5	2	59	49	-10	0	1	51	88	37	5	0
Mandombe	2	2	172	132	40	5	0	126	79	-47	0	2	22	32	10	2	2	103	4	-99	0	0
Mphuka	2	2	102	109	-7	0	1	71	96	25	5	1	27	41	14	3	1	ND	50	50	0	1
Luangwa Boys	1	2	120	84	36	5	1	83	121	38	5	1	34	75	41	5	1	44	89	45	5	0
Chitope	2	2	177	43	134	5	1	92	83	-9	0	1	33	42	9	2	2	52	52	0	0	1
Kasinsa	2	2	74	50	24	5	1	83	82	-1	0	2	39	36	-3	0	1	36	36	0	0	0
Sinyawagora	0	1	55	87	-32	0	1	180	106	-74	0	1	35	83	48	5	1	89	89	0	0	0

HEALTH CENTER	STI Incidence					Full Immunization Coverage					Rational Antibiotic Prescription					Health Center Hygiene and Safety				
	Result Same Quarter Prev Year	Quarter Result	Improvement	Score	Action	Result Previous Quarter	Quarter Result	Improvement	Score	Action	Result Previous Quarter	Quarter Result	Improvement	Score	Action	Result Previous Quarter	Quarter Result	Improvement	Score	Action
Kavalamanga	ND	133	-133	0	1	60	156	96	5	1	95	0	-95	0	1	90	80	-10	0	0
Luangwa Boma	112	81	31	5	1	87	118	31	5	2	65	65	0	0	2	90	60	-30	0	1
Mandombe	ND	ND	0	0	1	142	81	-61	0	2	75	65	-10	0	2	75	70	-5	0	0
Mphuka	88	28	60	5	1	32	81	49	5	1	90	85	-5	0	0	70	75	5	1	0
Luangwa Boys	650	23	627	5	1	96	120	24	5	2	40	80	40	5	0	75	60	-15	0	2
Chitope	225	189	36	5	2	152	82	-70	0	2	90	64	-26	0	2	90	95	5	1	0
Kasinsa	300	50	250	5	1	98	83	-15	0	1	90	95	5	1	2	90	75	-15	0	0
Sinyawagora	1100	118	982	5	0	302	138	-164	0	1	90	90	0	0	2	80	80	0	0	0

Continued on next page

SCORE SHEET: MOST IMPROVED HEALTH CENTER: LUANGWA, QUARTER 3, continued from previous page

	Client Satisfaction					Self-assessment			Planning			
HEALTH CENTER	Result Previous Quarter	Quarter Result	Improvement	Score	Action	1	2	3	1	2	3	Most Improved Health Center
Kavalamanga	90	55	-35	0	1	2	0	0	1	0	0	**20**
Luangwa Boma	76	48	-28	0	2	2	2	1	2	2	1	**46**
Mandombe	80	79	-1	0	2	2	2	2	0	0	0	**28**
Mphuka	68	82	14	3	0	2	2	2	0	0	0	**38**
Luangwa Boys	65	75	10	2	2	2	0	0	2	1	1	**56**
Chitope	71	91	20	4	0	2	2	2	2	2	2	**44**
Kasinsa	95	99	4	1	0	2	2	2	2	2	2	**36**
Sinyawagora	81	62	-19	0	2	2	2	2	2	2	2	**31**

ANNEX 5: ASSESSMENT TOOLS

Health Center _____ Percentage of Yes Responses: _____%

Date _____

Health Center Hygiene and Safety Checklist

Evaluate each of the criteria. Mark yes if the criterion is met in full and no if it is not met in full. Count the number of checks in the yes column, divide by 20 and multiply by 100. The result is the percentage of yes responses (or the health center's performance in this area).

Q		No	Yes	Comments
1	Are sharps disposed of properly in a secured sharps container throughout the HC?			
2	Does the health center have a safe reliable water supply within 150 meters and/or proper water purification (boiling or chlorine treatment) practices used at the facility?			
3	Does the health center have at least 3 clean and ventilated improved pit latrines on sight and appropriately placed so as not to contaminate the water source?			
4	Is there a refuse pit or incinerator for solid waste disposal available, protected from tampering, and in use?			
5	Is the sewer system (either flush or latrine) functional, free of any blockages with adequate capacity (not full)?			
6	Are the floors and walls clean and free of dust, dirt, or fluids?			
7	Are the ceilings/roof and/or rafters in tact, secure and free of cobwebs or other obvious dirt?			
8	Is the health center free of rats, bats, other rodents or cockroaches - or their fecal matter- on floors, walls, counters, in cabinets, or around the ceiling?			
9	Are the health center surroundings and facility free of trash/litter or other waste?			
10	Is the grass and other greenery properly trimmed and neat in a manner so as to prevent the nesting of animals or snakes?			
11	Is the day lighting inside the health center adequate?			
12	Are the electric lights functional for night use and/or are lanterns and fuel available for night emergencies?			
13	Are covered garbage containers available in every room?			
14	Are the health center windows in good condition (where applicable no broken panes – shutters close securely)?			
15	Are clean water (boiled) and alcohol (spirit) swabs available in service rooms?			
16	Is there a functioning vaccine refrigerator for storing vaccines?			

17	Is the refrigeration temperature recorded twice per day and the temperature chart posted on or near the refrigerator?			
18	Is the refrigerator free of any unauthorized materials?			
19	Is a fire extinguisher or bucket of sand on site and easily visible?			
20	Are all of the following decontamination and cleaning materials available in the facility: Measuring cup, dropper, heavy duty gloves, clock, plastic basin or buckets, chlorine solution (Jik), small brush for cleaning instruments, soap/detergent and a basin?			

Rational Antibiotic Prescription Assessment Form

Count all the entries for antibiotic prescription in the quarter, making a small checkmark next to each entry so you can identify them. Divide the total number of entries for antibiotic prescription by 20.

For example, if there are 100 records that include antibiotic prescription divide 100/20 to get 5.

Then count every 5th record and check to see if the prescription conforms to the IMCI guidelines or not. Write the registry entry number in the first column below so you can verify later if needed. If the entry shows that the prescription conformed to IMCI guidelines put a check next to the record number in the column titled "Conforms to Standards" if the prescription does not conform to the IMCI guidelines put a checkmark in the column titled "Does Not Conform to Standards."

Register Entry Number	Conforms to Standards	Does Not Conform to Standards

1	2	3
Number of entries reviewed	**Number that conform to standards**	**Number that do not conform to standards**
20		

Column #2/Column #1 x 100 = % of rational prescriptions of antibiotics

Divide the total entered in Column 2 by 20 and multiply by 100 to get the total % of antibiotic prescriptions that conformed to standards. Enter the % on the line provided at the top right of the page.

Client Satisfaction Survey (Exit Interview)

The district should conduct this questionnaire with 10 clients every quarter. You may choose to interview all 10 clients in a day, or interview 3 or 4 clients every month. However, whichever system you choose should be the same for all health centers throughout the district.

Select a client who has already been seen by the health provider today. Select a quiet location where the provider will not be able to overhear your conversation. Tell the client you would like to ask him/her 10 questions about his/her experience at the health center today. Ask for permission to continue with the questionnaire. If the client does not want to talk to you, thank him or her and select another client. This questionnaire is voluntary.

Client Satisfaction Questionnaire (Exit Interview)

Health Center _____ Satisfaction Percentage _____%

Date _____

		Yes	No	NA
1	In general, do you find the services you want are available from this health center when you want them?			
2	Are the health center hours convenient for you and your family?			
3	Did you find the health center clean and pleasant today?			
4	Was there a place for you to sit while you waited today?			
5	Did you feel the amount of time you had to wait to be served today was reasonable (was not too long)?			
6	Did the health provider welcome you respectfully?			
7	Do you feel the health provider spent enough time with you today?			
8	Did the provider invite you to ask questions?			
9	Do you feel the health provider listened to your questions or concerns and took them seriously?			
10	Do you feel the services you needed were met at the health center today?			

To get a percentage score for client satisfaction, add the number of “Yes” responses. Divide this number by the total number of **applicable responses**. Multiply by 100.

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