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RWANDA INTEGRATED HEALTH SYSTEMS STRENGTHENING PROJECT:

Quarterly Report Narrative

April – June 2010

Rwanda IHSSP Project:

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Contract No. GHH-I-00-07-00058-02,

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Stronger health systems. Greater health impact.

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Acronyms

AIDS/SIDA	Acquired Immunodeficiency Syndrome
BDD	Base de Données/Database
BTC/CTB	Belgian Technical Cooperation/Coopération Technique Belge
CA	Collaborating Agency
CAAC	Cellule d'Appui a l'Approche Contractuelle; performance-based financing Department of the Rwandan Ministry of Health
CBHI	Community Based Health Insurance (Mutuelle)
CHW/ASC	Community Health Worker (Agent de Sante communautaire)
CHAI	Clinton Health and Aids Initiative
CTAMS	Cellule Technique d'Appui au Mutuelles de Sante; Mutuelle Technical Support Cell
CNLS	Commission National de Lutte contre le Sida
CPD	Continuous Professional Development
CPN	Consultation Prenatale/Antenatal Consultation
DHS	Demographic and Health Survey
DH	District Hospital
DRG	Diagnosis Related Group
ET	Extended team
GOR	Government of Rwanda
HC	Health Center
HDP *asdl*	Health Development & Performance, a newly created Rwandan NGO from remnants of the Cordaid Rwanda team
HIV/VIH	Human Immunodeficiency Virus
H(M)IS	Health (Management) Information System
HR	Human Resources
HSS	Health Systems Strengthening
IHSSP	Integrated Health Systems Strengthening Project
ICT	Information, Communication and Technology
ILO/BIT	International Labor Organization
IT	Information Technology
ITG/IMT/ITM	Instituut voor Tropische Geneeskunde, Antwerp/ Institut de Médecine Tropicale d'Anvers/Institute for Tropical Medicine, Antwerp
M&E	Monitoring & Evaluation
MIS	Management Information System
MCH	Maternal and Child Health

MOH	Ministry of Health
MSH	Management Sciences for Health
NGO	Non-governmental Organization
PBF/PBC	Performance-based Financing/Performance-based Contracting
PEPFAR	President's Emergency Plan for AIDS Relief
PHP	Hypertext Preprocessor
PMA	Paquet Minimum des Activités; Rwandan basic package of health services
PMTCT	Prevention of Mother-to-Child Transmission [of HIV]
P4P	Pay-for-Performance
PRISM	Performance of Routine Information System Measurement tool
QA	Quality Assurance
RBF	Result-Based Financing
SIS	Système d'Information Sanitaire (Health Information System)
SWAP	Sector Wide Approach
TA	Technical Assistance
TOT	Training of Trainers
TWG	Technical Working Group
USAID	United States Agency for International Development
USG	United States Government
VCT	Voluntary Counseling and Testing
WB	World Bank

Executive Summary

One of the important achievements of the second quarter of 2010 was the consolidation of a Health System Strengthening Strategic plan in collaboration with the MoH and USAID. A workshop was held mid May where the discussions took place on the content of the strategic plan. This plan will serve as on overall framework for the strengthening of Rwandan Health System as well as an advocacy document containing a concrete outline with specific interventions where a gap in funding remains. The document is currently circulated to stakeholders and partners for their input and comments.

A second crucial activity was the re-activation and re-vitalization of the community health activities. Procedures of community PBF were reinforced, weak points in the chain of monitoring and evaluation were addressed and the first comprehensive community HMIS-report was produced. The roll-out of the innovative cell phone-based community health information systems (mUbuzima and RapidSMS) was initiated and will provide in the near future a wealth of accurate, up to date and timely data from community level.

Furthermore technical assistance was provided to the MOH eHealth Unit: IHSSP's HMIS team has assisted with the recruitment of 3 new staff for the eHealth Unit as well as a team of 6 staff to serve as a HIS helpdesk team at the national level. Support was given to President's Malaria Initiative: The new Monitoring & Evaluation specialist, Dr. Irenee Umulisa, was sent to Ghana for training in Malaria Surveillance and M&E.

In the health financing component the following key activities were achieved: A costing exercise of the Packages of Health Services to determine the true cost of each type of health activity provided as part of the minimum package of activities (MPA) and complementary package of activities (CPA) was designed and initiated, the PBF framework review for the fiscal year July 2009 to June 2010 was finalized, the District hospitals central level PBF evaluation for 39 district hospitals was performed 4 abstracts were submitted for the Health System Research conference in Montreux to be held in November 2010 and the health insurance laws were elaborated.

The Human Resources for Health team was very active during this second quarter and initiated a host of new interventions. It started the Development of strategic plan and policy of Continuing Professional Development (CPD) for Rwanda Medical and Dental Council; conducted a HRH situational analysis gathering data on institutional overview, stock, utilization, education and training, governance including policy context. It co-facilitated the third workshop for the Leadership Development Program in Burundi. The team also reviewed and updated the Human Resources for Health Strategic Plan (first draft is under development) and it developed a HRH supervision checklist. In addition, a training curriculum on RapidSMS and mUbuzima (programs explained in detail elsewhere) was developed and the first trainings are ongoing at central and district level with the objective to cover the whole country.

In the area of Quality Assurance, a lot of effort was put in the revision of the tools for integrated formative supervision at District Hospital level. The team initiated, as well, the District Hospital accreditation program with the assignment of a task team and the development of a concept paper. It

contributed to the Continuous Professional Development (CPD) program and it reviewed the Human Resources management joint supervisory Checklist.

All the activities mentioned above would have not been possible without the support of the decentralization team which provides technical assistance at district level (with important feedback and input to central level) and implemented many of these interventions among others the Health PBF evaluation, Community PBF re-vitalization, CBHI situation analysis and M&E, training of health Steering committee at sector level on health data management, participation in District hospitals PBF evaluation activities and in PBF &CBHI extended team meetings.

Finally, MSH/Boston has announced the promotion of IHSSP Chief of Party, Kathy Kantengwa, to Senior PBF Advisor to be based in Boston. As of the start of the third quarter 2010, Dr. Apolline Uwayitu will be the interim COP as the search for Kathy's permanent replacement begins.

This report begins with a concise presentation of the highlights of the project's results during the reporting period for those who seek summarized results.

Although the project's Performance Management Plan (PMP) has not yet been approved, Annex 4 lists each of the 21 indicators in our preliminary PMP and provides an annotated update on their status during the quarter.

About the Rwanda Integrated Health Systems Strengthening Project

The Government of Rwanda (GOR) has embarked on the next steps to strengthen its Health System and to reach its goals outlined in the Health Sector Strategic Plan II in order to accomplish the overall vision: "*Rwandan population* [will have] improved financial and geographic access to quality health services that are sustainable and efficiently managed by well trained *health sector staff* with clear functional responsibilities and of having Fully functional *districts* becoming the hub for managing health service delivery supported by actively engaged community and civil society organizations."

The Rwanda IHSSP is a 5-year contract awarded to Management Sciences for Health by USAID to support the Rwandan Ministry of Health in to achieve the following 5 intermediate results: *1) Improved Utilization of Data for Decision-Making and Policy Formulation across All Levels of the Health Sector, 2) Strengthened Health Financing Mechanisms and Financial Planning and Management for Sustainability,3) Improved Management, Quality, and Productivity of Human Resources for Health and Related Social Services, 4) Improved Quality of Health Services through Implementation of a Standardized Approach to Quality Improvement (QI), 5) Extended Decentralized Health and Social Services to the District Level and below*.

Results Highlights

Highlights of the project's activities during the quarter are reported below, beginning with cross-cutting work and then focusing on the project's five intermediate results.

HSS Framework and Consolidated Strategic Plan development

IHSSP is assisting the MoH and USAID in the development of this document. A workshop was held mid May where discussions took place on the content of the strategic plan. This plan will serve as on overall framework for the strengthening of Rwandan Health System as well as an advocacy document containing a concrete outline with specific interventions where a gap in funding remains. The document was circulated to stakeholders and partners for their input and comments. Final revisions, both cosmetic and content changes were being effected by MSH/ Boston at the end of the quarter. Another workshop to finalize the document will be organized in the next quarter – currently scheduled for July 27.

IR 1: Improved utilization of Data for decision making and Policy formulation across all levels of the health sector

- **Roll-out of cell phone-based Community Health Information systems (mUbuzima and RapidSMS).** IHSSP staff from the HMIS, HR and Decentralization teams took the lead in facilitating the coordinated planning of the training strategies for these two systems with staff from the ICT, Community Health Desk, UNICEF and Voxiva. In June, we funded a curriculum development workshop, a central level training of trainers, and began the first wave of district level ToTs. 10 participants were trained as national trainers and 254 as district trainers from all 8 districts in the Southern Province. The project has also completed the procurement of 10,000 cell phones that represent's the USG's contribution to the total requirement of 45,000 phones. A total of nearly 1,000 trainers (mostly data managers and CHW coordinators from each of Rwanda's nearly 450

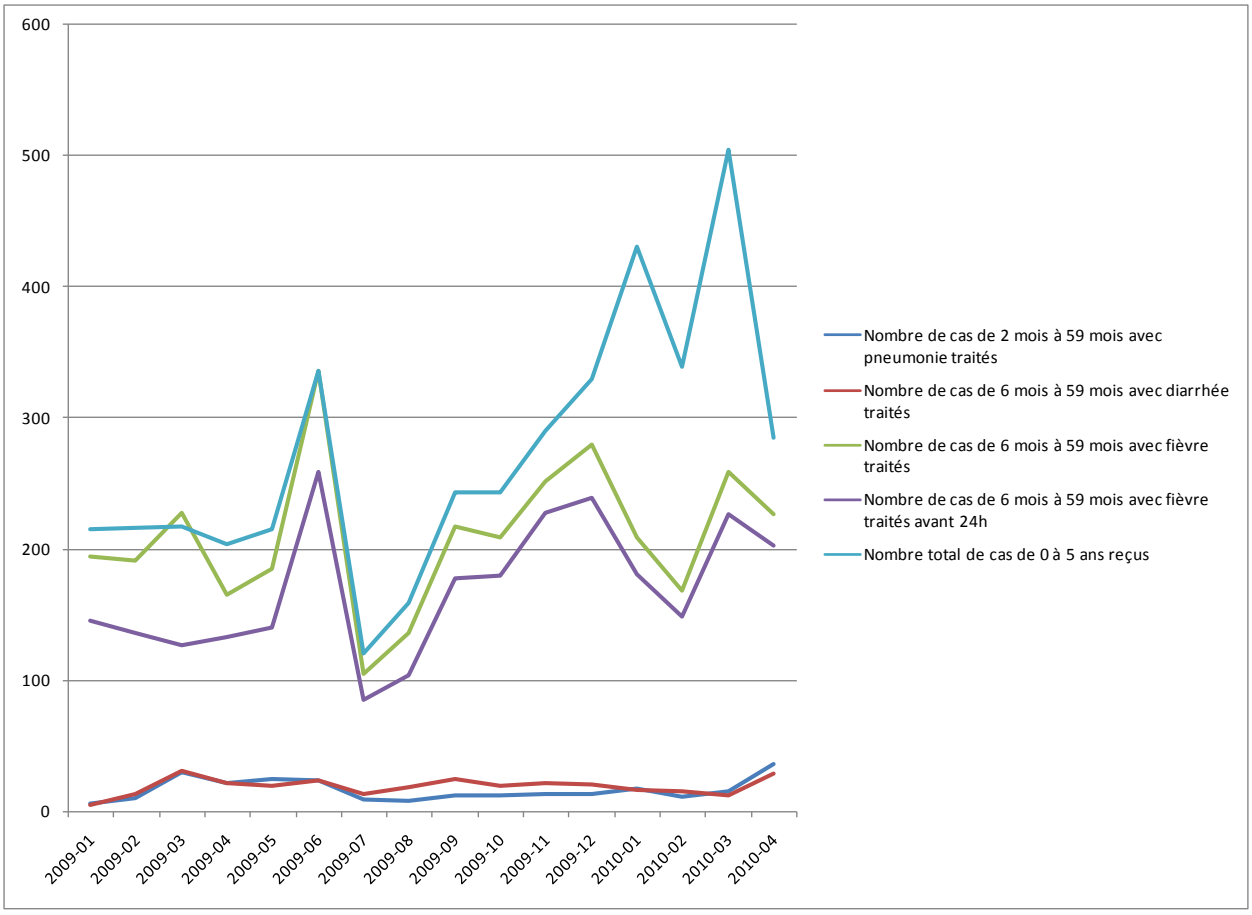
health centers) will be trained before the ToT phase is completed in each province. This activitiy has benefitted from the contribution of three IHSSP technical teams: HIS, Human Resources and Decentralisation. The training of community health workers will begin as soon as training is completed in each province. (The plan of the CHW cell phone training is available on request)

- **Submission and operationalization of IHSSP Performance Management Plan:** Sallie Craig Huber, MSH's Global lead for results management, assisted the team in the process of finalizing the project's PMP. This has been submitted to USAID. The team has developed a new module for the PRISM assessment of HMIS functioning that will enable us to collect baseline data on the performance of the community health worker information system. In addition a rider questionnaire has been developed to gather data related to the basic package of activities carried out by Administrative Districts. A detailed assessment protocol has been developed in collaboration with the HMIS team and CDC and the field data collection is scheduled to begin in late July or August.
- **Technical Assistance to the MOH eHealth Unit:** IHSSP's HMIS team has assisted the MOH eHealth Unit with the recruitment of 3 new staff for the eHealth Unit as well as a team of 6 staff to serve as a HIS helpdesk team at the national level. In addition the Senior HMIS advisor worked with the RHEA team to support the development of functional specifications for:
    - The primary care medical module of OpenMRS (the open-source electronic medical records system currently being introduced with assistance from Partners in Health)
    - The Integrated Disease Surveillance and Response (IDSR) system that is currently being upgraded with support from CDC and Voxiva.
    - The national data warehouse and web-based business intelligence portal (a 2nd working prototype has been developed now using a BI platform from JasperSoft)
- **Development of an IHSSP Wiki:** the HMIS team created an internal wiki to facilitate sharing documentation with USG staff and to track concurrence requests and other pending issues. (www.pbfrwanda.org.rw/ihssp)
- **Upgrade of PBF data collection tools:** Based upon the recommendations of the annual review of PBF tools, data collection formats and the PBF web applications have been updated to take into account new performance indicators, revised tariffs, and new quality assessment checklists.
- **Support to President's Malaria Initiative:** The new Monitoring & Evaluation specialists, Dr. Irenee Umulisa, was sent to Ghana for training in Malaria Surveillance and M&E. The PNILP team has asked IHSSP to be part of a technical working group that is being set up for Malaria-related M&E, Surveillance and Research. This will serve as an advisory body to the malaria program to enhance data collection, quality and, above all, dissemination and use for more effective management of the Malaria program.
- **Community HMIS/Siscommunautaire:** The community health workers report their clinical activities monthly to the cell level where the reports are compiled and transmitted to the health center/cooperative level. These are further compiled and entered in a web based database at district level. Since this mechanism was introduced the beginning of 2009, routine reporting was not monitored and evaluated at central level and data entry was not regular yet. IHSSP supported the MoH in getting the system up and running appropriately and since April 2010, reports are submitted in large numbers in the central database. This forms an unique opportunity to follow the daily work of health care workers at real grass root level and to periodically monitor :

- current status of reporting of community health activities
- trends in indicators and pharmacy use
- central data audit mechanisms
- utility of central database and
- Exploitation possibilities of the central database.

Reporting was almost complete for the last 18 months for half of the country. Data appear to be of good quality with few outliers. Seasonal and secular trends can be explained by epidemiological disease patterns. Community health activities seem to have taken off and gradually increased over the last 16 months. Malaria/fever is still by far the most important disease for children under 5 years of age (roughly 85% of consultations by the CHW) while diarrhea and pneumonia constitute respectively 7.9 and 6.5% of the paediatric cases. The evaluation revealed as well "hot spots" of not-completely vaccinated children at 9 months. Certain villages have less than 20% vaccination coverage. This is currently investigated and might consist of data entry mistakes or miscomprehension of the indicator but irrespective of the reason, it reveals the importance of this data reporting and of the routine monitoring. The graphic below highlights trends in community integrated management of communicable diseases, one of the key services provided by community health workers.

Figure 1: Trends in CHW integrated management of childhood illness (IMCI)



IR 2: Strengthened Health Financing Mechanisms and Financial Planning and Management for Sustainability

- **Revision of PBF framework:** IHSSP project continues to support this process at central level. This revision was done through the PBF Extended team platform in which IHSSP continued to actively ensure its secretariat role. The main tasks done through this process were the update of PBF indicators and tools (contracts, PBF user guide and the data base), and the revision of evaluation process to reflect the present context. For the health center PBF, 12 quantitative indicators for the MPA were retained with one new proposed indicator related to the postnatal consultation (see ANNEX 2).
- **DH PBF evaluation:** All 39 district hospitals were evaluated by central level during the 1st quarter of 2010. This replaced the peer evaluations. Lessons learned from this central evaluation helped MoH and extended team members to better define future hospitals evaluations through the PBF revision framework. The indicators have been revised during a 1-day meeting with all partners and focal points (experienced people from the field) trying to capture more reliably the quality of management of clinical care. Component on supervision of health centers changed the least and is still heavily relying on reports of supervision. The other components have been more thoroughly changed. An extra component of observation of patients at hospitalization has been added and one on infrastructure and equipment. A component of patient satisfaction was added in the final grid developed after this evaluation. (see ANNEX 2)
- **Update CBHI Database user manual** The Community Based Health Insurance Database (CBHI DB) has been developed in 2008 by PBF Project with funds from the President's Emergency Plan for AIDS Relief (PEPFAR). A User Manual meant to explain in an accessible manner the use of the CBHI Database was developed. It follows logic by entering the database through an internet connection, entering and analyzing data, and exiting the application. With the recent development after the CBHI policy validation, this user manual was reviewed to reflect current situation. IHSSP participated in this review through the CBHI data base editorial committee composed by MoH staff, GTZ, BIT/ILO and IHSSP.
- **Health insurance law elaboration:** A policy on Rwandan Health Insurances (public and private) have been approved and is waiting for being implemented. The first step of this implementation it is the law elaboration. MoH team, GTZ, BIT/ILO, IHSSP staff and lawyers of different private insurances companies drafted, through workshops held in May, the law on Health Insurance in Rwanda and this was submitted for its approval.
- **CBHI stratification process:** A new policy for CBHI has been approved by the Prime Minister cabinet, and the main change with this new policy is about the members' contributions. A key element for a sustainable community based health insurance is a contribution system that assures equity and solidarity among its members as well as the financial viability of the system. At the same time, in order to fully cover the costs of health care of their members, subsidies by the Government and Development Partners are necessary. Hence, member contributions need take into account the capacity of the population to pay as well as the cost of health care. Different studies have pointed out that a contribution system based on the revenues of their members will increase equity and strengthen the financing of the CBHI System in Rwanda. At the same time it raises domestic resources and reduces the dependence on external financing. It has been decided to introduce a

system of stratification by dividing members into 3 categories based on Ubudehe[1] criteria. The lowest contribution group will comprise the first and second Ubudehe category. The middle contribution group will consist of the third and fourth Ubudehe category and the highest contribution group of the fifth and sixth Ubudehe category. IHSSP is participating in the whole process, and the main contribution will be, in the near future, about the conception of a database for CBHI beneficiaries and its data entry.

- **Abstract development and submission for the first global symposium on health systems research in Montreux:** The IHSSP team worked with MOH to put some abstracts together potentially as a panel and/or presentations across the two streams. Four abstracts were prepared and submitted (See ANNEX 3)
- **Costing exercise of the Packages of Health Services:** The MoH in collaboration with partners started a costing exercise which aims to determine the true cost of each type of health activity provided as part of the MPA and CPA. The true costs can be used to modify the ways the facilities are reimbursed and to determine the contributions from insurance, government and patients. The true costs will also help the Ministry of health to justify funding needs to the ministry of finance. The true costs will be based on Rwandan protocols and will reflect best Rwandan practices and good quality of care. Detailed Terms of Reference documents have been prepared for the MOH Costing Steering Committee and key phases of the costing exercise: 1. the identification and selection of activities to be costed, 2. data collection and 3. cost analysis.
- **Roll out of the community PBF model:** The IHSSP project continues to support community PBF activities in Rwanda at both the central and district levels. At the central level, IHSSP participates actively in the training and implementation plans development for the scaling up training and implementation of the 4 intervention PBF models defined. This process was delayed due to MoH, which proposed the introduction of in kind of incentive for people who use long term family planning method and this choice poses an issue with respect to the TIAHRT amendment. FP indicators will be removed all together for in kind incentive scheme. A Ministerial instruction document for the demand side is being reviewed to reflect this decision.

IR 3: Improved Management, Quality and Productivity of Human Resources for Health and Related Social Services

- **Continuing Professional Development (CPD):** Development of strategic plan and policy of for Rwanda Medical and Dental Council: the Rwanda Medical and Dental Council (RMDC) has in its mandate the development and administration of a national Continuing Professional Development program, and is committed to making this a reality.
- **Human Resources for Health situation analysis:**: per recommendations by the Human Resources for Health Technical Working Group (HRH TWG), the MOH in collaboration with World Health Organization and IHSSP, is conducting a HRH situational analysis gathering data on institutional overview, stock, utilization, education and training, governance including policy context and the exercise is nearing its completion.

[1] Ubudehe is a community-based targeting mechanism that categorizes the Rwandan population according to their revenues and vulnerability

- **The third workshop for the Leadership Development Program in Burundi:** Since September 2009, Pathfinder, in collaboration with Management Sciences for Health (MSH), USAID/Burundi and the Burundi Ministry of Health has been organizing leadership development programs for the Ministry health managers. MSH/Rwanda was invited to co-facilitate the third workshop in May 2010 and build capacity for MSH staff in Burundi.
- **Human Resources for Health Strategic Plan:** Review and update the Human Resources for Health Strategic Plan: the HRH TWG has set up a roadmap of the HRH development plan that will culminate by October 2010 in revision and updating of the current policy and strategic plan on HRH and operational plan for HRH Capacity Development, costing and coordination of implementation with timelines and distribution of financing. The IHSSP is co chairing with Clinton Health Access Initiative (CHAI) to lead this process and an initial plan draft is being worked on.
- **Develop a HRH supervision checklist**: The Ministry of Health's Integration and Decentralization desk has been leading an integrated technical supervision whereby all departments, institutions under the MOH are involved. A quarterly supervision schedule is developed in collaboration with all involved, this heading to an integrated reporting document. (the checklist is available on request)

IR 4: Improved Quality of Health Services through Implementation of a standardized approach to quality

- **Integrated Formative Supervision System**: In the process of reviewing the existing supervisory system, attention shifted from verification and quality control towards reviews, problem identification, problem solving, performance improvement and quality improvement. An integrated supervisory framework with supervisory tools to be used in supervising district hospitals, health centers and community have been developed and field tested and are pending for validation of relevant stakeholders. (supervisory tool is available upon request)
- **District Hospital Accreditation Program:** In the bid to strengthen health systems and reinforce efforts to quality improvement in health care, Rwanda has chosen health facility accreditation as one of the many strategies to improve quality of services. A concept paper on accreditation of District Hospitals was developed to have a common and clear understanding on the key components, background, goals and objectives of the program, structure and the way forward. (see concept paper Annex 6)
- **Reviewing Human Resources management joint supervisory checklist:** To improve the quality of Human Resource Management the QA team participated in the review of joint supervisory check list. This will be harmonized with the integrated supervisory tool for both district and health center health facilities. (supervisory checklist is available upon request)

IR 5: Extended decentralized health and social services to the district level and below

- **Technical Assistance to the Districts:** Community PBF and CBHI: the Decentralization team participated in coordination meetings on community PBF and CBHI activities organized by each district.

- **Training on Health data management:** In order to prepare training sessions for the health Steering committee at sector level on health data management as it was planned, it was crucial to undertake the development of tools to be used.
- **New staff orientation**: orientation sessions have been conducted for the new district coordinators and community Mobilization staff was hired. These orientation sessions covered all IHSSP components and its interventions. This was organized in order to initiate and prepare the new staff when they will be appointed in the district to take on their responsibilities.

Project Management

- **Recruitment**: During the month of May, 6 district coordinators who will support the districts came on board. These new staff members have received introduction and training in the different domain where IHSSP is active. A number of staff appointments were pending for approval and unfortunately some of these candidates opted for a different position due to the laps of time before approval (e.g. M&E officer, project management support staff).
- **IHSSP Chief of Party,** Kathy Kantengwa, has been promoted to the position of Regional PBF Advisor with MSH in Boston. Dr Apolline Uwayitu is serving as interrim COP as recruitment of a permanent replacement gets underway.
- **Generator procurement:** IHSSP staff have completed an international tender for electric generators for health centers and district hospitals. 14 firms have submitted offers and the IHSSP team is working with the MOH central maintenance workshop (ACM) and USG staff to evaluate the bids. The equipment should be ordered by mid-July.
- **Cell phone procurement:** 10,000 cell phones for CHWs have been ordered and are expected to arrive in early Q3.

Red Flags for the Quarter April-June 2010

CHALLENGE	RESOLUTION
Delay editing HSSF document to final form	Requested and received assistance for MSH HQ where both technical and copy editing help was provided to produce a polished and readable document.
Change in COP, project leadership	Dr. Apolline Uwayitu appointed interim and recruitment efforts for permanent COP launched quickly
Proliferation of cell phone-based technologies being introduced simultaneously for CHWs by different partners (UNICEF and Phones for Health/Voxiva).	IHSSP helped the Community Health desk and eHealth Coordinator bring all of the players together, develop a consolidated implementation plan and budget, agree on certain data exchange standards, develop combined curricula for ToT and health worker training.
Cell phones training for CHWs initiative was indicated to be a major priority of GOR	3 IHSSP technical teams (HMIS, HRH, Decentralization) rallied to complete the training design and TOT in collaboration with several partners
Ministry of Health had no standard procedure for maintaining national register of health facilities making interoperability difficult and limiting the types of data analysis.	HMIS coordinator launched request to district to update lists. IHSSP team updated web-based registry and will collect missing GPS coordinates and other key data elements during next round of district hospital evaluations and PRISM assessment. Detailed SOP to be developed end of July.
InfoPath-based district hospital quality assessment tool used by the PBF project was difficult to distribute and maintain.	Ludwig de Naeyer converted this to an Excel template and HIS advisor created visual basic procedure to extract data into a form that can be easily analyzed for trends over time and space.
IHSSP team and USAID had some difficulty sharing project related documents and to track procurement and approval actions.	Used an open source web content management system to develop a web-based internal wiki for the project to post documents and track documents.
Delay in the roll out of community PBF due to the MoH proposition to introduce in kind of incentive for people who use long term family planning method which is not in compliance with TIAHRT.	Discussions were made between MoH, IHSSP and USAID team. As a result, the FP indicator will be removed in the community PBF (in kind incentive model). Ministerial order was reviewed to reflect that.
Delay in the Finalization of HDP sub contract with constraint to realize PBF verification activities at community and health facilities level.	Budget review still ongoing with contract team.

ANNEX 1: Revision of PBF Framework

For the health center PBF, 12 quantitative indicators for the MPA were retained with one new proposed indicator related to the postnatal consultation (see table 1 BELOW).

Following the Performance Evaluation noted in the past period and budget available, indicators retained for the future period; indicator weight and unit cost were revised and budget forecasting done for this fiscal year. The table below represents the unit cost calculated for each retained indicator.
The quality tool for the quarterly health center evaluation contains 14 services to be evaluated with a new service proposed related to data management with rapid data quality assessment (see table 2 BELOW).

For the HIV PBF indicators, at health center level, 10 indicators were retained. As new consideration to be noted in the revision: the PBF-incentives for the HIV-indicators will be rewarded differently than the PMA-indicators. The quality score for HIV-services will account for 50% of the total HC-quality score while the other 13 services at HC-level will contribute to the remaining 50% of the total PBF applied HIV-quality score. This is because the HIV-quality indicators are essential for the well functioning of HIV-services and should have proportionally more influence when adjusting the HIV-quantities.

Table 1: Budget Forecasting for MPA PBF quantities indicators

Indicator	Predicted validated quantity	Rel weight rwf Delphi	Relative weight %	Relative rwf adjustable	Scenario 1 Budget		Revenue generation %
Indicator Curative services			**18%**		**RWF**	**724,880,282**	**20%**
CPC: Nombre de nouveaux cas	8567660	*50*	*0.3%*	*45*	*RWF*	*385,544,696*	*10.7%*
Nombre de retro informations reçues au cours du mois évalué, d'enfants de 0-59 mois référés pour malnutrition sévère avec complications.	6758	*2000*	*11.5%*	*1800*	*RWF*	*12,164,737*	*0.3%*
Nombre de retro informations reçues (y compris les rétro informations pour les femmes enceintes) au cours du mois évalué, des références autres que l'accouchement et malnutrition sévère	363523	*1000*	*5.7%*	*900*	*RWF*	*327,170,848*	*9.1%*
Indicator MCH preventive/curative services			**76%**		**RWF**	**1,800,328,522**	**49.8%**
CPN: Nombre de femmes enceintes ayant reçu la MII (ITN) lors de leur première visite	289049	*200*	*1.1%*	*180*	*RWF*	*52,028,779*	*1.4%*
CPN: Nombre de femmes enceintes avec 4 visites standard	48530	1500	*8.6%*	*1350*	*RWF*	*65,516,061*	*1.8%*
CPN: Nombre de femmes ayant reçu la 2ème ou 3ème ou 4ème ou 5ème vaccination antitétanique	225149	250	*1.4%*	*225*	*RWF*	*50,658,607*	*1.4%*
Nombre de retro informations reçues au cours du mois évalué, des femmes référées pour accouchement	64132	4150	*23.9%*	*3735*	*RWF*	*239,534,775*	*6.6%*
CPoN: Nombre de cas en consultation postnatale (endéans 7 jours)	244964	2500	*14.4%*	*2250*	*RWF*	*551,169,697*	*15.3%*
Accouchement: Nombre d'accouchements assistés au CS	180832	4150	*23.9%*	*3735*	*RWF*	*675,406,922*	*18.7%*
Nombre d'enfants complètement vaccinés (BCG, VAP 1, 2, 3, Pentavalent 1, 2, 3, PCV 1, 2, 3 et VAR)	368919	500	*2.9%*	*450*	*RWF*	*166,013,681*	*4.6%*
Indicator Family Planning			**6%**		***RWF***	***1,088,319,263***	**30%**
PF: Nombre de nouvelles inscrites aux méthodes contraceptives modernes (Pilule, injectables, DIU, Implant) et collier	387366	1000	*5.7%*	*900*	*RWF*	*348,629,682*	*9.6%*
PF: Nombre d'utilisatrices de méthodes contraceptives modernes (DIU, Pilule, Injectable, implant) en fin de mois	8218773	100	*0.6%*	*90*	*RWF*	*739,689,581*	*20.5%*
			100%		**RWF**	**3,610,555,328**	
					RWF	3,613,528,066	

Table 2: Revised District Hospital Quarterly Quality Assessment Summary sheet

GRILLE D'EVALUATION TRIMESTRIELLE DES HOPITAUX DE DISTRICT

Nom Hôpital

Période d'évaluation Année

Période d'évaluation Trimestre

Date d'évaluation

EVALUATION TRIMESTRIELLE DES HOPITAUX DE DISTRICT: Score total de qualite	
VOLET I : FONCTIONNEMENT	Score de qualite
1.1. ACTIVITES DU COMITE DE GESTION	
1.2 GESTION DES RESSOURCES HUMAINES & RENFORCEMENTS DES CAPACITES	
1.3. GESTION DES MEDICAMENTS, CONSOMMABLES ET VACCINS	
1.4 GESTION DES EQUIPEMENTS & INFRASTRUCTURES	
1.5. ACTIVITES D'EVALUATION & ARCHIVAGE	
1.6 HYGIENE	
TOTAL	vol1fonc
VOLET II: 2.1 ENCADREMENT CENTRES DE SANTE	Score de qualite
Score total (2.1.1 - 2.1.9)	vol2cds
VOLET IIIA: ACTIVITES CLINIQUES patient	Score de qualite
3.1. PRISE EN CHARGE DES PATIENTS SELON DOSSIER MEDICAL	vol3dossier
3.1.1 Consultations de référence par le médecin	
3.1.2 Consultations ordinaires	
3.1.3 Hospitalisations	
3.1.4 Maternité	
3.2. PRISE EN CHARGE DES PATIENTS SELON OBSERVATION DANS L'HOSPITALISATION	vol3hospi
3.2.1 Suivi paramedical du malade en hospitalisation	
3.2.2 Infection postopératoire	
3.2.3 Imagerie (Radiologie)	
VOLET IIIA : ACTIVITES CLINIQUES Patients: Score de qualité Total	vol3doshosp
VOLET IIIB: ACTIVITES CLINIQUES infrastructure et plateau technique	Score de qualite
3.3 Infrastructure et plateau technique	
3.4 Imagerie, examens complémentaires et protocoles	
VOLET IIIA : ACTIVITES CLINIQUES infrastructure et plateau technique: Score de qualité Total	vol3infra

EVALUATION TRIMESTRIELLE DES HOPITAUX DE DISTRICT: Score total de Qualité

VOLET	Rwf	Score de Qualité
Volet 1: Fonctionnement		
Volet 2: Encadrement		
Volet 3: Activités cliniques	-	**vol3ac**

REVENUE TOTAL CE TRIMESTRE	**revenue**	**qualscore**

ANNEX 2: District Hospital PBF Evaluation Results Summary

The results below display the summary results for the different evaluated components. Averages are lower than previous quarters which is similar to what has been noted during the previous evaluation from central level. The minimum and maximum scores indicate the rather wide range of values reflecting fact that their were very well performing hospitals but also poorly performing hospitals.

Table 3: Quality scores and PBF amounts for district hospitals

Component	Average score (%)	Standard Deviation (%)	Minimum score (%)	Maximum Score (%)
General Management	67.7	12.7	44	93
Supervision of Health Centers	84.6	13.9	33.6	100
Medical Files review	79.2	10.9	55	96.7
Hospitalisation wards	73.3	22.6	15.3	100
Files hospitalisation	76.7	12.5	47.6	98.1
Hospital Infrastructure	74.2	16.9	33.2	100
Clinical activities	76.2	11.0	51.4	96.3
Overal quality	75.3	8.5	55.2	93.6
PBF-Revenue in dollar	$ 23,408	$ 8,077	$ 9,575	$ 45,769

The main conclusions are:

1. DHs can perform well in one (sub) component but not in the other (this was noted during analysis by scatter plots were correlation can be better assessed: graphs not shown in this report). This can be due to:
    a. The different component really assess different aspects of the functioning of a hospital and it is not because for instance you have a perfectly well filled medical file that the patient has been taken care of correctly.
    b. Our indicators do not completely reflect and measure what we want to measure for the specific (sub) component
    c. Sample sizes are still small and sampling error might explain the disparity.
2. Attention should go to all of the above mentioned issues in order to improve evaluation grid for the DH. It seems that every component has its value and its place in the evaluation process since there is poor correlation within 1 hospital for the different components.
3. When interpreting the evaluations, it is always important to use enough statistical parameters (average or mean, median, mode, standard deviations, and range) to describe the reality observed.

The proposed changes noted in the PBF framework review for district hospitals are:

- As a solution to the preparation of District Hospitals and the lack of ability to capture real quality, evaluations by a central level were proposed. A team consisting of members of CAAC and of

partners participating in the PBF-activities will evaluate each DH twice a year. As this evaluation is considered to be more objective, it will contribute to 60% of the overall quality score used for the PBF-payments.

  - This visit will be unannounced and will evaluate a random list of indicators per component equal for all DHs chosen from a longer list of indicators previously identified and disseminated[2] and available to all DH. The revised checklist used during the 1st quarter of 2010 will the starting point. A component on patient satisfaction[3] and clinical care will be added. The complete checklist will be available to all DHs so they are aware on which indicators they can be evaluated but this list will include many "outcome" elements whereby preparation is not possible (e.g. rate your level of satisfaction with the services you received today)
  - It was opted that the DH should be evaluated over a period of 6 months to give enough time to the central team to conduct the evaluations in an unannounced matter.

- Peer evaluations will continue with a restricted set of indicators. Peer evaluations are very useful in the framework of collaboration, exchange of ideas and feedback by peers with respect to daily management and clinical care. This approach will be maintained but will weigh less (only 40%) on the PBF revenue generation.
- The overall scores obtained through the evaluation by central level (ECL) and the peer evaluations (PE) will be applied to the following 2 quarters. So the overall quality score will be a semi-annual score which is obtained.
- The national budget is allocated according to following key components: fonctionnement, encadrement and activites cliniques use respectively 30%, 20% and 50% of the national budget. Hospital specific budgets are calculated in a complex way : in general do take account of the following elements: 1) the size of the hospital 2) number of staff and 3) number of health centers to supervise

[2] The list should be disseminated and explained in order to get attention from the hospitals on all these points embedded in their daily functioning

ANNEX 3 : Abstracts for Health Systems Research conference Montreux November 2010

Design of the Performance Based-Financing framework: does it result in better health outcomes?

Ludwig De Naeyer, Gyuri Fritsche, Cedric Ndizeye, Rigobert Mpendwanzi, Kathy Kantengwa

Background

Rwanda started implementing performance based financing (PBF) at health centers in August 2006. Up to early 2008, 2 different models were applied and supported by different development partners. Both models used the same principle of paying for performance of health centers based on reported quantities of the basic package of health care services. However, contracting mechanisms, coordination at district level, choice of indicators, validation criteria, quality of health care payment adjustment factors and monitoring aspects all diverged. The design of the model has implications for cost of monitoring and evaluation; the speed of implementation and roll-out and levels and intensity of technical assistance.

Design and Methods

Knowledge of possible differential impact on health outcomes of these approaches can guide the debate in the design of the PBF framework. During this same period, the World Bank and the Rwandan School of Public Health conducted an impact evaluation study (which has shown significant positive effects on some volume indicators (quantity of nutritional visits and institutional deliveries), quality of care at antenatal clinics, and nutritional and health status of children for the sites where PBF was applied. However, a sub-analysis of the intervention group has not been undertaken. The following specific research questions are currently being evaluated: was there any statistically significant difference between health facility and household impact of PBF between the two intervention groups? , and was there any statistically significant difference of validated PBF service data between the two intervention groups?

Results and Conclusions

Preliminary analysis showed no difference so far in health outcomes which indicates that the choice of the model is secondary to the actual implementation of a PBF-scheme. Therefore cost-efficient PBF would be driven by payment of the services actually delivered and not reported. Detailed analysis will be available in October 2010.

Choice of indicator and amount paid is crucial in the Performance Based Financing revenues received at health centers in Rwanda.

Ludwig De Naeyer, Louis Rusa, Cedric Ndizeye, Rigobert Mpendwanzi, Kathy Kantengwa

Background

Rwanda has implemented performance based financing (PBF) in health centers since 2006 to stimulate productivity and quality of the comprehensive package of health care services. Health facilities receive monthly payments based on reported and validated productivity of HIV and non-HIV services. These payments are adjusted by an overall quality sore. Choice of indicators is guided by public health priorities, gaps in coverage and ability to measure indicators accurately and reliably. The amount paid is established on the same principles but also reflects the effort required to affect an increase for each indicator. It is unclear however if these principles lead to balanced revenue generation across the identified key target indicators of public health importance.

Methods

Routinely reported PBF-data for each participating health facility are analyzed for a three-year period (2007-2009). Average health facility revenues per indicator and per package (HIV versus non-HIV services) were assessed over time and relative to one another.

Results

Total average earnings per health center increased from $1,652 $/month in 2007, to $1,692in 2008 and $1899 in 2009. The proportion generated by HIV services declined from 52% in 2007 to 46% in 2009. Only 3 of 11 HIV-indicators were responsible for using about two-thirds of the budget generated by HIV-activities. New ART-patients consumed <4% of the budget while the unit fee was similar to the other HIV-services. For non HIV-services, about two-thirds of the revenues are generated by only 4 of 14 indicators whereby one (number of new outpatients) was responsible for 25% of revenue although the tariff is substantially lower than for other indicators.

Conclusion

In a fee for service PBF-model, balanced budget allocation according to key priority health services which require increase in coverage is essential. Budget forecasting should be applied on existing productivity when creating a tariff list for indicators.

Rwanda's Database Platform for Performance Based Financing

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Rwanda has been an African success story in applying innovative performance-based financing (PBF) mechanisms at a variety of levels of the health sector. This has resulted in significant increases in

service coverage and improvements in quality of services. An important factor contributing to its success has been the simple yet powerful database platform and a combination of user interfaces that function behind the scenes to manage the data required to make PBF work.

At the heart of the system is a MySQL database server hosted at of one of Rwanda's internet service providers. Most of the data are entered into the system through a secure web application developed using PHP: an open-source scripting language for web development. A recent innovation enables community health workers from nearly 15,000 villages to enter data using cell phones and an interactive voice response (IVR) system. A Microsoft Access front-end is used for system configuration and maintenance of the health facility registry, indicator metadata, payment tariffs, contracts and reporting formats. Data analysis is done through a combination of PHP code, Access reports and Excel pivot tables and charts.

Since the system's implementation in 2006, the PBF database system has grown to manage data for 3 separate indicator data sets: Health Center, District Hospital and Community Health Worker – mostly entered at by staff in 40 district hospitals. In addition it stores summary information from service quality assessments conducted quarterly. The same server and database tables are also used to collect and monitor indicator data from nearly 500 Community Based Health Insurance offices – a pioneering program to which over 80% of Rwanda's nearly 10 million inhabitants subscribes.

The database structure is simple. Indicators are defined in an indicator metadata table that includes attributes such as indicator name, unit type, primary data source, level of disaggregation, and precise definition. These indicators are then associated with specific data collection formats (e.g. HIV/AIDS or primary care) and payment tariffs that vary over time. A health facility database is used to manage attributes related to each reporting unit such as type of facility, geographic location and banking details. There is also a subcontracts table that stores data related to the terms of the PBF contract – such as the maximum number of units to be purchased during each contract period. During data entry, users select the district, facility, reporting period and type of report which they wish to enter and a dynamic web-form is created onto which they enter values for the appropriate set of indicators.

Among the many useful system outputs is a quarterly report that calculates the payment due to each reporting unit based on number of services delivered, the current indicator tariffs and a percent quality score. This report also lists the banking information for the reporting unit and, once approved, forms the basis of an electronic transfer to the appropriate local bank accounts. National and district level steering committees use the pivot tables linked to the database to monitor indicator trends, adjust tariffs and anticipate future performance. The data sets are a rich resource for researchers looking to identify correlations between PBF incentives, quality of services and service coverage. The system is currently being used to manage routinely collected data for an operations research project comparing different PBF models.

This session will include an overview of the system's architecture, a demonstration key capabilities and a discussion of future directions.

The impact of performance based contracting on the cost of basic health services

Theme: Health System Financing: contemporary financing mechanisms and issues

Keywords: Performance –based financing, costing, health service packages, primary health care, scaling up.

Presentation – panel preferred (Rwanda panel)

Abstract

Objectives: By the end of the presentation, the participants will be able to understand how to measure the impact of health finance reforms on health centre costs and the results of this measurement in Rwanda.

An important innovation in health finance has been the introduction of performance-based financing (PBF). Rwanda has had a PBF system in place in government health centres since 2006, the main objective of which has been to stimulate productivity and to improve the quality of the comprehensive package of health care services. A critical aspect of health system research is measuring the impact of such reforms on the cost of services. In 2008 and 2009 studies were carried out to estimate the cost of introducing PBF on services at a sample of health centres. The studies were done by one researcher and took approximately 6 weeks each, including 4 weeks in country. Costs were determined for each service and for the health centre as a whole using a costing tool called CORE Plus.

The studies showed that the average cost per service increased from 2006 to 2007 following the introduction of PBF, partly due to increases in the numbers of staff and partly due to increases in staff compensation. Further analysis of costs in later years is underway and the relationship of cost increase to quality improvements is being explored.

This type of research is important because, without it, there is no way to estimate the cost of policy changes on health care services.

Gaining an understanding of how measure the cost of integrated PHC services is important for Symposium participants, researchers and NGO and government managers. The methodology has been used in several countries and the results of each study can be generalized.

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Annex 4: IHSSP Performance Management Plan Indicator Summary Table Quarter 2, 2010

Component	Indicator	Target	Achieved this quarter	Comment
Component 1: HIS and Data Use: (IR: Improved Utilization of Data for Decision-Making and Policy Formulation across All Levels of the Health Sector)				
1	# Annual HMIS, PBF, CBHI bulletins and data sets published and used increasingly	1 HMIS bulletin published annually; PBF data sets published quarterly, downloads increased quarterly	HMIS: 0 PBF: 2 data sets CBHI: 1 data set	Also prepared a detailed analysis of SIS Com data.
2	Data quality score, disaggregated by district hospital, health center and community levels	2011-80% (≤10% variance) ; 2012-90% (<10% variance)	DH: HC:	Not yet available. To be collected with new PBF quality assessment form from Q3
3	% of district health offices and facilities with internet connections	2010-10%; 2011- 50%; 2012-80%		Waiting for update figures with data from District Health Strengthening tool database
4	Data use score	Increase by 20% over BL by mid-term; 50% over BL by EOP		Baseline PRISM Assessment protocol and questionnaires completed, scheduled to take place in August
5	# of individuals trained in strategic information related topics • CHW cell-phone reporting system Curriculum design WS • CHW cell-phone reporting systems Training of Trainers	TBD	10 254	Trainers from central level and all 8 districts in Southern Province have been trained.
Component 2: Health Financing (IR: Strengthened financial systems for the rational use of available health resources)				
6	% of CBHI structures (*sections de mutuelles*) that meet CBHI data audit standards	TBD		Audits have not yet begun.
7	% of CHW cooperatives that meet data accuracy standards	2011- 50 % of		Audits have not yet begun.

Component	Indicator	Target	Achieved this quarter	Comment
	(accuracy level target TBD)	cooperatives meet standard; 2012-75% meet standard		
8	% of HC that achieve their business plan goals	2010-50%; 2011-70%		To be assessed at end of 2010
9	% of PBF indicators (reported cases) confirmed to exist at the community level	> 95%		Community client surveys not yet begun.
10	PBF quality score	X % increase from baseline	DH: 75.2% (down 16% from 89.3% Q4) HC: 86.2% (down 0.4% from 86.6% Q4)	District hospitals scores went down significantly because the PBF evaluation teams decided to make surprise visits during the 1st Quarter. Health center scores did not change significantly.
11	Reporting rate for each listed database, disaggregated by database	Maintain ≥95%	PBF: 99.1% up from 97.2% Q4. CBHI: 80.1% Q1 (up from 75% Q4) SIS Comm: 86.8% (up from 80.8%) HMIS: 97.4% Q1 (up from 96.3% Q4) IHRIS: NA	Reporting rates are reported 1 quarter late, to allow data entry at district level. IHRIS is currently off-line.
12	# of individuals trained in PBF and financial management related topics	TBD		
Component 3: Human Resources (IR: Improved management, quality, and productivity of human resources for health and related social services)				
13	% of district and sector teams that completed the BLDP program (cumulative)	2011-100% of district teams; 2012-30% of sector teams; 2013-50%		Scheduled to begin in FY2011

Component	Indicator	Target	Achieved this quarter	Comment
		of sector teams; 2014-75% of sector teams		
14	Medical and nursing councils approved licensing norms and standards; doctors and nurses have registered in licensing program	2011-norms and standards introduced; 2012-20 % of all doctors and nurses have registered in licensing program		Scheduled to begin in FY2011
15	# of people trained in HR-related topics	TBD		HR team assisted with curriculum development and ToTs reported under the Information component
Component 4: Continuous Quality Improvement (IR: Improved quality of health services through implementation of a standardized approach to quality improvement (QI))				
16	New integrated formative supervisory tool is completed, validated and handed over to MOH for implementation	2010	DH level Supervisory tool pre-tested	
17	% of District Hospitals in the accreditation program (cumulative)	2011-20%; 2012-50%; 2013-75%		Activity to begin in FY2011
18	# of people trained in Quality Improvement-related topics	TBD	None this quarter	
Component 5: Decentralized Institutional Strengthening (IR: Extended decentralized health and social services systems to the community level)				
19	% of Districts who meet their Health Imihigo target	TBD		District strategy still being finalized, expect to report at end of 2010
20	# of individuals from District level administration trained by topic	TBD	None this quarter	
21	# of Districts where capacity building plan has been developed (cumulative)	2011-5; 2012-15; 2013-30		District strategy still being finalized, expect to report at end of 2010

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