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RWANDA

RWANDA INTEGRATED HEALTH SYSTEMS STRENGTHENING PROJECT:

Quarterly Project Report Narrative (January – March 2011)

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ACRONYMS

| | |
|-----------|--|
| AIDS/SIDA | Acquired Immunodeficiency Syndrome |
| BDD | Base de Données/Database |
| 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) |
| CDF | Community Development Fund |
| CHD | Community Health Desk (MOH) |
| CHW/ASC | Community Health Worker (Agent de Sante communautaire) |
| CTAMS | Cellule Technique d'Appui au Mutuelles de Sante; Mutuelle Technical Support Cell |
| CPD | Continuous Professional Development |
| CPN | Consultation Prenatale/Antenatal Consultation |
| DHIS | District Health Information System |
| 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 |
| IT | Information Technology |
| JANS | Joint Assessment of National Strategy |
| LQAS | Lot Quality Assurance Sampling |
| M&E | Monitoring & Evaluation |
| MIS | Management Information System |
| MCH | Maternal and Child Health |
| MOH | Ministry of Health |
| MSH | Management Sciences for Health |
| MTR | Mid Term Review |

| | |
|---------|---|
| NGO | Non-governmental Organization |
| PBF/PBC | Performance-based Financing/Performance-based Contracting |
| PEPFAR | President's Emergency Plan for AIDS Relief |
| PMA | Paquet Minimum des Activités; Rwandan basic package of health |
| PMTCT | Prevention of Mother-to-Child Transmission [of HIV] |
| PBP | Performance – based Financing |
| PRISM | Performance of Routine Information System Measurement tool |
| QA | Quality Assurance |
| RBF | Result-Based Financing |
| SIS | Système d'Information Sanitaire (Health Information System) |
| TA | Technical Assistance |
| TOT | Training of Trainers |
| TWG | Technical Working Group |
| USAID | United States Agency for International Development |
| USG | United States Government |

1. Executive Summary

This report provides a snapshot of status of implementation of IHSS project for the period between January and March 2011.

During this period, the project registered significant progress in achieving quarterly targets under its five (5) intermediate results, mainly by engaging the technical staff to reinforce capacity of the MoH in HMIS, Health Financing, and Human Resources for Health, Quality Improvement, and decentralization of health services

The IHSSP helped to improve **utilization of health data for decision making and policy formulation**. Regular orientation was provided to the newly recruited HMIS team at the MOH on data management, analysis, and reporting. The Team also trained, and built the capacity of MoH's Community Health Desk, the PBF-unit (CAAC) on performance-based financing (PBF) data management, including supporting the preparation of quarter three (Q3) PBF payments to health facilities. Through this support it is expected that staff members at CAAC responsible for PBF-payments will be able to process the PBF payments, independently.

The IHSSP team was instrumental in supporting the MoH and MINALOC to establish the Community Based Health Insurance membership stratification. Besides designing the database to capture the CBHI membership stratification information, and supervising data entry staff and supervisors, the Project has co-financed salaries for the data entry staff, and continues to provide technical and management supervision of this process. So far, about 76.7% of Rwandan population data has been entered.

The project supported the MoH to conduct the PRISM (Performance of Routine Information Systems) assessment: Data entry into an EpiInfo database has been completed, and the initial data analysis has begun.

The project supported the MoH to facilitate the process for the selection of Rwanda Minimum Health Indicator set including organization of a 2 day out-of-town workshop, bringing together over 60 participants from the MoH and partners, to refine and prioritize the key indicators for the health sector. The 150 routinely collected indicators recommended were imported into the metadata dictionary of the Rwanda Health Data Warehouse - also developed by HSSP/HMIS team.

Considerable effort was given as well for the review and adaptation of current tools used in the community HMIS.

The IHSSP teams assisted the MoH with the planning of the International Community Health Conference (<http://www.icchrwanda.org/>) and prepared and presented abstracts (see annex) on Rwanda's Community Health Information System, community PBF design and implementation and on national SIScom maternal and child health data.

On **Strengthening health financing systems**, the Project helped the MoH to develop the CBHI procedure manual in line with the newly adopted policy, centered on stratification. In collaboration with the MoH, the IHSSP/Health Financing team engaged the participation of District CBHI Directors and key partners to have their inputs to the draft CBHI procedure manual and the newly refined CBHI Monitoring indicators. The project supported sensitization campaigns of the new CBHI policy in all 30 districts, targeting political and administrative authorities, CBHI staff and heads of health Facilities.

IHSSP Health Financing team has supported the MoH to upgrade PBF data collection tools and PBF web application, and helped to design the performance – based Financing (PBF) framework for The Rwanda Drug, Consumables and Equipment Central Procurement Agency (CAMERWA).

Through its team of 12 technical staff, the IHSSP assisted the MoH to organize and conduct central level- District Hospital evaluation to assess quantitative and qualitative status of delivery of health services to all District Hospitals and surrounding health centers. The project also did the data analysis, interpretation and reported the findings to the stakeholders.

The project has initiated as well a process for independent PBF data counter-verification (both quantity and quality) and system audit. A standard protocol was elaborated in collaboration with the MoH, and, the project has sub-contracted the local NGO, HDP, conduct the verification in 18 sites

The project has completed the work on costing of packages of health services to determine the true cost of each type of health activity, through providing technical and financial support to the MoH. The findings will be used not only to establish modalities for health facilities' reimbursements for services rendered, but also will inform government decision on allocation of subsidies, as well as the contributions from insurance agencies and individual patients.

With regards to **strengthening leadership, management and improved human resource productivity**, IHSSP has five of its staff, sitting in, and providing technical assistance to the MoH in the areas of Health Management Information Systems (HMIS), Quality Improvement (QI) and Human Resources for Health (HRH) and Community Performance Based Financing.

The project provided in-service training to 409 health workers, including 25 health center data managers provided with ToT in data management using GESIS and, the 384 staff trained on Community Performance Based Financing; comprized of all districts hospital Directors, Administrators and chief of nursings, District CPBF Directors and Supervisors;

In its support to HRH, the project has made commendable achievements not only in providing on-going technical assistance to the MoH/ Human Resources for Health Task Force, but also has continued to support the work of health professional bodies, including the Rwanda Medical

Council, Board of Pharmacist and the wider network of Allied Health Professionals.

During this period, the project helped the MoH to finalize the national Human Resources for Health Strategic Plan. This strategy has been approved by the MoH.

The project team provided technical assistance to the MOH/CHD in the technical review and completion of the National Community health strategic Plan, including financing a one day stakeholder's validation work shop.

In support of Health Professional Bodies, the project team facilitated the process as well as financing the verification of nurses and midwives' diplomas from 23 nurses' schools in the country. Registration of these nurses and midwives has been completed.

With support of IHSSP, the Continuing Professional Development Policy and its Strategic Plan has been completed, and validated in a one day stakeholder's workshop also financed by the project. These documents have been approved by the MoH.

The IHSSP/HRH team supported to finalize the draft law establishing the Rwanda Allied Health Professions Council. The team also helped to define framework and implementation plan for the establishment of National Council of Pharmacists. In addition, the IHSSP/HRH team assisted the MOH to finalize the draft ministerial order determining the list of paramedical professions and their regulations.

During this quarter, the IHSSP/**Quality Improvement** team, in collaboration with the MoH and partners, completed the review and updated the list of policies, procedures and clinical guidelines required at the District Hospital. The baseline assessment was conducted in the 40 District Hospitals to establish whether these instruments actually exist and are used.

The project has also completed the District Hospital accreditation road map.

Effective decentralization of health and social services is an important step to improving access to services. The project support in this area during this quarter was to assist the MOH in developing terms of reference for the elaboration of the National Strategic Plan for Decentralization of Health Services.

The project worked in collaboration with the MoH and MINALOC to recruit one Health M&E Officer in each of the 30 Districts who will add value to supporting health and social services decentralization efforts. The IHSSP/Decentralization team supported the MoH to develop job descriptions, preparation of written tests and sat on interview panels. The Decentralization team has also taken part in District Joint Action Development Framework, a meeting bringing together Districts development programs stakeholders.

2. Project Overview.

The Government of Rwanda (GOR) has shown strong commitment to improving delivery of health services through strengthening its Health System. The National Health Sector Strategic Plan (HSSP-II, 2009-2012) provides a strategic framework and specific reforms that will guide the Ministry of Health and partners in achieving the Government of Rwanda's vision of improving the health status of the population.

In support of these efforts, the Integrated Health System Strengthening Project (IHSSP), a 5-year USAID-funded project, managed by Management Sciences for Health (MSH) has the goal of supporting the Ministry of Health to strengthen health systems at central and decentralized structures. The project is tailor-made to achieve the 5 intermediate results areas:- 1) Improved utilization of data for decision-making and policy formulation; 2) Strengthened health financing mechanisms and financial planning and management for sustainability; 3) Strengthened leadership and management and improved human resource productivity; 4) Quality improvement for results in access to and quality of services through standardized approach; and 5) Effective decentralization of health and social services to improve access.. This program of support has the main objective of strengthening the MoH's capacity to provide high quality, client-oriented health and social services to all Rwandans in a sustainable manner.

3. Summary of progress made during the quarter

1. Result area 1: Improved utilization of data for decision making and policy formulation.

Context and challenges:

At present too many data are collected and reported from health facilities and by the community health workers and too few are used. Access to data is difficult, due to lack of a national data sharing mechanisms and limited web infrastructure. The HMIS subsystems need to be built to be fully operational and data managers at the MOH-central level, at the districts and at the health facilities are either new or being hired. There is a perceived lack of data quality, particularly from the HMIS, calling for improved systematic internal data audit procedures in different structures of data flows.

Key achievements realized during the quarter.

Much of the activity in the health information component of the IHSSP revolved around indicator selection, the set up of the new Rwanda health data warehouse and support for evolving PBF systems.

Key accomplishments during this quarter for the health information systems component were centered on improving the Capacity of Program Managers in use of data for decision making and in strengthening the HMIS to provide reliable and timely data.

On Strengthening HMIS to provide reliable and timely data, the HMIS Team realized the following achievements:

- ✓ **Transfer of TB PBF data collection and entry system to the web-based PBF platform:** Data from 3rd and 4th quarters of 2010 were entered into the Access version of the system and PBF payments were made to all CTs and CDTs in the country. The MoH adapted the system for data entry using the PBF web database platform that will be used from 2011 onwards. The MSH team also helped update the indicators being collected and is in the process of designing a complex algorithm to calculate PBF bonuses – in addition to the output-based financing.

Base de Données TB - République du ...

REPUBLIQUE DU RWANDA
MINISTRE DE LA SANTE

Base de Données TB

Bienvenue Randy Wilson

ACCUEIL SAISIE ANALYSE AIDE DECOM

Modification du rapport

TB - Rapport Trimestriel PBF

Etablissement Sanitaire: CDT-CS - Cyabingo (CS) Remarque:

District: GAKENKE

Periode: Mars-2011 Trimestre: 1

Total du rapport: 382,780

| # | Indicateur | Quantité | Tarif | Total |
|---|--|----------|--------|--------|
| 1 | Le CDT y compris l'HD a eu un CQ de la bacilloscopie au cours du trim écoulé et pas d'erreur majeure. (oui=1; non=0) | 1 | 5,000 | 5,000 |
| 2 | Nb d'enfants de 0-14 ans mis sous traitement TB au cours du trimestre évalué | 4 | 10,000 | 40,000 |
| 3 | Nb de cas TBVIH+ enregistrés au cours du trimestre évalué et qui reçoivent le cotrimoxazole | 4 | 2,500 | 10,000 |
| 4 | Nb des cas TB VHI+ enregistrés | 4 | 0 | 0 |

Done

Figure 1: Screenshot of web-based data entry module for PBF TB-database

- ✓ **Development of functional specifications for two new database systems requested by PTF:** The first is a drug import licensing system designed to help process licenses in the future and to track values and batch numbers of all imported drugs. The second system is a registration system for all pharmacists and pharmacy technicians – a high priority for the Minister of Health. This is similar to the requirements of the Nursing and Medical councils, so the idea is to design a common platform that can be shared by all 3 organizations. In addition this system will be tied to the MOH provider registry.
- ✓ **Continuing Implementation of Data warehouse and Dashboard:** With technical assistance from WHO/Geneva, the MSH team moved the dashboard to a new server in the MOH data center and coordinated the training of 5 people from the HMIS and eHealth team in the configuration and use of the system. The new minimum indicator and data element lists were imported into the system and about a dozen key indicators – primary for the malaria program have been uploaded into the system. IHSSP provided a consultant who helped the MOH ICT director, configure the firewall with RDB so that

the web site is now hosted at the MOH data center with a public IP address:
<http://hmis.moh.gov.rw:8080/dhis>.

- ✓ **HR information system:** WHO has now taken the lead in the development of detailed functional requirements for the HR information system. IHSSP staff were interviewed by their team as part of the information gathering process. IHSSP's HR advisor to the Ministry of Health has been working to identify the staffing requirements needed at the Ministry in order to take on the implementation of a system. There appears to be consensus not to repeat mistakes of the past and that it is not wise to move forward until the minimum staffing is in place to manage the process internally.
- ✓ **eHealth Enterprise Framework:** The IHSSP/HMIS Senior Advisor participated in a 4 day eHealth workshop organized by GEMBI and the eHealth coordinator. IHSSP's major input was to design the format for the provider registry, develop initial standardized coding for categorizing facilities and staff.

On improving Capacity of Program Managers in use of data for decision making, the HMIS Team realized the following achievements:

- ✓ **Selection of Rwanda Minimum Indicator set:** IHSSP staff worked with the HMIS team to organize a 2 day workshop held in Gashora early in February. Over 60 people participated from each of the Ministry's technical departments in an effort to refine and prioritize the key indicators for the health sector. The Minister himself opened the workshop highlighting the priority that he gives to this initiative. The focus was primarily on routinely collected data and those data elements. The latest list that was recently circulated is down to around 150 routinely collected indicators. These indicators and the data elements required to calculate them have all been imported into the metadata dictionary of the Rwanda Health Data Warehouse (see below). As part of this effort the HIS team has also worked with Partners In Health to help to develop a new list of priority diseases mapped to ICD-10 codes to be reported using the HMIS. These morbidities were based on the initial selection of diseases that was done for the costing exercise and certain morbidities prioritized during the indicator selection exercise. These same diseases will be incorporated into OpenMRS so that it can produce the data required for the HMIS.
- ✓ **Capacity Building:** During this quarter this focused mostly on the development of a curriculum and training materials for HMIS team training in HMIS and use of data from key data sources. This training is scheduled for mid-April. In addition practical trainings at individual level (by the principle of learning by doing) were given to small teams of people at the community health and maternal child health desks in use of data from the PBF systems and the preparation of the quarterly PBF payments. The HMIS team has just recruited 3 new staff and a detailed orientation plan was prepared for them.
- ✓ **Support to President's Malaria Initiative:** access to additional data was provided, routine analyses were performed and configuration of network with new server was set up. Assistance was given to the PNLP's M&E technical working group to define their terms of reference and prepare an action plan.

- ✓ **Support to CAAC:** Assisted with the preparation of Q3 payments. Worked closely with the M&E officer from the CAAC to develop his capacity to prepare the payment vouchers independently.
- ✓ **PRISM (Performance of Routine Information Systems) assessment:** All of the PRISM questionnaires have now been entered into an EpiInfo database. During the next quarter the team will complete initial data analysis and hold a data analysis round table.
- ✓ **Support to MOH ICT unit:** IHSSP consultant spent 2 weeks working with the MOH ICT team to reconfigure the data center. This included moving key active directory services (DNS) to a new virtual server, configuring the Barracuda spam firewall with exchange, reinstalling the centralized anti-virus system, revising data backup procedures and preparing fresh technical documentation on the data center configuration.
- ✓ **Support for special data analyses:** IHSSP worked with the HMIS team to respond to a wide range of requests for data from the HMIS. This included: data requested by MCH desk for the Primature report, and for a number of USAID implementing partners (FHI, EGPAF).

2. Result area 2: Strengthened financial systems for the rational use of available health resources

Context and challenges

MOH has made progress in mobilizing resources to finance delivery of health services, and, has been successful in obtaining basket funding for direct financing of funding gaps in its strategic plans. Rwanda is also considered as best practice country in Africa in implementation of Community Based Health Insurance (CBHI) and performance –base financing (PBF) to improve access, quantity and quality of health care services. These financing systems, however, need assistance to reinforce their operational planning, put in place accountability mechanisms and, streamlining financial procedures.

Key achievements realized

District Hospital PBF-evaluation

Through its team of 12 technical staff, the IHSSP assisted the MoH to organize and conduct the quarterly District Hospital evaluation by the peers which took place in January-February 2011 and which evaluated the period of October-December 2010 (2010Q4). The project also performed the data analysis jointly with the CAAC, discussed the findings and shared them with the stakeholders.

Of note is that quality scores obtained through evaluations by central level (2010Q3) are overall less favorable than the ones generated through peer evaluations (2010Q4) with less variety (smaller standard deviations) (see tables below). Only 6 out of 40 hospitals obtained a higher score. This could be due to less strict application of the definition of the indicators, complacency of the evaluators and the fact that evaluations are announced. This underlines the importance to maintain both types of evaluation with the peer evaluation having a more formative nature with exchange of information between staff from different hospitals.

| Scores for 2010 Oct-Dec (Q4) | Mean | Std. Dev. | Min | Max |
|------------------------------------|--------------|--------------|------------|------------|
| TOTAL SCORE | 79.6% | 7.2% | 44% | 88% |
| Volet 1 Management | 79.7% | 9.3% | 54% | 95% |
| Volet 2 Supervision | 85.7% | 10.0% | 47% | 98% |
| Volet 3 Clinical Activities | 77.1% | 9.0% | 37% | 92% |

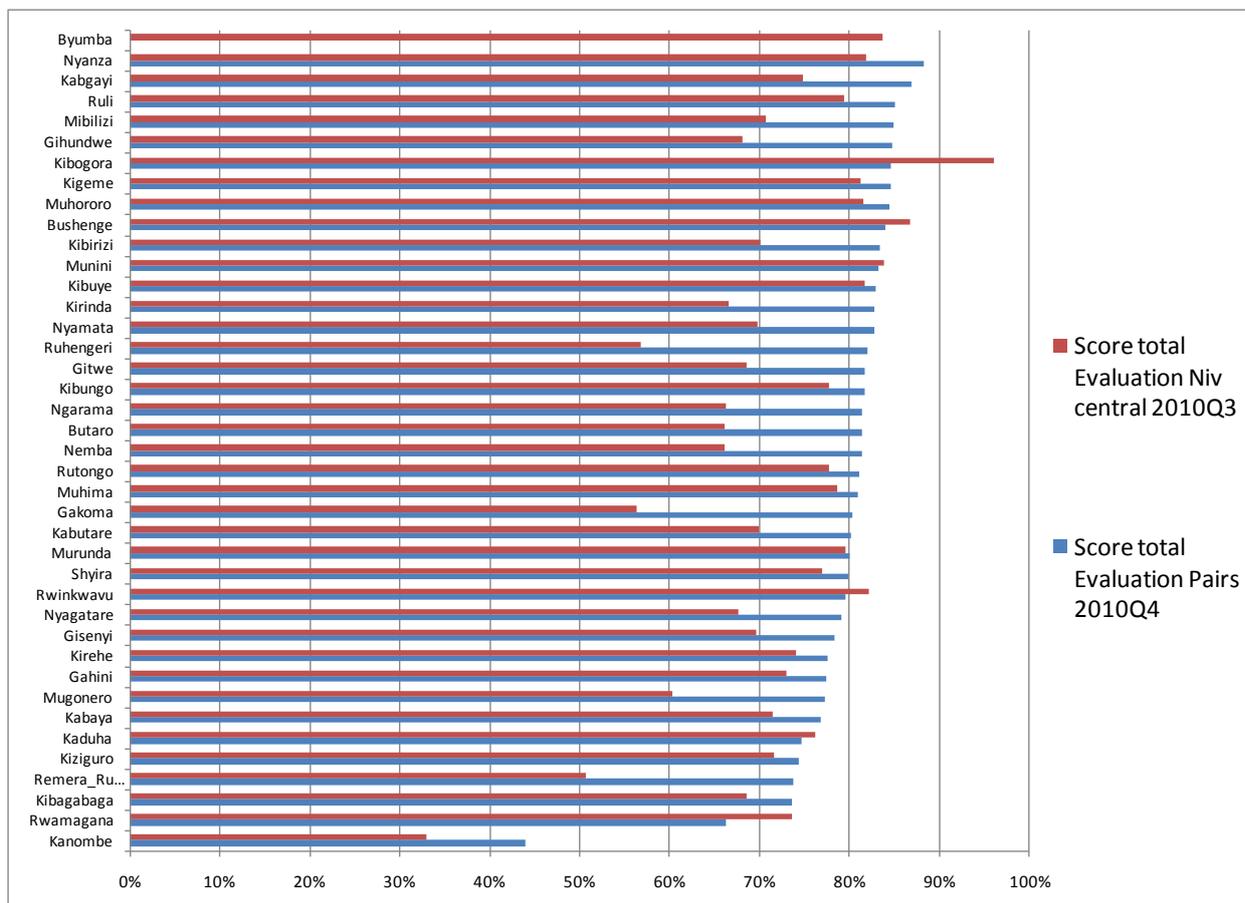


Figure 2: comparison of PBF-quality scores between 2010Q3 (peers - red) and 2010Q4 (central level - blue)

The CBHI procedure manual development: Since the start in December last year, considerable progress has been made during the last quarter. An auto-evaluation workshop organized by CTAMS and stakeholders took place in this quarter and had as main objectives to present the new policy to all district CBHI directors, to obtain their inputs for the CBHI procedure manual and to gather propositions for modifications of the CBHI indicators. Those inputs were taken into consideration when updating the procedure manual. At the end of the workshop, a new list of indicators was proposed and the next step will be to update the CBHI Data Base.

IHSSP contracted a professional translator for the translation of the procedure manual in English as the first draft was in French. The Procedure Manual is not yet approved.

The main topics covered in this procedure manual are the following:

- The organizational structure of the Community Based Health Insurance: adding of staff at district level (2) and at section level (1).
- The day-to-day functioning of the Community Based Health Insurance (membership management, contributions management, health care services delivered at each level for members, health care mobility management). A new element has been added which is the possibility to subscribe to a special package of health care for an increased fee. The fee still has to be set but will be based on real costs. The package will cover:
 - (1) Consultation by a specialist without need of prior referral by Health center staff
 - (2) Admission in private rooms.
- Community Based Health Insurance Financial Management: This includes all accounting procedures, budgeting and other financial related issues.
- CBHI monitoring and evaluation: the reporting system, indicators, the auditing procedures and the risk management.



Figure 3: CBHI procedure manual

This procedure manual gives direction on how contributions will be disbursed to all levels (Section, District CBHI & National Pooling risk). The calculations are done based on Health care costs at Health centers, District Hospitals and referral Hospitals levels and the projected amount of contributions.

The proposed proportions are:

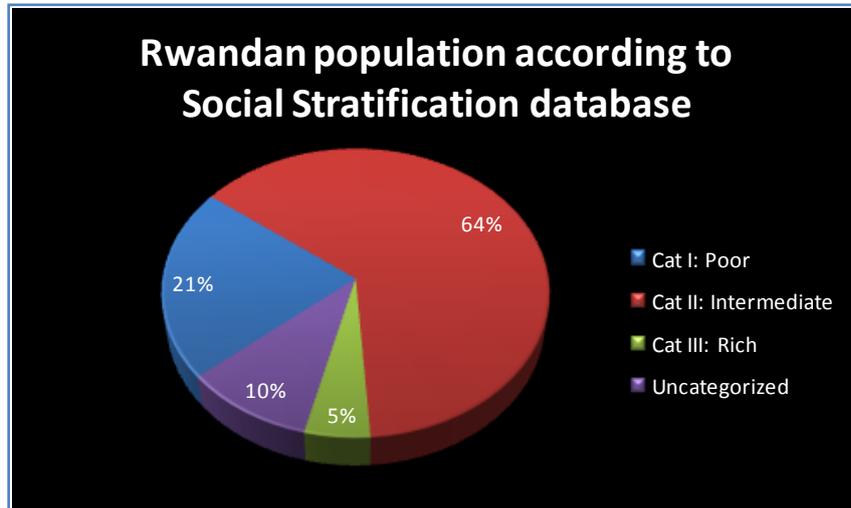
- For section level: 67% of contributions to cover health care at Health center level.
- For district CBHI level: 23% of contributions to pay health care at District Hospital level.
- For national Pooling Risk: 10% contributions to pay Health care “roaming” and if sufficient also health services at referral hospitals.

There is no change with respect to the method of contribution collection: this will be done at section level.

Another important element is the allocation of the Reserve fund for viability of the different health insurance entities in case reimbursement costs increase. Twenty, 60 and 20% will be allocated respectively to the section level, the district level and the national risk pool.

Social stratification Data Base: This database will facilitate a contribution system of CBHI premiums based on the household revenues and could increase equity and strengthen the financing of the CBHI System in Rwanda.

The first phase of data entry for the social stratification database ended in January. All districts have been covered and nearly all villages (14,437/14, 843 = 97.2%) provided data. An estimated three quarters (7,932,086 or 76.7%) of the total Rwandan population has been entered and is repartitioned as follows:



Currently the main shortcoming is the nearly one quarter of the population that is missing. A random sample of 5% of all files was verified with roughly 5% data entry mistakes (mainly names and ID-numbers). In addition, some villages had incomplete datasets or were completely missing. To resolve this, recorded data per village were printed out, the printed copies sent to villages and instructions were given on how to correct data and to complete them. Most of districts have already sent data to the central level at Minaloc.

The next steps are:

- Second phase of data entry
- Data validation.
- Creation of User interface, develop user manual and introduce the database at decentralized level for routine use and updating.

CBHI sensitization campaigns: The new CBHI policy sensitization campaigns were conducted in all 30 districts targeting political and administrative authorities, CBHI staff and the “in charges” of the Health Facilities.

Auto Evaluation of Community PBF-implementation at the health centers: This activity took in place in Musanze in partnership with the Community Health Desk at MoH and World Bank from January 13 to January 14, 2011. Based on an outline prepared in advance and shared by district, each supervisor tried to give feedback on the status of implementation of the community PBF-models. Self evaluation focused on availability of the tools (for reporting, management and purchasing materials), evidence of correct procedures for tendering of items required for the demand-side model, payment status of CHW cooperatives and the functionality of the structures.

Some issues were highlighted during the workshop that followed:

- The review of the catchment populations used for the calculation of the PBF-funds is based on health centers to avoid under- or overbudgeting realizing that some health centers are not part of community HIS database.
- There is need to increase coaching and supervision from the central level in districts where problems on the implementation of PBF models were reported.
- Districts and hospitals should ensure that health centers and sector PBF steering committees are paid according the payment orders from the central level ;
- Due to the long procurement procedures it is recommended to do the tendering for at least 6 months

As a result of the auto-evaluation it was noted that **100 %** of the districts who implemented the supply side model produced all the required documents while **75 %** of those who implement the demand -side model were able to present their documents.

Community PBF contracts review: Following new aspects introduced last year in the community PBF scheme, especially the CHW cooperative quality assessment and the payment for individual indicators, IHSSP supported the Community Health Desk at MoH in reviewing the two contracts (CHW cooperative contract and Sector PBF steering committee contract). The updated contracts are in process of being signed with decentralized stakeholders.

SOP development for CHW district hospitals supervisors: One of the main challenges noted in the evaluation of community PBF conducted in January was to describe clearly the roles and responsibilities of the supervisors placed at the district hospital and to define their performance indicators. A first draft detailing all steps and activities related to their PBF specific interventions was done, mainly focusing on the coaching process of the sector steering committees, the assessment activities and the data audit.

Clinical PBF counter evaluation and system Audit: Under the HDP sub contract, IHSSP supported the MoH/ PBF unit to conduct the PBF system audit and the community client survey.

PBF is implemented in Rwanda at national level since 2008 at health center (HC) and hospital level. Productivity of HC-activities is verified and validated by district teams (combination of administrative and hospital staff).

There are concerns that there is a conflict of interest in these verification processes and that the PBF-system is becoming too much a routine activity constituting of evaluators simply ticking off indicators, accepting quantities as reported by the health centers and the district steering committees having meetings without real analysis of the figures and subsequent decision making. In addition, the size of the PBF-revenues is mainly defined by the quantity of services delivered and hence prone to possible over-reporting whereby the system is subject to gaming.

Therefore, it is warranted to execute a counter verification process by an independent unit (HDP) who is controlling different aspects of the PBF-framework:

1. Accuracy of quantity as reported in the central PBF database
2. Verification of existence of phantom patients and of existence of service rendered
3. Client satisfaction
4. Accuracy of quality of HCs as evaluated by district hospital team
5. Audit of the PBF-system and procedures

The objective of these exercises was two-fold: 1) Evaluation of the PBF-framework as implemented like designed and 2) establishing a system of independent audit and data verification with subsequent sanctions when anomalies and fraud is detected in order to enhance credibility of the PBF-model and the reported data.

The survey was conducted nation-wide in 6 randomly chosen health centers (see map) for quantity control and verification of existence of phantom patients (with a stricter methodology based on LQAS and with a larger sample size than previous surveys); and for 6 district hospitals (for each in 3 health centers) for the quality control. The detailed protocol is available on the pbf website of the Ministry of Health.



Figure 4: geographic location of randomly chosen Health centers subject to verification of quantity and of existence of clients

Main findings from the Clinical PBF counter evaluation and system Audit

The graph below displays the results for the 6 health centers with all services aggregated (210 clients per health center) and indicates who responded to the interviewer with respect to **existence of clients**.

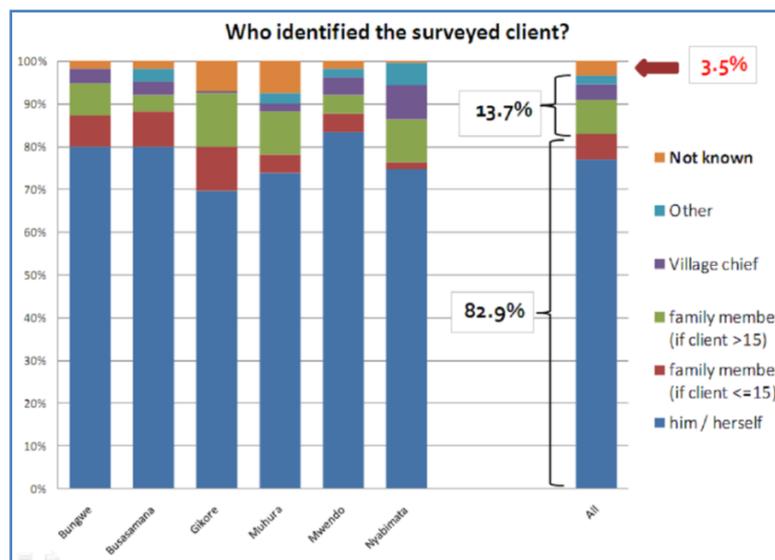


Figure 5: who identified client: results per health center

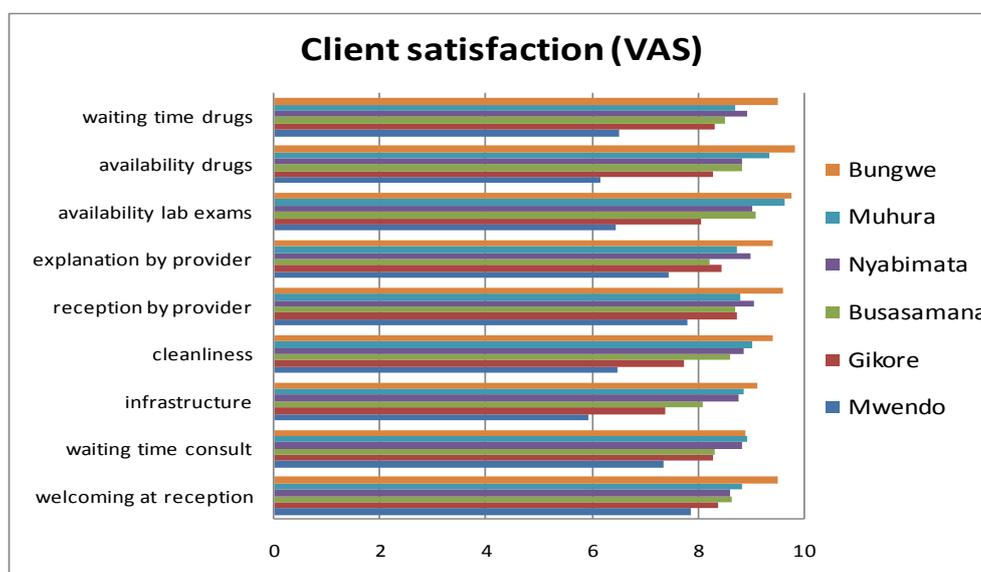
Only 3.5% (43/1260) of clients were not identified which indicates that fraud is very unlikely but this could ultimately only be confirmed by 82.9 % of clients since 13.7% of clients were identified by

somebody else other than the client him/herself. There were no significant differences in possible phantom patients with respect to the evaluated service as can be seen in the table below

| Service | Total | Not known | % Not known | 95% CI low | 95% CI high |
|---------------------|-------------|-----------|-------------|-------------|-------------|
| OPD | 420 | 18 | 4.3% | 2.6% | 6.7% |
| ANC | 420 | 10 | 2.4% | 1.1% | 4.3% |
| FP New users | 62 | 2 | 3.2% | 0.4% | 11.2% |
| FP Continuing users | 288 | 8 | 2.8% | 1.2% | 5.4% |
| Delivery | 70 | 6 | 8.6% | 3.2% | 17.7% |
| Total | 1260 | 44 | 3.5% | 2.5% | 4.7% |

In addition to the quest for possible fraud, the identified client who visited the health center (in total 1038 clients) was probed for his/her **satisfaction** (on a scale of 0 to 10 with 10 being extremely satisfied) on the functioning of the health center. This was in general very high for 9 different areas and for all health centers except Mwendo health center.

Overall a very positive picture was seen with respect to correct register entry of existing clients and although this survey consists only 6 health centers across the country, it seems unlikely that fraud by inventing patients plays a significant role in Rwanda.



However more worrying findings were revealed during the second element of the audit which focussed on the **verification of the quantity data** as available in the HMIS-database and the PBF-database versus data from the registers themselves. For the period of July to September 2010, a surplus of 17% of PBF-funds has been paid to these health centres. VCT and recurrent FP-users were the main culprits. This is probably due to misunderstanding of the indicator (or free interpretation), data entry mistakes and insufficient control of the data by the district steering committee and the central level.

A last element of this audit consisted of verifying how well **district hospitals evaluate the health centres** they supervise. Five services were assessed, mainly the ones where difficulties could be expected. The graph below shows the difference in scores obtained by the independent audit versus the scores given by the district hospitals. For all 6 hospitals scores were significantly lower whereby mainly the financial component performed badly.

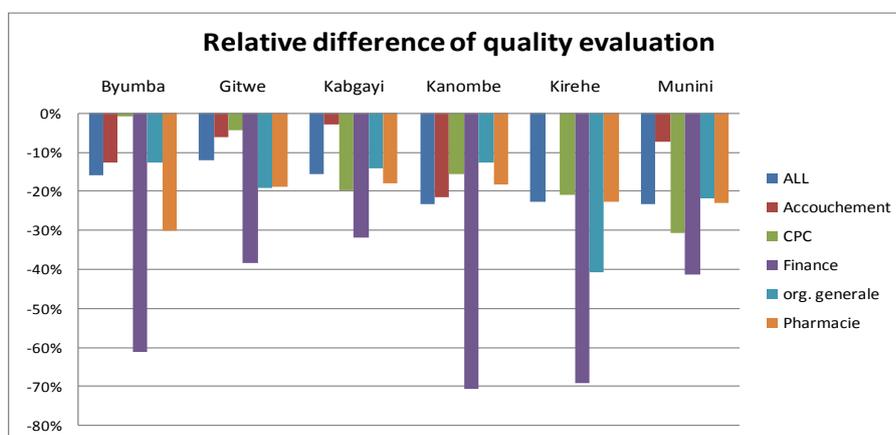


Figure 6: difference in score between evaluation done by DH versus independent agency

With respect to the **PBF-procedures** the following was revealed: 90% of audited health centres have contracts signed by both parties and a business plan; 65% signed motivational contracts with staff and 35% of Health Facilities receive the feedback from steering committees. Fifteen % of audited Health Facilities receive PBF funds after more than 12 weeks dating from the day of the validation of the invoice by the Piloting Committee.

PBF procedure manual development: IHSSP continued its involvement in the development of the PBF procedure manual document. A first draft of the document to be shared with the MoH SMM was presented to the PBF unit.

Costing exercise: A third data collection phase on costing focused on two University teaching hospitals, CHUB and CHUK. A concept note on the institutionalization of the costing exercise was developed. The document describes the general objectives and strategies for a long term and sustainable approaches to build local capacity regarding to the costing exercise. Tools and methodologies will be provided through this capacity building so that costing can be institutionalized by the MOH and can be repeated on a regular annual basis.

3. Result area 3: Strengthened leadership and management and improved human resource productivity

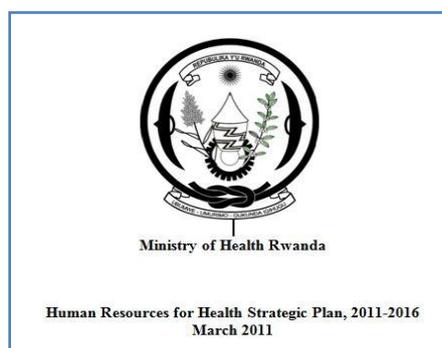
Context and challenges

The MOH in collaboration with the partners has devised human resources management and development strategies, including the PBF, to ensure staff retention and improve productivity. However, further refinement of procedures for individual staff and MOH department performance planning, assessment, and payment is needed. The massive scale of the CHW program presents significant challenges with respect to CHW capacity building, motivation,

retention, QA, and data collection and use. The current HRMIS has laid a good foundation, but it has limited scope for supporting operational needs of district and health facility human resource (HR) managers, and the data are therefore not maintained routinely.

Key achievements realized

During this quarter, the IHSSP/HRH team continued to support the MOH to finalize and validate the HRH strategic plan, and to support health professional bodies. The team emphasized on the mentoring of the Workload Indicators for Staffing Need (WISN) manager appointed by the MOH at central and the preparation of updated teaching material. There is plan to use these tools for teaching of HR managers at district levels and for the chief of nursing of the teaching hospitals and KHI.



Completion and approval of the Human Resources for Health plan 2011-2016: With the support of an international consultant hired by the project, the national HRH strategic plan is finalized and validated. This plan has been approved by the Ministry of Health

Support to Health professional bodies: In February 2011, the IHSSP supported the MoH to hire an international consultant on health professional regulation. The consultant strengthened the capacity of the Rwandan health professions councils and associations to regulate their professions in the public interest. As a result of this support: the National Council for Nurses and Midwives (NCNM) now has draft registration policies to implement, standards for approval of courses in development, a process for approval of courses, policies and procedures for managing disciplinary matters and a suite of scope of practice documents in revision. The NCNM has made a commitment to meet more frequently until the complete policy framework has been implemented. This commitment, if complemented by an increase in staff to manage the daily operations of the NCNM, will ensure they are able to fulfill their statutory obligations.

In the same development, the Pharmacy and Allied Health have been provided with a number of tools and have committed to forming Steering Committees to progress the development of the necessary policy framework and standards which they will need to implement their legislation when it becomes law. This commitment, if aided by the provision of adequate secretariat support, will ensure they are ready to fulfill their statutory obligations. The recent decision of the MOH is to establish one professional council for allied and pharmacists. HRH team is supporting the elaboration of the draft law by harmonizing their respective drafts and an integrated information system to facilitate the registration process. The legislation of Rwanda Medical Council was reviewed along with the other relevant legislation. This assisted in developing the comprehensive overview of the status of health professional regulation and the ensuing recommendations from the consultancy.

In addition to that, specifically to the Rwanda Medical Council, IHSSP provides technical assistance to complete and validate the Continuing Professional Development Policy and strategic plan. The CPD program and its strategic plan were validated and launched by the Minister of Health. The funding for implementation of this plan will be provided by the MoH and development partners.

Workload Indicators for Staffing Need (WISN) methodology: The WISN methodology has been introduced to the MoH as a human resources management tool that determines how many health workers of a particular type are required to cope with the workload of a given facility. Following the establishment of the methodology by the MoH in August 2010, the IHSSP in collaboration with the MoH conducted training of WISN methodology to district hospital managers from 10 districts. The MOH has designated a WISN manager at the central level, and the IHSSP/HRH team has continued to mentor the WISN manager on the updated manual, and together plan the trainings and the implementation of the methodology in all districts hospitals.

On the perspectives for the next quarter, the IHSSP/HRH team plans to assist the MoH in the implementation of the the HRH strategic plan 2011-2016. The project will support the Rwanda Medical Council to develop the M&E plan for the CPD strategic plan and to implement the CPD program. As well, the project will continue to assist health professional bodies in the process of licensing and to develop their regulations, and assist the MOH to implement the WISN methodology.

4. Result area 4: Quality improvement for results in access to and quality of services through standardized approach

Context and challenges

Quality improvement is central to health systems strengthening. The IHSSP intends to support the efforts of the MOH to implement a national supervision framework at the national, district, health center levels and community levels – to harmonize with the existing PBF mechanism. Other strategies to QI includes accreditation of District Hospitals, establishing a governing structure for quality improvements and, incorporating QI modules into pre-service training for appropriate cadres of health providers.

Key achievements realized.

DH operational accreditation policy, procedure & guideline (PPG) review and development: In a bid to institutionalize continuous quality improvement and provision of safe health care services targeting a range of comprehensive services through accreditation program, a workshop was organized with as objectives to review existing policies, procedures and guidelines and to develop the missing policies, procedures and guidelines as required for facility accreditation. A multidisciplinary team composed of DH, MOH and MSH team is currently working on existing gaps that were indentified during the base line assessment of existing operational policies, procedure & guidelines in district hospitals in the previous quarter. This is a phased but continuous process with the initiation of the 2nd phase after the introduction of

accreditation standards. These PPG will provide guidance and increase consistence of services hence improving quality of services delivered by DH's. The list of drafted operational PPG in March is here attached (see annex). The activity is still going on until mid May.

Harmonization of District Hospital Patient File: In the process to harmonize and improve patient records in District Hospitals the prototype patient file has been reviewed in order to standardize across 40 DH's. This will support integrated supervision, referral system and accreditation process. The draft is with clinical service unit to be shared with relevant stakeholder for inputs then go through the normal validation process.

Training on the Integrated Supervision, PBF, DQA approach: This training was organized as the first step to execute an integrated supervision approach at central level hence contributing to systems strengthening. A multidisciplinary team at central level established composed of supervisors from (Decentralization and Integration, HMIS, MCH, TRACPlus, Mental health, NRL, CAAC, and PTF) plus some participants from the implementing partners (ICAP, EGPAF, and LUX-DEV). The training was facilitated by trainers from MOH, MSH, PBF, MEASURE Evaluation, and CHUK.

The objectives of the training workshop were to bring together a central level multidisciplinary team that will lead the integrated approach of formative supervision , PBF & Data Quality Audit in a bid to strengthen health systems; Provide the team with knowledge and the same understanding of tools to be used during formative supervision, PBF and Data quality Audit; and provide recommendations and next steps for the successful implementation of the integrated formative supervision, PBF and Data Quality Audit.

As a result of the workshop, it was recommended that the:

1. MOH should put in place a strong multidisciplinary team at the central level to coordinate this approach.
2. The Central level Coordinating team should move fast to finalize and validate the patients' files to ensure a standardization and harmonization of patient's records for all district hospitals.
3. The MOH in collaboration with its program, department managers and partners must ensure the availability of appropriate time allocation and necessary resources to implement the integrated approach.
4. The Central level Coordinating team should design joint report format to facilitate reporting to central level
5. The coordinating team should plan and share an integrated schedule with all stakeholders two weeks before the starting date to allow enough time for preparation.
6. The MOH and its Implementing Partners should facilitate supervisors with equipment and tools to be used during routine work (PDAs, laptops...)



Figure 7: A team conducting integrated supervision in Kabgayi district hospital: pharmacy, laboratory, mental health, HIV/AIDS and decentralization services were supported

Safe Care Initiative Conference in Cape Town 9th -11th March 2011: A team of four staffs (two each from MOH and IHSSP) attended the conference. This was a unique opportunity to share experiences with other countries about how to take forward efforts to improve quality of health care, including the accreditation and licensing of health facilities

The Rwandan team also benefitted from other countries' experiences in developments of Innovative and realistic health care standards that help to improve quality and increase clients/patients trust in health services provided.

The conference provided opportunity to hear about serious commitments of different countries to improving equitable access to quality care through the mechanism of health insurance schemes.

5. Result area 5: Effective decentralization of health and social services to improve access

Context and Challenges

The MOH is keen to implementing initiatives to strengthen health governance through district health system development to ensure health system decentralization and citizen participation in health policy decisions and service delivery.

The key challenge remains working out operational modalities to strengthen the administrative decentralization structures, engaging partnerships approaches at district level, and improving capacities of decentralized structures.

The IHSS project has plans to improve the capacity of districts, sectors, and CHWs to manage and implement decentralized health service delivery, focus on role clarification, team building, and involvement of civil society organizations (CSOs) and other stakeholders

Key achievements realized.

The activities of the decentralization component during this quarter have been centered on the development of the strategic plan for Decentralisation as well as on strengthening capacities of decentralized health structures.

Strategic plan for decentralization in health: During the previous quarter, the IHSSP staff assisted the MOH in developing TOR for consultant. Currently, some working sessions are ongoing while we are waiting for a consultant.

Training/orientation to Health Decentralization support staff in Planning and Monitoring and Evaluation of the health programs: The 5 days in-house one week training was organized for the project staff supporting IHSSP's Health Decentralization programs. This training conducted by the IHSSP' SI/M&E team, the Decentralization Coordinator and Senior HMIS Advisor focused on imparting hands-on skills on key areas including, Strategic planning and health program design, monitoring and evaluation of health programs and elaboration of M&E Plan; Decision Making and Strategic Information for health indicators (selection, refining and indicator reference sheets); Data /Information Sources & collection Systems in Rwanda; Developing and implementation of a functional HMIS; Data auditing techniques; Evaluation design – techniques for conducting surveys; and Calculating and Interpreting Coverage Indicators.

The same activity is planned for the District Health M&E officers whose recruitment is in the final stages.

Joint Action Development Forum (JADF): The IHSSP has received invitation from Nyarugenge and Gicumbi districts. IHSSP team attended the quarterly meeting in respective districts. Gicumbi District has been informed that IHSSP does not have specific funding for JADF activities and that only technical assistance could be considered.

District functional review: In order to inform on the current situation and have more data for the health decentralization strategic plan, IHSSP has planned to conduct a fully functional analysis of health services in decentralized structures. TORs for a consultant is already developed and hiring is at final stages. However, MOH decided to develop a concept note on district health mechanism which will gather information on that. The elaboration of the District concept note is ongoing and IHSSP team played an important role. The final document (concept note) will be discussed and validated during a workshop planned in April 2011.

Assessment of health system management between the MOH/central level and the decentralized health structures: The IHSSP staff participated in the assessment organized by RALGA in Karongi and Rulindo. According to the report produced by the team lead by IHSSP and LuxDev staff, this study had the objective of identifying gaps in health system management between the MOH/central level and the decentralized health structures, specifically at district levels. The study visit has focused on best practices and exchange information among participants. The findings from this assessment will inform the formulation of the national health decentralization strategic plan.

Training module for health data management and District Hospital community supervisors:

One of the priorities identified by MOH department is the improvement of the decision making process based on evidences at district and community level. To respond to this, training of trainers has been planned with support from IHSSP. Currently, IHSSP team and MOH are developing training modules to be used for: “ToT on health data management and use for decision making process at district level”; “TOT for DH staff in charge of CHWs oversight on community health programs management”

Indeed, the decentralization staff participated in many activities providing support to IHSSP's crosscutting activities, including assisting the Financing component in data collection for data on costing of health services; PBF evaluations of District Hospitals; finalizing data entry process for PRISM assessment. The IHSSP/Decentralization team participated also in reviewing of training module for RapidSms & mUbuguzima and the workshop on set up of SOP for HMIS.

However, there are still delays in implementation of IHSSP support for decentralization of health services, mainly resulting from the delays in recruitment of District Health Monitoring and Evaluation officer staff in all the 30 districts.

6. Capacity building to the MOH

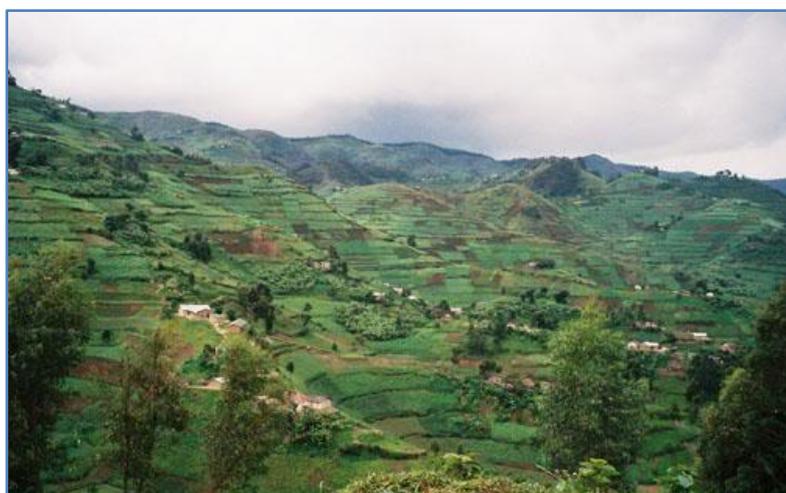
Support to the CAAC in regional PBF-conference in Bujumbura: The conference was attended by representatives of 7 different countries (Burundi, Rwanda, RDC, Zambia, Tanzania, Cameroon, Central African Republic) where PBF is implemented, either in pilot schemes or on national level. In total there were 55 participants. This included as well members of non-governmental agencies giving support to PBF from their respective headquarters in Europe and the US (Cordaid, MSH, Aedes, World Bank, ...). Participants for Rwandan team were: Louis Rusa (CAAC/MoH), Ntibilingirwa Joseph (CAAC/MoH), Randy Wilson (MSH), Ludwig De Naeyer (MSH). As a direct output, the Rwandan DH PBF-model has been more clearly described and an accompanying manual has been written in English and French within 1 week after the workshop. All documents (including the PBF-DH data collection tool) are available at http://www.pbfrwanda.org.rw/index.php?option=com_docman&task=cat_view&gid=24&Itemid=29 under the documentation section. Two weeks after being posted, the 3 separate documents were in total already 132 times downloaded.

| | | |
|--|---------------------|---------|
| Download | Details | |
|  Report of DH PBF evaluation by central level 2010Q3 | Hits: 54 02/28/2011 | |
| Download | View | Details |
|  Grille d'evaluation HD outil complete 2011 | Hits: 36 02/28/2011 | |
| Download | Details | |
|  PBF DH manual for evaluation 2011 | Hits: 42 02/28/2011 | |
| Download | View | Details |

All presentations of the conference can be consulted on the following website:

<http://performancebasedfinancing.org/2011/03/24/pbf-bujumbura-regional-conference-february-2011/>

Support to Community Health Desk (CHD): Several members of the IHSSP-team assisted with the organization of the Community Health Conference (<http://www.icchrwanda.org/>) including detailed planning of the conference, review of abstracts, preparation of presentations and financial and administrative support. Abstracts and oral presentations (see annex) were prepared jointly with the CHD. Topics included Rwanda's Community Health Information System, community PBF design and implementation and on national SIScom maternal and child health data.



Dispersed population and hilly terrain does not only make access to health facilities difficult, but also increased workload to CHWs and supervisors.

Support the MoH/Community Health Desk in finalization and validation of the Community Health Strategic Plan : The IHSSP' M&E and Leadership and Management staff assisted the MOH/CHD in elaboration of the Result Framework of the CH Strategic Plan and, drafted a chapter on its operational monitoring and evaluation framework, including refining of core indicators to monitor its implementation. The project also financed the stakeholders' validation workshop, held in February 2011.

Preparation for the Mid-Term Review and Joint Assessment of the HSSP-II: The IHSSP M&E Advisor assisted the MOH/Planning and M&E team to prepare the terms of reference, including detailed implementation arrangements of the MTR and Joint Assessment of the second generation Rwanda Health Services Strategic Plan-2008-2012. He also assisted the drafting of the competency requirements for the pool of international and national consultancy. These documents were presented to, and approved by the National Health Cluster. The project hosted a technical working group workshop to present the MTR and JANS reference documents to the delegation from International Health Partnership (IHP+) and WHO Geneva. The two agencies will finance the MTR and Joint Assessment of Rwanda Health Sector Strategic Plan.

Support the CNLS and TRACplus in completion of 2010 Annual Report on National Response to HIV and AIDS: assistance was provided to the CNLS and TRAC Plus' M&E teams to compile and complete the 2010 Annual HIV and AIDS report. The assistance included advising on minimum set of high level indicators, and related data sources that should be tracked by the central level, and reported annually.

Analysis of Maternal and Child Health Indicators from the Community Health Management Information System: The IHSSP SI/M&E team worked in collaboration with the MOH/CHD to analyze the data from the SISCOM, looking at the performance trends of selected maternal and child health indicators. A meeting with a larger team of the maternal and child health desk has been planned but was postponed on several occasions. The M&E of the SIScom should inform the MCH with respect to the success of current strategies).

The figures below illustrate important information generated from this exercise:

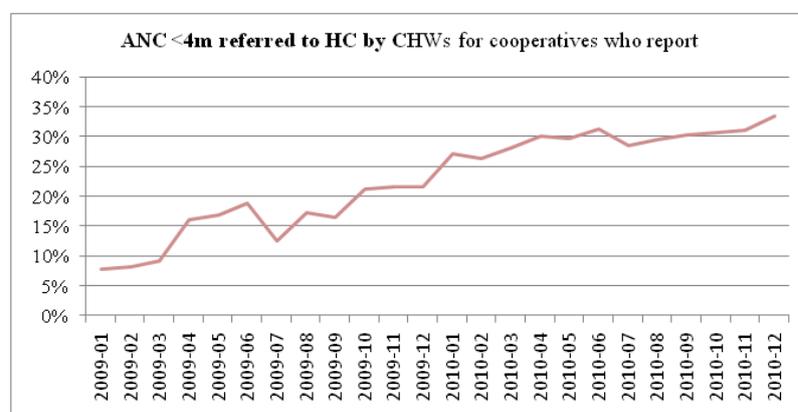
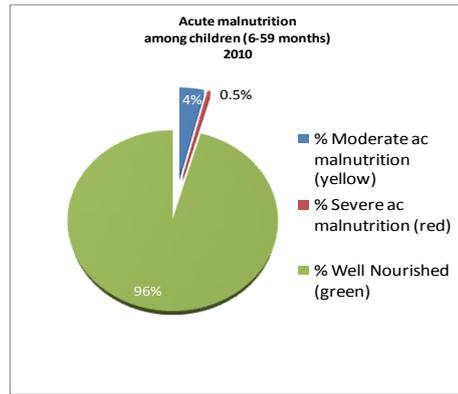
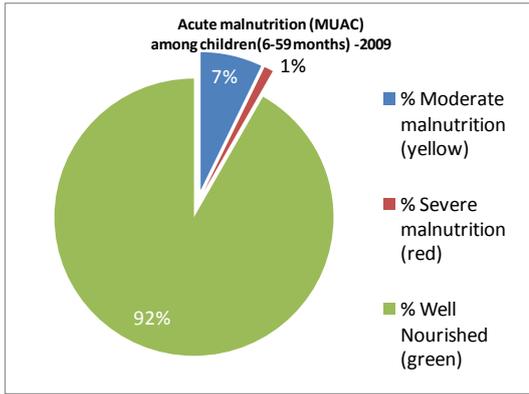


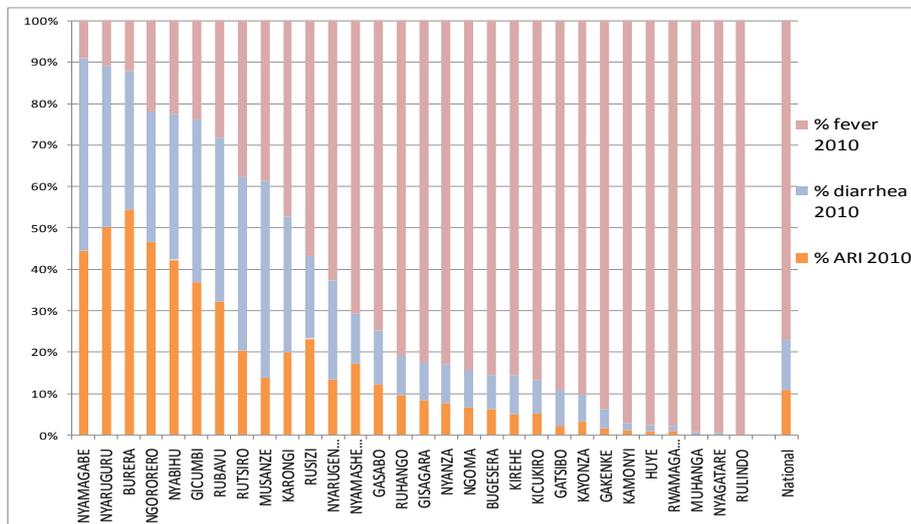
Figure 8: Trends in % of women less than 4 month pregnant referred to Health Facilities by the CHWs, 2009 to 2010

There is clearly reported increase in women who are referred early during pregnancy by the CHWs.



CHWs report less children being moderate or severely malnourished in 2010 compared to 2009. This could be because there is a real decreasing malnutrition rate or that the malnourished are already identified in 2009 and referred and or not followed anymore in the community.

Graph below shows distribution of IMCI-cases per district in 2010.



Annex 1: Abstracts and presentations for the first national Community Health Conference in Kigali

The community PBF model in Rwanda: design and its implementation.

Authors: Mugeni C¹, De Naeyer L³, Uzamukunda Clarisse¹, Ndizeye C³, Wilson R³, Ngabo F².

Institutions:

1. Community Health Desk, Ministry of Health, Rwanda
2. Maternal and Child Health Department, Ministry of Health, Rwanda
3. Management Sciences for Health, Rwanda

Oral or Poster presentation: Oral

Subject area: area 5 (health financing system)

Background/Objectives

Rwanda has started using community health workers for offering the basic package of care at community level. Inspired by the experience and successes of the performance based financing (PBF) model for the health centers (HC), a PBF-model for community health workers (CHWs) has been introduced since mid 2009. We describe the design of the model, the criteria for the indicators and unit fees and the data validation procedures.

Interventions

PBF is applied to 5 maternal and child health (MCH)-indicators (women referred during the first 4 months of pregnancy, deliveries accompanied to health centers, children followed for growth monitoring, new family planning users referred and number of women using modern FP methods) and 2 TB-indicators (possible cases referred and patients followed-up at home). Unit fees are set according to public health importance, work load involved for the CHW to improve, quantities foreseen to be purchased and available budget and range from 150 to 1700 rwf (0.25 to 2.9 dollar) for the MCH-indicators and up to 45 dollars per correctly referred TB-suspect.

Cooperatives are also rewarded for the reporting by itself conditional on a quarterly quality score which assesses elements of quality of reporting and of cooperative management. The latter score is evaluated by the CHW supervisors at HC and district hospital level. Data are entered in a central web-based database by the district. The reported data is then verified and validated quarterly by the sector steering committees which comprises of the HC-head, the supervisor of the CHWs at the HC, the in charge of social affairs and a member of the civil society.

First payment cycle started for the period October-November 2010. On average a cooperative earned 3700 dollars for the indicators and 900 dollars for the reporting.

Lessons learned/Challenges: In the presence of a strong monitoring system PBF can be introduced for cooperatives to stimulate and reward activities of CHWs at community level. Quarterly payments are feasible and will hopefully lead to an increase of MCH and TB-activities. The results of this intervention will be assessed by an independent unit through an Impact Evaluation study.

CHW-maternal health activities monitored via the routine health information system.

Authors: Mugeni C¹, De Naeyer L³, Ndabarora E¹, Wilson R³, Boerstra L², Ngabo F².

Institutions:

1. Community Health Desk, Ministry of Health, Rwanda
2. Maternal and Child Health Department, Ministry of Health, Rwanda
3. Management Sciences for Health, Rwanda

Oral or Poster presentation: Oral

Subject area: 1c (community-based care and treatment) at all levels

Abstract (325 words)

Background/Objectives: Rwanda has started in January 2009 to use community health workers (CHW) to provide the essential package of care and to increase access to basic services at community level. This was accompanied by the introduction of a community health information system (“SISCOM”). We present here a first national overview of the maternal health activities as reported by CHWs.

Methodology: monthly CHW activity reports compiled at cooperative level through the (“SISCOM”) are evaluated for the period Jan to Sept 2010 when nearly complete reporting was achieved. Data are presented as national averages with standard deviations (SD).

Results: CHWs reported over this 9 month period 138,987 deliveries (mean per cooperative: 348; SD: 175) of which 14.1% (SD: 10.3%) delivered at home. Of the other 85.9% who delivered at a health facility, nearly three quarters (73%; SD: 45.3%; N=84,234) was accompanied to the health center. These indicators were significantly different according to district with proportions ranging from 2.9% to 25.1% for home deliveries and from 49.2% to 95.2% for accompanied deliveries. Of the women delivering at home, 45% (N=8,838; mean: 22; SD: 25) was referred within 7 days to the health center for post-natal follow-up visit.

During the same period 84,375 women (mean: 211 per cooperative, SD: 157) were reported to be accompanied to the health center within the first 4 months of pregnancy and 13,095 (mean: 32; SD: 29) women for an at risk pregnancy.

Conclusions: Community Health workers are heavily involved in the referral and follow-up of pregnant women. There are still a small proportion of women delivering at home but almost half do consult a health facility within 7 days after giving birth. Substantial variation between districts exists in the referral rates and home deliveries. Reasons therefore should be further examined.

Conclusions can be affected due to self-reporting by CHW and limited data quality control. Nevertheless, since data are grouped at national level and internal comparisons are made, the proportions are informative.

Community case management of under-5 illnesses monitored via the routine health information system.

Authors: Mugeni C¹, De Naeyer L³, Ndabarora E¹, Wilson R³, Boerstra L², Ngabo F².

Institutions:

1. Community Health Desk, Ministry of Health, Rwanda
2. Maternal and Child Health Department, Ministry of Health, Rwanda
3. Management Sciences for Health, Rwanda

Oral or Poster presentation: Oral

Subject area: 1c (community-based care and treatment) at all levels

Abstract (297 words)

Background/Objectives: Rwanda has started in January 2009 to use community health workers (CHW) to provide the essential package of care and to increase access to basic services at community level. This was accompanied by the introduction of a community health information system ("SISCOM"). We present here a first national overview of the community-integrated management of childhood illnesses (c-IMCI) as reported by CHWs.

Methodology: monthly CHW activity reports compiled at cooperative level through the ("SISCOM") are evaluated for the period Jan to Sept 2010 when nearly complete reporting was achieved. Data are presented as averages per cooperative and as national totals.

Results: On monthly basis a cooperative received on average 172 fever cases (range 92-259, SD 60.6) with higher incidence in wet season), 34 acute respiratory tract infections (ARI) (range 22-51, SD 12.4) and 36 diarrhea cases (range 30-45). On national level fever constituted 78% of the pathology followed by diarrhea (11.5%) and ARI (10.6%). Eighty nine percent of the fever cases were seen within 24 hours. In total 511,886 (92%) children were cured, 46,842 (8%) were referred and 254 children died after having consulted a CHW (mortality ratio of 0.45 per 1000 cases). In contrast, 5881 children were reported to have died in the community (ratio death at CHW/in community: 4.3%).

Conclusions: CHWs receive predominantly fever cases followed equally by diarrhea and ARI-cases. The vast majority could be managed by the CHWs themselves with few deaths indicating that CHWs can be a useful entry point of IMCI albeit still underutilized considering the fairly large proportion of children seen after 24h in case of fever and the high number of child deaths in the community. Of note is that conclusions are limited due to data available only at CHW level and through self-reporting with inherent issues of data quality control.

The Community Health Information System in Rwanda: critical tools for community health worker performance management.

Authors: Mugeni C¹, Murenzi D², Wilson D R³.

Institutions:

4. Community Health Desk, Ministry of Health, Rwanda
5. ICT unit, Ministry of Health, Rwanda
6. Management Sciences for Health, Rwanda

Subject area: (health information system)

Background/Objectives

In response to high maternal and child mortality and morbidity and low health service utilization in Africa's densest country, over the past 4 years Rwanda has established an extensive network of nearly 60,000 (CHW) offering the basic package of care at community level (170 population/CHW). During the early days the program had almost no information for managing the performance of the CHW program.

This presentation describes the system developed to collect data for measuring localized Millennium Development Goals (MDG); monitor the CHW program; and support supply chain management, epidemiological surveillance and emergency referral.

Interventions

The Ministry of Health's Community Health Desk and HMIS units held consultative workshops to develop an integrated community health information system drawing on experiences of implementing partners around the country. The system was designed around a minimum set of indicators covering both programmatic needs and data that are part of the Performance Based Financing (PBF) scheme.

Subsequently a set of data collection tools were developed that included:

- a. A paper system including registers for MNCH/FP, IMCI, and nutrition surveillance; a monthly reporting form; and IMCI and maternal care forms
- b. Cell phones for monthly reporting and SMS text monitoring MCH events, feedback and health messages
- c. A web database for district-level data entry

During 2009 and 2010 all CHWs were trained in a program that combined data management and performance-based-financing content. Data entry through the web database began in January 2010. Cell phone reporting is currently being introduced through a second round of health center-level training sessions that cover both reporting and the RapidSMS system that is used for maternal and child health monitoring.

Lessons learned/Challenges:

- The enormous scale of the roll-out of the system required careful planning and considerable resources that were not fully appreciated initially.
- Substantial savings can be made by combining CHIS training with the delivery of other content (data management + PBF, cellphone-based reporting and MCH monitoring), rather than doing them all sequentially.
- Due to the scale of the program, there is considerable opportunity for public private partnership. The MOH was able to negotiate deep discounts for SMS and voice messaging with the mobile-phone operators.
- By combining PBF incentives within the Community HIS, reporting compliance has risen quickly to and there was no need to develop a parallel system.

The Community HIS complements Rwanda's health facility-based Information system. It is expected to reduce the number of costly, ad hoc household surveys and to empower the community to develop appropriate measures to respond to their local health issues based on evidence (data).

Annex 2: Policy, procedures and guidelines review

| District Hospitals Accreditation required policies, procedures and guidelines (Phase one) | |
|---|--|
| Service areas | Required policies, procedures and guidelines |
| MGT& Leadership | Conduct of internal audit function |
| | Internal audit/Reporting of departmental audits |
| | Policies and procedures testing |
| | Legal opinion |
| | Phone usage |
| | Contract management |
| | Communication channels |
| | Hospital signage |
| | Use of notice boards in the hospital |
| | Patients' rights |
| | Disaster preparedness plan |
| | Mandatory administrative documents (Strategic plan, Action plan, Procurement plan, etc.) |
| | Collaboration between DH and central level |
| | Collaboration with NGOs |
| Human Resource Mgt | Staff orientation |
| | Sick leave management |
| | Dressing Code Uniforms and staff badges |
| | Ensuring current registration with professional bodies |
| | Disciplinary procedure |
| | Grievance and Dispute procedure |
| | Appeal |
| | Ensuring feedback report after course/seminars and workshops attended by hospital staffs |
| | Applying for attendance of seminars, workshops and short courses |
| | Applying for post graduate course |
| | Personnel files mgt |
| | Performance evaluation |
| | Internship management |
| | Recruitment |
| | Dismissal |
| Promotion | |
| Payroll | |
| Safeguarding of information in the medical record | |
| Admin Support | Records which are kept separately from the main record |
| | Release of medical records |
| | Destruction of medical records |
| | Visiting hours |
| | Protection of patients and staff from threats of violence |
| | Police enquiries |
| | Release of information to the media |
| | Provisional identification of unknown patients |
| | Requisitioning of goods and services |
| | Issuing of a buying order/contract |
| | Receiving of goods/supplies |
| | Handling of goods received |
| | Documents required from the supplier/vendor |
| | Custody of face-value documents |

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| | Removal of fire arm from visitors |
| | Failure of the Telephone system |
| | Care and Management of social cases and indigents |
| | Fixed assets acquisition |
| Facility mgt& maintenance | Fixed assets movement/transfer |
| | Fixed assets loss/damages |
| | Disposal of redundant/obsolete assets |
| | Medical equipment safety and management |
| | Use of patient owned medical equipment |
| | Availability of operator and service manuals for medical equipment |
| | Condemning and decommissioning of medical equipment |
| | Medical equipment maintenance management program |
| | Acquisition of medical equipment |
| | Deployment of medical equipment |
| | Testing of devices brought in for demonstration or trial evaluation |
| | Training for safe & correct usage of medical equipment |
| | Cleaning and decontamination of medical equipment |
| | Biomedical engineering job requests system |
| | Maintenance of buildings |
| Number of ambulances | |
| Ambulance management | Status and maintenance of ambulances |
| | Allocation |
| | Triage of emergencies cases |
| | Time of call by health center |
| | Arrival of the ambulance transporting a patient |
| Billing and Invoicing | |
| Finance | Accounts payable |
| | Petty cash management |
| | Management of cheque payments/Payment orders |
| | Budgeting and Approval of budgets |
| | Financial operating procedures |
| | Collection and Distribution of hospital statistics |
| | Resource centre access and management |
| | Guarantee, security, integrity and validity of data |
| | Information plan development and implementation |
| | Usage of statistics by management |
| | Communication system management and usage |
| Confidentiality and Access to data and information | |
| Housekeeping services | Appropriate cleaning methods and materials for various surfaces |
| | Safe storage of cleaning materials |
| | Hygienic storage of mops and brooms |
| | Cleaning at times which are least disruptive to the service |
| | Use of chemicals to the cleaning |
| | Supervision of cleaning staff |
| Laundry service | Handling of infected linen |
| | Loading of washing machines |
| | Loading of dryer machines |
| | Laundry service/Finishing process and folding of clean linen |
| | Classification of work for processing |
| | Separation of staff who work in the clean and soiled areas |
| Making of linen to identify ownership | |
| Use of chemicals in laundry | |
| Joint clinical services/ Delivery of clean linen from laundry to all wards | |

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| | Joint clinical services/ Availability of clean linen in case of emergency |
| | Limits to washing of patients' and staff's clothing |
| | Washing temperatures |
| | Searching used linen for sharps |
| | Registration of patients |
| Ethics | Outpatient admission to the hospital |
| | Patients discharge |
| | Dealing with ethics-related problems |
| | Informed consent |
| | Dealing with patient's personal possessions |
| | Protection of personal possessions for patients in special circumstances |
| | Overcoming barriers to care |
| | Respect for cultural and religious needs of patients |
| | Patient and family health education |
| Negative incident reporting | |
| Health and Safety | Incident investigation |
| | Reporting of accidents/injuries while on duty |
| | No smoking of tobacco products on hospital premises |
| | Manual handling(lifting of loads) |
| | Storage and labeling of flammable materials |
| | Storage of hazardous materials and dangerous goods |
| | Purchase of hazardous materials and dangerous goods |
| | Disposal of hazardous materials and dangerous goods |
| | Taking alcohol of patients and staffs and having alcohol in the hospital premises |
| | Drug or medication outside DR's description |
| | Radio and other noise making devices in hospital settings |
| | Use of Fire extinguishers |
| | Monitoring Data on incidents, injuries and other events that support planning and further risks reduction |
| | Handling storage and disposal of clinical and other waste |
| Monitoring quality indicators | |
| Quality Management | Documentation audits |

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