





# ANNUAL REPORT July 2012-June 2013

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# **ACRONYMS**

ACT : Artemisinin Combined Treatment

ΑI : Avian Influenza

**AIDS** : Acquired Immunodeficiency Syndrome

**ANC** : Antenatal Care

: Association Rwandaise pour le Bien-Etre Familial ARBEF

: Antiretroviral Treatment **ART** : Antiretroviral drugs ARVs

**BCC** : Behavior Change Communication

: Bacille de Calmette et Guérin, Vaccin contre la Tuberculose **BCG** 

BK : Bacille de Koch

BSS : Behavior surveillance survey

: Centrale d'Achat des Médicaments Essentiels du Rwanda **CAMERWA** : Community Based Environmental Health Promotion **CBEHPP** 

: Community Based Health Care CBHC : Community Based Health Insurance **CBHI CBP** : Community Based Provision

: Centers for Disease Control and Prevention **CDC** 

: Comité de Lutte contre le SIDA CDLS CDT : Centre de Dépistage et de Traitement : Centre Hospitalo-Universitaire de Butare **CHUB** : Centre Hospitalo-Universitaire de Kigali **CHUK** 

: Community Health Workers CHWs : Community Based IMCI C-IMCI **CNJ** : Centre National de la Jeunesse

**CPDS** : Coordinated Procurement and Distribution System

**CPN** : Consultation Pré Natale

**CRTS** : Centre Régional de Transfusion Sanguine

: Centres de Santé CS

CT: Centre for Treatment (TB)

**CTAMS** : Cellule d'Appui aux Mutuelles de Santé

: Centre de Transfusion Sanguine **CTS** 

DBS : Dry Blood Spot

: District Development Plan DDP

: British Department for International Development **DFID** 

DH : District Hospital

: Demographic and Health Survey DHS

: Rwanda Demographic and Health Survey RDHS (EDSR)

: Direct Oral Treatment DOT : Development Partners DP

: Democratic Republic of Congo **DRC** : Drug Therapeutics Committee DTC

: Diphtheria Tetanus and Pertussis Vaccine DTC3

**EAC** : East African Community

: Economic Development and Poverty Reduction Strategy **EDPRS** 

: Electroencephalography **EEG** EIA : Enzyme linked Immuno-Assay : Epidemic Infectious Diseases **EID** 

: Emergency Obstetrical and Neonatal Care **EMONC** 

EPI : Expanded Programme for Immunization FOSAs : Formations Sanitaires (Health Facility)

FP : Family Planning

FRW : Franc Rwandais (Rwandan Franc)

GBS : General Budget Support

GCP : General Census of the Population

GF : Global Fund

GoR : Government of Rwanda HAS : HIV/AIDS and STI unit

HBM : Home Based Management of Malaria HBs : Antigène de surface du virus de l'Hépatite B

HC : Health Centre HCV : Hepatitis C Virus

HDN : Hemolytic Disease of the New born

HF : Health Facility HH : Households

HIV : Human Immunodeficiency Virus

HIVDR : HIV Drug Resistance

HMIS : Health Management Information System

HMN : Health Metrics Network

HNP : Hôpital Neuropsychiatrique (Neuropychiatric Hospital)

Hosp : Hospital

HPV : Human Papilloma Virus HR : Human Resources

HRH : Human Resources for Health

HSPI : Hygiene and Sanitation Presidential Initiative

HSSP : Health Sector Strategic Plan

ICT : Information, Communication Technology
IDHS : Intermediate Demographic and Health Survey
IEC : Information, Education, Communication
IMCI (PCIME) : Integrated Management of Childhood Illnesses

IRS : Indoor Residual Spraying

IST (STD) : Infections Sexuellement Transmissibles (Sexual transmitted diseases)

ITM : Intermittent Treatment for Malaria

ITNs : Insecticide Treated nets
IUD : Intra Uterine Device
JAWP : Joint Annual Work Plan
JHSR : Joint Health Sector Review
KFH : King Faycal Hospital
KIE : Kigali Institute of Education
KMC : Kangaroo Mother Care

LABOPHAR : Laboratoire Pharmaceutique du Rwanda

LCR : Liquide Céphalo-Rachidien (Cerebro Spinal Fluid)

LLINs : Long Lasting Insecticide impregnated Nets LMIS : Logistics Management Information System

LNR(NRL) : Laboratoire National de Référence

M&E : Monitoring & Evaluation MARP : Most at Risk Populations

MBB : Marginal Bottlenecks Budgeting

MBZ : Mébendazole MC : Male Circumcision

MCAP : Multi Country AIDS Program
MCH : Maternal and Child Health
MDGs : Millenium Development Goals

MH : Mental Health

MIGEPROF : Ministère de Genre et de la Promotion de la Famille

MII : Moustiquaires Impregnées d'Insecticide

MINALOC : Ministry of Local Administration

MINEDUC : Ministry of Education

MINICOM : Ministry of Commerce and Industry

MININFRA : Ministry of Infrastructure

MININTER : Ministry of Internal Affairs (internal security)

MINISANTE (MoH) : Ministry of Health)

MMI : Military Medical Insurance

MMINECOFIN : Ministry of Finance and Economic Planning

MMR : Maternité à Moindres Risques MNH : Maternal and Neonatal Health

MoH : Ministry of Health

MoU : Memorandum of Understanding

MR-TB : Multiresistant-TB

MTEF : Mid-Term Expenditures Framework MTP : Monitoring, Training and Planning

MTR : Mid Term Review

MUAC : Middle Upper Arm Circumference

MVK : Mairie de la Ville de Kigali

NC : New cases

NCBT : National Centre for Blood Transfusion

NEDL : National Essential Drug List

NEHTWG : National Environmental Health Technical Working Group

NEML : National Essential Medicines List

NF : National Formulary

NFEM : National Formular for Essential Medicines

NGOs : Non Governmental Organizations

NHA : National Health Accounts
NRL : National Reference Laboratory
NTDs : Neglected Tropical Diseases
NTG : National Treatment Guidelines

NSV : Non Scalpel Vasectomy

NVP : Névirapine

OIs : Opportunistic Infections

OMS

Organisation Mondiale de la Santé
OVC

Orphans and Vulnerable Children
OVI

Objectively verifiable indicators
PBF

Performance Based Financing
PCR

Polymerase Chain Reaction

PEC : Prise En Charge

PEPFAR : Present Bush's Emergency Plan For AIDS Relief

PHC : Primary Health Care
PIT : Provider Initiated Test

PLWHA : People living with HIV/AIDS

PMTCT : Prevention of Mother to Child Transmission
PNBC : Programme de Nutrition a Base Communautaire

PNILP : Programme National Intégré de Lutte contre le Paludisme

PNILT : Programme National Intégré de Lutte contre la Tuberculose et la Lèpre

PNSM : National Multisectoral HIV/AIDS Strategic Plan

PRSP : Poverty Reduction Strategy Paper

PTF : Pharmacy Task Force
PW : Pregnant Woman
MINEDUC : Ministère de l'Education
CAAO : Quality Assurance Office

MINEDUC : Ministère de l'Education
QAO : Quality Assurance Officer
QMS : Quality Management System
RAMA : Rwandaise d'Assurance Maladie

RCHC : Rwanda Centre for Health Communication

RDT : Rapid Diagnostic Test RDU : Rational Drug Use RED : Reach Every District

RURA : Rwanda Utilities Regulation Authority

RWF : Rwandan Franc

SAMU : Service d'Assistance Médicale d'Urgence SCPS : Service de Consultations PsychoSociales SFAR : Scholarship Financing Agency of Rwanda

SIDA : Syndrome de l'Immunodéficience Humaine Acquise SIMR : Surveillance Intégrée de la Maladie et de la Riposte SONU-B/EmONC : Basic Emergency Obstetrical and Neonatal Care : Comprehensive Emergency and Neonatal Care

SOPs : Standard Operating Procedures SPIU : Single Project Implementation Unit

SR : Santé de la Reproduction

SRO : Solution de Réhydratation Orale (Oral Rehydration Solution)

STG : Standard Treatment Guidelines STI : Sexual Transmitted Infections

SWAp : Sector Wide Approach

TB : Tuberculosis

TB-MDR : Multi Drug Resistant TB

TF : Task Force

TOT : Training of Trainers

TPM+ : TB Pulmonaire à Microscopie+ (Pulmonar Positive Microscopy TB)

TRAC+ : Treatment and Research for AIDS Center
TTIs : Transfusion Transmissible Infections

TVA : Taxes sur la Valeur Ajoutée

UNFPA : Fond des Nations Unis pour la Population UNICEF : Fond des Nations Unis pour l'Enfance

USD : United States Dollar

UTHB : University Teaching Hospital of Butare UTHK : University Teaching Hospital of Kigali

VAR : Vaccin Anti Rougeoleux

VAT2+ : Vaccin Anti Tétanique 2eme dose jusqu'à la 5eme dose

VCT : Voluntary Counseling and Testing
VIH : Virus de l'Immunodéficience Humaine

VPO3 : Vaccin Polio Oral 3eme Dose

# **FOREWORD**

This report presents the achievements of the Ministry of Health for the fiscal year starting from July 2012 to June 2013, in the framework of achieving the Government's objectives for economic development and reduction of poverty, as defined in the EDPRS I, the 2020 Vision and the MDGs. All achievements are aimed at fulfilling the mission of the Health Sector to improve the well-being of the Rwandan population in general, by implementing high impact interventions for the prevention, the management and control of diseases and the strengthening of the national health system

To achieve the mission, and the objectives defined in the Health Sector policy, the second Health Sector Strategic Plan (HSSP-II: 2009-2012) was implemented and the HSSP III (2012-2018) was developed to maximize preventive and curative measures to control the disease, to build capacity and to improve the provision of high quality of health services, accessible both geographically and financially to the whole population.

The DHS 2010, the HSSP-II mid term review and many other reports have highlighted tremendous improvements as detailed in the table 1. For child health, a new combined Measles-Rubella vaccine was introduced, following the Rotavirus introduced in the previous year, and the Rwandan child is protected currently against 12 diseases through immunization.

During 2012-2013, the HSSP III has been finalized and aligned to EDPRS II while the 2020 Vision targets were reviewed for more ambitious achievements that will make Rwanda a Lower Middle Income Country by the year 2020. The work previously undertaken will continue, increasingly bringing services together in a 'one-stop event' that is accessible at any time to the client.

Through HSSP III, new interventions have been or are being developed to prevent, treat and control non communicable diseases, which are rapidly becoming another important burden for our health system and for the population.

To end this foreword, I thank all Stakeholders of the Health Sector: Health care Providers and Development Partners who have been providing support and actively participate in the development, implementation and monitoring of the health sector programmes to improve the health status of our population. I thank also the Civil Society that participated actively every year since 2010, in the development of the Health Sector through their Umbrella.

Dr Agnes BINAGWAHO
Minister of Health

# **EXECUTIVE SUMMARY**

During, the fiscal year July 2012 to June 2013, the achievements of the Ministry of Health detailed in this report reflect all the efforts invested to realise the objectives of the Government for economic development and poverty reduction, as defined in the EDPRS I, the 2020 Vision and the MDGs, in order is to improve the life conditions of the Rwandan population in general by putting in place high impact interventions for the prevention, treatment and control of diseases.

## The Health Sector Performance, July 2012 - June 2013:

#### 1. Human Resources for Health

- a) By June 30<sup>th</sup>, 2013: a total of 17,475 employees were deployed in the Public Health Sector: 171 specialist doctors, 520 GPs, 2536 A1 Nurses, 492 Midwives, 6,163 A2 Nurses, many other health professionals, administrative and upport staff.
- b) For Capacity building: An MoU has been signed between Rwanda and 23 US Academic institutions. 92 US specialists have been availed to train doctors for specialization. As of June 2013, some 204 doctors were pursuing postgraduate studies (153 in Rwanda and 51 abroad). A total of 731 nurses and midwives are pursuing A1 program, plus an additional intake of 313 A2 Nurses being trained through e-learning program and 230 Nurses are pursuing Midwifery studies in the 5 Nursing and Midwifery Schools of Nyagatare, Rwamagana, Byumba, Kibungo, and Kabgayi. Moreover, upgrading the Laboratory Technicians from A2 to A1 level started in the Gatagara where the first intake comprises 45 students.
- c) According to HMIS 2012: the Ratio Doctor/Population: 1/15428 (target 2017: 1/10000), Ratio Nurse/Population: 1/1200 (Target 2017: 1/1000), Ratio Pharmacist/Pupulation: 1/30565 (Standard: 1/10000), Ratio Midwive/Population: 1/23364 (Note: This does not include Private Health facilities)

#### 2. Improvement of availability of medicines, vaccines and consumables

- a) **Pharmacy**: 30 District Pharmacies are operational and managed by Pharmacists. The narcotic and pharmacy laws have been published, while the law establishing the Rwanda Food and Medicines Regulatory Agency (RFMA) has been published, as well as the law creating the Pharmacy Council. Also, in order to improve the management on medicines, the Logistics Management Information system, that is currently paper based, will be progressively replaced by electronic system, e-LMIS and the process has started. E-LMIS will be rolled out in District Pharmacies and District Hospitals in 2013-2014. This will help to prevent stock outs of medicines in the Health Facilities.
- b) **Vaccination**: After the introduction of the Rotavirus vaccine to prevent diarrhea in 2011-2012, a combined Measles-Rubella vaccine has been introduced in routine vaccination in 2012-2013. The third campaign of HPV vaccination has been carried out and this will continue with the support of GAVI.
- c) **Blood transfusion**: 42,633 blood units have been collected, processed, qualified and distributed in hospitals.
- d) **Production, Procurement and Distribution** of Drugs and Medical equipment: All the 30 districts are provided with minitruck to facilitate transportation of drugs, and active distribution is operational.

### 3. Improvement of geographical access

3 hospitals have been constructed, equipped and staffed in 2012-2013: **Ruhango** Hospital in Ruhango District, Kinihira Hospital in Rulindo District and Bushenge in Nyamasheke are operational in their new buildings. 4 modern Health Centres have been constructed in Kigali City. 2 more hospitals are under construction in Karongi and Kirehe Districts and another is about to start at Nyabikenke in Muhanga District, while works are about to finish for extension of the Rwanda Military Hospital. 12 Health centres have been equiped and operationalized, while several others have been or are being constructed by Districts, using RLSDF funds. Emergency transportation continued to be extended through SAMU. In 2012-2013, some 26 new ambulances have been deployed and 1 boat ambulance is operational in Kivu Lake. 26 incinerators and 18 mortuaries are being constructed in district hospitals. Emergency wards have been constructed in hospitals like Nyagatare (Nyagatare district) and Kabaya (Ngororero district), while 5 laboratories are being constructed in order to provide better services and improve the surveillance and the response to epidemic diseases. A block for Ophthalmology service has been completed and operationalized in Kabayai Hospital (Muhanga District).

#### 4. Improvement of financial accessibility

The new Community Based Health Insurance Policy, based on stratified payment of premiums using Ubudehe database is operational in accordance with the new policy that started in July 2011. The Government continues to pay Mutuelle premiums for 25% of the population categorized as vulnerable. However, for the fiscal year 2012-2013, only 86% of the population were covered by health insurance, which is a reduction of 10% compared to the FY 2011-2012. The consequence is a gap totalizing 1,927,572,504 RWF observed in 16 District, while 14 other districts had surplus. The overall gap of CBHI (difference between gaps and surplus) is 887,108,401 RWF at District Pooling Risk. Meanwhile, the National Pooling Risk had a surplus of 84,904,050 RWF.

# 5. Improvement of the quality and of the demand for services in the control of diseases

#### a) Malaria

Malaria program continues to be successful in the fight of diseases: Malaria incidence declined by 85% from 2003, and 99% of malaria cases are treated after laboratory confirmation, including at community level. By June 2013, the overall malaria proportional mortality was 5.5% and 10% among U5 children. At community level, 81,484 under five children were treated by CHWs and among them 78,026 (96%) were treated within 24 hours of the onset of the fever. From July 2012 to June 2013, a total number of 2,131,793 LLINs were distributed countrywide during U5 children mass campaign, while a total of 392,252 LLINs were distributed through EPI, ANC. The indoor residual spraying (IRS) has been conducted in targeted districts.

## b) HIV/AIDS

VCT: The number of health facilities offering VCT services has increased to 97% while 93% of health facilities provide full package including ART. The number of HIV tests done increases annually with a total of 11,765,368 tests performed starting in 2003. Meanwhile, the HIV positivity rate in VCT services declined to less than 1% in 2013. 90% of health facilities have staff trained to perform male circumcision. The cumulative number of Condoms distributed is 22,575,096 out of 25,000,000 planned. (90% of the target). Condoms were also availed in 65 public institutions where 1,170,000 condoms were distributed, but they were also availed to the public through 690 condoms vending machine installed country wide.

For PMTCT: Elimination of Maternal to Child Transmission plan has been disseminated. The % of pregnant women attending ANC tested for HIV is 98% and the coverage of ARV prophylaxis is at 90%. The transmission of HIV from mother to child has declined from 10,8% in 2004 to 1,9% in 2012 while the HIV new infections reduced by 50% among born children.

For ARV treatment: the coverage of care and treatment was 91.6% and a total of 122,972 patients were under ARV by end of June 2013.

#### c) Tuberculosis:

TB treatment success rates for new sputum smear positive (new SS+) has increased from 63% in 1995 to 89% in 2012. There was also an increase of TB cases followed at home by CHWs, from 4% in 2006 to 53% in 2012. HIV testing among TB cases increased from 45% in 2004 to 98% in 2012 and ARTs initiation among HIV+ TB cases increased from 45% in 2005 vs 74% in 2012.

From July 2005 to December 2012, 547 MDR-TB patients were detected. Among them, 52% were successfully treated but currently, the treatment success is 88%. The median time for hospitalization of MDR-TB cases halved from 6.6 months in 2006 to less than 3.3 in 2010. Patients are treated in 3 centres: Kabutare (Huye), Kibagabaga (Gasabo) and Kibungo (Ngoma) district hospitals.

#### 6. Maternal and Child Health

According to the RDHS 2010, the main maternal health indicators continue to improve. The total fertility rate is currently 4.6; the modern contraceptive rate increased to 45% and assisted deliveries to 69% in 2010. The maternal mortality has reduced from 750/100,000 live births to 476/100,000 live births and the maternal death audit indicates that the number of maternal deaths recorded in district hospitals has reduced from 211 in 2010 to 134 in 2012.

During July 2012- June 2013, some 169 maternal death review reports from hospitals were received. The main cause of death is still severe bleeding (39%) of which more than 3/4 cases occurred during postpartum period, the second cause is infection (16%) followed by eclampsia (12%); Malaria as cause of maternal deaths has decreased, while 61% of all maternal deaths occurred at the level of district hospital and 32 % at referral hospital. 54% of women died after giving birth. If no mothers have died in Health centres, the case of mothers dying in community has not been documented, but it is supposed to be currently low.

Training on basic emergency obstetrical and neonatal care continued. The prevention and control of the cervical cancer is made routinely. The cancer center in Butaro District Hospital is operational. Post-abortion care is being introduced as well as the prevention of post-partum hemorrhage using misoprostol at community level. For family planning, community based provision is operational in 22 districts with the objective to complete all 30 districts by end of nex fiscal year and the service provision of long term methods has been availed in Health Facilities, including vasectomy.

The Child mortality was reduced by 50%, from 2005 to 2010 and the infant mortality was reduced by 43%. In 2012, with the rate of 54/1000 live deaths among U5, reports show that Rwanda has already achieved the MDG4. However, the figures remain high and most of child deaths occur

during neonatal period. According to DHS 2010, 35 % of under five deaths are neonates and 66% of infants (of which 54 % are neonates). To reduce significantly the child mortality, focus is being made in improving neonatal care (creation of neonatology services) with more focused in ICATT, HBB, triage and multisectoral efforts are made to reduce the impact of malnutrition.

In the framework of IMCI, a software to report neonatal and child deaths has been created. 2,632 neonatal cases and 752 deaths have been audited most of them associated with hypothermia. The program for Adolescent, Reproductive Health and Rights program continued, and for SGBV, 16 new one stop centres will be operational by December 2013 in different hospitals.

#### 7. Nutrition

The fight against Malnutrition continued to be a top priority and different actions plans have been implemented since 2008. The latest one is the the JAPEM (Joint action Plan to Eliminate Malnutrition), a multisectoral plan to eliminate acute malnutrition in the country. To achieve this, a monthly screening is routinely conducted, but an annual screening of U5 children, pregnant and lactating women has been carried out from June 2013, to identify acute and chronic malnutrition. For this purpose, some 1,085,365 children have been screened, and 19% were found stunted (chronic malnutrition), 2% were found wasting (acute malnutrition) and 6.3% were underweight. Other activities continued with the Community based nutrition program and the prevention of micronutrient deficiency through home based food fortification program.

## 8. Strengthening of Referral Institutions

In order to strengthen tertiary health care, UTHB (CHUB) and RMH (Rwanda Military Hospital) have been renovated and extended. New equipment has been purchased and is in process of installation. Several specialist doctors have been deployed (currently 171 in total), and teams of specialized doctors come regularly in Rwanda for specialized surgeries (genital fistula, neurosurgery, heart, cleft palates, physical disabilities, etc.). The plan to upgrade some district hospitals to become regional reference hospitals is ongoing.

#### 9. Strengthening Institutional Capacity

The e-Health strategic plan and the National e-Health Entreprise Framework are being progressively implemented. The new HMIS software has been upgraded, and the data management is improved at the district level, as well as other data management softwares, like HRIS.

HSSP III has been developed. Districts have been assisted to develop their District health strategic plans, while the planning and M&E capacity were strengthened at district level. Policies and strategies have been revisited for their alignment to HSSP III. Subsector policies have been merged to reduce their number. The Health Sector Working Group has been revised and reorganized.

The District SWAP guidelines have been developed and are in process of validation. New laws have been prepared and published while others are in process of approval in Parliament. RBC and CHU laws have been revised and KFH has been provided with a private status.

Capacity building has continued at central and district level, mainly in terms of planning and M&E. SPIU continued to manage the sector projects.

# **INTRODUCTION**

This report presents achievements of the HSSP implementation. The objective of the HSSP is to operationalise the EDPRS II in the Health Sector in order to attain national priorities (Vision 2020, 7Y Government Action Plan) and international targets, including the Millennium Development Goals (MDGs), which Rwanda is committed to achieving.

## **Purposes:**

- To provide a logical framework of prioritized objectives, outputs and activities for the Sector;
- To plan for the Sector as a whole, based on previous achievements and needs still to be met, as well as on the available resource envelope;
- To ensure all stakeholders have a common vision for the Sector's development;
- To clarify the roles of stakeholders and promote coordination so that partners can combine resources (human, financial, logistical, etc.) to reduce duplication and promote synergies.

The programme areas of the HSSP are categorised along 2 axes to reflect the revised focus of the Health Sector:

- a) **Client-oriented service delivery**: contains all objectives and outputs directly related to improving the health of the people. These objectives are:
- 1. To improve accessibility to, quality of and demand for Maternal Health, Family Planning, Reproductive Health and Nutrition Services;
- 2. To consolidate, expand and improve services for the treatment and control of diseases;
- 3. To consolidate, expand and improve services for the prevention of disease and promotion of health.
- **b)** Systems-focused components (strategic programs), containing objectives and outputs that provide an enabling environment for service delivery to be optimally effective and efficient (health system strengthening). The 7 strategic programs are cross-cutting issues related to health system strengthening. Each program contains a system strengthening program objective:

Strategic program area	System strengthening program objective
1. Institutional capacity	To strengthen the sector's institutional capacity
2. Human resources for health	To increase the availability and quality of human resources
3. Financial accessibility	To ensure financial accessibility to health services for all and sustainable and equitable financing of the health sector
4. Geographical accessibility	To ensure geographical accessibility to health services for all
5. Drugs, vaccines and consumables	To ensure the (universal) availability and rational use at all levels of quality drugs, vaccines and consumables
6. Quality assurance	To ensure the highest attainable quality of health services at all levels
7. Specialised Services, National Referral Hospitals and Research capacity	To strengthen specialised services, National Referral Hospitals and research capacity

#### **Levels of interventions:**

**Family-oriented community based services:** consist of what families and communities can practice by themselves when provided with information and education by health workers. These interventions are mostly preventive and promotive measures and management of neonatal and childhood illnesses. Activities are carried out by the Community Health Program, through Community Health Workers (CHWs).

**Population-oriented schedulable services:** include disease-prevention services delivered to all individuals. Delivery strategy includes both periodic outreaches to communities and/or scheduled services at health facilities (Minimum and complementary package of health care).

Family and Population oriented services basically constitute the Primary Health Care package, and PHC usually takes 75% of the total budget allocated to health.

**Individual-oriented clinical services:** include all types of individual curative care and delivery services that need to be offered by trained healthcare professionals in a healthcare facility. These interventions are offered in a continuous manner so that they can respond to unpredictable health emergencies.

New initiatives have been put in action, and include: PBF, CBHI, Community Health, Accreditation of Health Services, Improvement of Health Education including CPD, Quality emergency transportation, Development of SWAp, Continuing the Decentralization process.

Family Planning is a top priority in order to reach the ambitious target set for fertility. Maternal health still drains more attention. **Family planning, maternal, child health, and nutrition** harbor the majority of essential targets in Vision 2020, MDGs, and EDPRS.

Non-communicable diseases and injuries are a top priority in the new HSSP III. They are increasing the burden of diseases, and specific attention is paid to promoting healthy lifestyles and preventing diseases with an emphasis on promoting hygiene and addressing unhealthy behaviors (such as drinking alcohol, smoking, dangerous driving, eating unhealthy diets, and unsafe sex) through community health workers and mass media campaigns. Hence, a centre for the cancer treatment has been created in the Butaro District Hospital, and capacity is being built accordingly.

In accordance with the EDPRS, HSSP also stresses **good governance**, in order to improve management and coordination of all sector stakeholders. Finally, a **Health System Strengthening Program**, developed using the Health system building blocks.

#### **Monitoring and Evaluation Framework**

In order to measure and analyze the success of HSSP-II interventions in terms of reaching outcomes and targets, a set of annual and periodic indicators have been developed through consultations with all stakeholders, and different joint assessments are organized:

a) Sector Performance Reviews are undertaken annually as part of Joint Health Sector Reviews (JHSR). In the fiscal year 2011-2012, a self assessment of EDPRS I was conducted and all Stakeholders of the Health Sector participated in the exercise. The recommendations from the assessment have been utilized to prepare HSSP III and EDPRS 2.

- **b)** The Joint Health Sector Review (JHSR) is organized twice a year and is a forum agreed upon between the Government of Rwanda and Development Partners, in which a deep analysis of performance is carried out for the implementation of EDPRS actions and policy matrix and an assessment of the CPAF targets and policy actions.
- c) Mid Term Review of HSSP and RDHS: The HSSP II MTR is conducted to evaluate achievements made in half term of the strategic plan. The RDHS is conducted and the final results published to be a reference for further planning exercises. The 2010/2011 status of health indicators served as baseline for HSSP III; Vision 2020 revised targets and EDPRS 2.
- d) Citizen Report Card study (CRC): The core aim of the study was to provide public agencies and policy makers with systematic feedback from users of public services regarding the quality and adequacy of public services being delivered at the grassroots.
- **e)** Evaluation of the Ministry Performance Contract: this evaluation is new and it conducted in January, to review achievements of the Leadership Retreat action plan and the MoH Imihigo. At the end of year (June) a team from the President's Office, PMO and MINECOFIN evaluates achievements against the performance contract signed by Honorable Minister.

# f) Sector performance indicators

Table 1: Sector Performance Indicators (Baseline 2005 and targets 2015)

INDICATORS	BASELINE 2005	MTR June 2008	MTR Aug 2011	TARGET 2012	TARGET 2015
Source of Information	DHS 2005	I-DHS	DHS 2010	EDPRS	MDGs
			Reports 2012		
IMPACT INDICATORS					
Population (Million)	8.6 M	9.31 M	10.4 M		
Life Expectancy at birth (NISR)			54.5		
Population growth rate (NISR)			2.9		
Infant Mortality Rate / 1000 live births	86	62	50	37	28
Under Five Mortality Rate / 1000 live births	152	103	76	66	47
Neonatal Mortality rate	37	28	27		
Maternal Mortality Rate / 100.000 live births	750	NA	476	600	268
Prevalence of underweight (Wt/Age)	18	NA	11	14	14.5
Prevalence of Stunting (Ht/Age)	51	NA	44	27	24.5
Prevalence of Wasting (Ht/Wt)	5	NA	3	2.5	2
Total Fertility Rate (%)	6.1	5.5	4.6	4.5	
Contraceptive Prevalence Rate among	17	36	45	70	
married women (modern methods)					
OUTCOME INDICATORS					
% Births attended by skilled HW/HF	39	45	69	75	
% PW receiving 4 ANC Visits	13	24	35	50	
Caesarian Section Rate %	2		15 (2012)	NS	
% Women / Men (15-49 yr) reporting	26 / 39	NA	91/92	35 / 50	
condom use in most recent high risk sex					
intercourse					
HIV prevalence in 15-49 years	3		3		

INDICATORS	BASELINE 2005	MTR June 2008	MTR Aug 2011	TARGET 2012	TARGET 2015
Source of Information	DHS 2005	I-DHS	DHS 2010	EDPRS	MDGs
			Reports 2012		
HIV Prevalence Rate in 15-24 yrs %	1.0	NA	15-19 : 0.5	0.5	
,			20-24 : 1.5		
HIV Incidence (/100,000) (TRACnet)			150		
Malaria incidence (/1,000) (HMIS)	192	80	61		
TB incidence (/100,000) (WHO)	162	123	106		
TB prevalence (/100,000) (WHO)	192	143	128		
Number HF with VCT / PMTCT	234	374VCT,	485 VCT,	433	
services/ART services (Report June 2012		341 PMTCT*	467 PMTCT*		
			430 ART		
% HF providing IMCI services		80	100	50	
% children Fully immunized / Measles	75	80	90	85	
% children immunized against Measles	76	90	95		
% children < 5 yr sleeping under ITN	18	60	70	90	
% TB Treatm Success Rate / DOTS	58	86	87	88	
Prevalence of Anemia (children 6-59)	56	40	38		
% children 6-59 months, with one dose	69	+/- 50	108		
Vitamin A in last 6 months					
Average OPD attendance / pp / yr	0,33	0,72	0.95 (2011)	0.8	
			1.00 (2012)		
INPUT INDICATORS					
# District hospitals / HCs		40 / 406	42 / 448		
			(2012)		
# Community Health Workers (CHW)		NA	45.000		
% people living at < 1 hour of HF		77	NA	80	
% of GOR budget allocated to health	8.2	9.1	11.5	12	
Per capita total health annual GOR	16.94 (NHA	33.93 (NHA	39.5 (NHA		
expenditure on health (USD)	2003)	2006)	2010)		
% Population covered by 'mutuelles'.	12	75	90.7 (2012)	91	
Per capita allocation to PBF (USD)	NA	1.65	1.8	2.0	
Doctor / Pop Ratio	1 / 50.000	1 / 33.000	1 / 16.001	1 / 20.000	
Nurse / Pop Ratio	1 / 3.900	1 / 1.700	(June 2012)	1 / 5.000	
Midwives / Pop Ratio	NA	1 / 100.000	1 / 1.291	1 / 20.000	
			(June 2012)		
Italian — Inglisdad in CDAE as now of 6			1 / 66.749		

Italics = Included in CPAF as part of SBS funding.

\* = RBC Annual report 2011-2012.

# ACHIEVEMENTS IN 2012-2013

# I. MATERNAL AND CHILD HEALTH

**Programme objective:** To improve accessibility to quality and demand for Family planning, maternal and Child Health, Reproductive Health and Nutrition services.

#### I.1 Introduction

The improvement of maternal and child health and nutritional status is among the top national health priorities and is also in line with the achievements of Vision 2020, EDPRS and the Millennium Development Goals to reduce maternal mortality (MDG 4) child mortality (MDG 5), and malnutrition (MDG 1). To achieve the goals, programs continued in the 2 main areas: health facility-based and community-based activities, coordinated from MCH unit, with objectives to:

- Promote good practices of Maternal and Child Health across the country through Mother support programs.
- To support the safe motherhood initiative and reproductive health through establishment of evidence based Programs.
- To encourage facility-based delivery through the provision of MCH high impact services.
- To support newborn care in hospitals.

According to different surveys, the main maternal health indicators continue to improve. The total fertility rate is currently at 4.6%, the modern contraceptive rate among married women increased to 45% and assisted deliveries to 69% in 2010. The maternal mortality has reduced from 750/100,000 live births to 476/100,000 live births and the maternal death audit indicates that the number of maternal deaths recorded in district hospitals has reduced from 211 in 2010 to 196 in 2010-2011 to 158 in 2011-2012 and to 175 in 2012-2013. If the trend continues, the MDG5 of 268 will be achieved.

In 2012-2013, strong focus continued to improve mother, infant and young child feeding (MIYCF), newborn care, safe motherhood initiatives, family planning, hospital play rooms, community management of illness, prevention of Post-Partum Hemorrhage and maternal death audits, Community Verbal Autopsy. All interventions have been carried out along with implementation of the strategic plan to eliminate malnutrition 2010-2013, as it has been reviewed to extend its activities in the FY 2013-2014.

#### I.2 Maternal Healh

Activities undertaken to reduce MMR are: ANC (4 visits, at 35% in 2010); Assisted delivery in Health Facility, Emergency obstetrical care, Family Planning, Maternal death audits, Community health, construction and equipment of maternities, training of health professionals including Midwives, emergency transport and organization of the referral system.

In the iscal year 2012-2013, maternal health activities focused on safe motherhood initiatives, family planning, hospital play rooms, and community management, prevention of Post-Partum Hemorrhage and maternal death audits.

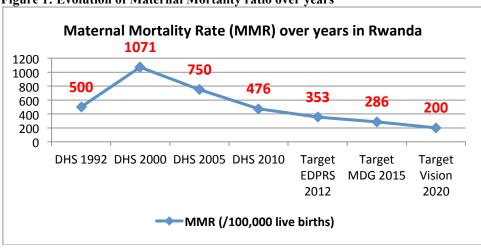


Figure 1: Evolution of Maternal Mortality ratio over years

Source: DHS 2010.

Training on basic and comprehensive emergency obstetrical and neonatal care continued in order to improve maternal health. Post-abortion care has been introduced in 6 districts while the prevention of post-natal hemorrhage using mesoprostol at community level has started in 7 districts. For family planning, community based provision of FP commodities and the provision of long term methods has been expanded into 22 districts. All hospitals have currently the capacity to provide long term methods, including surgical methods like vasectomy and tubal ligation during routine and outreach strategies.

### 1. Maternal Death Audit (MDA) from health facilities

According to DHS 2010, the Rwandan woman had a risk of 1/40 (2,5%) to die from a cause related to pregnancy and childbirth during her reproductive life, but this risk is 1/3.200 in industrialized countries (0.03%).. However, the maternal death audit indicates that the number of maternal deaths recorded in district hospitals has continuously reduced: from 211 in 2010 to 196 in 2010-2011 to 158 in 2011-2012 and to 175 in 2012-2013. If the same trend continues, the MDG5 of 268/100,000 live births will be achieved by 2015.

**Table 2: Reduction of Maternal deaths in Health Facilities** 

Reduction of maternal deaths in health facilities				
2010 2010-2011 2011-2012 2012-2013				
211	196	158	175	

Source: MoH/MCH annual report, 2012-2013

Despite many efforts and the important success recorded today, many women still die each year in Rwanda from causes related to pregnancy complications and/or childbirth.

Maternal death audit approach was adopted in November 2008. Three of the five methodologies for conducting maternal death audit namely verbal autopsy (community based audit), facility based audit, and confidential enquiry into maternal deaths were selected and health personnel was trained in all

hospitals to use them. From January 2009 MDA was carried out in all hospitals and have since then been making recommendations aimed at reducing maternal and neonatal mortality.

In the community, verbal autopsy is currently conducted in 14 districts (MUHANGA, KAMONYI, RUHANGO, NYAMAGABE, NYARUGURU, MUSANZE, GAKENKE, RUSIZI, RUBAVU, NYAGATARE, GATSIBO, NYAMASHEKE, RUTSIRO AND NGORORERO).

To do this, a surveillance system of maternal deaths in health facilities (hospitals, health centers) and in community has been created to provide in-depth information on mothers who die, to identify conditions that lead to their death and to take corrective measures to prevent similar situations.

**Table 3: Causes of Maternal Deaths 2010-2013** 

Causes of death	2010-2011		2011-2012		2012-2013	
	Nb deaths	%	Nb deaths	%	Nb deaths	%
Severe bleeding	79	40%	72	46%	69	39%
Septicemia	33	17%	26	16%	30	17%
Eclampsia	14	7%	17	10%	18	10%
Malaria	0	0%	7	3%	10	6%
Other causes	6	3%	5	4%	8	5%
Unknown causes	14	7%	8	6%	7	4%
Amniotic embolism	2	1%	0	0%	7	4%
Anesthesia complications	6	3%	4	2%	6	3%
Heart failure	5	3%	2	1%	5	3%
Pulmonary embolism	1	1%	3	1,8%	3	2%
Anemia in pregnancy	6	3%	1	1%	4	2%
Other infections	19	10%	10	6,3%	0	0%
IO/HIV	10	5%	3	1,8%	0	0%
Total	196	100%	158	100%	175	100%

Source: MoH/MCH: Annual report 2012-2013

During July 2012- June 2013, 175 maternal death review reports from hospitals were received.

- Main cause of death: severe bleeding (39%) of which > 3/4 occurred in postpartum period;
- Second cause: infection (16%), then eclampsia (12%). Malaria as cause of maternal deaths has decreased.
- 61% of all maternal deaths occurred at district hospital and 32 % at referral hospital; No deaths were registered in Health centres, and the number of deaths occurring in community is not yet fully documented.
- 54% of women died after giving birth;
- 45% of deceased women were aged 21-30 years old and 38 % were aged 31-40 years.
- According to the audit committee, 74% of maternal deaths would have been avoided and 26% others were not avoidable.

Table 4: MDA: Main causes of severe bleeding

Primary diagnostic	Second diagnostic	Number	%
PPH (post-partum hemorrhage)	Post c/section	23	33%
U 1	Post partum	28	41%
Ante partum hemorrhage.	Placenta previa	2	3%
The state of the s	Abroptio plac.	1	1%
Intrapartum hemorrhage	Uterine rupture	10	14%
Abortion		3	4%
Ectopic Pregnancy		2	3%
Total		69	100%

Source: MoH/MCH: Annual report 2012-2013

88% of severe bleeding is the post partum hemorrhage while obstructed labor leads to uterine rupture. 33% of post partum hemorrhage occurred after caesarian section, and 41% occurred immediately after delivery.

In 2013, a process evaluation has been carried out to get a clear picture and an accurate understanding of how maternal death audits are conducted within district and referral hospitals, to trace the route taken by women during transfers, to identify priorities and appropriate interventions and to understand the major causes of death, and therefore, to adopt effective strategies that may improve the quality of care in order to increase utilization of maternal services.

#### **Evaluation of the Maternal Death Audits**

In 2012-2013, the maternal death audits submitted by district hospitals have been evaluated, and there are some discrepancies between the results of evaluation and the reports submitted by district hospitals for the period 2011 and 2012 (Data discordance between HMIS and MDA).

#### Some of findings are:

- 1. The partogramme as a source of information for the MDA implementation is used at only 48, 8 %.
- 2. Only 78% of district teams read MDA Chart or convention before starting their meeting. 11% do not identify any facilitator for the meeting.
- 3. Only 78% of recommendations are specific. But, 70 % identify the responsible of implementation while 62 % define the timeline for their execution. Only 50% of interviewees said that all recommendations are implemented
- 4. Facility based maternal death audit and Community based deaths audit are better documented and better conducted than the Confidential Enquiry into maternal deaths, with respectively 97,7% and 2,3% of respondents for community based audit
- 5. The three main causes of maternal death remain same since 2010 but their proportion is increasing: 41% (2010-2011), 53% (2011-2012) and 57% (2012-2013).

## 2. EmONC (Emergency Obstetrical and Neonatal Care)

## a) Basic EmONC training: emergency care package provided in Health centres

In 2011-2012: 354 health providers from health centres of NYAGATARE, NYARUGURU, GAKENKE, BURERA, NYANZA, GISAGARA, HUYE, NYABIHU, RUBAVU, NYAMASHEKE, KARONGI, BURERA and MUSANZE were trained on B-EMONC.

In 2012-2013: 202 health providers from KARONGI, KAYONZA NGOMA, NYAGATARE, KAYONZA, NYAMASHEKE and GAKENKE were trained in B-EMONC

Proportion of abnormal Deliveries (HMIS)

20% 10% 10% 2009-2010 2010-2011 2011-2012

Figure 2: Dystocic deliveries in Health Facilities, 2009-2012

Source: MoH/MCH annual report 2011-2012

## b) Comprehensive EmONC training: Package of emergency care provided in DHs

In 2011-2012: 208 health providers from hospitals of KIREHE, RUBAVU, NGOMA, NYAGATARE, BYUMBA, KAMONYI, GATSIBO, RUBAVU, RUTSIRO, RUSIZI, GAKENKE, BUGESERA, MUSANZE, NGORORERO and GISAGARA were trained.

In 2012-2013: 101 health providers from GASABO, BUGESERA, RULINDO districts were trained in C-EmONC. Post training supervision was done for KAMONYI health providers trained in c-EmONC

#### 4. Post-abortion care (PAC)

Initially, the 4 districts implementing post abortion care focused on misoprostol in NYABIHU, GISAGARA, KICUKIRO and BUGESERA districts. In 2012-2013, PAC was implemented in 6 additional districts using a comprehensive approach that combines medical and surgical methods, in accordance with the adopted comprehensive post abortion protocol. The 6 districts targeted are: GISAGARA, KIREHE, KAYONZA, NYAMAGABE, KAMONYI and RWAMAGANA, where at least 2 providers by health center and 3 or 4 providers by District hospital were trained.

#### 5. Cervical cancer

- 2010-2011: HPV vaccine was launched and training of health providers on the management of cervical cancer has started.
- 2011-2012: Training on VIA and Cryotherapy was done for 109 heath providers from all referral hospitals and 5 district hospitals.

• 2012-2013: Equipment was purchased and distributed to hospitals and health centers selected for the pilot project: LEEP, colposcopy and cryotherapy machines are in the ordering processus and are expected in one month. HPV tests will be available in Q1/2013-2014.

#### 5. Post-Partum Haemorrhage Prevention at Community level

Initially, 4 districts were implementing post partum hemorrhage prevention using misoprostol at community level: RUBAVU, MUSANZE, GAKENKE and NYANZA.

In 2012-2013, 4 more districts have been implementing PPH :GISAGARA, NYABIHU and KAYONZA from Southern province, and GAHINI Hospital in Eastern Province. A TOT was made for 14 staff from MOH and Districts hospitals. Thereafter, 2 trainers per Health center and 3 per District Hospital were trained for the training of community health workers. After trainings, provision of misoprostol and reporting tools were distributed to CHWs to ensure the effective implementation of PPH.

#### 6. Neonatal Care.

The main objective of neonatal care program is the reduction of neonatal morbidity and mortality, through improved quality of neonatal care in district. The reference manual and protocols for neonatal care have been developed and training of care providers has started. The creation and strengthening of neonatal units in all district hospitals (neonatology units) is ongoing as one of the most effective strategies to improve the quality of care for newborns.

In 2012-2013: 113 health providers from all district hospitals have been trained along with 307 health providers in 164 Health centers from 8 districts: RUBAVU, MUSANZE, NYABIHU, NGORORERO, BUGESERA, MUNINI, NYAMAGABE and GICUMBI. The process is ongoing.

#### 7. Trends of the main Maternal Health Indicators: RDHS 2010

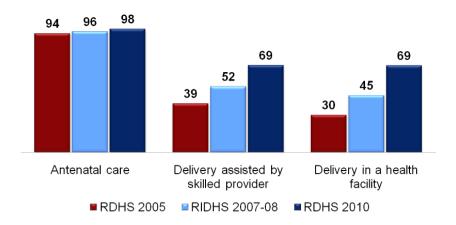


Figure 3: Trends of Maternal Health Indicators, DHS

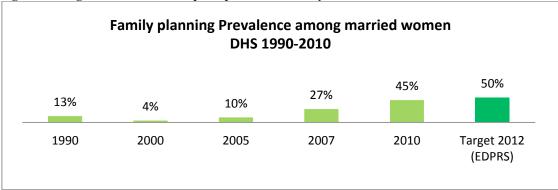
Source: RDHS 2010

## 8. Reinforcement of Family Planning Services

As Family Planning is a routine service provided in all public health facilities, the main activities are currently focused on training for the provision of long term methods and the Community Based Provision (CBP). Those interventions constitute a major innovation in the implementation of FP

program. CBP is provided through CHWs who are being trained as a major support for increased use of modern contraception methods in Rwanda. The new program has been implemented in 22 Districts.

Figure 4: Progression of Contraceptive prevalence over years



Source: DHS 2010

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In terms of training, some 150 trainers for CHWs have been trained in 6 districts in 2012-2013: GASABO, NYAGATARE, NYAMASHEKE, GISAGARA, RWAMAGANA, NGORORERO, and NGOMA. Thereafter, 6330 CHW's were trained to provide family health services in their respective districts. Telated tools and materials have been distributed (referral book, register book, consumable and requisition card, for monthly report and individual card for the clients where as for the materials; bucket, calendar, bottle for germ killer and artificial penis).

Finally, health posts are being expanded to facilitate accessibility to FP services, and a specific program will be implemented in 2013-2014 to quickly increase the number of health posts.

#### I.3 Child Health

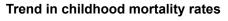
The general objective of Child Health is to contribute in reduction of U5 child mortality from 103/1,000 live births in 2007 to 50/1,000 in 2015 (6.6 by year).

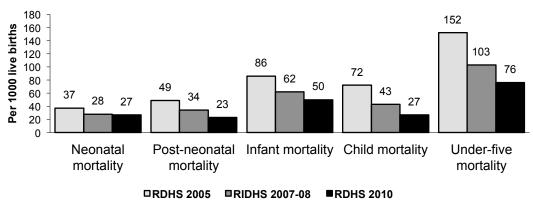
#### Child Health high impact interventions implemented in 2012/2013.

Concerning child survival, specific programs have been reinforced such as the expanded program on immunization, the fight against malaria, HIV, diarrhea, malnutrition, the integrated management of childhood illnesses and the integrated high impact interventions at the community level.

Very important efforts have been deployed to achieve the Millenium Development Goals. Rwanda is on track and has already attained the MDG 4, related to reduce child mortality by 2/3 in 2015. The mortality has reduced from 153/1000 live births in 2005, to 54/1,000 in 2012 (UNICEF), while the target was 50/1,000 live births.

Figure 5: Child Mortality rates over years (/1000 live births)

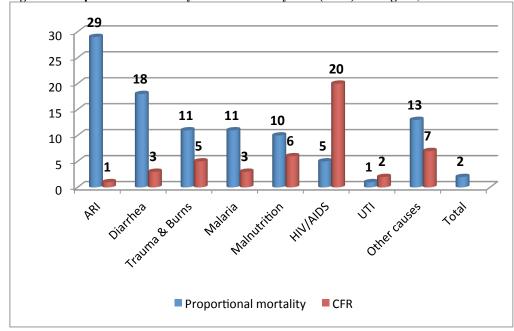




Source: RDHS 2010

However, in health facilities, accrording to HMIS 2012, the 5 top killer diseases of U5 remain the same: respiratory tract infections (29 %), followed by diarrhea (18%) trauma and burns (11%), malnutrition (10%) and malaria (11%).

Figure 6: Proportional mortality and case fatality rate (CFR) among U5, R-HMIS 2012



Source: MoH/HMIS 2012

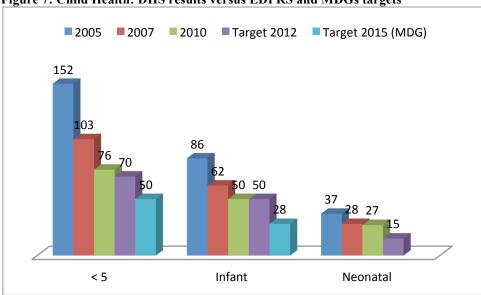


Figure 7: Child Health: DHS results versus EDPRS and MDGs targets

Source: RDHS 2010

As mentioned above, neonatal and infant mortality contribute largely to the U5 mortality and this situation needs to be addressed specifically. According to DHS 2010, 35 % of under five deaths are neonates and 66% infants (of which 54 % are neonates).

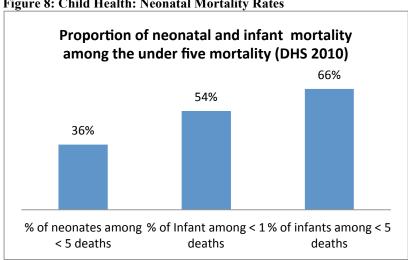


Figure 8: Child Health: Neonatal Mortality Rates

Source: MCH annual report, 2011-2012

### **Integrated Management of Childhood Diseases:**

One of the major strategies to reduce child morbidty and mortality is the strengthened access to health services through integrated management of childhood illnesses (IMNCI) at health facility and community level. Currently, IMNCI is a routine activity, but it needs to be strengthened.

In 2012-2013: 60 health care providers from districts having < 6 trainers have been trained on clinical IMCI.15 lecturers and clinical instructors in 3 Nursing Schools have been trained on IMCI.

Finally, a new child survival strategic plan (2012-2015) has been developed. It will be validated and then disseminated during the FY 2013-2014.

Table 5: Nb of children treated at community level July 2012-June 2013

Types of activities	Year 2012	Year 2013
Total number of children from	10,050	30,240
0-7days		
Total number of children from	48,947	55,896
1 week to 2 months		
Total number of children from	9,781	68,975
2 months to 5 years		

*Source: MoH/HMIS 2012-2013* 

In addition to IMCI, it is important to note that CHWs are also actively involved in Family planning (Community based provision, CBP), Community based nutrition program (CNBP), Hygiene, etc.

#### **Neonatal and Child Mortality Surveillance**

In 2012-2013, a new software was created for the weekly reporting of all neonatal and child deaths and the reporting is made online. Neonatal and child death audit committee is operational in all hospitals. It is composed by 2 health providers and one data mangers that were refresher trained on neonatal and child death surveillance.

A detailed analysis of neonatal and child deaths was carried out in health facilities in 2012. Some 2632 neonatal cases with 752 child deaths have been audited in 39 hospitals.

Findings show that: 88% of neonatal deaths occurred in DHs, 7% in referral hospitals and 5% in HC. 49% of deaths were premature newborns and 58% had low weight at birth. 60% of all neonates dead were born in district hospitals while 37% were referred from health centers to district hospitals, and 2% were referred from district hospitals to referral hospitals.

Hypothermia is the main complication that is associated with deaths independently of place of birth. 75% of all new borns suffered from hypothermia at the time of their admission in neonatology services. To prevent hypothermia, training of health providers on essential new born care with focus on resuscitation and prevention is essential.

Neonatal asphyxia is the top cause of neonatal mortality followed by complications of prematurity and neonatal infections. Congenital abnormalities represent only 8%. For 5% of deaths, the cause was unknown, meaning that follow up of these cases must be improved during hospitalization.

Also, 53% of deceased new borns haven't cried at births. Clinical audit of neonatal asphyxia should help to identify the main causes of neonatal asphyxia.

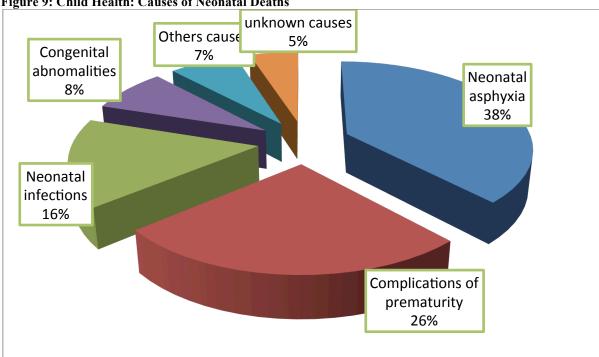
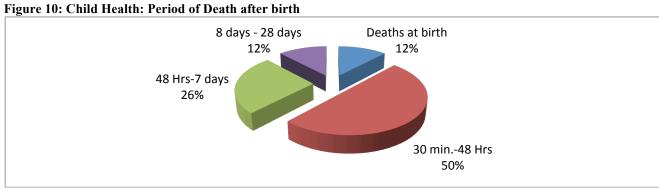


Figure 9: Child Health: Causes of Neonatal Deaths

*Source : MoH/HMIS 2012-2013* 

An important proportion of new borns die between 30 minutes and 48 hours after births. 88 % of deaths occur in early neonatal period and 12% in late neonatal period. 66% of all deaths occurred before 48 Hours after admission and 33% of them before 6 hours! In 51% of cases, child deaths are associated with late health seeking.



Source: MoH/HMIS 2012-2013

Percentage of deaths after admission More than 7 days, 13% Less than 6 hours, 22% Between 48 and 7 days, 21% Between 6 and 24 hours, 20% Between 24

and 48 hours, 15%

Figure 11: Child Health: Neonatal Mortality in Health Facilities

Source: MoH/MCH, Annual Report, 2012-2013

In 26% of cases, neonatal death can be attributed to insufficient follow up or late decision during labor and 24% to insufficient follow up or poor management of neonates.

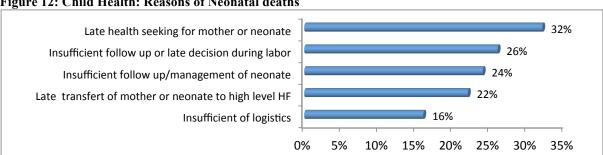


Figure 12: Child Health: Reasons of Neonatal deaths

Source: MoH/HMIS 2012

In conclusion, the audit indicates that 76% of occurred deaths could be prevented if some measures were taken during labor, neonate management after birth or follow up during hospitalization.

#### **Child Death Audits:**

When considering child deaths: respiratory infections, trauma & burns and diarrhea are the top 3 causes of child death. Septicemia represents 16% of causes. 23% of deceased children had clinical features of malnutrition and 4% were HIV positive. Note that there is some difference between the proportions reported by HMIS 2012.

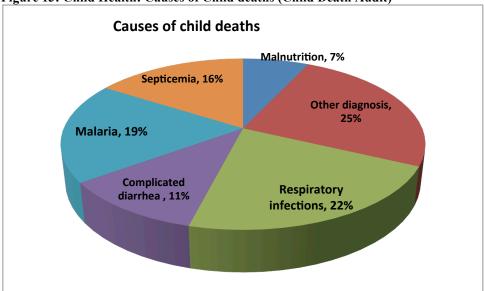


Figure 13: Child Health: Causes of Child deaths (Child Death Audit)

Source: MoH/MCH, Child Death Audit report, 2012-2013

## **I.4 Nutrition**

**General objective**: To improve the nutritional status of the Rwandan people, prevent and appropriately manage cases of malnutrition.

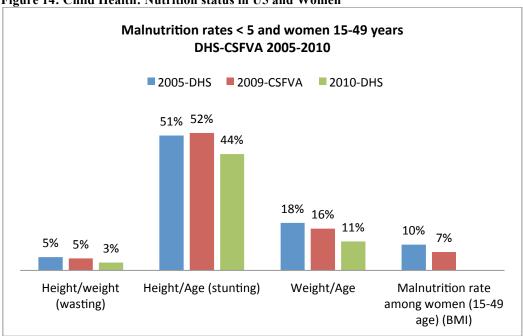


Figure 14: Child Health: Nutrition status in U5 and Women

Source: DHS 2010

According to the Rwanda DHS 2010, 44% of under five children are stunting or have chronic malnutrition (height/age), 11 % are underweight (weight/age) and 3% suffer from acute malnutrition (height/weight). Micronutrient deficiencies contributing directly or indirectly to the high infant, child and maternal mortality and morbidity in the country, are still high.

## **Multi-sectoral and District Plans to Eliminate Malnutrition (DPEMs):**

All districts launched the national Joint Action Plan to Eliminate Malnutrition (JAPEM) which is linked to DPEM and to the National Strategy to Eliminate Malnutrition. JAPEM is a multi-sectoral plan to eliminate acute malnutrition by 2013. The plan has been reviewed in November 2012 in accordance with JDC recommendations, with more involvement of concerned Departments. Its implementation is still ongoing.

# **Achievements of the Nutrition Program 2012-2013**

- 1. Monthly screening & Identification of malnutrition among U5 by CHW (MUAC: 1,151,827 ) Weight for age (1,085,365)
- 2. Annual national screening U5 & Identification of malnutrition using MUAC: WEIGHT-FOR-AGE, WEIGHT-FOR-HEIGHT, HEIGHT-FOR-AGE :1.085.365 children have been screened
- Stunting (Height/Age): 199.586 (19%)
- Underweight (Weight/Age) : 66.317 (6.3%)
- Wasting (Weight/Height) : 20.938 (2%)
- The screening made using MUAC showed that some 16.955 children were malnourished
- 3. Regular procurement of nutrition commodities (CSB, F100, F75, RUTF, Spirulina, ReSomal, Vit A
- 4. Supervisions of nutrition services conducted in 43 hospitals and 43 Health centers

#### Regular procurement of nutrition materials:

- Distribution of Counseling Cards to CHW: 29.952
- Distribution of Counseling Cards to Health Centres: 1.919
- Distribution of Posters: 10.862
- Distribution of Brochures: 282
- Distribution of MUAC tools for children: 29.952
- Distribution of MUAC tools for adults: 29.952
- Distribution of Community charts: 24.000

Anemia in children under five and women of reproductive age (DHS) Children 6-59 months ■ Women (15-49 years) 56% 48% 38% 33% 28% 27% 17% 12% 2005 2007/2008 2010 target 2012

Figure 15: Anemia among U5 and Women

Source: RDHS 2010

**Anemia** in children < 5 and women of reproductive age is decreasing, but is still high as compared to the target 2012 (see figure above).

## **Community Based Nutrition Program**

- 1. Training of health care providers (3 per health centre, 2 CHW per village) on MIYCN:
  - HC: 1,374
  - CHW: 25,709
- 2. Training modules produced and distributed: CHW: 25,709; HC: 1,374
- 3. Elaboration of the National IYCF guidelines (Draft)
- 4. CBNP at Umudugudu level: Child growth monitoring and Promotion is implemented in 95.3 % of villages and in 33.5 % for cooking demonstration.

#### Elimination of Micronutrient deficiencies

- 1. Home Based Food Fortification (HF): distribution of micronutrient powders is ongoing in 6 districts: BUGESERA, KAMONYI, KARONGI, KIREHE, MUSANZE and NYARUGURU.
- 2. Impact evaluation is conducted in NYARUGURU and MUSANZE districts.
- 3. Industrial Food Fortification supported by the Project Healthy Children (PHC)
- 4. Vitamin A distribution and use: made through routine activities and MCH week
- Vitamin A 100.000 distributed: 2.475 boxes
- Vitamin A 200,000 distributed 3075 boxes

Target beneficiaries of Vitamin A:

6-11 month: 153.507 children

12-59 month: 1.289.842 children

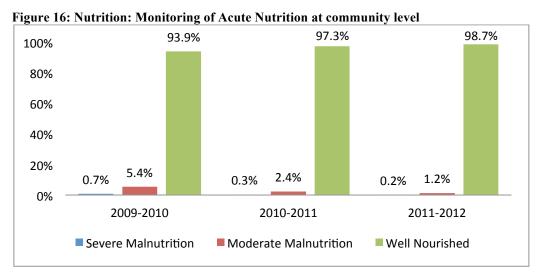
Lactating women: 31.036

5. The protocol for the prevention and management of nutrition deficiencies is still underway.

#### **BCC** on nutrition:

• Nutrition programs on radios: a CBNP spot radio passing every day through Rwanda Radio.

- Monthly messages developed and passed on radios every week
- The final draft of the cooking demonstration and recipes booklet has been developed, still awaiting for validation
- The "1000 days nutrition campaign' ready and planned for Q1/2013-2014).
- The MIYCN counseling tools are used in both health facilities and community to sensitize the population on maternal, infant and young child nutrition.



Source: MoH/MCH annual report, 2012-2013

# I.5 Expanded Program of Immunization (EPI)

Under RBC, EPI is a division of IHDPC (VPDD: Vaccines and Preventable Diseases Division) and is comprised of three principal components: routine vaccination, supplemental immunization activities, and surveillance of target diseases. Routine immunization targets infants aged 0-11 months and pregnant women, during ANC visits and from recently, young girls aged 12-15 years. Strategies to reach the population are: integration of immunization services at fixed health centres, re-establishment of outreach strategy within health catchment's area and catch-up campaigns.

#### **Routine Immunization calendar**

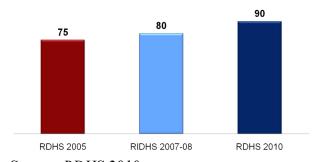
Different antigens used in routine immunization continued to be provided as usual. TT vaccine was available countrywide, no stock out of vaccine at central level and health facilities has been reported. New antigen (Rotateq) has been introduced in routine immunization.

Table 6: Immunization Calendar in Rwanda

Vaccines	Total doses	Age at administration
BCG	1	Birth
OPV	4	Birth, 6, 10, 14 weeks
DTP or DTP-HepB-Hib	3	6, 10, 14 weeks
Measles	1	9 months
Tetanus toxoid (pregnant women)	2	During pregnancy
Pneumococcal	3	6, 10, 14 weeks
Rotavirus Vaccine	3	6, 10, 14 weeks
HPV	3	April, July, October

Source: RBC annual report, 2011-2012

Figure 17: Child Health: Trends of Full Vaccination coverage among children aged 12-23 months



Source: RDHS 2010

#### Achievements in 2012-2013

- 1. Training on Reaching Every District (Reaching Every Child) strategies was conducted in all Health Centers (at least 3 persons/ Health Center).
- 2. Supervisions of Health facilities were conducted in all the 30 Districts during the HPV (Human Papilloma Virus) vaccination campaigns.
- 3. Routine Immunization were conducted and Measles immunization coverage reached 105%
- 4. Second dose of HPV vaccine was provided to adolescent girls in May 2013. Coverage: 98%.
- 5. Inntroduction of a new combined vaccine against Measles and Rubella. The Measles and Rubella campaign was conducted in March 2013. Coverage: 102,6% for Measles and 99.2% for Rubella.

National immunization coverage in 2012-2013 110% 102% 101% 99% 100% 90% 80% 70% % BCG 60% 50% %Penta3 40% %Measles 30% 20% 10% 0% % Penta1 % BCG %Penta3 %Measles

Figure 18: Child Health: National immunization coverage, 2012-2013, R-HMIS

Source: RBC Annual Report, 2012-2013

Currently, the Rwandan children are protected against at least 12 infectious diseases through vaccination. Much effort was put in catch up of drop outs and the coverage for measles has increased from 95% to 99% in 2012 and 2013 respectively.

# I.6 Adolescent Sexual and Reproductive Health & Rights

Adolescent Sexual and Reproductive Health & Rights (ASRH&R) is an essential component of the Reproductive Health Policy adopted in 2003. The newly developed ASRH&R policy and its strategic plan were signed in June 2012. Its overall goal is to improve the sexual and reproductive health status of young adolescents, adolescents and young adults in Rwanda.

# **Objectives of Adolescent Sexual and Reproductive Health:**

- 1. Improve reproductive health knowledge skills and attitudes by increasing the availability and access to information about adolescent sexual and reproductive health, and providing opportunities to build skills of young adolescents, adolescents and young adults;
- 2. Expand access and utilization of quality adolescent and young adult friendly sexual and reproductive health services and products;
- 3. Increase community and political support in the effort to create an enabling and supportive environment for adolescent reproductive health and development;
- 4. Improve coordination efforts amongst key stakeholders and establish sustainability strategies for programs and services.

#### **Main Achievements in 2012-2013:**

1. Development and Finalization of ASRH&R Standards and Supervision Tools: 5 standards have been validated by the ASRH&R Technical Working Group.

- 2. ASRH&R training for Health Care Service Providers in 6 Districts: to expand access and utilization of ASRH&R services throughout the country, with the objective to harmonize and rationalize the provision of youth friendly services by health centers.
- 3. Nurses have been trained in each health center of the 6 following districts: HUYE, NYARUGURU, GISAGARA, MUSANZE, RUHANGO, NYABIHU, KARONGI and RUSIZI. The district Hospitals concerned are; GIHUNDWE, KIBUYE, MUGONERO, SHYIRA, RUHENGERE, MURUNDA, KIRINDA, GITWE, KIBIRIZI and GAKOMA.
- **4.** ASRH&R training for Teachers in Primary and Secondary Schools: in collaboration with MINEDUC, a 2 days training was organized for teachers in RWAMAGANA, NGORORERO, KARONGI and NYAMASHEKE Districts, where 1600 teachers participated.

#### **Implementation of 12+ Program:**

The 12+ program is an extra-curricula program that puts together young adolescent girls aged 10-12 years and discuss with them about sexual and reproductive health in an appropriate manner. During the FY12-13, the ongoing activities to implement the 12+ program include:

- The development and finalization of 12+ strategic plan and the annual work plan,
- The development of training manuals (both for mentors and for girls,
- The recruitment of implementing agencies,
- And the scale up plan

**Training of Youth champions:** The training for Youth Champions under the EC-EAC "Invest in Adolescents" Project was convened. 44 youth champions from the 30 (thirty) Districts attended the training.

**Peer learning session for the trained CSOs:** The Peer Learning Session was organized for Adolescents and Youth Serving Civil Society Organizations (AYCSOs) under the EC-EAC "Invest in Adolescents Project". It was attended by representatives from 21 local AYSCSOs

# I.7 Sexual and Gender Based Violences (SGBV)

#### **Introduction:**

The Rwanda Government commitment to GBV prevention and response initiatives is highlighted by the signing and ratification of international and regional conventions related to gender based violence. such as:

- The International Covenant on Economic, Social And Cultural Rights
- The UN Convention on the Elimination of All Forms of Discrimination against Women.
- The UN Convention on the Rights of the Child.
- The UN Convention against Torture and Other Cruel Inhuman and Degrading Treatment Or Punishment
- The Beijing Platform for Action
- The 2000 Millennium Declaration.

# At the national level, the Government has developed both policies and legislative measures that include;

• The 2003 Rwanda Constitution as amended to date

- The enactment of the Sexual Offences Act 2008
- The enactment of the Children Protection Act 2001 that criminalizes Female Genital Mutilation and Corporal Punishment for Children.
- The Land reform law that stipulates the equality between men and women in land entitlement.
- The Law on succession and matrimonial regimes of 1999
- The Rwanda National Gender Policy of March 2010
- The National Action Plan on UNSCR 1325
- The Rwanda SGBV National Strategic Plan, 2011-2015.

**General objective:** Strengthen the access to health services of SGBV

#### **Specific objectives:**

- 1) Strengthening health services
- 2) Strengthening referrals from the health facility to other support services
- 3) Strengthening linkages between clinical services and other stakeholder groups to facilitate victims' access to health services.

#### Achievements in 2012-2013

ACTIVITY	OBSERVATION
Elaboration and finalization of the	Review completed. Waiting for the validation by
National Strategic Plan of scaling up	GSMM
the One Stop Center	
Training of district trainers in	200 health care providers trained from 10 districts
psychosocial support and clinical	hospitals: SHYIRA, RUHANGO, RWINKWAVU,
management of SGBV	MUHIMA, KIBAGABAGA, KIBUYE,
	NYAGATARE, NYAMATA , KIREHE and KABAYA
Training of service providers in	45 service providers have been trained from
Multidisciplinary Investigation and	NYAMATA and NEMBA One Stop Centers
Intervention Model Team	
Community mobilization and training	150 CHW have been trained in BUGESERA and
of CHWS in GBV where OSC is being	GAKENKE districts to support GBV interventions and
implemented	community sensitization about the availability of One
	Stop Center services
Creation of One Stop Centers	16 One Stop Center will be strengthened GISENYI,
	GIHUNDWE, BYUMBA, RWAMAGANA,
	RUHANGO, KINIHIRA, KIBUYE, RUHENGERI,
	GISENYI, NYAGATARE, KIBUNGO, BUSHENGE,
	KABGAYI, MUNINI, NYAMATA and NEMBA
	have been assessed

Rwanda is becoming a model in fighting gender inequality and GBV issues especially through implementation of Isange OSC as center of prevention and response to GBV'cases.

# **I.8 Community Health Program**

Community Health interventions/programs include: community performance based financing (community PBF), community integrated management of childhood illnesses (C-IMCI), community growth monitoring of under five, community management of maternal and neonatal health, technical and financial support to community health workers (CHWs) cooperatives, and community health information system (C-HIS) including phones for health (P4H) and Community Based Provision of Family Planning services (CBP)

#### Main achievements in 2012-2013

#### 1. Identification of malnourished children aged under five years;

Screening of malnutrition campaign among U5 children was carried out in health centers in May-June 2013. The monthly Child Growth Monitoring is reported by SIScom, including the transferred malnourished children and followed by community health workers.

- 2. Supervisions of DPEM implementation at district, sector & community levels: twice a year.
- **3.** Train health providers and CHWs/ Binomes on MIYCN: Some 1,501 health providers (100%) from all health facilities and 25,709 CHWs from all districts were trained on Maternal, Infant and Young Child Nutrition (MIYCN).
- 4. **Monitoring and evaluation of MNPs implementation:** MNP program aims at improving the nutritional status of children aged 6-23 months. It is currently implemented in six districts: BUGESERA, KAMONYI, KARONGI KIREHE, MUSANZE and NYARUGURU. The assessment was made in 3 phases; baseline, midline and end line evaluation, carried out in MUSANZE and NYARUGURU with comparison with NYAMAGABE and BURERA districts.
- 5. **Distribution of MIYCN commodities:** Vit A supplementation was distributed during the maternal and child health week to children aged between 6-59 months and to lactating women in the 6 post delivery weeks (see Nutrition program).
- 6. **Production and dissemination of CBNP materials and tools:** CBNP supervisory and reporting tools (MIYCN Counseling Package) were reviewed and are available for distribution and use. The tools are integrated module including 'The community based nutrition program, the Infant, Young Child Feeding and Community Management of Acute Malnutrition", the Facilitator guide; the Participant Materials; the MIYCN Counseling Cards. On the back of every CC, key messages have been printed etc.
- 7. **Purchase of nutrition commodities, materials and tools for CHWs:** Child growth chart and MUAC (for children and adults), Cooking demonstration and recipes booklets, Nutrition commodities, MNPs, Vit A ... have been purchased and availed to the CHWs for distribution to the communities.
- 8. **Training:** Training of trainers (TOT) in *GASABO*, *NYAGATARE*, *NYAMASHEKE*, *GISAGARA*, *RWAMAGANA*, *NGORORERO*, *NGOMA*, 150 trainers were trained to train CHW's: 6330 CHW's were trained to provide family health services in the mentioned 7 districts. Refresher training was made for 10,024 CHWs and BCC training for 4,960 CHWs on basic knowledge on mobilization and prevention of U5 illness in community (15 topics).

- 9. **Individual performance assessment of CHWs:** 12 754 CHW's from 17 districts have been assessed and the final report is available.
- 10. CBP (Community Based Provision of Family Planning Services): Training of trainers for 150 health professionals in GASABO, NYAGATARE, NYAMASHEKE, GISAGARA, RWAMAGANA, NGORORERO and, NGOMA, aimed at training of Community Health Workers in the provision of FP services. 6330 CHWs were trained. FP commodities and materials have been also distributed to CHWs.
- 11. **Community PBF:** PBF funds have been transferred to health centre sub-accounts. They have been disbursed to the 450 operational CHWs' Cooperatives.
- 12. **RapidSMS, mUbuzima and SIScom:** 14 districts have been trained on new Rapid SMS for 1000 tracking days. Target staffs were: CHWs Supervisors (14) and data managers (14) from District Hospitals, 207 data managers and 207 CHWs supervisors from Health center and 20,296 CHWs. The SIScom reporting format has been revised, as well as the CHWs user registry.
- 13. **Supervision of CHWs cooperatives:** Some 80/450 CHWs cooperatives were visited. Most problems identified are: mismanagement and embezzlement, delay in disbursement of PBF and interference iby HC Titulaires and other stakeholders.

#### I.9 Environmental Health

In the fiscal year 2012-2013, the following key activities were conducted in the various fields of Environmental Health.

#### a) Injection Safety, training and commodity supply:

- Procurement of injection safety commodities for distribution to Districts.
- Training of 426 community health workers on injection safety and health care waste management in BYUMBA District Hospital
- Promotion of Health Facility Hygiene through educative supervision in RUHENGERI, MASAKA, CHUK, NRL, KIBUYE, la Croix du Sud, and Rwanda Military Hospitals including health centers in their catchment areas.
- Distribution of Disinfectants to promote Hospital Hygiene
- Follow up on the incineration of damaged and/or expired pharmaceutical products.
- 157 Hygiene committee members from KARONGI and RUTSIRO District Hospitals and HCs trained on injection safety, health care waste management and health facility hygiene.

#### b) Community Based Environmental Health Promotion Program (CBEHPP)

- Celebration of Global Handwashing day and launching of hygiene and sanitation campaign organized in Gakenke and Gicumbi district. 350 households in each district have been provided with jerrycans, strings for installing Kandagirukarabe, etc.
- A total of 184 ToTs of CBEHPP managers have been trained in 13 districts. Training of Trainer's refresher training was also conducted for 21 participants in Muhanga District.

#### c) Training of CHC facilitators:

• 2114 CHC facilitators have been trained as follows: Rwamagana 474, Rulindo 494, Kicukiro 327, Nyamagabe 234, Gakenke 120, Nyaruguru 98, Burera 289 and Kayonza District 78

#### d) Establishment and functionality of community health clubs:

• Functional Health Clubs are 44% while fully functional CHCs (with training and dialogue tools) have increased from 8% to 19.81% in 12 districts (2,670 out of 13,472 established).

#### e) Food Safety, Water and Indoor Air quality Promotion:

Adequate Hygiene and safe food is one of essential components of Primary Health Care (PHC). Such effective hygiene inspections ensure peoples right to safe food, water and healthy environment.

#### Achievements are:

- Training workshop on Drinking water surveillance: for 44 EH Officers working in DHs.
- Hygiene inspection in hotels, restaurants, super markets and foodstuff ware houses and schools.
   Problems identified: no medical check for kitchen staff, substandard dustbins, no liquid handwashing soap, no toilet paper, drinking water not covered, etc).
- Several trainings organized for EH Officers, CHWs, and Presidents of Community Hygiene Committees.
- Household instruments (high-effective cooking stoves, hand washing instruments, etc.) distributed in 2,300 households
- Water filters distributed to 2,000 households that were previously trained on water treatment in 10 districts. This exercise is ongoing.
- Through Access project, 7 water treatment systems have been implemented in 7 health centres in Bugesera district.

# II. PREVENTION, TREATMENT AND CONTROL OF DISEASES

**Programme objective:** To consolidate, expand, and improve services for the prevention and treatment of disease

#### **II.1 Health Promotion**

During FY 2012-2013, several activities related to health promotion have been carried out to **increase health communication** through health messaging, hotlines and documentation services, media as well as campaigns.

As part of increasing awareness on HIV prevention, IEC materials were distributed to Youth Friendly Centers/MINIYOUTH, Imbuto Foundation, Prisons, Fishermen Cooperatives and Army while Urunana drama was produced and broadcasted on health related issues.

Also IEC/BCC materials on non-communicable diseases (NCDs) have been produced.

Radio and TV through spots and Gira Ubuzima program have been broadcasted.

Nutrition program: a CBNP spot radio passing every day and nutrition monthly messages passing on the radio every week. Cooking demonstration and recipes booklet developed. The "1000 days nutrition campaign is ready to be launched.

Town hall meetings have been organized to increase awareness of the population in different areas of health: hygiene, maternal and child health, community based health insurance, nutrition, epidemic and other infectious diseases, introduction of new vaccines, non communicable diseases for awareness and prevention of risks associated to chronic diseases.

The hygiene and sanitation campaign was launched on 18/10/2012 in Gakenke and Gicumbi districts and a town hall meeting was previously conducted on 14th October 2012.

#### II.2 Communicable Diseases

In this chapter, a summary of achievements on the prevention, the treatment and control of Malaria, HIV, TB, Epidemics and other transmittable diseases will be presented. As several reports show, Rwanda is among fewer countries to have reached targets on the implementation of "Abuja call for accelerated action towards universal access to HIV/AIDS, Tuberculosis and Malaria services. It is important to note that preventable diseases through immunization have been discussed on the chapter of Child Health.

#### II.2.1 Malaria

The goal of the National Malaria control program is to contribute to the improvement of the health status of the population and the fight against poverty by reducing the burden due to malaria. The main objective is to scale up current interventions and consolidate achievements in order to reach the malaria pre-elimination phase in Rwanda.

An Integrated strategy of Malaria prevention using long lasting insecticide treated nets (LLINs), IRS (indoor residual spraying) for high risk zone and artemisinin-combination therapies (ACTs) treatment combined with a strong healthcare system strengthening resulted in an 85% reduction in the number of malaria cases and deaths. By end of 2012, the rate of malaria cases treated after laboratory confirmation was 99%. Since then, Rwanda has continuously achieved 99% laboratory confirmation of malaria cases before treatment compared to 40% in 2005.

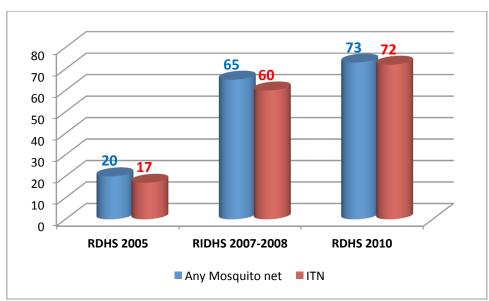
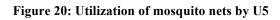


Figure 19: Possession of mosquito nets in Households

Source: RDHS 2010



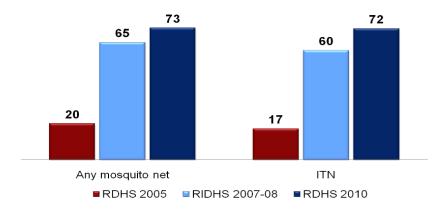
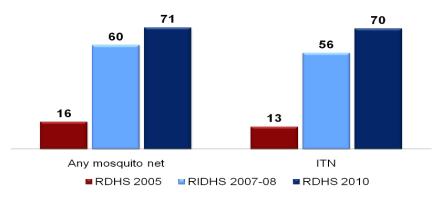


Figure 21: Utilization of mosquito nets by Pregnant Women



Source: RDSH 2010

# **Key achievements in 2012-2013:**

#### a) Prevention of malaria

As prevention strategy, long-lasting insecticide treated mosquito nets (LLINs) are distributed free of charge to pregnant women attending ANC and to children attending EPI. Currently, 8 out of 10 Rwandan households own a mosquito net. In 2012-2013: 2,131,793 LLINs were distributed through mass campaigns of children under five countrywide as well as 190,854 LLINs distributed during EPI to children under one year, while 129, 410 LLINs were distributed through ANC services. Total LLINs distributed: 2,507,279.

At the community level, 81,484 under five children were treated by CHWs and among them 78,026 (96%) were treated within 24 hours of the onset of the fever. In 2012-2013, the rate of malaria cases treated after laboratory confirmation was 99%.

IRS was carried out in 374,639 structures with a coverage of 98, 3% (target: 381,164). From August to October 2012, 236, 610 structures were sprayed in Nyagatare, Gisagara and Bugesera with a coverage of 97, 5% while in December 2012, 11,871 structures in three sectors of Bugarama, Muganza and Gikundamvura in Rusizi district were sprayed with a coverage of 99,9%. In January 2013: 5,004 structures were sprayed in Busoro sector, Nyanza district and in February 2013: 121,154 structures were sprayed in targeted sectors of Bugesera, Nyagatare and Gisagara districts with coverage of 99, 5%.

#### Malaria treatment

In 2006, the world's most effective new combination malaria treatment drug was introduced in 100% of health facilities and this treatment drug was extended to community health workers in 21 out 30 Districts and in some interested private pharmacies. Where community health workers have access to this drug, 9 out of 10 children with malaria/ fever are treated within 24 hours.

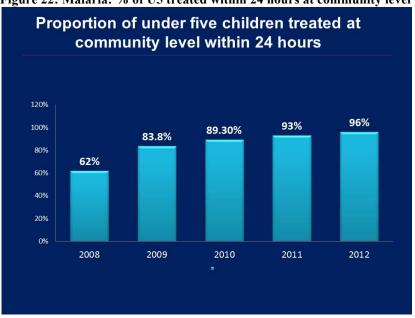


Figure 22: Malaria: % of U5 treated within 24 hours at community level

Source: RBC Annual Report 2012-2013

As per the above chart, Community Health Workers contributed to the management of childhood malaria cases. The proportion of U5 children treated at community level within 24 hours has increased from 62% to 96% in 2008 and 2012 respectively (Home Based Management of Malaria).

#### II.2.2 HIV and AIDS/STI

**Global objective**: To reduce the transmission of HIV/AIDS and STIs and mitigate the personal, family and community effects of AIDS

#### **HIV Prevention**

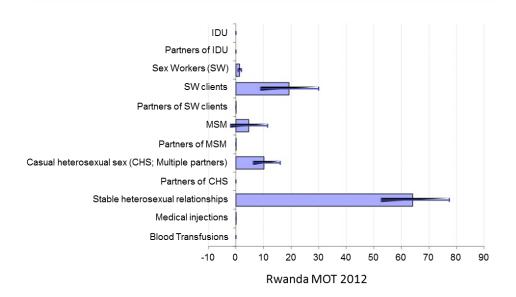
For HIV prevention, routine activities are routinely implemented in health facilities and community with a focus on Most at risk population.

Routine data are collected monthly through TRACnet system. Phone and internet based reporting system are used to collect data on ART, PMTCT, VCT, male circumcision and recently discordant couples follow up.

In November 2012, Mode of Transmission exercise (MOT) was conducted using UNAIDS tool to show the main sources of HIV infection in the coming years. They will be from stable heterosexual sex, casual intersexual sex, sex workers and MSM.

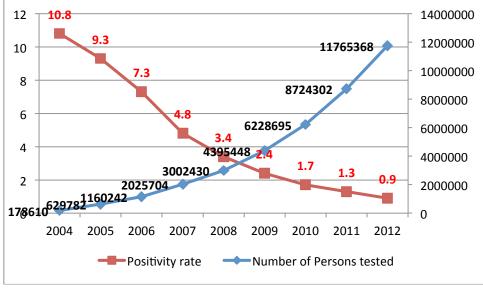
Figure 23: HIV: Modes of transmission of new infections

# Distribution of new infections by mode of transmission



The number of health facilities offering HIV services has increased to 98%, 97% for VCT and PMTCT respectively; while 93% of health facilities provide full package including ART. The number of HIV tests done increases annually. Contrary, the HIV positivity rate in VCT services declined to less than 1% in 2013.





Source: RBC Tracnet, 2013

#### PMTCT (Prevention of Mother to Child Transmission):

Pregnant women attending ANC are counseled and tested according to the national protocol and the percentage of pregnant women tested for HIV is 98% while their partners' testing is at 84%.

PMTCT (Prevention of maternal to child transmission) is expanded and the coverage of ARV prophylaxis is currently 90%. The transmission of HIV from mother to child has declined from 10,8% in 2004 to 1,9% in 2012 and HIV new infections reduced by 50%. During 2012-2013, the new plan to eliminate mother to child transmission has been developed and disseminated while NSP 2013-2018 development is at its final stage.

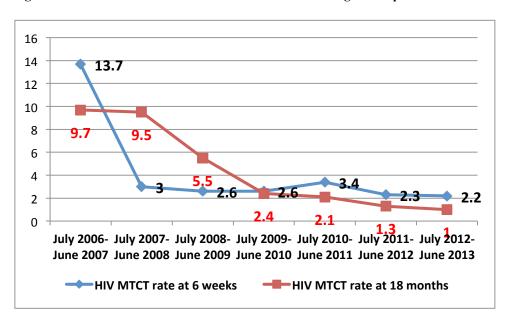


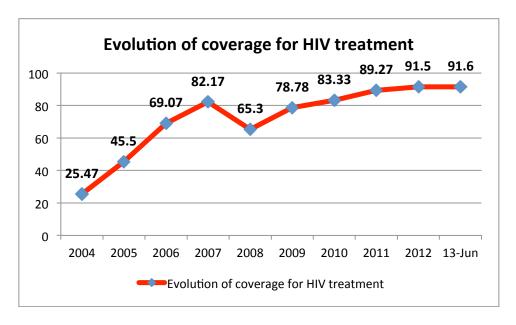
Figure 25: HIV: HIV MTCT rates at 6 and 18 months of age for exposed children

Source: RBC/Tracnet, 2013

#### **HIV Care and Treatment**

All eligible HIV patients continue to get medicines according to the national protocol. Currently 122,972 patients are on ART treatment. ART coverage among patients in need is at 91.6%. With new emerging evidences, it is planned to update the treatment protocol to include most at risk population.

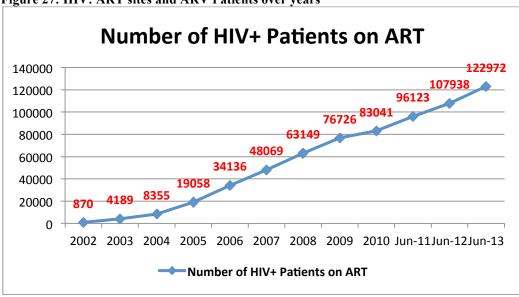
Figure 26: HIV: % of HIV+ Patients receiving ART vs expected patients



Source: RBC/Tracnet, 2013

In order to increase the number of HIV patients under treatment, the immunologic criteria for initiation to ART have been changed from 200 CD4 cells/mm<sup>3</sup> to 350 CD4 cells/mm<sup>3</sup>.

Figure 27: HIV: ART sites and ARV Patients over years



Source: RBC Tracnet, 2013

91.6% of People Living with HIV in need of ART receive it. This represents one of the highiest coverage Worldwide.

#### **AIDS Indicator Survey:**

The first national survey on the AIDS Indicator and HIV Incidence was launched on June 17th, 2013 and will serve as baseline of HIV-1 incidence data from cohort study, generating a real figure of the HIV/AIDS epidemic dynamics in Rwanda. The survey will also be used to track progress towards achieving the National Strategic Plan goal and the MGD6 of stopping and reversing the spread of HIV & AIDS by 2015.

#### II.2.3. Management of Tuberculosis

**Rwanda National TB Strategic Plan (NSP) focuses on the six objectives of the Stop-TB Strategy: 1.** Pursue high quality DOTS expansion and enhancement; 2. Address TB/HIV, MDR-TB and other challenges; 3. Contribute to health system strengthening (HSS); 4. Engage all care providers; 5. Empower people with TB and communities; 6. Enable and promote research.

With the high quality DOTS expansion and enhancement related to TB management: laboratory, drugs, M&E, training, patient support, the TB mortality rate fell by 73% between 1990 and 2010, the prevalence by 68% and incidence reduced by 70%.

#### 2012-2013 Achievements

**Detection**: With support from CHWs, the coverage in TB screening among general population (suspicion rates) has increased from 0.33% in 2005 to 1.57% in 2012. Among them, 50% of suspects are brought to health center by CHWs, up from 10% in 2005 and 48% in 2012. In addition, new and more sensitive tests were introduced to strengthen lab capacity; LED microscopy and GeneXpert were availed in 6 sites:

**Care and Treatment**: TB treatment success rates for new sputum smear positive (new SS+) has increased from 63% in 1995 to 89% in 2012. There was also an increase in TB cases followed near their homes by CHWs from 4% in 2006 to 53% in 2012.

"TB/HIV One stop centers" is a Patient centered approach providing treatment to coinfected patients for both HIV and TB. This approach was implemented in all TB centers of diagnosis and treatment (CDTs) resulting in improved management of both diseases. HIV testing among TB cases increased from 45% in 2004 to 98% in 2012 and ARTs initiation among HIV+ TB cases increased from 45% in 2005 versus 74% in 2012.

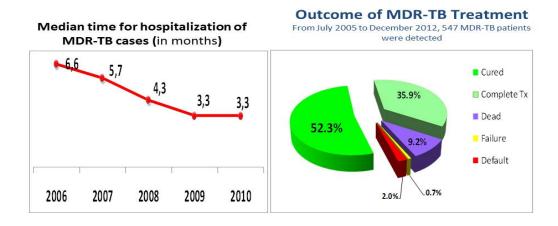
**MDR-TB management :** For early detection of MDR-TB cases, there has been extension of definition of high risk groups for MDR-TB. In addition, new techniques of MDR-TB diagnosis were introduced and even decentralized in peripheral laboratories. From July 2005 to December 2012, 547 MDR-TB patients were detected. Among them 52% were cured (bacteriologically). Currently, the treatment success is 88%: Average time for hospitalization of MDR-TB cases halved from 6.6 months in 2006 to less than 3.3 months in 2010.

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Figure 28: TB: Trends of Number of TB cases in Rwanda

Source: RBC Annual report 2012-2013

Figure 29: TB: Outcomes of MDR-TB treatment



Source: RBC Annual report. 2012-2013

# **II.2.4 Management of Epidemic Infectious Diseases**

In order to cope with emerging and re-emerging outbreaks, a national rapid response team composed of epidemiologist, clinicians, veterinarians environmental health; SAMU and laboratory personnel was

established and operationalized. To ensure timely and adequate response to epidemics, a preposition of essential drugs, supplies and materials (tents, personal protective equipment's, cholera beds, emergency kits,etc) was established.

A joint cross-border surveillance committee between Rwanda, Burundi and Tanzania was established. To ensure public awareness on potential national or international health threat, messages were broadcasted through public and private local media (radio and TV program) on corona and influenza virus, etc.

From July 2012 to June 2013, a total of 23 outbreaks were investigated and confirmed, 3299 cases followed up with a case fatality rate of 0.4%. E-IDSR is well maintained and upgraded; weekly epidemiological bulletins are also released. A multi-disciplinary team comprising an IDSR focal person (normally a nurse or a public health specialist), a laboratory technician and data manager were trained for disease detection, electronic reporting, data analysis and laboratory confirmation. A total of 1524 persons were trained for a total of 508 health facilities. Additional 144 health care providers and 132 medical students received a two weeks short courses program of field epidemiology.

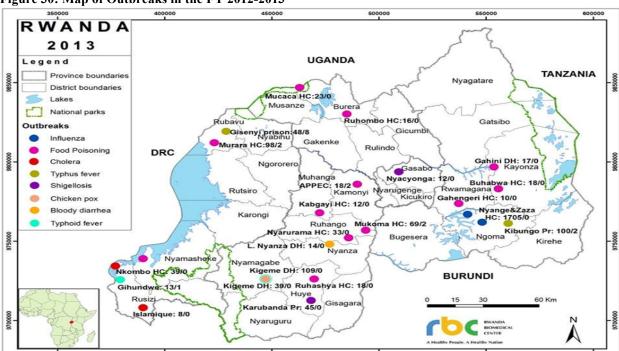


Figure 30: Map of Outbreaks in the FY 2012-2013

Source: RBC Annual report, 2012-2013

# II.3 Non Communicable Diseases (NCDs)

Being aware of NCDs increase and its burden on the health system, a national policy for Non Communicable Diseases is under development, along with the renal health policy. An ambitious five-year national strategic plan is also under development to introduce NCDs prevention, screening, and treatment on a national level.

A national cancer center has been opened in Butaro district Hospital and protocols have been developed for the diagnostic and treatment of 6 main pediatric cancers. Also, as complement of routine prevention against cervical cancer, protocols for early diagnostic and treatment are available and utilized.

Annual check up for the prevention and early identification of some chronic diseases like hypertension, diabetes and other chronic diseases has started for all persons beneficiaries of health insurance, including community based health insurance.

For renal diseases, CHUB dialysis center has done 1,200 dialysis sessions with 53 patients since 2011. KFH has currently 40 patients on dialysis and has transferred through Medical Referral Board 10 patients for kidney transplant in India since 2012.

A third dialysis center is planned in CHUK for the FY 2013-2014. MoH will continue collaboration with foreign surgeons to do kidney transplants in Rwanda as we build our own capacity to run a kidney transplant center.

# II.4 Mental health program:

Capacity building was strengthened and the Rwanda psychiatry postgraduate program was approved by the Cabinet and three candidates are in Belgium in residency for their first academic year. The process for two others to go to Switzerland is ongoing. 86 GPs from all district hospitals and 480 General Nurses working in all health centers wee trained in mental health care. MH is integrated in the training module for community health workers and the trainers have been trained.

Four clinical supervision sessions were carried out per month at central level; four days of psychiatric and neurological consultations were performed by a psychiatrist and a neurologist per month. Eight clinical supervision sessions per month were carried out in district hospitals by professionals from referral services.

The MHD performed a weekly radio session on mental health issues and a one week drug fighting sensitization campaign was organized all over the country. The sensitization against drug abuse in schools and universities but also using media is still ongoing; and MHD has been part of in an interministerial team to elaborate a national strategy to fight drug abuse.

In addition, the Mental Health Division participated in various activities regarding the 19<sup>th</sup> Genocide Commemoration. Mental health professionals and trained trauma counselors have been availed to deal with trauma cases in the community, so 100% of trauma victims received appropriate care during the commemoration period at all levels.

The World Mental Heath Day was celebrated under the theme "Depression". It was an opportunity to sensitize the heath professionals and all the population about this disease, its causes and consequences. Under the leadership of the Honorable Minister of Health, an international conference with the theme "mass violence, mental rehabilitation and reconstruction of social ties". The articles presented during the conference will be published chez l'Harmattan. The Rwanda Mental Health care law has been drafted.

# III INSTITUTIONAL CAPACITY

**Program objective:** To Strengthen the Sector's institutional capacity

# III.1 Planning, Health Information System

# **III.1.1 Planning & HIS**

In the fiscal year 2012-2013, most of activities were related to the development of Health Sector strategic plan (HSSP III: 2012/2013 to 2017/2018).

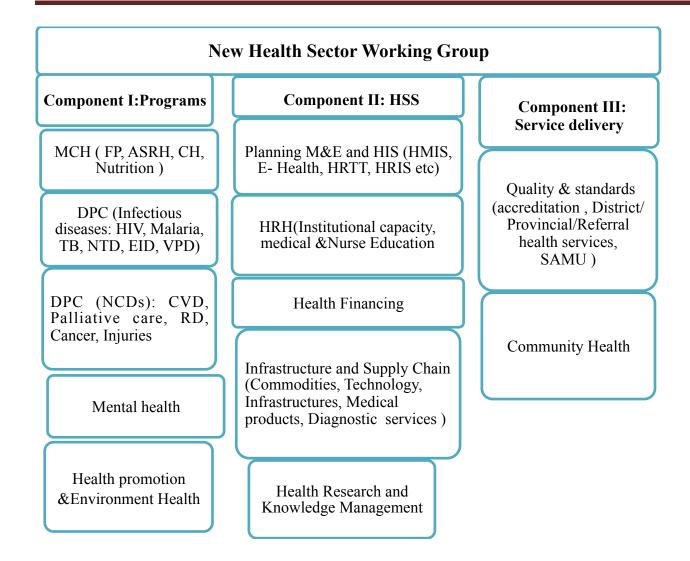
To date, HSSP III is finalized and has been submitted to MINECOFIN for quality check. Meanwhile HSSP III is being used for further strategic planning, as has been used for the development of EDPRS II (2012/2013-2017/2018), the District development strategic plans (DDPs 2012/2013-2017/2018), the District Health strategic plans and the District Hospital strategic plans. In addition to planning activities, a mid-term evaluation of the MoH IMIHIGO 2012/2013 has been conducted.

An integrated supervision tool has been developed to facilitate assessment of data quality in Health facilities (HC and District Hospital). Different M&E trainings have been organised to reinforce the capacity of M&E at district and hospital levels.

In relation with the Health System Analysis, 4 important activities have been achieved: (i) an Assessment of health subsector policies and strategic plans alignment to the HSSPIII, (ii) Development and review of Standards Operating Procedures for Planning Directorate, (iii) Review of Health Sector Technical Working Group and (iv) Analysis and technical support in development of sub sector and decentralized health strategic plans. The assessment has been made and policies have been classified according to their degree of alignment to HSSP III. Also, in order to reduce their number, policies having common objectives or having smilar aspects have been proposed to be merged. Strategies for harmonization and alignment to HSSP III have been adopted.

A consolidated SOPs manual was developed with the purpose to provide guidance on the planning, M&E and HIS, roles, responsibilities and activities of all MOH and RBC departments. The document covers the six keys areas of Planning, M&E and HIS: (i) Development of policies, strategic plans and actions plans, (ii) M&E processes, (iii) Health Information System, data use and data management, (iv) Coordination requirements (including internal meeting coordination), (v) NGO registration and TA visa application processes, (vi) Scholarship, training needs and distribution.

The Health Sector Technical Working Group HSTWG) has been reviewed in order to make it better functional. Instead of 30 working groups, their number has been reduced to 13, as detailed below:



#### III.1.2 E - Health

The mission of e-Health is to provide and maintain highly effective, reliable, secure, and innovative information systems to support clinical decision making, patient management, education, and research functions of the Health Sector in Rwanda, in order to improve healthcare service delivery.

E-health aims at building the foundational components of nationaly integrated e-health architecture in order to set the stage for implementing key e-health systems that have been identified as priorities by the Ministry of Health. Achievements of FY 2012-2013 are:

#### a) RHEA Project

E-Health unit has started working on the Rwanda Health Enterprise Architecture project (RHEA). Under RHEA, the development of the Provider Registry, Facility Registry, and Terminology services was completed. These registries are being implemented in Rwamagana DH in Musha, Ruhunda, Gishari, Rwamagana, AVEGA and Karenge health centres, where Health Information Exchange (HIE) system is used to channel data.

#### b) Individual record systems

Two individual health record information systems have been rolled out: OpenMRS and RapidSMS: **OpenMRS** (Open Medical Record System) aims at improving primary care service. The development of different modules has been completed. As of June 2013, more than 250 sites are using the minimum package of OpenMRS to track HIV/AIDS. One Hospital (KACYIRU Police Hospital) is using full package of OpenMRS. More than 100 new users have been trained and the system has been upgraded.

#### c) RapidSMS

RapidSMS is used by Community Health Workers (CHW) to track pregnancies across the 14,837 villages in the country. The system is fully functional in 21 districts hospitals. In 29 districts, one CHW per village was trained in RapidSMS. The system has been upgraded to accommodate new features to be able to track 1000 days of mother and child health, from pregnancy up to 2 years of age.

# d) Routine aggregate reporting systems

The reporting system has been improved by adopting DHIS-2 renamed R-HMIS for our Health Management Information Systems (HMIS). Meanwhile, other systems such as the Système Informatique de Santé Communautaire (SIScom), TRACnet and Electronic Integrated Disease Surveillance and Response (e-ISDR) remain and were maintained to report helpful health data for decision makers. HMIS staff and other staff from central level have been trained in M&E skills. Also, district data managers, M&E and other staff were trained in data analysis.

#### e) Health Resource Systems

Health resource systems selected by the Ministry of Health comprise CBHI membership modules, Resource Tracking Tool, DHSST, iHRIS, LIS, Blood bank Information system, LMIS, and PBF.

- (a) CBHI/Mutuelle Membership: a web-based mutuelle membership module is functional and linked to the Ubudehe categorization database located in MINALOC. The Ministry of Health started the development of Mobile Mutuelle Membership Module System to facilitate the payment of Mutuelle by the community.
- **(b) Resource Tracking Tool**: used every year to collect information related to different donors, types of funding, and funding categories. It has been revised to create a suitable categorization for friendly usage of the system
- (c) DHSST: a planning tool, fully operational in all district hospitals. It generates reports on an annual basis.
- (d) iHRIs: system to track personnel-related information in the health sector. All health sector human resource data have been entered in the system. The system has been updated and refresher training was carried out for users, but improvement is still needed.
- **(e) Blood bank information**: Blood Bank Information System has been introduced (ePROGESA) to track data in 5 sites (KIGALI, BUTARE, MUSANZE, KARONGI AND RWAMAGANA).
- **(f) Logistic Management Information System (LMIS)**: its development is almost complete. The next step will be to test the system and to train the users, before its rolling out in all HFs.
- (g) Lab Information System (LIS): the system has been developed, completed and users trained.

#### **III.1.3 HMIS: Health Sector Resources**

In this section, only infrastructures, equipments and some other clinical indicators will be presented.

For more details on all health indicators, readers are referred to the Annual health statistical booklet 2012, published separately.

#### a) Health Facilities

By end of 2012, the number of health facilities including privates, was 748, up from 720 in the previous year. This increase was primarily due to the opening of 19 new Private dispensaries and operationalization of 9 public health centers.

Table 7: Number of Health Facilities in 2012, as recorded in R-HMIS

Heath Facility type	2010	2011	2012
National Referral Hospitals	4	4	5
District Hospitals	40	40	41
Police Hospital	1	1	1
<b>Health Centers</b>	436	442	451
Prison Dispensaries	18	13	16
Health Post	45	60	60
Private Dispensaries	35	95	114
<b>Private Clinics</b>	NA	NA	60
Total	579	720	748

Source: Annual statistical yearbook 2012

Out of 748 health facilities registered in HMIS, 58% are health centers, 5% district hospitals, 8% health posts and 15% private dispensaries and clinics, with 5 national referral hospitals.

**Table 8: Minimum Package of Activities in Health Facilities** 

Health Facilities	Minimum Package of Services Provided
<b>National Referral Hospitals</b>	Advanced inpatient/outpatient services, surgery,
	laboratory, gynecology, obstetrics, and radiology;
	specialized services including ophthalmology,
	dermatology, ear nose and throat (ENT),
	stomatology, and physiotherapy
District Hospitals	Inpatient/outpatient services, surgery, laboratory,
	gynecology, obstetrics, and radiology.
Health Centers	Prevention activities, primary health care, inpatient and
	outpatient, maternity, laboratory, referral
Dispensaries	Primary health care, outpatient, and referral.
Health Posts	Outreach activities (i.e immunization, family planning,
	child growth monitoring, ANC)
Community	IMCI, CBP, CBNP, Hygiene, Maternal health

Source: Annual statistical yearbook 2012

#### Health Facility Equipment and Utilities

Due to delays in implementing the District Health Systems Strengthening Tool survey in 2012, HMIS adopted an on-line survey tool (Lime survey) to conduct a survey on infrastructures in all health facilities. In total, 748 health facilities responded to the survey (100% response rate), 41

of which are district hospitals and 451 health centers. According to this survey, 67% health facilities have electricity from the national power grid, 41% use Generator, 33% use solar energy, 0.3% use Biogas and 1% use other sources of energy.

The Lime Survey also showed improvement in availability of reliable electricity sources between 2011 and 2012. There was a high increase in the proportion of facilities connected to the national grid, from 51% in 2011 to 64% in 2012. Solar energy use decreased from 26% in 2011 to 22% in 2012. Most other electricity sources remained proportionally the same (see Table 4).

Table 9: Primary source of energy in Health Facilities, 2012

Primary Electricity Source	2011	Percentage	2012 (N=363)	Percentage
Electricity Grid	260	51%	234	64%
Generator	41	8%	33	9%
Solar Energy	134	26%	81	22%
Biogas	0	0%	1	0%
Other	0	0%	15	4%

Source: Lime Survey Tool, 2012

According to the Lime Survey, the proportion of facilities using local surface water rose from 17% in 2011 to 50% in 2012. This difference may have been due to lack of clarity on the definition of local water system (system that is not linked to national grid).

Table 10: Primary sources of water in Health Facilities, 2012

	2011		2012	
Water sources	Number	%	Number2	%
Local Water System	82	17%	184	32.1%
National Grid	125	26%	119	20.8%
Rainwater Harvesting	95	20%	220	38.4%
Local Surface Water	123	26%	13	2.2%
Well or Borehole, Covered	4	1%	1	0%
Well or Borehole, Uncovered	1	0%	1	0%
Tanker Truck	7	1%	29	5.0%
Other	12	3%	5	0.8%

Source: Lime survey Tool, 2012

Table 11: Number of inpatient beds by Health Facilities, 2012

Facility types	2011	2012
District Hospital	6,663	6,742
Health Center	9,684	9,756
Referral Hospitals	946	920
Total	17,293	17,418

Source: R-HMIS, 2012

Table 12: Ratio Health Workers to Population, R-HMIS 2012

Staff Category	2011	Population/ health workers	2012	Population/health workers 2012
Doctors	625	17,149	683	15,428
Nurses	8,273	1,296	8,779	1,200
Midwives	240	44,660	451	23,364
Mental Health			140	75,266
Paramedical	656	16,339	1,334	7,899
Pharmacist	83	129,137	99	106,437
<b>Laboratory Technician</b>	1,187	9,030	1,164	9,053
Administrative and Support Staff	2,156	,	2471	4,264
Social Workers	1,192	8,992	988	10,665
Environmental Officers	230	46,602	254	41,485
Educators	142	75,482	142	74,206

Source: MOH's Human Resources Database, 2012,

### **Outpatient Care**

By December 2012, health facilities have received a total of 8,331,011 new patients. Among them: 7,757,135 (93.1%) were patients received in health centers, 457,259 (5.5%) in district hospitals, 114,605 (1.4%) in referral hospitals, while 273,322 (3.3%) were treated by community health workers (CHWs) through community-integrated management of childhood illnesses (C-IMCI).

In the year 2012, the primary health care utilization rate (in community and public health centres) was approximately 0,76 visits per inhabitant (8,030,467 visits/ 10,537,222).

**Table 13: Number of Outpatient Visits, 2009-2012** 

Health service level	2009	2010	2011	2012	%
					change
Health centers	7,996,598	8,437,850	6,985,028	7,757,135	11%
District hospitals	544,284	590,290	444,463	457,259	3%
CHW Home-based	514,069	750,423	291,230	273,322	-7%
care					
Referral hospitals	214,512	197,278	220,206	114,605	-48%
Total	9,271,472	9,977,851	7,942,938	8,331,011	9%

Source: R-HMIS, 2012

Table 14: Top 10 causes of morbidity in IMCI, 2012

Rank	Diseases groups	Health Center	Percentage of all cases
1	Pneumonia	122,705	20.5%
2	Diarrhea	108,347	18.1%
3	Malaria	75,802	12.7%
4	Febrile disease very severe	21,455	3.6%
5	Acute Ear infection	13,506	2.3%
6	HIV infection (probable or suspected)	10,936	1.8%
7	Bacterial infection severe or very severe	6,191	1.0%
8	Bacterial infection local	4,415	0.7%
9	Mastoiditis	2,350	0.4%
10	Other diseases	232,982	38.9%
	Total	598,689	100.0%

Source: R-HMIS, 2012

Table 15: Top 10 causes of morbidity in Health Centres, 2012

Rank	Diseases groups	Health Center	Percentage of all cases
1	Acute Respiratory infections	1,682,321	21.7%
2	Intestinal parasites	569,562	7.3%
3	Physical trauma	406,641	5.2%
4	Malaria	399,809	5.2%
5	Gastritis and duodenitis	375,178	4.8%
6	Teeth and gum Infections	306,109	3.9%
7	Skin Infections	190,897	2.5%
8	Urinary Tract Infections	186,619	2.4%
9	Eye problem	163,277	2.1%
10	Diarrhoea	153,877	2.0%
	Other diseases	3,322,845	42.8%
	Total	7,757,135	100%

Source:R-HMIS, 2012

Table 16: Top 10 causes of morbidity in Hospitals, 2012

	Disease groups	<5 years	>=5years	Total	Percentage
ank				cases	of all cases
1	Teeth and gum Infections	5492	92650	98142	21.5%
2	Eye problem	8258	73520	90036	19.8%
3	Acute Respiratory infections	11474	19493	30967	6.8%
4	Physical traumas	2521	24185	29227	6.4%
5	Gastritis and duodenitis	172	22493	22665	5.0%
6	Urinary Tract Infections	1402	19717	21119	4.6%
7	Gynecological problems	0	18641	18641	4.1%
8	Diarrhea with no dehydration	5514	5036	16064	3.5%
9	Bone and Joint disorders	759	12676	13435	2.9%
10	Intestinal parasites	3169	9841	13010	2.9%
	Other diseases	15510	103336	102553	22.5%
	Total	54271	401588	455859	100.0%

Source: R-HMIS, 2012

#### **Hospitalisation and Mortality**

During the year 2012 a total of 548,068 patients have been admitted for hospitalization. This number is much higher than in 2011 (509,023 admissions). The average duration of stay for discharged patients was double in hospitals (4.8 days) compared to Health centers (2.4 days). This is likely because only minor cases are hospitalized in health centers (mostly for observation), while more severe cases are referred to district hospitals.

The total number of registered deaths that occured in 2012 was 10,237. This represents an increase of 23% (39% in health facilities, 29% in district and provincial hospitals).

Table 17: Number of Deaths in Health Facilities, 2012

Deaths	2010	2011	2012	% change
Heath centers	341	307	428	39%
District hospitals	5,206	6,000	7,715	29%
Referral hospitals	2,055	2,012	2,094	4%
Total	7,602	8,319	10,237	23%

**Source** : *R-HMIS*, 2012

Table 18: Intrahospital mortality rates in Health Facilities, 2012

Facility type	Admission	Deaths	Discharged	Number of days	% hospital mortality	Average duration of stay
Health	272,196	428	222,196	532,539	0.2%	2.4 days
centers						
Hospitals	275,872	7,747	267,240	1,273,153	2.8%	4.8 days

Source: R-HMIS, 2012

Table 19: Top 10 causes of deaths in Health Facilities, 2012

Rank	Cause of death	Grand Total	% of total
1	Neonatal illness	2,722	22%
2	Pneumopathies	660	5%
3	Cardio-vascular disease	608	5%
4	Malaria	603	5%
5	Obstetrical problems	595	5%
6	Physical Trauma and Fractures	550	5%
7	HIV/AIDS opportunistic infections	432	4%
8	Diarrhea	335	3%
9	Cancer	321	3%
10	ARI	283	2%
11	All other reported deaths	5,063	42%
	Grand Total	12,172	

Source: R-HMIS, 2012

# **III.2 Legal Department**

The attributions of the Legal Department are:

- Develop legal and regulatory provisions (decrees and instructions) of the institution
- Provide legal opinions on cases or dossiers and contracts engaging the institution
- Give legal opinions on litigious issues involving the institution

#### Status of Laws and other instructions in 2012-2013

Law, Ministerial instruction or Policy	Status		
Law on Tobacco Control	Published in the Gazette N°		
	08/2013 of 01/03/2013		
Law establishing medical professional liability insurance	Published in the Gazette N°		
	49/2012 of 22/01/2013		
Bill Establishing Health Insurance Schemes	Passed in the SENATE		
Law Modifying the Rwanda Medical and Dentist	Published in the Gazette N°		
Council	44/2012 of 14/01/2013		
Law relating to the regulation and inspection of food and	Published in the Gazette		
pharmaceutical products	No47/2012 of 14/01/2013		
Law on organisation, functioning and competence of the	Published in the Gazette		
Council of Pharmacists	No45/2012 of 14/01/2013		
Law establishing the Rwanda Allied Health Professions	Published in the Gazette		
Council and determining its organisation, functioning and	N°46/2012 of 14/01/2013		
competence			
Law modifying and complementing the Law n° 54/2010	Published in the Gazette		
of 25/01/2011 establishing Rwanda Biomedical Center	N°48/2012 of 14/01/2013		
(RBC) and determining its mission, organisation and			
functioning			

#### **III.3 Decentralization**

The Decentralisation and Integration is currently under the Planning & HIS General Directorate. Its main objective is to ensure the implementation of decentralization framework. The strengthening of the District health system is the key element to achieve this objective, in order to improve the health service delivery in health facilities.

The following main duties are assigned to Decentralization:

- Support districts in planning (strategic plans and operational plans) and in implementation of planned activities
- Mentor health facilities to ensure the continuous quality improvement and utilization of standards, protocols and guidelines.
- Mentor health facilities in order to improve the financial management
- Coordinate integrated supervisions from central level
- Support districts in trainings of health care providers
- Coordinate all HIV partners in order to ensure equity in HIV service delivery.

#### **Activities achieved in 2012-2013**

Activities planned to deliver output	Achievements
Assist and coordinate the elaboration of master plans of DHs	34 Hospital master plans developed and available
Provide technical support HFs for the elaboration of operational plans	42 health facilities have a Operational plans
Training different staff from DHs on	HR officers: 42
the use of hospital training manual on	<ul> <li>Procurement Officers: 84</li> </ul>
management:	• Customer care officers: 42
	<ul> <li>Accountants: 42</li> </ul>
	District Health M&E officers: 30
TA to districts in the development of	30 Districts have their five years strategic plans
district health strategic plans	
TA to the DHs to develop their	42 District Hospitals have their five years
strategic plans	strategic plans
TA to develop District Health M&E	30 Districts Administrative are provided with
plans	District Health M&E plans
Train district health M&E officers in	28 District Health M&E were trained in M&E
M&E basics.	fundamentals
Training of District Health Officers in	30 District Health M&E were trained in M&E
M&E basics.	fundamentals
Board of directors trained and	87 members of Mutuelle boards, 90 members
oriented on decentralized health	of Pharmacy Boards and 126 members
activities	Hospital boards were trained

# **III.4 SPIU (Single Project Implementation Unit)**

Initially, PMU (Projects Management Unit) in charge of managing Global Fund Grants, its attributions have been extended to the management of all the Health Sector Projectes managed by the Ministry of Health, under SPIU (Single Project Implementation Unit).

SPIU is responsible for the management, implementation and monitoring and evaluation of health-sector projects that are funded by the Government of Rwanda, Multi/Bilateral Organizations, Private Sector and Foundations of which the Ministry of Health (MoH) is the Primary Recipient (PR), and/or assumes the responsibility of overall implementation.

For the fiscal year 2012-2013: activities continued as planned.

# III.5 Coordination of Partners and SWAp

Partners/SWAp Coordination Desk deals with cooperation relatedhealth activities and is under the supervision of the Directorate General of PHIS (Planning & HIS) since January 2013. During the FY 2012-2013, its activities were centered on: (i) following up the implementation of SWAp principles in the Health Sector, notably by coordinating the development of the District SWAp Reference Guide for SWAp principles to be implemented in Districts, (ii) keeping the CDPF secretariat activities, (iii) following up the bilateral and multilateral health cooperation and (iv) facilitating NGOs administrative and legal requirements. **Achievements in 2012-2013 are:** 

# 1. Development of District SWAp Reference Guide

The process started in October 2012. Districts, MOH Central level and Development Partners participated in that exercise. The draft guide was validated in March 2013. In the booklet are defined: the SWAp principles, their meaning for the Rwandan Health Sector, aid modalities instruments and SWAp Guiding Principles. Also are detailed: roles and responsibilities of Districts, Development Partners and others stakeholders.

#### 2. Capacity Building Pooled Fund (CPDF)

CDPF is a co-managed financing pool by the Ministry of Health (MoH) and Development Partners (DPs). The co-management includes the Belgian Cooperation, UK Aid (DFID), German Development Cooperation (GIZ and KfW) and the Swiss Development Cooperation (SDC).

Since the date of signing the grant agreement (Belgian Cooperation, SDC, and GIZ) and the MoU (DFID) with the MOH, major decisions concerning the CDPF activities have been undertaken by the CDPF Steering Committee.

Table 20: CPDF: Grands from DPs, 2008-2013

Name of Donor	Date received	From 01 October 2012 up to 20 June 2013 (RWF)	Previous situation from 2008 to 30 September 2012 (RWF)
DFID			2 051 795 833
GIZ	10/12/2012	80 825 076	307 221 609
SDC	12/04/2013	407 704 200	694 072 020
BTC			386 218 300
GIZ/KfW			76 488 270
TOTAL		488 529 276	3 515 796 032

#### Overview of HRH training programs currently supported by the CDPF

Institution	Program	Target population	Duration	Objective/Content	Final output
Byumba Nursing School	Nursing program, upgrading A2 to A1	A2 nurses	3 years	Upgrading A2 nurses to A1	Diploma
Byumba Nursing School	Midwifery program	A2 nurses	3 years	Training A1 midwives	Diploma
Kabgayi Nursing School	Nursing program, upgrading A2 to A1	A2 nurses	3 years	Upgrading A2 nurses to A1	Diploma
Kabgayi Nursing School	Midwifery program	A2 nurses	3 years	Training A1 midwives	Diploma
Kibungo Nursing School	Nursing program, upgrading A2 to A1	A2 nurses	3 years	Upgrading A2 nurses to A1	Diploma
Kibungo Nursing School	Midwifery program	A2 nurses	3 years	Training A1 midwives	Diploma
Nyagatare Nursing School	Nursing program, upgrading A2 to A1	A2 nurses	3 years	Upgrading A2 nurses to A1	Diploma
Nyagatare Nursing School	Midwifery program	A2 nurses	3 years	Training A1 midwives	Diploma
Rwamagana Nursing School	Nursing program, upgrading A2 to A1	A2 nurses	3 years	What type of training (clinical o	Diploma
Rwamagana Nursing School	Midwifery program	A2 nurses	3 years	Training A0 midwives	Diploma
Kigali Health Institute	Clinical officer	A1 general nurses or A1 clinical officer	2 years	Trained in: 1) Management of Health center 2) Community health (plan, implement, monitor, and evaluate) 3) Clinical care	Diploma
Kigali Health Institute	Midwifery program	A2 nurses	2 years	Training A0 midwives	Diploma
National University of Rwanda/ School of Public	Masters of Hospital Management and		2 years	Training hospital managers	Masters degree
National University of Rwanda/ Faculty of medicine	Undergraduate program	Students in the fac	3 years	Funds will be use to buy books	Bachelors degree/ general medecine and surgery
Rwanda Biomedical Centre/ Medical Maintenance Division	Undergraduate program	Students in the fac	3 years	Train biomedical technicians	Certificate

All above mentioned activities are planned to be conducted in three years: Jan 2012 - Dec 2014.

The CDPF's overall priority is in line with the efforts of strengthening HRH under HSSP III, and thereby to ensure availability of an adequate, equitably distributed, quality, motivated and productive health workforce responsive to the country's changing needs and demands

# III. 6 Private Health Facilities

#### **Objectives**:

To ensure policy formulation and dissemination of norms and standards in relation with health care provision. (2) To conduct the accreditation process. (3) To ensure the quality of services delivered. (4) To coordinate capacity building for a proper quality of services delivered in private health settings For the period of July 2012 – June 2013, the main activities achieved are:

- 1. Training on Maternal death audit for 60 health staff in 26 private clinics, Polyclinics and Hospital.
- 2. Inspection and supervision in all private health facilities
- 3. To review the tariffs of Private Clinic, Polyclinic and Hospital
- 4. Norms and standards and Ministerial instruction governing private health facilities, done but still awaiting for signature.

# IV. HUMAN RESOURCES FOR HEALTH

# Program Objective: To increase the availability and quality of human resources

The overall objective of HRH Department in the Ministry of Health is to improve the availability, quality and rational use of HR for Health. The focuses are:

- Increase the availability of health personnel related to the reduction of maternal mortality, more specifically midwives.
- Improve the geographical distribution of health personnel across the country, between rural and urban areas.

Main achievements for the period July 2012 – June 2013:

# IV.1 Human Resources Information System (HRIS)

HRIS is a tool used to collect data on Human resources and is helpfull in the management of the health workforce. Training on HRIS has been conducted at Muhanga and Rwamagana Districts on September 25-28, 2012 (Central level HR Managers, Administrators and HRs for District Hospitals). Training on HRIS in November 2012 (29-30) concerned IT of District Hospitals and HRs of CHUK, RMH.

Human Resource for Health Information System (HRIS) is operational in different health facilities. All district hospital users tried to update their data, except Kibagabaga, Rwinkwavu, Kabgayi, Remera-Rukoma, Ngarama that started recently. The challenges are that all Health facilities don't record data as requested and timely. Other challenges are the high turnover of HR officers in some health facilities, while the process is not fully operational in RBC where 600 staff need to be filed through HRIS.

# IV.2 Human Resources Development Desk

The Capacity Building plan has been developed and is being implemented. Training for specialized doctors and upgrading A2 Nurses to A1 is ongoing.

- 1. A 7 year MoU has been concluded between the Rwanda and 23 US Academic Institutions that availed 92 specialists to train doctors for specialization. For the first year of the MoU, some 82 doctors have been enrolled in 7 different specialties. As of June 2013, a total of 153 doctors were pursuing a specialization program in Rwanda in different areas of Clinical services, while 51 others were pursuing clinical specialization abroad (heart surgery, neurosurgery, oncology, eye surgery, maxilla-facial surgery, heart diseases, etc). For the year 2012-2013, 7 new doctors have been enrolled to pursue clinical specialization abroad. The specialization program is ongoing and 91 new doctors are expected to start in Q1/2013-2014.
- 2. **Doctors that will finish their specialization in 2013:** A total of 25 doctors are supposed to finish their specialized studies abroad by Dec 2013. Currently, the situation is as follows: 3 doctors have finished and have returned, 5 have finished but are in process to return, 17 will finish by end of December 2013.
- 3. **For Nursing and Midwifery**: A Total 731 nurses and Midwives students are currently enrolled in the 5 Nursing Schools and KHI as well as 313 A2 nurses that are enrolled in e-learning programs

for being updraded to A1 level, while 230 A2 Nurses have been enrolled to pursue Midwifery studies in order to be upgraded to A1 level after one year.

4. **In the year 2012-2013**, some 281 Students passed the final exam (81%). Several refresher workshops have been organized for Teachers on TB management, Nursing care process, Neonatal midwifery, e-learning pedagogy training, etc.

# IV.3 Continuous Professional Development (CPD)

CPD Program is also designed to empower Rwandan physicians and dentists and the health sector team to deliver quality service to the Rwandans, as well as citizens of the world who live in Rwanda, so they can be able to access quality health care without traveling abroad.

Rwanda Medical Council has approved and established a Continuing Professional Development (CPD) Program to improve, and update the skills and ability of all doctors and to ensure that appropriate, high-quality health services are being provided to patients with the ultimate goal of improving health care delivery. Achievement in FY 2012-2013 (July-December 2012) are: (1) Development of the CPD Program M&E Plan; (2) CPD flyers and posters developed; (3) CPD forms developed; (4) Accreditation of 24 Health Professional Societies as CPD providers; (5) Accreditation of 45 Hospitals as CPD providers; (6) Organization of 39 CPD trainings& Courses.

# IV.4 Deployment of Health Professionals in Health Facilities

By end of June 2013: Using the HRIS tool, the situation of the HRH was as follows in the public sector: a total of 17475 Health Staff with 171 Medical Specialists, 520 General Practitioners, 22 Master's in Nursing, 147 A0 Nurses, 2536 A1 Nurses, 492 Midwives and 6163 A2 Nurses.

At Central level, 6 News Civil Servants and 47 New staff under contract have been recruited. 10 position for Civil Servants are in recruitment process while 35 position for under contract staff were in process of recruitment. Meanwhile, 9 Civil servants and 11 staff under contract have resigned.

Table 21: Deployment of Health Staff in 2012-2013

Intern Doctors	Doctors	Nurses	Midwives	Radiologists	Anesthesiolo.	Mental H.
92	130	254	148	11	30	10
Hygienist	Clinical Psycho	Pharmacists	Dentists	Laboratory	Physiotherap.	Ophtalmo.
9	9	8	6	20	5	3

Source: MoH

FY 2012- 2013 HR Budget: 20 billions were allocated to District Health Facilities

FY 2013-2014 HR budget: 22.8 billions were allocated to District Health Facilities

In collaboration with MINECOFIN and MIFOTRA, a commitment of 3.5 billions as additional budget for Districts Health Facilities has been made.

The Tools for HR Management have been developed. A new PBF index and index value for Teaching Hospitals have been proposed and implemented. A new structure for MOH has been proposed to MIFOTRA. Training on Workload indicator staff needs (WISN) was conducted. Training on HRIS was carried out and 80% of Health facilities are using the tool, but the process needs to be improved.

# V. FINANCIAL ACCESSIBILITY

**Program Objective:** To ensure universal health insurance and risk equalization achieved for all and sustainable and equitable financing of the health sector

Through HSSP, the objective of the program is to improve the financial access of the population to health services. Within this overall objective, the programme is expected to:

- Increase financial resources to the Health Sector in line with requirements to meet the HSSP targets.
- Improve efficiency, allocation, and utilisation of financial resources in the Health Sector in line with the objectives of EDPRS and HSSP.
- Reduce cost and affordability barriers in accessing essential health care through expansion of CBHI across the country, based on a thorough analysis of best practices and financial sustainability.
- Contract "Mutuelles de santé" to cover membership of the poorest through block grant transfers to administrative districts.
- Develop a pricing policy on high impact health services receiving public subsidies.

There are 4 major funding sources for the Rwanda Health Sector:

- 1. Government Revenues which include revenues generated from taxation, loans, grants, donations, and DP contributions through General and Sector Budget Support, thus being "onbudget"
- 2. Health insurance pooled funds (Mutuelles de Santé or Community based health insurance) from household expenditures, which are currently subsidized by the Government
- 3. Private funds and internally generated funds from health facilities
- 4. Donor funds, partially on budget as seen in the development budget, and partially earmarked and project related, thus being "off-budget"

# V.1 The proportion of the Government Budget allocated to health

The percentage of Government budget for health has also increased from 8.2% in 2005 to 9.1% in 2008. In the fiscal year 2009-2010, the percentage of Government budget allocated to Health was: 10.2% and 11.5% in 2010-2011. When all the budgets allocated to health in the public institutions are put together, the allocation rate was 16.05% 2011-2012 and 15.5% in 2012-2013.

# V.2 Budget allocation and Budget execution

Table 22: Budget allocation and execution, 2012-2013

· ·	APPPLROVED	COMMITED	BALANCE	%
PROGRAMS	45,936,369,547	50,762,149,289	- 4,825,779,742	111%
01 DEVELOPMENT OF SECTOR INSTITUTIONAL CAPACITY	2,189,342,810	2,313,782,966	-124,440,156	106%
02 HUMAN RESOURCES FOR HEALTH	6,883,547,534	7,105,309,608	-221,762,074	103%
03 FINANCIAL ACCCESSIBILITY TO HEALTH SERVICES	4,654,189,344	4,650,743,947	3,445,397	100%
04 GEOGRAPHIC ACCESSIBILITY TO HEALTH SERVICES	11,351,540,512	15,862,409,119	- 4,510,868,607	140%*
05 AVAILABILITY OF DRUGS AND CONSUMABLES	803,845,402	603,298,799	200,546,603	75%
06 QUALITY AND DEMAND FOR SERVICES IN THE CONTROL OF DISEASES	9,499,096,484	9,465,249,016	33,847,468	100%
07 DEVELOPMENT OF NATIONAL SPECIALISED REFERENCE AND RESEARCH SERVICES	6,239,944,857	6,249,302,089	-9,357,232	100%
08 REINFORCEMENT OF FAMILY PLANNING AND REPRODUCTIVE HEALTH	925,612,219	921,561,529	4,050,690	100%
09 DISEASES PREVENTION	1,635,803,127	1,796,913,427	-161,110,300	110%
10 DIGNOSTIC AND TREATMENT OF DISEASES	1,753,447,258	1,793,578,789	-40,131,531	102%

Note: \* over spending in Geographical accessibility is caused by Activities of medical infrastructures and medical equipments financed by KfW budget support.

Table 23: Health Budget allocated to Districts, 2012-2013

BUDGET EXECUTION FOR DISTRICT	APPPLROVED	COMMITED	BALANCE	%
BUDGET				
33 HUMAN RESOURCE DEVELOPMENT (MINISANTE)	19,906,413,636	19,460,576,567	445,837,069	98%
34 FINANCIAL ACCESSIBILITY TO HEALTH SERVICES(MINISANTE)	1,598,856,755	1,588,715,727	10,141,028	99%
35 GEOGRAPHICAL ACCESSIBILITY TO HEALTH SERVICES(MINISANTE)	2,206,173,816	1,977,619,340	228,554,476	90%
36 QUALITY AND DEMAND FOR SERVICES IN THE CONTROL OF DISEASES(MINISANTE)	1,039,490,176	1,039,490,176	0	100%
TOTAL	24,750,934,383	24,066,401,810	684,532,573	97%

Source: MoH/Finance Unit 2012-2013

# V.3 Community Based Health Insurance (CBHI): Mutuelles de Santé

The Community Based Health Insurance (CBHI) scheme is one of the Rwanda's flagship health financing policies, and a major program put in place to improve financial accessibility to health services across the population, and address the major challenges facing the Rwandan Government of reducing the financial burden of access to health services, increasing equity in access, in a country where 45 percent of the population is living under the poverty line.

In 1999, the Government of Rwanda introduced the Community Based Health Insurance in three districts as part of a pilot phase (KABGAYI, KABUTARE and BYUMBA) which covered at least 52 health centers and three district hospitals. In 2005, the Government extended the CBHI scheme to all the 30 districts and in 2006, a Ministerial instruction was issued to strengthen the program.

From 2006 to 2010, a flat premium of 1,000 RWF/person was used but not sufficient to allow full payment of invoices, generating important arrears. Since then, a new policy based on a stratified payment of premiums is in place. After the development of the SoP manual, a routine data quality assessment tool and manual have been produced for an easy monitoring and management of CBHI data quality at decentralized level.

#### Achievements in 2012-2013:

In the fiscal year 2012-2013, according to reports from Districts, the CBHI adherence has reached 81%, down from 90.7% in 2011-2012. Total payment of CBHI: 16.2 billions. However, those figures are being cross-checked prior to the final validation. The population contributed for 66% (11bn), while the Government paid 24% (OB + GF). The OB part was used to cover the contributions for indigents, the payment of referral hospital bills and support to cover the running costs of CBHI.

Figure 31: Evolution of CBHI coverage rate.

#### 91.0% 90.7% 100% 85% 86% 80% 75% 73% 60% 44% 40% 27% 20% 0% 2011-2012-2003 2004 2005 2006 2007 2008 2009 2010 2013 2012 Evolution of Coverage rate 44% 90.7% 80.9% 27% 73% 75% 85% 86% 91.0%

**Evolution of Coverage rate** 

Source: HFU/CBHI Annual report, 2012-2013

Table 24: CBHI: Total Contribution per category by Province, 2012-2013

	NORTHERN	SOUTHERN	EASTERN	WESTERN	KIGALI	NATIONAL
Cat. I	750,208,000	1,407,240,000	822,444,000	1,109,640,000	327,650,000	4,417,182,000
Cat. II	2,176,583,713	2,707,325,784	3,180,085,318	2,690,169,773	1,017,073,592	11,771,238,180
Cat. III	2,453,500	924,000	36,543,500	4,354,000	3,570,000	47,845,000
TOTAL	2,929,245,213	4,115,489,784	4,039,072,818	3,804,163,773	1,348,293,592	16,236,265,180

Source: MoH/HFU/CBHI annual report, 2012-2013

# CBHI Financial Statement: FY 2011/12 VS. FY 2012/13

CBHI Sections					
REVENUES					
Source of Revenues (Millions of RWF)	FY 2011-2012	FY 2012-2013			
Premiums Cat I	4.649.588.000	4.417.182.000			
Premiums Cat II	12.829.485.028	11.771.238.180			
Premiums Cat III	20.744.825	47.845.000			
Co-payment	1.212.859.004	1.334.935.712			
Other revenues	755.596.824	714.708.756			
TOTAL	19.468.273.681	18.285.909.648			
EXPENDITURES					
Source of Expenditures (Millions of RWF)	FY 2011-2012	FY 2012-2013			
Health Care Reimbursement	7.215.225.721	8.030.727.934			
Operation cost	1.296.192.915	678.054.637			
Salaries	611.230.879	113.137.296			
Total Transfer to District Risk Pool	8.171.812.812	6.373.797.028			
Transfer to Common Account	871.107.835	1.901.516.906			
Transfer from Premium Account to Petty Cash	7.872.885	-			
TOTAL	18.173.443.047	17.097.233.801			
RESERVES at Section Level	-	1.188.675.847			

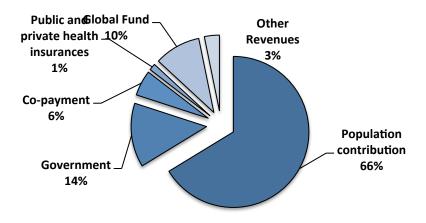
Source: MoH/HFU/CBHI annual report, 2012-2013

CBHI District						
REVENUES						
Source of revenues (Millions of RWF)	FY 2011-2012	FY 2012-2013				
Opening Balance	-	2.193.521.757				
Premiums 45% (received from sections)	6.108.037.499	8.798.538.605				
Total Revenue from National Level Received	1.143.087.941	1.298.479.695				
Other transfers from section/ district (Including for the common						
account)	1.102.208.927	2.262.933.187				
Other revenues	2.148.379.655	33.525.424				
TOTAL	10.501.714.022	14.586.998.668				
EXPENDITURES						
Source of Expenditures (Millions of RWF)	FY 2011-2012	FY 2012-2013				
DH Health Care reimbursement	8.095.878.048	10.717.472.077				
Operation cost	848.646.259	815.072.916				
Salaries	1.468.740.168	3.284.290.681				
Transfers to the NPR	394.437.364	657.271.395				
TOTAL	10.807.701.839	15.474.107.069				
DEFICIT	-305.987.817	-887.108.401				
	•					
National Pooling Risk						
REVENUES						
Source of revenues (Millions of RWF)	FY 2011-2012	FY 2012-2013				
Opening balance	298.854.273	344.303.637				
Cash transfers from MINECOFIN	2.113.047.078	2.674.991.347				
Transfer from district	384.514.355	1.011.903.190				
Private health insurance contribution and other income from district	530.384.098	349.627.101				
Other Revenues	114.211.560	36.398.000				
TOTAL	3.441.011.364	4.417.223.275				
EXPENDITURES						
Source of Expenditures (Millions of RWF)	FY 2011-2012	FY 2012-2013				
NRH Health Care reimbursement	3.201.651.384	4.321.585.055				
Operation cost	129.474.089	10.734.170				
Transfers	75.413.639	-				
Transfers						

Utilization- CBHI Members	FY 2011-2012	FY 2012-2013
Total Number of external Consultations at Health Centres	6,778,117	6,507,952
Total Number of Hospitalizations at Health Centres	559,232	366,343
Total visit	7,337,349	6,874,295
Number of members enrolled		
Utilization rate OPD	0.98	1.16
Utilization rate OPD & IPD	1.06	1.23

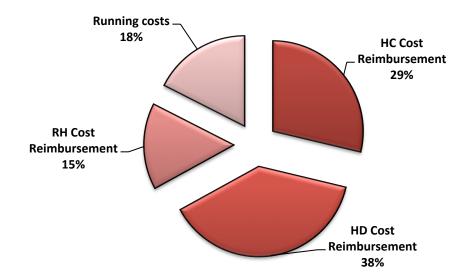
Source: MoH/HFU/CBHI annual report, 2012-2013

Figure 32: CBHI: Sources of Funds, 2012-2013



Source: MoH/HFU annual report, 2012-2013

Figure 33: CBHI: Expenditures in 2012-2013



Source: MoH/HFU annual report, 2012-2013

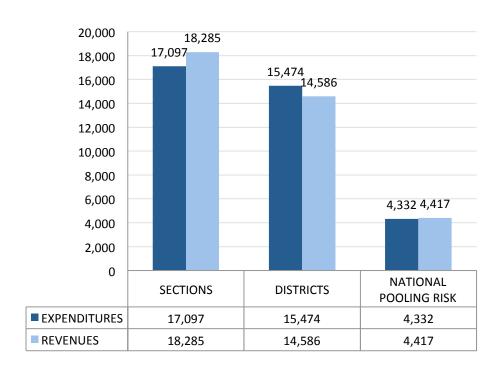


Figure 34: CBHI: Total amounts of expenditures, 2012-2013

Source: MoH/HFU annual report, 2012-2013

In general at section level all expenses are covered (HC bills, running costs and transfers of 45% of premiums to the district pooling risk). However, a gap totalizing 1,927,572,504 RWF was observed in 16 Districts, while 14 other districts had surplus. The overall gap of CBHI (difference between gaps and surplus) is 887,108,401 RWF at District Pooling Risk. Meanwhile, the National Pooling Risk had a surplus of 84,904,050 RWF.

### V.5 Performance Based Financing (PBF)

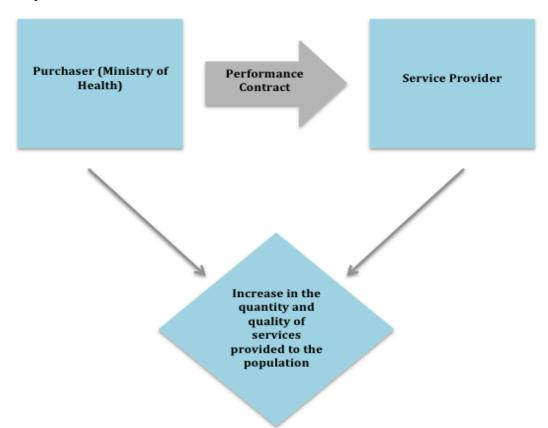
#### **Context:**

Improving the quality of health care and health services is a constant concern of the Ministry of Health and, this constitutes one of the priorities of the Health Sector Policy and Strategic Plan.

Addressing the financial barrier through community-based health insurance (CBHI) is not enough to guarantee access to health services when the quality and the quantity of services provided is poor and/or insufficient. To avoid such constraints, the Ministry of Health, in collaboration with Development Partners, has developed and implemented a performance-based financing scheme (PBF), along with CBHI and quality assurance, to ensure good quality healthcare.

Also, in order to achieve MDGs and other health targets as recommended in the 2020 Vision, the Performance Based Financing (PBF) was introduced as a strategy to motivate care providers and support health establishments to improve the quality of services.

#### Principles of PBF



PBF has the potential to overcome important demand and supply constraints, thus increasing utilization of health care services. By linking incentives to the achievement of pre-defined outputs, PBF can raise staff motivation and increase resources in health facilities. PBF can empower users of health services by giving them a way to rate the quality of the services provided. It can also improve efficiency and equity in resource allocation. Improving all these aspects can lead to overall better performance, which ultimately can raise utilization of health services.

#### Achievements in 2012-2013

#### 1. Evaluation of DHs for CPA, TB and HIV

One peer evaluation and three central level evaluations are conducted annually. Each type of evaluation is organized once per semester.

**Peer evaluations:** measuring the quality of the care provided as well as providing DHs with an opportunity to exchange experiences with DH peer evaluators.

**Evaluation by central level:** It is carried out by HFU/CAAC evaluators. They are not expected by DHs and so they serve to measure the quality of health services during their daily work. They use direct observations and interviews with patients to get their opinion on the quality they receive.

#### 2. Evaluation of PBF in Health Centers

The payment for performance based on PBF indicators in Health Centres occurs quarterly. The amount paid depends on the performance of health facilities on both quantity and quality indicators, as evaluated during the evaluation period.

**Quantitative Evaluation:** every month, the District Steering Committee mandates a team to evaluate each health centre on quantity data - the volume of services provided for each indicator: registries, patient records and all available sources of information are reviewed.

**Qualitative Evaluation:** the DHs mandate a team of evaluators with PBF supervisors among the team. The schedule for these evaluations is not shared with HCs in order to maintain a surprise effect. These evaluations occur on a quarterly basis.

#### 2. PBF Results for 2012-2013: District Hospitals: CPA indicators for 2012-2013.

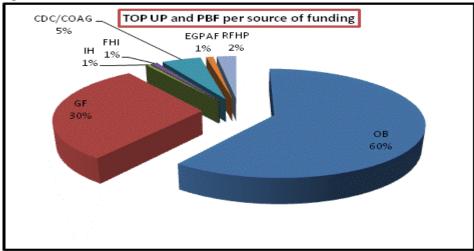
The overall average score for all DHs was just above 80 percent. The highest average score was 89% while the lowest score was 72%. All hospitals are evaluated on three main components: functioning, supervision and clinical services.

Table 25: PBF: Financial contributions, 2012-2013

Source	Indicators	TOTAL CONTRIBUTION FOR JULY 2012-JUNE 2013 (Frw)				
		July-Sept12	Oct-Dec12	Jan-Mar 13	April-June 13	Total
OB	CPA	1,149,768,542	1,556,470,256	1,241,899,960	1,556,557,351	5,504,696,109
	MPA	469,376,876	383,203,358	402,788,900	424,579,138	1,679,948,272
	СР	29,018,400	29,018,400	29,018,400	29,018,400	116,073,600
Subtotal O	rdinary Budget	1,648,163,818	1,968,692,014	1,673,707,260	2,010,154,889	7,300,717,981
GF	HIV	751,875 940	642,621,740	708,828,877	396,626,924	2,499,953,481
	ТВ	132,218,500	329,014,179	323,076,874	338,104,395	1,122,413,948
Subtotal G	F Budget	884,094,440	971,635,919	1,031,905,751	734,731,319	3,622,367,429
IH	HIV	34,521,360	28,888,771	-	-	63,410,131
FHI	HIV	59,531,503	50,684,604	-	-	110,216,107
CDC/CO AG	CPA and HIV	179,036,527	142,146,470	147,902,801	143,931,221	613,017,019
EGPAF	HIV	64,129,899	49,359,634	-	-	113,489,533
RFHP	HIV	-	-	148,338,949	157,541,904	305,880,853
Subtotal U	S Gov Agencies	337,219,289	271,079,479	296,241,750	301,473,125	1,206,013,643
Total PBF	Clinical Budget	2,869,477,547	3,211,407,412	3,001,854,761	3,046,359,333	12,129,099,053
GF contril	bution ( in US\$)	1,361,612	1,496,436	1,589,259	1,131,574	5,578,881

Source: HFU Annual report, 2012-2013

Figure 35: PBF: Sources of funds



Source: HFU/MoH Annual report, 2012-2013

According to the table above, the GoR is the most important funding source for PBF and TOP UP. Through the ordinary budget, the GoR funded CPA, MPA and district SCs. The Global Fund was the second funding source and contributed for the reimbursement of TB and HIV indicators. HIV indicators were also funded by IH, FHI 360, EGPAF and CDC/COAG contributed for CPA indicators.

The funds utilized by the GoR accounted for 60% of the total PBF budget. The Global Fund made up 30%, followed by a 10 percent made up jointly by CDC/COAG (5%), RFHP (2%) EGPAF (1%), FHI (1%) and IH (1%).

**Table 26: PBF: Revenues and Expenditures** 

	FY 2011-2012	FY 2012-2013
Total Revenues (A)	4 593 899 875	4 631 114 935
Operating expenses		
Compensation of Employees	416 724 362	372 433 606
Use of Goods and Services	345 415 397	219 621 735
Transfers to Reporting Entities	18 976 501	16 598 980
Grant and other transfer payments	3 800 106 536	3 802 009 310
Total operating expenses	4 581 222 796	4 410 663 631
Total expenses (B)	4 581 222 796	4 410 663 631
Surplus/deficit (C=A-B)	12 677 079	220 451 304

Source: MoH/HFU, Annual report 2012-2013

## VI. GEOGRAPHICAL ACCESSIBILITY

Program Objective: To ensure geographical accessibility to health services for all

**Global objective:** Expand geographical access of the population to operational health services. By end of June 2013, the following activities were achieved:

### **VI.1 Construction of Health Facilities**

Table 27: Constructions of Health Facilities: updates 2012-2013

Designation	Progress	Observation	Source of Funds
	Completed infra	structures	
Kinihira District Hospital	Cinihira District Hospital Constructions finished at 100% Already operationalize		
Bushenge District Hospital	Bushenge already constructed at 98%. Partial handover was made on Nov. 16 <sup>th</sup> , 2012	Operational, except Operating theatre and X-Ray, Also, water waste equipment is not yet supplied.	GoR and Belgian Cooperation
3 District hospitals partially constructed by June 2013: - KIREHE 80%, - KIBUYE: 70% - NYABIKENKE: <b>20</b> %	<ol> <li>(1) Construction works of Kirehe Hospital are at 78%.</li> <li>(2) Construction works of Kibuye (Karongi) Hospital are at least at 75%.</li> <li>(3) For Nyabikenke hospital, the expropriation process has delayed.</li> </ol>	Kirehe and Karongi are on track. For Nyabikenke, delay was due to mistakes made in the expropriation document. However, the company has been selected.	GoR. For Kirehe and Karongi, the contracts are managed by the District. MoH is responsible for paying. PIH participates in payment for Kirehe.
Architectural design for 3 hospitals developed: RUTARE, MUHORORO BYUMBA	Detailed architectural and technical designs of Rutare and Byumba hospitals are on final phase.	For Muhororo, the typical District Hospital design will be used.	GoR
Construction of Mukura HC (Huye) and of Mbogo HC (Rulindo)	The construction works of Mbogo Health Center are at 65% and for Mukura are at 80%		GoR
20 Mortuary infrastructures constructed in 20	The construction works done are estimated at 90% for 20 mortuaries.	Constructions in Shyira and Kabutare have been	GoR

District hospitals		delayed due to problems to find appropriate sites.	
5 Maternities constructed in various hospitals and health centers: Ruhengeri hospital Gatsibo, Mulindi, Gacuba II and Mataba health centers	For Ruhengeri, Gatsibo, Mulindi and Mataba, and Jarama the construction works are done at 95%.	Note: Maternity of Jarama Health center (in Ngoma District) that replaced Gacuba II, because there is already another maternity in Gacuba II.	GoR
13 new health centers equipped	Installation completed for 12 HCs.	Mukura HC is still under construction but equipment is available.	GoR
10 incinerators supplied to 10 District hospitals	Civil works completed. The supply of 26 incinerators (instead of 10). Installation is done at 90%.		GoR
Emergency ward constructed in Nyagatare Hospital	The construction works are done at 95%.		GoR
9 Ambulances distributed in District hospitals and 1 boat ambulance operational in Kivu Lake	Water ambulance already functional in Kivu Lake. 18 ambulances have been distributed in Feb. 2013.	2 ambulances from KFW and 16 from SPIU.	GoR
Rehabilitation and equipment of Rwanda Military Hospital	Maternity and Intensive Care Unit constructed at 100%	Equipments have been purchased and are under installation	GoR

Source: RBC Annual Report 2012-2013

Many other Health Centres have been constructed by Districts under RLSDF funds. The City of Kigali has completed the construction of 4 modern Health centers and the process of their equipment is ongoing.

Figure 36: Bushenge District Hospital



To improve accessibility construction of different health facilities has been achieved or is ongoing: construction of Bushenge, Kinihira, Kibuye and Kirehe Hospitals, maternities in different hospitals and Health centres, emergency awards, 18 mortuary blocs in different hospitals and construction of 26 incinerators in health facilities and installation of an industrial incinerator in Mageragere (Nyarugenge District)

### VI.2 Emergency Medical Aid Service (SAMU)

**Mission of SAMU:** To ensure a permanent medical listening 24h/24 hrs all days of year providing appropriate response to the demand formulated by the population in terms of:

- Carrying rescue interventions according to the emergency;
- Transporting patients in adapted health facilities respecting their choice;
- Regulating air ambulance according to the minister's instructions;
- Providing advanced life support whenever and wherever necessary;
- Participating in elaboration of emergency and contingency national plans.

# a) Deployment of Emergency and Resuscitation Mobile Service (ERMS) in City of Kigali and in Provinces

SAMU deployed **5 ERMS** in the City of Kigali aiming at timely and effectively responding to any emergency call arriving at 912-Call Centre. The deployment sites are: Avega Health Centre, RMH, Gahanga Health Centre and CHUK. One ERMS was deployed in Karongi to work as pre-hospital care providers using **a water ambulance in Lake Kivu**. **26 ground ambulances** were distributed in different Districts

#### b) Pre-hospital emergency care interventions

The total number of emergency care interventions during 2012/2013 fiscal year was 3155. As shown by the chart below, they were dominated by saving victims of traffic accidents and transfers between Health Facilities.

Inter-hospital transfers

31%

Gyn/obs
12%

Medical
15%

Other
accidents
7%

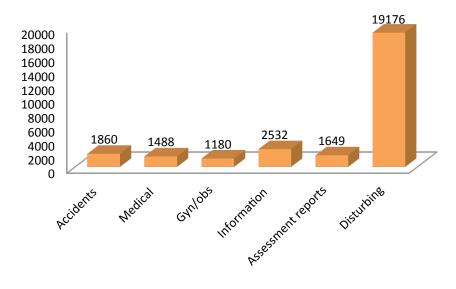
Figure 37: SAMU: Interventions in 2012-2013

Source: SAMU annual report, 2012-2013

#### c) Calls received at 912-Call Centre: 26518\

In 2012/2013, the 912-Call Centre received a total of 26,518 calls. Disturbing calls were high as usual. Those requesting information and interventions for accident victims were also significant as shown by the chart below.

Figure 38: SAMU: Calls received at 912 Call Centre (26,518)



Source: SAMU, annual report 2012-2013

### VII. DRUGS, VACCINES AND CONSUMABLES

**Program objective:** To ensure availability and rational use at all levels, of quality drugs, vaccines and consumables

Global Objective: Improve the availability of medicines, vaccines and consumables

### VII.1 Regulatory Body for the Pharmaceutical Sector

The mission is to protect and promote public health by ensuring availability of quality, cost effective, safe and effective use of medicines, food, cosmetics and medical devices to the population. The production, procurement and distribution of medicines and commodities are ensured by the Rwanda Biomedical Centre (RBC), D/DG Medical Production and Distribution (RBC-MPD) for public health facilities.

#### Main achievements:

Apart from routine activities of licensing and inspections, Pharmacy Desk has achieved the following:

- The Laws regulating the pharmacy sector and pharmacy profession have been published and gazetted in the official gazette on 17th January 2013.
- The law establishing the RFMA has been approved by Parliament and wait to be published in the official gazette.
- Law enforcement: ministerial orders have been drafted, those orders include those related to control of narcotics and pshychotropic; Pharmaceutical Importation control, Medicine Registration, code of ethic and conduct of pharmacists.
- 4 All documents related to Registration, GMP inspection, QMS and IMS have been developed and are ready for validation.
- The African traditional medicine week has been organized and 100 participants attend it in October 2012.
- 6 Traditional medicine practioners organization started 9 district pharmacies constructed and available for use
- 7 The 11th CPDS for HIV commodities and the 7th CPDS for lab commodities have been completed
- Harmonized LMIS system with new design; and the new reporting tools have been distributed in all Health facilities. E-LMIS processes development reengineering, integration and implementation under process and go live of the system. Developed a national supply chain strategic plan

In order to improve the management of medicines, the Logistics Management Information system (LMIS), that is currently paper based, will be progressively replaced by electronic system, e-LMIS and the process has started. E-LMIS will be rolled out in District Pharmacies and District Hospitals in 2013-2014 and this will help to prevent stock outs of medicines in the Health Facilities.

### VII.2 Production Procurement and Distribution of Drugs/Medicines

Drugs and vaccines are very important for the provision of the Primary Health Care and, the availability of medicines is one of the key measurements in the supply of health services to the population. For this purpose, the priority has been given to essential and generic medicines.

In accordance with the pharmaceutical policy of Rwanda, RBC/MPPD/MPD (old CAMERWA) was given as specific mission to ensure the availability of the essential drugs, medical equipments and consumables of quality at an affordable price.

Availability of vital products to Health Facilities on a weekly basis and other pharmaceutical products for MoH vertical programs (HIV, TB, Malaria, NRL, NCBT...). For the quality of products and the safety of patients, the Quality Control of pharmaceutical products was carried out.

Active distribution program started in 2009 and is currently running routinely. The distribution of medicines is made in all 30 districts pharmacies on a monthly basis.



Truck used for active drug distribution

According to internal reviews, at least 85% of all needs are met and for this reporting period, 97% of the most commonly used medical products have been procured. Finally, the management of stock outs for essential medicines has started in June 2012 and is thought to reduce drastically the % of sotock outs in District and Hospital pharmacies. Weekly reports are submitted to PMO and overall stock outs are maintained at less than 5% in district pharmacies.

For the production, a study on profitability was done in the and it was recommended to prioritize the production of infusions instead of conceptual design of an MPD plant. In this context 72.000 (32.000 liters) of normal salines 0.9% infusions, complying with international standards were produced locally by RBC-MPD (ex LABOPHAR) and delivered to RBC-MPDD (ex CAMERWA) for distribution.

### VII.3. Supply of Vaccines

The activity comprises three main components: routine vaccination, supplemental immunization activities, and surveillance of target diseases. Routine immunization is intended to reach infants 0-11 months of age and pregnant women, during antenatal care visits.

The procurement and distribution of vaccines were well completed. Moreover, Rwanda has introduced a new combined vaccine against Measles and Rubella, and the vaccine to prevent the cervical cancer is currently provided to young girls aged between 12 and 15 years. Now, children are protected against at least 12 infectious diseases through vaccination. Much effort was put in catch up of drop outs and the coverage for measles has increased from 95% to 99% in 2012 and 2013 respectively.

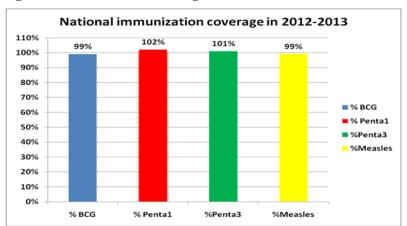


Figure 39: Immunization: coverage in 2012-2013

### **VII.4 Blood Transfusion Services Achievements**

In order to increase accessibility of transfusion services, NCBT has completed the decentralization of its activities at provincial level. Every province has currently a blood center for blood transfusion. NCBT has strengthened blood donor recruitment and retention resulting in increased number of blood units collected to 42,633 from Voluntary, non Remunerated Blood Donors.

Each blood unit collected is tested for TTIs markers through automated machines to mitigate human errors, separated into blood components (Red blood cells, plasma and platelet) in a quality manner to be distributed to all hospitals in Rwanda, public and private.

NCBT is implementing the Blood Establishment Computerization System (BECS) for better management of blood transfusion activities. 3 blood transfusion centres are already interfaced and the remaining 2 others will be interfaced by December 2013. A quality management system is being implemented, based on international standards under the assistance of the American Association of Blood Banks (AABB). For capacity building, 2 medical doctors have been trained in transfusion medicine. One technician has been trained on production of blood component and one Data Manager has been trained on blood bank softwares.

### VIII. QUALITY ASSURANCE

**Programme objective:** To ensure the highest attainable quality of health services at all levels

#### Strategic interventions for quality assurance:

- Strengthening the health system to effectively and efficiently improve quality of services with input from civil society and community representatives
- Institutionalizing standard setting, monitoring and regulation
- Developing and ensuring the implementation of an operational plan for accreditation and certification process at all levels of the health system

### VIII.1 Quality and Accreditation of Health Care and Health Services

The main objectives of accreditation are (i) to standardize systems and practices; (ii) to institutionalize a culture of quality and safety; (iii) measure performance, by implementing a structured system for measuring compliance to standards for improving outcomes; and (iv) to improve accountability of HFs to regulatory or other agencies, such as health professional bodies, government and to protect the interests of patients.

### The main achievements of the Accreditation program in 2012-2013 are:

- 1. **Developed and adapted the Rwanda Essential Hospital Accreditation Standards**: The process started with the adaptation of the *International Essentials of Health Care Quality and Safety* designed by Joint Commission International (JCI) to address the five risk areas for patients in hospitals. Standards were developed according to the International Society for Quality in Healthcare (ISQua) standards, an organization that accredits accrediting bodies.
- 2. **Establishment of the accreditation steering committee at central level:** It is transposing the roles of the in country Accreditation agency that approved the Rwanda Essential Hospital Accreditation Standards. The Ministry of Health officially launched the accreditation program.
- 3. Dissemination of the Rwanda Essential Hospital Accreditation Standards in all 42 district hospitals, and ensured that standards were effectively explained and understood by implementers.
- 4. ToT for 254 staffs on continuous quality improvement from district hospitals and Ministry of Health: 6 staff from each DH was trained.
- 5. Policies and Procedures were disseminated and communicated in all 42 hospitals:
- 6. Training of 18 accreditation surveyors from Ministry of Health and referral hospitals
- 7. Training of 40 accreditation facilitators from Ministry of Health and district hospitals
- 8. Accreditation baseline assessment conducted in 15 hospitals, and facilitated hospitals in development of Hospital Standards Implementation Plans
- 9. Developed the Rwanda Healthcare Accreditation Strategic Plan 2013-2018
- 10. Developed the Rwanda accreditation system model.

### **VIII.2 International Accreditation**

**King Faisal Hospital (KFH)** was awarded a full 2 year accreditation status during FY 2011 - 2012 after a 4-year process of training and facilitation, with an overall score of 99%. Its annual external evaluation has been conducted in the year 2012-2013. KFH now has in place 74 committees that are monitoring compliance with the COHSASA standards and they are guided by Terms of Reference to ensure the committee meetings are properly prepared for.

**CHUK**: The process of accreditation has also started. Its annual external evaluation has been conducted in Q2/2012-2013. Ongoing activities are:

- Strengthening of departmental steering committees
- Drafting policies and procedures, guidelines and protocols.
- The Findings of two projects of quality improvement and patient satisfaction were presented and disseminated in the departments

**CHUB and RMH**: Baseline assessment has already been conducted in CHUB after its important renovation works. It is now ready to start Accreditation process. RMH has also undergone important renovation and extension works. Baseline assessment will be conducted in the year 2013-2014.

### **VIII.3 Accreditation of District Hospitals:**

Norms and clinical standards have been developed and implementation started. Baseline assessment for accreditation has been conducted in 15 district hospitals (Bushenge (PH), Rwamagana (PH), Ruhengeri (RH), Kibungo (RH), Ruhango (PH), Kinihira (PH), Kabgayi (DH), Ruli (DH), Nyamata (DH), Byumba (DH), Gisenyi (DH), Kibuye (RH), Nemba (DH), Gihundwe (DH), Nyagatare (DH).

Teams for quality improvement appointed and trained in all DHs. Teams of surveyors for accreditation have been trained. Teams of external facilitators who will assist DHs in quality improvement and accreditation have been trained. Standards, policies and procedures have been introduced into all District Hospitals and they are in use. Quality Assurance teams are operational and the accreditation support committees have been appointed.

#### **VIII.4 Customer Care**

After the Patient's Charter of Rights and Responsibilities disseminated in 2009, the Customer care check list has been availed in District Hospitals for implementation and regular monitoring is ensured. Customer care check list includes also hygiene indicators.

To improve interaction with the population, the Ministry of Health has set up a hotline (114) to receive all complaints from the population. Complaints are received, processed and feedback systematically provided. For better monitoring and evaluation of customer care, a process of hospital ranking has been put in place.

Finally, regular press conferences and town hall broadcasts are organized to allow the population to ask questions and give their opinions on how the health system can address their health problems.

In 2012-2013, many other activities have been achieved:

- 1. Customer care norms and standards have been defined and disseminated in all Hospitals
- 2. A Ministerial order on customer care has been issued and monitored during supervisions
- 3. Every DH has been provided with a Customer care officer
- 4. District Hospital Staffs have been sensitized on the issues of customer care
- 5. Standards for ranking hospitals in customer care, hygiene and service delivery have been issued and disseminated. The first DHs ranking exercise has been conducted, but is needs to be improved.
- 6. International Standards have been customized for RHs and DHs Standards with emphasize on quality of care, patient safety and service delivery. They are already implemented in RHs and will be soon introduced to DHs.
- 7. The quarterly customer satisfaction survey is integrated in the quarterly PBF evaluation.
- 8. Exemplary staff is recognized and poor services are sanctioned based on their consequences to patients.
- 9. Training of the 42 staff in charge of customer care service in District Hospitals. Items discussed: Concepts and definitions, Customers in health facilities, Health customer needs, Best quality of services provider in health facilities, Major Do's and Don'ts of customer services, Development of a customer friendly approach, Communication with unsatisfied customers, Instructions on Customer care.

## IX. SPECIALIZED SERVICES: NATIONAL REFERRAL HOSPITALS, RESEARCH

**Program objective:** To strengthen specialised services, National Referral Hospitals and research capacity

### The objectives of this program are to:

- Strengthen the national referral hospitals and specialised treatment and research centres. Within the overall objective, the aim is to:
- Achieve significant progress towards national self-sufficiency in the field of tertiary medical care.
- Strengthen the basic skills of the medical body through training of specialized medical personnel.
- Develop a policy framework for clinical research on high morbidity and mortality diseases and to increase research capacities.

### IX.1 University Teaching Hospital of Kigali (CHUK/UTHK)

#### **IX.1.1 Introduction**

It is one of the national referral hospitals with a capacity of 576 beds (30/06/2013) including those of the former Muhima District Hospital, currently merged with UTHK. Its mission is to provide care to the population, to provide education, to develop clinical research, to provide technical support to district hospitals.

At the end of June 2013, CHUK employed 674 people including 50 specialists, 3 dental surgeons and 12 Medical officers. CHUK has also 424 Nurses and 51 Midwives, 102 Paramedicals and 3 Pharmacists.

#### 1. The 20 leading causes of admission at CHUK (June 2012-June 2013)

Table 28: UTHK: 10 leading causes of admission, 2012-2013

Nr	Causes	Number of cases	%
1	Delivery uncomplicated, child alive	886	5.84%
2	Delivery complicated, child alive	547	3.60%
3	Disease of the digestive system	251	1.65%
4	Femoral fracture	201	1.32%
5	Toxemia pregnancy	197	1.30%
6	Tuberculosis	167	1.10%
7	Spontaneous abortion	151	0.99%
8	Other fracture	149	0.98%
9	Pneumonia	145	0.96%
10	Uterine fibroids	134	0.88%

Source: UTHK, annual report, 2012-2013

Table 29: UTHK: 10 most killer diseases, 2012-2013

N°	Denomination	Nb of deaths	Mortality
			/pathology
1	Virus infection HIV	44	37,61%
2	Liver Disease of NCA	37	37%
3	Infectious disease NCA	36	39,13%
4	Tuberculosis	33	19,78%
5	Disease of urinary system	31	24,60%
6	Heart diseases	23	24,47%
7	Pneumonia	16	11,03%
8	Perinatal disease	16	13,22%
9	Malaria	14	28,57%
10	Disease of digestive system	13	5,18%

Source: UTHK, annual report, 2012-2013

Table 30: UTHK: 10 first causes of consultations, 2012-2013

	Denomination	Nb of cases	%
1	Fracture of tibia or perone	1033	0,92%
2	Allergic conjonctivitis	962	0,85%
3	Diabete type 2 or non insulino-	896	0,80%
	dependent		
4	Other fractures	795	0,71%
5	radius or cubitus fracture	593	0,53%
6	Hypertension not complited	507	0,45%
7	Lack of refraction	500	0,44%
7	High blood Pressure	489	0,43%
8	Goiter	480	0,43%
10	Femoral fracture	480	0,43

Source: UTHK, annual report, 2012-2013

Table 31: UTHK: 10 first diseases causing long hospitalization, 2012-2013

	<b>Denomination</b>	Nb of cases	%
1	Femoral fracture	3792	1.89%
2	Disease of the digestive system	3025	1.51%
3	Fracture of tibia or perone	2926	1.46%
4	Tuberculosis	2708	1.35%
5	Other fracture	2339	1.16%
6	Pneumonia	2006	1.00%
7	Toxemia pregnancy	1872	0.93%
8	Virus infection HIV	1667	0.83%
9	Disease of urinary system	1634	0.81%
10	Burn skin	1547	0.77%

Source: UTHK, annual report, 2012-2013

Table 32: UTHK: Status of the main hospital indicators, 2007-2013

Indicators	2007	2008	July 09-	July10-	July11-	July12-
			June 10	June11	June12	June13
Number of beds	418	429	421	425	448	576
Hospitalized	9499	12667	12458	10881	10746	12825
Death	999	1108	991	1215	852	917
Average Occupancy Rate	87	82	83%	83%	77%	72%
Total hospital Days	120,972	128,201	127,555	98,621	126,408	124,957
Daily Nb of admitted Pat.	325	351	349	355	345	341
Mortality rate	10.6%	8.7%	8%	8.1%	7.9%	7%
Average length of stay	12.8	10	10	13.2	12	9
Annual Average turnover	24	30	30	27	24	28

Source: UTHK, annual report, 2012-2013

Table 33: UTHK: Annual consultations by Department, 2012-2013

NIO	Description	2007	2008	July 09- June 10	July 10-	July 11- June 12	July 12- June 13
N°	Department				June 11		
1	Internal Medecine	14394	13084	16010	14480	15107	17345
2	Pediatric	9699	6948	9395	12671	12472	11935
3	Surgery	6556	7414	11624	10740	10481	10741
4	G & O	6125	7936	8309	9517	10304	9425
5	Emergency	13721	12547	28514	27621	20816	30243
6	Stomatology	7647	7337	5963	5912	6207	6241
7	Ophtalmology	5963	7679	5790	6231	5672	4614
8	ENT	9458	7577	6865	5230	6885	7988
9	Dermatology	4401	3862	3679	3879	3542	3460
10	Physiotherapy	15467	14023	14231	10516	9551	10876
	TOTAL	93431	88407	110380	07892	111037	112868

In the year July 2012 - June 2013, accidents and emergencies were the most important causes of consultations in the hospital, followed by internal medicine cases.

### IX.2 University Teaching Hospital of Butare (UTHB)

The University Teaching Hospital of Butare (CHUB) is one of the National Reference Hospitals, with a catchment area of more than 2,811,920 people. The total number of staff is 441 (clinical staff: 82.42%). The hospitalization capacity is 500 beds but only 396 beds are actually operational.

The mission of CHUB is to provide quality health care in accordance with international norms, to develop competencies of health professionals, to contribute to the development of human resources, to conduct high level research, to bring a technical support to the health system, and continue the COHSASA accreditation process.

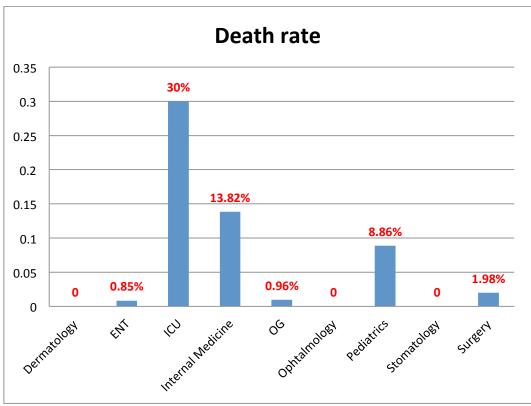
Staff: 40 Specialists, 14 Generalists, 233 Nurses, 74 Midwives, 3 Pharmacists and 77 Administrative staff.

Table 34: UTHB: Consultations and Hospitalizations, 2012-2013

	Out Pa	tient Consu	ltation	-	и О и		
	Consultation	Old cases	New cases	Hospitalization capacity (beds)	Hospitalization	Deaths	Death rate
Dermatology	6550	4162	2388	10	10	0	0
ENT	4968	2364	2604	16	350	3	0.85%
ICU	0	0	0	3	216	65	30%
<b>Internal Medicine</b>	14775	11543	3232	70	1584	219	13.82%
OG	5722	3708	2014	45	2172	21	0.96%
Ophtalmology	5269	2810	2459	6	0	0	0
Pediatrics	7803	2578	5225	70	1624	144	8.86%
Stomatology	6271	3276	2995	0	0	0	0
Surgery	4536	1764	1806	111	1764	35	1.98%
TOTAL	51,358	30,441	20,917	331	5956	452	7.58%

urce: UTHB, annual report, 2012-2013

Figure 40: UTHB: Death rates in CHUB



Source: UTHB, annual report, 2012-2013

The graph shows high death rate in ICU. It's a small service but it receives many patients in critical conditions, with very high probability to die.

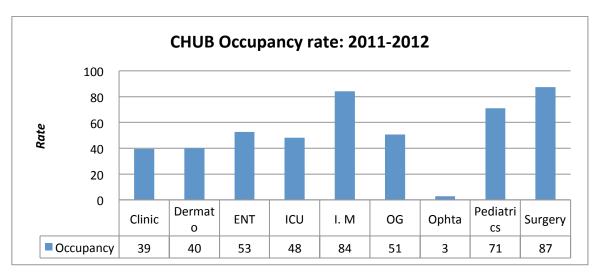
Table 35: UTHB: Evolution of the main hospital indicators, 2005-2012

Indicators	2005	2006	2007	2008	2009	2009- 2010	2010- 2011	2011- 2012
Number of beds (ward)	417	418	418	418	314	325	341	329
Bed occupancy rate (%)	69%	72%	67%	65%	76.9%	72.4%	68.6	70,7
Total hospitalization (Nb of days)				99 401	88 147	78 788	85 349	84 865
Mortality rate (%)	3.3%	3%	5.7%	7.4%	8.6%	9.12%	10.9**	10.2
Average duration of admission (days)	14	15	17	13	11	11	11.8	12.1

Source: UTHB, annual report, 2012-2013

<sup>\*\*</sup> More complicated and end stage patients transferred from DHs. Many premature babies, including "grands prematurés" transferred with delays from DHs

Figure 41: UTHB: Bed occupancy rates, 2012-2013



Source: UTHB, annual report, 2011-2012

Considering bed occupancy rates, Surgery comes first with 87%, due to many surgical operations. Operated patients also require special follow up and they stay several days in the hospital. The second higher occupancy rate is observed in Internal Medicine (84%) due to patients with chronic diseases.

Table 36: UTHB: Leading causes of mortality in different services, 2012-2013

Nº	Department	Diagnoses		
		Top 5 couses of morbidity	Mortality	
1	Pediatrics	Upper respiratory tract infection	1. Congenital heart disease	
		Lower respiratory tract infection	2. Malaria	
		3. Prematurity	3. Urinal tract infection	
		4. Neonatal infection	4. Nephropaty	
		5. Gastro enteritis	5. HIV	
2	Internal	1. Gastro duodenal diseases	1. Malaria	
	Medicine	2. Cardiac diseases	2. Tuberculosis	
		3. Cancer	3. Renal failure	
		4. Respiratory diseases	4. Diabetes	
		5. Liver diseases	5. Hematological diseases	
3	Surgical	1. Closed fractures	1. Physical trauma	
	Ward	2. Open fractures	2. Hernia	
		3. Malignant tumors	3. Non malignant tumors	
		4. Head injuries	4. Intestinal occlusion	
		5. Bone infections (including	5. Peritonitis (non	
		osteomyelitis)	tuberculosis)	

#### **Dialysis Unit:**

The Dialysis Unit oof the UTHB started in January 2007. From January 2013, Two Nipro machine & 2 Gambro machine broke down. Currently, only 3 machines out of 7 are operational.

Table 37: UTHB: Origin of Patients under hemodialysis

Country	Nb of patients
Burundi	2
Referral hospitals	16
District hospitals	8
Belgium	1
Total	27

In 2012-2013, CHUB received 3 patients with acute renal failure, 16 end stage renal failure, and 8 chronic renal failure. The Dialysis Unit faces severe shortage of medical, nurse and paramedical personnel together with insufficient machines. Also, most of patients are at End-Stage Renal Failure and need Renal Replacement Therapy but they can not get it. Another important problem is access hemodialysis due to financial barrier, mainly for adherents to community based health insurance.

### IX.3 National Referral Laboratory (RBC/IHDPC/NRL)

#### Introduction

The National Reference Laboratory (NRL) was established in July 2003 with the main roles to:

- (a) Provide training and technical support to laboratory personnel.
- (b) Establish quality assurance for laboratory network in the country;
- (c) Perform specialized tests for the diagnosis, prevention and surveillance of infectious diseases;
- (d) Participate in the epidemiological surveillance;
- (e) Carrying out research and
- (f) Develop a national medical laboratory system.

### **Programmatic achievements**

Ensure laboratory quality services, 5 district hospital lab are being renovated, 199 lab technologists were trained and 23 district hospitals laboratories were mentored by NRL mentor teams.

RBC/ NRL rolled out the integrated sample transportation system and currently 38 District Hospitals and their Health Centers are covered.

To reduce overload work at NRL, the process for HIV QC decentralization started in KMH, CHUB, Gihundwe, Ruhengeri, and Rwamagana. ELISA machines are being installed while staff is being trained.

Biochemistry specialized tests (protein electrophoresis, electrolytes, blood gas testing) were performed at NRL, CHUK and CHUB

The NRL participated in External International Quality assurance and has tested PT samples from abroad (international labs) of Hematology samples, Biochemistry samples and CD4 samples.

#### IX.4 Research

#### Research conducted in CHUB

#### a) Collaborative research

- 1. Collaborative research has been carried out in the service of Physiology through partnership between NUR/Faculty of Medicine, Cornell University, the University of Oklahoma, supported by HarvestPlus, an international nutrition research program. It is an efficacy study on iron absorption from biofortified beans. Co-Principal Investigator: Prof. Dr Jean Bosco Gahutu
- 2. A Collaborative research through partnership between CHUB and the Institute of Tropical Medicine Berlin, Germany: study on Preventive chemotherapy against soil-transmitted helminths: effectiveness, child health, re-infection, and genetic polymorphisms. Principal Investigator: Dr Frank Mockenhaupt; Co-Principal Investigator: Prof. Dr Jean Bosco Gahutu. Analysis of results is going on

#### b) Research for students' Dissertations.

NUR students from the Faculty of Medicine and from the Faculty of Sciences have conducted their researches in the different departments and have been supervised by the HoD or Doctors of CHUB.

#### c) International Publications

- **1. Gahutu JB**. Clinical chemistry reference intervals in a Rwanda population. *British Journal of Medicine and Medical Research* 2013; **3**(3):532-542.
- **2. Gahutu JB**. Thyroid hormone profile in Rwandan students. *British Biotechnology Journal* 2013; **3**(3):286-292.
- **3. Gahutu JB.** Haematological values at moderate altitude in a low-income population. *International Blood Research & Reviews* 2013; **1**(1):22-28.
- **4.** Demeler J, Ramünke S, Wolken S, Ianiello D, Rinaldi L, **Gahutu JB**, Cringoli G, von Samson-Himmelstjerna G, Krücken J. Discrimination of gastrointestinal nematode eggs from crude fecal egg preparations by inhibitor-resistant conventional and real-time PCR. *PLoS ONE* 2013;**8**(4): e61285. doi:10.1371/journal.pone.0061285.

#### **International Conference Communications:**

- **1. Gahutu JB.** Haematological adaptation to moderate altitude in the Southern Province of Rwanda. Communication presented at the 5th International Scientific Research Conference NUR, 5<sup>th</sup>-7<sup>th</sup> December 2012.
- **2. Gahutu JB.** Standard operating procedures: a key to good laboratory practices. *Oral Communication presented at the 4<sup>th</sup> East African Health and Scientific Conference, Kigali, 27<sup>th</sup>-29<sup>th</sup> March 2013.*
- **3. Gahutu JB.** Modular curriculum in Medical Education. *Poster presented at the 4<sup>th</sup> East African Health and Scientific Conference, Kigali, 27<sup>th</sup>-29<sup>th</sup> March 2013*

## **Researches Conducted in CHUK**

N0	Title of research	Author	Actual situation
1	Malaria prevalence, spatial clustering and		
	risk factors in a low endemic area of Easter	Dr Rulisa	published
2	Barriers and solutions for timely initiation of		
	antenatal care in Kigali, Rwanda: Health		
	facility professionals' perspective.	Dr Rulisa	published
3	Emergency obstetrics knowledge and		
	practical skills retention among medical		
	students in Rwanda following a short	Dr Rulisa	nublished
4	training course.  Prevalence and predictors of giving birth in	Dr Kullsa	published
4	health facilities in Bugesera District,		
	Rwanda.	Dr Rulisa	published
5	Population pharmacokinetics of artemether,	Di Runsu	puonsnea
	dihydroartemisinin and lumefantrine in		
	pregnant women treated for uncomplicated		
	plasmodium falciparum malaria in Rwanda	Dr Rulisa	completed
6	Relationship between cervical dilatation at		
	admission of row risk term pregnant women		
	on labour and mode of delivery. A study at		
	BUTH	Dr Muhire Mathias	completed
7	The outcome of early oral feeding after	D 11	
	caesarean delivery or uncomplicated	Dr Uwiragiye	1 . 4 . 4
8	gynecological abdominal surgery	Norbert	completed
0	The approach of unmet obstetric needs for	Dr Hakizimana	
	major obstetrics interventions in Kigali	Sadoscar	completed
9	Standard antibiotic use versus prophylactric		
	antibiotics to prevent infectious morbidity in cesarean sections in CHUK		completed
10	Prevalence of endometriosis among infertile		Completed
10	women in Rwanda as assessed by		
	laparoscopy	Dr Gakindi Leonard	completed
11	Impact of new vaccine introduction on health		1
	systems	Dr Rulisa	completed
12	Rwanda Injury Registry Project	Byiringiro J.C with	- Compression
	y yy	collaboration of the	
		University of	
		Virginia	
13	Injury Mortality project	Byiringiro J.C and	
		Virginia University	
14	Head injury project	Byiringiro J.C and	
		Duke University	

15	Understanding Prehospital Trauma and		
	Emergency Care in Rwanda Project through	Byiringiro J.C, with	
	the Collaboration with SAMU and Harvard	SAMU and Harvard	
	University	University	
16	Geospatial Analysis of Trauma Referrals in a	Byiringiro J.C,	
	Low-Resource Setting: Implications for	Kyamanywa P,	
	Health System Strengthening	Ntakiyiruta G	
17	Profile and Economic Impact of Motorcycle	Ingabire A.J.C,	
	Injuries Treated at a University Referral	Byiringiro J.C	
	Hospital in Kigali, Rwanda		
18	Can focused trauma education initiatives	Byiringiro J.C,	
	reduce mortality or improve resource	Ntakiyiruta G,	
	utilization in a low-resource setting?		

## **IX. PRIORITIES 2013-2014**

In the fiscal year 2013-2014, the Ministry of Health, RBC and its Partners will continue to implement the HSSP III through its operational plan, with focus on the health sector priorities: Maternal and Child Health, Family planning, prevention, treatment and control of Comunicable and non Communicable diseases, Human resources for health, availability of drugs and other consumables, geographical and financial accessibility.

Apart routine activities of the prevention, treatment and control of disease, the main expected outputs put in the MoH Performance Contract 2013-2014 are:

Outcomes	Outputs	Activities
1 Reduced maternal and child mortality	IMCI improved in District with high mortality rate.	Train health care providers per health facility on ICATT
	Neonatal resuscitation and care improved in District with high mortality rate.	Train health care providers per health facility on HBB
	Nutritional status of children Under five year assessed	Conduct a campaign for screening of children under five, 1000 days campaign
	Use of maternal health services increased	Training of Community Health Workers
2 Married women using modern contraceptive methods increased	Increased accessibility and use to all family planning services	Train 8 remaining districts in Community Based Provision
3 Burden of communicable and non-communicable diseases reduced	Medical checkup of NCDs promoted in health facilities	Issue ministerial instruction and guidelines to health facilities on systematic checkup of NCDs
	Deaths due to malaria reduced in the general population	Organize supportive supervisions Procure antimalaria drugs
4 Ensure quality and availability of human resources for health	Physicians and nurses are increased and deployed	Enrolment of students Deployment of graduates
5 Ensure universal availability and accessibility of drugs and consumables	The use of LMIS is scaled up in Health facilities	Revise essential medicine list Disseminate standard treatment guidelines Ensure stockouts maintained at less than 5%
6 Financial and geographical accessibility to health services improved	% of population registered with CBHI increased.	Payment of premiums for indigents Media campaigns Work with Districts (Ibimina)
	National and District pooling are able to pay 100% of approved hospital bills within 30 days	Establish regular reporting system Organize a training of CBHI Invoices Auditors at sections

		and District
		Payment of referral hospitals
		Medical bills by National
		pooling risk
	Nyabikenke District Hospital is	Regular monitoring of
	partially constructed	construction activities
	Byumba hospital is partially	Recruitment of construction and
	reconstructed phase I	supervision companies
	reconstructed phase r	Conduct regular monitoring of
		construction activities
	Rutare HC is partially	
	rehabilitated/upgraded	Conduct regular monitoring of construction activities
	Nyagatare hospital is partially	Recruitment of supervision and
	rehabilitated (Maternity block is	construction companies
	partially constructed)	Conduct regular monitoring of construction activities
	C + +: CD 1	
	Construction of Ruhengeri	Detailed architectural and
	Hospital started	technical plans
	V1 II : 1 1 I:	Tender document development
	Kibuye Hospital phase I is	Supply the equipments
	equipped	Equipments installation
	Kirehe hospital phase III is	Supply the equipments
	equipped	Equipments installation
	18 Health Centers and one	Supply the equipments
	modern Health Center(Mbogo)	Equipments installation
	are equipped	
	Architectural, technical design	Detailed architectural and
	and tender document	technical plans
		Tender document development
7 The quality of health care	Accreditation baseline	Conduct accreditation baseline
services delivered in health	assessment is conducted for	assessment and progress follow
facilities improved	continuous quality improvement	up in District hospitals
		Conduct external evaluation for
		accreditation in CHUK and
		CHUB
	Capacity in terms of customer	To train 2 staff from each DHs
	care strengthened in District	in charge of customer care
	hospitals	service
	Body hygiene for Rwandans	Organize a campaign on body
	improved	hygiene
		Review ministerial instruction
		on the use of AKANOZASUKU

### **CONCLUSION**

In the fiscal year 2012-2013, the preparation of HSSP-III continued and its implementation started while the Sector participated in the development of EDPRS 2. The list of policies has been revised and reduced, as well as the HSWG to make it better functional.

High impact interventions continued to be implemented to improve the very important progress already observed. During this fiscal year, the MDG 4 target has already been achieved. The combined Measles-Rubella vaccine was introduced, while the plan to eliminate Malnitrition was revised and implemented under the supervision of MINALOC, with roles and responsibilities better defined.

The Kinihira and Bushenge district hospitals were operationalized in their new buildings, several other health facilities extended or renovated while 12 Health Centers were equipped. Several other projects are ongoing to improve the quality of services and to address the problem of geographical accessibility

In terms of financial accessibility, and with the very important involvement of Local Government and of the population, implementation of the new CBHI policy continued. However, the overall CBHI adherence was reduced, and the causes of the low performance are being identified to define new strategies. Meanwhile, no important unpaid arrears were observed.

The implementation Human Resource Development Strategic Plan is ongoing. Currently, more than 200 doctors are pursuing clinical specialization programs through the MoU between MoH and 23 US Universities to train much more specialized doctors and Nurses in-country. In the FY 2012-2013, some 92 US specialists participated in the different training programs.

In 2012-2013, the quality of care retained specific attendtion with the operationalization of customer care, and accreditation program started in 15 district hospitals, while standards, protocols and norms have been operationalized in all District Hospitals. Facilitation for UTHB and RMH is in process and accreditation is ongoing in UTHK and KFH.

In order to improve the monitoring of the health sector activities, different systems have been created or improved through e-Health program.

All activities have been implemented with the support and the active participation of all stakeholders, especially Development Partners, the Local Government and the population. The FY 2012-2013 coincided with the finalization of HSSP III and of the EDPRS II.

Health Sector actions will continue to focus on MCH, prevention, treatment and control of disease, improved coordination, human resource development, evidence based planning and decision making, strengthened health system, customer care and improved quality of service.

### END OF THE REPORT