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Annual Project Report Narrative

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ACRONYMS

AHP	Allied Health Professionals
CBHI	Community Based Health Insurance ("Mutuelle de Santé")
COAG	United States Centers for Disease Control and Prevention Cooperative Agreement
C-IMCI	Community Integrated Management of Child Illness
CHD	Community Health Desk
CHWCF	CHW Cooperative Financial monitoring tool
CHWs	Community Health Workers
CTAMS	Cellule Technique d'Appui aux Mutuelles de Santé (CBHI Technical Support Cell)
CPD	Continuous Professional Development
DH	District Hospital (s)
DHIS-2	District Health Information System (New Rwanda HMIS)
DHSST	District Health System Strengthening Tool
DRG	Diagnosis-Related Group
FY	Fiscal/Financial Year
GOR	Government of Rwanda
HC	Health Center (s)
HIV	Human Immuno-Deficiency Virus
HMIS	Health Management Information System
HR	Human Resources
HRH	Human Resources for Health
HISP	Health Information Systems Program (Network)
HSSP	Health Systems Strategic Plan
iHRIS	Integrated Human Resources Information System
IHSSP	Integrated Health Systems Strengthening Project
IMCI	Integrated Management of Child Illness

MCH	Maternal & Child Health
M&E	Monitoring & Evaluation
MOH	Ministry of Health
MSH	Management Sciences for Health
NNMC	National Nurses and Midwives Council
PBF	Performance-based Financing
QI	Quality Improvement
RBC	Rwanda Biomedical Center
RMC	Rwanda Medical Center
RHEA	Rwanda Health Enterprise Architecture
SIS Com	Community Health Information System
SMS	Short Message Service
SOPs	Standards Operating Procedures
SPH	School of Public Health
TA	Technical Assistance
TB	Tuberculosis
ToT	Training of Trainers
TWG	Technical Working Group
USAID	United States Agency for International Development
USG	United States Government
WISN	Workload Indicators For Staffing Needs

INTRODUCTION

Launched in November 2009 and based on the priority gaps in the Rwandan health system, the five year USAID Integrated Health Systems Strengthening Project (IHSSP) seeks to improve financial and geographical accessibility for all Rwandans to quality health services that are sustainable and efficiently managed by well-trained health sector staff with clear functional responsibilities.

The project focuses on the following components contributing to this overall vision with the overriding result areas:

- Improved utilization of data for decision-making and policy formulation across all levels of the health sector.
- Strengthened health financing mechanisms and financial planning and management for sustainability.
- Improved management, quality and productivity of human resources for health and related social services.
- Improved quality of health services through implementation of a standardized approach to quality improvement.

The main results expected to be achieved by the project are:

- Improved capacity of program managers to use data for decision making.
- Strengthened financial systems for the rational use of available resources.
- Implemented long-term human resources for health strategic plan and community health worker policy.
- Implemented mechanisms of the national supervision framework and quality improvement.

This project annual report summarizes key activities and achievements during the period of FY 2012 (September 2011 to September 2012).

EXECUTIVE SUMMARY

From September 2011 to September 2012, main realizations of the project are:

Health Management Information System (HMIS):

IHSSP updated the Ubudehe database with information from spreadsheets sent from each of the 14,000 villages. At the request of the MOH, IHSSP also used this database to conduct various data analyses, and supported the upgrade and maintenance of PBF and CBHI application systems. The HMIs team assisted the Ministry in the introduction, customization and roll-out of the DHIS-2 (new Rwanda HMIS) system, and ensured that it is fully functional and used successfully. The SISCom and CBHI/M&E databases were also moved to DHIS-2 platform.

The IHSSP project assisted the MOH to review and update its health sector data sharing policy. The draft was updated, presented to the eHealth technical working group, and was approved by the MOH. To provide harmonized and well documented recording and reporting formats, HMIS monthly reporting forms have been updated. These forms are available on the MOH web site for referral and district hospitals, health centers, private clinics and dispensaries. Under the IHSSP sub-contractor, Futures Group, the documentation of all of paper-based recording and reporting tools used across the Ministry of Health is in process.

IHSSP assisted the Ministry of Health with the design and implementation of the RHEA framework and its components. The key focus of IHSSP work is to implement the health facility registry and ensure the interoperability between the registries and the various databases designed within the DHIS-2.

HMIS team also provided support to health professional councils to set up an electronic registration system and to build a new database. IHSSP also supported the use of HR system by providing end user support. The number of employee records in the system has increased to more than 20,000.

Health Financing (HF):

The HF team has regularly participated in the PBF extended team work groups, supporting PBF implementation. IHSSP supported Ndera Hospital in the elaboration of their performance assessment tool which will focus on mental health specialized services. IHSS project supported

this PBF revision framework at the central level; the previous revision was conducted two years ago. The IHSSP team supported the evaluation of demand-side model implementation in Rwanda; the findings showed that there is a good trend in the sites implementing the demand side model compared to control sites.

The community PBF audit has been conducted to assess if the system is implemented according to the national community PBF-model. The HF team worked in collaboration with the MOH's CHD to analyze data from SIS-Com, looking at the performance trends of selected maternal and child health indicators. Results show that there is an improvement in reporting, service delivery, and incidences on reported diseases. IHSSP facilitated the preparation and coordination of workshops and working sessions to support community health activities.

IHSSP assisted the MOH in institutionalizing and management of CBHI to increase its efficiency and sustainability. The CBHI financial modeling tool was developed to assist the MOH and CBHI sections to project their revenues and expenses. With this tool, the project provided support the MOH in district primary data collection in all 30 district CBHI directorates. IHSSP supported the MOH's Health Financing Unit to conduct a rapid assessment of health facilities and CBHI sections' financial management capacity.

The project obtained some Rockefeller Foundation funding to help the Ministry of Health to carry out CBHI studies; which are conducted together with the School of Public Health and the MOH's Health Financing Unit. The project embarked in the development of a reference manual describing the process to be followed in CBHI data audit, and facilitated the development of CBHI procedure manual in French and in English.

IHSSP also facilitated the MOH to participate in the USG evidence summit on enhancing provision and use of maternal health services through financial incentives and to organize a regional conference on social health protection.

The MOH, through the support from the USAID IHSSP project undertook a costing exercise to determine the costs of the Minimum Package of Activities (MPA), Complementary Package of Activities (CPA), and services at national referral hospitals. Seven hospitals were supported in this process.

IHSSP is also enhancing the provider payment system reform.

Human Resources for Health (HRH):

Technical assistance was provided to the MOH to update the HRH policy document. The project worked with the CPD executive for the development of an M&E plan. A workshop to share the "one year CPD experience" for was also organized and facilitated by IHSSP. Moreover, the project provided assistance to the national nurses and midwives council (NNMC) in the development of a database to manage registration, certification and licensing of nurses and midwives.

IHSS project assisted pharmacists and AHP associations to elaborate and translate respective ministerial orders for registration and the law establishing their professional council. The project assisted the AHP in the design of registration forms and the elaboration of detailed action plan and budget for the registration exercise. The database for the council has also been developed and finalized. The standard workload for nurses and midwives was reviewed, updated and submitted to the MOH. The HRH team supported 2 district hospitals (Kibagabaga and Muhima) to apply the WISN methodology.

In this year, IHSSP suspended the formal interventions in HRH programs and will no longer have a functional component dedicated to this.

Quality Improvement (QI):

IHSSP supported the development of service packages; treatment guidelines and protocols; district hospital operational policies and procedures; and the review and harmonizing of the patient file across health facilities. The project continued with the review, editing and formatting of those treatment guidelines.

The QI Team provided support to the MOH to conduct the accreditation situation analysis. In September, the Ministry of Health, through the support from IHSSP, organized a launching ceremony of the accreditation process. The launch was attended by MOH partners, hospital managers both at national referral and district levels, and other stakeholders.

Cross-Cutting Technical Assistance

IHSSP supported the development of the Health Sector Strategic Plan III (2012- 2017) and conducted a functional analysis of RBC. The decentralization strategic plan document has been finalized and it is in final stages of validation.

I. IMPROVED UTILIZATION OF DATA FOR DECISION MAKING AND POLICY FORMULATION

I.1. Support the MOH to manage the National Income Categorization database

In 2010-2011, at the request of the MOH and MINALOC, IHSSP designed a national income categorization (Ubudehe) database to store information on the population's socio-economic status. The project supported the stratification and data-entry process. The database contains over 9 million records classifying all Rwandese households into socio-economic categories. These data are used in CBHI membership management process and other various Government programs. This year, IHSSP conducted various data analyses at the request of the MOH. The Ubudehe database was also updated with spreadsheets from each of the Rwanda's 14,000 villages. A next step will be to enable update of civil registration data (births, deaths and household moves) using a mobile phone-based module for CBHI membership maintenance.

I.2. Upgrade and maintenance of PBF and CBHI web-based applications

Following the new CBHI policy introduced in July 2011, two web-based databases were created: the CBHI membership management database and the CBHI-M&E database. The CBHI membership management application uses part of data from the Ubudehe database and consists of a web-enabled database application storing information about subscription and payment status on each CBHI client. The CBHI M&E database is a web application in which data (contributions, expenses, etc) are provided from each CBHI section level at health centers and are accessible at various levels of data validation or use.

CBHI membership web application was upgraded to interact with the national income categorization (Ubudehe) database and its interoperability with other systems has been expanded. The IHSSP project supported the MOH for reviewing and updating the CBHI M&E indicators reported by sections and districts. During this process, the lists of CBHI sections and users were updated, and new formulas for reporting and analysis were proposed and integrated in the database. The focus is now oriented to the initiation and roll-out of CBHI membership mobile phone-based module for CBHI membership maintenance, which will also enable Ubudehe authorities to update civil registration data (births, deaths and household moves).

In the reporting period, IHSSP supported the backup functions of PBF and CBHI systems. Previously it was not easy and straight forward to do a backup and to access the archives of the

systems, especially exportation of updated data for further analysis. Now, it is a simple process. The HMIS team helped the MOH's Health Financing Unit to modify the PBF system to reflect new tariffs set. Changes were also made to the TB PBF module.

The IHSSP assisted the MOH to manage PBF systems activities at all levels of the Rwandan health system. Continuous support was also provided for the management of PBF (especially for payment) and HMIS databases. The project also used to provide PBF data to the Ministry's departments, stakeholders and USG partners.

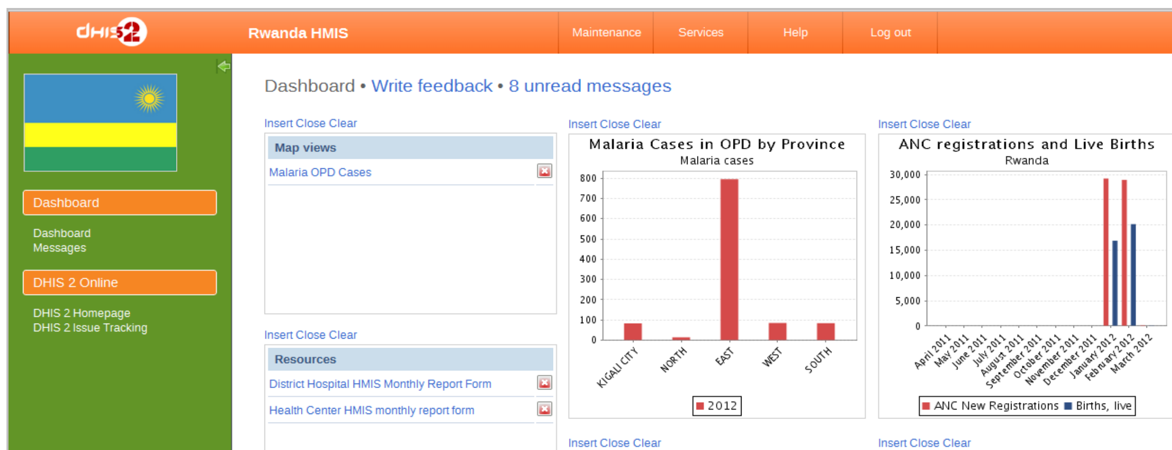
IHSSP is in the process to initiate new software for entering data from PBF quality assessments. The open source software – Limesurvey – meets all of the ministry's requirements, including: support for multiple language interfaces, on- and off-line data entry support, good analysis tools and no licensing fees. Data from the health center level PBF quality assessment has been imported as a starting point.

I.3. Upgrade of the Health Management Information System (HMIS)

✓ DHIS-2 Roll Out and Maintenance

IHSSP is committed to assist the Ministry of Health with the enhancement of its HMIS. One of the main objectives was to introduce the DHIS-2 software platform. This has proved to be a powerful tool and most convenient to manage routine HMIS data. The IHSSp project assisted the Ministry in the introduction, customization and roll-out of that system and ensured that it is fully functional and used successfully. All registered health facilities in the system are now reporting monthly; and it has improved timeliness, completeness, and quality of data country wide.

Figure 1: Example of a dashboard created using DHIS-2



The DHIS software has also been customized for data entry for health centers and district hospitals monthly reporting formats. The new data entry modules have also been created in the system and will help the Ministry's MCH Unit to gather data from neonatal and child death audits. The SISCom and CBHI/M&E databases were moved to DHIS-2 platform. This will make it much easier for the Ministry of Health to maintain the software and for end-users to access the data.

Simplified TB quarterly reporting forms are under design to be integrated into DHIS-2 to replace the Excel-based system that does not enable TB program staff to analyze long term trends in TB care and treatment.

The use mobile reporting tools for routine and ad hoc reporting is in pretest phase. With support from HISP/Oslo staff, a simple prototype was developed for active surveillance of malaria cases in districts with low incidences that are targeted for elimination. This work was financed by HISP/Oslo but coordinated by the IHSSP's HMIS team.

- ✓ **Enhancement of data recording, reporting and data sharing**

IHSSP assisted the MOH to review and update its health sector data sharing policy. The draft was updated, presented to the eHealth technical working group, and approved by the MOH. This policy centralizes requests for data access within the HMIS department – for all health related information sub-systems - and defines procedures to request data access as well as the responsibilities of data users.

To provide harmonized and well documented recording and reporting formats, the HMIS monthly reporting forms have been updated. These forms are available on the MOH web site for referral and district hospitals, health centers, private clinics and dispensaries. IHSSP staff also assisted the MCH department to revise and prepare user documentation for the integrated management of child illness (IMCI) and family planning registers.

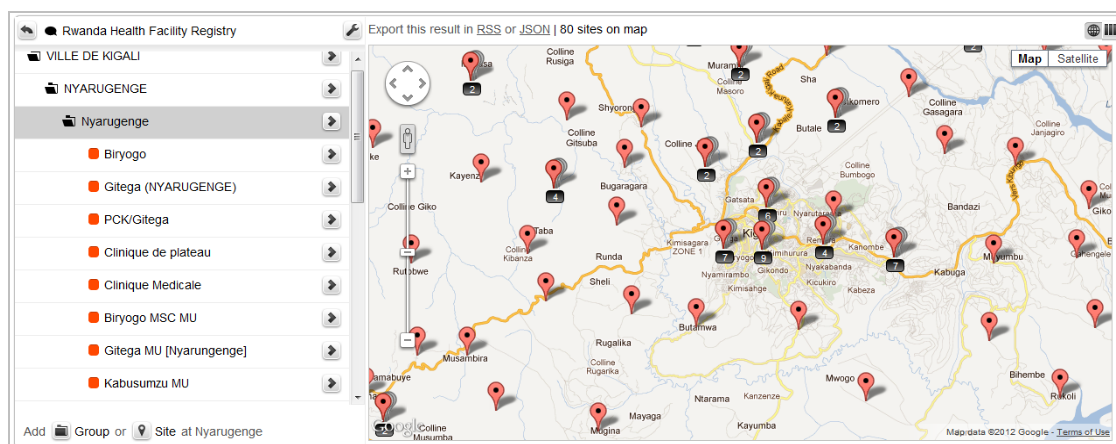
Under the IHSSP sub-contractor, Futures Group, the documentation of all of paper-based recording and reporting tools used across the Ministry of Health is in process. New sections were completed on the CBHI monthly reporting formats and a detailed inventory of HIV reporting and recording instruments was completed.

I.4. Support to Rwanda Health Enterprise Architecture (RHEA)

The IHSSP project assists the Ministry of Health with the design and implementation of the RHEA framework and its components. The objective is to establish a health enterprise architecture framework to enhance health systems integration and interoperability. The key focus of IHSSP work is to implement the health facility registry and ensure the interoperability between the registries and the various databases designed within the DHIS-2.

The project assisted the MOH's eHealth Unit and the team from JEMBI South Africa with the design and implementation of the health facility registry, and worked on tools to integrate the PBF system with the registry.

Figure 2: Screen shot from Rwanda Health Facility Registry



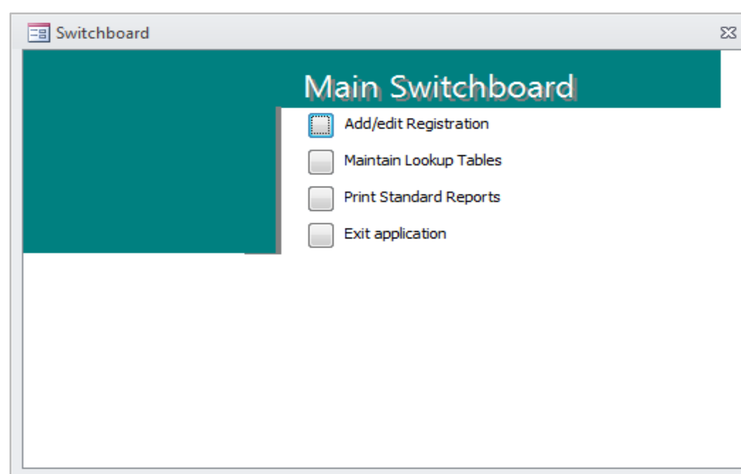
Requirements for the community health worker registry have also been defined and are likely to be integrated with the RapidSMS platform. Moreover, provider registry and Community health workers registry are in development phase.

I.5. Set - up of the Health professional council registration system

IHSSP completed work with health professional councils to set up an electronic registration system and to build a new database, which will be used by both the National Nursing and Midwives Council (NNMC) and Allied Health Professionals.

Plans are underway to move this system to a web-based platform during the course of the next year. This might use the iHRIS Qualify module that is being used in a number of countries (including neighboring Uganda) and that is in line with RHEA framework.

Figure 3: Entry screen for health professional registration



I.6. Operationalization of the Human Resources for Health Information System (iHRHIS)

In collaboration with the Ministry and IntraHealth, the IHSSP project supported the operationalization of iHRIS (the system was initially introduced by the Capacity Plus Project). New data elements, like posts and new departments, were added to reflect the changing structure and manpower needs of hospitals and Ministry-related institutions.

IHSSP supported the use of HR system by providing end user support. The number of employee records in the system has increased to more than 20,000. The system is continuously being updated (current version: Beta version).

II. STRENGTHENED FINANCIAL SYSTEMS FOR THE RATIONAL USE OF AVAILABLE HEALTH RESOURCES

II.1. National support for PBF

- ✓ **Support to PBF extended team**

IHSSP participated regularly in PBF extended team work groups, supporting PBF implementation.

- ✓ **Ndera tertiary hospital PBF evaluation tool**

IHSSP supported the Ndera Neuropsychiatric Hospital in the elaboration of their performance assessment tool which will focus on mental health specialized services. The grid provides quarterly services score. A list of indicators is included in the tool, and the management team is very committed to introduce this grid as part of their daily management. The tool is designed in Excel like for district hospitals. The tool will also be considered by the hospital for continuous performance evaluation.

- ✓ **Revision of the PBF framework**

A review of the existing PBF schemes (HC, DH, TB and community PBF) was commissioned by the MOH's Health Financing Unit. The project supported this PBF revision framework at central level. Previous revision was conducted 2 years ago. Main tasks done through this process were the update of PBF indicators and tools (contracts, assessment grids, etc.); budget forecasting, and revision of the evaluation process to reflect current context (in terms of norms and standards). (See also annexes 3 and 4). The quality tool for the quarterly health center evaluation was also reviewed, based on the updated norms and standards provided by MOH programs and services.

- ✓ **Evaluation of the PBF demand-side implementation strategy in Rwanda**

PBF demand-side model is designed to overcome barriers that women face in accessing timely maternal and child health services. The purpose of the evaluation was to assess the process, midterm results, perception and challenges for the implementation of demand-side strategy. Findings showed that there is an average monthly uptake of 3 indicators (ANC visits, deliveries at health facility and postnatal care), with a higher increase in the sites implementing the demand side model compared to control sites.

II.2. Support to the Community PBF system

✓ Community PBF system audit

The overall objective of this community PBF audit was to assess if the system is implemented according to the national community PBF-model. The analysis revealed that: i) the majority of Community PBF structures hold regular coordination meetings for their management - over 85% of the expected meetings were held at the recommended intervals, however, minutes archives are still poor; ii) the cooperatives don't all have the necessary documents for their operations - beside their PBF contracts, they don't possess all the documents required to the sector level for national recognition by the Ministry of Trade's Rwanda Cooperative Agency, and only 56% of the CHW cooperatives have acquired legal status. iii) 79% of CHW cooperatives had a business plan. CHW cooperatives activities are more oriented to livestock (with 64% of cooperatives), followed by trading (40% of cooperatives), agriculture (36%), and other project activities (5% of cooperatives).

Table 1: Some results of the C-PBF system audit at district, sector and health center levels

Subject		% (Yes)
Timeliness for meeting calendar and organization	District steering committee meeting	88%
	Sector steering committee meeting	89%
	CHW/HC Coordination meetings	92%
Directives follow up during meetings	District steering committee meeting	**83%**
	Sector steering committee meeting	**87%**
	CHW/HC Coordination meetings	**92%**
Minutes availability	District steering committee meeting	**78%**
	Sector steering committee meeting	**98%**
	CHW/HC Coordination meetings	**84 %**
Existence of CHW cooperative administrative documents	Contract between Sector Steering committee and the Executive Secretary	**93%**
	Contract between CHW cooperative and sector steering committee	**98%**
	CHW cooperative legal status	**56%**
	Existence of a business plan for the CHW cooperative	**79%**

✓ Analysis of community PBF data

IHSSP team worked in collaboration with the MOH's CHD to analyze the data from SISCom, looking at the performance trends of selected maternal and child health indicators. The information generated from this exercise based on 2010 and 2011 indicators showed that there is an improvement in reporting, service delivery, and incidences on reported diseases:

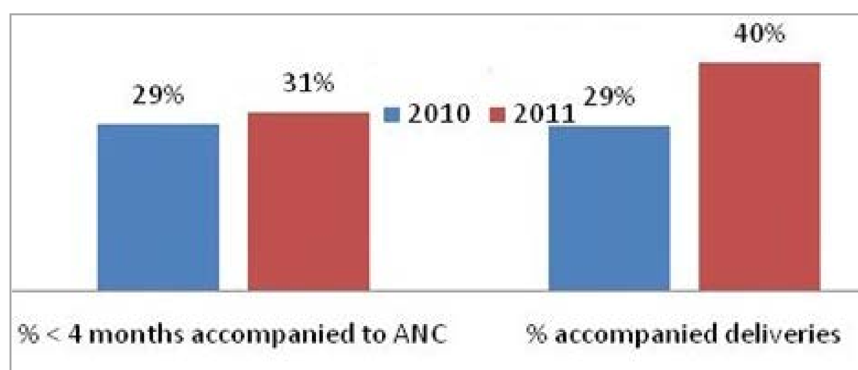
➔ **Overall completeness of reporting by cooperatives was 97%.**

Table 2: Completeness of reporting by cooperatives in 2011

QUARTER	Reports received	Rapports expected	%
1	1337	1395	95.8
2	1342	1395	96.2
3	1363	1395	97.7
4	1362	1395	97.7
Total 2011	5404	5550	97%

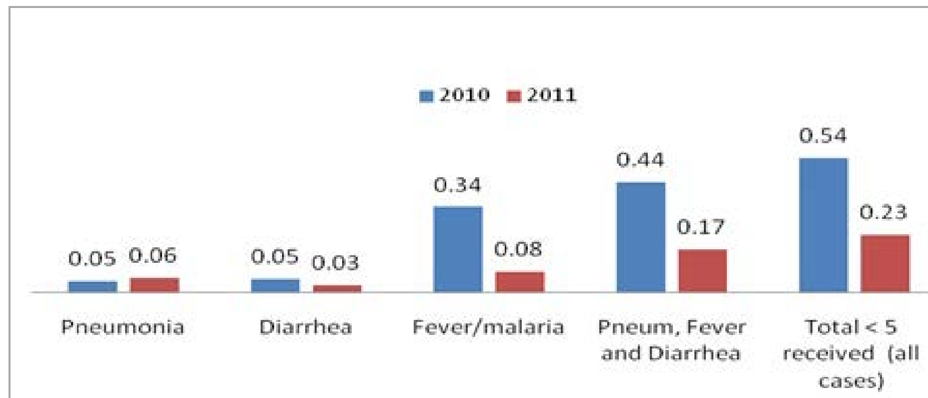
➔ **Assisted deliveries passed from 29% in 2010 to 40% in 2011.**

Figure 4: % of pregnant women accompanied for ANC and assisted deliveries



➔ **Per capita visits per year (managed by CHWs) for the under-5 population** broken down by the 3 IMCI reported diseases (pneumonia, diarrhea and fever/malaria) showed an overall decline of 57% of reported children received by CHWs, except for pneumonia. For fever/malaria, the decline was 76%; followed by diarrhea, which declined at 40%. An increase of 20% was observed for pneumonia case between 2010 and 2011.

Figure 5: Per capita C-IMCI 2010-2011



✓ Community health activity coordination

IHSSP facilitated the preparation and coordination of workshops and working sessions to support community health activities at community, health center, hospital, district and central levels. Coordination of community health workers' activities is essential for monitoring & evaluation and to assess, especially, the state of maternal and child health indicators.

II.3. Support to the development and implementation of the CBHI

IHSSP assists the Ministry of Health in the process of institutionalizing and management of the CBHI, its efficiency and sustainability.

✓ Development of CBHI Financial modeling tool

This tool aims to assist the MOH and CBHI sections to project their revenues and expenses based on elements such membership levels, premiums, administrative costs, expected utilization levels and facility reimbursement mechanisms. The expected outcome is improvement in financial planning resulting in increased efficiency, access and sustainability.

IHSSP assisted the Ministry in the development and institutionalization of that CBHI financial modeling tool, and organized trainings of trainers (ToTs) to teach MOH team and district actors on the use of this financial tool (See also annex 2).

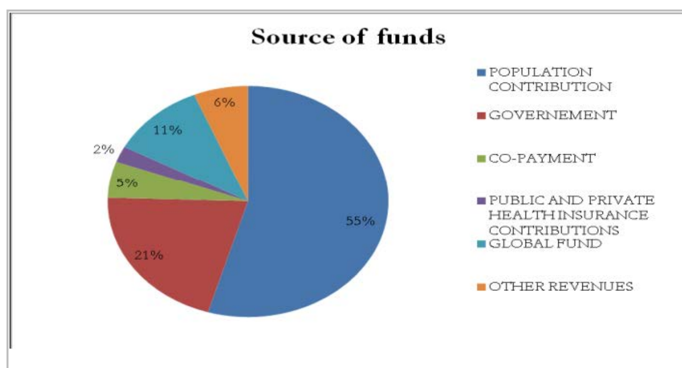
✓ Support to the CBHI Financial Management

Through the financial modeling tool, the project also provided support to the MOH in district primary data collection.

This was followed by a data validation process, which was conducted in all 30 district CBHI directorates. With these data the MOH's CBHI Technical Support Cell was able for the first time to generate a CBHI financial report, which provides figures for the fiscal year 2011/2012.

- **CBHI sources of fund:**

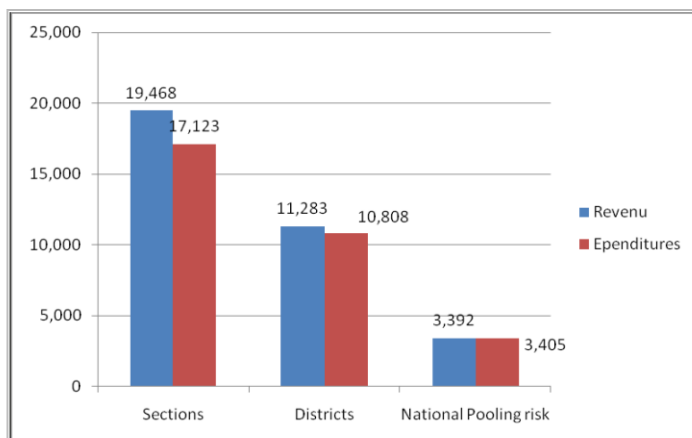
Figure 6: CBHI Sources of fund



The main CBHI source of fund is made of 55% of contributions from the population itself. 21% are from the Government, covering contributions for indigent's people. Co-payment represents 5%.

- **CBHI Revenues and Expenditures:**

Figure 7: Revenue and expenditures after the reserve distribution



In regards to the Revenue & Reserve at the end of the 2011-2012 fiscal years, the section level was able to cover all expenses (HC bills payment, running costs and transfers of 45% premiums collected to the district level). At the district level, a gap equivalent to RWF 305,987,817 was observed, and for the National Pooling Risk there was also a deficit of RWF 247,227,847.

According to the CBHI ministerial instruction, the reserve at section level is redistributed to all levels for equalization. The reserve distribution changes the situation of the district level, as the only remaining deficit is at national pooling risk level.

- ✓ **Assessment of health facilities and CBHI sections accounting and financial management**

IHSSP supported the MOH's Health Financing Unit to conduct a rapid assessment of health facilities and CBHI sections' financial management capacity. The principal aims of the assessment were the identification of financial management strengths and weaknesses in order to develop financial tools for adequate reporting; and guidance for the choice and introduction of appropriate accounting software to CBHI sections and health facilities. At each level, the team noted all findings and challenges and actions were proposed for future work. As main observations, it appeared that:

- Most of the DH do not have software for finances and store management.
- Tools reporting the finances do not cover all health finances' activities.
- Reports formats are not standardized.
- Double accounting has also been founded.
- In some areas, various software introduced by partners are not harmonized

- ✓ **CBHI studies design and implementation**

MSH obtained some Rockefeller Foundation funding to help the Ministry of Health to carry out CBHI studies. The objectives are to:

- Conduct the analysis and assessment to determine the access and equity of CBHI system.
- Develop an in-depth "lessons-learned" publication with direct practical relevance to health policy makers and planners in Rwanda and other countries.
- Develop and disseminate the finance model and tool.

The project provides technical assistance for the whole process, and studies are still conducted together with the School of Public Health and the MOH's Health Financing Unit. Scheduled tasks include desk reviews, household surveys, and interviews with CBHI actors.

- ✓ **CBHI DATA AUDIT MANUAL DEVELOPMENT**

IHSSP embarked in the development of a reference manual describing the process to be followed by CBHI structures to regularly conduct data audit. The first step was to document the CBHI data flow and to identify the different actors involved in that process. It was followed by the elaboration of the CBHI data audit manual, which describes key concepts, definitions, responsibilities, etc.

✓ CBHI PROCEDURES MANUAL DEVELOPMENT

The CBHI procedures manual describes operational policies, processes, and procedures for the implementation of CBHI following the introduction of the new policy. The project facilitated the development of the manual in French and its translation in English. Final document has been submitted to the MOH.

✓ International Conference on PBF for Maternal Health Services

The Ministry of Health's MCH Director, Dr. Fidèle Ngabo and the IHSSP PBF Senior Advisor participated in the *"US Government Evidence summit on enhancing provision and use of maternal health services through financial incentives"*, which took place in Washington D.C in April. The conference aimed to examine the evidence of the impact of incentives on improving maternal and newborn health results. The Integrated Health Systems Strengthening Project provided technical and financial assistance to the MOH for participation in this summit.

✓ EAC Social Health Protection Regional Conference

IHSSP worked with the MOH as a member of the steering committee to organize the conference on Social Health Protection held in September. The project played an effective role in coordination, provision and funding of the conference moderator. The regional social health protection conference culminated in the signing of a Ministerial Statement on universal health coverage and long term harmonization of social health protection in the East African Community.

II.4. Support the Provider Payment reform

One of the core steps on the path to universal health coverage is using available resources in the most efficient way possible. Hospital Payment System reform is a key area where significant savings and efficiency gains can be made, with positive effects on the entire health system. Such payment mechanisms include global budgets, fee for service, daily rebates, as well as case based payments. Each mechanism has the potential to influence provider behavior in unique ways, and defining the optimal mix of incentives is paramount. The Provider Payment System then includes both mechanisms and all supporting systems such as information systems and accountability mechanisms. A costing exercise has been initiated. Next step is to explore different options available, including DRGs.

- ✓ **Support to the institutionalization of the costing exercise**

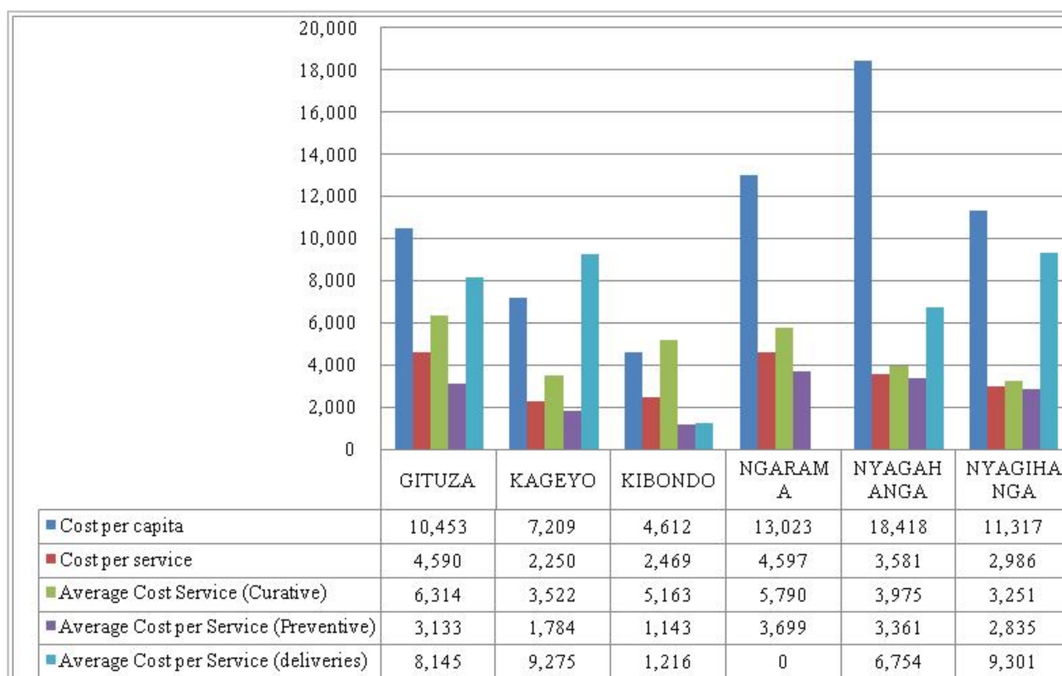
The Ministry of Health, through the support from the USAID IHSS project undertook a costing exercise to determine the costs of the Minimum Packages of Activities (MPA), Complementary Packages of Activities (CPA), and services at national referral hospitals.

The objective was to determine the full cost of each service included in the PMA and the PCA in health centers and hospitals. In the first phase of costing implementation, the IHSSP supported 7 hospitals through technical assistance. The results will be used for several purposes including:

- The re-design of reimbursement mechanisms and levels;
- The revision of premiums under the Community-Based Health Insurance (CBHI) schemes; and
- The development of accurate scenarios for health financing options, including insurance reimbursement, PBF, and input financing.

➔ The following figures show some results from one of the districts participating in the costing exercise. It shows the **comparison of the Ngarama health centers** in terms of cost per service, cost per capita, and average costs of curative, preventive and deliveries.

Figure 8: Gatsibo district (Ngarama DH)' HCs: Comparison of cost per service and per capita



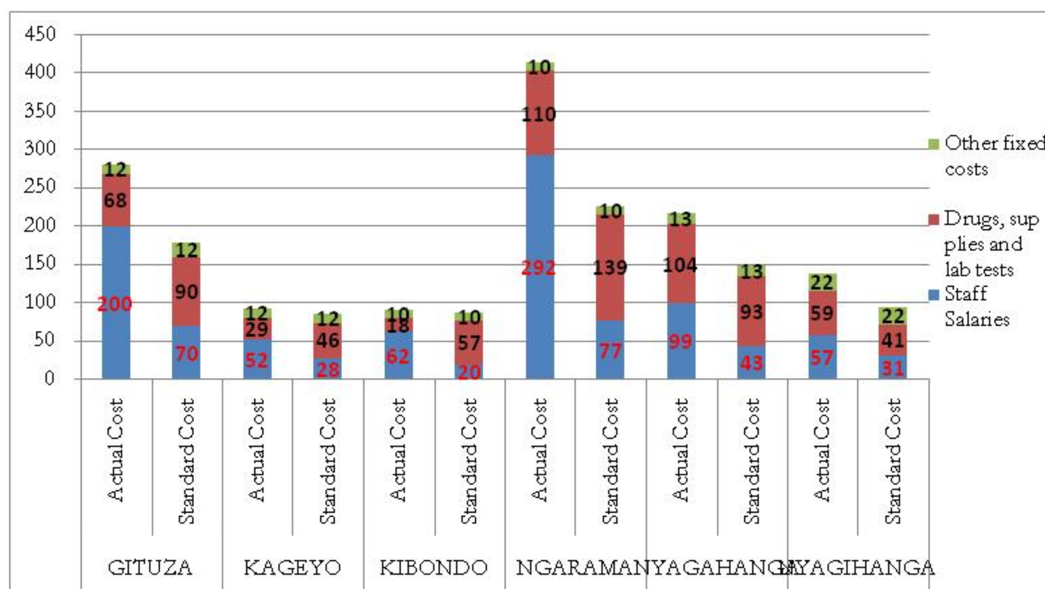
	GITUZA	KAGEYO	KIBONDO	NGARAMA	NYAGAHANGA	NYAGIHANGA
Cost per capita	10,453	7,209	4,612	13,023	18,418	11,317
Cost per service	4,590	2,250	2,469	4,597	3,581	2,986
Average Cost Service (Curative)	6,314	3,522	5,163	5,790	3,975	3,251
Average Cost per Service (Preventive)	3,133	1,784	1,143	3,699	3,361	2,835
Average Cost per Service (deliveries)	8,145	9,275	1,216	0	6,754	9,301

The results showed that cost per service varies from RWF 2,250 in Kageyo to RWF 5,597 in Ngarama. There is also a disparity in terms of cost per capita that varies from RWF 4,612 in Kibondo to RWF 18,418 in Nyagahanga.

This is due to the catchment population covered by each heath facility in the district. Nyagahanga provide health services to only 11,764 people compared to those served by other health services in the district: Ngarama (31,704), Gituza (26,795), Kibondo (19,717) and Nyagihanga (12,147).

➔ The costing exercise institutionalized at the district level was also used to provide a comparison of actual vs. standard costs for district health centers. The actual costs were determined by the real expenditures made by the health center in 2010 (scenario A), whereas the standard costs were calculated by multiplying the actual utilization figures for 2010 by the standard costs per service (Scenario B). The following figure shows a **comparison between the actual and standard costs in the six health centers of Ngarama**, at the same actual level of utilization. Comparison of scenarios shows disparities between actual and ideal, or standard, situation.

Figure 9: Gatsibo district (Ngarama DH)'s HCs: comparison of actual and standard costs



In most of the six health centers, the actual amount spent on staff costs was higher than the amount predicted by the standard, suggesting the HCs are overstaffed. The largest difference between actual and standard staff costs was at Ngarama HC, where the model predicts an underutilization of the staff. This is because this health center is much closer to the hospital and most of its services (like deliveries) are referred to the hospital.

For drugs, the actual expenditure was lower than the standard cost at all the health centers: some donated drugs were not included because the health centers do not value them. In some cases, the difference was large, the actual drug expenditure being at Gituza (68 million vs 90 millions), Kageyo (29 million vs 46 million), Kibondo (18 million vs 57 million) and Ngarama (110millions vs 139 millions). Operating costs were equal in both scenarios, due to the fact that the actual costs were used as the standards.

✓ **Support Provider Payment reform through DRGs**

In this FY, IHSSP focused exploration of different options available including DRGs and ultimately decide on a work-plan to guide the process (See also table 3). The process looked on how health facilities receive different types of financing (based on the actual health financing policy); developed options and recommendations, and of macro-financing spreadsheet model for policy options analysis.

Table 3: DRG costs for selected services

Service/DRG	Total DRG cost	Actual average reimbursement cost (with old tariff)	Proposed DRG Cost with subsidized salaries and running cost excluded
Diarrhée non sanglante	3124	1562	2182
Diarrhée sanglante	3971	1384	2709
IAVRI	3292	1129	2232
IAVRS	2149	1216	1274
Parasitose intestinale	2818	979	1726
Gastrites / Douleurs épigastriques	1442	762	870
Infections urinaires	2680	1449	1710

III. STRENGTHENED LEADERSHIP AND MANAGEMENT AND IMPROVED HUMAN RESOURCE PRODUCTIVITY

Since project started in 2009, the HRH component provided technical support to the MOH for the design and implementation of its HR programs. The project provided support in different interventions including the review and production of the new HR Strategic Plan, management and development of HRH program, roll out of the community health strategy, and the use of HRIS to update and disseminate HR norms and guidelines.

In this year, IHSSP suspended the formal interventions in this domain and will no longer have a functional component dedicated to this. This section describes the main realization in relation the HRH program for the current period.

III.1. Assistance to the MOH to revise the HRH Policy

The HRH policy addresses the current needs of HRH in the Ministry of Health. IHSSP provided technical assistance to the MOH to update the policy document. The policy has been finalized and validated by the MOH.

III.2. Support the MOH capacity to manage HR development through CPD Program

The Continuing Professional Development (CPD) Program seeks to ensure the highest quality of medical care to the population of Rwanda through a variety of structured educational opportunities that incorporate the most current medical knowledge, skills, and ethical attitudes in all disciplines of medicine and dentistry with the support of the Rwanda Medical Council and other stakeholders.

IHSSP assisted in the development and validation of the CPD program and its strategic plan and worked with the CPD executive for the development of an M&E plan.

In August, a workshop to share the "one year CPD experience" was organized and facilitated by IHSSP. It brought together representatives from district hospitals to discuss how improvements can be made to increase the enrollment of physicians into CPD.

III.3. Assistance to the National Council of Nurses and Midwifes (NCNM)

The registration process of nurses and midwives began in 2003. The objective was to ensure that all nurses and midwives practicing in the country are registered and authorized to work in Rwanda. Data registration was done in Excel sheet. There was then a need for the National Nurses and Midwives Council (NNMC) to have an updated registration database to issue certificates and a licensing identity.

The project provided assistance to the NNMC in the development of a database to manage registration, certification and licensing of nurses and midwives. The website and database are totally complete and the available data were imported from the Excel sheets to the database. The remaining activity is the training of staff on the use and maintenance of the database and website. IHSSP also assisted the NNMC in the certification process of over 300 nurses who were provided with their certificates.

III.4. Registration of Pharmacists and Allied Health Professionals Council

The IHSSP project assisted pharmacists and allied health professionals associations to elaborate and translate the respective ministerial orders for registration and the law establishing their professional council.

Pharmacists formed their association with the support of IHSSP; and have developed certificates for delivery.

In February, the ministerial order to register allied health professionals was published in official gazette. IHSSP assisted the AHP in the design of registration forms and the elaboration of detailed action plan and budget for the registration exercise. Different working sessions have been organized and coordinated by the HRH team with the AHP steering committee.

Sessions have been organized to develop norms and standards for licensing for AHP association. IHSSP also developed and finalized the database for the council, but no handover was done because the association still lacks the infrastructure and staff to manage the database.

III.5. Support to the roll out of the WISN methodology

The WISN methodology is a human resource planning and management tool which helps to determine the number of staff required to cope with the workload of a given health facility. The methodology was introduced by IHSSP in August 2010. A team of experts from MOH, teaching hospitals and health educational institute was trained to implement the methodology.

This year, the standard workload for nurses and midwives has been reviewed, updated and submitted to the MOH.

IHSSP also supported 2 district hospitals (Kibagabaga and Muhima) to apply the standard workload indicators methodology to calculate the required staffs. Results were discussed with the management staff, and are showed below:

Table 4: WISN Results - Kibagabaga hospital

NO	Services	Current nurses	Required nurses	Shortage/ Excess	WISN ratio	Staffing situation
1	Internal Medicine	18	22,4	18-22,4 = **- 4,4**	18/22,4= 0,80	Shortage
2	Surgery	10	18,32	10-18,32 = **- 8,32**	10/18,32= 0,54	Shortage
3	Maternity	32	38,25	32-38,25= **- 6,25**	32/38,25= 0,83	Shortage
4	Neonatology	10	19,73	10-19,73= **- 9,73**	10/19,73= 0,50	Shortage
5	Pediatric	18	25,93	18-25,93= **- 7,93**	18/25,93= 0,69	Shortage
6	Emergency	18	18,81	18-15,18= **- 0,81**	18/15,18= 0,99	Shortage
7	Out patient	9	4,77	9-4,77= **+ 4,23**	9/4,77= 1,88	Surplus
	Total	**115**	**148,21**	- **33,21**		

These results will help the hospital to plan for staffing issues and improve the quality of care.

IV. QUALITY IMPROVEMENT FOR RESULTS IN ACCESS TO AND QUALITY OF SERVICES THROUGH STANDARDIZED APPROACH

IV.1. Review and development of health service packages

IHSSP supported the development of service packages. The document of the packages has been produced and forwarded for validation. The service packages of health care at national referral, university teaching, district hospitals, health centers and health posts specify the services that should be provided at each health facility level. The aim is to promote and strengthen the referral systems and health facilities, improve the accessibility to specialized health care services, standardize service packages at each facility level, guide resource identification to support services, and develop accreditation of health care standards.

IV.2. Clinical protocols and treatment guidelines development

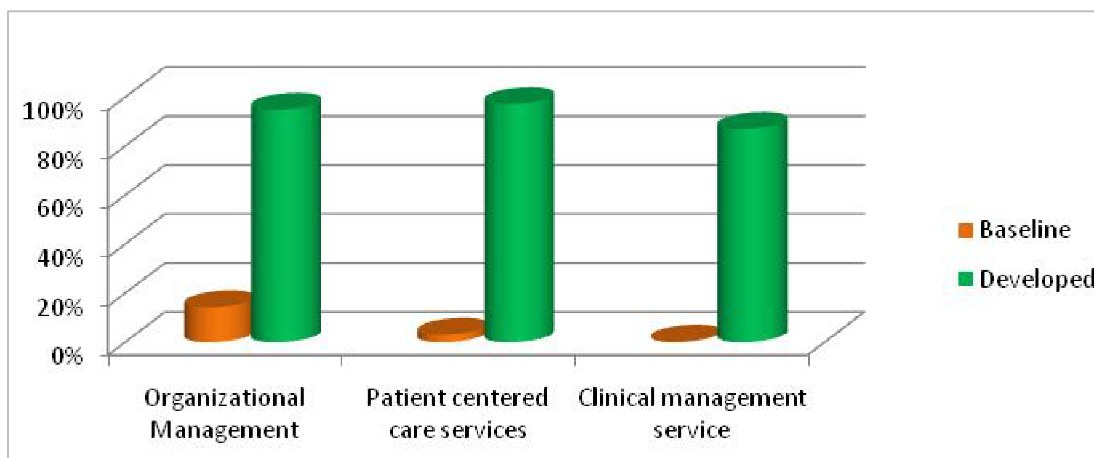
The primary objective of the treatment guidelines and clinical protocols development was to lead to accessible quality health care and to improve and encourage the rational use of drugs. Through IHSSP support, treatment guidelines and clinical protocols were developed by health professionals in their respective professional organizations from both public and private institutions. The treatment guidelines and clinical protocols development was evidence based, considering both international and Rwandan context, and describing how best clinical conditions should be managed.

IV.3. District hospital operational policies and procedures development

District hospital operational policies and procedures reflect the ideal performance of a health facility to provide quality care. Achieving compliance with these policies and procedures will assist in proactively putting the systems in place to avoid the most important risks to quality care. The objective is to guide service delivery and ensure that services are delivered in a consistent manner.

Through technical assistance from IHSSP, 93% of the required procedures have been developed in the respective service areas: organizational management, patient centered care services, and clinical support services. The following figure presents the percentages of developed procedures versus the baseline.

Figure 10: % Policies & procedures reviewed (baseline) and developed by clinical areas



IV.4. Harmonization and review of the patient file

This year, the IHSSP's QI team supported the MOH in the review and harmonizing of the patient file across health facilities. Having the same patient file does not exclude the need for specialties having specific records for their patients.

It was suggested that specific patient records in the process of care will be considered as additional to the mother file in different areas of specialty. The harmonized parent file will then be used by all departments at facility level. However, specific medical forms for services like obstetrics, surgical, intensive care unit (ICU) will also be used.

IV.5. Editing and formatting of clinical treatment guidelines

Following the above documents developed through IHSSP technical assistance, the project continued with the review, editing and formatting of those treatment guidelines. This activity will be finalized by November 2012.

The status/progress of the activity is described herein the shown table:

Table 5: Status/progress of the review, editing and formatting of treatment guidelines

	Documents	Progress	Next step
1	Health Service packages	Completed	Proceed to printing & dissemination
2	Organizational management policies and procedures	Completed	Proceed to printing & dissemination
3	Patient Centered services policies and procedures	Completed	Proceed to printing & dissemination

	Documents	Progress	Next step
4	Clinical Services policies and procedures	Completed	Proceed to printing & dissemination
5	Patient file harmonized	Completed	Proceed to printing & dissemination
6	Pediatric clinical treatment guidelines	Completed	Proceed to printing & dissemination
7	Obstetrics & Gynecology treatment guidelines	Completed	Proceed to printing & dissemination
8	Internal Medicine treatment guidelines	Completed	Proceed to printing & dissemination
9	ENT treatment guidelines	Completed	Proceed to printing & dissemination
10	Pediatric Emergencies	Completed	Proceed to printing & dissemination
11	Dermatology treatment guidelines	Completed	Proceed to printing & dissemination
12	Pain management treatment guidelines	Completed	Proceed to printing & dissemination
13	surgery treatment guidelines	Editing	Formatting of the document
14	Mental Health Treatment guidelines	Editing	Formatting of the document
15	ophthalmology treatment guidelines	One session to finalization	Document finalization
16	Oral Health	One session to finalization	Document finalization

IV.6. Accreditation situational analysis

The IHSSP's QI Team provided support to the MOH to conduct the accreditation situation analysis. The objective was to identify the current state of support systems and quality improvement efforts within Rwanda that will support successful implementation of health facility accreditation system of the hospitals.

Recommendations have been given as part of the situational analysis report to ensure effective creation of the accreditation system that builds on previous experiences within the country and integrates efforts toward improving quality of care and services.

IV.7. Launch of the accreditation system in Rwanda

The main purpose of the accreditation is to continuously improve quality of health care and services delivered through implementation of evidence-based standards, and finding solutions to quality gaps to be identified during the accreditation survey process.

In September, the Ministry of Health, through support from USAID/IHSSP, organized a launching ceremony that emphasized commitment of the MOH departments and partners to the accreditation process.

The launch was attended by MOH partners, hospital managers both at national referral and district levels, and other stakeholders.

Figure 11: Launching of the accreditation system

From left to right: Dr. Uwayitu Apolline, IHSSP's Chief of Party, Dr. Binagwaho Agnès, Minister of Health, Dr. Ngirabega Jean de Dieu, D.G of Clinical Services.

In support of the governments' commitment to quality improvement, the USAID-funded IHSSP already facilitated the development of Clinical Protocols and Treatment Guidelines, district hospital Operational Policies and Procedures, Health Service Packages, and a standardization of patient file. All these documents were approved during the launch and publically endorsed to proceed to dissemination.

V. CROSS-CUTTING TECHNICAL ASSISTANCE

V.1. Support to the Health Sector Strategic plan (HSSP III) development

The MOH requested support from IHSSP to participate, with the core team of authors, in development of the Health Sector Strategic Plan III (2012 – 2017); focusing particularly on the Health Information building block and the development of the M&E framework.

The objective was to assist with the preparation of HSSP III and to gather baseline data for the HSSP III M&E framework from various data sources. The Health Information component log frame and narrative have been completed, the M&E framework designed, and baseline values for all HSSP III indicators estimated.

IHSSP also provided a consultant to draft the following chapters of the HSSP III:

- Maternal and Child Health
- Disease Prevention and Control

- Health Promotion and Behavior Change
- Service Delivery Systems
- Governance and Sector Management

In addition, IHSSP recruited local consultants to carry out an exercise of aligning all policies and strategic plans in the health sector to HSSPIII. The exercise is ending with October 2012.

This will helps the MOH components to work together towards achieving the target objectives of HSSPIII.

V.2 RBC functional analysis and development of its strategic plan

RBC is a national institution established by the Government in 2011 to become a center of excellence for the prosperity of the country, ensuring quality health service delivery, education and research for the population. IHSSP supports the Rwanda Biomedical Center (RBC) to carry out its functional analysis and develop its strategic plan.

Situational analysis was done, followed by the functional analysis of RBC. The report will be provided by November 2012. The recommendations will help RBC to develop the strategic plan that will help to maximize the synergies and improve functional efficiencies.

V.3 Finalization of the Decentralization strategic plan

Rwanda has adopted the health decentralization policy, which is being implemented in three phases. The implementation now is at phase three. The MOH, in collaboration with the Ministry of Local Government, assisted technically by IHSSP; developed a decentralization strategic plan to improve the decentralization and empower the local district health authorities in managing their health problems.

The decentralization strategic plan document has been finalized and it is in final stages of validation.

VI. CAPACITY TRANSFER TO THE MOH

The IHSSP's work is primarily based on the provision of technical assistance to the Government of Rwanda. Building and transfer of technical capacity to the MOH is crucial, and IHSSP wants to ensure that technical capacity is effectively transferred to the MOH in such a way that all achievements can be maintained, updated and renewed by the Ministry.

Strategy for capacity transfer includes:[1]

- Technical assistance and facilitation
- Training – mostly through trainings of trainers (ToTs), but also development of curricula and training materials
- Mentoring – embedded staff, joint supervision
- Functional analysis and development of organizational development plans
- Support for technical working groups
- Etc.

The IHSSP team provided continuous **technical assistance to the MOH to build capacity, improve data use and sharing**, and to enhance the M&E system of the Ministry.

Workshops have been organized and facilitated to support data use through the health system. Many of them have been provided during the roll-out of DHIS-2. As the SISCom and CBHI/M&E databases were moved to the DHIS-2 platform, IHSSP staff assisted with the roll-out of the new SIScom along with other web- and mobile phone based software tools (mUbuzima, RapidSMS, and CHWCF tool) through a series of provincial trainings of trainers' sessions across the country.

The project also supported the **development of the CBHI membership user manual through the CBHI extended team platform.** The existing CBHI M&E user manual was updated, and served as curricula document for trainings.

[1] See also. annex 2

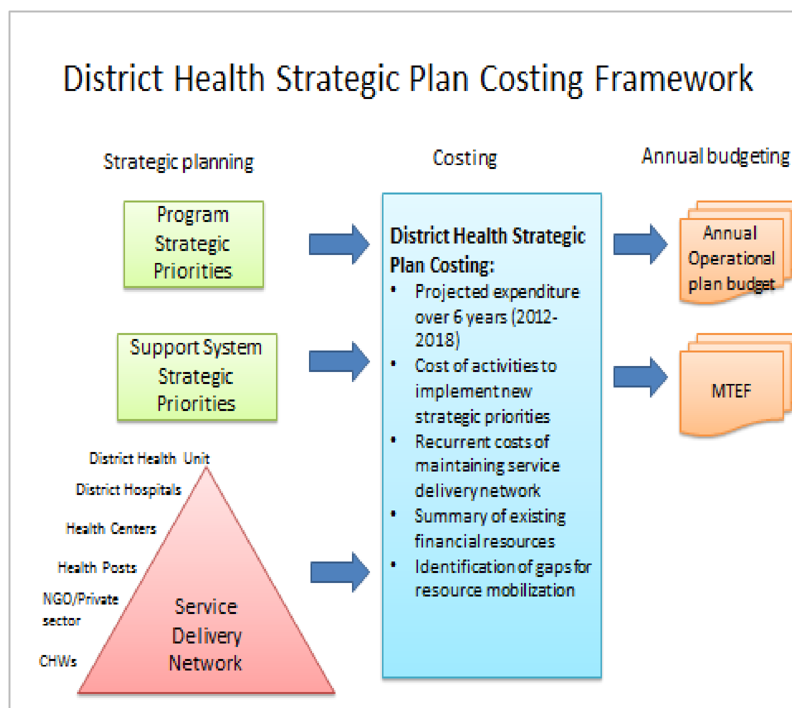
IHSSP provided trainings on management of the mentioned databases for staff from central and district level: the CBHI technical support cell and the CBHI extended team, which is composed by different partners involved in the implementation of the CBHI system.

IHSSP supported also the development of a **curriculum tailored for the training of MOH's Health Financing Unit staff on basic health financing and CBHI management.**

Capacity development was done through working sessions, workshops, and trainings on cost analysis and financial management. Through practical learning exercises, the courses enabled the MOH's staff to understand and apply the concepts and principles of health insurance management in their work with CBHI schemes.

The IHSSP's HMIS team supported the Ministry's planning department with the **District Health Strategic Planning process.** The work was based on designing an Excel-based costing model that uses data from the HMIS (financial reporting) and DHSST (infrastructure and human resources) to cost the strategic plans. The costing model uses a top-down costing approach to estimate the recurrent costs associated with health service delivery (see pink triangle in graphic below), and activity-based costing to determine the incremental costs of program and health system strengthening interventions.

Figure 12: District Health Strategic Plan



PERSPECTIVE FOR NEXT YEAR

For the coming year, emphasis will be put on innovation, capacity building, and consolidation of previously introduced systems strengthening initiatives.

In FY 12 the new national HMIS system based on the DHIS-2 platform was introduced and rolled-out. In FY 13, IHSSP will continue to integrate additional information sources using automated importing functions into the new HMIS; develop guidelines and policy for its use and build the capacity in the MOH to use, maintain and update it.

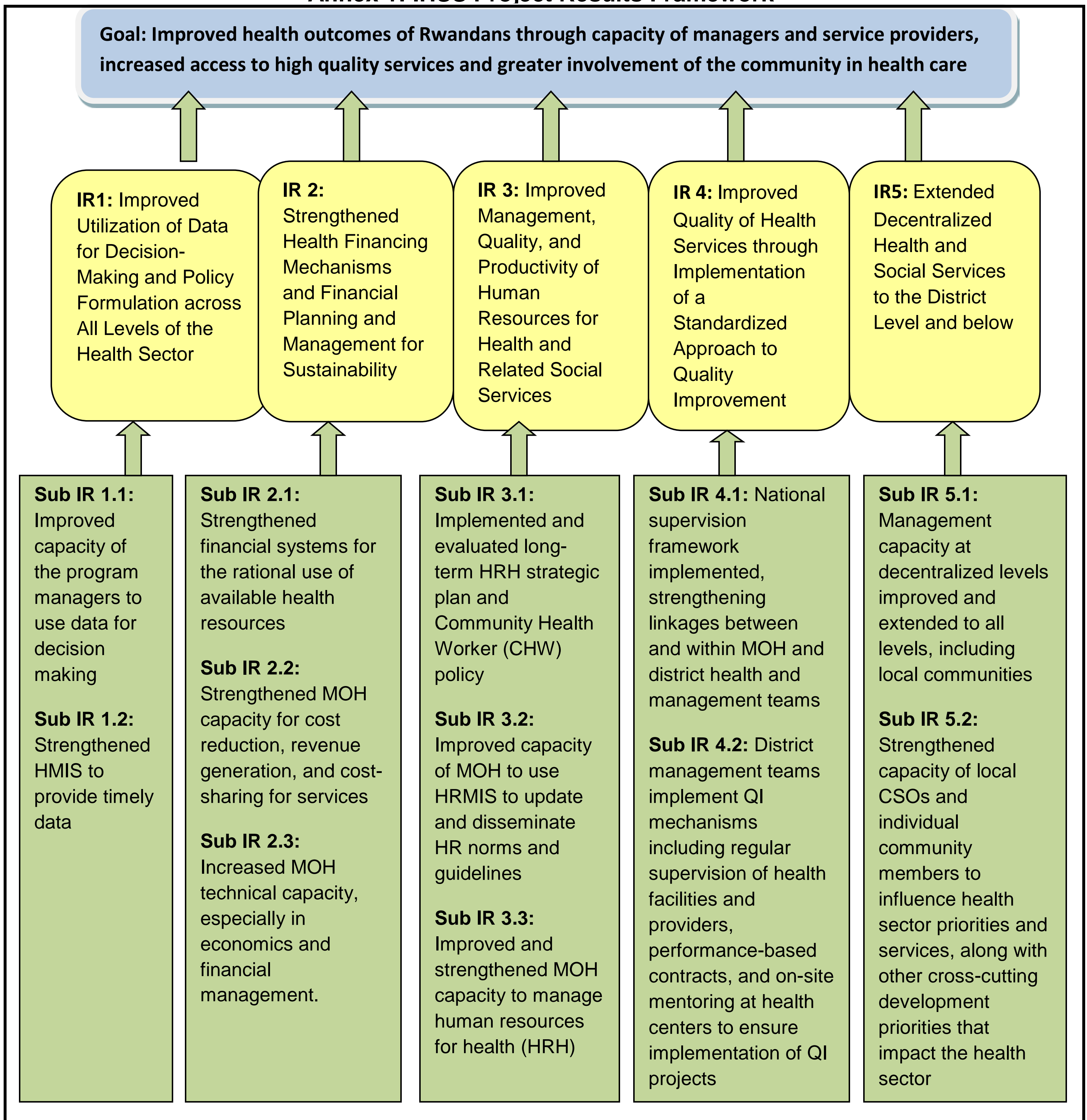
The project will also design iReports to be generated regularly by the HMIS. The focus will be the operationalization of the cell phone interfaces, enhancement of PBF evaluation data collection system and quality improvement applications (development of an accreditation monitoring database) as well as the mostly phased out components of HRH (health professional councils registration systems) and decentralization (training for district M&E officers).

The IHSSP will continue its work in reinforcing the capacity of the MOH to sustain and build on the innovations of PBF and CBHI, while completing field-based research with funding leveraged from the Rockefeller Foundation that will inform improvements going forward to make the CBHI system more robust, autonomous and sustainable. The IHSSP work will be oriented on the development and use of a web-based financial management tool for CBHI sections, creation of the innovative cell phone interface with the CBHI membership database to facilitate management functions, developing a pricing policy (and other provider payment mechanisms) for insurance reimbursement based on the diagnostic related groups (DRGs) as a sequel to the costing exercise, and contribute to the development of standardized accounting software for CBHI sections and health facilities. All of these interventions will contribute to the efficiency and sustainability of CBHI and PBF in Rwanda.

IHSSP will support the creation of an autonomous Rwandan accreditation body to assure a permanent and self-sustaining quality improvement process and structure. In establishing the accreditation process, both IHSSP's QI and HF teams will support the linking of PBF to accreditation.

ANNEXES

Annex 1: IHSS Project Results Framework



Annex 2: List of Workshops and Main Working Sessions provided during the year

Dates	Name	Description / Objective	Place	# Men	# Women	# Total
October 24, 2011 to October 28 2011	Training on CBHI Membership Database	This workshop aimed to train the CBHI managers (from districts) on the CBHI membership database.	Kigali MSH Office	27	7	34
October 25 2011 to November 22 2011	Training on mUbuzima and Rapid SMS	Data managers from the districts were trained on mUbuzima and Rapid SMS.	Nothern province (Musanze, Kirehe; Burera and Gakenge)	62	48	110
November 14, 2011 to November 18, 2011	Training of Trainers on the DHIS-2 software	ToT for data managers and M&E officers from districts. They were trained on the DHIS-2 software..	Huye	63	18	81
April 10, 2012	CBHI meeting on Curriculum review	This workshop intended to review the curriculum of CBHI.	Kigali MSH Office	12	3	15
April 20, 2012	Internal technical review of clinical treatment guidelines	The training participants were specialists and members of Rwanda Medical Council who met to review the clinical treatment guidelines.	Musanze	12	3	15
April 20, 2012	Nursing Committee Meeting	The workshop intended to bring together nursing committee to elaborate their manuals and policies.	Kigali MSH Office	1	8	9
May 11, 2012	Ophthalmology protocols review	This workshop gathered ophthalmologists to review their protocols.	Kigali	6	2	8
May 12, 2012 to May 18, 2012	Workshop for RapidSms, mUbuzima, Siscom, and CHWs Cooperatives financial tool programs	This was a Training of Trainers of Ministry of Health staff and districts managers on RapidSms, mUbuzima, SisCom, and community Health Workers (CHWs) Cooperatives financial tool.	Kigali MSH Office	17	10	27
May 16, 2012 to May 25, 2012	Clinical Protocol review of gynecology and Podiatry	This workshop gathered gynecologists and pediatricians to review protocols of their domains.	Kigali	27	6	33
May 18, 2012	CBHI Studies, tools and protocols review	MOH and IHSSP staff met to review CBHI studies, tools and protocols.	Kigali MSH Office	2	3	5
May 22, 2012	Health Information System district strategic plan	IHSSP, MOH and partners met to review the districts strategic plan of Health Information.	Kigali MSH Office	18	8	26
May 28, 2012 to May 29, 2012	Review and harmonization of Eyes, Nose and Throat (ENT) protocols	The workshop intended to review and harmonize ENT protocols.	Kigali	4	1	5
June 12, 2012 to	Clinical Protocols review for pain	Doctors met to review the pain management protocols.	Musanze	4	1	5

Dates	Name	Description / Objective	Place	# Men	# Women	# Total
June 15, 2012	management treatment					
June 14, 2012 to Jun 15, 2012	Physiotherapists Workshop	Workshop to review the clinical protocols for the physiotherapists.	Kigali MSH Office	7	4	11
June 20, 2012	HSS –TWG Special Meeting	This workshop gathered partners of the Ministry of Health to agree on how to reinforce the health system	Kigali	8	4	12
June 21, 2012 to June 22, 2012	Physiotherapist Workshop	Workshop to review the clinical protocols for physiotherapists.	Kigali MSH Office	6	2	8
June 26, 2012	Meeting for CBHI Financial tool	The workshop gathered CBHI specialists from the Ministry of Health and IHSSP/CBHI staff to review the financial tool and agree on some parameters.	Kigali MSH Office	7	3	10
June 27, 2012 to June 28, 2012	Harmonization of patient file	Doctors met to harmonize the patient file.	Musanze	6	3	9
June 27, 2012 to June 29, 2012	Review of the CBHI financial tool	The workshop gathered CBHI specialists from the MOH, MSH, and districts to review the financial tool and agree on some parameters.	Musanze	7	3	10
June 28, 2012	Validation meeting of curricula for Rapid SMS, mUbuzima , SisCom, and CHW cooperatives financial tool	This session gathered Ministry of Health 's Community Health Desk Staff and partners to validate the curricula for Rapid SMS, mUbuzima, SisCom, and CHW cooperatives financial tool	Kigali MSH Office	6	9	15
July 16, 2012	Training of Trainers (ToT) on CBHI Financial modeling tool	This workshop gathered CBHI team (Central - MOH) to review the financial modeling tool and train them on the use. This team will be responsible of coordinating the use of the tool throughout the country.	Kigali MSH Office	6	2	8
July 20, 2012	National Nursing committee	Nurses meet to discuss on status, policies and procedures of nurses national committee	Kigali MSH Office	1	8	9
July 27, 2012	Allied Health Professionals	Health professionals gathered to review their policies and procedures regarding medical practices.	Kigali MSH Office	7	3	10
July 27, 2012 to July 29, 2012	CBHI Financial tool (ToT)	The workshop gathered CBHI specialists from different districts to review the financial tool and agree on some parameters.	Musanze	8	3	11
July 29, 2012 to August 03, 2012	Training on CBHI Financial Modeling Tool	District CBHI Managers (districts coordinators, accountants, directors of CBHI) were trained to	Rwamagana	40	23	63

Dates	Name	Description / Objective	Place	# Men	# Women	# Total
		use the CBHI Financial Modeling Tool.				
August 03, 2012	CPD workshop gathering health practitioners and their partners	The workshop gathered healthcare practitioners and the partners to share experiences	Kigali	63	21	84
August 27, 2012 to August 31, 2012	Evaluation and validation of districts financial reports	CTAMS and MOH staff visited districts to evaluate CTAMS activities and bring corrections on financial issues	All districts	9	1	10
September 15, 2012	EAC SHP conference and field visit	Study tour prepared to share experience. EAC participants visited districts to see how CBHI is working in Rwandan health facilities.	Rulindo, Kigali, Byumba			200 +
September 18, 2012	Launching accreditation health facilities in Rwanda	This workshop gathered many participants (MOH partners and doctors from districts) to launch the accreditation of health facilities in Rwanda.	Kigali	93	38	131

Annex 3: Budget Forecasting for MPA PBF quantities indicators

				Scenario 1 (indicator driven respecting budget constraints)				
Indicator	**Actual quantity 2011**	**Predicted quantity 2012**	**Predicted validated quantity 2012**	**Relative weight RWF Delphi**	**Relative weight %**	**Relative RWF adjustable**	**Scenario 1 Budget**	**Revenue generation %**
Indicator Curative services					**18%**		**RWF 565,088,769**	**14%**
Curative care visits	7,222,031	6,608,158	6,079,506	*50*	*0.3%*	*50*	*RWF 303,975,285*	*7.3%*
Malnourished children referred for treatment	1,381	109	101	*2000*	*11.5%*	*2000*	*RWF 202,924*	*0.0%*
Other emergency referrals	304,654	271,782	260,911	*1000*	*5.7%*	*1000*	*RWF 260,910,560*	*6.3%*
Indicator MCH preventive/curative services					**76%**		**RWF 2,405,562,624**	**58.1%**
Women who received malaria prophylaxis during prenatal care	239,298	244,850	225,262	*200*	*1.1%*	*200*	*RWF 45,052,347*	*1.1%*
Women who completed 4 prenatal care visits	77,700	117,980	112,081	1500	*8.6%*	*1500*	*RWF 168,121,044*	*4.1%*
Women who received tetanus vaccine during prenatal care	255,243	269,128	263,746	250	*1.4%*	*250*	*RWF 65,936,414*	*1.6%*
Emergency transfers to hospital for obstetric care	59,583	66,167	64,182	4150	*23.9%*	*4150*	*RWF 266,354,942*	*6.4%*
Postnatal care visits	169,528	335,699	325,628	2500	*14.4%*	*2500*	*RWF 814,070,913*	*19.7%*
Deliveries in the facility	195,329	230,273	218,760	4150	*23.9%*	*4150*	*RWF 907,852,714*	*21.9%*
Children who completed vaccinations (child preventive care)	292,125	281,988	276,348	500	*2.9%*	*500*	*RWF 138,174,249*	*3.3%*

				Scenario 1 (indicator driven respecting budget constraints)				
Indicator	**Actual quantity 2011**	**Predicted quantity 2012**	**Predicted validated quantity 2012**	**Relative weight RWF Delphi**	**Relative weight %**	**Relative RWF adjustable**	**Scenario 1 Budget**	**Revenue generation %**
Indicator Family Planning					**6%**		***RWF 1,170,911,900***	**28%**
First time family planning visits (new contraceptive users)	309,540	287,470	275,971	1000	*5.7%*	*1000*	*RWF 275,971,006*	*6.7%*
Contraceptive resupply visits	8,625,371	9,322,301	8,949,409	100	*0.6%*	*100*	*RWF 894,940,894*	*21.6%*
					100%		**RWF 3,739,061,720**	
							RWF 4,141,563,292	
					Projected 2012-2013 Quality score	90%	RWF 3,727,406,963	

- Actual quantity: volume or number of PBF quantity indicators or PBF services performed during 2011.
- Predicted quantity 2012: Projected volume expected during the coming fiscal year (from July 2012 to June 2013). The projection is estimated based on the increase observed for the indicator in the past fiscal year (from July 2011 to June 2012).
- Predicted validated quantity 2012: In PBF scheme, each production has to comply with a certain number of criteria before its validation. The validation score utilized is the one noted during the past year.
- Relative weight: Is the determined weights for the individual services (based on priority that have each indicator).
- Relative weight adjustable: is the transformation of the relative weight in monetary. This is based on the available budget.

Annex 4: Retained CHW PBF indicators and budget forecasting

	Scenario (indicator driven respecting budget available)							
Indicator	**Actual quant 2011-2012**	**Projected increase in 2012-2013**	**Predicted quantity 2012-2013**	**Rel weight based on budget available**	**Relative weight %**	**Relative RWF adjustable**	**Scenario 1 Budget**	**Repartition revenue generation**
Child health								**17%**
1. Nutrition Monitoring: % of children monitored for nutritional status (6 -59 mois)	455640	0.51	230782	700	*7.2%*	0.86	*USD 198,473*	*4.0%*
2. Number of sick children under 5 years old seen by CHWs	260429	1.5	390644	1360	*14.0%*	1.67	*USD 652,709*	*13.3%*
Maternal health								***50.9%***
3. ANC : Women accompanied/referred to HC for prenatal care within first 4 months of pregnancy	137831	1.06	146489	1500	*15.5%*	1.84	*USD 269,958*	*5.5%*
4. Deliveries: Women accompanied/referred to HC for assisted deliveries	192202	1.29	248449	990	*10.2%*	1.22	*USD 302,185*	*6.2%*
5. FP: new users referred by CHWs for modern family planning methods	325325	1.62	527996	1050	*10.8%*	1.29	*USD 681,115*	*13.9%*
6. FP: % of regular users using long term methods (IUD, Norplant, Surgical/NSV contraception)	2975470	4.26	12670292	80	*0.8%*	0.10	*USD 1,245,309*	*25.4%*
HIV/AIDS								***31.7%***
7. Number of couples accompanied to the Health Center for PMTCT	110420	1.50	165630	2500	*25.8%*	3.07	*USD 508,721*	*10.4%*
8. Number of households referred to the health center for voluntary HIV/AIDS counseling and testing (VCT)	378294	1.50	567441	1500	*15.5%*	1.84	*USD 1,045,713*	*21.3%*
				9680	*100.0%*		**USD 5,015,296**	
							USD 4,904,182	

Rwanda Integrated Health Systems Strengthening Project (IHSSP)

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