Ministry of Health

ANNUAL REPORT

2011 - 2012

THE REPUBLIC OF RWANDA

MINISTRY OF HEALTH

Contents

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ACRONYMS

ACT	: Artemisinin Combined Treatment
AI	: Avian Influenza
AIDS	: Acquired Immunodeficiency Syndrome
ANC	: Antenatal Care
ARBEF	: Association Rwandaise pour le Bien-Etre Familial
ART	: Antiretroviral Treatment
ARVs	: Antiretroviral drugs
BCC	: Behavior Change Communication
BCG	: Bacille de Calmette et Guérin, Vaccin contre la Tuberculose
BK	: Bacille de Koch
BSS	: Behavior_surveillance_survey
CAMERWA	: Centrale d'Achat des Médicaments Essentiels du Rwanda
CBEHPP	: Community Based Environmental Health Promotion
CBHC	: Community Based Health Care
CBHI	: Community Based Health Insurance
CBP	: Community Based Provision
CDC	: Centers for Disease Control and Prevention
CDLS	: Comité de Lutte contre le SIDA
CDT	: Centre de Dépistage et de Traitement
CHUB	: Centre Hospitalo-Universitaire de Butare
CHUK	: Centre Hospitalo-Universitaire de Kigali
CHWs	: Community Health Workers
C-IMCI	: Community Based IMCI
CNJ	: Centre National de la Jeunesse
CPDS	: Coordinated Procurement and Distribution System
CPN	: Consultation Pré Natale
CRTS	: Centre Régional de Transfusion Sanguine
CS	: Centres de Santé
CT	: Centre for Treatment (TB)
CTAMS	: Cellule d'Appui aux Mutuelles de Santé
CTS	: Centre de Transfusion Sanguine
DBS	: Dry Blood Spot
DDP	: District Development Plan
DFID	: British Department for International Development
DH	: District Hospital
DHS	: Demographic and Health Survey
RDHS (EDSR)	: Rwanda Demographic and Health Survey
DOT	: Direct Oral Treatment

DP : Development Partners
DRC : Democratic Republic of Congo
DTC : Drug Therapeutics Committee
DTC3 : Diphtheria Tetanus and Pertussis Vaccine
EAC : East African Community
EDPRS : Economic Development and Poverty Reduction Strategy
EEG : Electroencephalography
EIA : Enzyme linked Immuno-Assay
EID : Epidemic Infectious Diseases
EMONC : Emergency Obstetrical and Neonatal Care
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
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
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
SONU-C/EmONC	: 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
ZOD	: Zero Open Defecation

FOREWORD

This report presents the achievements of the Ministry of Health for the fiscal year starting from July 2011 to June 2012, within the framework of achieving the Government's objectives for the reduction of poverty, as defined in the EDPRS (2008-2012), the 2020 Vision and the MDGs.

The mission of the Health Sector is to improve the well-being of the Rwandan population in general, by implementing high impact interventions for the prevention, the management of diseases and the strengthening of the national health system

In order 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 to maximize preventive and curative measures to control diseases, to build capacity and to allow provision of high quality of health services, accessible both geographically and financially to the whole population.

The DHS 2010 and HSSP-II mid term review showed very important improvements: financial and geographical access to health services improved, trendemous decreases in child, infant and malaria mortality, and maternal health indicators were improved very substantially. HIV prevention and treatment are expanded all over the country: over 108,000 HIV patients are accessing ART, and Rwanda is in process of eliminating mother to child HIV transmission. Implementation of the new Community Based Health Insurance Policy started with this fiscal year and it was a success: 90.7% total adherence to Mutuelle de santé was recorded in June 2012.

During 2011-2012, the EDPRS I was evaluated and both findings of HSSP II MTR and of this evaluation were utilized to develop HSSP-III (July 2012- June 2018) with the participation of all Stakeholders. HSSP III has been inspired and guided by the VISION 2020 that will make Rwanda a Lower Middle Income Country by year 2020. It will continue and expand the work undertaken as part of HSSP II, in the delivery of health services, increasingly bringing the various services of all the programmes together at the same time and in the same place, mainstreaming them in a 'one-stop event' that is accessible at any time to the client. At the end of HSSP III, the health sector will provide comprehensive and integrated care at all levels of service delivery in a client friendly way.

Along with introduction of new diagnostic technologies (Malaria, TB, HIV) and other ICT innovations to be rolled out nationally (e-Health, e-Learning, web-based pages), new interventions are being developed to prevent, treat and control non communicable diseases, which are rapidly becoming another important burden for our health system.

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.

Dr Agnes BINAGWAHO
Minister of Health

EXECUTIVE SUMMARY

This report presents the achievements of the Ministry of Health for the fiscal year July 2011 to June 2012. Achievements described represent 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.

For the Health Sector, the mission given to the Ministry of Health 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 2011 - June 2012

1. Human Resources for Health

a) By June 30th, 2012: A total of 15,540 employees were deployed in the Public Health Sector: 132 specialist doctors, 509 GPs, 1793 A1 Nurses, 271 Midwives, 6,438 A2 Nurses, many other health professionals, administrative and upport staff.

a) **For Capacity building:** 172 doctors are pursuing postgraduate studies (117 in Rwanda and 55 abroad). 19 MoH staff have been facilitated for a Masters Degree training. A total of 732 nurses and midwives are pursuing A1 program, plus an additional intake of 313 A2 Nurses being trained through e-learning program.

b) **The Capacity Building Plan has been developed.** The CPD (Continuing Professional Development) program is operational.

b) Human resources indicators, as of June 30th, 2011: Ratio Doctor/Population: 1/16001 (target 2017: 1/10000), Ratio Nurse/Population: 1/1291 (Target 2017: 1/1000), Ratio Pharmacist/Pupulation: 1/30565 (Standard : 1/10000)

2. Improvement of availability of medicines, vaccines and consumables

a) **Pharmacy**: 30 District Pharmacies are operational and managed by Pharmacists. The narcotic law has been published, while the pharmacy and National Medicines regulatory agency are still under discussion.

b) **Vaccination**: After the introduction of Human Papilloma Virus vaccine (HPV) for young girls to prevent the cervix cancer in 2010-2011, another vaccine against Rotavirus responsible for diarrhea has been introduced in routine vaccination has been introduced in 2011-2012.

c) **Blood transfusion:** 37,811 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

a) Construction and equipment of health facilities: Ruhango District Hospital is now operational. Kinihira and Bushenge district hospitals are almost completed. A certain number of departments' buildings in CHUB have been renovated. Several maternities, emergency and neonatology wards have been constructed in health centres and hospitals. Several other constructions are ongoing or are to start.

b) Emergency transportation continued to be extended through SAMU, and by June 2011, some 168 ambulances were functional, meaning an average of 5 ambulances per district. In 2011-2012, 16 ambulances have been purchased and are being equiped for distribution.

4. Improvement of financial accessibility

The new Community Based Health Insurance Policy, based on stratified payment of premiums using Ubudehe database is operational. The payment of premiums according to the new policy started with July 2011. The Government continues to pay Mutuelle premiums for 25% of the population categorized as poor. For the fiscal year 2011-2012, 90.7% of the population paid CBHI premiums, which is a very good result.

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

a) Malaria

Malaria program is one of the most successful activities in the fight of diseases: Malaria incidence declined by 70% from 2003. There was 66% malaria positivity decline from 2001. A total of 934,264 LLINs have been distributed in 2011-2012 and indoor residual spraying has been conducted in Kirehe, Nyanza, Bugesera, Nyagatare and Gisagara districts where malaria outbreaks were observed.

b) HIV/AIDS

By end of June 2012, **485** health facilities offered VCT services, including 13 prisons. 2,389,146 persons were tested in 2011-2012, and 1.1% were found HIV positive. From 2003, **10,640,404 persons** have been tested for HIV in VCT services. 90% of health facilities have staff trained to perform male circumcision. 700 condom vending machines have been installed in Kigali City in collaboration with UNFPA and other 685 machines have been installed countrywide in collaboration with Private sector, Rwanda Hotel Association, PSI Rwanda, etc. 24 million condoms have been distributed.

For PMTCT: 467 HF offered PMTCT services (93% coverage). **98.3% of** pregnant women **attending ANC** were counselled and tested for HIV, along with 84.5% of their male partners. 91% of children and 93% of infected pregnant women received ART prophylaxis.

For ARV treatment: **430** health facilities were offering care and treatment services (ART). A total of 108,207 patients were under ARV (94% of expected patients).

c) Tuberculosis:

The treatment success rate for the new smear-positive patients is 88.4%. The seroprevalence of HIV among TB patients was 28%. 98% of those dually infected received Cotrimoxazole Preventive treatment (CPT) and 75% were on ART by the end of the TB treatment. 80 MDR-TB patients were enrolled on second-line treatment, with 88%

treatment success. 2 new centres for treatment of MDR-TB are operational in 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.

Training on basic emergency obstetrical and neonatal care continued, the prevention and control of the cervical cancer is being scaled up with the creation of a cancer center in Butaro District Hospital and the continuous vaccination of young girls against HPV. In order to improve maternal health, post-abortion care is being introduced and the prevention of post-partum hemorrhage using misoprostol at community level has started. For family planning, innovation is made to expand community based provision of FP commodities and the provision of long term methods. All hospitals have currently capacity to provide long term methods, including surgical methods like vasectomy.

The Child mortality was reduced by 50%, from 2005 to 2010 and the infant mortality was reduced by 43%. These figures remain high and most of child deaths occurred during neonatal period. According DHS 2010, 35 % of under five deaths are neonates and 66% of infants (of which 54 % are neonates). To reduce significantly the number of child deaths, focus is being made in strengthening neonatal care (creation of neonatology services) and multisectoral efforts are made to reduce the impact of malnutrition. However, it is thought that Rwanda has achieved MDG4 related to the reduction of child mortality.

The community based RapidSMS "alert system" is used to inform critical events in the Maternal and/or newborn/child health up to 9 months and operational in all the 30 districts. For SGBV, 2 more one stop centres 2 (Nyagatare, Rubavu) have been opened in the period 2011-2012, in addition to 2 existing ones (Kacyiruand Gihundwe). 2 other sites are being assessed (Kibungo, Byumba).

7. Strengthening of Referral Institutions

In order to strengthen tertiary health care, UTHB (CHUB) and RMH (Rwanda Military Hospital) are being renovated and extended. Several specialist doctors have been hired, 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.

8. 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. Also, the Health Resource Tracking Tool (HRTT) is progressively developed and used, as well as the DSST (District System Strengthening Tool). HSSP III development is in its final stage

INTRODUCTION

This report presents achievements of the HSSP implementation. The objective of the HSSP is to operationalise the EDPRS 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, EDPRS and CPAF, as well as the SBS triggers.

Non-communicable diseases and injuries were also emphasized, which 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.

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 is being 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 II.

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 the HSSP II and RDHS 2010: The HSSP II MTR is conducted to evaluate achievements made during 2009-2011 period. The results of the review have been published in QI 2011-2012. **The RDHS 2010** has been conducted and final results published in January 2012. The 2010/2011 status of health indicators serves as a baseline for HSSP III; Vision 2020 revised targets and EDPRS II in preparation.

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 started to be systematic with the fiscal year 2010-2011: A team from the President's Office, PMO and MINECOFIN evaluates achievements against the performance contract signed by Ministers. It has been conducted in early in July 2012, along with the single action plan.

f) Sector performance indicators HSSP I + II, 2005 – 2011

Table 1: Sector Performance Indicators
(Baseline 2005 – 2010/2011 and targets 2012 & 2015)

INDICATORS	BASELINE 2005	MTR June 2008	MTR Aug 2011	TARGET 2012	TARGET 2015
Source of Information	DHS 2005	I-DHS	DHS 2010 Reports 2012	EDPRS	MDGs
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 married women (modern methods)	17	36	45	70	

INDICATORS	BASELINE 2005	MTR June 2008	MTR Aug 2011	TARGET 2012	TARGET 2015
Source of Information	DHS 2005	I-DHS	DHS 2010 Reports 2012	EDPRS	MDGs
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 condom use in most recent high risk sex intercourse	26 / 39	NA	91/92	35 / 50	
HIV prevalence in 15-49 years	3		3		
HIV Prevalence Rate in 15-24 yrs %	1.0	NA	15-19 : 0.5 20-24 : 1.5	0.5	
HIV Incidence (/100,000) (TRAC-net)			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 services/ ART services (Report June 2012	234	374VCT, 341 PMTCT*	485 VCT, 467 PMTCT* 430 ART	433	
% HF providing IMCI services		80	100	50	
% children Fully immunized / Measles	75	80	90	85	
% immunized against Measles	76	90	95		
% children < 5 yr sleeping under ITN	18	60	70	90	
% TB Treatment Success Rate / DOTS	58	86	**87**	88	
Prevalence of Anemia (children 6-59)	56	40	38		
% children 6-59 months, with one dose Vitamin A in last 6 months	69	+/- 50	108		
Average OPD attendance / pp / yr	0,33	0,72	0.95 (2011) 1.00 (2012)	0.8	
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	

INDICATORS	BASELINE 2005	MTR June 2008	MTR Aug 2011	TARGET 2012	TARGET 2015
Source of Information	DHS 2005	I-DHS	DHS 2010 Reports 2012	EDPRS	MDGs
Per capita total health annual GOR expenditure on health (USD)	16.94 (NHA 2003)	33.93 (NHA 2006)	39.5 (NHA 2010)		
% Population covered by 'mutuelles'.	12	75	90.7 (2012)	91	
Per capita allocation to PBF (USD)	NA	1.65	1.8	2.0	
% MOH budget to districts (grant)	11.1 (2006)	17.9%	XX		
Doctor / Pop Ratio *Nurse / Pop Ratio* Midwives / Pop Ratio	1 / 50.000 1 / 3.900 NA	1 / 33.000 1 / 1.700 1 / 100.000	1 / 16.001 (June 2012) 1 / 1.291 (June 2012) 1 / 66.749	1 / 20.000 1 / 5.000 1 / 20.000	

Italics = Included in CPAF as part of SBS funding.
* = RBC Annual report 2011-2012.

ACHIEVEMENTS IN 2011-2012

I. MATERNAL AND CHILD HEALTH

Programme objective: To improve accessibility to quality and demand for FP/MCH/RH/Nutrition services

I.1 Introduction

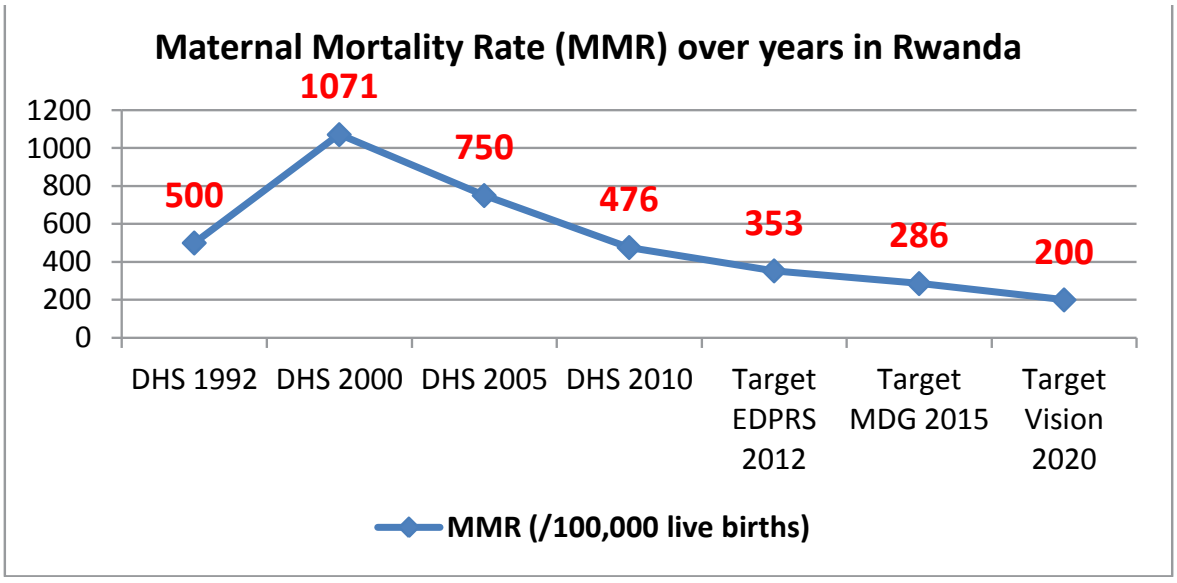
The main objective of the MCH unit is to improve the Maternal and Child Health. It is a top priority that is related to MDG 4 and 5 (MDGs 4: Reduction in Child Mortality and MDG 5: Improve Maternal Health). To achieve the goals of MCH, programs continued in the 2 main areas: health facility-based and community-based activities.

In 2011-2012, strong focus was maintained on promoting mother, infant and young child feeding (MIYCF), newborn care, safe motherhood initiatives and family planning or birth spacing, hospital play rooms, and recently extended to the Community Management and prevention of Post-Partum Hemorrhage. Those interventions were carried out along with implementation of the strategic plan to eliminate malnutrition 2010-2013, quantification and distribution of nutrition commodities (RUTF, therapeutic milks and CSB), training of health centers and CHW on the protocol for the management of malnutrition.

I.2 Maternal Health

According to DHS 2010, the maternal mortality rate (MMR) is 476/100,000 live births. MMR did reduce to 36.5 % between 2005 and 2010. If the trend continues, the MDG of 268/100,000 will be achieved.

Figure 1: Evolution of Maternal Mortality rates over years



Activities undertaken to reduce MMR are: ANC (4 visits); 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

1. Maternal Death Audit (MDA) from health facilities

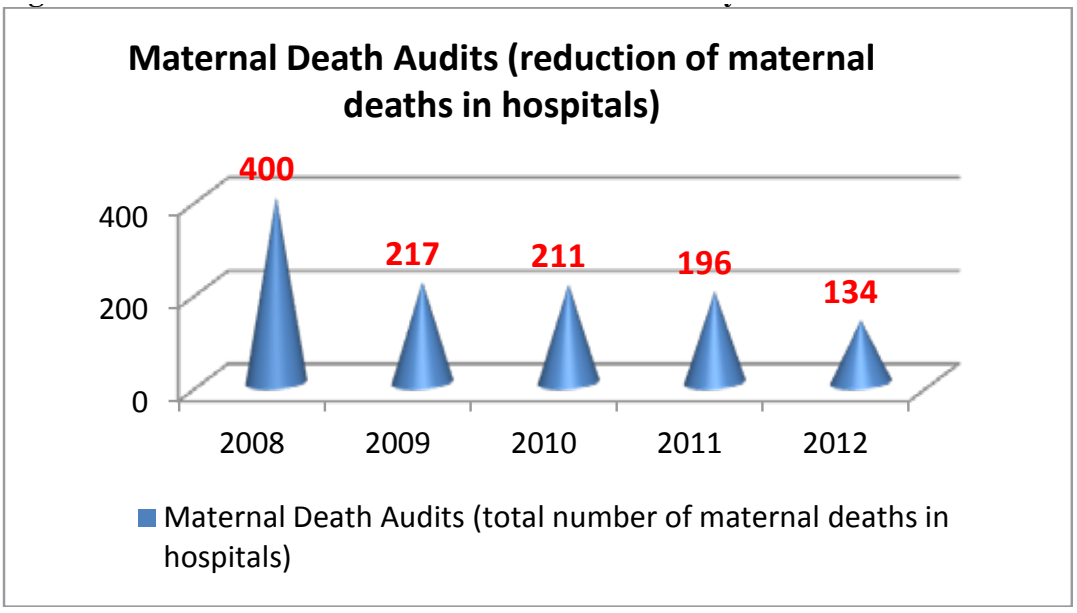
Despite many efforts and the important success recorded today, many women still die each year in Rwanda from causes related to pregnancy complications and/or childbirth.
In 2010, the Rwandan woman had a risk of 1/40 (2,5%) to die from a cause related to pregnancy and childbirth during her reproductive life. This risk is 1/3.200 in industrialized countries (0.03%).

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.

MDA started in January 2009 in all hospitals and have since then been making recommendations aimed at reducing maternal and neonatal mortality.

In the community, verbal autopsy is now conducted in 10 districts: MUHANGA, KAMONYI, RUHANGO, NYAMAGABE, NYARUGURU, MUSANZE, GAKENKE, RUSIZI, RUBAVU and GATSIBO. As for the EmONC indicators, findings show that some of the direct causes of maternal deaths (MD) decreased significantly from 2008 to 2012, including the ante-partum hemorrhage

Figure 2: Reduction of maternal deaths over years



Source: MCH Annual Report, 2011-2012

Table 2: MDA: Main causes of maternal deaths

	2010-2011		2011-2012	
Causes of death	**Nb deaths**	**%**	**Nb deaths**	**%**
Severe bleeding	79	40%	62	46%
Malaria	0	0%	4	3%
Septicemia	33	17%	21	16%
Eclampsia	14	7%	14	10%
Other infections	19	10%	8	6%
Unknown causes	14	7%	8	6%
Obstructive labor	1	1%	0	0%
Other causes	6	3%	5	4%
Anesthesia complications	6	3%	3	2%
IO/HIV	10	5%	3	2%
Amniotic embolism	2	1%	0	0%
Heart failure	5	3%	2	1%
Pulmonary embolism	1	1%	3	2%
Anemia in pregnancy	6	3%	1	1%
Total	196	100%	134	100%

Source: MoH/MCH: Annual report 2011-2012

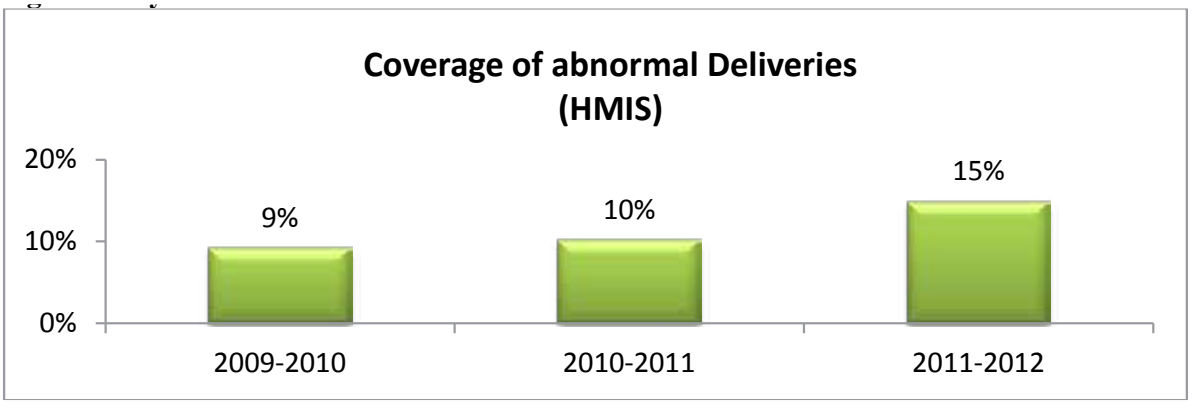
During the period June 2011– July 2012, 134 maternal death review reports from hospitals were received. From the reports, the following observations have been made:

1. Main cause of death is still severe bleeding (46,3%).
2. More than 3/4 cases occurred during postpartum period;
3. Second cause is infection (15, 5%) followed by eclampsia (10, 5%);
4. Malaria as cause of maternal deaths has decreased.
5. 69% maternal death occurred in district hospitals and 24 % in referral hospitals;
6. 53.8% of women died after giving birth;
7. 44,8% of deceased women were aged 21-30 and 36.5% were aged 31-40;
8. 36,6% were at their 2nd-3rd pregnancy, while 35.1% were at > 3 pregnancy;
9. For more than 42%, the information on ANC was not recorded in the files;
10. Reports of June 2012 were not yet available.

2. EmONC (Emergency Obstetrical and Neonatal Care)

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

Figure 3: Dystocic deliveries in Health Facilities 2009-2012



b) **Comprehensive EmONC training: Package of emergency care provided in DHs**
208 health providers from hospitals of KIREHE, RUBAVU, NGOMA, NYAGATARE, BYUMBA, KAMONYI, GATSIBO, RUBAVU, RUTSIRO, RUSIZI, GAKENKE, BUGESERA, MUSANZE, NGORORERO and GISAGARA were trained.

Reference manual, pocket book integrating essential obstetric and newborn, B-EmONC and C-EmON care were elaborated, and they have been signed by Honorable Minister of Health. Training on verbal autopsy has started. By June 2012, a total of 259 health providers have been trained in 8 districts. Some of districts trained have already started reporting.

3. Cervical cancer

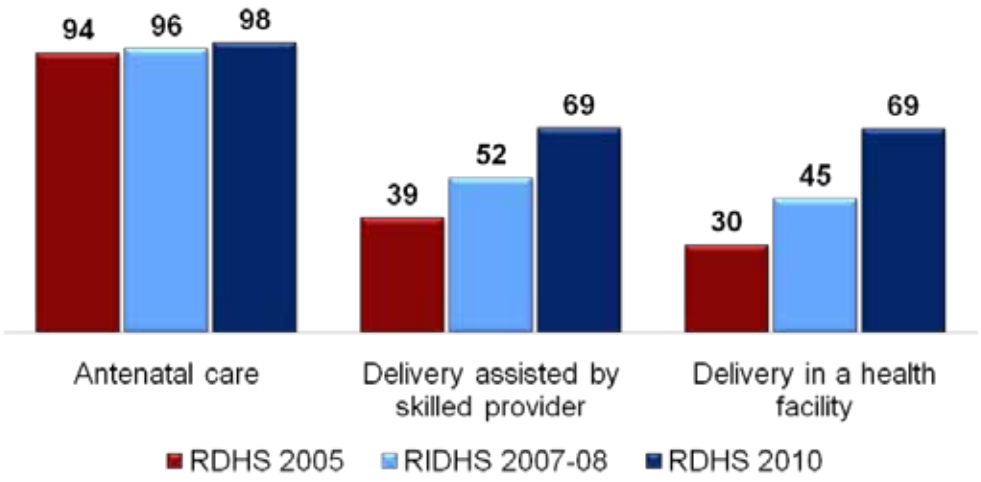
Last year in 2010-2011, a five year strategic plan for the prevention, control and management of cervical cancer was developed and approved. Launching of HPV vaccine was made and training of health providers on the management of cervical cancer has started during the same fiscal year.

In 2011-2012 Training: All planned sessions of training on VIA and Cryotherapy were done and 109 heath providers have been trained: in all referral hospitals and in 5 district hospitals, with some of their Health centres. The process is ongoing.

Equipment: LEEP, colposcopy and cryotherapy machines are in the ordering processus and are expected in one month. HPV tests will be available in Q1/2012-2013.

4. Trends of the main Maternal Health Indicators: RDHS 2010

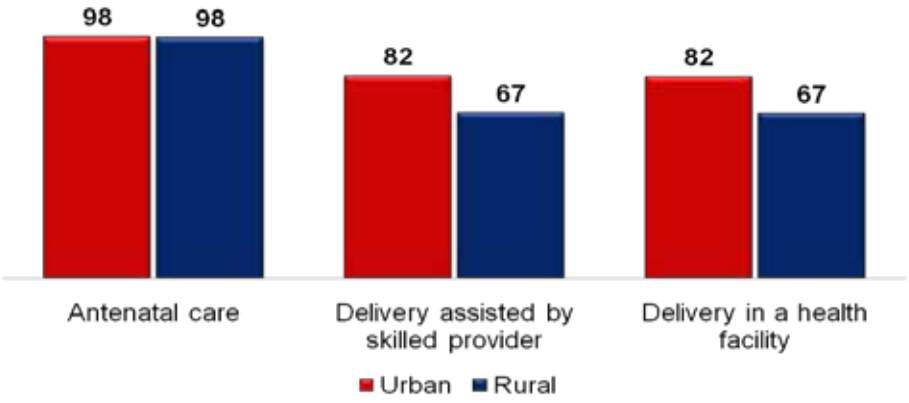
Figure 4: Trends of Maternal Health Indicators in 2005, 2008, 2010



Source: RDHS 2010

There is important and regular improvement in assisted delivery, while ANC remains above 96%

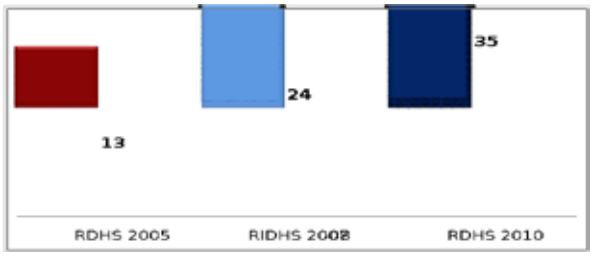
Figure 5: Maternal Health indicators by residence



Source: RDHS 2010

While Antenatal care rates are the same for Rural and Urban residents, there is an important difference for assisted deliveries, urban residents using more services than rural.

Figure 6: Maternal Health: Utilization of Antenatal care, 4 visits



5. Post abortion Care (PAC) Program

Worldwide, 21.6 million unsafe abortions occurred in 2008, of which approximately 6.2 million, or 29%, were in Africa (Shah et al. 2010). It is also estimated that 47,000 women per year lose their lives due to complications of unsafe abortion, almost all of which could have been prevented (Shah et al. 2010).

Complications from unsafe abortion and miscarriage pose a significant public health challenge in Rwanda. Based on preliminary results of one unpublished study conducted in 166 health facilities randomly selected in 2009, the rate of abortion complications received at facilities was estimated at 10 per 1,000 women aged 15-49 years old (Basinga et al. 2009).

The Ministry of Health is working with Venture Strategies Innovations (VSI), Intrahealth and other partners to expand access to post abortum care (PAC) services by introducing Misoprostol tablets for the treatment of incomplete abortion and miscarriage in all levels of the health care system and manual vacuum aspiration (MVA) for emergency treatment in hospitals and health centers.

6. Prevention of post-partum hemorrhage:

In 2011-2012, activities carried out are:

- Refresher training of trainers for RUBAVU, MUSANZE, GAKENKE and NYANZA districts on prevention of postpartum hemorrhage at the community level: a total 119 of health providers were trained.
- Refresher training of 1987 community health workers from GAKENKE, MUSANZE, RUBAVU and NYANZA districts on prevention of Post Partum Hemorrhage (PPH) by Misoprostol;
- Supply of Misoprostol tablets to all CHWs trained in 4 districts.

7. 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. At the national level, the reference manual and protocols of neonatal care were elaborated and the training of care providers was carried out. One of the most effective strategies to improve the quality of care for newborns, is the creation and strengthening of the neonatal units in all district hospitals (neonatology units).

8. Reinforcement of Family Planning Services

The objective of the 2011-2012 activities were to increase and reinforce the accessibility of Family Planning services, focused on long term and permanent methods: Distribution of FP commodities continued as usual and no stock outs were observed, although there is a need of anatomic models and IUCDS kits.
Trainings of FP providers focused on long term methods and have been conducted in 26 Districts (except NYAMASHEKE, HUYE, NYABIHU and GAKENKE). Vasectomy program is being scaled up in all provinces. Results of the emergency contraception study are available and have been presented in FP TWG on 23rd March 2012.

For FP/HIV integration, 22 districts have already been trained on FP/HIV Integration, where 415 health providers trained on FP/HIV Integration. Community Based Provision (CBP) of Family Planning services constitutes a major innovation in the implementation of FP program. CBP is provided through CHWs who are being trained is a major support for increased use of modern methods of contraception in Rwanda. The new program is being implemented in 17 Districts.

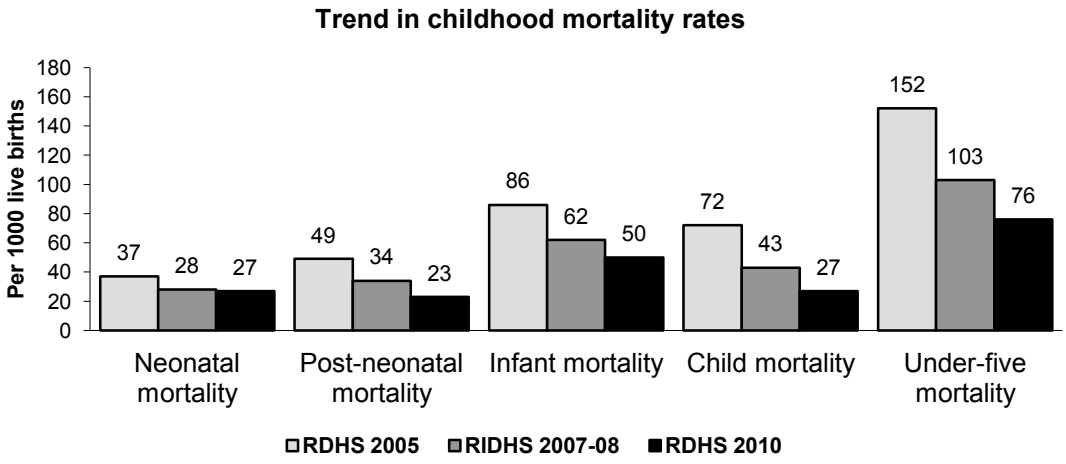
I.3 Child Health

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 2011/2012.

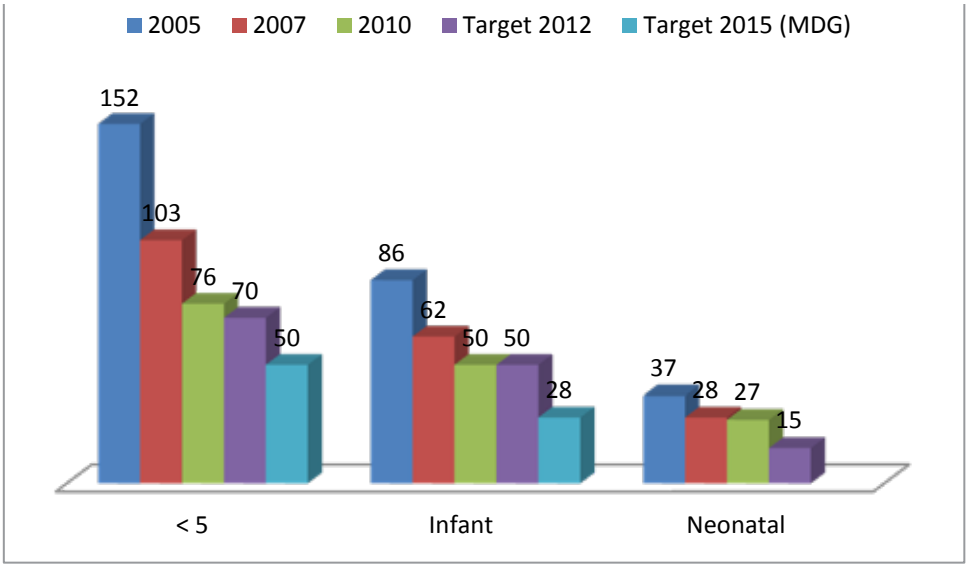
Rwanda has made significant progress through the health sector reforms put in place to reduce mother and child mortality and morbidity. Concerning child survival, specific programs have been reinforced such as the expanded program on immunization, the fight against malaria, HIV, diarrhea, malnutrition, the integrated management of childhood illnesses and the integrated high impact interventions at the community level. However, in health facilities, respiratory tract infections (59 %, 2011, HMIS) is still the leading cause of child deaths in Rwanda, followed by malaria (8 %) diarrhea (4%), and malnutrition (3%).

Figure 7: Child Health: Child mortality rates (/1000 live births)



Source: RDHS 2010

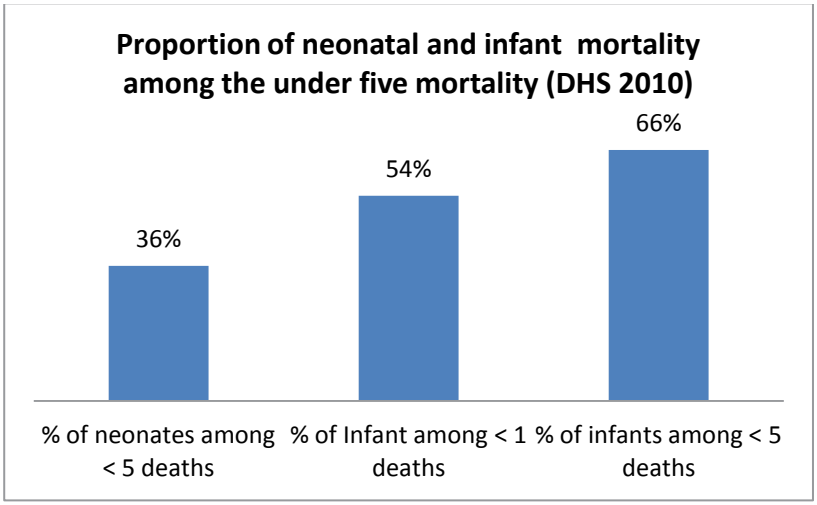
Figure 8: Child Health: DHS results versus EDPRS & MDG's targets



Source: RDHS 2010

As mentioned above infant and neonatal mortality contribute largely to the < 5 mortality and need to be addressed specifically. According DHS 2010, 35 % of under five deaths are neonates and 66% infants (of which 54 % are neonates).

Figure 9: Child Health: Neonatal Mortality Rates



Source: MCH annual report, 2011-2012

One of the major strategies to reduce child morbidity and mortality is the strengthened access to health services through integrated clinical management of childhood illnesses (C-IMNCI). Currently, training of health providers on C-IMNCI is being scaled up.

In 2011-2012, the following activities have been achieved: 360 health care providers from 16 districts trained on clinical IMCI and 25 trainers trained in supportive supervision.

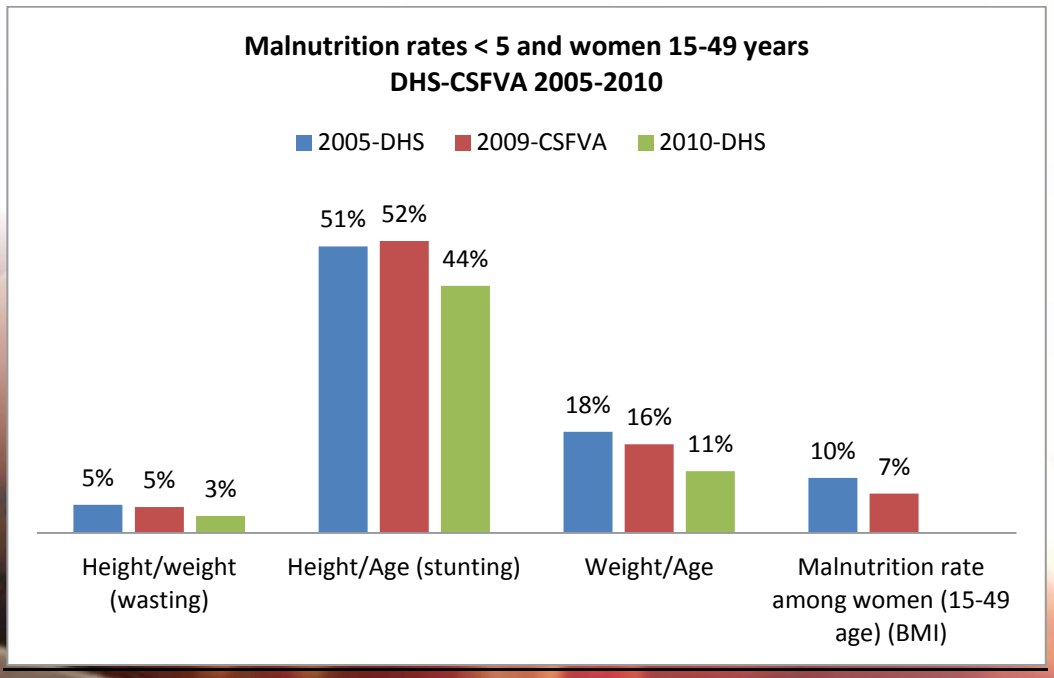
Also, several Health professionals have been trained on Child death audit: 348 Health Providers (2/ HC) from 11 Districts were trained on Child and neonatal Death Audit during the IMCI training: GISAGARA and KARONGI, KARONGI, RUTSIRO, RUSIZI, NYAMAGABE, RUBAVU, KAYONZA (GAHINI hospital) and NYABIHU, and RUSIZI districts were trained during the IMNCI training (13/25 districts.

I.4 Nutrition

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

According to the 2010 Rwanda DHS, the prevalence of chronic malnutrition among under five population is 44 % for stunting (height/age) and 11 % for underweight (weight/age) and the prevalence of acute malnutrition was 3%. (height/weight) and micronutrient deficiencies contributing directly or indirectly to the high infant, child and maternal mortality and morbidity in the country, are still high.

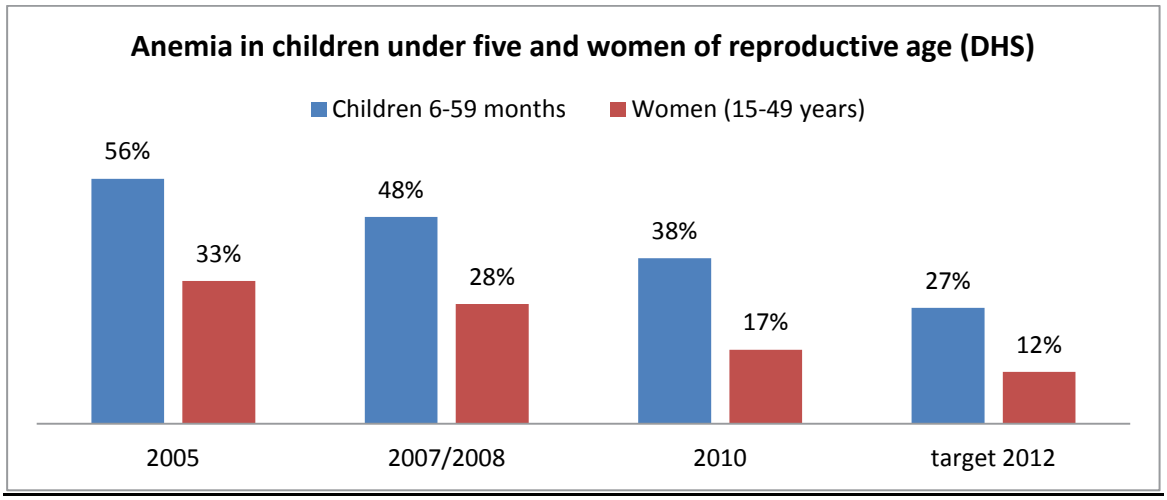
Figure 10: Nutrition status in U5 and Women



Source: DHS 2010

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

Figure 11: Anemia among U5 and women



Source: RDHS 2010

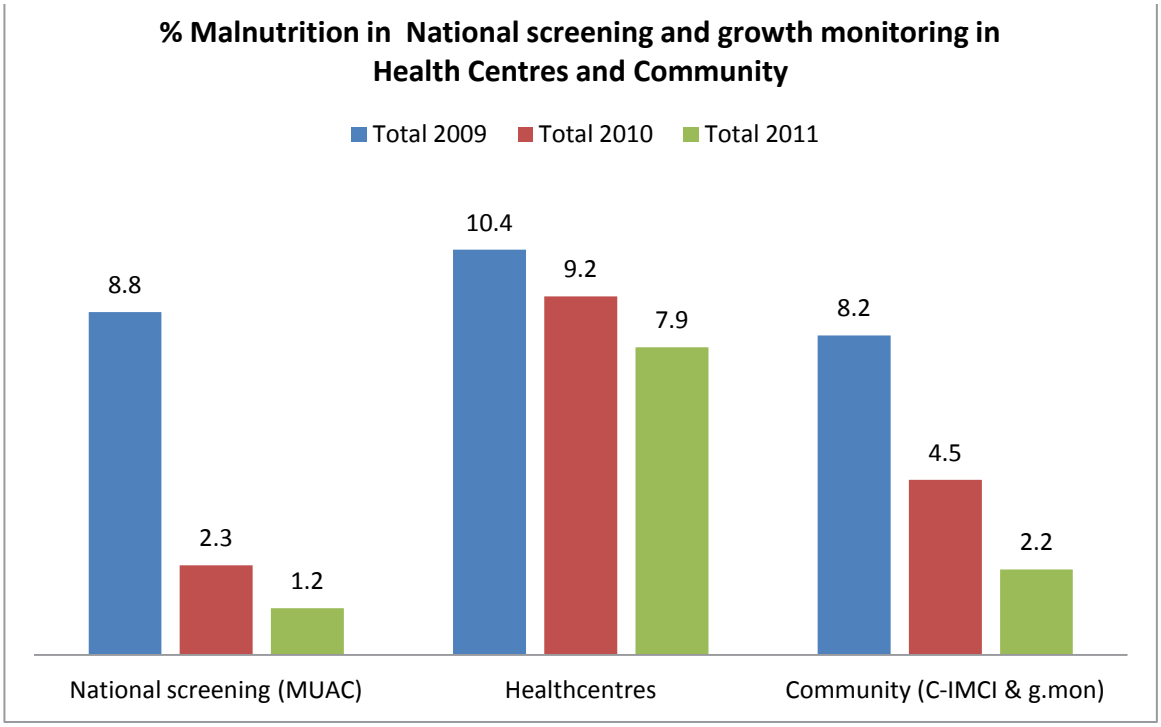
Achievements of the Nutrition Program 2011-2012

To address the situation, the Government of Rwanda has been deploying efforts to fight malnutrition. The 2007 National nutritional policy was developed and different plans to eliminate malnutrition were put in place since May 2009. These include mainly, the 2010-2013 National Multi-sectoral Strategy to eliminate Malnutrition, the 2012 Joint multi-sectoral Action Plan to Eliminate Malnutrition as well as other protocols and guidelines for better implementations of the plans.

Many efforts have been deployed to address acute malnutrition, and results are demonstrated by a decrease in acute malnutrition rates detected during the annual screening. Monthly growth monitoring among children < 5 by CHW's has been progressively scaled up and currently the screening is carried out in all the 30 districts.

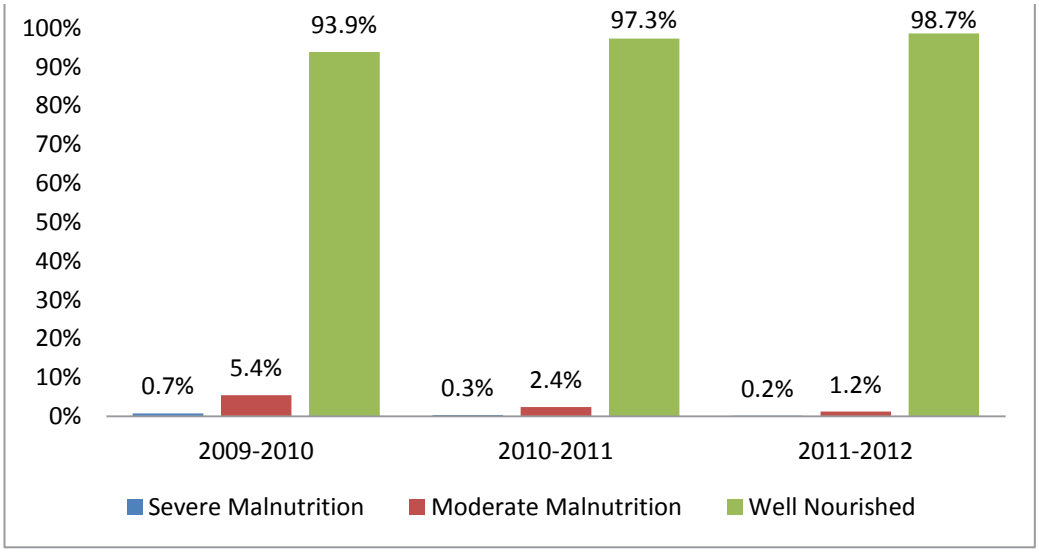
It is important to note that reports on malnutrition detection in health centres didn't disaggregate for acute malnutrition, underweight (W/A) and stunting (H/A). This is made only during DHS. Also, the results of community growth monitoring didn't make a distinction between acute malnutrition and weight for age (majority of CHW's are still using MUAC tapes while awaiting weighing scales). The national screening identifies only acute malnutrition.

Figure 12: Nutrition: Trends of malnutrition, 2009-2011



Source: MoH/MCH Annual Report 2011-2012

Figure 13: Nutrition: Monitoring of Acute Malnutrition at community level



Source: MoH/MCH annual report, 2011-2012

Activities carried out to implement the Joint Action Plan to Eliminate Malnutrition:

1. Quantification and distribution of nutrition commodities (RUTF, Therapeutic milks and CSB)

Hospitals have been receiving commodities regularly as per their requests. Recently, it has been observed a stock out of RUTF and F100 but will be available not later than August 2012. The quantification of nutrition commodities for the year 2012-2013 has been made.

2. Strengthen and scale-up community-based nutrition interventions/programmes (CBNP) to prevent and manage malnutrition in children under the age of 5 years, with particular focus on those aged less than two years, and in pregnant and lactating mothers.

- National screening for acute malnutrition (MUAC) for children aged less than 5: Data have been collected in December 2011, and draft report is available. During the screening campaign Vitamin A, Mebendazole and Iron were also distributed

Table 3: Results of Child Growth Monitoring 2009-2011

Year	Severe acute Malnutrition	Moderate acute malnutrition	Globale Malnutrition (moderate + severe)
2009	1,9 %	6,9 %	8,8 %
2010	0.5 %	1,8 %	2,3 %
2011	**1 %**	**0.2 %**	**1.2 %**

Source: MCH Annual report 2011-2012

- Development of Tools on Mother, Infant and Young Child Nutrition (MIYCN) review, finalization and printing: already approved and ready to be distributed
- Training on **MIYCN :** 28 Master Trainers at national level; 137 trainers (TOT) at district level; 954 Trainers at health center level; 6.123 Community Health Workers have been trained as follows: NYARUGURU (996), GISAGARA (1572), KIREHE (1226), NGOMA (946), NYAGATARE (625) MUSANZE (194) and KADUHA (564).

3. Elimination of micronutrient deficiencies : Home Based Food Fortification

- Home Based Food Fortification started in 2011 and aimed at improving the micronutrient status of children aged 6-24 months, operational in six districts: NYARUGURU, MUSANZE, BUGESERA, KIREHE, KARONGI and KAMONYI. Distribution started in MUSANZE and NYARUGURU to be very soon extended in the remaining four districts.
- Industrial food fortification: the process started under the coordination of National Fortification Alliance (NFA): NFA has planned to implement different activities in this coming year of 2012-2013.

4. **Multi-sectoral District Plans to Eliminate Malnutrition (DPEMs):**

   All districts launched the national Joint Action Plan to Eliminate Malnutrition (JAPEM) which is closely related to DPEM as well as the National Strategy to Eliminate Malnutrition. The JAPEM was put in place as a recommendation from the National Dialogue in November 2011, with objective to have eliminated the root causes of malnutrition by December 2012. JAPEM is a multi-sectoral plan to eliminate acute malnutrition by 2012 and composed of MOH with partners and as a coordinating body, MINAGRI, MINEDUC, MINALOC and MIGEPROF.

5. **Behavior Change Communications :**

   Different nutrition programs have been passing on Radio Rwanda every Saturday at 1:30 pm. A spot radio on healthy nutrition was added and also passed on radio Rwanda.

   Talks have been conducted in the context of the National women and Girl's week in March 2012 on balanced diet for the whole family. Different communication programs on nutrition have been organized on: Inteko radio, BBC, RCC/GIRUBUZIMA.

I.5 Expanded Program of Immunization

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. To reach the maximum of target population, EPI uses the following strategies: integration of immunization services at fixed health centres, re-establishment of outreach strategy within health catchment's area and catch-up campaigns.

Since 2005, Reach Every District approach (RED) was introduced in all districts. In 2007, distribution of impregnated treated nets (ITN) was integrated with immunization services at health centres.

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 (Rota teq) has been introduced in routine immunization.

Table 4: Immunization calendar in Rwanda

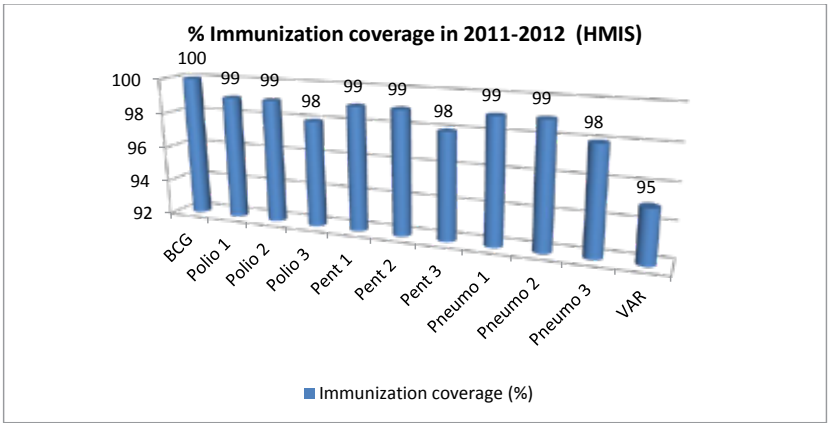
Vaccines	Total doses	Age at administration
BCG	1	Birth
OPV	4	Birth, 6, 10, 14 weeks
DTP or DTP-HepB-Hib	3	6, 10, 14 weeks
Measles	1	9 months
Tetanus toxoid (pregnant women)	2	During pregnancy

Vaccines	Total doses	Age at administration
Pneumococcal	3	6, 10, 14 weeks
Rotavirus Vaccine	3	6, 10, 14 weeks
HPV	3	April, July, October

Source: RBC annual report, 2011-2012

Immunization coverage was maintained higher in the fiscal year 2011-2012. The denominator to calculate immunization coverage was modified with agreement of ICC members, and it was agreed that the number of children vaccinated with BCG vaccine will be used as proxy denominator till the results of 2012 census are published.

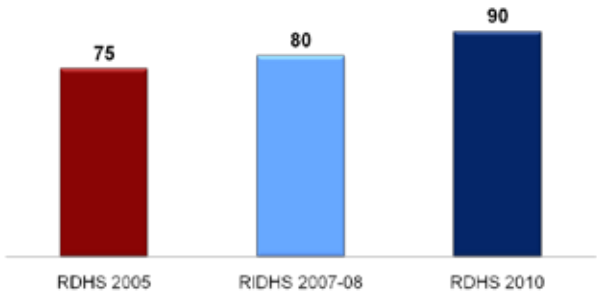
Figure 14: Child Health: Immunization coverage in 2011-2012



Source: RBC Annual report 2011-2012

Percentage of children aged 12-23 months who received specific vaccines at any time before the survey. The % of children fully immunized increased significantly from 2005.

Figure 15: Child Health: Trends of full vaccination, children aged 12-23 months



Source: RDHS 2010

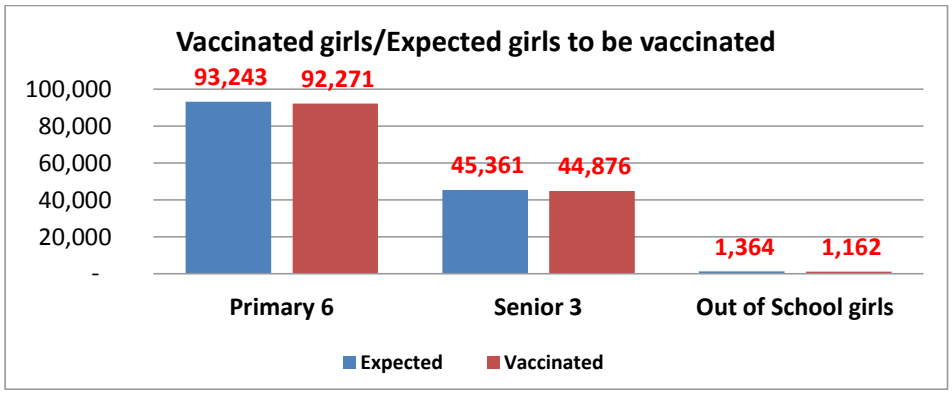
HPV Vaccination Campaign, 2011-2012

The national launching ceremony was conducted by the First Lady on 26 April 2011 at Kanyinya (Shyorongi), District Nyarugenge in Kigali City.

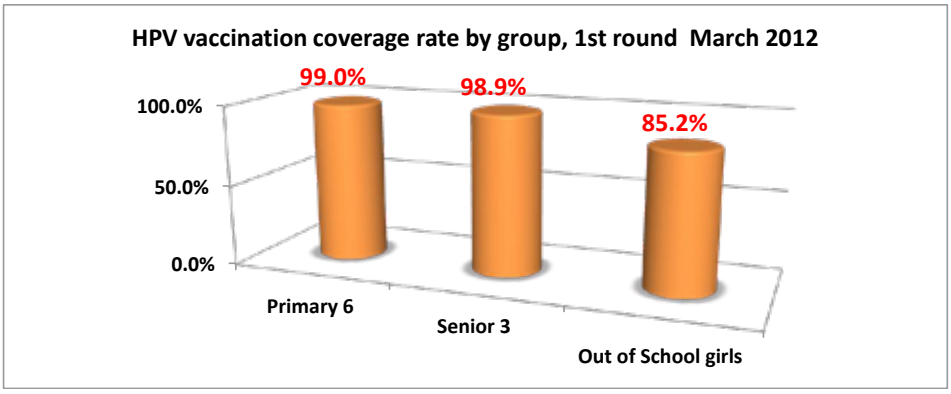
In 2011-2012, activities started in October 2011, by providing the third dose of HVP vaccine to the first cohort of adolescent girls (first dose was given in April 2011, second dose given in July 2011). Only P6 girls were selected to be vaccinated with HPV in the first cohort. The immunization coverage of HPV vaccine for the first cohort exceeds the expectation; 97% of P6 girls received three doses of HPV vaccine. However, this coverage was very low (<50%) for out of school girls

In March 2012, the new cohort started to be vaccinated but considering this time both P6 and S3 adolescents girls. The first dose was given in March, the second dose in May and the third one is expected to be given in October 2012.

Figure 16: Child Health: HPV vaccination coverages

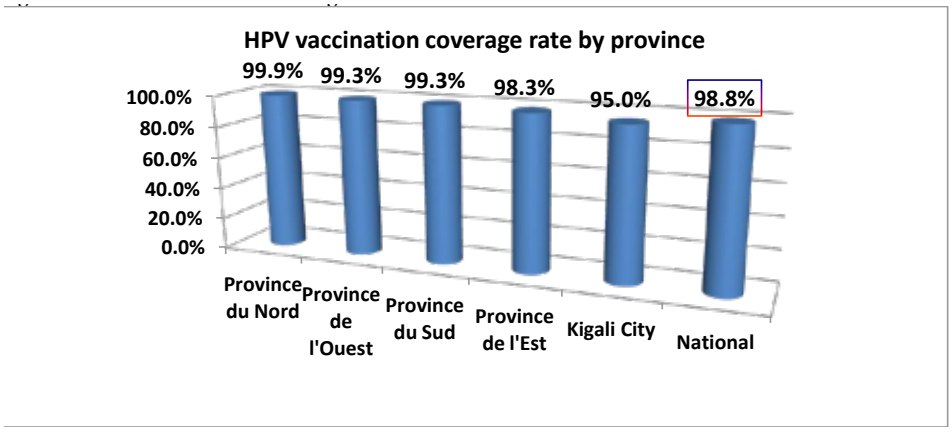


Source: RBC Annual report, 2011-2012



Source: RBC Annual Report 2011-2012

Figure 17: HPV vaccination coverage in Provinces



Source: RBC Annual report 2011-2012

EPI Target disease surveillance

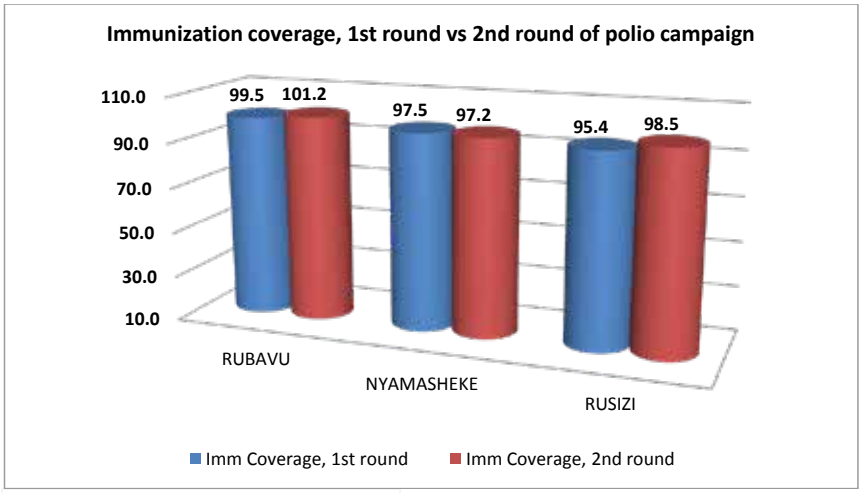
Mainly three EPI targeted diseases are under surveillance. Those are:

- Poliomyelitis
- Measles
- Maternal and Neonatal Tetanus
- Other vaccine Preventable diseases are under surveillance but not directly linked to EPI (Paediatric Bacterial Meningitis)

Polio Campaign:

In 2011-2012, polio campaign was conducted in three districts of western province bordering DRC; these are Nyamasheke, Rubavu and Rusizi. The results of campaign showed that the campaign was conducted successfully. Two doses were given during the campaign with interval of one month. The first round was given in December and the second dose in January.

Figure 18: Child Health: Polio vaccination coverage, 2011-2012



Source: RBC Annual report 2011-2012

Introduction of Rotavirus Vaccine to prevent Diarrhea (Musanze, May 25th 2012)

According to WHO, diarrhea is a leading cause of death among children. Rotavirus is responsible for 25% -50% of severe diarrhea in children under 5 years worldwide. About three million children die every year from rotavirus infection, and 90% of them live in developing countries. Some 2 million are admitted due to dehydration.

In Rwanda, diarrhea infections rank third among causes of death in U5 children after neonatal infections and pneumonia (2008 data). The results from RDHS 2010 show that 25% of the children aged 6-11 months and 22% of children aged 12-23 months had suffered from diarrhea. The Rotavirus vaccine was launched in Musanze District on May 25th 2012.

Other viruses under surveillance:

During this reporting period, 409 measles suspected cases were detected and sent to NRL for test. For Polio (AFP) suspected cases, 163 cases have been detected and sent to Entebbe Laboratory.

Table 5: Virus under surveillance in 2011-2012

Disease	Suspected cases	Confirmed cases
Measles	409	10
Rubella	409	63
AFP(Polio)	163	11 NPENT
MNT	0	0

Source: RBC Annual Report 2011-2012

163 AFP cases have been notified countrywide. 27/30 districts have shown the ability to detect AFP cases Districts that are still silent and have not notified any AFP case are: Nyamagabe, Nyanza and Ngoma.

Table 6: Supply of Vaccines and vaccination materials

Vaccines	Stock on juillet 1st 2011	Doses received in 2011	Total stock in 2011-2012	Distributed in 2011-2012	Stock on June 30, 2012
BCG	375 300	600 000	975 300	628 800	346 500
OPV	1 301 700	1 160 000	2 461 700	1 358 400	1 101 600
DPT-HepB+Hib	206 400	1 344 800	1 551 200	1 060 420	490 780
PCV	506 225	1 324 800	1 831 025	1002 200	828 825
Measles	274 360	443 900	718 260	408 160	310 100
TT	156 700	530 000	686 700	473 500	213 200
Rotavirus vaccine	-	-	428 000	240 000	180 000

Source: RBC Annual report, 2011-2012

I.6 Adolescent Sexual and Reproductive Health

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 was signed in June 2012. Its overall goal is improving sexual and reproductive health status of young adolescents, adolescents and young adults in Rwanda.

Objectives of Adolescent Sexual and Reproductive Health:

During the fiscal year of 2011-2012, the ASRH&R policy and strategic plan were developed and approved. The ASRH&R policy and strategic plan address 4 objectives, with focus on youth involvement:

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:

1. Training of 164 of nurses from different health centers from: KABAYA, KIBOGORA, MUHIMA, BYUMBA, KIZIGURO, GAHINI, MUHORORO, KIBOGORA, KABAYA and GISENYI district hospitals. Objective: to promote a social and affective environment to young and adolescent and introduce the provision of friendly Reproductive services
2. Training of health care providers from the 17 functional Youth Friendly Centers: 19 participants from RAFIKI, BYUMBA YFCs, THT, RUSIZI YFC, VISION JEUNESSE NOUVELLES, TWUZUZANYE, KABUGA YFC, KARONGI YFC, Centre DUSHISHOZE HUYE, NGOMA YFC, MUSANZE YFC, NYAGATARE YFC, BUGESERA YFC, NYAMASHEKE YFC
3. Training of Persons living with disabili-

ties from: GAKENKE, GICUMBI, RWAMAGANA, KAYONZA, MUSANZE, NGORORERO, RULINDO, NYANZA, GASABO, MUHANGA, BUGESERA, NYABIHU, NYAGATARE, GATSIBO and NYARUGENGE districts.

4. Introduction of the 12+ program: it is an extra-curricula program that puts together young adolescent girls aged 12-10 yrs and teach them about sexual reproductive health.
5. Development of National Standards of ASRH&R, Development of ASRH&R IEC BCC materials, Community sensitization on ASRH&R

I.7 Sexual and Gender Based Violences (SGBV)

SGBV in Rwanda is rooted in a number of interlinked causes ranging from socio-economic to cultural beliefs and traditions. Studies have shown that women are at more risks of being victims of violence, particularly within marital homes. A national study on SGBV completed by MIGEPROF in 2004 revealed that 12.7% of women were victims of at least one act of physical violence (slapped, punched, kicked, etc), 13.2% were victims of psychological violence, and as many as 25.2% of women were victims of sexual violence during the five years preceding the research.

The Rwanda Government commitment to GBV prevention and response initiatives can be seen in the signing and ratification of major international and regional conventions that address 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 a national level, the Government has both policy and legislative measures including;

- 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 on Law on succession and matrimonial regimes of 1999
- The Rwanda National Gender Policy March 2010
- The National Action Plan on UNSCR 1325 and a Steering Committee
- The Rwanda National Strategic Plan against GBV, 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.

Table 7: SGBV: Proportion of Female among GBV victims

Age group	2008	2009	2010	2011
< 5 years	72%	89%	90%	66%
5-18 years	92%	97%	96%	90%
> 18 years	91%	96%	96%	91%

Source: Rwanda National Police, 2010

Achievements in 2011-2012

Activity	Status
Development of the National Strategic Plan for scaling up One Stop Centers	Draft available. Prevalidation in process
Training of district trainers in psychosocial support and clinical management of SGBV	489 health care providers trained from 19 districts hospitals.
Training of service providers on Multidisciplinary Investigation and Intervention Model Team	56 service providers trained in Nyagatare, Gisenyi, Kacyiru, Gihundwe One Stop Centers
Training of local leaders and GBV committee members at district level in prevention of GBV	80 from Southern Province trained
Community mobilization	40 CHW trained in Gisagara and Huye districts to support GBV interventions
Training of peer educators in prevention of SGBV	50 peer educators trained in Nyaruguru and Gisagara Districts
Creation of One Stop Centers	2 more One Stop Centers have been created (Gisenyi and Nyagatare) and 2 DHs (Kibungo and Byumba) assessed to host a One Stop Center.

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)

a) **Community PBF**

Main achievements in 2011-2012

- Training CH supervisors at district hospital and HC and 15 representatives from each coop on Policy, cooperative management and project design;
- Supervision of CHWs cooperatives;
- Follow up on cooperatives' paper work requesting legal registration, tracking at various levels and speeding up the process (especially district and national levels);
- Coordination and chairing of cooperatives TWG meetings;
- Organization and participation of monthly radio shows;

- Organization and execution of cooperatives' study visits;
- Preparation and signing of financial agreement between CHW's cooperatives and MOH;
- Supervision of local NGO's;
- Execution of web based financial reporting tool;
- Compilation and analysis of financial information from cooperatives;
- Drafting and validation of supervision, assessment and performance tools.

CBP / Family Planning

Community-Based Provision (CBP) of FP reflects a fundamental shift in the philosophy of family planning programs in Rwanda. MoH has outlined elements of this program that guide its implementation by: Training, integration of injectable family planning into the current CPB package, service delivery,monitoring and supervision, quality assurance. The Community Based Provision will constitute a major innovation if implemented successfully.

For the fiscal year 2011-2012, the main achievements are:

- Implement the CBP program in 13 new Districts (HUYE, NYANZA, BURERA, GAKENKE, GICUMBI, RULINDO, RUBAVU, KARONGI, RUHANGO, NYAMAGABE, NYARUGURU, KIREHE and BUGESERA);
- Review the CBP tools and training modules;
- Trainings done at the different levels (DHs, HC and CHWS);
- Formative Supervisions on the CBP activities in HUYE, NYANZA, BURERA and GAKENKE districts;
- Review of the supervision tools for CBP activities at all levels;

b) C-MNH (Community- Mother and New Born Health Care)

Coordinate the CHWs training and refresher training in Home Based Maternal and Neonatal Care in the Districts of GASABO, GICUMBI, NYARUGURU, RULINDO, NYAMASHEKE and NYAMAGABE. Only training of trainers has been realized. NYARUGENGE and GATSIBO have not been trained because of budget constraints. All CHWs tools and materials have been distributed.

c) CBNP (Community based Nutrition Program)

Objective

Strengthen and scale-up community-based nutrition interventions/program (CBNP) to prevent and manage malnutrition in children under the age of 5 years, with particular focus on those aged less than two years, and in pregnant and lactating mothers

Identification of malnourished children is the main achievement of CBNP:

The screening of malnutrition was done monthly during the growth monitoring and promotion (GMP) session, and the annual screening campaign held door to door by CHWs thought all household with children under 5 years in December from 12-16, 20 11.

The reports of GMP are monthly entered in SIScom database, including the malnourished children transferred and followed to/ from health facilities by community health workers. (See results in the Nutrition chapter) .

Training on Mother, Infant and Young Child Nutrition

Master Trainers at national level; 137 trainers at district level; 954 Trainers at health center level; 6.123 Community Health Workers in GISAGARA, NYARUGURU, NGOMA, KIREHE, NYAMAGABE, MUSANZE and NYAGATARE districts;

RapidSMS and mUbuzima.

Training on RapidSMS and mUbuzima has finished in all districts. Community health workers have started to report on testing server for both systems. 23 Districts have started to report on RapidSMS production server hosted in MTN data center. From May, 2012 all CHWs registered in mUbuzima systems have started to report on production server.

The biggest problem is the low level of reporting in both systems. But for RapidSMS, in MUSANZE, we have a good reporting rate where they started reporting in 2 years ago, and BUSHENGE Hospital where they achieved 75% of reporting.

I.9 Environmental Health

In the fiscal year ending June 2012, the following key activities were conducted in the various fields in Environmental Health desk.

1. Injection safety and Training and commodity supply
2. Community based Environmental health promotion program
3. Food safety, Drinking water quality
4. Community based environmental health promotion program (CBEHPP)
5. Environmental Health Inspection

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

Training of 906 health care providers 426 CHWs on injection safety and health care waste management and hospital hygiene
Review of EH documents (different guidelines and the policy on injection safety)
Evaluation of injection safety and waste management practices in 8 DHs and their HCs
Procurement process for the purchase of incinerator for KABGAYI Hospital
Production and airing of messages on prevention of nosocomial infections
Evaluation of KPA (Knowledge, Prtactice and Attitude) on household hygiene parameters

b) **Community Based Environmental Health Promotion Program**

The Kinyarwanda manual for Community Hygiene Club facilitators and Community Health workers has been reviewed. The training of 181/200 (91%) trainers targeted at District level on hygiene and sanitation in 6 Districts was carried out.

Training of CHWs in charge of social affairs in Districts on CHC methodology using participatory approach: 82 in BUGESERA, 1419 in NYABIHU, BURERA 272, 233 in GATSIBO and 699 Community Hygiene Club committee members in GATSIBO District have been trained on hygiene and sanitation promotion

Printing and Distributing of CBEHPP tools: 116,875 hygiene booklets for CHWs, 5760 CBEHPP Road maps, 23606 CBEHPP brochures for the whole country.

c) **National Hygiene and Sanitation Campaign**:

- Production and airing of hygiene and sanitation TV and radio spot messages.

- Ministerial instruction on the use of smart cover head, hygiene and sanitation law.
- 120 radio spot messages, 675 messages are aired on five community radios
- 78 messages on Radio Rwanda and 120 Hygiene and sanitation TV spot messages are aired on Rwanda Television for 60 days.
- Designing of posters, banners brochure and stickers on hygiene and sanitation: 12,000 stickers and 100,000 brochures will be printed and distributed in Districts, 900 round neck T. shirts, 6,000 posters and 630 pieces of soap and 7 banners were distributed.

d) **Food Safety:**

- Educative inspection were conducted in 155 food establishments (Hotels, Restaurants, Bars) out of 250 planned in Kigali City (62%), and in the Public Place Warehouse (WFP).
- 185 ToTs of District hygiene inspectors on food safety and hygiene inspection in 30 Districts
- National draft food safety policy finalized, reviewed and validated.
- Updated food hygiene inspections tools, training manual, Food safety policy Raising public awareness on food safety standards through radio and TV messages.
- Development of technical specifications on food safety kits.

e) **Environmental Health and Inspection:**

- Development of the Hygiene and Sanitation Law;
- Development of the National Strategy for Drinking Water Quality Surveillance;
- Ensuring hygiene and sanitation during national events
- Review of the Hygiene Inspection inventory of the Kigali City
- Training of 185 members of District Hygiene Inspection committees from 30 Districts;
- Distribution of 39 water quality Testing Kits to District Hospital EHOs;
- Procurement and distribution of 1,200,000 sachets to low incomes and vulnerable families in Eastern Province;

f) **Health care waste management and hospital hygiene**

- Incineration of 90,253 kgs of expired drugs using existing incinerators and monitoring of the process
- Identification of new disposal method to

destroy infusions (Sewer method)

- Purchase of an industrial incinerator. Installation works is ongoing in Mageragere site.
- Construction of a waste water unit in UTHB is completed.
- Process has started to purchase and install 10 incinerators for the destruction of expired drugs, biological and non biological wastes from all health facilities in the country.
- Follow up the construction of 14 separated waste pits constructed in 18 Health Centers;
- Provision of technical specifications for 20 incinerators and of their installation sites
- Agreement made to recycle waste pouches in Polyvinyl Chloride
- Data collection and compilation of waste management protocol, establishment of a comprehensive work plan for the disposal of pharmaceutical wastes
- Design and follow up of implementation of environmental health project in Nyagatare DH.

g) Drinking Water Quality

- Development of national strategy for drinking water quality surveillance
- Distribution of 39 water quality testing kits to district hospitals
- Distribution of 1,200,000 PUR sachets to low income and vulnerable families in Eastern Provinces

II. PREVENTION, TREATMENT AND CONTROL OF DISEASE

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

II.1 Health Promotion

During fiscal year 2011-2012, several activities related to health promotion have been carried out to improve access to health services through health messaging, hotlines and documentation services, media as well as campaigns.

II.1.1. Disease Prevention and Control Messaging

Mass sensitization on health issues has been conducted as a cornerstone strategy towards improving access. Through RBC/RCC Division:

- Mass sensitization campaigns were conducted through a broadcast of 48 episodes of radio and TV program on subjects ranging from HIV/STI awareness, TB, hygiene and sanitation, to condom use.
- Radio programs were diffused on 5 radio stations, 2 town hall meetings organized on sensitizing the general public on RBC, Mutuelle de Santé, NCDs, and improved patient care by health providers.
- Booklets covering sensitization topics related to HIV/AIDS were also produced, validated and disseminated.
- RBC/NCBT informed and educated the general public on safe blood donation through various methods including billboards, flyers, leaflets and small brochures. RBC/NCBT published over 40 articles in local and international news papers magazines and websites, in addition to the distribution of targeted social marketing materials to increase public awareness
- For TB prevention messaging, each CHW was given a number of households where he/she provide messages on TB prevention to household members (leaflets, flip books and community brochures)

II.1.2 Social Outreach

In order to improve access and equity to health services, different media campaigns have been conducted:

- Production and dissemination of 1500 copies of the Ubuzima Magazine for the Health Sector.
- Toll free telephones and hotlines operational in MoH/Central Level, RBC/HIV, EID, NCBT, and Mental Health
- Health promotion activities implemented through the Urunana Soap Opera. Focus: safe sexual behavior, HIV testing, condom promotion, PMTCT, Care and Treatment, TB, Malaria, Pre-Exposure Prophylaxis (PEP) services, Male Circumcision (MC) and family planning.
- 37 radio programs were broadcasted on TB by different radio stations and 66 printed articles were published.

Other Community level interventions

Campaign	Focus
HPV Vaccination	Beginning in December 2011, Rwanda achieved an average coverage rate of 97% for all three doses in the target population of young girls.
Rotavirus Vaccination	The Rotateq vaccine was introduced into the routine under-5 immunization portfolio in May 2012.
World AIDS Day. December 1, 2011	Basic HIV/AIDS education programs launched in all thirty districts, including sensitization on HIV transmission prevention
Deworming Campaign (May 2012)	A deworming campaign was integrated with HPV vaccination and rotavirus vaccine launching and covered 93% of eligible children.
World Cancer Day (March 2012)	In conjunction with the cervical cancer vaccination campaign
World Blood Donor Day (June 2012)	An open week to showcase all its blood donation activities

In addition, RBC/RHCC supported in the organization of different campaigns such as World Malaria Day, Genocide Memorial Week, Mental Health Day, Eradication of Malnutrition, Operation Smile, Anti-Tobacco Day, World Health Day ,World TB Day, True love with Imbuto Foundation, counterfeits drugs, Police Week, and Anti-GBV campaigns, Diabetes, Heart diseases awareness campaign, etc.

II.2 Communicable Diseases

II.2.1 Malaria

The goal of the Rwanda National Malaria control strategic plan 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 by 2012.

The main MPR findings are: extraordinary progress in the fight against malaria in Rwanda: 70% decline in malaria incidence between 2005 and 2010; 60% decline in outpatient malaria cases between 2005 and 2010; 54% decline in inpatient malaria deaths between 2005 and 2010; and 66% decline in malaria test positivity rate (TPR) between 2001 and 2010.

Key achievements in 2011-2012:

a) Prevention of malaria

In 2011-2012, the distribution of Long-Lasting Insecticide Treated Nets (LLINs) was performed through routine services (antenatal care and children under one year vaccinated against measles).

In total, 301,882 LLINs were distributed to 173,261 households. Additionally, 11,750 LLINs

were distributed to Kaduha and Gitwe hospitals to cover a gap 2010. Also, 573,150 LLINs were distributed countrywide to health centers for routine EPI and routine ANC. 18,726 additional LLINs were distributed to all health facilities for inpatient wards and 28,754 LLINs were distributed to People Living with HIV/AIDS (PLWHA) in some districts.

An Indoor Residual Spraying was carried out from August 22 to October 1, 2011, and has targeted the districts of Kirehe, Nyanza, Bugesera, Nyagatare, and Gisagara. Deltamethrin insecticide (K-Othrine® WG 250, Bayer), a pyrethroid, was used to spray houses. On 364,108 structures found, 358,804 (98.6%) were sprayed, using a total of 237,805 deltamethrin sachets. Approximately 1,571,625 people were protected from malaria.

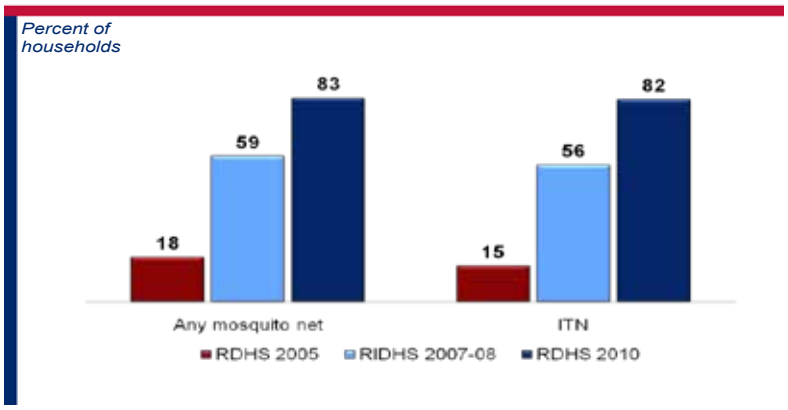
From 24th to 25th May 2012, a deworming campaign was organized in collaboration with VPDD, integrated with HPV vaccination and rotavirus vaccine launching. In total, 3,809,795 children aged between 1 and 16 years out of 4,608,550 planned (83%) were dewormed by Mebendazole, and 119,865 children aged between 5 and 16 years out of 129, 452 planned (93%) received praziquantel tablets

Table 8: Malaria: Progress of key indicators

Key Performance indicators	Period 2011-2012		
	Target	Achieved	Comment
1. Death rates associated with Malaria: all-causes under-5 mortality rate	5.1% (MDG target)	7.6%	Target on track
2. Incidence of malaria cases (all ages including under five children treated at community level)	4.0%	3.7%	Target met
3. Prevalence of malaria parasite in U5 children	< 1%	1.4%	
4. Malaria-attributed deaths at Health Facilities	473	425	Target met

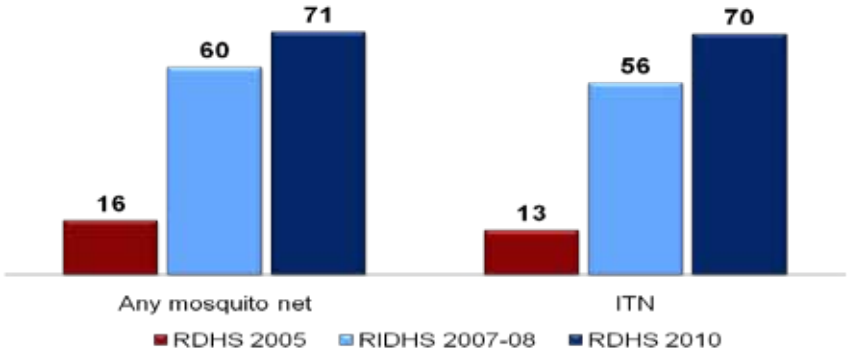
Source: RBC annual report 2011-2012

Figure 19: Malaria: Possession of mosquito nets in households



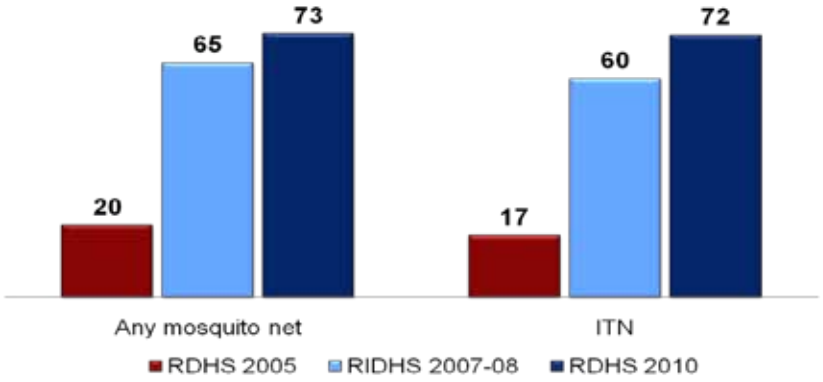
Source: RDHS 2010

Figure 20: Malaria: Utilization of mosquito nets by U5 children



Source: RDSH 2010

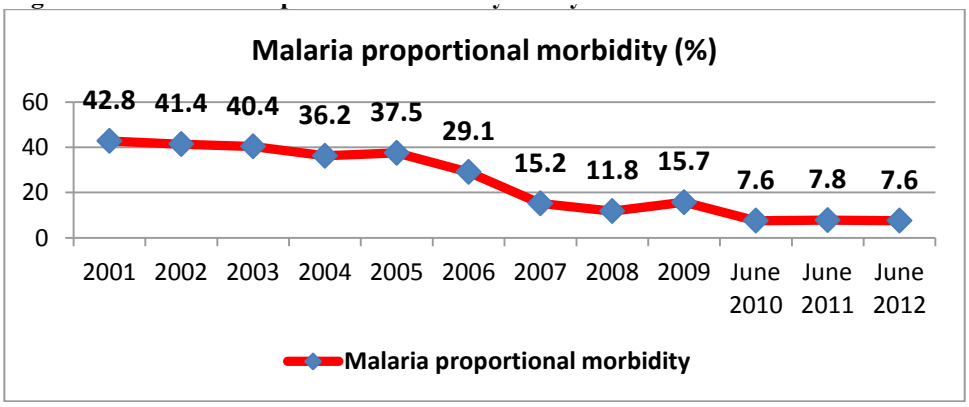
Figure 21: Malaria: Possession of mosquito nets by Pregant Women



Source: RDHS 2010

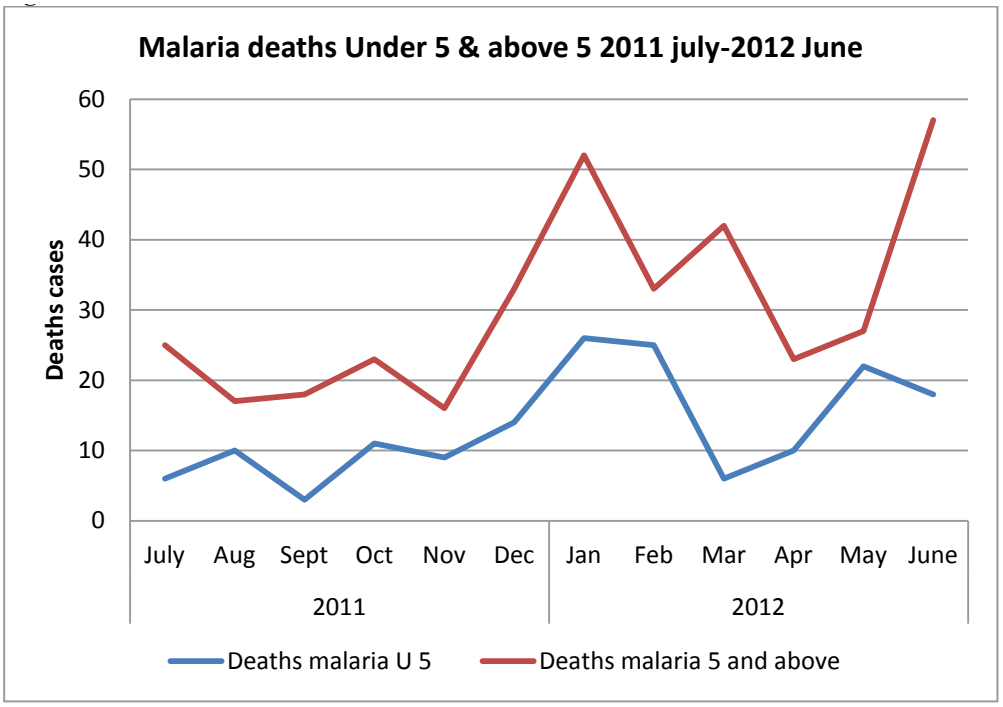
Malaria diagnosis

Figure 22: Malaria: Proportional morbidity over years



Source: RBC Annual Report 2011-2012

Figure 23: Malaria deaths in 2011-2012



Source: RBC Annual report 2011-2012

Home Based Management of malaria

Malaria activities are part of a broader package of health interventions that CHWs provide, including diagnosis and treatment of pneumonia with antibiotics and diarrhoea with ORT. All Health Centers in all districts provide community case management including HBM and implement CCM with RDTs use. At community level, all CHWs were trained countrywide on integrated community case management including HBM and RDTs use. During the fiscal year 2011-2012, 95% of children under five years were treated at the community level within 24 hours.

Table 9: Malaria: proportional mortality due to malaria 2011-2012 :

	All deaths	Malaria deaths	% mortality due to Malaria deaths
All ages	6,923	425	6%
U5 children	1,160	117	10%

Source: RBC Annual report 2011-2012

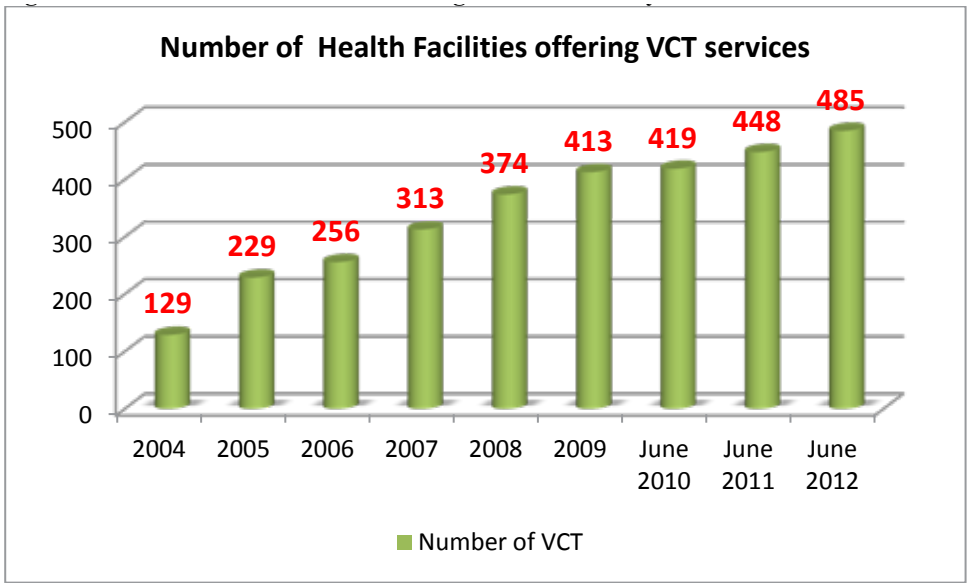
II.2.2 HIV and AIDS/STI

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

HIV Prevention Program

Routine data were collected monthly through TRACnet system. Phone and internet based reporting system used to collect routine data on ART, PMTCT, VCT, male circumcision and recently discordant couples follow up. As per June 2012, 430 ART health facilities, 467 PMTCT and 485 VCT health facilities were offering ART, PMTCT and VCT services respectively and they are reporting aggregate data into TRACnet systems.

Figure 24: HIV: Number of HFs offering VCT services by June 2012



Source: RBC annual report 2011-2012

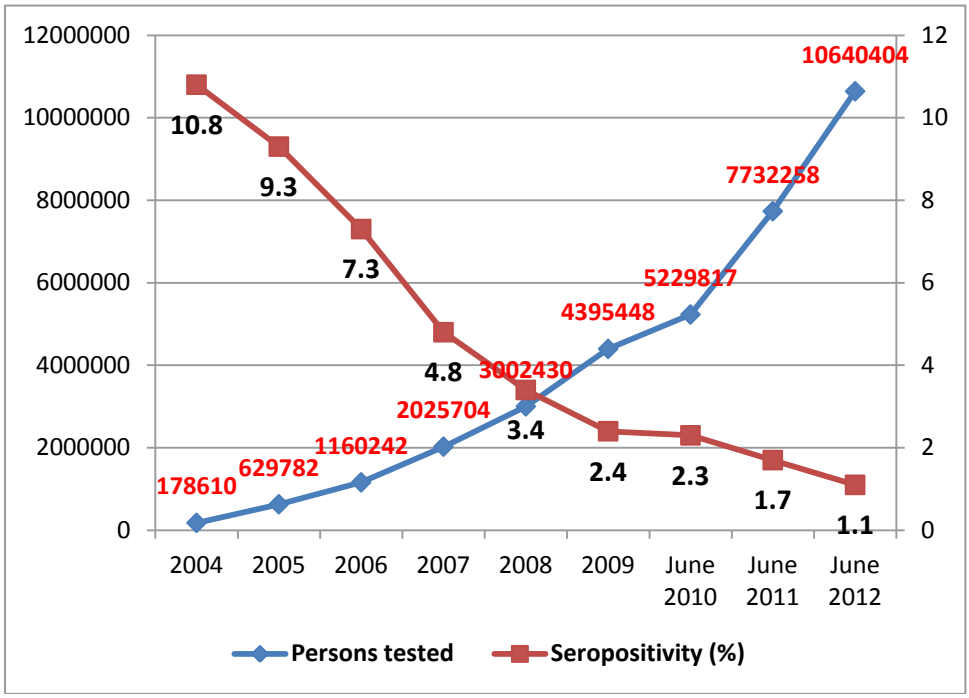
II.2.2.1 HIV Voluntary Counseling and Testing

Scale up of voluntary counselling and HIV testing at the heath facilities

From July 2011 to June 2012: 2,908,146 people have been counseled and tested in health facilities and mobile VCT.

From 2003 to June 2012, the total number of people tested for HIV through VCT program increased from 2633 to 10,640,404. This number includes both people tested in health facilities (VCT and PIT) and in mobile VCT. In the last eight years, a downward trend in HIV prevalence across the population tested was observed from 10.8% reported prevalence in 2004 to 1.3% at the end of June 2012.

Figure 25: HIV: Number of persons tested in VCT and prevalence



Source: RBC Annual report 2011-2012

Male Circumcision

Male Circumcision as an additional HIV prevention strategy aimed at reaching a target of 2 million circumcised men by 2013. 60% of new HIV infections are expected to be averted among 15-49 year olds with MC scale up. Activities carried out to reach the target of 2 million circumcisions by 2013 are ongoing:

By end of June 2012, health care providers from all 41 District Hospitals (DH) and all health center under each DH (2 nurses by Health center) have been trained on provision of Male circumcision 69,600 disposable male circumcision kits have been purchased. Procurement of reusable MC kits is ongoing. Weekend provision of MC services to clients has started in 5 District Hospitals: Ruhengeri, Nyanza, Rwamagana, Kibagabaga and Gisenyi and will be scaled up.

MC campaigns were conducted in 19 District Hospitals by CHWs during the decentralized trainings in Male circumcision and in their catchment health centers. Radio spots on 5 local radio stations and national TV were broadcasted.

Availability and accessibility of Male and Female condoms:

700 condoms vending machines already installed in Bars, Hotels, Lodges, and Restaurants of Kigali City and are additional condoms to the usual sales outlets, in order to support the social marketing sector in increasing the number of condom sales outlets. In partnership with the Private Sector Federation through the Rwanda Hotel Association, UNFPA and PSI-Rwanda, 685 machines have been installed countrywide.

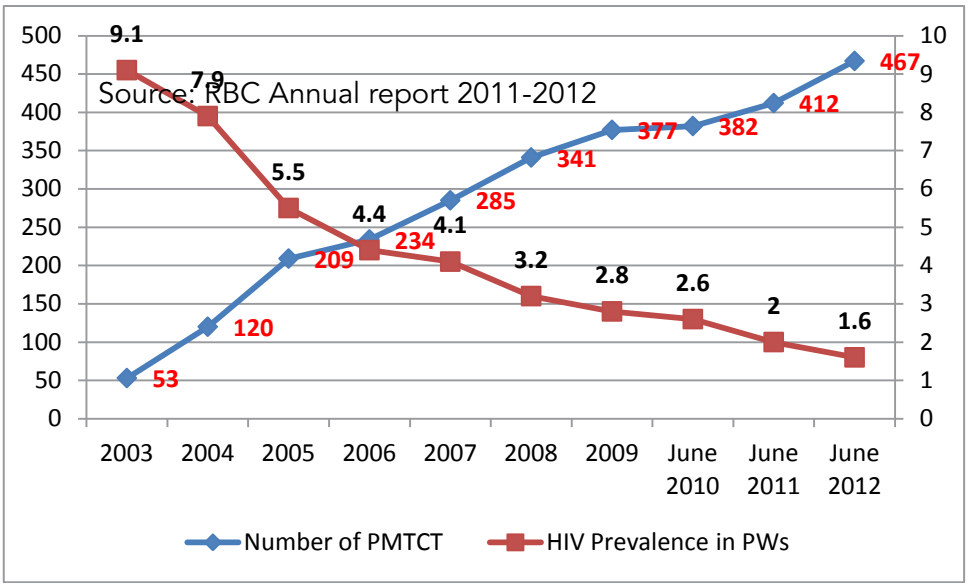
Distribution reports from both the public and social marketing sectors show a substantial increase in annual condoms distribution i.e. over 24 million condoms from 15 million in 2009. Though faced with the challenge of accounting for condoms distributed in the private commercial sector, Rwanda is on course to achieve its target of distributing 26 million condoms annually by the end of 2012.

II.2.2.2 Prevention of Maternal to Child Transmission (PMTCT)

Scale up of PMTCT activities in Health facilities

By June 2012, 467 HF offered PMTCT services, up from 404 in June 2011, with a national coverage of 93%. (85% in June 2011). From July 2011 to June 2012, the expected number of pregnant women attending ANC was about **321,932**. Among them: **98.2%** were counseled and tested for HIV and received their results and **1.6%** were tested HIV positive.

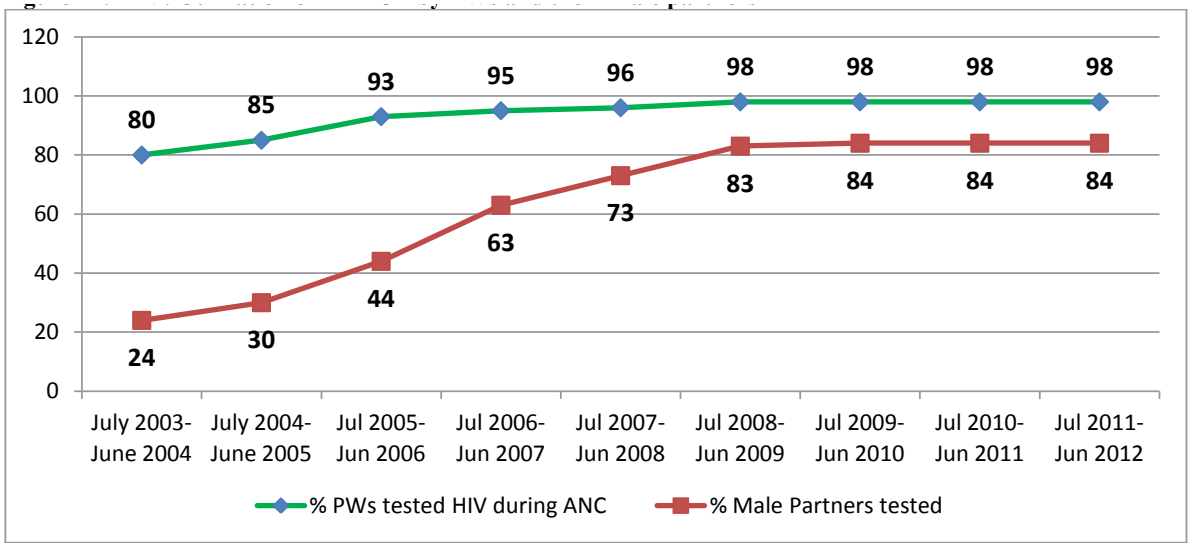
Figure 26: HIV: HFs offering PMTCT services and HIV prevalence in PWs



Involvement of Male Partners in PMTCT:

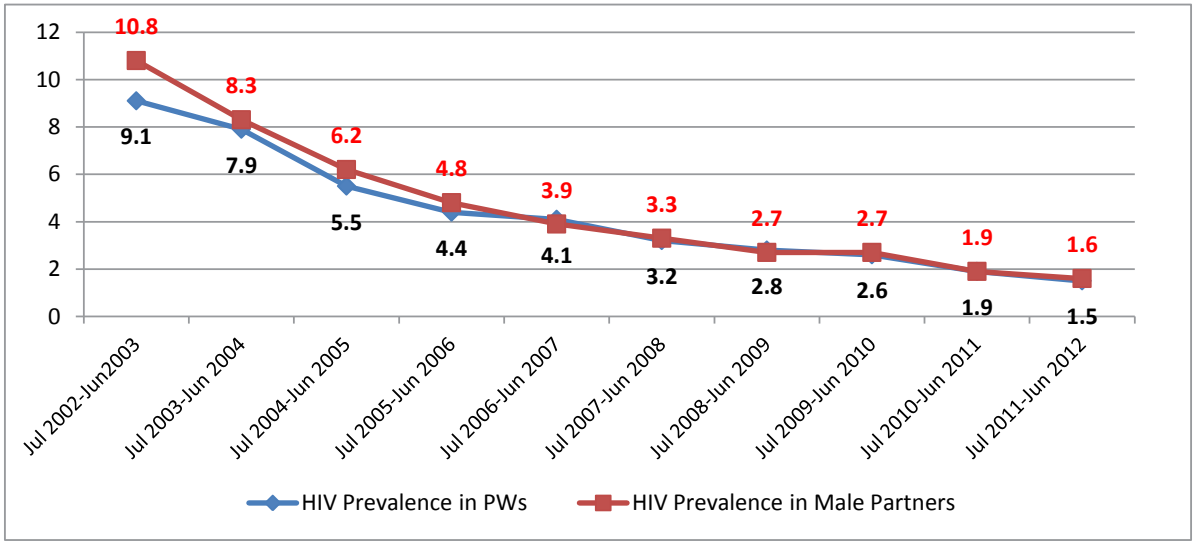
Between July 2002 and June 2003, only 26.4% of male partners of pregnant women were counselled and tested, but their participation increased to 84% during July 2011-June 2012. For the same period, the proportion of PWs utilizing PMTCT increased from 80% in June 2003 to 98% in 2011-2012.

Figure 27: HIV: Utilization of PMTCT by PWs and their Male partners



During the period from July 202 – June 2003 to July 2011 – 2012, the HIV prevalence of PWs tested in PMTCT reduced from 9.1% to 1.5%, while the proportion reduced from 10.8% to 1.6% for their male partners.

Figure 28: HIV: Reduction of HIV prevalence among PWs in ANC visits

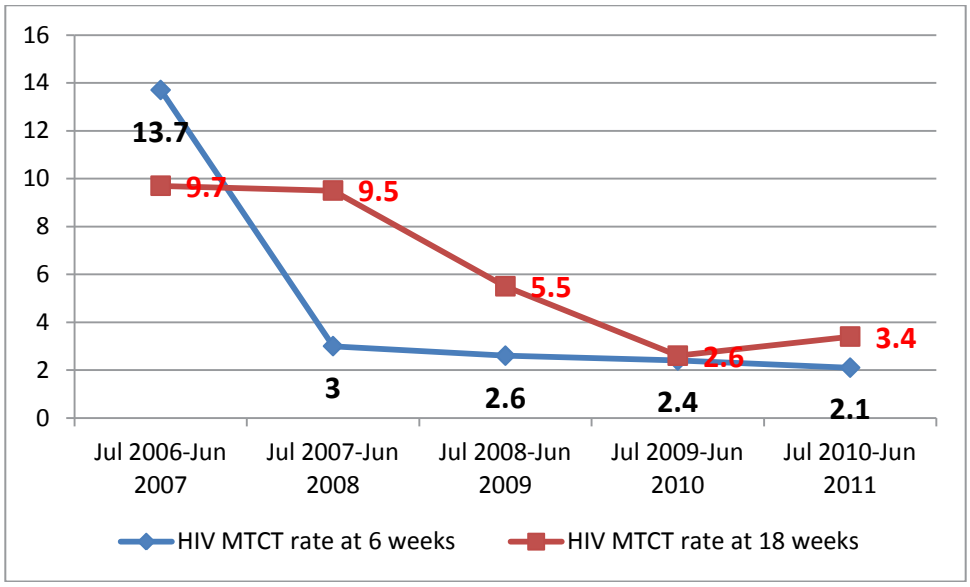


Source: RBC annual report 2011-2012

ARV prophylaxis in pregnant women

From July 2011 to June 2012: 7,143 PWs have received ART prophylaxis. This number includes pregnant women tested HIV positive and HIV negative in discordant couples. ARV prophylaxis/treatment was provided according to the current protocol used in Rwanda. 84% (using EPP 2011 data as the denominator) of HIV infected pregnant women have received ART prophylaxis and 93% of HIV exposed Children have received ART prophylaxis

Figure 29: HIV: Mother to child transmission over years



Source: RBC Annual report 2010-2011

Activities in line with Elimination of Mother to Child HIV transmission:

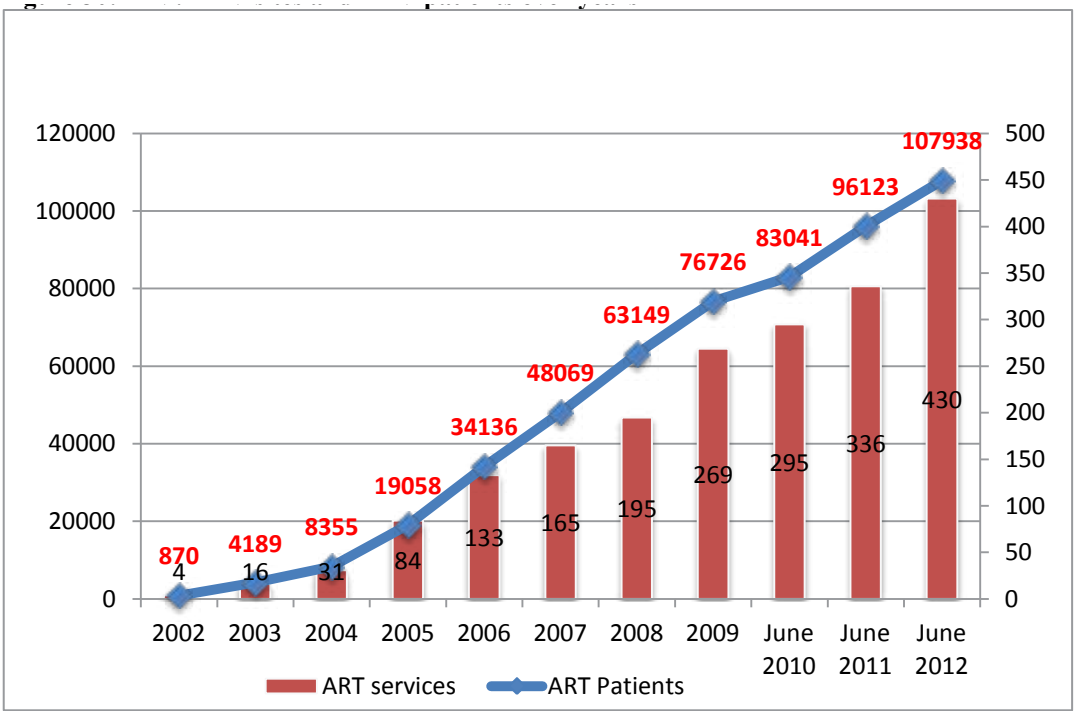
- A comprehensive equity-focused strategic analysis of the PMTCT program to inform the development of national plan for Elimination of MTCT by 2015 was conducted and the results are available
- A national consultation meeting to formulate strategic orientations that will strengthen all the four PMTCT prongs, as part of the national MTCT elimination plan 2011-2015 was conducted and the recommendations from it were considered.
- The national EMTCT plan was developed
- A costed operational plan and M&E plan for EMTCT (2011-2015) was developed
- EMTCT operational plan specific for each administrative Districts are being developed

II.2.2.3 Care and treatment of people living with HIV

By end of June 2012, 430 health facilities were offering care and treatment services, while **107,938** patients were receiving ARV services. Also, the percentage of adults and children with advanced HIV infection known to be on treatment 12 months after initiation of antiretroviral therapy is 94%, unchanged compared with the fiscal year 2010-2011.

From July 2011 to March 2012, a total of 605 health care providers (36 medical doctors, 477 nurses and 2 psychosocial officers) countrywide have been trained on comprehensive management of PLWHIV new protocol, and 25 new health facilities accredited in order to provide full package of HIV services.

Figure 30: HIV: ARV sites and ARV patients over years



Source: RBC Annual report 2011-2012

94% of People Living with HIV in need of ART receive it. This represents the highest coverage Worldwide. (World coverage =43%)

The HIV program is continually monitored and evaluated by integrated teams: Clinical Mentorship teams, integrated supervision for Data Quality Assurance, Supportive Supervisions and PBF evaluations. They also monitor Quality Improvement activities.

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.

2011-2012 Achievements

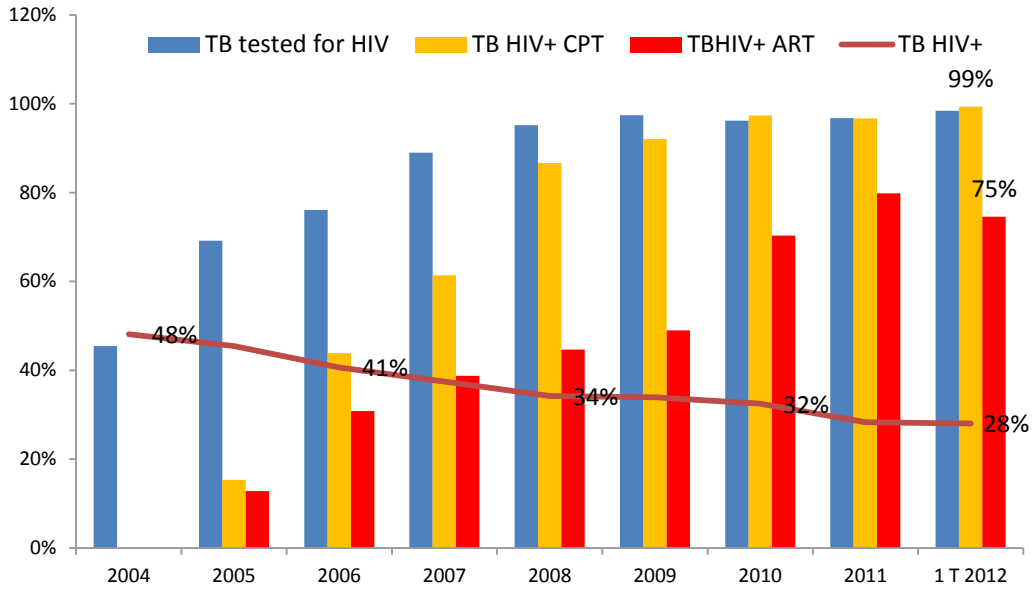
70 Multi Drug Resistant TB patients out of 80 were successfully treated (88%). Three multi-drug resistant TB (MDR-TB) specialized care centers are in operation in Rwanda at the time of this report. Each newly diagnosed MDR-TB a patient is hospitalized within those centers for approximately 3-4 months on average before follow-up treatment begins at the nearest health facility.

67 health workers (33 medical doctors and 34 nurses) have been trained on TB testing and treatment of MDR/TB. Nutritional support and transportation fees are provided for all MDR-

TB patients (116) on ambulatory treatment.

To facilitate access to TB health care in their community, the community DOT has helped to manage 55% of all TB patients. The majority of TB patients are followed-up-on in the nearest health facility. Only few are in need of referral services, but when in need, they are transferred.

Figure 31: TB-HIV: Collaborative activities indicators 2011-2012



Source: RBC Annual report 2011-2012

2 020 health care providers were trained on different TB control activities (TB, TB/HIV, Chest X-ray reading, PAL, and TB data management), and on Leprosy control activities (doctors, nurses, nursing school teachers, data managers, M&E officers and supervisors of TB activities at District Hospitals). Also, 6 229 CHWs across the countries were trained on the screening and management of TB patients.

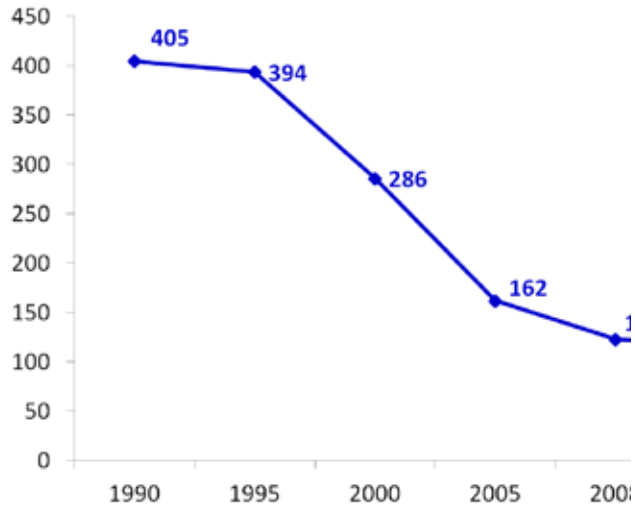
All 14 prisons were sensitized on TB symptoms and prevention. In total 1 687 peer educators and 180 nurses, administrative staff and social workers attended the sensitization campaigns.

Table 10: TB: Key performance indicators

Indicator	Target	Achievement
TB treatment success rate among new SS+	87%	88,4%
Number and Percentage of TB patients (all forms) tested for HIV (numerator) of all TB patients (all forms) registered (denominator)	97%	99%
Number and Percentage of TB/HIV patients receiving ART by the end of TB treatment out of all TB/HIV patients	69%	70%
Smear conversion rate of confirmed MDR patients at month 6	80%	90%
MDR-TB treatment success rate	80% (WHO)	88%

Source: RBC Annual report 2011-2012

Figure 32: TB: Trends in TB incidence rates (WHO estimates)



Source: RBG Annual report 2011-2012

II.2.4 Management of Epidemic Infectious Diseases

Achievements in 2011-2012

Integrated disease surveillance and response: During this year, 18 diseases under surveillance and other health events were closely followed up based on the WHO standard (weekly and immediate epidemic prone diseases reporting). On weekly basis, epidemiological bulletins were generated and distributed/shared with all concerned institutions. Surveillance for avian influenza surveillance was also carried out in 6 sentinel sites of: Kibungo, Ruhengeri, Gihundwe, CHUK, CHUB and Kibagabaga hospitals with the objective of tracking the circulating species of influenza in the country.

Outbreak management and preparedness:
During this year, we investigated and responded to the following outbreaks:

Table 11: Outbreak management and preparedness

Start Date	Disease or Event/ Outbreak	Location	Estimated # of Cases	# of deaths	Etiology Identified?
24/10/2011	Cholera	Nyamasheke	14	0	yes
26/12/2011	Food Poisoning	Gisagara	117	0	yes
13/2/2012	Cholera	Rubavu	13	0	yes
8/3/2012	Rubella	Gicumbi	66	0	yes
5/5/2012	A. hemmorhagic Conjonctivitis	Contry wide	≥1500	0	no
27/5/2012	Food poisoning	Nyamagabe	129	0	no
6/6/2012	Influenza	Rusizi (Prison)	309	0	yes

Source: RBC Annual report 2011-2012

Diseases prevention and control messaging

Cholera prevention and control posters were provided at Rubavu borders with DRC, in all Gisenyi DH health centers and Nkamira refugee camp.

A toll free telephone (4545) was established for epidemic diseases and training of end users is planned. Two Girubuzima programs for a period of 8 weeks on 6 radio stations (Radio Rwanda and other community Radio stations) and on TV were produced. The messages focused on prevention of poor hygiene related diseases

Enhance Monitoring & Evaluation and Surveillance:

For the training of health care providers on communicable, mental illnesses and non communicable disease: 2 trainings have been organized: training of trainers (ToT) for all district hospitals and two referral hospitals (CHUK, CHUB) on integrated disease surveillance and response. The second training was for the implementation of the use of the new electronic Integrated Diseases Surveillance and Response (e-IDSR) tool for diseases recording and reporting.

Finally, five weeks supportive supervisions on e-IDSR data quality evaluation and improvement were organized for five cross-border DH (Gisenyi, Kibungo, Byumba, Gihundwe and Nyagatare) and 72 of their health centers.

Challenges: sustainability of the softwares, interconnectivity between the systems, small budget for running all e-health systems (LAN and equipment, connectivity, hosting).

II.3 Non Communicable Diseases (NCDs)

Increasing burden:

The World Health Organization reports NDCs to be the leading cause of mortality in the world, representing over 60% of all deaths (36 millions/57 millions deaths in 2008). Every year, at least 5 million people die because of tobacco use and about 2.8 million die from being overweight. High cholesterol accounts for roughly 2.6 million deaths and 7.5 million die because of high blood pressure.

Historically, many NCDs were associated with economic development and were so-called diseases for rich. With an estimated 80% of the four main types of NCDs - cardiovascular diseases, cancers, chronic respiratory diseases and diabetes - now occurring in low- and middle-income countries, and with two-thirds of people who are affected by diabetes now residing in developing nations, NCD can no longer be considered just a problem affecting affluent societies.

As previously stated, in 2008 alone, NCD's were the cause of 63% of deaths worldwide; a number that is expected to raise considerably in the near future if measures are not taken. By 2030, deaths due to chronic NCDs are expected to increase to 52 million per year while deaths caused by infectious diseases, maternal and prenatal conditions and nutritional deficiencies are expected to decline by 7 million per year during the same period

The Burden of non communicable disease is rising in sub-Saharan Africa according to WHO estimates where they account for 60% of all deaths. Aware of the situation, Rwanda has embarked on treating and protecting its population from emerging risk factors that accompany urbanization, globalization of trade and marketing and progressive increase in unhealthy lifestyle patterns.

Issues to be addressed:

- Health promotion and prevention of NCDs
- Strengthening capacity of the health system for prevention and control of NCDs
- Surveillance of NCDs and their risk factors

Solutions:

- Empowering the community by raising awareness on the NCDs risk factors and health education
- Sustainable Strengthening of capacity in the health system
- Establish a coordinated, cost effective, multidisciplinary and sustainable NCDs program

Strategic interventions

- Conduct a population based survey on the NCDs risk factors- By the end of 2012
- Develop pediatrics cancer protocols- By June 2012

- Continuous health education through the media and local authorities to raise awareness on NCDs

Achievements in 2011-2012:

1. Protocols and guidelines for the Management of 6 cancers to be validated by the next GSMM June 2012. The 6 cancers are: Hodgkin's Lymphoma, Non Hodgkin's Lymphoma, Burkitt's Lymphoma, Acute Lymphoblastic Leukemia, Chronic Myelogenous Leukemia, Nephroblastoma, Osteosarcoma

2. The policy has been developed and the strategic plan for NDCs is still in its early stage.

3. The Government has promoted mass sport as a physical exercise to prevent diseases caused by immobility

4. Creation of the cancer treatment center in Butaro district hospital

5. Protocol for assessment of risk factors has been developed and approved. Data collection to start in Q1-Q2/2012-2013

6. Annual health check up is currently reimbursed by health insurances

7. Introduction of vaccination against Human Papilloma virus to prevent cervical cancer

8. Awareness sensitization to the population on the risk factors and prevention

9. Patients victims with renal failure (acure and chronic) are assisted by Gov. to get care in the referral hospitals (CHUB and KFH)

10. Capacity building to treat and control cervical cancer:

- All training sessions planned were conducted. Still waiting for tests and machines to be provided by Quiagen.

- LEEP, Cryotherapy and Colposcopy machines will be available in one month (May 2012)

- 4 Referral hospitals trained : CHUK, CHUB, KFH and KMH were trained;

- 6 District hospitals (Rwinkwavu, Butaro, Kirehe, Kibagabaga, Ruhengeri & Muhima) and 15 health centers trained (Ruhengeri district hospital: Kinigi, Shingiro and Murandi Health Centers), (Rwinkwavu district hospital: Nyamirama, Cyarubare and Ndego Health centers), (Butaro: Kinoni, Gitare and Bungwe Health centers), (Kibagabaga: Kabuye, Kinyinya and Kayanga Health Centers), (Muhima : Gitega, Kabusunzu and Biryogo health centers).

- Equipment: LEEP, colposcopy and cryotherapy machines are in the ordering process and are expected in one month. HPV tests will be available also next month.

III INSTITUTIONAL CAPACITY

Program objective: To Strengthen the Sector's institutional capacity

III.1 Planning, Health Information System

III.1.1 Planning

Apart from routine activities of preparing annual plans of action, developing MTEF, the most important activity carried out in 2011-2012 is the development of HSSP III and the organization of the joint health sector reviews.

Districts have also been assisted in the development of their health strategic plans: the planning guidelines for District planning and for District hospital planning have been developed and approved, training sessions were organized for the district health staff and the follow up and the District planning process was ensured from the central level.

The EDPRS I self assessment has been conducted. Both results of HSSP-II MTR, DHS 2010 and of EDPRS self-assessment recommendations have been used to set priorities and targets for HSSP III as well as for the revision of the Vision 2020 indicators. Another important activity of the Planning/M&E is the revision of the MTEF programs and subprograms to align it with the new template of HSSP III.

For M&E, the data sharing policy and guidelines have been developed, while the new HMIS software (DHIS-2) has been finalized and operationalized since January 2012.

Finally, for a better monitoring of health activities at district level, District M&E officers have been recruited and trained, while data quality assessment is conducted at quarterly basis and reports and feedbacks provided.

III.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 nationally 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 (see e-Health Strategic plan 2009-2013). Achievements are:

a) RHEA Project

E-Health unit has started work on the Rwanda Health Enterprise Architecture project (RHEA). Under RHEA, the development of the Provider Registry, Facility Registry, and Terminology services was completed. Implementation of these registries was piloted at the Rwamagana district hospital and started July 2012. The development of the Client Registry has started and will be completed by the end of 2012.

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 and we are at the initial stage of rolling out the system. As of June 2012, 55

health centers are using the system. Activities carried out are:

- Training of 235 users of the system
- Equipment and system installation in 126 health centers and 10 hospitals.
- Development of a module to migrate data from IQChart to OpenMRS
- Development of a minimum package of hospital management system
- OpenMRS and TRACnet interoperability

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

Routine aggregate reporting systems

The e-Health unit has implemented four sub-systems: Health Management Information Systems (HMIS), Système Informatique de Santé Communautaire (SIScom), Treatment and Research AIDS Centre Network (TRACnet), and Electronic Integrated Disease Surveillance and Response (e-ISDR).

ISCOM, which was managing HMIS, was migrated to DHIS-2. As of June 2012, data managers are trained in reporting HMIS data in DHIS-2 and more than 445 health facilities report in DHIS-2 every month. TRACnet is fully functional nationwide to track HIV indicators and EISDR is operational in 8 districts.

Health Resource Systems

Health resource systems chosen 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 andlinked to the Ubudehe categorization database.

(b) **The Resource Tracking Tool**: used every year to collect information related to different donors, types of funding, and funding categories.

(c) **DHSST**: a planning tool, fully operational in all district hospitals and 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 since June 2012.

(e) **Blood bank information**: functional in 3 out of 5 sites as of June 2012.

(f) **Logistic Management Information System (LMIS)**: currently in development.

(g) **Lab Information System (LIS)**: created and teams have been trained on this system. Its development still in process.

Infrastructure development

In 2011-2012: 40 health centers and 7 hospitals have been cabled with LAN. The equipment purchased includes 84 laptops for central level and 175 laptops for district hospitals (Ntongwe, Kinihira, Bushenge, Rwamagana, Kibagaba, Ruhengeri, and Kabgayi). Video conferencing equipment was purchased (1 central level and 4 for DHs). MOH purchased 6 computerised Radiography for 6 hospitals (Gihundwe, Gakoma, Muhima, Byumba, Gahini, and Shyira). The fiber optic connectivity reached 21 district hospitals since June 2012.

III.3 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 2011-2012

Law, Ministerial instruction or Policy	Status
Law controlling the use of Narcotics in Rwanda	Published in the Official gazette of 9th May 2012
Law on Tobacco Control	Being discussed in the Parliament
Bill Establishing Compulsory Professional Liability Insurance for Health Professionals	To be tabled for Second Reading in the Parliament after review by the Commission
Bill Establishing Health Insurance Schemes	Being discussed in the Parliament (Commission)
Bill Modifying the Rwanda Medical and Dentist Council	Being discussed in the Parliament (Commission)
Bill regulating Food, Medicines, Cosmetics Pharmacies, Herbal Medicines and other medical devices	Being discussed in the Parliament (Commission)
Draft Law on Pharmacy Council	Being discussed in the Parliament (Commission)
Draft Law on Allied Health Professions	Being discussed in the Parliament (Commission)
Draft Law modifying and complementing the law n°54/2010 of 25/1/2011 establishing Rwanda Biomedical Center (RBC) and determining its mission, organization and functioning	To be tabled for Second Reading in the Parliamentary Plenary after review by the Commission
Draft Law Modifying and Completing CHU Law	Submitted to MINIJUST for Legal Opinion
Draft Law on the establishment, organization and functioning of health care facilities in Rwanda	Submitted to PMO ready to be approved by the Cabinet.
Ministerial order determining the list of paramedical professions and their regulations	Published in the Official Gazette n° 52 of 26/12/ 2011
Draft Ministerial Orders And PRIME Ministerial Order Implementing the Law on Narcotics	Submitted to MINIJUST for legal Opinion
Ministerial order n° 20/25 of 18/04/2012 determining the profession of nurses and midwives	Published in the Official Gazette of 21st May, 2012

Law, Ministerial instruction or Policy	Status
Ministerial order n° 20/26 of 18/04/2012 establishing a committee of amputation and transplantation of organs, tissues or products of human body utilization and determining its responsibilities and functioning	Published in the Official Gazette of 21st May, 2012
Ministerial order n° 20/27 of 18/04/2012 determining procedures for importation and exportation of organs, tissues or products from a dead person;	Published in the Official Gazette of 21st May, 2012
Ministerial order n° 20/28 of 18/04/2012 determining the donation card and the will form for the person donating his/her body	Published in the Official Gazette of 21st May, 2012
Ministerial order n° 20/28 of 18/04/2012 determining the donation card and the will form for the person donating his/her body	Published in the Official Gazette of 21st May, 2012
Ministerial Order n° 20/30 of 18/04/2012 establishing a list of diseases which a person willing to donate or receive an organ or tissue of human body must undergo for a medical test	Published in the Official Gazette of 21st May, 2012
Ministerial order n° 20/31 of 18/4/2012 determining the modalities for deployment of health staff in the health sector	Published in Official gazette n° 25 of 18/6/2012
Ministerial instructions determining the procedure for communication and managing epidemics prone diseases and other events of public health.	Signed and in application
Ministerial instructions regulating the use of cover heads under a motorcycle helmet by motorcyclists and passengers	Signed and in application
Health Policies developed in 2011-2012	
Adolescent Sexual and Reproductive Health and Rights Policy	
Health Sector Emergency Preparedness and Response Policy	
Chronic Renal Disease Policy	
Policy on waste management in health care settings	
Food Safety policy	
Health Promotion policy in schools	
Mental Health Policy	

III.4 Decentralization

The Decentralisation and Integration department is under the Planning General Directorate. This department has a main duty to ensure the implementation of decentralization framework, according to the decentralization policy, in the coordination of health activities both at central and district level. The strengthening of the District health system is key element to achieve the main objective and improving the health service delivery in health facilities.

To fulfil its mission, the following main duties are assigned to Decentralization:

- Support districts in planning (strategic plans and operational plans) and implementation of planned activities
- Mentor health facilities in order to ensure the continuous quality improvement and respect of 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 extension of HIV services in all health facilities

a) Reorganization of the District Health System

The goal for the health decentralization in Rwanda is to improve the service delivery, greater coverage and greater local coordination over health activities at all levels of the district health system. For this purpose, a guidelines document has been developed to reorganize the district health system. The guidelines is suggesting changes which will allow the 3 staff (health promotion officer, planning coordinator officer and the M&E officer) to work as a team under the director of health

b Improvement of District planning

This was achieved through different workshops and trainings, in order to develop appropriate methodologies and operational policy framework to implement the new strategic plans (EDPRS II, HSSP III) to the local health facilities within the dynamics of the decentralized health system at district level. The trainings were focused on: planning, designing "data for planning" reports, decentralized health planning provincial trainings,

The final result was:

- Promotion of strategic thinking
- Promotion of integrated approach to health management in the District
- Promotion of local ownership

A total of 181 officials from 240 expected attended the workshops and trainings (M&E officers, directors of hospitals, district planning officers, administrators of hospitals, etc.

c) Training on integrated supervision approach:

A number of initiatives and strategies are currently being laid in Rwanda in a bid to improve the health of Rwandan population. The package includes integrated supervisions, PBF strategy and routine data quality audits.

Due to a small number of supervisors and the big number of Health facilities they had to supervise, a decision to train the DH supervision teams on the tools. In total, 157 Health Facilities staff were trained: 40 M&E officers in DH, 78 Supervisors and 39 Data managers, as follows:

d) Track 1.0 Transition activities:

Decentralization Desk has also coordinated all activities of Track 1.0 transition concerning HIV services, clinical and financial man-

agement in 76 health facilities mainly in western province and Kigali city. Many activities have been conducted in July 2011 to June 2012 in those Health facilities involving mostly care providers and financial management staff in order to strengthen their capacity: Transition activities focused on: data collection, training of 163 Data Managers on DHIS-2 Software, Training on PEPFAR indicators, training in clinical management of Health providers (96 persons).

e) **Data quality audit:**

Data quality audit was conducted in some sites in order to improve the quality of data. These sites are TRAC clinic (CHUK/HIV clinic), Mwendo health center and Carrefour polyclinic.

III.5 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 2011-2012: activities continued as planned.

III. 6 Private Health Facilities

The main responsibility of the Private Health Facilities is to ensure policy formulation and dissemination of norms and standards in relation with health care provision in private health facilities. The desk also conduct the accreditation process of private health facilities and ensures the quality of services delivered in private health facilities and coordinate capacity building for a proper quality of services delivered in private health settings

For the period of July 2011 – June 2012, the main activities achieved are:

1. Criteria for opening the Private Health Facilities have been reviewed and signed

2. Norms and standards regarding Private Health Facilities have been developed and are in process of approval, as well as the Ministerial instruction regarding Private Health Facilities.

3. The Mapping and categorization of Private Health Facilities have been updated.

4. Training on data collection in Private Health Facilities was done for Kigali City and is ongoing for other Districts.

5. Inspection and supervision for Private Health Facilities were conducted as a routine activity.

6. Training on maternal and neonatal death audit in PHF has started and is ongoing.

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 2011 – June 2012:

IV.1 Human Resource for Health Policy

The HRH policy has been developed and is in process of approval. The HRH strategic plan is already being implemented. The objectives of the HRH policy are to:

- To improve policy, regulation and planning of HRH,
- To improve management and performance
- To stabilise the labour market,
- To strengthen education, training and research
- To strengthen monitoring and evaluation of HRH
- To address the contemporary challenges affecting HRH within the country's decentralization framework.

IV.2 Continuous Professional Development (CPD) Program

CPD is educational activities which serve to maintain, develop or increase the knowledge, skills, and professional performance and relationships that a health professional uses to provide services for patients, the public, or the profession.

The CPD program has been introduced in the framework of improving the quality of service delivery and the program has been launched officially on 5th April 2011.

In the fiscal year 2011-2012, activities so far achieved are:

a) CPD Policy: describing requirements and standards for CPD program:
b) CPD Strategic Plan: developed to build the national CPD institution and to run the CPD program.
c) The ministerial instruction obliging all medical and dental practitioners to comply with CPD policy requirements
d) Sensitization of all stakeholders (both providers and beneficiaries) at all levels
e) CPD Program M&E Plan was developed by which indicators were selected to track the progress of the program
f) Development of tools: Continuing Professional Development flyers and posters, CPD provider accreditation application forms, guidelines for CPD providers, CPD activity record form (CPD diary),
g) Development of website for RMC on which to post materials and information regarding CPD
h) Accreditation of CPD providers: so far, some 20 CPD providers have

been accredited.

i) Several CPD events have been organized by respective accredited CPD providers: some of subjects discussed are: management of obstetric emergencies, cancer and cardiac care, surgical seminar/continuous medical education (CME), trauma team training (TTT) course, ethics and professionalism, good medical practice, etc.

In 2011-2012: 10 workshops have been organized by CPD providers for beneficiaries. The number of beneficiaries of CPD program by province/facility: East 33; North 21; Kigali 49; South/West 53.

IV.3 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 are ongoing.

By June 2012: 117 doctors were being trained in the country, while 55 pursue their postgraduate studies abroad. In 2011-2012, 41 doctors have been enrolled for postgraduate studies. 5 doctors have been sponsored for master's degree in Epidemiology and Biostatistics and 3 other doctors have been sponsored fo a PhD program, while 19 MoH employees have been granted scholarship for Master's degree in Public Health. Finally, 78 MoH employees sent in short training course abroad.

Currently there are **132** specialist doctors. But the aim is to increase them to **1,170** by 2019

Also, there are **1856** A1 nurses and 271 midwives in the public health facilities and the objective is to increase them to **7,171** by 2019 by upgrading existing A2 nurses. By June 2012: 732 Nurses and Midwives were enrolled full-time while additional 313 Nurses are currently pursuing in e-learning programs.

IV.4. Deployment of Health Professionals in Health Facilities

By end of June 2012: 15,540 staffs were working in different public health facilities. Among them, there were: 132 specialists doctors, 509 general practitioners, 1793 Nurses A1, 89 Nurses A0, 271 Midwives, 6438 Nurses A2, 30 Lab technicians A0, 207 Lab technicians A1, 801 Lab technicians A2 that need to upgrade for A1, and many other Health professionals.

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 the 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 the 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 "on-budget"
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, and the annual GoR expenditure for health per person has increased from USD 6 (2005) to USD 11 (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 is 16.05%.

V.2 Budget allocation and Budget execution

Table 12: Budget execution in 2011-2012

	Allocation (RWF)	Execution (RWF)	% execution.
ALL DISTRICTS	**20,861,404,875**	**21,704,181,855**	**104.0%**
Reccurent Budget	19,511,925,656	20,354,702,638	104.3%
Development Budget	1,349,479,219	1,349,479,217	100%
TOTAL GENERAL	20,861,404,875	21,704,181,855	104.0%

Source : MoH, 2011-2012

Table 13: Budget execution at central level

CENTRAL LEVEL	Allocation (RWF)	Execution (RWF)	% execution.
MoH Central Level	**31,390,465,199**	**31,563,226,94**	**100.6%**
Recurrent Budget	22,128,669,714	22,465,063,174	**101.5%**
Development Budget	9,261,795,485	9,098,163,770	98.2%
RBC	**9,119,988,412**	**8,429,050,352**	92.4%
Recurrent Budget	8,169,779,015	7,865,817,747	96.3%
Development Budget	950,209,397	563,232,605	59.3%
CHUK (Recurrent)	**1,854,082,592**	**1,854,082,592**	**100%**
CHUB	**1,199,008,298**	**1,199,008,298**	**100%**
Ndera Hospital	**647,989,021**	**647,989,021**	**100%**
Kacyiru Police Hospital	**516,264,685**	**516,264,685**	**100%**
Total Central Level	**44,727,798,207**	**44,209,621,889**	
TOTAL GENERAL	**65,589,203,082**	**65,913,803,744**	**100.5%**

Source: MoH/Finance UNit

V.3 Health Financing and National Health Insurance Policies

Health Financing Policy

In 2009, the Government of Rwanda developed a health financing policy. The goal of the policy is to ensure that quality essential health services and particularly MDG-related interventions are financially accessible to the whole population in an equitable, efficient and sustainable manner under a results-based financing framework

The health financing frameworks have 2 pillars: (1) interventions to strengthen risk pooling for improved financial access and household income protection (demand side). (2) Interventions to improve efficiency in the allocation and use of resources and the coverage of high impact interventions (supply side).

National Health Insurance Policy

The National Health Insurance Policy is based on the principles of Universal Health Insurance and on national Rwandan values which have underpinned the achievements of the current CBHIs. Basic principles of the National Health Insurance Policy are the following:

· Equity, risk-sharing, and solidarity
· Ownership, empowerment and participation, and partnerships.
· Universality and quality:

The main objective of the policy is to build a financially and institutionally sustainable health insurance system that can guarantee the coverage of all Rwanda's citizen with health insurance.

Financing mechanisms and contribution policies

Now that the population is familiarized with these concepts through many years of practice, the time has come to address the inequity and regressivity associated with the flat rate of household contributions into the CBHI system in order to improve equity in financing and the financial sustainability of the CBHI system. The directions that guided the new policy are:

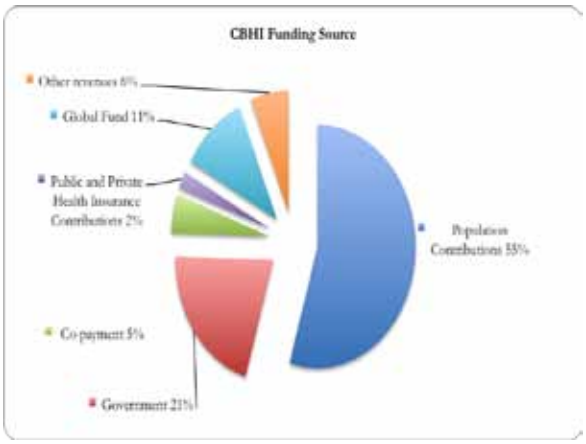
- Revise administrative structure of CBHI to align with National Health Insurance Council, and National and District Risk Pooling to create patient loaming
- Stratification of Premiums according to ability to pay based on Ubudehe Classification
- Improve financial sustainability of CBHI through improved revenue collection and creation of national risk equalization mechanisms
- Improve managerial and financial management systems
- Improve the membership in CBHI for people in the informal sector and rural areas

V.4 Community Based Health Insurance (CBHI): Mutuelles de Santé

Achievements in 2011-2012:

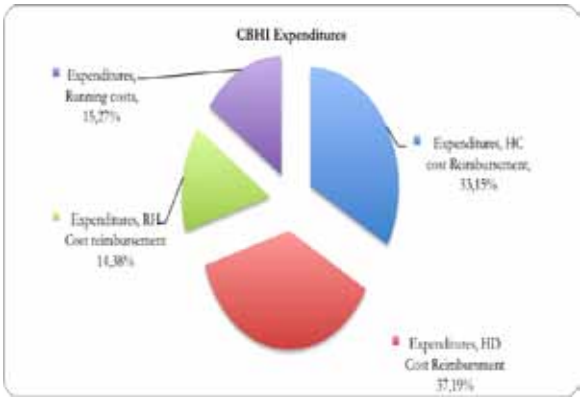
With a successful sensitization campaign on the new CBHI policy during the first year of implementation, CBHI has reached 90,7% coverage rate in 2011-2012, despite the change in premium rates. The category that contributed the most is the second one (67%) (13bn). The third category contributes the least, which implies that the enrollment of individuals in this category was very low.

Figure 33: CBHI: Funding sources, 2011-2012



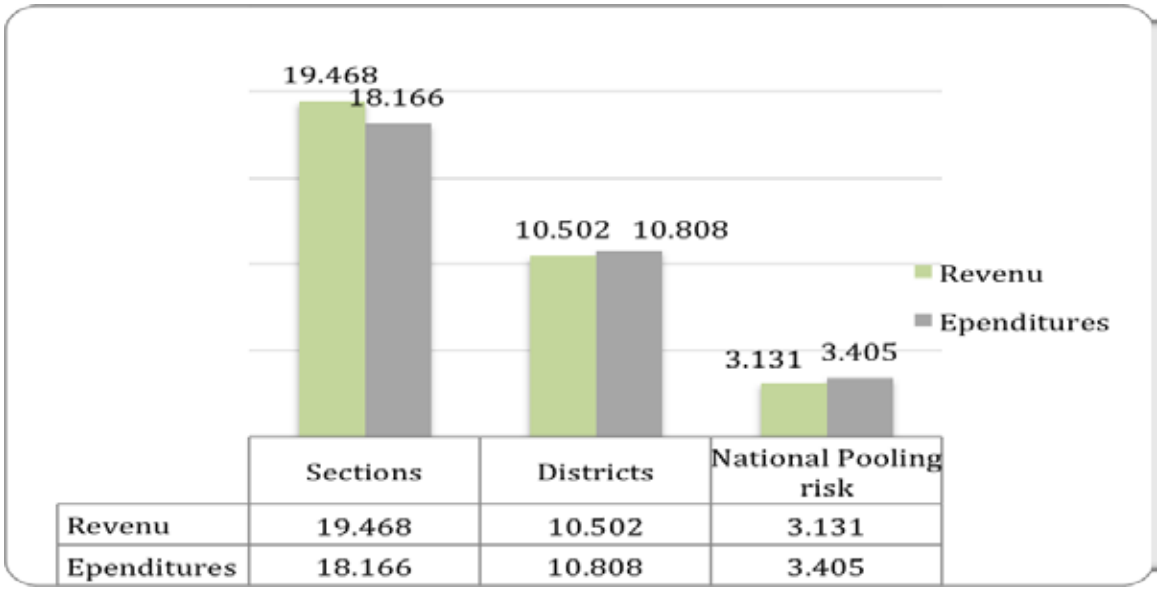
Source: MoH/HFU annual report, 201-2012

Figure 34: CBHI: Expenditures in 2011-2012



Source: MoH/HFU annual report, 201-2012

Figure 35: CBHI: Total amounts expenditures in 2011-2012



	Sections	Districts	National Pooling risk
Revenu	19.468	10.502	3.131
Ependitures	18.166	10.808	3.405

Source: MoH/HFU annual report, 201-2012
The Section level was able to cover all expenses (HC bills, running cost and transfers of 45% of premiums collected to the district level). For the district level, there was a gap equivalent to RWF 305,987,817 and for the National Pooling Risk there is a deficit of RWF 247,227,847.

V.5 Performance Based Financing (PBF)

General Objective:
To contribute to the increase of the quantity and quality of health services and to improvement of the management of health services and structures.

Achievements in 2011-2012

- Monitoring and evaluation of PBF activities in Health Services
- Ensure evaluation of PBF activities for the services of the Ministry of Health
- Ensure the remuneration of performance indicators (PMA / PCA / HIV / TB)

The Government of Rwanda, through the annual budget, contributes for 60% of the PBF budget, but this rate is 80% when funds availed by Global Fund are included. All the figures mentioned above do not include PBF distributed to the staff at Central Level. The PBF budget for Referral Hospitals is considered as a Top up, but it is accounted for in the global PBF budget.

Detailed statistics not available.

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 2012, the following activities were achieved:

VI.1 Construction of Health Facilities

Table 14: Constructions: updates of 2011-2012

Designation	Progress	Observation	Source of Funding
Completed infrastructures			
Ntongwe District Hospital	Construction finished Equipment ongoing	The hospital is operational	GoR
Kinihira District Hospital	Constructions finished at 94% Equipment and additional works ongoing	Planned to be operational in Q1/2012-2013	GoR
Rugendabari Health Center	Works completed. Equipment completed	Planned to be operational in August 2012	CDF
2 MDR-TB isolation and 5 TB isolation blocks	Completed in Kibagabaga and Kibungo for MDR-TB, and in Gisenyi, Murunda, Kirinda, Mugonero, Mibilizi, Nyanza and Remera Rukoma for TB isolation blocks.	Operational	
Masaka Hospital	Construction completed	Operational	China
Construction Maternity, Emergency units, Pediatrics in CHUB	Completed	Equipment in process	CTB/BTC
Construction Bushenge Hospital (NYAMASHEKE)	93% achievement	Works ongoing because of delays Equipment available	GoR/CTB
Renovation Kibungo hospital	Completed		GoR

Designation	Progress	Observation	Source of Funding
Construction surgery ward Rubavu (Gisenyi) hospital	Completed	A new hospital will be constructed	GoR
Centre de Santé de Kabarore (Gatsibo)	Completed	Equipment is ongoing	Plan Rwanda
Bugeshi et Mudende (Rubavu) Health Centers	Completed	Equiped	GoR
Construction University Lab, NUR	Completed		CTB
Construction Maternity and Emergency units, CHUB	Completed		CTB
Construction of a waste water unit at CHUB	Completed		CTB
Ongoing projects			
Kirehe District Hospital (phase 3)	2nd phase Construction completed "Surgery ward"	Construction phase 3 Has started Hospital is functional	Partners In Health/ Clinton Foundation and GoR
Construction Karongi Hospital (Phase 1)	Constructions started currently at 15%		GoR/PEACE PLAN
Installation of industrial incinerator at MAGERAGERE	Works are ongoing		GoR
Construction Nyabikenke hospital	Contract signed. Constructions to start in Q1/ Q2 (2012-2013)		GoR
Construction 4 Health Centers Kigali City	By June 2012, achievement was 75%		CTB
Construction of Ophthalmology ward, emergency ward and laboratory in Kabgayi hospital	Ophthalmology ward completed. Emergency and Laboratory ongoing		CBM GF
Construction of Emergency services in District Hospitals	Constructions ongoing in 30 district hospitals		GoR/GF
Construction of 2 modern Health Centers	Expropriation process ongoing	Nyundo and Kanembwe	GoR

Designation	Progress	Observation	Source of Funding
Construction of Maternities in Health Centers	Ongoing	Planned in 33 Health Centers	GoR
5 Maternities constructed in hospitals and HCs: Ruhengeri hospital Gatsibo HC Mulindi HC Gacuba II HC Mataba HC	Contract awarded	Constructions to start in 2012-2013	GoR/Global Fund
Rehabilitation and equipment of Rwanda Military Hospital	Maternity and Intensive care unit constructed at 70%	Completion in 2012-2013	GoR/Global Fund
Projects to start			
Construction Digital Hospital (500 beds)	MoU signed in August 2010	Duration: 3 years	Medison (South Korea) GoR
Muhororo, Rutare, Byumba, Gisenyi Hospitals	Technical studies to start in Q1/2012-2013		GoR + Partners
Construction of 5 health centres: - Rugarama (Burera); - Mukarange (Gicumbi) - Matyazo (Ngororero) - Kanembwe (Rubavu) - Nyakabuye (Rusizi)	To start in 2012-2013		GoR
Construction of 2 modern health centres (Mbogo and Mukura)	To start in 2012-2013		GoR
20 Mortuary infrastructures constructed	To start in 2012-2013		GoR/Global Fund
9 Ambulances distributed in District hospitals and 1 boat ambulance operation in Kivu Lake	16 ambulances to be distributed in Q1/2012-2013.	Boat ambulance to be supplied in Q2/2012-2013.	GoR

Source: RBC, annual report 2011-2012

VI.2 Preventive and curative maintenance

Teams of technicians visited the sites to carry out preventive maintenance in 415 health centers and 40 district hospitals. 2500 devices were repaired during FY 2011 – 2012, or approximately 90% of laboratory equipment that underwent periodic preventive maintenance across all health facilities.

Curative maintenance has been done in two ways: 1) in person at the health facility, or 2) in a central workshop. Preventive and curative maintenance of the laboratory network and its equipments has been ensured. Assessment of laboratory equipment within the lab network conducted, gaps identified and corrective actions were suggested by or to MMC throughout the year.

VI.3 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) 912 Call centre

The 912 emergency medical dispatching team (an anesthesia technician) along side with a trained switchboard operator) addressed emergency medical issues with a rotating shift of 12 hours using 4 operational telephone lines.

The 4 lines are ready to receive 4 callers instantaneously; the radio communication (radio based at 912 call centre and ambulance radios) is operational as well within Kigali City. A part of Southern Province, part of Northern Province and extension works are ongoing to cover the whole country.

The ambulance tracking system is also set in the 912 call centre and the main objective is to effectively manage daily ambulances services (rapid dispatch depending on availability and prevention of any mismanagement) and tremendous improvement in ambulances management has been observed since the use of this software.

Among all calls, 68% were for interventions, 17% were for information, 15% were disturbing calls.

Table 15: SAMU: Activities in 2011-2012

Table 1. SAMU Activities in 2011-2012						
Table 1. SAMU Activities in 2011-2012		PRE-HOSPITAL CARE ACTIVITIES				Total
		Accidents	**Medical**	**Gyn/Obs**	**Inter-hospital transfers**	**Total**
		26,4%	10.2 %	26,6 %	35.8 %	100 %
		Source: SAMU, annual report 2011-2012				

b) Emergency and Resuscitation Mobile Service (ERMS) in Kigali City and DHs

SAMU is deployed with 5 ERMS teams (Emergency and Resuscitation Mobile Service) within Kigali City and the mission is to back up existing ambulance system in Kigali City Hospitals.

The aim is to timely and effectively respond at any case of medical emergency across the city and districts (1 ambulance team at Avega Health centre, 1 SAMU team is also deployed at KMH, 1 at Gahanga HC and 2 in CHUK, 8 new procured ambulances were deployed in different district hospitals with the same mission to be closer to the community to serve in case of emergency.

Table 16: SAMU: Interventions in 2011-2012

Month	Calls at 912 call centre				Pre-hospital care interventions				
	For interventions	Disturbing	For information	Total	Accidents	Medical	Gyne-obs	Inter-hospital transfers	Total
July (2011)	549	2120	70	2739	74	26	59	122	281
August	468	1853	62	2383	70	29	59	87	245
September	608	1230	61	1838	55	24	82	70	231
October	589	2747	65	3401	79	23	113	125	340
November	536	2250	66	2786	69	19	96	114	298
December	468	2070	73	2611	68	27	116	148	359
January	721	2328	80	3129	107	34	122	107	370
February	601	2230	95	2831	90	37	93	117	337
March	596	3007	81	3684	85	26	81	112	304
April	621	2902	70	3523	103	55	61	112	331
May	505	3251	65	3821	85	33	75	130	323
June(2012)	612	3020	71	3703	94	45	67	84	290
TOTAL	6874	29008	859	**36741**	979	378	1024	1328	**3709**

Source: SAMU, annual report 2011-2012

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 national regulatory activities of the pharmaceutical sector are currently carried out by the Pharmacy Desk, Directorate General of Clinical Services. However, the vision is to put in place a National Medicines Regulatory Authority. The draft law creating this authority is in process to be approved by the Cabinet. 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.
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.

Main achievements of the Pharmacy Desk in 2011-2012

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

1	Participation in the development and process of approval of 2 Laws (Pharmacy law on Rwanda Food and Medicines Law and Rwanda Food and Medicines Regulatory Authority)
2	Development of the Rwanda Pharmaceutical Sector Strategic Plan of Action
3	Conducting a Rwanda supply chain cost analysis
4	Conducting a GIS training to enhance routine use of GIS outputs to manage and monitor the national commodity supply chain
5	Revision of the harmonized LMIS for health facilities
6	CPDS availed the 10th ARVs and 6th Laboratory commodities quantification reports.
7	By April 2012, all district pharmacies were given each mini trucks to strengthen their supply chain of health commodities
8	Active distribution of health logistics

Challenges:

No National Medicines Regulatory Authority in place to oversee medicines and medical products regulation

- Weak Medicines quality control, quality assurance and monitoring system
- Absence of national medicines registration system, weak inspection facilities
- Importation of more than 95% of medicines and related substances for the national needs
- Lack of expertise in some of the fields of pharmacy practice, like Analytical pharmacy, clinical pharmacy

VII.2 Procurement and Distribution of Medicines (RBC-MPDD)

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.

VII.2.1 Procurement and Distribution of Essential 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.

Prior to the 2011-2012 fiscal year, essential medicines were procured based on the average of consumption rate. With FY 2011 – 2012, procurement was made based on procurement plans for essential medicines using data from District Pharmacies procurement plans.

Active distribution program was initiated at the end of 2009. During FY 2011 - 2012, distribution of medicines was made in all 30 districts pharmacies on a monthly basis. All district pharmacies are now grouped into eight routes with approximately three or four facilities located on each. The active distribution program has saved transport costs, per diems, and time since its inception.

In FY 2011 - 2012, quantification exercises for 1st and 2nd line TB drugs and laboratory network reagents, consumables and equipment were conducted. During this time cold chain capacity for vaccines was also improved.

According to internal review, RBC/MPPD is currently capable of meeting 85% of all needs and for this reporting period, it provided 97% of the most commonly used medical products. Finally, the mamnagement 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.

VII.3. Supply of Vaccines (RBC/IHDPC/VPDD)

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 vaccines procurement and distribution was well completed and we noted the introduction of the new vaccines (Rotateq) in routine immunization programme.

Logistics related to supply of Vaccines and related materials

Table 17: Vaccines: procurement, distribution and management

Vaccines	Stock on July 2011	Doses received	Total stock 2011-2012	Distributed 2011-2012	Stock June 2012
BCG	375,300	600,000	975,300	628,800	346,500
OPV	1,301,700	160,000	2,461,700	1,358,400	1,101,600
DPT-HepB-Hib	206,400	1,344,800	1,551,200	1,060,420	490,780
PCV	506,225	1,324,800	1,831,025	1,002,200	828,825
Measles	274,360	443,900	718,260	408,160	310,000
TT	156,700	530,000	686,700	473,500	213,200
Rotateq			428,000	240,000	180,000

Source: RBC/IHDPC/VPDD annual report 2011-2012

VII.4 Blood Supply and Blood Safety (RBC/MPPD/NCBT)

The RBC/MPPD/NCBT has five operating blood centers at Kigali, Huye, Musanze, Rwamagana and Karongi. Activities of screening for Infectious diseases are also carried out at the NCBT Kigali. The mission of the National Blood Transfusion Centre is to provide quality blood and blood products for transfusion to all patients in need.

In 2011-2012, the RBC/NCBT was providing blood and blood components to all health facilities that transfuse in Rwanda. In total 37,811 blood units were collected and processed. 100% of distributed blood was tested for transfusion transmitted infections (TTIs) during FY 2011 – 2012.

Table 18: Blood safety: Blood units and screening

RCBT	Nb blood collected	HIV (%)	HCV (%)	HBs (%)	Syphilis (%)
Kigali	18,213	0.5%	2.6%	1.4%	1.5%
Huye	7,207	0.7%	3.5%	1.5%	1.6%
Musanze	4,797	0.6%	1.6%	1.9%	2.2%
Rwamagana	5,590	0.4%	4.8%	1.9%	2.4%
Karongi	2,004	0.5%	1.9%	2.2%	1.7%
Total	**37,811**	**0.5%**	**2.9%**	**1.6%**	**1.8%**

Source: RBC/Annual Report 2011-2012

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

Definition of the quality:

The correct implementation of health interventions according to the established norms and procedures, with an aim of satisfying the customers of the health system and maximizing results without generating health risks or unnecessary costs.

VIII.1 Orientation to Quality and Accreditation of Health Care and Health Services

In the fiscal year 2011-2012, the following actions have been achieved:

1. The development of National Clinical Protocols: It is a national compendium for treatment of common clinical conditions in Rwanda.
2. The development of Policies, procedures and guidelines governing all services of a District hospital. Developed 328 policies, procedures and guidelines and they are a point of the preliminary phase of the process of accreditation.
3. The development of the package of activities: definition of the activities, the personnel, infrastructure and the equipment required at all levels. The package of activities is guidance to all stakeholders involved in health development to operate in complementary way. All the documents mentioned are finalized and now in editing phase
4. The revision of the framework and tools of Integrated Supportive Supervision. Reviewed in order to adapt them to the situation and integrate all concerned departments. Supervision has been designed in the line with "the facilitation process" for the next steps of accreditation.
5. Training on coaching/mentorship has been organized for 41 supervisors at national level out of 75 supervisors.
6. The Ministerial instruction regulating the management of health facilities has been reviewed, finalized and processed for signature.
7. The convention between faith based health facilities and the Ministry of Health has been reviewed and processed for signature.

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%. The new target set is to maintain this accreditation and achieve a 3 year accreditation.

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. The final external evaluation of April 2010 has resulted in a score of 55%, showing that the CHUK is on track. Between July 2010 and June 2011, there were;

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

The evaluation expected in December 2011 has not taken place, and has been rescheduled for December 2012. The preparations are underway.

CHUB, RMH: For the accreditation process in CHUB, during the year 2011/2012, there are several activities which have been achieved under the supervision of the Consultant such as putting in place different committees, and trainings. Departments/services are still developing protocols and procedures under the supervision of the consultant and now CHUB is on the preparation of the external survey from South Africa planned for October 2012. Note that UTHB and RMH benefited from important construction works, that will provide a new look to the hospitals.

For the RBC/NRL: Two Strengthening Laboratory Management towards Accreditation (SLMTA) trainings were completed with regard to acquiring accreditation and included 30 personnel from 5 central labs (NRL, CHUK, CHUB, KFH and RMH). Also, two mentorships and assessment have been conducted in 5 satellite laboratories.

RBC/NCBT applied for an international accreditation and at the time of this report it had not yet been awarded. This accreditation is given by the American Association for Blood Banks (AABB).

Rwanda is hosting the Programmatic Management of Drug Resistant TB-Center of Excellence (PMDT-CoE) for Eastern Africa Region. More so, the National Integrated Diseases Surveillance and Response was adopted from the World Health Organization Afro 2002 and 2010 (WHO) standards guidelines and the International Health Regulation (IHR) requirements. Additionally, RBC/NCBT abides to the international standards of the World Health Organization (WHO) regarding blood safety.

District Hospitals: Norms and clinical standards have been developed and started to be implemented. Standards and tools for facilitation are will start to be developed in the Q1-Q2/2012-2013

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 that are implementing it and regular monitoring is ensured. Customer care check list includes also hygiene indicators. Among the list of activities to achieve in relation with customer care, the suggestion box is thought to play a key role. For better monitoring and evaluation of customer care, different criterions have been defined and will allow ranking of hospitals. 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.

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

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 skill base in the Rwandan medical sector through the education 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 referral hospitals of the country with a capacity of 425 beds (31/06/2011). Its mission is: to provide care to the population, to provide education, to develop clinical research, to provide technical support to district hospitals.

Mission, objectives and programs

Mission	Objective	Programs
Provide care to the population Provide education Develop clinical research Provide technical support to district hospitals	1. Improve the quality of services 2. Improve and promote the environmental health of the hospital 3. Provide administrative services required by clients, 4. Provide sufficient staff and qualified, 5. Endow the UTHK of adequate regulations, 6. Build capacity hospital managers, 7. Develop ICT and activities of Telemedicine. 8. Ensure the continuity and quality of education, training nurses and support Doctors and nurses trainees. 9. Ensure the operational and scientific research.	• The improvement of • Quality of care, The fight against AIDS, Development of human resources management, • The development of ICT, • Rehabilitation of infrastructure, • Supply or procurement, • Maintenance of equipment and materials.

At the end of June 2012, for its good functioning, CHUK employed 734 people.

1. The 20 leading causes of admission at CHUK (June 2010-June 2011)

Table 19: UTHK: 20 leading causes of admission, 2011-2012

Nr	Causes of hospitalization	Nb days	%
1	Broken leg, ankle range	4 146	1.4
2	Fracture of femur	3 331	1.12
3	Pulmonary Tuberculosis confirmed	1 812	0.61
4	Disorders due to short gestation and low birth weight at birth,	1 672	0.56
5	Pregnancy-related hypertension with significant proteinuria	1 553	0.52
6	Fractured skull and facial bones	1 369	0.46
7	Pulmonary Tuberculosis not confirmed	1 276	0.43
8	Leiomyome of the uterus	1 252	0.42
9	Infections specific to the prenatal period	1 195	0.40
10	Pneumopathie a microorganism not accurate	1 147	0.39
11	Diabetes mellitus non-insulin-dependent	1 102	0.37
12	Fistulas of the genital tract of women	1 095	0.37
13	Injuries to the head, without other precision	1 083	0.36
14	HIV	1 082	0.36
15	Insulin-dependent diabetes mellitus	1 054	0.35
16	Pelvic inflammatory disease in women	995	0.34
17	Hydrocephalis	940	0.32
18	Fracture of shoulder and arm	936	0.32
19	Superficial injury of head	931	0.31
20	Diseases of the intestine	884	0.30

Source: UTHK, annual report, 2011-2012

Table 20: UTHK: 20 most frequent diseases, 2011-2012

Nr	Name	Nb of diagnostics	%
1	Single and spontaneous childbirth	858	5.82
2	Accouchement single by cesarean	674	4.57
3	Leiomyome of the uterus	153	1.04
4	Fracture femur	149	1.01
5	A pulmonary microorganism not specified	135	0.92

Nr	Name	Nb of diagnostics	%
6	Fracture of the leg, including the ankle	131	0.89
7	Infections specific to the prenatal period	120	0.81
8	Gestational hypertension (pregnancy related) with important proteinuria	118	0.80
9	Disorders due to short gestation and insufficient weight at birth	107	0.73
10	Accouchement before term spontaneous	104	0.71
11	Abortion	99	0.67
12	Pulmonary TB, confirmed	95	0.64
13	Traumatic head injury, other and unspecified	92	0.62
14	Sugar diabetes non-insulin dependent	84	0.57
15	Human immunodeficiency virus (hiv), originally other diseases	82	0.56
16	Paralytic ileus and intestinal obstruction without hernia	81	0.55
17	Sterility of women	79	0.54
18	Cardiomyopathy	75	0.51
19	Sugar insulin dependent diabete	72	0.49
20	Chronic renal insuffisance	72	0.49

Table 21: UTHK: The 20 first killer diseases in 2011-2012

Nr	Denomination	Number of cases (14735)	Total deaths	Overall mortality rate
1	Anomalies due to short gestation and insufficient weight at birth	107	32	2.40
2	Human immunodeficiency virus (HIV), as origin of other diseases	82	30	2.25
3	Septicemias	66	29	2.18
4	Chronic renal insufficiency	72	26	1.95
5	Fibrosis and cirrhosis	69	23	1.73
6	Tuberculosis of the respiratory (confirmed)	95	18	1.35
7	Infections specific to the prenatal period	120	18	1.35
8	HIV associated to infectious and parasitic diseases	42	16	1.20
9	Pneumonia organism not accurate	135	15	1.13
10	Cardiomyopathy	75	15	1.13
11	Complications of heart disease and ill-defined heart disease	36	14	1.05
12	Other disorders of brain	32	11	0.83
13	Traumatic intracranial lesion	44	11	0.83
14	Diabetes mellitus non-insulin-dependent	84	10	0.75

Nr	Denomination	Number of cases (14735)	Total deaths	Overall mortality rate
15	Tuberculosis other organs	39	9	0.68
16	Meningitis due to causes other and unspecified	28	9	0.68
17	Pulmonary TB not confirmed	47	8	0.60
18	Hypertensive heart disease	44	8	0.60
19	Acute renal failure	22	8	0.60
20	Insulin-dependent diabetes mellitus	72	7	0.53

Table 22: UTHK: status of the main hospital indicators, 2011-2012

Indicators	2006	2007	2008	July 09-June 10	July10-June11	July11-June12
Number of beds	375	418	429	421	425	448
Hospitalized	11990	9499	12667	12458	10881	10746
Death	1304	999	1108	991	1215	852
Average Occupancy Rate	108	87	82	83%	83%	77%
Total hospital Days	150605	120972	128201	127555	98621	126408
Daily number of admitted patients	486	325	351	349	355	345
Mortality rate	10.9%	10.6%	8.7%	8%	8.1%	7.9%
Average length of stay	12.6	12.8	10	10	13.2	12
Annual Average turnover	31	24	30	30	27	24

Source: UTHK, annual report, 2011-2012

IX.2 University Teaching Hospital of Butare (UTHB)

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

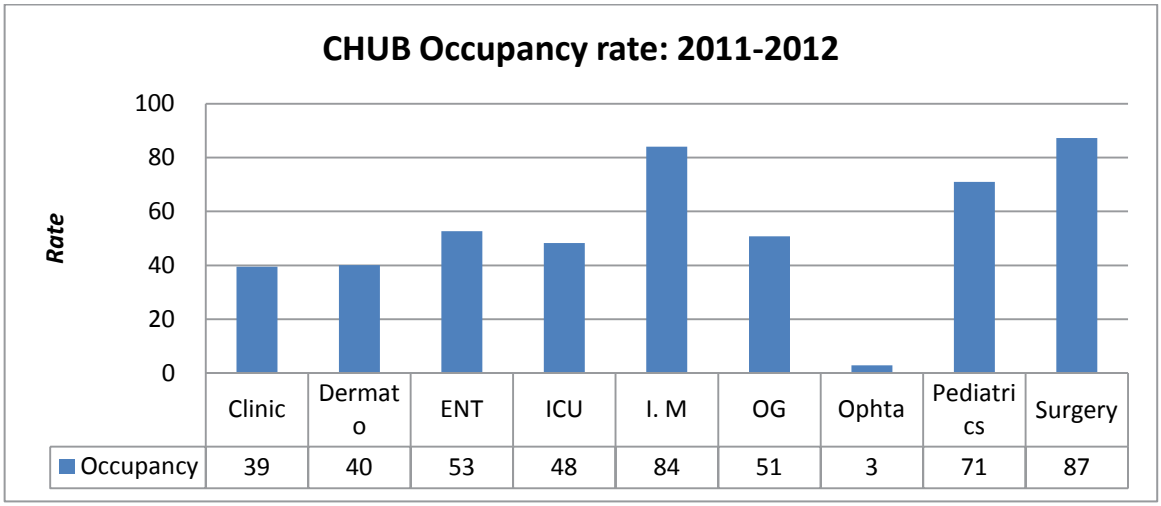
Table 23: UTHB: evolution of the main hospital indicators, 2011-2012

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

Indicators	2005	2006	2007	2008	2009	2009-2010	2010-2011	2011-2012
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

** More complicated and end stage patients transferred from DHs. Many premature babies, including ''grands prematurés" transferred with delays from DHs

Figure 36: UTHB: Bed occupancy rates, 2011-2012



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, in order to manage the complications that may occur. The second higher occupancy rate is observed in Internal Medicine (**84%**) due to patients with chronic diseases.

Table 24: UTHB: Leading causes of morbidity and mortality in 2011-2013

N°	Department	Diagnoses	
		Top 5 couses of morbidity	Mortality
1	Pediatrics	Prematurity (21.0%)	Prematurity (25.7%)
		Neonatal infection (15.5%)	Neonatal infection (14.5%)
		Gastro-enteritis (6.7%)	Pneumopathy (13.0%)
		Congenital malformation (5.8%)	Septicemia (9.2%)
		HIC (soufrance cerebral) (4.2%)	Malaria (2.5%)
2	Internal Medicine	Cardiac diseases (12.7.6%)	Chronic kidney deseases(8.4%)
		Gastroduodénal diseases (11.6%)	Heart failure (5.3%)
		Cancer (9.9%)	Tuberculosis (4.0%)
		Renal failure (7.3%)	Liver cirhosis (3.5%)
		Respiratory diseases (6.5%)	Cancer (3.1%)
3	Surgical ward	Osteo- articular surgery (33.7%)	Acute abdomen + peritonitis (24.3%)
		General surgery (33.2%)	Head + Spinal injury (22.8%)
		Hepato-digestive surgical (12.2%)	Abdominal, colorectal cancer (17.1%)
		Cutaneo-mucqueous surgical and soft tissue infections (6.8%)	Burns (12.3%)
		Uro-genital surgical (6.5%)	Fracture of femur (12.3%)

Source: UTHB/Annual Report 2011-2012

IX.3 King Faycal Hospital (KFH)

RBC/KFH aspires to act as a medical referral hub for the region. The integration of specialty service areas increases the likelihood of cross-border referrals. As such, progress was made during FY 2011 – 2012 by incorporation of the following service centers:

- Radiology (Imaging center)
- Intensive Care Unit (ICU)
- Neonatal Intensive Care Unit (NICU)
- Obstetrics and Gynecology
- Orthopedics
- Surgery
- Internal Medicine
- Pediatrics

Table 25: KFH: Performance indicators 2010- Aril 2012

	2010	2011	2012[1]
A & E	11,939	14,067	96,76
OPD	41,384	55,195	30,410
TOTAL	53,323	69,262	40,086
Overall combined growth		30%	108%

Source: RBC Annual report 2011-2012

Clinical activities

Table 26: KFH: Performanc indicators, inpatient care

	2009	2010	2011	2012*
No. of admissions	-	7,201	8,467	2,669
Bed occupancy	63%	68%	67%	74%
ALOS	5		6	6
Turnover	-	-	4.5	4.4
OT utilization	-	54%	39%	55%
No. of beds	-	130	136	155
% Beds growth			5%	14%

Source: RBC Annual report 2011-2012

However, there are some highly needed services that are not fully available at this time. These services are mainly Oncology/Radiotherapy, Cardiac Surgery, Renal transplantation and Super-specialty surgery (Pediatric surgery, Neurosurgery, Retinal surgery, Hepatobiliary and Vascular surgery). In response to several specialty areas in need of quality service improvement, KFH has developed a strategic plan to resolve access issues present at the time of this report, including the provision of increased human resources, equipment, and improved supply chain management.

Analysis of internal versus external referrals shows an increase in internal referrals and a decrease of external referrals during FY 2011 – 2012.

Table 27: KFH: Patient referrals in 2011-2012

Referrals	2008	2009	2010	2011	2012
External referrals by KFH	89	58	25	35	16
National referral hospitals to KFH	-	-	7201	8476	4149
MOH referrals to KFH	20	99	228	365	114

Source: RBC Annual report 2011-2012

IX.4 Mental Health

To increase the quality of mental health services provided through availability and accessibility of specialized mental health care services for clients, 43 district hospitals have mental health services with at least one mental health nurse.

Specialized mental health services are provided at CHUK in the mental health department and at Ndera Psychiatric Hospital. Mental Health referral services are provided at CHUK for outpatient care and at Ndera Psychiatric Hospital for inpatient care.

For inpatient care, Ndera Psychiatric hospital performed 37,465 consultations during the reporting period. Ndera Psychiatric Hospital registered 3,384 hospitalizations, and 2,496 (73.75%) patients have been discharged from the hospital during the reporting period. Epilepsy is the main cause of consultation with 52% of all consultations performed during FY 2011-2012.

To increase accessibility for mental health services, the RBC/Mental Health Division organized a celebration of World Mental Health Day on 10th October 2011 in Rwamagana District.

The main activities conducted during the World Mental Health Day campaign included a March and press conference given by mental health experts on specific topics to raise awareness and decrease stigma towards mental patients. During the 18th commemoration period, approximately 4000 people received trauma care services. Also, awareness sessions have been organized for the general population in order to increase knowledge on existing services for psychological trauma cases.

IX.5 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 in the national lab
(b) Establish quality assurance for laboratory network in the country;
(c) Perform specialized tests for the diagnosis, prevention and surveillance of various infectious diseases;
(d) Participate in the epidemiological surveillance;
(e) Carrying out research and
(f) Develop a national medical laboratory system, in line with the national decentralized health system.

Programmatic achievements

1. Improvement of quality: Training

Training of 1652 Biomedical Laboratory Technologists in the Lab Network distributed as follows: integrated training in TB, Malaria, HIV and Gram Staining, clinical chemistry and hematology. Early Infant Diagnosis (EID), DBS sample collection and management, HIV rapid testing as corrective action of HFs with HIV QC discordant results, CD4 counting using Flow Cytometer, malaria testing as corrective action of HFs with Malaria QC discordant results, Full Bacteriology (Bacteriology sample collection, processing, staining, culture and sensitivity, Surveillance and confirmation of priority outbreak prone diseases, etc.

Conduction of 435 on site visits in the Laboratory Network distributed as follows: mentorship supervision, integrated supervision, data quality audit, evaluation of PBF, supervision of private laboratories, corrective action of HFs with HIV QC discordant results, on site Data Verification (OSDV).

2. Quality assurance activities:

a. International External Quality Assurance (EQA), mainly from NICD - NHLS / South Africa has continued to assess periodically all NRL sections: score: 95%

b. The National External quality control (PT) has continued and sent periodically to the laboratory network

c. NRL received two CD4 proficiency testing panels consisting of eleven samples from the WHO /NCID. The panels were tested and results submitted to the WHO/NCID

d. Molecular biology section is subscribed to three (3) different external quality assessment programs using proficiency testing panels for its various testing services (CDC, WHO, Hong Kong): score: 100%

e. Measles Surveillance Service participated in the international external quality control scheme with Uganda Virus Research Institute (UVRI)

f. Microbiology Unit was evaluated for TB and Malaria using Proficiency Testing by National Health Laboratory Service (NHLS) South Africa and received acceptable note.

g. In July 2012 NRL introduced the warm line report, which monitors consumption of reagents, in order to improve CD4 count in the lab network.

3. **Disease surveillance and response**

All data of 397 samples received at the Measles Surveillance Service were entered in the data base using EPI-NFO. And the Measles/Rubella weekly report is shared with WHO/AFRO. There has been Participation in Tuberculosis, Malaria and Epidemic prone diseases surveillance by identifying and serotyping pathogens and trends of infections

4. Outbreak management

NRL participates in outbreak investigation with a clear role of confirming the existence and the end of an outbreak: cholera, food borne outbreak, malaria, measles, acute respiratory infection, severe acute respiratory illness outbreak, suspected outbreak of acute conjunctivitis, etc.

5. Availability and accessibility of specialized health care services

- 11,668 samples from Health Centers and District Hospitals countrywide were analyzed using Polymerase Chain Reaction (PCR) assay for early infant diagnosis (EID) of HIV and the prevalence were 3.5%.
- 46,121 samples from health centers and district hospitals countrywide were analyzed using HIV-1 RNA assay to monitor the efficacy of antiretroviral (ARV) therapy of patients under treatment
- 1137 samples from 6 sentinel surveillance sites and any other health facilities countrywide were analyzed using RNA- RT PCR assay to detect and monitor the incidence and prevalence of human seasonal (Flu A and Flu B) and pandemic influenza viruses in the population
- 498 eligible plasma samples were tested for HIV-1 Sequencing and Genotyping using 24 capillary sequencer machine and all suspected drug failure sample analysis

6. Monitoring & Evaluation (Routine data collection)

- 7,850 Clinical chemistry tests received and analyzed,

- 22,768 Hematology tests received and analyzed.
- 279,580 blood samples for clinical staging and monitoring immunological failure among patients on antiretroviral treatment
- 217,969 blood samples (78%) were tested in the 38 district hospitals with the FACSCount machine
- 2,547 TB cultures (solid) were performed including 216 DST 1st line and 10 DST for 2nd line, 409 TB Liquid cultures are in process
- 642 DST 1st line were performed by PCR (HAIN test)

Figure 39: NRL: HIV test discordance rates over years

Table 28: NRL: Summary of HIV QC results 2011-2012

Month	No. of specimen tested	Total no. of specimens discordant	% discordance
July 2011	6500	13	0.2
August 2011	6188	38	0.61
September 2011	6200	6	0.09
October 2011	6020	13	0.021
November 2011	6140	12	0.195
December 2011	6675	9	0.13
January 2012	6415	8	0.124
February 2012	6678	19	0.28
March 2012	7298	20	0.27
April 2012	7209	4	0.05
May 2012	7800	10	0.128
June 2012	7856	13	0.165
TOTAL	**80979**	**165**	**0.2**

Source: RBC Annual report 2011-2012

Table 29: NRL: External Quality Assurance Program

Test category	Aims/ Goals (Frequency of participation)	PT panel specimen type	EQAP provider	Cumulative performance score
HIV-1 PCR	Detection and interpretation of HIV-1 qualitative results (3/3)	Dried Blood Specimen	CDC	100%

Influenza viruses RT-PCR	Detection and interpretation of Influenza viruses and sub typing (2/2)	Lyophilized RNA and inactivated viral material	WHO	100%
HIV-1 Viral load	Detection and interpretation of HIV-1 quantitative results (2/2)	Dried Tube Specimen	CDC	100%

Source : RBC Annual report 2011-2012

IX.4 Research

Table 30: List of researches completed or ongoing

No	Title of the main researches	Author	Actual situation
CHUK			
1	Malaria prevalence, spatial clustering and risk factors in a low endemic area of Easter		Ongoing
2	Population pharmacokinetics of artemether, dihydroartemisinin and lumefantrine in pregnant women treated for uncomplicated Plasmodium falciparum malaria in Rwanda		Ongoing
3	Relationship between cervical dilatation at admission of low risk term pregnant women on labour and mode of delivery	- Dr Muhire Mathias	Ongoing
4	The outcome of early oral feeding after caesarean delivery or uncomplicated gynecological abdominal surgery-	Dr Norbert Uwiragiye	Ongoing
5	The approach of unmet obstetric needs for major obstetric interventions in Kigali.	Dr Sadoscar Hakizimana	Ongoing
6	Standard antibiotic use versus prophylactic antibiotics to prevent infectious morbidity in cesarean sections in CHUK		Ongoing
7	Prevalence of endometriosis among infertile women in Rwanda as assessed by laparoscopy	Dr Gakindi Leonard	Ongoing
8	Impact of new vaccine introduction on health systems	Dr Rulisa	Ongoing
9	Pharmacovigilance of artemether-lumefantrine in pregnant women followed until delivery in Rwanda	Dr Rulisa	Publication
10	Fetal and maternal hemodynamics in acute malaria during pregnancy.	Dr Rulisa	Publication

No	Title of the main researches	Author	Actual situation
11	A Phase II, multicentric, open label study to assess the antimalarial efficacy and safety of fixed dose combination dispersible tablets of arterolane (RBx 11160) maleate and piperaquine phosphate in pediatric patients with acute uncomplicated Plasmodium falciparum malaria	Dr Rulisa	Publication
12	Pharmacovigilance of artemether-lumefantrine in pregnant women followed until delivery in Rwanda-	Dr Rulisa	Publication
13	**Fetal and maternal hemodynamics in acute malaria during pregnancy -**	**Dr Rulisa**	Publication
14	Knowledge, attitudes, and practices in safe motherhood care among obstetric providers in Bugesera, Rwanda.	Dr Rulisa	Publication
15	International Medical graduates in the USA: a quantitative study on perceptions of physicians' migration.	**Dr Rulisa**	Publication
16	Achieving large ends with limited means: Grand strategy in global health, International health-	**Dr Rulisa**	Publication
17	Glycemia and rotavirus	**Laboratory**	Ongoing
CHUB			
1	Transferrin polymorphism and opportunistic infections in HIV infected women in Rwanda.	Masaisa F, **Gahutu JB**	Publication
2	Stable iron isotope studies in Rwandese women indicate that the common bean has limited potential as a vehicle for iron biofortification.	Petry N, Egli I, **Gahutu JB**	Publication
3	Prevalence of classic erythrocyte polymorphisms among 749 children in southern highland Rwanda.	**Gahutu JB**, Musemakweri A	Publication
4	Molecular markers of Plasmodium falciparum drug resistance in southern highland Rwanda.	Zeile I, **Gahutu JB**, Musemakweli A	Publication
5	Q248H mutation is associated with lower circulating serum hepcidin levels in Rwandese HIV-positive women.	Masaisa F, Breman C, **Gahutu JB**	Publication
6	Anemia in human immunodeficiency virus-infected and uninfected women in Rwanda.	Masaisa F, **Gahutu JB**	Publication
7	Prevalence and risk factors of malaria among children in southern highland Rwanda. .	**Gahutu JB**, Steininger C, Musemakweli A	Publication

No	Title of the main researches	Author	Actual situation
8	Intense Plasmodium falciparum antifolate resistance and pfmdr1 alleles in southern highlands of Rwanda.	**Gahutu JB**, Zeile I, Musemakweli A	Publication
9	High frequency of asymptomatic Giardia intestinalis infections in Rwandan children and association with malnutrition.	Ignatius R, **Gahutu JB**	Publication
10	AIDS control best practices at the National University of Rwanda.	**Gahutu JB**, Musemakweri A	Publication
11	High prevalence of Giardia duodenalis assemblage B infection and association with underweight in Rwandan children.	Ignatius R, Gahutu JB,	Publication
12	Evaluation des effets du Dichlorate d'Hydralazine sur l'anxiété préopératoire et appréciation de l'information donnée aux malades.	M.J. Ndoli, M. Rampanjato	Publication
RBC			
1	Prevalence of TB, HIV and TB/HIV in Rwandan prisons		
2	Operating characteristics of the questionnaire used for screening of tuberculosis in adult outpatients with HIV infection		
2	The provision of TB service, including prophylaxis in children and tracking of Lost-to-Follow-Up (LTFU) patients		
3	Knowledge and risk behaviour in TB patients		
4	Durability and efficiency of LLIN distribution and long-term implications		
5	PMTCT Effectiveness and sero- surveillance PWs		
6	Serodiscordant couples HIV transmission study		
7	Salmonelle and Shigella infections resistance in Rwanda		
8	Survey to determine the number of genocide survivors living with mental health problems		
9	Detection of HSV1 and HSV2 using multiplex PCR in clear CSF from patient suffering from encephalo-meningitis in Rwanda		
10	Antimicrobial resistance		
11	ART drug resistance		

No	Title of the main researches	Author	Actual situation
NRL			
1	Evaluation of the Effectiveness of the PMTCT program at 6 weeks postpartum in Rwanda		
2	Evaluation of transmitted HIV drug resistance among clients aged between 15 - 21 years attending VCT services in Kigali (HIV DR Threshold study)		
3	Validation study for the use of DBS and DPS for viral load determination using molecular techniques		
4	Outcomes of ART second line regimen in Rwanda during 2004-2009		
5	Sero-surveillance study in pregnant women – collaborative research between NRL and HIV division		
6	The impact of Marsh Land Use on Malaria Transmission.		
7	Comparison between Widal agglutination test and hemoculture for the diagnosis of typhoid fever		
8	Surveillance of enteric bacteria and susceptibility to antimicrobials in East Africa		
MALARIA			
1	Evaluation of the effectiveness of artemether-lumefantrine in children with uncomplicated clinical malaria in rural Rwanda		Ongoing
2	Integrated Research Partnerships For Malaria Control through an Ecohealth Approach In EAST AFRICA		Ongoing
3	A Multi-country, Multi-site Evaluation of the Efficacy of Artemisinin Combination Therapy in East Africa: A World Bank- East Africa Public Health Laboratory Networking Project		Ongoing
4	Tracking Long Lasting Insecticidal Mosquito Nets (LLINs) distributed via National Campaign: Monitoring LLIN Loss, Physical deterioration, and Insecticidal Decay in Rwanda		Ongoing
5	A Study to Determine the Current Prevalence of Malaria Detectable Among Pregnant Mother Registering for ANC in Six Districts in Rwanda		Completed

No	Title of the main researches	Author	Actual situation
6	Assessment of severe malaria and malaria deaths in patients admitted in district hospitals in Rwanda		Completed
7	A study on the impact of marshlands commercial exploitation in collaboration with SPH		Completed
8	Prevalence of malaria in pregnant women attending ANC services in Rwanda		Completed
9	Malariometric survey June 2011		Completed
TB			
1	Prevalence of TB, HIV and TB/HIV in Rwandan prisons		Data analysis
2	Operating characteristics of the questionnaire used for screening of tuberculosis in adult outpatients with HIV infection		Data analysis
3	All-cause mortality and associated risk factors among patients with tuberculosis (TB) during anti-TB treatment in Rwanda: A retrospective cohort analysis		Data collection
4	Performance of the GeneXPert technology to diagnose Tuberculosis and MDR-TB": planning;		Planned
5	Validation of tuberculosis screening approaches and use of isoniazid preventive therapy for children living with HIV/AIDS in Rwanda		Planned
6	Potential impact of scale-up of antiretroviral therapy (ART) services on tuberculosis (TB) notification rates in Rwanda":		Surveillance data analysis
7	Clinical and social long term outcomes among MDR-TB patients who successfully completed MDR-TB treatment		Planned
8	Prevalence of M. Bovis in cattles in Rwanda": implemented by the NUR-SPH		Planning phase
9	National Pulmonary TB prevalence survey": data collection		Data collection
10	Evaluation of the rapid scale-up of collaborative TB/HIV activities in TB facilities in Rwanda, 2005-2009.	Pevzner ES, Vandebriel G	Completed

Note: Several NUR students from the Faculty of Medicine and from the Faculty of Science have done their memoir research in the different departments and have been supervised by the HoD or Doctors of CHUB.

CONCLUSION

In the fiscal year 2011-2012, implementation of the HSSP-II continued for its third year. A self evaluation of the EDPRS I was conducted and both findings of HSSP II MTR and DHS 2010 have been used to prepare HSSP III and by end of June 2012, the process is on its final phase.

High impact interventions continued to be implemented to improve the very important progress observed, and during this fiscal year, the MDG 4 target has already been achieved. Vision 2020 targets have been revised to be more ambitious the plan of the Government is to make Rwanda a middle low income contry. Some most important innovations made to fight against diseases is the introduction of Rotavirus and the creation of the cancer treatment cancer in Butaro district hospital.

At the same time, construction of new health facilities, renovation, extension and equipment of the existing ones got a very important attention when 2 new hospitals were constructed and operationalized. 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 was a success: 90.7% of the population has paid their premiums according to the Ubudehe categorization. For the first time, no important unpaid arrears were observed.

The Human Resource Development Strategic Plan is being implemented and efforts to produce skilled health professionals are made with the operationalization of the MoU between MoH and 14 US Universities to train much more specialized doctors in-country.

In 2011-2012, the quality of care retained specific attendtion with the operationalization of customer care, and preparation of standards and other tools for accreditation of 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: Health resource systems (CBHI, PBF, DHTT, iHRIS, LMIS, LIS) and Routine aggregate reporting systems (HMIS, SIScom, Tracnet, e-IDSR), etc.

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 will coincide 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, evidence based planning and decision making, strengthened health system, customer care and improved quality of service.

END OF THE REPORT

(Footnotes)

1 Data from January 2012-April 2012

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