REPUBLIC OF RWANDA

MINISTRY OF HEALTH
Po Box 84 KIGALI
www.moh.gov.rw

First Lady in the launching of Human Papilloma Virus (HPV) Vaccine

ANNUAL REPORT
July 2010 - June 2011

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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	: Sels de Réhydratation Orale (Oral Rehydration Salts)
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 (CDV)	: 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 2010 to June 2011, 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 and the management of diseases, the rehabilitation and the re-adaptation of people disabled by those diseases and the strengthening of the national health system

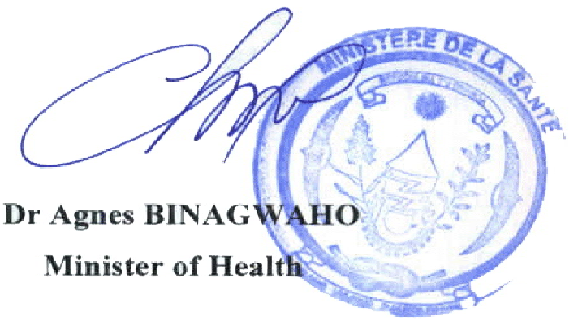
In order to achieve the mission, and the objectives defined in the Health Sector policy, the second Health Sector Strategic Plan (HSSP-II: 2009-2012) was implemented to maximize preventive measures, to build capacity and to allow the provision of high quality of health services, accessible both geographically and financially to the whole population.

The DHS 2010 and HSSP-II mid term review carried out at the end of the fiscal year 2010-2011 showed very important improvements: financial and geographical access to health services improved, tremendous decreases in child, infant and malaria mortality were observed, while maternal health indicators were improved very substantially, and HIV prevention and treatment are expanded all over the country with over 90,000 HIV patients accessing ART services. The new Community Based Health Insurance Policy has been approved and its implementation is thought to solve the problems of sustainability.

All those achievements were obtained by the Government with the participation of the population, and Development Partners played a key role with financial support, and they will continue to be sollicitated to back efforts being made by the Health Sector through a more coordinated partnership.

The positive and continuous trend in health indicators needs to be sustained, as maternal and child mortality ratios and fertility rate are still high in comparison to international and regional standards. While efforts continue to avert the issue of preventable diseases, the burden of non communicable diseases, among them chronic diseases, are rapidly becoming a new burden for the national health system, which itself needs still specific efforts to be strengthened. Finally, the quality of health service delivery should be improved through the quick quality improvement program and the accreditation process.

Several challenges and gaps have been identified during the HSSP-II MTR. They will be analyzed and high impact strategies to address them will be developed in the coming HSSP-III (2012-2016).



Dr Agnes BINAGWAHO

Minister of Health

EXECUTIVE SUMMARY

This report presents the achievements of the Ministry of Health for the fiscal year July 2010 to June 2011. These achievements show 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 conditions of life of the Rwandan population in general by putting in place high impact interventions for prevention and treatment of diseases.

The Health Sector Performance, July 2010 - June 2011

1. Human Resources for Health

The main activities achieved are:

a) By June 30th, 2011: A total of 15,038 employees were deployed in the Public Health Sector: 122 specialist doctors, 498 generalist doctors, 1369 A1 Nurses, 191 Midwives, 6,723 A2 Nurses, 1321 Lab technicians of different levels, 76 Pharmacists, and others
b) Recruitment of new staff: a total of 523 staff has been recuited and deployed in health facilities. Among them: 13 specialist doctors, 161 general practitioners, 106 A1 Nurse, 84 Midwives, 10 Pharmacists.
c) For Capacity building: 159 doctors are pursuing clinical specialization (84 in Rwanda and 75 abroad), with 40 new intake for 2010-2011. 13 MoH staff have been facilitated for Masters degree training, and 350 A2 Nurses are being trained for A1 Level upgrading
d) The Capacity Building Plan has been developed, the CPD (Continuing Professional Development) program has been approved and launched in April 2011
e) Human resources indicators, as of June 30th, 2011: Ratio Doctor/Population: 1/17240 (target 2017: 1/10000), Ratio Nurse/Population: 1/1294 (Target 2017: 1/1000), Ratio Pharmacist/Pupulation: 1/30565 (Standard : 1/10000)

2. Improvement of availability of medicines, vaccines and consumables

a) **Pharmacy**: The national pharmacy policy is available, the Pharmacy law developed and submitted to Parliament. 30 District Pharmacies are functional and 27 are managed by Pharmacists, 42 millions RWF have been provided to District Pharmacies to strengthen their financial capacity. Drugs and Therapeutic Committees are operational in all District Hospitals.
b) **Vaccination**: A new vaccine has been introduced: Human Papilloma Virus vaccine (HPV) for young girls to prevent the cervix cancer. Routine vaccination activities continued as ususal.
c) **Blood transfusion**: 41,316 blood units have been collected, processed, qualified and distributed in hospitals (43,631 units collected in 2009-2010)
d) **Production, Procurement and Distribution** of Drugs and Medical equipment: Active distribution was extended from 11 to 23 districts.

3. Improvement of geographical access

a) Construction and equipment of health facilities: Butaro and Masaka district hospitals have been completed and Butaro is now functional. Construction of Kinihira, Ntongwe, and Bushenge is in the final phase. The renovation and extension of CHUB and Kibungo has started, and a maternity is being constructed in Rubavu Hospital. Contruction has started for Kibuye (Karongi) hospital, as well as the maternity for Rwanda Military Hospital and 4 health Centres in Kigali City.

b) Emergency transportation continued to be extended through SAMU, and by June 2011, some 168 ambulances were functional, meaning an average of 5 ambulances by district. In 2010-2011, 29 ambulances have been purchased and distributed.

4. Improvement of financial accessibility

During the fiscal year 2009-2010, the percentage of Government budget allocated to Health was 10.2%. In 2010-2011, this allocation was 11.5. However, for the first time, it was possible to track the health budget allocated in all public institutions, and the total percentage was estimated at 16.05%. The Health financing policy has been approved and published, as well as the new Community Based Health Insurance Policy, based on the stratified payment of premiums using Ubudehe database. The payment of premiums according to the new policy started with July 2011. Meanwhile, the Government continued to pay arriers of Mutuelles de santé (at least 750 millions paid).

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, and the Malaria prevalence reduced from 2.6% (2008) to 1.4% (2010, U5 children), and from 1.4% to 0.7% (Adults). In 2010-2011, a total of 3,167,439 LLINs have been distributed countrywide. 82% of households have at least 1 ITN, 70% of U5 children and 72% of pregnant women sleep under ITN (RDHS 2010). Malaria morbidity was 3% and mortality was 7.8% (HMIS).

HIV/AIDS

By end of June 2011, **434** health facilities offered VCT services, including 13 prisons (419 HFs in June 2010). 1,938,026 persons were tested in 2010-2011, and 32,319 persons found HIV positive (1.7%). From 2003, **7,167,843 persons** have been tested for HIV in VCT services.

For PMTCT: 404 HF offered PMTCT services (382 in June 2010). **286,073** pregnant women were counselled and tested for HIV (99.2% of expected PWs) and received their results. Among them **6,033 (2.05%)** were tested HIV positive. Early Infant Diagnosis showed a rate of **2%** of HIV transmission from mother to child at 18 months.

For ARV treatment: **328** health facilities were offering care and treatment services (ART). A total of 90,659 patients were under ARV (84% coverage). Among them, **7,356** patients were children up to 15 years. During the period, some **1,152** patients died, while **2,214** others were lost to follow up.

Male Circumcision started as an additional HIV prevention strategy. 5,000 male circumcisions have been performed. 60% of new HIV infections are expected to be averted among 15-49 year olds with MC scale up.

Tuberculosis:

The treatment success rate for the new smear-positive patients (86, 5%). The number of all TB cases notified was 7,175. The seroprevalence of HIV among TB patients was 30%. 98% of those dually infected received Cotrimoxazole Preventive treatment (CPT) and 68% were on ART by the end of the TB treatment. 66 MDR-TB patients were enrolled on second-line treatment, with 87% treatment success. 2 new centres for treatment of MDR-TB were opened in Kibagabaga and Kibungo (Ngoma) district hospitals.

Maternal and Child Health

According to the RDHS 2010, the main maternal health indicators continue to improve. Compared to IDHS 2008, the total fertility rate was slightly reduced from 5.5 to 4.6. For Family Planning, the % of women using any modern method, increased from 27% to 45%. Assisted deliveries in health facilities increased from 45% in 2008, to 69% in 2010. The antenatal visit remains high at 98% (at least one visit), but it is only 35% in case of 4 ANC visits

Construction of maternities, distribution of basic equipment of maternities with emergency transport (29 new ambulances purchased), maternal death audits, and MCH weeks continued as planned. The introduction of HPV vaccine and the management of cervix and breast cancer, as well as the treatment of fistula are also additional to MCH improvement.

The Child mortality was reduced by 50%, from 152/1000 live births to 76/1000 live births in 2010. For the same period, the infant mortality was reduced by 43%, from 86/1000 live births to 50/1000 in 2010. Chronic malnutrition (stunted) was reduced from 51% in 2005 to 44% in 2010. For underweight children, the proportion reduced from 18% to 11% and for acute malnutrition (wasted), the proportion dropped from 5% to 3% during the same period

45,000 phones provided by the Government have been distributed to CHWs all over the country. The community based RapidSMS “alert system” is used to inform critical events in the Maternal and/or newborn/child health up to 9 months. ARH&R policy and strategic plan have been drafted and are in process to be approved. For SGBV, 2 one stop centres are operational (Gihundwe, Kacyiru) and 2 more (Nyagatare, Rubavu) will be opened by the end of the year 2011.

6. Strengthening of Referral Institutions

The institutionalization of RBC (Rwanda Biomedical Centre) is ongoing and the law creating RBC has been enacted, operationalization is also ongoing. CHUs have been equipped with CT-Scan machines and KFH has been equipped with MRI. Several district hospitals have been equipped with digital X-Ray machines.

7. 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 management of data continued its improvement at district level. Also, the Health Resource Tracking Tool (HRTT) is progressively developed and used, as well as the DSST (District System Strengthening Tool). Several SOPs have been developed and approved, in order to improve the quality of services and to harmonize methodologies. Decentralization is still ongoing.

8. Citizen Report Card, period 2010

The CRC study was commissioned in 2010 by the Ministry of Local Government and conducted by the Rwanda Governance Advisory Council. 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

For Health service delivery, the report statistically demonstrated that citizens generally seek medical services as stated by 70%, wherein the highest percents were in the East (80.5%), North (74.3%) and west (65.9%). For those that did not seek medical services only 4.4% cited low financial capacity as the reason with the majority 66% citing the reason as sound health.

The biggest percent (91.2%) sought medical treatment while the smallest percent (6%) sought community based health insurance, Furthermore; it was observed that most of the services were acquired from hospitals and health centres, as stated by 8.8% and 83.4% respectively.

INTRODUCTION

This report presents the realizations of the seond year of HSSP-II implementation. The objective of the HSSP II is to operationalise the EDPRS in the Health Sector to help attain national priorities 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-II are categorised along 2 axis 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, as detailed in the table below:

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 include mostly preventive and promotive measures as well as some management of neonatal and childhood illnesses. Most of 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.

HSSP-II contains new initiatives, which include: PBF, CBHI, Community Health, Accreditation of Health Services, Improvement of Health Education, Quality emergency transportation, Development of SWAp, Continuing the Decentralization process.

In HSSP-II, Family Planning is a top priority in order to reach the ambitious target set for fertility. Maternal health still receives 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.

HSSP-II also emphasizes **non-communicable diseases and injuries**, which are increasing the burden of disease, and specific attention is paid to **promoting healthy lifestyles and preventing disease** 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-II 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 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).

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 will be published in Quarter I 2011-2012 and will provide basis for the development of EDPRS II and HSSP III. **The RDHS 2010** has been conducted and preliminary results have been disclosed for some health indicators (MCH, Malaria, and Nutrition). The final report will be published at the end of 2011.

d) Citizen Report Card study (CRC): this study is organized by Rwanda Governance Advisory Council (RGAC). 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 during Q1/2011-2012.

Table 1 : Sector Performance Indicators, HSSP III

SECTOR PERFORMANCE INDICATORS HSSP I + II, 2005 – 2011

(Baseline 2005 – 2011 and targets 2012 and 2015)

INDICATORS	BASELINE 2005	MTR June 2008	MTR Aug 2011	TARGET 2012	TARGET 2015
Source of Information	DHS2005	I-DHS	DHS2010	EDPRS	MDGs
IMPACT INDICATORS					
Population (Million)	8.6 M	9.31 M	10.4 M		
Infant Mortality Rate / 1000	86	62	50	37	28
Under Five Mortality Rate / 1000	152	103	76	66	47
Maternal Mortality Rate / 100.000	750	NA	Forthcoming	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	
OUTCOME INDICATORS					
% Births attended by skilled HW/HF	39	45	69	75	
% PW receiving 4 ANC Visits	13	24	35	50	
Caesarian Section Rate %			12.5+	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 Rate in 15-24 yrs %	1.0	NA	Forthcoming	0.5	
Number HF with VCT / PMTCT services	234	374VCT, 341 PMTCT*	404 VCT, 434 PMTCT*	433	
% HF providing IMCI services		80	100	50	
% children Fully immunized / Measles	75 / NA	80 / 75	90 / 95	85	
% children < 5 yr sleeping under ITN	18	60	70	90	
% TB Treatm Success Rate / DOTS	58	86	85*	95	
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%	XX	
Average OPD attendance / pp / yr	0,33	0,72	0,95*	0.8	
INPUT INDICATORS					
# District hospitals / HCs		40 / 406	42 / 438		
# Community Health Workers (CHW)		NA	60.000		
% people living at < 1 hour of HF		77	NA	80	
Per capita GDP Growth rate (USD)	7.1	6.3	NA	NA	
% of GOR budget allocated to health	8.2	9.1	11.5	12	
Per capita annual GOR expenditure on health (USD)	6.0	11.1	XX		
% Population covered by 'mutuelles'.	12	75	91	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 / 17.240 1 / 1.294 1 / 66.749	1 / 20.000 1 / 5.000 1 / 20.000	1 / 1 / 1 /

Italics = Included in CPAF as part of SBS funding.

* = MOH Statistical Booklet 2008 and/or Annual report 2010.

ACHIEVEMENTS IN 2010-2011

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 Care, including the reduction of Maternal and Child Mortality, conducting Maternal death audit from health facilities, organization of verbal autopsy, fight against cervical cancer, implementation of emergency obstetric and neonatal care, improvement of availability and accessibility/extension of the coverage of integrated interventions of quality, monitoring and evaluation, reinforce the accessibility to Family Planning services, implementation and strengthening of IMCI program at health facility and community levels, 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.

Achievements of July 2010 – June 2011

I.2 Maternal Healh

1. Maternal Death Audit from health facilities

Table 2: Maternal Death Audit: Main causes of maternal deaths

Causes of death	Nb maternal death	%	Causes of death	Nb maternal death	%
Severe bleeding	75	38,26%	IO/HIV	6	3,06%
Septicemia	26	13,27%	Amniotic embolism	6	3,06%
Eclampsia	13	6,63%	Anemia associated to pregnancy	5	2,55%
Other infections	11	5,61%	Obstructed labor	2	1,02%
Heart failure	9	4,59%	Other causes	14	8,16%
Malaria	7	3,57%	Unknown causes	16	7,14%
Anesthesia complications	6	3,06%			

Source: MoH/MCH: Annual report 2010-2011

One hundred ninety six (196) maternal deaths audit reports from hospitals and health centers were reported: the main cause of death is still severe bleeding (38, 26%) and more than 2/3 cases occurred during postpartum period. Many cases of severe bleeding were

due to uterine rupture. The second cause is infections mostly occurring in postpartum period. More than 70% of maternal deaths occurred in district hospitals. 33% of women died before giving birth. 44% of deceased women were aged between 21-30 years. 45% had at least 3 pregnancies. For more than 42% cases, antenatal information was not recorded in files. 35% women died in postpartum period, most of time seen in critical state when it was difficult to resuscitate them.

2. Verbal autopsy

Training on verbal autopsy has started. Nowadays, a total of 259 health providers have been trained in 8 districts. Some of districts trained have already started reporting.

3. Cervical cancer

- A five year strategic plan for prevention, control and management of cervical cancer was elaborated and approved;
- Launching HPV vaccine made on 26-27th April by the First Lady;
- Training for 12 health providers from MUHIMA hospital, GITEGA health center and WE-ACTx were trained for screening by VIA and treating pre cancer lesions by cryotherapy. 155 women screened and 10 of them were VIA positive and treated by cryotherapy. Screening by VIA and treatment by cryotherapy is being done routinely;
- Training of trainers took place at WE-ACTx clinic and BURERA district. 12 Health providers from BURERA, RWINKWAVU, RUHENGERI district hospitals and WE-ACTx clinic were trained as trainers.
- Cryotherapy machines for district hospitals and health centers selected ordered and LEEP and colposcopy machines

4. Emergency Obstetric Neonatal Care

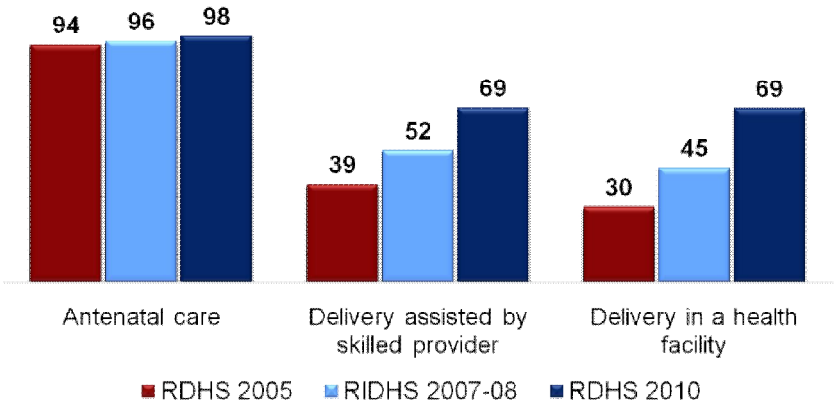
- Training organized for KIBILIZI, MUNINI, RUTONGO, KIBUNGO, NGARAMA, KIZIGURO, RWAMAGANA, REMERA-RUKOMA, KABGAYI, GITWE, KIGEME, KADUHA, RULI, NEMBA, BUTARO, KABUTARE, GAKOMA, KANOMBE, KIREHE, KIBOGORA district hospitals and health centers in their respective catchment area: 476 health providers
- Combined Essential Obstetric and Neonatal Care, Basic and Comprehensive Emergency Obstetric and Neonatal Care manual developed.
- Handbook for EmONC is now available, waiting for validation by TWG;
- Protocols for eclampsia, management of severe bleeding during the pregnancy, prevention and management of infection, prevention and management of obstructive labor developed, waiting for validation

5. Neonatology:

- Establishment of a final report of Baseline diagnosis of neonatal units in the 40 DHs
- Elaboration, and distribution of neonatology standards, protocols and guidelines
- Training on neonatology of 120 health providers from all districts.
- Neonatology materials distributed to health facilities including electronic respirator, incubators, oxygene concentrator, aspirator, radiant overhead lamp, ambu-bag, pulse oxymeter, fetal monitor and delivery table
- Operational monitoring and mentoring units set up in 40 HD.

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

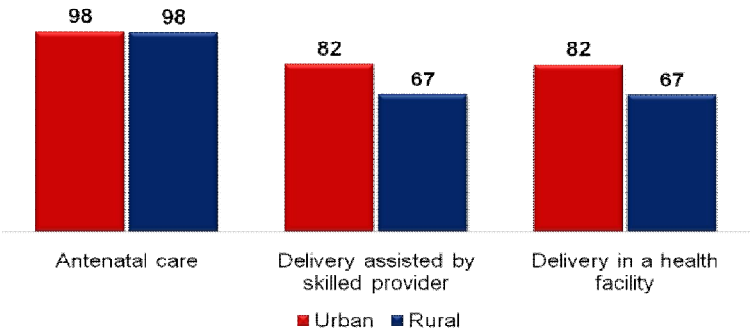
Figure 1: MCH: Trends of MCH indicators: 2005, 2008, 2010



Source: RDHS 2010

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

Figure 2: MCH: Maternal indicators by residence



Source: RDHS 2010

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

Figure 3: MCH: Utilization of Antenatal care, 4 visits

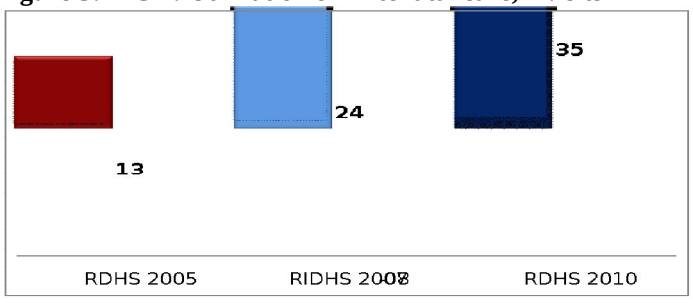
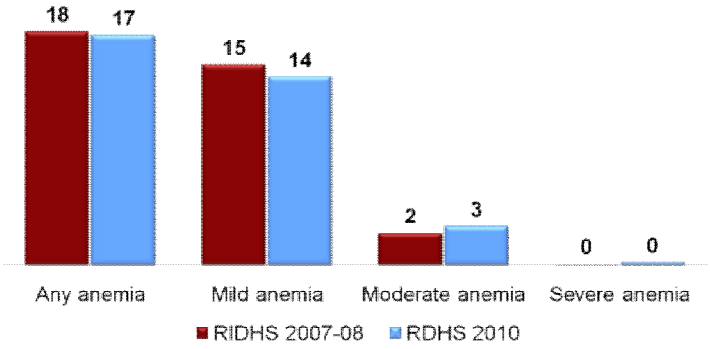


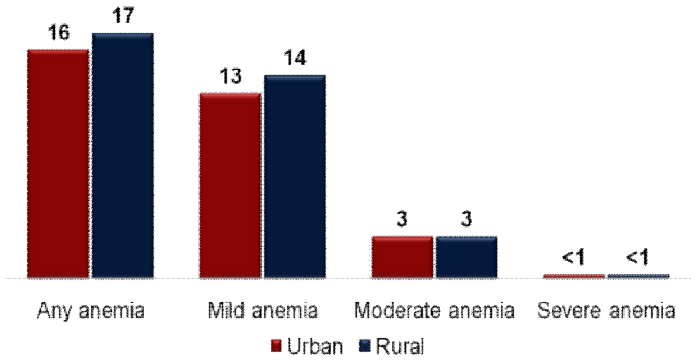
Figure 4: MCH: Anemia among women, 2010



Source: RDHS 2010

While other indicators are improving significantly, anemia rates don't change. Important efforts are still needed to avert this situation. This indicator is defined as: *Women with <7.0 g/dl of hemoglobin have severe anemia, women with 7.0-9.9 g/dl have moderate anemia, and non-pregnant women with 10.0-11.9 g/dl and pregnant women with 10.0-10.9 g/dl have mild anemia.*

Figure 5: MCH:Anemia among women, by residence, 2010
(No significant difference)



Source: RDHS 2010

I.3 Child Health

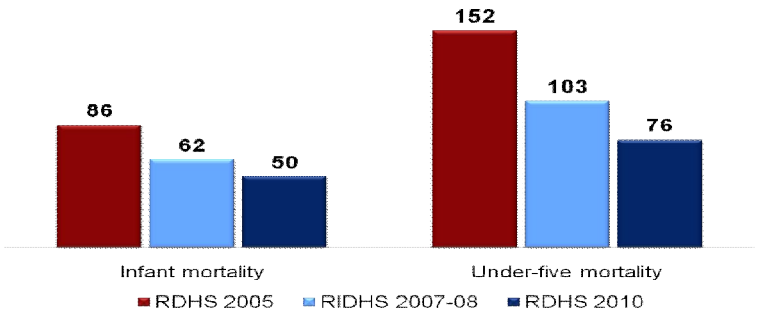
The general objective of the Child Health desk is to contribute in reduction of U5 child mortality from 103 in 2007 to 50 in 2015 (6.6 by year).

Child Health high impact interventions implemented in 2010/2011

All activities related to Child health are part of the Child Health policy and accelerated child survival strategic plan. In this report, only the main ongoing activities are

mentioned: Nutrition, Integrated Management of Neonatal and Childhood Illnesses (IMNCI), essential neonatal care in health facilities, neonatal and child death audit in health facilities and at community level (verbal autopsy), early childhood development and Nutrition.

Figure 6: MCH: Child Mortality rates (/1000 live births)

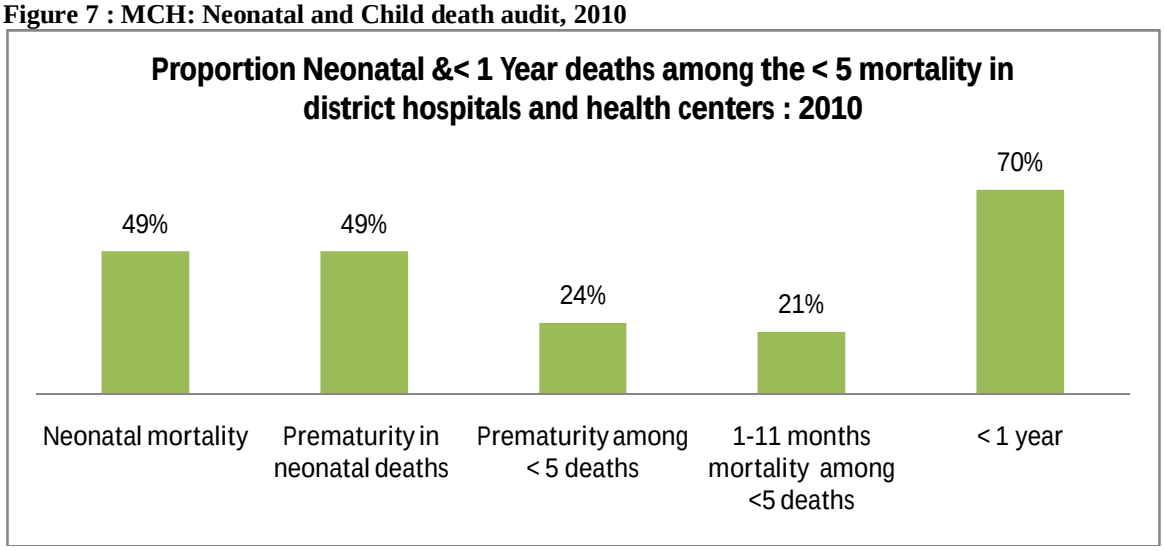


Source: RDHS 2010

Neoantal and child death audits from Health Facilities

This activity was started on end of 2010 by training of two providers from each district hospital on conducting neonatal and child death audit.

Figure 7 : MCH: Neonatal and Child death audit, 2010



Source: MoH/MCH annual report, 2010-2011

Reporting started in January 2011: 659 neonatal and 145 child deaths were audited. Findings from the audit are: prematurity represents 47% and low weight at birth 51%. 37% neonatal deaths were referred from health centers after birth. Only 20% of all

neonatal deaths are unavoidable and for 80% something at different levels could have been done to prevent the death

In conclusion: the main causes of neonatal death are neonatal asphyxia (45 %), neonatal infection (25%), other complications related to prematurity (23%) and neonatal abnormalities (7%). **Prematurity and low weight at birth are the main risk factors of neonatal death**. These findings are similar to those from HMIS for prematurity about neonatal and < 5 deaths.

For child deaths: 68% children died before 48 hours of hospitalization, the main causes of death are respiratory infections (22 %), others infections (septicemia) and diarrhea 13% respectively, malnutrition (12%) and malaria (8%). At community level: 259 health providers from 8 districts have been trained on conducting verbal autopsy but reporting of child death at community level needs to be harmonized before extension to other districts.

I.4 Nutrition

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

The nutrition status is still appalling, with high prevalence of **protein-energy malnutrition** and micronutrient deficiencies. 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)

Achievements of the Nutrition Program 2010-2011

Nutrition management

i. Training of Health Centers and CHW on the protocol of Management of Malnutrition: after the TOT of hospitals on the protocol, health centers have been trained as follows:

Number of hospitals trained	Number of trained health centers	Number of trained health providers	Coverage
40	**417**	**1347**	**100%**

ii. Creation of therapeutic centre in BWEYEYE health centre/ GIHUNDWE hospital: 23 staff has been trained on the protocol for Malnutrition management. The staff was provided with materials/commodities (anthropometric matériel: Balance, culottes and commodities: therapeutic milks (F75 and F100) and RUTF).

iii. One cup of milk program: MOH conducted a nutrition assessment in 6 districts where the One Cup of milk projects is operational: **BUGESERA, KAMONYI, NYANZA, KARONGI, NGORORERO, and GAKENKE.** The report wil be submitted to MINEDUC for further action.

Behaviour change communication in nutrition (BCC)

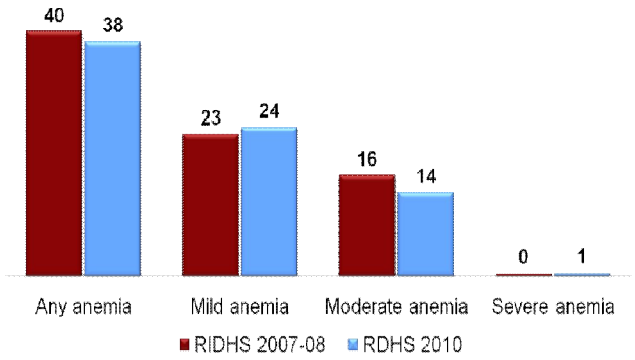
iv. Nutrition programs on radios (Rwanda, City and contact FM)
v. Dissemination of Nutrition posters to health facilities

District plans to eliminate malnutrition (BCC)

vi. In October 2010, all the 30 districts developed their 1st drafts of plans to eliminate malnutrition. 5 of them contain Home Based Fortification program (KAMONYI, KARONGI, MUSANZE, BUGESERA, KIREHE).
vii. Food fortification ingredients were prepared, orders finalized
viii. Creation of food fortification levels: the National Fortification Alliance has set levels that will be used as national standards of Food Fortification. Once the order is approved, the levels will be transmitted to RBS for standards creation.

Nutrition Status among U5 Children

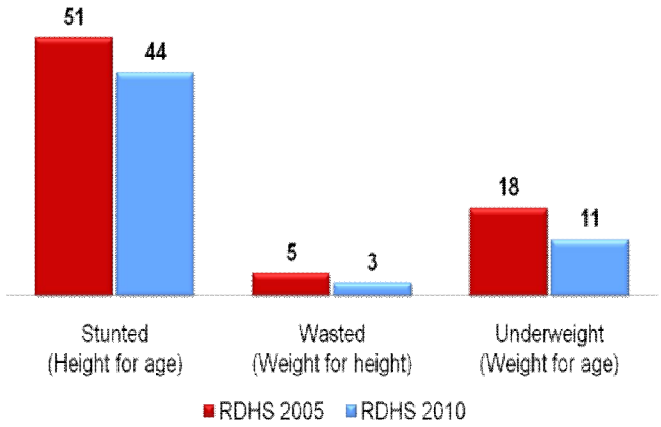
Figure 8: MCH: Anemia among Children aged 6-59 months, 2010



Source: RDHS 2010

Anemia and malnutrition remain important problems.

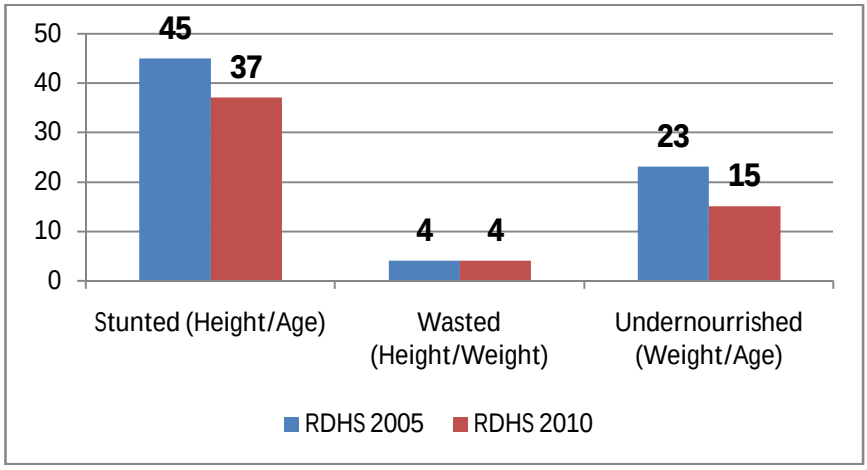
Figure 9: MCH: Nutrition status, U5 Children, 2010
(*More than 2 SD below the median of WHO Child Growth Standards adopted in 2006)*



Source: RDHS 2010

There is a significant progess in improvement of the nutrition status, but efforts are still needed.

Figure 10: MCH: Undernourished Children: comparison using WHO standards before 2006
(*More than 2 SD below the median of **OLD** WHO Child Growth Standards **before 2006***



Source: RDHS 2010

I.5 Expanded Program of Immunization

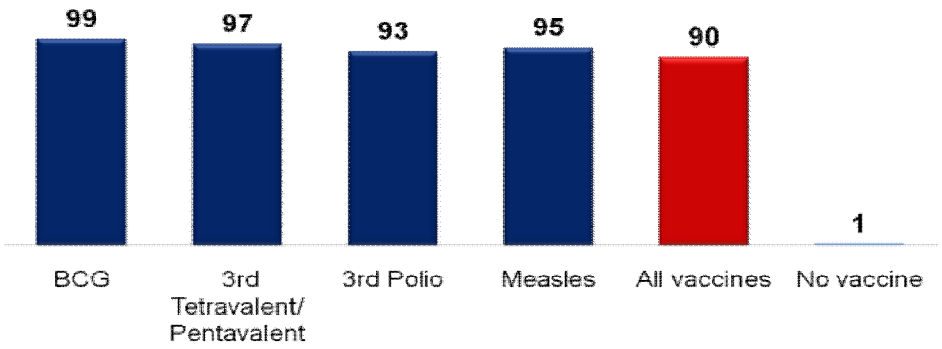
Under RBC, EPI is a division of IHDPC (VPDD: Vaccines and Preventable Diseases Division) and is comprised of three principal components: routine vaccination, supplemental immunization activities, and surveillance of target diseases. Routine immunization targets infants 0-11 months of age and pregnant women, during antenatal care visits. To reach a high proportion of target population, EPI uses the following strategies: integration of immunization services at fixed health centres, re-establishment of outreach strategy within a health catchment's areas 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. In August 2010, a joint team from the Ministry of Health and WHO conducted an immunization survey *in 4 districts (Northern Province) which had a very low immunization coverage.* Findings of the survey were as follows:

a) The proportion of under one year children was 2.6% (survey) instead of 4.1% as reported by health management information system (HMIS);
b) The number of children < 1 year old was 31588 (survey) compared to 53336 estimates used by HMIS ;
c) Pentavalent 3: coverage was 100% (survey) compared to 66% as reported by HMIS.

The low proportion of children < 1 year of age (2.6% of the total population) is probably the result of the improvement of Family Planning coverage by use of contraceptive methods which passed from 5% in 2002 to 51% in 2010.

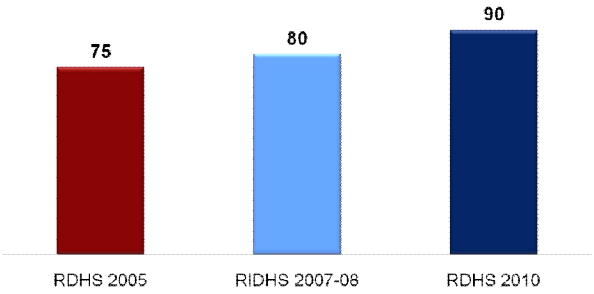
Figure 11: MCH: Immunization coverage



Source : DHS 2010

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 12: MCH: Trends of Full vaccination, Children aged 12-23 months, 2010



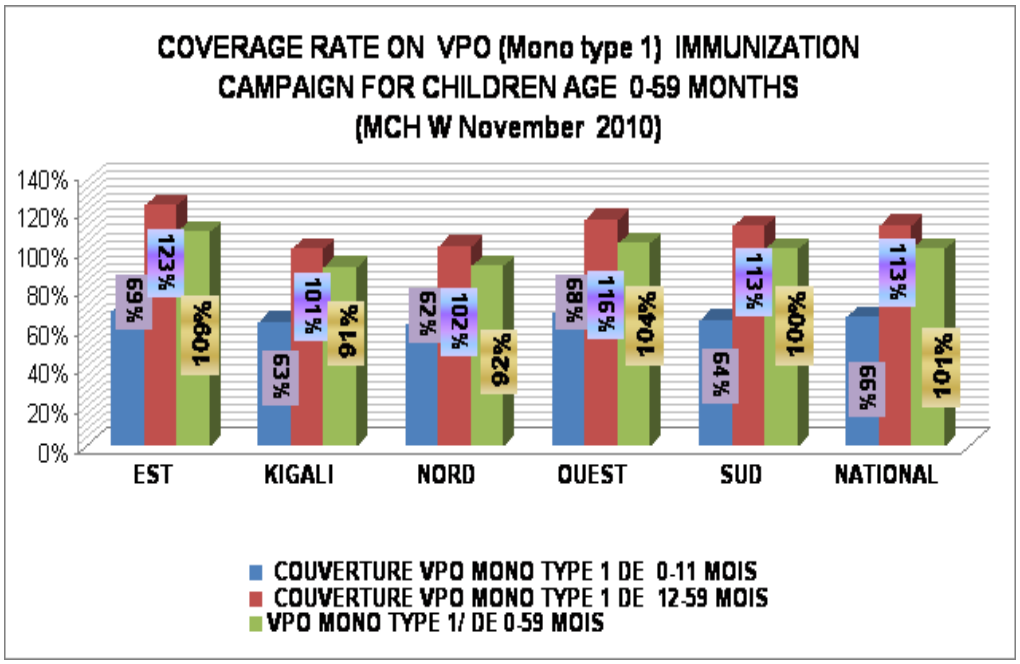
Source: RDHS 2010

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)

Figure 13: MCH: Polio Vaccination coverage, 2010-2011



Source: RBC/VPDD annual report, 2010-2011

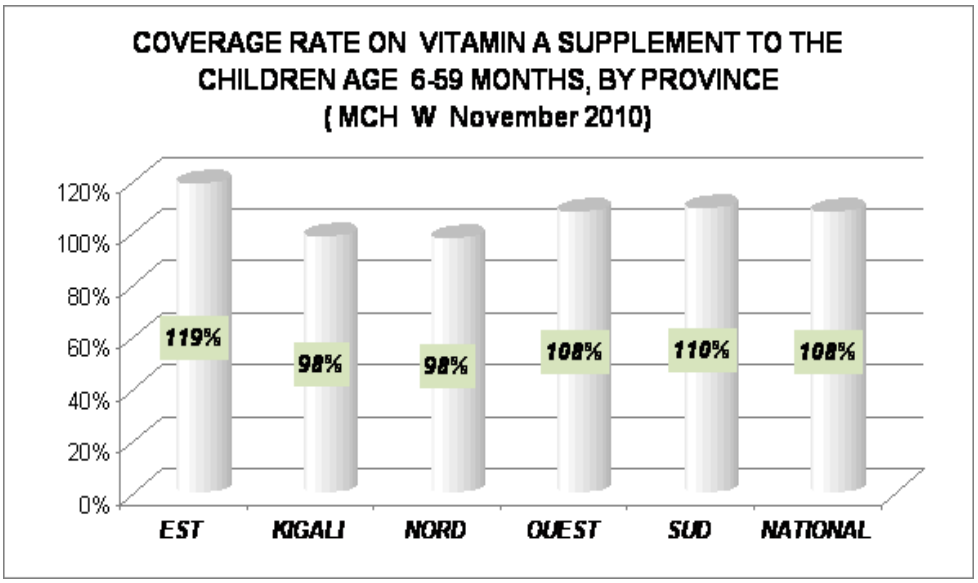
Supplemental Immunization Activities combined with MCH Week

Targets: 1.5 million children for vitamin A supplementation; 1.3 million children aged 12-59 months and three million school children under the age of fifteen for deworming. Over 300,000 pregnant women for anti-tetanus immunization and iron/folic acid and 49,924 women within the 6 week postpartum period to receive vitamin A supplementation and deworming tablets

Vitamin A supplement coverage

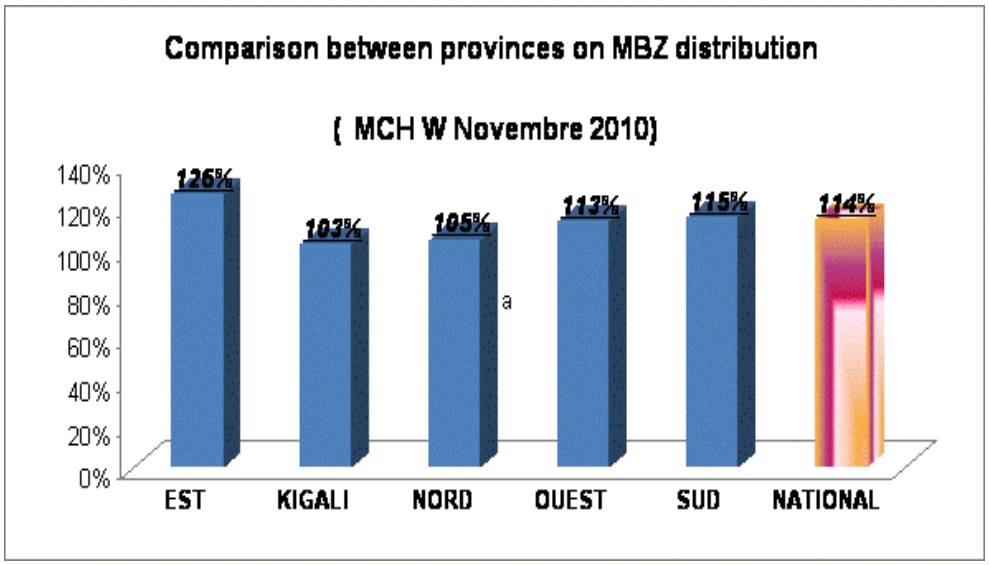
During MCH Week campaign, Vitamin A is distributed to U5 children to prevent deficiency causing night blindness and physical vulnerability, especially under five children that often suffer from diarrhea, respiratory infections and stunted growth.

Figure 14: MCH: Vitamin A coverage, MCH week



Source: RBC/VPDP annual report, 2010-2011

Figure 15: MCH: Deworming campaign, Children aged 12-59 months

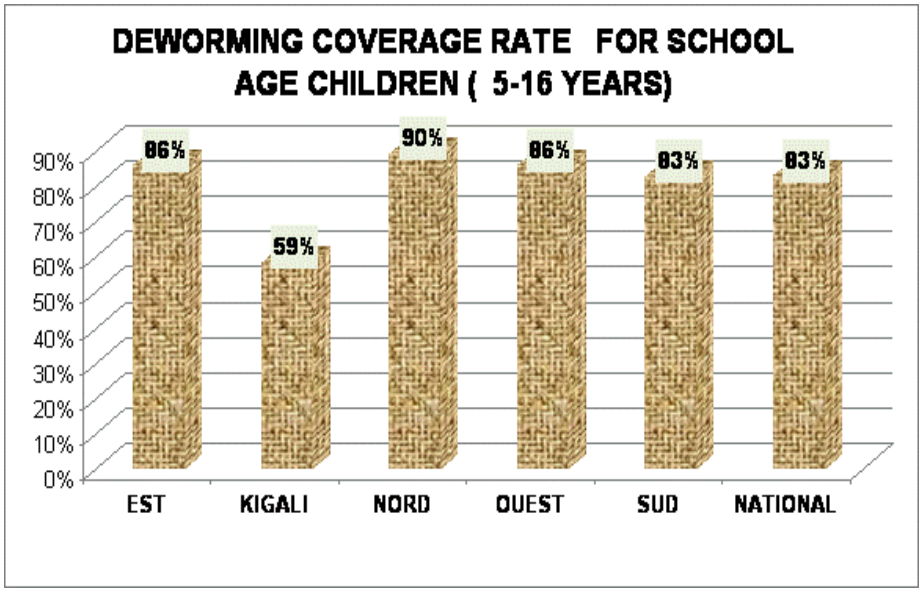


Source: RBC/VPDP annual report, 2010-2011

Deworming coverage rate among the school age children

Concerning deworming in school aged children, the national coverage is 83%. It is worth to know that the mobilization for this target group is not easy MCH week happened school holidays and children were out of the control of their teachers.

Figure 16: MCH: Deworming campaign in Schools



Source: RBC/VPDP annual report, 2010-2011

V.3.8 Launching of HPV vaccine (Kanyinya, Shyorongi, 26 April 2011)

The national launching ceremony was conducted by **t**he First Lady on 26 April 2011 at Kanyinya (Shyorongi), District Nyarugenge in Kigali City. (see photo on cover page)

Table 3: MCH: HPV Vaccination coverage in Provinces

	Province/City name	Girls in school			Girls out of school (aged 12 yrs)		
		Expected	**Vaccinated**	**%**	**Expect.**	**Vacc.**	**%**
1	**Kigali City**	**9180**	**8691**	**95**	**237**	**189**	80
2	**Eastern Province**	**20872**	**20196**	**97**	**2083**	**711**	34
3	**Southern Province**	**23644**	**23300**	**98.5**	**531**	**347**	65
4	**Northern Province**	**18489**	**18135**	**98**	**493**	**288**	58
5	**Western Province**	**21956**	**21430**	**98**	**1369**	**601**	44
National total		94141	91752	97	4751	2136	45

Source: RBC/VPDP annual report, 2010-2011

The campaign targeted both adolescent girls in primary school (P6) and 12 year aged girls out of school. The HPV vaccination campaign was conducted nationwide with much higher coverage among girls in school (97%) than those of out of school (< 50% coverage).

I.6 Family Planning

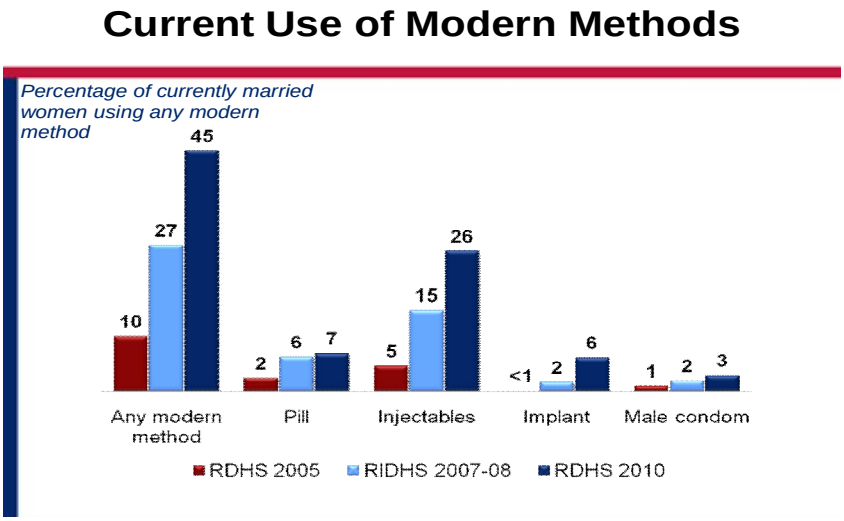
Achievements in 2010-2011

Reinforce the accessibility of family planning services

- Community Based Provision (CBP) of Contraceptives by CHWs being implemented: in the pilot phase: 3,263 clients were served in the 3 Districts, RUSIZI, KICUKIRO and GATSIBO (41% injectables, 32% condoms, 25% pills and 2% cycle beads):
- FP OJT training is going on in RULINDO and GICUMBI Districts; 300 FP providers (from HUYE, NYANZA, NGORORERO, GICUMBI, RULINDO, BURERA, GASABO, GATSIBO, KAYONZA, RWAMAGANA and NGOMA) have been trained in FP and in LTMS, 800 IUDs have been inserted; the promotion of IUD use , the trainings have been done in above 11 districts.
- Improving of the long term methods in FP services especially IUDs. MOH is delivering 450 IUDs Kits to health facilities (Publics and privates);
- Non scalpel vasectomy with cauther services: Medical doctors were trained as master trainers who trained 12 MDs and 18 nurses in the Northern Province on how to perform NSV.

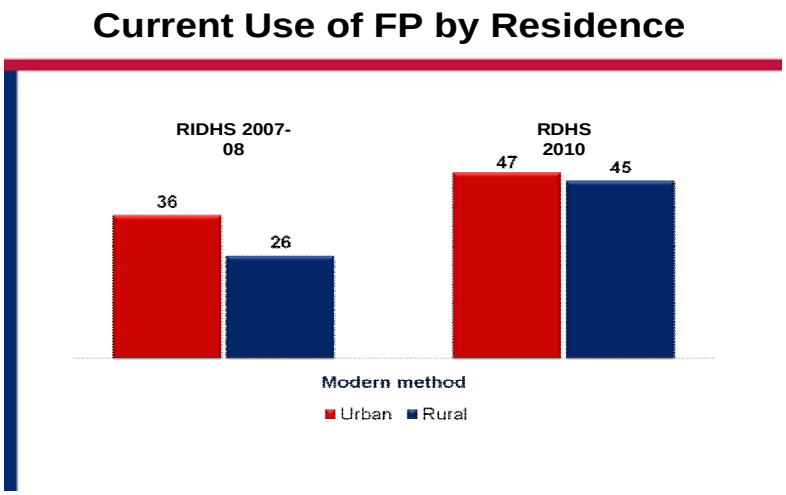
Current situation on Family Planning Indicators:

Figure 17: MCH: Utilization of Modern contraceptive methods



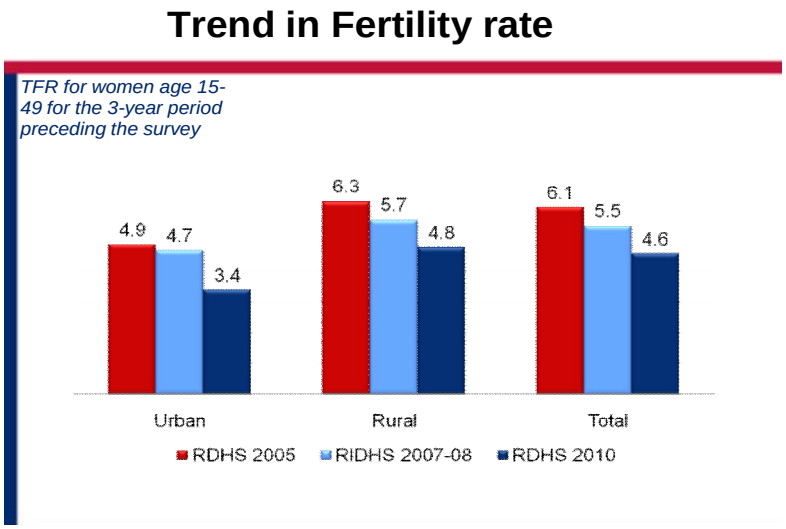
Source: RDHS 2010

Figure 18: MCH: Utilization of Modern contraceptives by residence



Source: RDHS 2010

Figure 19: MCH: Total Fertility Rate



Source: RDHS 2010

I.7 Adolescent Sexual and Reproductive Health

Objectives of Adolescent Sexual and Reproductive Health:

(1) To increase knowledge about reproductive and sexual health among youth and adolescents

(2) To encourage Adolescents to adopt a positive attitude in reproductive health (RH), especially in order to reduce the incidence of STIs, the prevalence of HIV and unwanted pregnancies

(3) To increase the use of RH services in public and private health institutions.
So far, only supervision of the 28 Youth Friendly Services has been done, while the preparation of the Adolescent Reproductive Health policy and Strategic Plan has started.

Main Achievements:

1. Appointment of a functional technical working group made of 22 partners and meeting every month;
2. Supervision and evaluation of all youth friendly centers;
3. Elaboration of the Health care providers manual for the ASRH&R services;
4. Design of the 12+ program;
5. Elaboration and validation of manuals for the 12+program;
6. Elaboration of the ASRH&R policy and strategic plan: documents drafted: to be validated by the MOH before submission to the Cabinet;
7. Elaboration of sensitization tools for the HPV vaccine campaign;

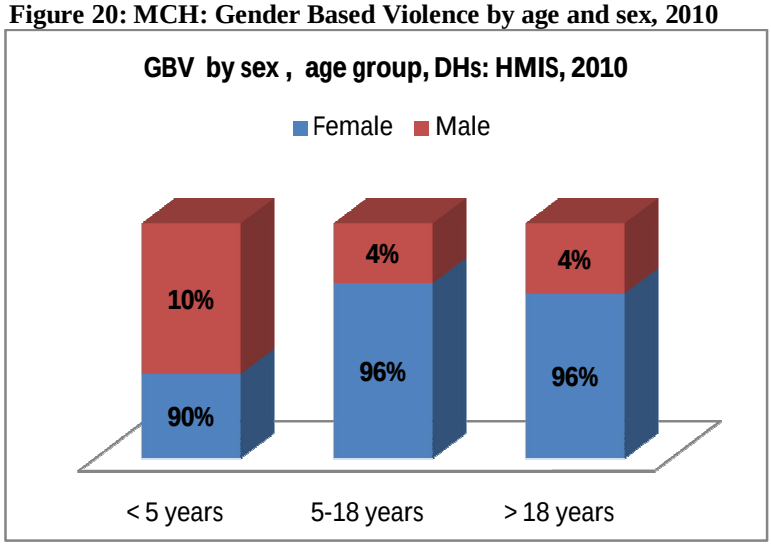
I.8 Sexual and Gender Based Violences (SGBV)

Table 4: MCH Types of Gender Based Violences (National Police

Types of violence	Year 2009	Year 2010
Women battered by husbands	388	430
Men battered by their wives	84	94
Women murdered by their men	38	83
Men murdered by their wives	31	60
Women who committed ssuicide because of their husbands	9	20
Men who committed ssuicide because of their wives	18	31

Source: National Police, 2010

Figure 20: MCH: Gender Based Violence by age and sex, 2010



Source: HMIS, 2010

Achievements in 2010-2011

1. Validation of the policy and strategy in May 2011 and submitted to Cabinet.
2. 42 pools of national trainers and 160 District trainers from all DHs have been trained
3. 38 S/GBV officers deployed in District Hospitals
4. **600** Health providers have been trained from 14 Districts, 100 Police Officers, and 125 members of GBV committees in Eastern and Western Provinces.
5. 1129 CHW have been trained in RUSIZI district to support GBV interventions through One Stop Center (Sensitization at sector level - 6 sectors of RUSIZI District)

I.9 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).

a) Community PBF

Impact evaluation study done by SPH in 18 districts, 4 models applied (supply, demand, demand + supply and control); ToT for national, district and sector levels in 18 districts under impact evaluation.

C-PBF Funds transferred

- Com PBF for the first and second Quarter 2010: **222,304,560 Rwf ;**
- Com PBF for third Quarter 2010: **449,705,824** Rwf ;
- Com PBF for the fourth Quarter 2010 with the TB amounts: **1,892,485,349 Rwf ;**
- The Total amount for Com PBF transferred in 2010: **2,564,495,733 Rwf.**

b) Rapid SMS and mUbuzima

District level : Modeling of Rapid SMS system completed in Musanze District, Training of CHWs(ASM) and supervisors . 16 additional districts were trained on RapidSMS and mUbuzima since May 2011, but post training feedback meeting in held in Musanze only

c) CBP / Family Planning

Pilot phase started: ToT of DH and HC supervisors, FP supervisors at DH and Nurses at HC in 3 districts (Gatsibo, Rusizi and Kicukiro). Community Based Provision training scaled up in 13 districts, with training of trainers. Training of CHWs in those districts planned for the next fiscal year.

Table 5: MCH: Community based provision of FP in 3 pilot districts

Month-Year	Depo provera	Pills	Condoms	Cycle beads
Dec 2010	1137	606	773	21
Jan 2011	3189	1369	1359	37
Feb 2011	4380	1969	1570	50
Mar 2011	5893	2709	1521	44
Apr 2011	8132	3120	1691	74
May 2011	9119	4379	2027	79
Jun 2011	8404	4653	1992	64

d) CBNP (Community based Nutrition Program)

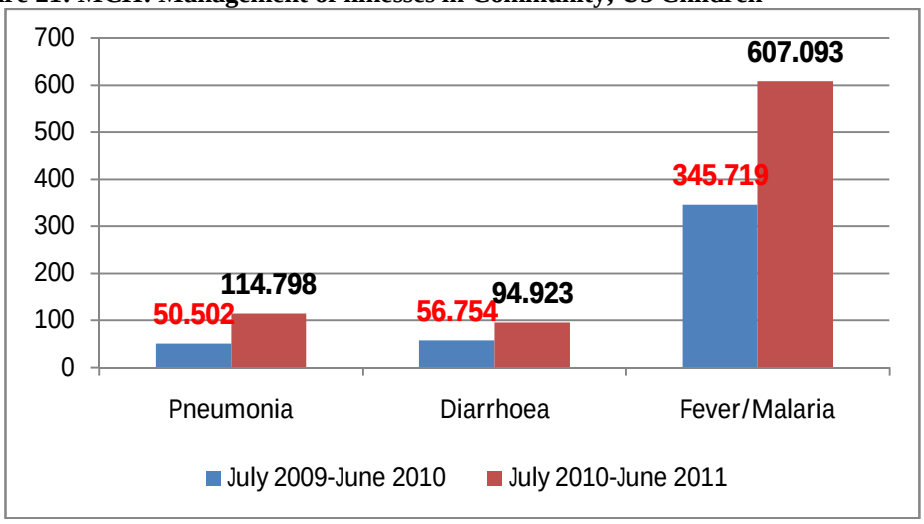
Table 6: MCH: Nutrition status using MUAC measurement

1	2	3	4
Year	U5 children U5 with moderate malnutrition (Yellow color)	U5 children with severe malnutrition; (Red color)	U5 children without malnutrition
July 2010 - June 2011	18,101	2,112	741,957
July 2009 - June 2010	27,160	3,744	472,924

Other activities:

Distributed weighing scales (10.266) in all villages (via DHs).
Number of CHWs trained on the protocol of nutrition and CBNP (2010-2011): Bugesera: 2.321 Kamonyi: 1.268 Ngororero: 1.676 Nyabihu: 1.796 Ruhango: 2.106 Rusizi: 2.384.
Scale up the CBNP activities made in all districts.
Training of 120 trainers on CBNP/IYCF at district hospital level.
Training of 2 trainers on CBNP/IYCF in each Health center.
Training of 30 000 CHWs on CBNP/IYCF planned for next fiscal year

Figure 21: MCH: Management of illnesses in Community, U5 Children



Source: SIS-Com, 2010-2011

Community IMCI package is now implemented in 30 districts through training of Community Health Workers; refresher training in 18 districts by June 2011.
Refresher training on RDT organized in Gisagara, Nyaruguru, Nyamagabe, Ngoma, Kirehe, Nyamasheke districts (6189 binomes trained)
Refresher training with formative evaluation made in Huye, Nyanza, Rusizi, Ngororero, Rubavu, Musanze, ngororero, Nyabihu, Ruhango. (7,704 trained already) and RDT is integrated in the training manual of C-IMCI
Plan to train 452 TOT, to be trainers for 13045 CHWs on RDT

Community Maternal and Neonatal Health (Community MNH)

Community MNH strategy has been developed with the aim at reducing the maternal and neonatal mortality with focus on sensitization and support to pregnant women and postnatal care but NOT assisting them to deliver at home. For this purpose, CHWs/ASM in 6/30 districts were trained. This means 2433 CHWs out of 15000 trained on HBMNHC.
During the period of July 2010 – June 2011, some 150,207 pregnan women on labor were accompanied by CHWs to deliver in Health Facilities, while 19,248 pregnant women were accompanied to Health center for a pregnancy related risk factor.

Community Health Workers' Cooperatives: activities achieved are:

TOT's on cooperative financial management and business planning: over 2,236 participants from 172 cooperatives were trained;
Follow up made to speed up distribution of PBF funds due to delays observed in the transfer process, and also to ensure that PBF funds are utilized for their planned activities.

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

In Rwanda, activities related to health promotion are carried out as added-on activities not really integrated in the package of health centers nor the complementary activities dedicated to district hospitals. The policy recognizes the need for collaboration amongst all stakeholders and partners in addressing the broad determinants of health to ensure equity and quality, since informed opinion and cooperation on the part of the public are essential for the improvement of the health of the people.

Information on disease prevention has improved, but more can be done to encourage people to adhere to healthy lifestyles. With more diseases prevented, costs for treatment and workload in health facilities will go down.

Mission in terms of Health Promotion:
In terms of Health promotion, the GoR is committed to addressing the prevention, care, treatment, rehabilitation and impact mitigation of disease determinants and the protection of the basic needs and human rights of all citizens, their families and dependents, through advocacy, counseling, care, education, resource mobilization through the multi-sectorial approach including non-health sectors

II.1.1 Achievements of the Environmental Health

Under MDG7, Environmental Health services contribute mainly to the reduction of child mortality, eradication of extreme poverty and hunger (malnutrition), malaria, and fatal consequences of AIDS through prevention of diarrheal diseases, intestinal parasites.

Training

1. Pre-service training for 671 students and 56 lecturers from five nursing and midwifery schools on healthcare waste management, injection safety and handwashing. Those items were integrated into KHI curricula for Anesthesia, Medical Laboratory, Dentistry, General Nursing and Environmental Health departments.
2. Onsite training for 418 environmental Health Officers and in charge of Community Health Workers on healthcare waste management and hand washing working in Hospitals and affiliated Health Centers; 166 Environmental Health, maintenance technicians and waste handlers on the use and maintenance of Multipurpose separated waste pits; 950 Health workers in different Hospitals and 201 waste handlers in

collaboration with JSI/RISP on injection safety and health care waste management ; 108 incinerator operators on the use and maintenance of incinerators; 40 Trainers and 35 M&E data collectors of injection safety at hospital level; 100 ToTs in five start up Districts on Community Based Environmental Health Promotion Programme (CBEHPP)

2. Supportive Supervision/inspection

Supervision in 22 hospitals and 132 affiliated health centers on healthcare waste management, injection safety and handwashing; Inspection of 50 hotels and 45 restaurants, in collaboration with the National Hygiene inspection team, 250 food establishments were inspected in Kigali city

3. Infrastructures construction, commodities supply and distribution, job Aid and service delivery

Coordinating appropriate incineration of 320,160.8 kg of expired pharmaceutical products and distribution of 6800 liter of alcohol and 1800 pissettes for handwashing distributed in 20 hospitals and affiliated health centers for hand disinfection.

Coordination of construction of 15 modern multipurpose separated waste pits for 15 health centers and provided 1700 kit of Personal Protective Equipment and 1100 waste bins in all health facilities.

Distribution of injection safety commodities (needles, syringes, etc) for(home based injections for diabetic patients in Kabgayi hospital; 2000 posters for hand washing with soap distributed to district hospitals during MCH week; 600 food safety booklets to central and decentralized local government; Establishment of 12805 Hygiene Clubs (79%) at umudugudu level; Development of training manuals for EHO and guidelines for Community Hygiene Clubs and hygiene committees distributed in 30 Districts.

II.1.2 Information, Communication, Education (IEC)

The Rwanda Centre for Health Communication (RCC), currently a division of RBC, has been created to promote and coordinate all initiatives and activities related to health communication and behavioral changes about health (IEC/BCC). All IEC activities are planned and carried out by MoH agencies, with the technical collaboration of RCC. The main IEC achievements have been made in the following areas:

a) Reduced sexual transmission of HIV/Prevention: BCC-Mass Media: 20 articles on PMTCT, PEP services, Male Circumcision, VCT, Mutuelles de santé. Published in two major leading newspapers: The New Times and Imvaho Nshya, 468 poster and 10,000 booklets on HIV testing and Condom promotion, 36 episodes of radio broadcasting, STI, GBV, HIV post-exposure prophylaxis, etc.

b) Promotion of Hygiene: Hygiene behaviour change communication (HBCC) and awareness materials were developed and distributed in 6 districts, promotion of hygiene through audio-channels (2 audio messages and 2 Bitera Kumenya

c) Malaria: production of 3 documentary films and 5 community sketches

d) BCC/Nutrition: Dissemination of Nutrition posters in health facilities
e) Training: 160 Media workers were trained on health issues such as HIV, PMTCT new protocol, STI, Condom use, PF, Reproductive Health and GBV.

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.
In 2011, the Malaria Division in collaboration with all in-country malaria partners and stakeholders conducted the Malaria Program review (MPR) with the support of 8 external experts in order to undertake a review of the achievements, the enabling factors in terms of strategies and activities and define the gaps between what was planned and what was implemented.

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. However provincial and district variations in malaria control were observed.

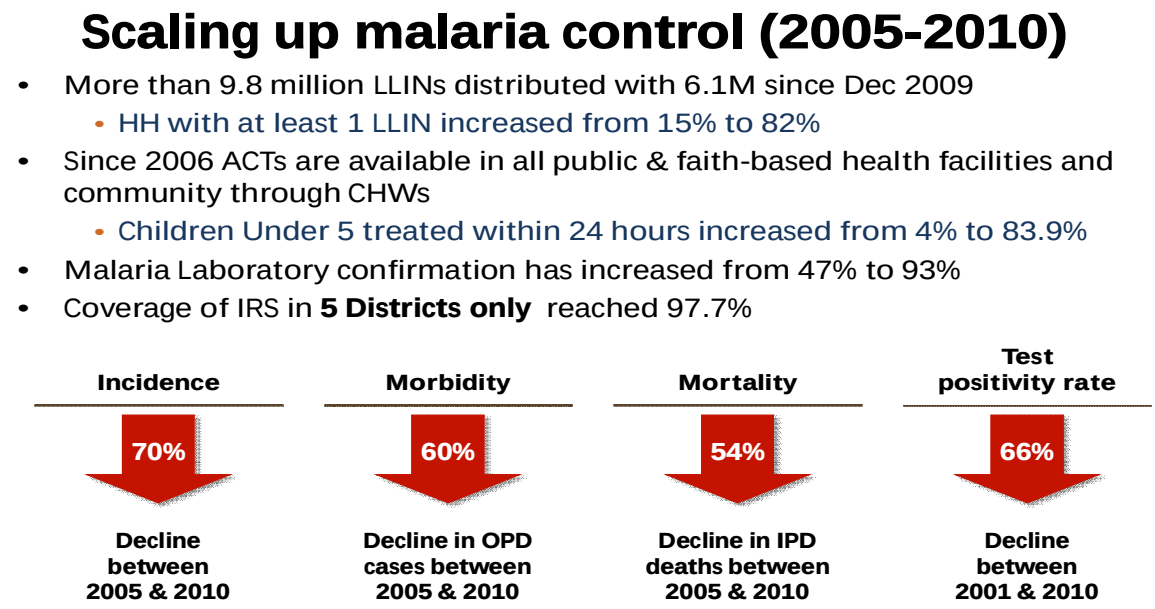
Key achievements:

a) Prevention of malaria
The MSPs objective aims at achieving universal coverage of LLIN for all age groups (1 LLIN per two people in a household) by 2013 as part of an integrated vector management strategy

The Rwanda program uses only WHOPES approved LLINs. Rectangular nets are distributed through routine EPI and integrated vaccination campaigns for children under 5 years of age, while conical LLINs are distributed routinely through antenatal care for pregnant women and through household campaigns through CHWs networks.

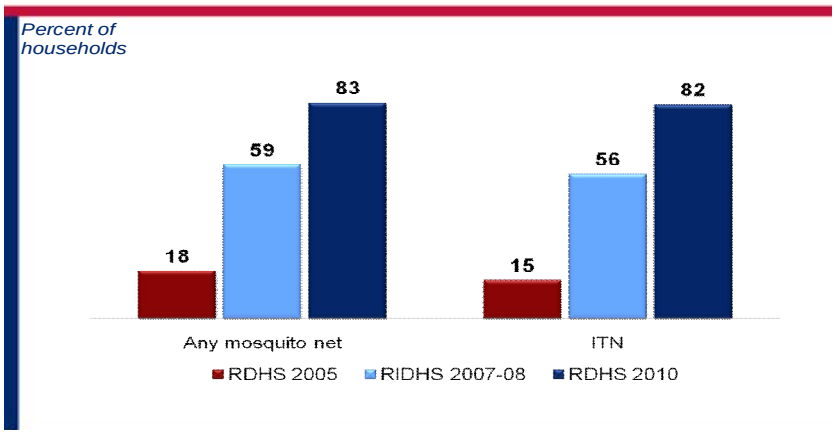
Current situation of Malaria in Rwanda

Figure 22: RBC/IHDPC/Malaria: Trends of Malaria indicators over years



Source: Malaria Program Review, Rwanda March 2011

Figure 23: RBC/IHDPC/Malaria: Possession of mosquito nets in households

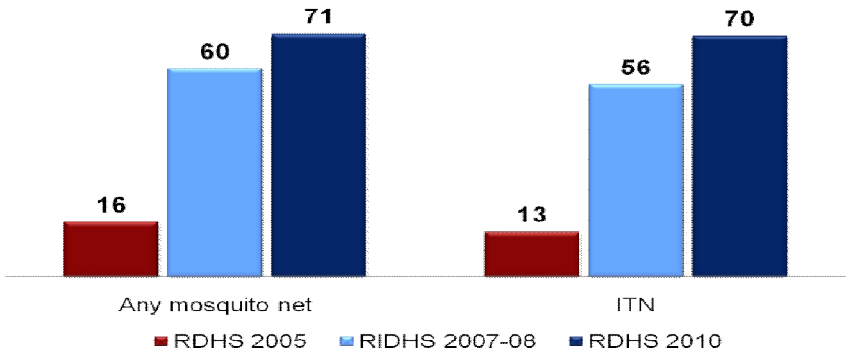


Source: RDHS 2010

Free LLINs were distributed to all households in mass campaigns, to all U5 children upon completion of vaccination and to pregnant women at their first ANC visit. During this reporting period, Malaria and other parasitic diseases division distributed 3,167.439

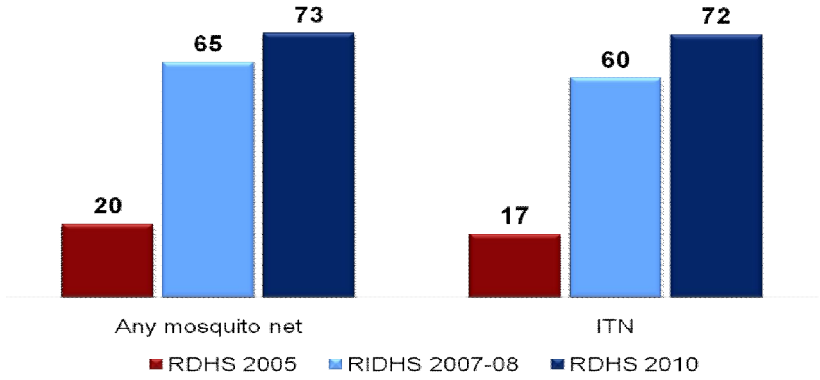
LLINs countrywide. The DHS 2010 preliminary report shows that 83 % of households nationwide own at least one mosquito net of any type, and 82 % own at least one insecticide-treated net (ITN).

Figure 24: RBC/IHDPC/Malaria: Utilization of mosquito nets by U5 Children



Source: RDSH 2010

Figure 25: RBC/IHDPC/Malaria: Utilization of mosquito nets by Pregnant Women



Source: RDHS 2010

Indoor Residual Spraying (IRS)

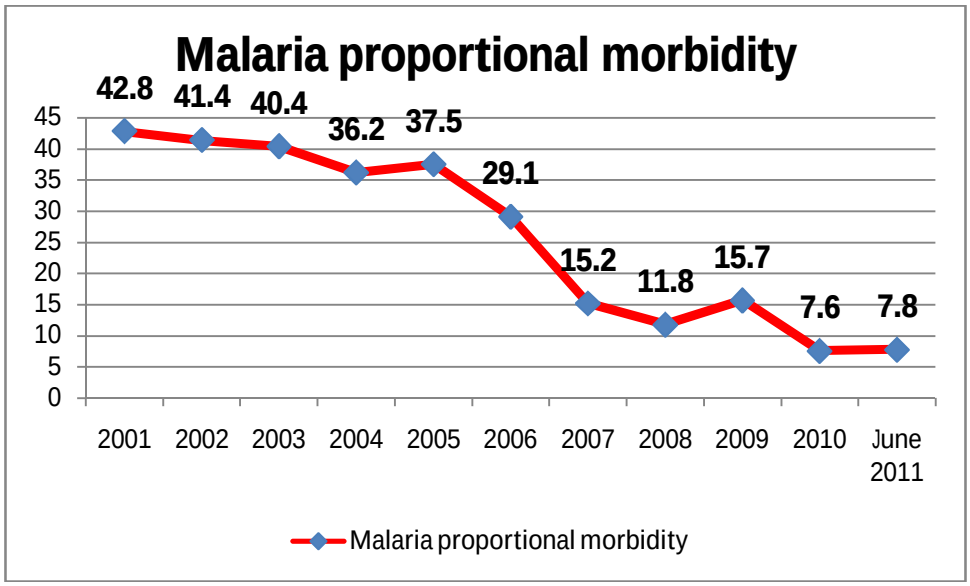
The 6th IRS campaign and evaluation meetings at each of the 7 districts targeted for their high rate of transmission: Gasabo, Kicukiro, Nyarugenge, Kicukiro, Nyagatare, Kirehe, Bugesera, Nyanza, and Kayonza. This IRS campaign was organized in 36 days from September 7th, 2010 to October 18th, 2010 in 54 sectors and has reached 303,659 structures out of 305,550 structures targeted. (coverage: 99.4%).

Malaria diagnosis

1,008 health care providers were trained on the malaria case managements guidelines.
1,572 lab technicians and nurses were trained in using malaria RDTs. During this reporting period, 1,950,023 blood smears were made and read, and only 260,333 were

malaria positive, which is 13%. In 2010, the rate of malaria cases treated after laboratory confirmation is 94%. From July 2010 to June 2011: 266,329 patients have been confirmed for malaria with 3.4% of morbidity and 7.8% of mortality.

Figure 26: RBC/IHDPC/Malaria: Malaria proportional morbidity over years



Source: RBC/IHDPC/Malaria: annual report 2010-2011

Compared to the previous year in the same period, malaria morbidity was 13.2% while the mortality was 17.69%. According to the 2010 DHS, Malaria prevalence has decreased from 2.6% in 2008 to 1.4% in 2010 in children U5 and from 1.4% in 2008 to 0.7% in 2010 in pregnant women.

The Malaria decline is a consequence of an integrated approach for malaria control implemented countrywide mainly with Universal coverage of LLINs countrywide and expansion of effective diagnostic and treatment of Malaria using ACTs at all levels, with a strong BCC using CHWs and local NGOs.

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 Low osmolarity ORS and Zinc tablets. 29 districts (25 districts with all Health centers) provide community case management including HBM and implement CCM with RDTs use. 41,775 CHWs were trained countrywide on integrated community case management including HBM and RDTs use. From 1st July 2010 to 30th June 2011, 288,099 children under five years were treated at the community level and among them, 267,588 before 24 hours which means 93%.

Way forward:
In the context of the planned real-time data reporting systems, the following actions are imperative:

1. Adopt sustainable funding for malaria control especially funds to sustain universal coverage with LLINs and malaria diagnosis and treatment, and BCC/IEC campaigns.
2. Update or produce strategic documents as follows: malaria policy document; MSP; M&E plan; EPR guidelines and tools;
3. Strengthen implementation capacity including equipment and training in vector surveillance and EPR,
4. Implement cross-border collaboration in malaria control in malaria epidemic management between Rwanda and neighboring countries
5. Conduct performance monitoring through semi-annual review and planning meetings

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

II.2.2.1 HIV Voluntary Counseling and Testing

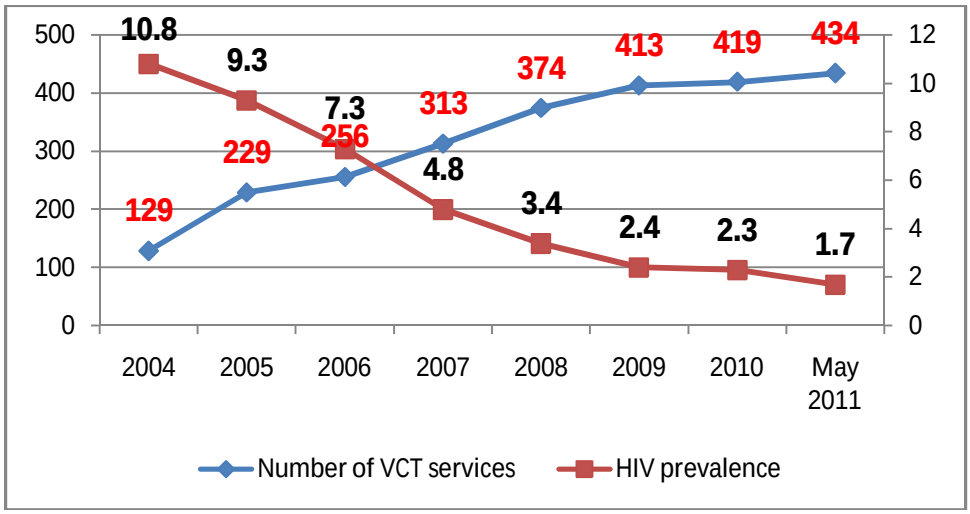
Scale up of voluntary counselling and HIV testing at the heath facilities

From July 2010 to June 2011: 1,938,026 people have been counseled and tested in health facilities and mobile VCT. Per month, the average number of people tested in all health facilities is 467. The number of clients tested from July 2010 to June 2010 represents 33, 9% of the expected population in VCT services which is 50% of the general population.

From 2003 to June 2011, the total number of people tested for HIV through VCT program increased from 2633 to 7,167,843. This number includes both people tested in health facilities and in mobile VCT. Among the 1,938,026 people tested in health facilities and mobile VCT in July 2010-June 2011: 1,885,209 (97, 3%) know their HIV results

Among all people tested from July 2010 to May 2011: women were:55% and males: 45%. 32,319 persons were tested HIV positive (1.7%) from who 12,702 were men and 19,617 were women. In the last seven years, a downward trend in HIV prevalence across the population was observed from 10.8% reported prevalence in 2004 to 1.7% at the end of May 2011.

Figure 27: RBC/IHDPC/HIV: Provision of VCT services and HIV prevalence 2004-2011



Source: RBC/IHDPC/HIV/STI Division , annual report 2010-2011

HIV testing: May 2010-June2011, around **2,076,398 (2633 in 2003)** people have been tested for HIV . **97.2% of them** know their HIV results. (positivity rate =1,6%) National Prevalence: 3%

Male Circumsision

Male Circumcision as an additional HIV prevention strategy aimed at reaching a target of 2 million circumcised men by 2013. So far, 5000 male circumcisions have been carried out. 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.

Availability and accessibility of Male and Female condoms:

The number of Semi wholesalers increased at district level (376 wholesalers in 120 sectors). MARP report for coverage of condoms indicates 84% and 10% coverage at the country level of Prudence and Plaisir condoms respectively, out of 150 cells covered.

By end of June 2011, more than 11,059,784 pieces of condoms were distributed making a cumulative number of 29, 559,784 (84% compared to the set target of 35 000 000) across the country.

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

Scale up of PMTCT activities in Health facilities

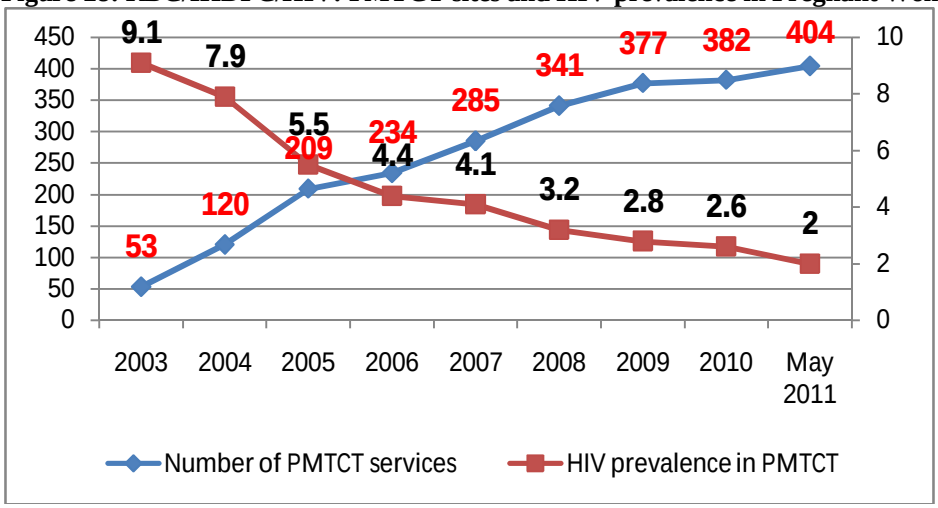
By May 2011, 404 HF offered PMTCT services, with a national coverage of 85 %. From July 2010 to May 2011, the number of pregnant women attending ANC was about

298,664. Among them: **296,344 (99.2%)** were counseled and tested for HIV and received their results, out of whom **6033 (2%)** were tested HIV positive.

Involvement of Male Partners in PMTCT:

16% of male partners of pregnant women were counselled and tested between July 2002 and June 2003 but their participation was increased to 84% during July 2010-June 2011. Comparatively, the prevalence of HIV among pregnant women tested through PMTCT reduced from 9.1% in 2003 to 2% in 2011, while the prevalence was reduced from 10.8% to 1.9% for their male partners.

Figure 28: RBC/IHDPC/HIV: PMTCT sites and HIV prevalence in Pregnant Women



Source: RBC/IHDPC/HIV/STI Division , annual report 2010-2011

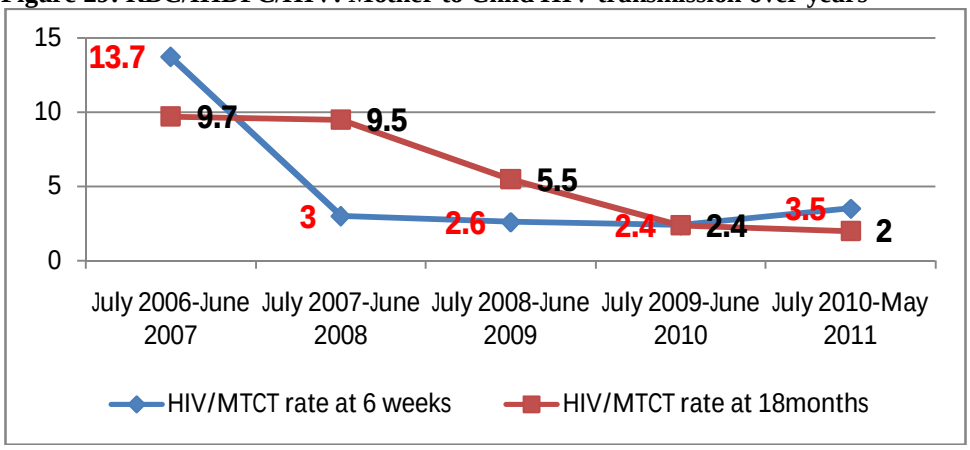
ARV prophylaxis in pregnant women

From July 2010 to June 2011: **5365** pregnant women tested HIV positive and HIV negative in discordant couples received ARV prophylaxis/treatment according to the current protocol used in Rwanda.

Maternity and infant follow up

Considering deliveries, out of **7228** HIV + pregnant women expected to give birth in HF, **6218 (86%)** gave birth effectively in the HF and **341** gave birth at home but notified at HF. Cotrimoxazole was initiated to **6 518** children born to HIV-positive mothers at 6 weeks of age. Among **6 388** HIV exposed children expected to be tested at the age of 18 months, **5279** were tested for HIV and **110 (2%)** were HIV positive. During the period 2007 – 2011, the mother to child transmission rate, reduced from 13.7% (at 6 weeks) to 3.5%, whereas the reduction was from 9.7% to 2% at 18 months.

Figure 29: RBC/IHDPC/HIV: Mother to Child HIV transmission over years



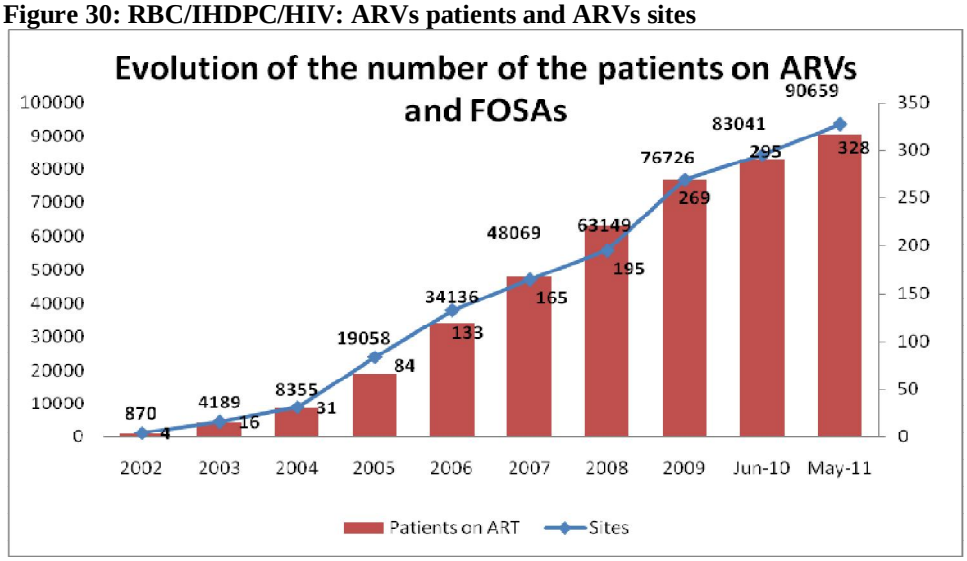
Source: RBC/IHDPC/HIV/STI Division , annual report 2010-2011

The campaign to Eliminate Mother to Child transmission of HIV was honored by the First Lady, HE Jeannette KAGAME on 12 May 2011 in Ruhuha Sector, Bugesera District. This campaign was in line with the UNAIDS call for the elimination of vertical HIV transmission by 2015.

II.2.2.3 Care and treatment of people living with HIV

By end of May 2011, 328 health facilities were offering care and treatment services, while **90,659** patients were receiving ARV services, with a proportion of HIV-infected women (64%) higher than of men (36%). Among those patients: **7,356** were children (51% males and 49% females)

Figure 30: RBC/IHDPC/HIV: ARVs patients and ARVs sites



Source: RBC/IHDPC/HIV/STI Division , annual report 2010-2011

93% of People Living with HIV in need of ART receive it. This represents the highiest coverage Worldwide. (World coverage =43%)

MARPs Programs

The minimum packages for all MARPs and other vulnerable groups have been developed (Female Sex Workers, Prisoners, Men who have Sex with Men, Youth in school and out of School, People with Disabilities, Mobile population and other migrants), approved and disseminated to key HIV prevention Partners.

The number of Most at Risk Populations (MARPs) reached by HIV prevention programs increased from 53,812 to 259,216. This important achievement (235%) was due to the efforts put in the World AIDS Day campaign.

The number of sites to reach MARPS was increased from 9 to 27. This helps youth and truck drivers to access prevention and care services and hence on reduction of new infections.

HIV Impact Mitigation Area

Concerning the activities related to Impact mitigation of HIV and AIDS, the main achievement of July 2010-June 2011 are:

Advocacy for evidence-based OVC services available in all districts: The main events organized include the 6th Annual National Paediatric Conference on children infected and affected by HIV and AIDS and a symposium on specific issues concerning children and HIV. The number of OVC receiving at least one service was increased from 30 000 to 281 000. This makes an achievement of 254,8%. This kind of Interventions contributes in reducing stigma and increasing the chance of children infected and affected by HIV to have the same opportunities as non OVC.

Cooperatives: The process of transformation of PLWHA associations in cooperatives is still ongoing via RRP+ and new cooperatives born from associations are estimated at 1000 cooperatives out of 1700 associations of PLWH+.

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.

The plan includes 16 specific objectives also known as SDA (Service Delivery Area) and 86 main activities measured by 5 impact indicators and 46 performance/strategic indicators which are detailed in the TB monitoring plan.

2010-2011 Achievements

Many efforts were undertaken to intensify TB case detection and the number of TB suspects increased significantly (70,279 in 2009-10 against 134,536 in 2010-11) in 2010-11: 7,230 TB cases were detected. A high treatment success rate was obtained for the new smear-positive TB patients (86%) and for MDR-TB cases (89%). For patients receiving community DOT the treatment success rate was 94% and 93% for those treated in prisons. 97% of all TB patients were tested for HIV, 98% of those coinfected received Cotrimoxazole preventive treatment and 67% were on ART by the end of the TB treatment.

73 new MDR-TB patients were enrolled on second-line treatment. Two additional MDR-TB units were opened at Kibagabaga and Kibungo DH, in order to ensure patients are hospitalized close to their home. By the end of June 2011, 145 MDR-TB patients (new and those detected during the 2009-10 year) were on second-line treatment and were receiving nutritional support as well as transportation fees.

The full package of infection control (IC) was implemented in 125 CDTs, which exceeded the target (64% of the CDT, which is above the target (60%)).

16 DHs trained 6,485 traditional healers (TH) on TB disease symptoms. Eight districts conducted a refreshment course for a total of 10,885 Community Health Workers (CHW). CHWs carried out an active TB case finding campaign in 18 districts. They identified 38% of all TB suspects and 17% of all smear-positive TB cases.

Main actions for 2011-2012

To get more accurate estimates of TB burden in Rwanda, the national TB prevalence survey will be conducted in 2012. Active TB cases detection, particularly among high risk individuals and groups (prisons, schools, etc) will be intensified New diagnostic technologies (like GeneXpert, rapid test) will also be introduced. The role of CHWs in detection and management of TB, through the PBF scheme will be strengthened.

II.2.4 Leprosy Control

The total number of new cases detected was 28 and the notification rate was 0.4 per 100,000 habitants. 58% were multibacillary forms MB, 17% were children under 15 years of age,

The proportion of paucibacillary forms (PB) among new cases increased significantly from 22% in 2009 to 42% in 2010, which reflects earlier detection, mainly due to active detection activities. Whilst the number of children under 15 years remained usually limited to 1 or 2 cases per year, it increased to 6 (17%) in 2010, with equal proportion of MB and PB forms.

The treatment completion rate was respectively 85% for MB patients and 100% for PB patients. Patients were also financially assisted: health insurance was paid for 191 families affected (708 family members).

All new cases, except one, were evaluated for disabilities at diagnosis. 7 patients (20%) had grade 1 and 8 patients (23%) had grade 2 disabilities. The proportion of patients with

grade 2 disabilities increased from 15% in 2009 to 23%, which highlights the low awareness on this disease, both among health care workers and communities.

The challenge in Leprosy case management is that leprosy is detected passively in health facilities. Since leprosy was already eliminated for several years, the capacity of Health Workers to recognise the disease decreased considerably.

II.2.5 Management of Epidemic Infectious Diseases

Achievements

Integrated disease surveillance and response: IDSR training modules, standard case definition and reporting tools developed, technical guidelines reviewed and approved, strategic pland elaborated, and SOPs prepared.

e-IDSR user acceptance test was conducted and the system is now piloted in five DHs and 72 HCs, 216 health workers from 72 health centers were trained in IDSR and how to use electronic system (e-IDSR) to notify priority diseases,

Outbreak management and preparedness: Two sessions of FELTP (Field Epidemiology and Laboratory and laboratory Training Program) short courses were conducted and IDSR focal points and Laboratory Technician from all DHs were trained. Outbreak investigation and outbreak management activities were implemented to control following epidemics for: measles, typhoid fever, acute erespiratory illness, influenza, foodborne outbreak, suspected ebola, etc.

Enhance NTD Monitoring and evaluation, surveillance: CHWs, Teachers, Health workers received training on NTDs that are prone to occur in their communities and in School setting, Indicators for STH and Schistosomiasis adopted in Monthly National reporting

II.3 NON COMMUNICABLE DISEASES

II.3.1 Mental Health

II.3.1.1 Service de Consultations Psychosociales (SCPS)

The overall objective of the Mental Health programme is to promote mental health care for the entire population.

Achievements in the fiscal year 2010-2011

Strengthening and updating the national policy on mental health
Integration of Mental Health Care in Primary Health Care
Supervision of mental health services in district hospitals
Intervision central level
Capacity building, performance and specialization of staff
Commemoration of the Genocide against Tutsi
Advocacy, communication and inter-sectoral collaboration

Integration of HIV/AIDS and Mental Health

Decentralization of mental health care

41 HD have functional mental health services in which works at least one psychiatric nurse. 77 general nurses from district hospitals were trained on the main mental disorders and their treatment. 115 general practitioners in district hospitals and 72 nurses from health centers were trained on the main mental disorders and their treatment. 2 nurses and 2 medical doctors from Nemba and Rutongo district hospitals achieved one month internship at SCPS and Ndera.

a) Clinical activities

Service de Consultations Psychosociales (SCPS)

The Psychosocial Consultation Service was founded in Kigali on 22nd June 1999, in order to replace the National Trauma Centre (NTC) that had been founded on 22nd June 1995. After the NTC had been replaced by the Psychosocial Consultation Service, it became one of the services of the Ministry of Health in Rwanda and is now a leading institution in mental health care for out-patients.

Consultations at SCPS

The total number of consultations for the period covered by this report was 18,056. Out of 18,056 consultations done at SCPS 1,585 were new cases and 16,471 were old cases. The mean age of patients is 19 years, except for Epilepsy the main causes of consultation. The main causes of consultation are: Epilepsy (52%), Psychiatric disorders (18.4%), Psychosomatic disorders (12.3%), Neurological disorders (7.7%). The average number of visits per day is 69. Epilepsy is the first cause of consultation with 9,412 (52%) of visits (443 new cases and 8,969 old cases). The total number of EEG done during the year 2010-2011 was 1,739 patients

II.3.1.2 Ndera Neuropsychiatric Hospital (HNP, NDERA)

The Ndera Psychiatric Hospital is a national referral institution for inpatient mental health care in Rwanda. Major responsibilities of this hospital include providing specialized inpatient psychiatric care and training. The capacity of Ndera Hospital is of 288 beds, with 217 beds in Ndera, 63 in Butare and 8 in Icyizere Centre (Kigali).

Consultations

The number of consultations from July 2010 to June 2011 is 37,465 meaning an average of 3,122 patients per month (both outpatients and hospitalized).

Admissions in the Ndera Hospital

Out of 37,465 consultations done at Ndera Hospital and its dependent agencies (Butare and ICYIZERE), only 3,384 (9%) patients have been admitted for hospitalization. This means that the majority of patients 34,081 (90.96%) have been seen in ambulatory consultation. The following table shows the number of admitted patients for hospitalization during the period from July 2010 to June 2011.

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 2010-2011 is the MTR (mid term review of the HSSP-II, and the organization of the Joint Health Sector Reviews.

HSSP II has been operational over the last two years. Just one year remains before the next HSSP will be initiated. MOH and stakeholders therefore considered it timely to conduct a Mid Term Review (MTR) of HSSP II, looking back and assess achievements and constraints during its two years of implementation, but also looking forward and prepare for the formulation of the next National Health Sector Strategic Plan (HSSP III), taking into consideration the various attributes of the Joint Assessment of National Strategies (JANS).

The MTR has been prepared in the period 2010-2011, but external and independent assessment was conducted between the 18th of July and the 4th of August 2011. Also, the latest preliminary report of the Rwanda Demographic and Health Survey (R-DHS 2010) shows substantial improvements in impact and outcome figures.

III.1.2 Health Management Information System

As an integral part of Rwanda e-Health Architecture framework, HMIS consists of multiple processes put in place to provide health services actors at all levels with the information necessary for routine management and continuous improvement of activities. HMIS collects a variety of health data at different frequencies. From health centers, data travels to district health teams, which compile it and send reports up to the central level. Although weekly, monthly and quarterly reports have been digitized and an HMIS database is available to the personnel at district and health center levels, HMIS remains a primarily paper-based system. It is important to note, however, efforts are in place to make it web-enabled.

Apart from routine data collection, analysis and the publication of Annual statistical yearbook, other achievements of HMIS are: Review and produce new harmonized registers in health facilities, HMIS Supervision on Quality Assurance, DQA once per year on 10DH and Formative supervision, Preparation of HMIS Standard Operating Procedures for Routine Health Information documents, Preparation of Data Policy to improve the Quality, Training of all Data managers from health facilities (training on data entry, analysis and use of GESIS Software), Capacity Building on Data analysis and use, Implementation of DHIS-2 Software, Development of pre-service and in service training modules on Data management, M&E, Health Information

System, Collecting GPS information in some Health Facilities (Musanze, Rulindo, Gakenke, Rwamagana, Kayonza, Kirehe, Nyagatare districts), Training of private sector clinic staff on data collection and data use.

Statistics HMIS 2010:

During 2010, the primary curative care utilization rate was approximately 0.83 visits per inhabitant (8,407,129 visits/10,117,029 population excluding CHW home-based care and private visits, not captured), compared to 0.81 in 2009. When Community Health Care is included, the Utilization of health care is 0.92

Table 7: HMIS: Number of Outpatient visits in all public facilities, 2009-2010

Health Service level	*2008*	*2009*	*2010*
Health Centers	6,560,791	7,996,598	8,407,129
District Hospitals	327,752	544,284	590,290
CHW Home Based care	-	744,123	914,011
Referral Hospitals	-	214,512	197,278
Total	6,888,543	9,481,389	10,108,708

Source: National HMIS database 2010, CHW Health Information System 2010

Table 8: HMIS: 10 leading causes of morbidity in Health Centers, 2010

Disease Group	Under 5 years	Over 5 years	Total cases	% of Total
ARI	2,219,136	1,023,750	3,242,886	40%
Intestinal parasites	605,764	161,095	766,859	9%
Malaria	504,048	147,593	651,641	8%
Diseases of bones and joints	560,521	1,921	562,442	7%
Gastro-intestinal disorders	437,238	1,605	438,843	5%
Diseases of teeth and gums	311,429	100,618	412,047	5%
Skin diseases	349,454	48,729	398,183	5%
Physical trauma	348,018	30,492	378,510	5%
Diarrhea	180,773	175,550	356,323	4%
Eye diseases	290,967	37,308	328,275	4%
All other diagnoses	637,119	26,619	663,738	8%
Total	6,444,467	1,755,280	8,199,747	100%

Source: National HMIS database 2010

Infectious diseases are the primary cause of outpatient morbidity in health centers: ARI (acute respiratory infections), intestinal parasites and malaria account for over half of the outpatient morbidity (57%). There was very little change in the distribution of malaria

cases at the Health Centers level since 2008, where out of outpatient's consultation; malaria cases represented 12% and 16% in 2009 versus 8% in 2010.

However, Dental and eye diseases constituted the most frequent causes of morbidity for outpatient in district hospitals. Together they represent almost one third of outpatient visits (35%) up from 20% in 2009

Table 9: HMIS: 10 leading causes of outpatient visits in DHs, 2010

Disease Group	*<5 years*	*>=5 years*	*Total Cases*	*% of Total*
Diseases of teeth and Gums	5,486	115,931	121,417	21%
Eye diseases	7,513	73,860	81,373	14%
ARI	16,451	28,486	44,937	8%
Heart problems	2,008	24,122	26,130	4%
Gastro-intestinal disorders		24,456	24,456	4%
Physical trauma	1,413	15,801	17,214	3%
Urinary tract diseases	782	15,586	16,368	3%
Malaria	4,955	10,432	15,387	3%
Skin diseases	2,493	12,310	14,803	3%
Gyneco & obstetric Diseases	13,824	78	13,902	3%
All other diagnoses	25,462	176,687	202,149	34%
Total	78,175	512,115	590,290	100%

Source: National HMIS database 2010

Hospital Admissions and Mortality:

The total number of admissions in Health Centers and District Hospitals increased by 9% from 417,182 in 2009 up to 453,898 in 2010. Sixteen percent (16%) of all admissions in 2010 were children under 5 years of age and two-thirds (73%) were females.

Total deaths among patients admitted in DHs and HCs were 5,171 in 2010 (5,022 in 2009 and 4,139 in 2008). The proportion of death is high for males (58%) than females (42%). The number of deaths decreased in health centers by 8% from 369 in 2009 to 341 in 2010, this can be attributed to availability of ambulances that have facilitated in referrals of complicated cases to district hospitals.

The leading cause of death in district hospitals and health centers was malaria, accounting for 13% of total deaths in 2010. (a decline from 22% in 2009 and 16% in 2008).

Surgery

A total of 77,469 surgical interventions were performed during 2010, an increase of 8.5% percent since 2009. Over half of all surgeries were urgent interventions (60.8%).

Table 10: HMIS: 10 leading causes of deaths in DHs and HCs, 2010

Diseases	2010	%
Malaria	654	13%
HIV & IOS	480	9%
ARI	470	9%
Cardiac diseases	276	5%
Premature birth	256	5%
Malnutrition	184	4%
Malignant tumors	139	3%
Diarrhea diseases	125	2%
Cerebral vascular accident	106	2%
Liver diseases	97	2%
Physical injuries	93	2%
Others	2291	44%

Source: National HMIS database 2010

III.2 E-Health

The mission of the Department 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 a bit to improve healthcare service delivery. Achievements and challenges are:

1. EMR (Electronic Medical Records) for Primary care Package:-Pilot phase was completed 5 sites and roll out in progress.
2. ELearning for Nursing schools (upgrading A2 to A1 nurses): 350 Students enrolled to start January 2, 2012
3. CHWs Information system reporting tool using Mobile phones: Pilot system in Musanze district fully functional. National role out in progress
   is on going and target is to training all CHWs (60,000)
4. HMIS: Web-based online reporting tool being rolled out in all Health facilities
5. National Data Warehouse developed
6. PBF/SISCOM All Health Facilities are reporting online.
7. Mutuelle membership database in place
8. IT Infrastructure in Hospitals (currently 22 are on fiber and 23 to be connected next fiscal year
9. National Laboratory Information System: NRL LIS being installed, to go live in January 2012. Implementation is ongoing in the proposed 5 Provincial Hospitals
10. Computed Radiography machines installed in 7 hospitals and 6 more already procured
11. Telemedicine (Currently in KFH,CHUK,CHUB, Ruhengeri, and Kabgayi)

12. Logistics Management Information System for drugs and consumables: Procurement of system completed, implementation to end June 2012
13. Human Resource Information System: installed and ready to use
14. Blood Bank Information System: installed and fully functional
15. Disease Surveillance Information System: developed and national rollout in progress
16. Enterprise Architecture for interoperability: requirements completed

III. 3 District System Strengthening Tool (DSST)

DHSST is a powerful analytical tool that has three principal applications in the Rwandan Health system

District planning	• Districts health planners use the data to identify health priorities based on gaps and establish specific targets for each health facility • Operational plans have been developed based on DHSST and will be tracked by districts and MoH managers
Health Financing	• Health financing gaps have been developed based on costing data from the tool and resource tracking tool • GOR can have a better understanding of funding flows in country and alignment with national priorities
Advocacy for national priorities	• GOR uses the data form the tool to advocate for more support to areas with critical needs and potentially reallocate redundant funding • Donors can identify areas that need more support and redirect resources to target those needs

Advantages of the DHSST
District HSS tool outputs are presented following Rwanda's strategic priorities
DHSST has a built-in facility-based costing engine that provides detailed information for all districts:

- A facility-based **Survey** and Baseline data by district and facility
- Detailed **costing,** with ability to analyze data along multiple dimensions
- Estimates on revenues from GOR, facility, and partners by district (from JAWP)

The performance dashboard allows monitoring and evaluation of the strength of the Health System and to identify root causes of key issues to be addressed:

- DHSST can provide the basis for projections of resources required over time
- DHSST is the complement to the data provided by the JAWP on resources available
- DHSST and JAWP combined allow projecting the speed of progress towards sustainability in the health system

III.4 Health Resource Tracking Tool (HRTT)

Computer software used to develop database capabilities that allow Rwanda to track the resources involved in their response to health issues. Advantages to track financial flows to health sector are:

- Transparency and accountability within the donor community
- Synergy in advocacy not only to lobbying for an increase in development assistance
- Donors increasingly demand credible accounting of how resources are used in country and whether performance improves as funds are used within key sectors
- Beyond the transparency agenda, there are more effective use of those resources; more money, better spent, so to attain those results requires a supportive information base with reliable data about the availability and use of funding

The other advantages are:

- Identify gaps and redundancies,duplication intervention of DPs in health sector implementation plan
- Use the real data for justifying changes in budgeting and planning to meet key health sector priorities
- Identify new areas where work can be done accordingly

Resource Tracking tools provide in-built tables summarizing key indicators and graphs to visualize results

A large and growing database that stores planned and executed spending data that can feed a host of resource tracking exercises (NHA, NASA, JAWP etc) as well as other planning and health performance assessment activities

Detailed work plans showing what activities each health sector actor plans to implement and the spending associated with it.

The development of HRTT is ongoing, but there are still challenges for this exercise:

- Classification structure not intuitive; codes do not capture all activities performed by partners; UI is difficult to navigate
- Data entry for round 1 was initiated before the tool is finalized, leading to confusion
- Support to partners during data collection was inadequate
- Results for round 1 of data collection took too long to be available.
- Outputs from the HRT and their value not obvious to partners
- Capacity within MOH ICT team for updating and maintaining the HRT

III.5 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

Published laws are those related to: Creation RBC, Regulation of utilization of human body, Repealing of CNLS.
Draft Laws still in process of approval are those related to: Health Insurance, RMC, Tobacco control, Regulation of narcotics, Creation on Nursing and Midwifery Schools, Regulation of drugs and food, Medical Insurance, Creation of RHUMS, Creation of Food and Drug Authority.

Several Ministerial orders have been published: Code of professional conduct of Nurses and Midwives, Regulation of registration of Nurses and Midwives, Regulation of Internship, Regulation of Food Fortification, Regulation of Allied Health Professions, etc.

III.6 Coordination of Partners and SWAp

In the Health Sector, the Partner Coordination Desk is in charge of :

- Coordination of bilateral and multilateral cooperation
- Coordination of capacity development pooled fund (CDPF)
- Coordination of International and local NGOs
- Coordination of the external financing
- Coordination of the Heath Sector Wide approach
- Coordination of International Technical Assistance
- Coordination of the inter institutional relationship

Main achievement of 2010-2011: The standard operating procedures for coordinating activities of NGOs, procedures for signing or extending MoU with the Ministry of Health, etc. were developed

III.7 Decentralization

Decentralization and Integration has been put in place in 2005 with the main objective of Decentralization and Integration of HIV services. The aim was to address the issue of integration and expansion of HIV services in the national health system as well as concretising this integration. In order to fulfil its mission, the following main duties are assigned to Decentralization and Integration:

- ✓ Support districts in planning (strategic plans and operational plans) and implementation of planned activities
- ✓ Mentor health facilities in order to ensure the continuing 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

Achievements in 2010-2011:

Reorganization of the District Health System

The management of the District Health System remains fragmented and uncoordinated. This has led to lack of a unified vision, and uncoordinated effort on addressing health system performance gaps. To address this MOH proposes;

- The establishment of the District Health Management Team(DHMT) by bringing all key health system management actors under one umbrella under the leadership of the Vice Mayor in Charge of Social Affairs
- Develop clear performance indicators to hold the DHMT accountable

Improve accountability and coordination of health system actors

The establishment of the Joint Actions Development Forum (JADF) Health Commission will be established to coordinate all health stakeholders and promote accountability

III.8 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 this purpose, a procedure manual has been developed and approved and contains procedures that are applied to: Administrative, financial and accounting system management; Procurement and supply management; Planning, monitoring, evaluation and reporting system management; Internal and external audit aspects, as well as Legal aspects.

IV HUMAN RESOURCES FOR HEALTH

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

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

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

Main achievements for the period July 2010 – June 2011:

IV.1. Human Resource for Health Strategic Plan 2012-2016:

The HRH strategic plan has been developed approved and it is being implemented. Its vision is: *guaranteed availability of appropriate numbers and combinations of qualified health personnel at all levels of the health system to support the provision of quality health care to the people of Rwanda*.

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

The program has been launched officially on 5th April 2011. 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) A six month plan of action, is ongoing

IV.3 Human Resources Development Desk

The Capacity Building plan has been developed. Training for specialized doctors is ongoing: currently, 84 doctors are being trained in the country, while 75 pursue their studies abroad (Total: 159 doctors). In 2010-2011, 13 MoH employees were granted scholarship for Master's degree, and 24 others were facilitated for short training. Training

is ongoing for 350 A2 nurses to be upgraded to A1 level (106 recruited in 2010-2011). This process will continue until all A2 Nurses are trained.

IV.4. Deployment of Health Professionals in Health Facilities

By end of June 2011: 15,038 staffs were working in different public health facilities. Among them, there were: 122 specialists doctors, 498 general practitioners, 1319 Nurses A1, 75 Nurses A0, 191 Midwives, 6723 Nurses A2, etc.

During the period July 2010 to June 2011, the MoH has recruited and deployed 535 new staff in Health Facilities: among them, there ware: 13 specialist doctors, 161 General practitioners, 106 Nurses A1, 84 Nurses A1, 10 Pharmacists, 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

Global objective in the HSSP II: Improve the financial access of the population to health services. Within this overall objective, the programme is expected to:

- Increase total 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 the expansion of "Mutuelles de santé" 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.

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

Global Objective: To ensure financial accessibility to health services for all and sustainable and equitable financing of the health sector

The % 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 % 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 is 16.05%.

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.2 Budget allocation and Budget execution

Table 11: Budget execution in 2010-2011

BUDGET EXECUTION 2010 – 2011 (Source: MoH/Direction of Finance) **Overall Budget Execution FY 2010-2011 Budget (RWF)**			
	Allocation	**Execution**	**% execution**
Total Budget	**66 281 912 132**	**65 162 610 806**	**98,31%**
Recurrent Budget	53 342 219 979	52 511 935 912	**98,44%**
Development Budget	12 939 692 153	12 650 674 894	**97,77%**

Source : MoH, 2010-2011

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).

These two pillars of the health financing framework are strengthened by policy initiatives to increase internal resource mobilization, to improve the effectiveness of external assistance, and to strengthen the institutional environment for sustainable financing of the health sector.

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 are the guiding principles that support efforts in resource mobilization and risk pooling and promoting access to quality services in the health sector. Building on these principles, we ensure that the costs of illness of the sick are also shared by the healthy, and the costs of illness of the poorest are also shared by the wealthy among Rwandans.

 Ownership, empowerment and participation, and partnerships are the guiding principles upon which efforts to ensure the financial and institutional sustainability of the health financing framework will be built. Government of Rwanda will partner with grassroots institutions and community based and nongovernmental organizations.

 Universality and quality: the affiliation to health insurance is mandatory for each citizen and resident of the Republic of Rwanda. Each affiliated person benefits from health services of high quality regardless of his or her socio-professional activity, social status and level of contribution.

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
Under the CBHI policy of 2004, a policy of a flat rate of household contributions into the CBHI system was adopted to simplify communication in an environment where new concepts of health insurance and prepayment were being introduced and promoted in the Health Sector.

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 2010-2011:

1. Capacity Building plan and Communication plan for mass sensitization on the new policy developed

2. Database on the stratified population developed for the implementation of the revised Mutuelle policy
3. 50 directors of District Mutuelles trained on financial management
4. CBHI law reviewed
5. Self evaluation workshops for Mutuelles de santé organized
6. Sensitization campaign on the new Mutuelle Policy: 2 sessions organized: **March 2011**: Managers of Mutuelles, Titulaires of HCs, In charge of Health in Districts, Directors of Hospitals, Supervisors of Community Health, Mayors, Governors, Executive Secretaries, Vice-Mayors of Districts. **April-May 2011**: Representatives of Cooperatives and of FBOs (2,572 participants)
7. Resource mobilization:

Objective	***Planned activity***	***Achievements***
Resource mobilization for CBHI	Recovery of funds from Insurance companies	FRW 310.604.515 recovered as follows : MMI : 24.435.034, RAMA : 240.388 .609 CORAR : 14.917.811, SORAS: 30.863.065
	Mobilization of external contributions	200,000 Euros for 4 years committed by CTB/BTC
	Funding Pooling Risk	FRW 3.708.484.933 transfered by MINECOFIN for the national pooling risk (2010-2011)
	Payment bills of District Hospitals	All bills from June 2010 – March 2011 paid.
	Support to District Pooling Risk	FRW 700.583.197 transfered in 2010-2011 to districts to support payment of HDs bills.

From 2003, the percentage of adhesion to “Mutuelles de santé” increased from 7% to 91% in 2010 and 83% in 2011. This 2011 reduction was caused by the new Mutuelle policy which implementation was about to start. Meanwhile, the utilization of primary health care increased from 30.7% in 2003 to 95% in 2010 (Private facilities not included).

V.5 Performance Based Financing (PBF)

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

Achievements in 2010-2011

- 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)

PBF Funding

Table 12: PBF: Sources of Funds, 2010-2011

Financing		Quarter 1	Quarter 2	Quarter 3	Quarter 4	S-Total	%
BO	PCA (HD,HS,HR)	1,186,589,919	1,227,289,453	1,177,289,453	1,709,613,496	5,300,782,321	47.6
	PMA	738,324,515	358,875,080	451,094,643	452,264,775	2,000,559,013	18.0
	CP	25,487,400	24,925,650	24,925,650	60,901,410	136,240,110	1.2
GF	VIH	311,649,547	469,140,106	514,414,583	541,648,186	1,836,852,422	16.5
	TB	0	132,966,680	125,182,420	178,640,760	436,789,860	3.9
IH	VIH	41,537,319	38,906,986	38,936,603	38,755,587	158,136,495	1.4
FHI	VIH	68,491,374	61,932,765	74,256,870	64,154,098	268,835,107	2.4
CDC/COAG	PCA et VIH	211,228,040	142,901,978	156,322,232	164,763,086	675,215,336	6.1
EGPAF	VIH	91,972,354	50,257,359	50,116,239	53,898,241	246,244,193	2.2
GTZ	PCA et VIH	35,837,684	32,196,311	0	0	68,033,995	0.6
TOTA GENERAL						11,127,688,852	100.0

Source: MoH/PBF, annual report 2010-2011

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.

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 2011, the following activities were achieved:

VI.1 Construction of Health Facilities

(Plan and Progress: RBC/ACM)

Table 13: RBC/ACM: Updates on construction of Health Facilities, 2010-2011

Designation	Progress	Observation	Source of Funding
Completed infrastructures			
Renovation Munini Hospital	Construction works finished. -Hospital functional since 2009		INTRAHEALTH and GoR
KABARORE HC	Completed	To be equiped	PLAN RWANDA
MUDENDE Health Center	Works completed. Equipment ongoing		GoR
Rugendabari Health Center	Works completed. Equipment ongoing		CDF
Kirehe District Hospital (phase 2)	2nd phase Construction completed "Surgery ward"	Construction phase 3 planned for 2011-2012 Hospital is functional	Partners In Health/ Clinton Foundation and GoR
Bisesero HC (Karongi)	Completed and equiped	HC functional	GoR
Juru HC (Bugesera)	Completed and equiped	HC functional	GoR
Ngeruka HC	Completed and equiped	HC functional	GoR
Mazane Health Post (Bugesera)	Construction completed	Accommodation for staff to be availed.	CTB/BTC
Butaro Hospital	Completed	Hospital functional	Partners In Health/ Clinton Foundation
Masaka Hospital	Phase I completed	Inauguration 8/2011	China

Construction Maternity, Emergency units, Pediatrics in CHUB	Completed	Equipment in process	CTB/BTC
Ongoing projects			
Construction Bushenge Hospital (NYAMASHEKE)	78% achievement	Provisional reception: 09/09 2011, But works ongoing because of delays	Budget: 3 417 004 EUR (2 760 939 492 RWF : CTB/BTC) 1 900 000 EUR (1 535 200 319 RWF) GoR: 1 517 004 EUR (1 225 739 173 RWF
Construction Kinihira Hospital	77% achievement	Provisional reception planned for 28/09/2011	GoR: Budget Kinihira : 4 012 994 354 RWF Additional budget: 75 65161 36 RWF
Construction Kinazi Hospital (Ntongwe)	77 % achievement	Provisional reception 28/10/2011	GoR Budget Ntongwe: 5 514 863 267 Rwf Additional budget: 1 096 524 153RWF
Renovation Kibungo hospital	60 % achievement		GoR
Construction surgery ward Rubavu (Gisenyi) hospital	Initial contract completed.	Additional works needed	GoR
Centre de Santé de Kabarore (Gatsibo)	95% achievements	Requested modifications ongoing	PLAN RWANDA
Construction Bugeshi et Mudende (Rubavu) Health Centers	65% achievement	Equipment : process ongoing DAO 8 CS.	GoR
Construction 60 health posts	Not done in 2009, Rescheduled for 2010-2011.	MoH contribution transfered to Districts beneficiaries	GoR Community
Construction University Lab, NUR	89% achievement		CTB/BTC
Construction of a waste water unit at CHUB	Works completed. Connection of the system to be done		CTB/BTC

Construction Maternity and Emergency units, CHUB	55% achievement		CTB/BTC
Construction 4 Health Centers Kigali City	Excavation works ongoing		CTB/BTC
Projects to start			
Construction Digital Hospital (500 beds)	MoU signed in August 2010	Duration: 3 years	Medison (South Korea) GoR
Construction Medical School	MoU signed in August 2010		Medison (South Korea) GoR
Construction Karongi Hospital (Phase 1)	Technical Studies Tender ongoing		GoR/PEACE PLAN: Budget phase 1: 3 056 667 137 RWF Available: 1 611 333 427FRW
Purchase and installation of industrial incinerator at MAGERAGERE	Incinerator purchased Contract for installation signed		GoR
Construction Nyabikenke hospital	Technical studies finished	Tender process to start in September 2011	GoR Available : 1000 000 000 FRW Estimates: 6 000 0000 0000 FRW
Construction TB isolation blocks	Contracts being prepared		GoR
Construction of Emergency services in District Hospitals	Technical studies ongoing	Planned for 30 District hospitals	GoR
Construction of 2 Health Centers	Expropriation process ongoing	Nyundo and Kanembwe	GoR
Construction of Maternities in Health Centers	Not started	Planned 75 Health Centers	GoR
Construction of Six Health Posts	Not started.		Gvt Rwandais
Construction RBC & Extension KFH	Technical studies with OZ architect		GoR, Budget 2010-2011: 1 650 000 000 RWF

Technical Studies New Military Hospital	Plot not yet available		GoR Budget 2010-2011: 100 000 000 RWF
Extension Police Hospital Kacyiru	Phase 1 finished, Hospital functional	Technical studies to be done for extension	National Police
Technical studies renovation/extension of District Hospitals	Tender process ongoing	Ngarama, Gisenyi, Byumba, Munini,Muhororo Construction new HD : Rutare	GoR

Source: RBC/ACM, annual report 2010-2011

VI.2 Procurement of Equipments and Materials by MoH:

- Vasectomy kits
- 5 digital X-Rays
- Supply of 20,000,000 condoms
- Medical equipment for 33 health centers and 2 district hospitals
- Prehospital materials for SAMU
- 8 equiped ambulances
- Phones, torchs and other materials for CHWs
- 2 back up generators
- ICT infrastructures and softwares
- Also, KFH has been equipped with IRM, CHUK equipped with one CT-Scan 64, while CHUB will be equipped with one CT-Scan 16.
- Etc.

NB : Many other equipments and materials procured through MoH autonomous agencies

VI.3 Emergency Medical Aid Service (SAMU)

Mission of SAMU: To assure 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

912 is accessible all over the country using available mobile telecommunication networks namely Tigo and MTN Rwandacell. The call center has been equipped with new communication equipments. Right now 5 lines are operational and ready to receive 5 callers instantaneously, connected to a server with a capacity to store communication activities (caller and receiver conversations) but a lot is still to be done, the radio base and ambulance radios are still on tender process.

Ambulance tracking system was installed in 912 call centre and the main objective was to effectively manage ambulances by reducing over speed which was a threat to the clients and ambulance crews themselves, unprofessional conducts by coordinating with district hospitals to resolve any issue that could arise for better management.

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

Table 14: SAMU: Activities in 2010-2011

PRE-HOSPITAL CARE INTERVENTIONS				
Accidents	**Medical**	**Gyn/Obs**	**Inter-hospital transfers**	**Total**
26,5%	11 %	18,5 %	44 %	100 %

CALLS AT 912 CALL CENTRE			
Call for interventions	**Disturbing calls**	**Calls for information**	**Total**
68%	15%	17 %	100 %

Source: SAMU, annual report 2010-2011

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

Since the arrival of new ambulances, SAMU has deployed 5 ERMS teams (Emergency and Resuscitation Mobile Service) in Kigali City: 1 ambulance team which was based at Kacyiru Police Hospital was shifted to Avega Health centre as the RNP acquired 1 new ambulance among the new 26 ambulances deployed into District hospitals, 1 Samu team is also deployed at KMH, 1 at Gahanga HC and 2 in CHUK, 26 other ambulances arrived were deployed in different district hospitals.

Table 15: SAMU: Interventions in 2010-2011

Month	Calls at 912 call centre				Pre-hospital care interventions				
	For interventions	Disturbing	For information	Total	Accidents	Medical	GO	Inter-hospital transfers	Total
July(2010)	247	79	111	437	111	47	58	135	351
August	195	56	89	340	105	24	55	132	316
September	301	69	141	511	95	37	55	148	335
October	255	63	87	405	98	41	81	164	384
November	244	28	25	297	66	29	68	147	310
December	276	53	52	381	66	30	60	168	324
January	252	72	20	344	86	31	51	141	309
February	257	45	11	313	112	20	53	112	297
March	312	63	56	431	82	22	59	137	300
April	245	56	45	346	65	40	57	132	294
May	187	21	16	224	69	66	59	141	335
June(2011)	172	61	86	319	66	36	58	138	298
TOTAL	2943	666	739	4348	1021	423	714	1695	3853

Source: SAMU, annual report 2010-2011

Challenges:

- Inactivity of the steering committee
- Lack of space in the CHUK
- Lack of funds
- Problems of procurement for urgent materials
- Unpaid debts

Way forward:

- Development of pre-hospital service training curricula
- Training of health professionals on pr-hospital service
- Development of disaster preparedness and response plan in collaboration with services in charge

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. Currently, the number of pharmacists in Rwanda is about 331, distributed in both public, private and NGOs in the country. Most of Pharmacists are deployed in Private Retail Pharmacies (87), Private Whole Sales (42), NGOs (28), District Hospitals (40), District Pharmacies (30), RBC (12), NUR (10), RAMA (17), MMI (1), Government (9).

When compared this number of pharmacists to Rwandan population of 10,117,029 million people this leads to one pharmacist serving **30,565** people (the World Health Organization's recommendation is at least one pharmacist per about **10,000** populations). Then, there is a need of about three folds in the market. For the number of pharmacies, there are 50 wholesale pharmacies, 126 retail pharmacies and 22 drug shops.

Achievements of the Pharmacy Desk

Decentralized pharmaceutical Management system: all district pharmacies in place (30 DP) and 27 have qualified pharmacists. The National Pharmaceutical Policy available, Pharmacy practice law/Act in place and also amendment has been made to current pharmacy law to serve the current priorities of the country and of the region and its in Parliament for approval. A law on Narcotic and Psychotropic substances has been passed by the Parliament. All district pharmacies were provided with 42 million Rwandan Francs as a revolving fund to strengthen their financial capacities.

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. As per today after dissolution of CAMERWA it has given the objective of Procurement, Production and Distribution.

Table 16: RBC/MPDD: Distribution of Medicines and Client categories

Categories of client	Amounts of transactions	%
District Pharmacies	1, 468, 788,794 Frw	61%
Programs	479, 288,595 Frw	20%
Ministries	305,148,359 Frw	13%
Referral Hospitals	112,472,015 Frw	5%
Private Sector	28,068,426 Frw	1%

Source: RBC/MPPD, annual report 2010-2011

Considering the total turnover of 2,393,766,369 Rfw, the income generated from the sales is estimated to 322,597,842.28 Rfw and the average of the applied margin is 13.5%.

Sales and distribution of Pharmaceuticals to District Pharmacies and Health Centers (Active distribution):

Active distribution is one of the strategies stated in the Health Sector Strategic Plan II (HSSP II). It was initiated in 2009/2010 and started with 11/30 district pharmacies in the country and it aims at improving accessibility of the population to medicines. By June 2011, 23 district pharmacies were already covered. A Coordinated Procurement and Distribution System (CPDS) of TB, HIV/AIDS and related health commodities is in place.

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

The activity comprises three principal 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.

Logistics related to supply of Vaccines and related materials

Table 17: RBC/IHDPC/VPDD: Vaccines received, 2010-2011

Antigen	Stock 1st July 2010	Doses received	Doses distributed	Stock 30th June 2011	Source of fund	Comments
BCG	347,800	400, 000	641,800	106,000	GoR	Routine
OPV	756,900	2, 252,600	1, 344,500	1665000	GoR	Routine
OPV	0	2, 731,000	2, 198,500	532500	WHO	Supplementary
PENTAVALENT	313;100	1, 156,800	957,390	771729	GAVI/GoR	Routine
Pneumococcal	231,500	1,416,015	991,150	656365	GAVI	Routine
MEASLES	0	1,325,000	1,325,000	0	WHO	Supplementary
Measles	378,000	150,000	491,300	36700	GoR	Routine
T.T	520,000	530,000	445,400	604600	GoR	Routine
GARDASIL	0	354,040	221,540	132500	Merck	Supplementary for girls 9-12yrs

Source: RBC/IHDPC/VPDD annual report 2010-2011

Table 18: RBC/IHDPC/VPDD: Supply of injection materials

Syringes	Stock 1/7/2010	Received	Distributed	Stock 30/6/ 2011	Sources of fund	Comments
AD syringe 0.05ml (BCG)	892,000	0	386800	505200	GoR	Routine
AD syringe0.5ml	3,344,300	2,224,000	1,899,100		GAVI /GoR	Routine
AD syringe 0.5ml	0	1,133,600	1,133,600	0	WHO	Supplementary
Reconstitution syringe 2ml	367000	245000	386820	225180	GAVI, Go R	Routine
Reconstitutio syringe 5ml	3500	57000	47500	13000	GoR	Routine/suppl.

Source: RBC/IHDPC/VPDD annual report 2010-2011

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. RCBT Rubavu construction is completed and needs to be staffed and equipped. NCBT Kigali, is the most important, which collects, transforms and distributes fully of all blood collected in the country. The activities of screening for Infectious diseases are also carried out at the NCBT Kigali.

Mission of the NCBT

To provide blood and blood products of quality for transfusion to all patients in need. Achievements in July 2010 to June 2011 are:

a) Blood Collection:

All routine blood collection activities continued and Quality systems in blood collection continued to be strengthened by use of Questionnaire and SOPs. Strategies of blood donor mobilization continued to be applied and this time efforts have been enormously put in media, Radio, TV, telephone (communication with blood donors) in the whole country. Results notification programme has been done for HIV, HCV, HBsAg, and Syphilis. Notification of results has become a routine activity. A total of 41,316 blood units have been collected (24,092 in Kigali, 6715 in Butare, 7111 in Ruhengeri). blood donation is exclusively based on the voluntary non-remunerated donation, other types of blood donations do not exist.

b) Blood Processing

Blood & Blood components were produced and distributed to all patients in needs to cover all hospitals in RWANDA. The quality system on the production of platelet, fresh frozen plasma, and red cell continues using SOPs

Table 19: RBC/MPDD/NCBT: Production of Blood components, 2010-2011

Blood Centers	*Whole blood*	*RBCs*	*Pedriatric RBCs*	*FFP*	*Platelets*
Kigali NCBT	3225	16894	5649	1709	2821
Butare RCBT	355	5764	1405	193	139
Ruhengeri RCBT	25	3589	-	85	79
Rwamagana RCBT	118	1465	868	4	10
Karongi RCBT	61	1671	-	-	-
TOTAL	**3784**	**29383**	**7922**	**1991**	**3049**

Source: RBC/MPDD/NCBT, Annual report, 2010-2011

Qualification

Blood for transfusion is tested for HIV, HBV, HCV, and Syphilis. Other analyses are: blood grouping tests, cross matching and all these are routine tests. Tests are made using CMIA technology and Confirmatory testing is done by NCBT (Hepatitis B and Syphilis) in collaboration with National Reference Laboratory (HIV). Immunohematology testing includes: blood grouping tests, cross matching. NCBT continues to use automated system: TTIs is done using Architect i 2000 SR for TTIs and QWALYS 3 for blood grouping tests.

Table 20: RBC/MPDD/NCBT: Blood collection and TTIs markers, 2010-2011

	In July 2009- June 2010	*In July 2010- June 2011*
Blood donations	43,631	41,316
% HIV	0.48 %	0.25 %
% HBs	1.63 %	1.48 %
% HCV	1.06 %	1.05 %
% Syphilis	1.52 %	1.20 %

Source: RBC/MPDD/NCBT, annual report 2010-2011

Quality assurance in the Blood Programme

The quality assurance program is in place to monitor the implementation of Quality Management Systems (QMS). It sets up NCBT Policies, standards, processes and procedures. It controls the use of SOPs in order to provide good quality services.

The NCBT is pursuing **AABB accreditation**. AABB Performed a gap analysis based on the AABB standards in November 2009. From June 2010, a road map was designed. The NCBT has organized training on LookBack and Donor Notification of some of its staff.

Documentation: Many Quality documents have been elaborated and revised including documents for Donor qualification and deferral, emergency release of blood, SOPs for Donor selection, Blood collection, Donor Registration (Record keepers), IDT testing, IH laboratory, Component Production and Equipment maintenance have been approved and are used routinely.

External Quality Assurance for HIV and Hepatitis B and C continued to be performed in collaboration with the Australian Based Quality Assurance program provider (RCPA Serology QAP). NCBT performed 100% in all modules. External Quality Assurance for IH testing also continued in collaboration with the South African based institution (South African National Blood Service). The NCBT started elaboration of GMPs which will be applied in the manufacturing of blood components.

VII.5 Production of Medicines (RBC/MPDD/Medicines Production Division)

Attributions, mission:

To "***Provide enough quantity of generic essential drugs with great therapeutic effectiveness at affordable prices to all layers of the population of Rwanda"***, it has also a potential role in the education of students from academic institutions mainly in the field of Pharmacy, Chemistry and other related sciences

Production of sterile drugs: The production of Sterile Medicines includes Glucose; Normal Saline; Lactated Ringer's under various concentrations and volumes according to customer's demand as shown in the table below.The majority of sterile products manufactured are: Sodium chloride (500 and 1000 ml), Glucose 5% and 10% (500 ml), and Ringer's lactate (500 ml), because they are mostly used by health care institutions.

Non sterile products: Non Sterile Drugs under different forms such as tablets, capsules, suspensions, ointments and suppositories and into different pharmaceutical classes like *antibiotics, analgesics, antimalarias, antiparasits, antihistaminics, Vitamins, antiinflammatoires,* The following table shows different products, their quantities and the total value in local currency.

Table 21: RBC/MPDD: Production of non sterile drugs, 2010-2011

Product	Annual Production
1. Ointments: Camphor ointment 10 % Tube 50g	12, 039 Pots of 50 g (602.25 kg)
2. Suspensions : Co-trimoxazole 240 mg/5 ml	2, 632 Bottles of 60 ml (158,120 L)
3. Capsules : Tetracyclin 250 mg	462, 000 Capsules
Tablets **Thiamin 100 mg** **Co-trimoxazole 480 mg** **Metronidazole 250 mg** **Total Tablets**	1,009, 000 Tablets 198, 000 Tablets 392, 000 Tablets **1, 599,000 Tablets**

Source: RBC/MPDD/Medicines Production Division, annual report 2010-2011

Table 22: RBC/MPDD: Production of sterile drugs in the 2 past years

Pharmaceutic.Forms	2009 - 2010	2010 - 2011
Tablets	3, 956, 000 Tablets	1, 599,000 Tablets
Capsules	3, 272, 000 Capsules	462 000 caps.
Suspensions	903,760 Litres	158,120 Litres
Ointments	469.3 kg	602.25 kg

Source: RBC/MPDD/Medicines Production Division, annual report 2010-2011

The reasons for which production declined are: As the former CAMERWA became RBC/Medical Procurement and Distribution Division, it does not procure medicines to former LABOPHAR (RBC/Medical Production Division) due to: Lack of official technical documents (MoH or National accreditation, WHO accreditation requested by the Partners e.g Global Fund; the RBC/Medical Production Division (former LABOPHAR) does not meet the minimum required GMPs especially in the Non Sterile Drug Production Unit.

In 2010-2011, Sales revenues from produced drugs generated **178, 469, 393 RWF.**

Challenges

- Annual insufficient budget which does not allow to optimize the production in most used essential generic drugs according to the national needs;
- No sponsorship to support the realization of development project;
- Rehabilitation and extension of premises (warehouses, administrative offices, etc);
- Lack of continuous training (capacity building).

VIII. QUALITY ASSURANCE

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

Strategic interventions for quality assurance:

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

VIII.1 Review of Policies, Standards and of Health care packages

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.

Currently, several national specialized health services are implementing quality assurance programs, mostly through accreditation programs, like: CHUs, KFH (already accredited), NRL and NCBT (both as routine activity, but also through accreditation program). Accreditation of District Hospitals has started and is piloted by the Ministry of Health (Directorate General of Clinical Services, Desk of Public Health Facilities).

Progress in Quality assurance for specialized services is reported in the chapters related to those services. The report in this chapter will focus only on the accreditation of District Hospitals. During the year 2010-2011 2 main activities were carried out in relation with Quality assurance:

- To review service packages of activities at all levels of the Health System
- To set up policies, procedures and guidelines governing health services

All this activities are in the right line with the program to boost quality of health services called “Quick Quality Improvement’’, linked itself to the “Accreditation of Health facilities”.

In order to improve the referral system, five Provincial Referral Hospital are in process of creation by upgrading five district hospitals. This is also done to reduce referrals to the university teaching hospitals, and improve accessibly to specialized services.

Review of Service Packages:

This review has the following objectives:

- Promote and strengthen the health referral system;

- Increase access to essential health services for the Rwandan population;
- Provide a standardized package of services at each level of health services;
- Guide the upcoming development of accreditation of health care standards, operational policies, procedures and guidelines of District Hospitals and health centers, hence continuously improving the quality of service delivery;
- Guide the MoH and public, private, nongovernmental organizations and partners on how health facilities should be staffed, equipped, and provided with materials and drugs.

It is estimated that under optimal conditions (eg. Kasongo project, formerly Zaire):

- +/- 85% of treatment needs can be addressed at primary level;
- 15% of requirements need to be referred to a hospital;
- less than 10% require hospitalization needs to be oriented to national hospitals.

The national health system should be integrated, with service levels that are complementary and fundamental. This means to be arranged without gaps or overlaps between them and the system must apply the principle of subsidiarity (the responsibility of an activity is allocated to the smallest entity (lower level) of health facility capable of solving the problem itself)

The Health Service Packages:

Health Service packages are all the necessary elements needed to deliver services, including staff, facilities, equipment and supplies and therefore lead to the identification of the essential drug packages for each level in the health system, so that the inputs or resources needed at each level may be easily determined and compared. They are Basic, Minimum or Complementary Packages of activities.

During the review, Health service packages have been expanded (medical and non-medical); the levels of packages have been increased (by improved equipment and extension of premises); improving the available skills.

Review of policies, procedures and guidelines governing health services

Table 23: Quality Assurance: List of Policies reviewed

Areas of review	Nb of policies	Areas of review	Nb of policies
Management and leadership	14	Physiotherapy	4
Finance	6	Pediatrics	12
Food	4	Communicable and non communicable disease, palliative care	8
Administrations and support services	19	Quality management	6
Gynecology and Obstetrics	22	Cross cutting issues	17
Facility management and Maintenance	15	Emergency and ICU	15
Anesthesia services	8	Laundry	12
Surgery theatre	10	Housekeeping services	6
Critical care	3	Laboratory	4
Human resource management	18	Procurement services	4
Ethics	11	Infection prevention and control	22
Information management	8		

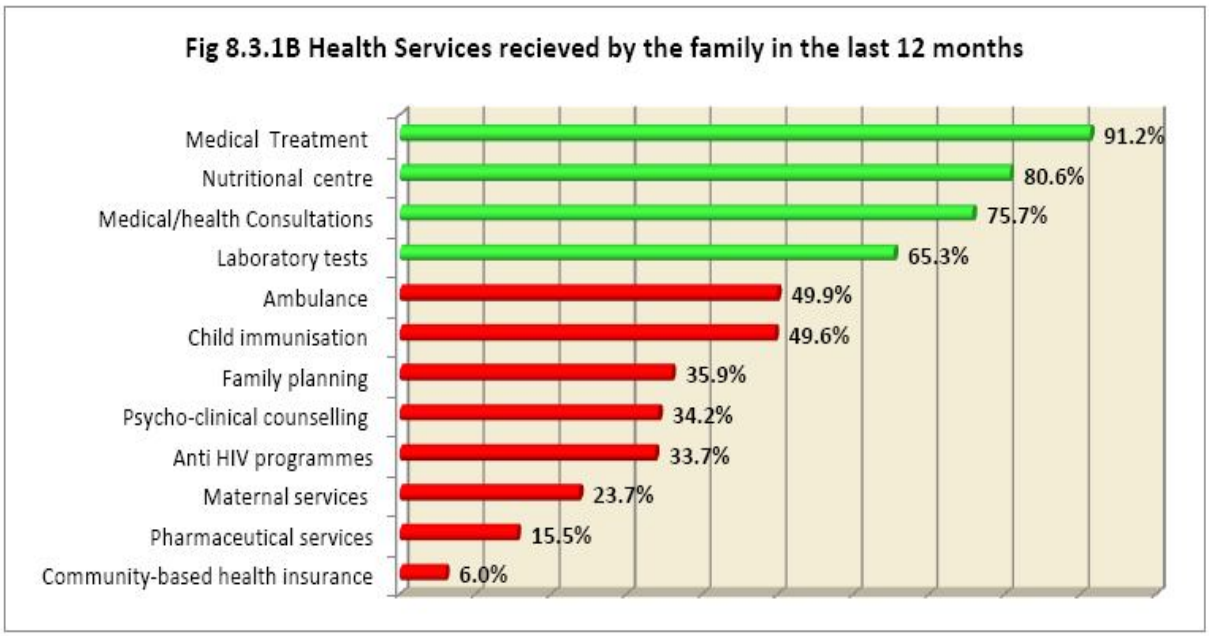
This review is a pre-requisite to move for accreditation. So far, the following policies have been reviewed:

VIII.2 2010 Citizen Report Card for Health Services

This study is organized by Rwanda Governance Advisory Council (RGAC). 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.

For Health services, it is reported that in 2010, 70% of interviewed persons stated that at least one person in their household had sought treatment from a health centre in the past 12 months. (80.5% in the East, 74.3% in the North, 65.9% in the West, 63.6% in the South, 45% in Kigali)

Figure 31: Citizen Report Card: Reasons for visiting health services, 2010



Source: Citizen Report card, RGAC, 2010

For the 70% of household heads who visited a health service in the last 12 months, the majority stated that they did so to receive medical treatment (91.2%). Other key reasons included: to receive nutritional assitance (80.6%), medical consultation (75.7%) and laboratory tests (65.3%)

Table 24: Citizen Report Card: Reasons for not visiting Health services, 2010

REASONS	% Heads of Household
I did not fall ill	66.0
Lack of financial means	4.4
I seek treatment from traditional healers	1.9
Health facilities are very far from my home	1.5
Too busy to get time to go for treatment	1.3
Inadequate number of doctors/nurses	1.3
I was discouraged by a long queue of waiting patients	0.8
Poor roads and transport services connecting health services	**0.6**

Source: Citizen Report card, RGAC, 2010

The key reason for not visiting health services was because no one in their family fell ill as, as stated by 66%. 4.4% declared limited financial means as the reason that they did not access those services

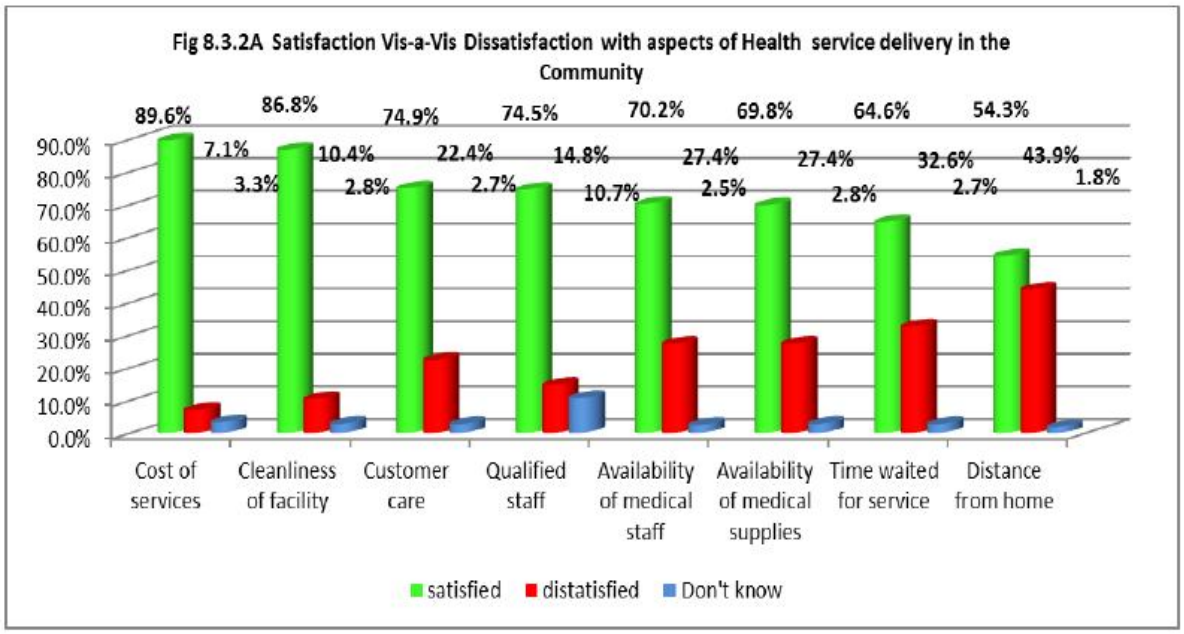
Table 25: Citizen Report Card: Health Facilities visited to receive health care, 2010

PROVINCE	% visited a Health facility
Health Centre	83.4
Hospital	8.8
Reproduction Health Centre	5.2
Dispensary	1.8
Health insurance	0.7
Nutritional Centre	0.1

Source: Citizen Report card, RGAC, 2010

About satisfaction, heads of households were generally happy with all the health services acquired from health centres and hospitals. However, respondents were most satisfied with pharmaceutical services (78.9% in health centres and 15.1% in Hospitals) followed by community health insurance (79.5%), pharmaceutical services (78.9%) and anti-HIV Programs (77.6%). It is noteworthy however that even though the rate of satisfaction is highest for pharmaceutical, community health insurance and laboratory tests, the level of dissatisfaction is also highest for the same services.

Figure 32: Citizen Report card: Satisfaction with health service provision, 2010

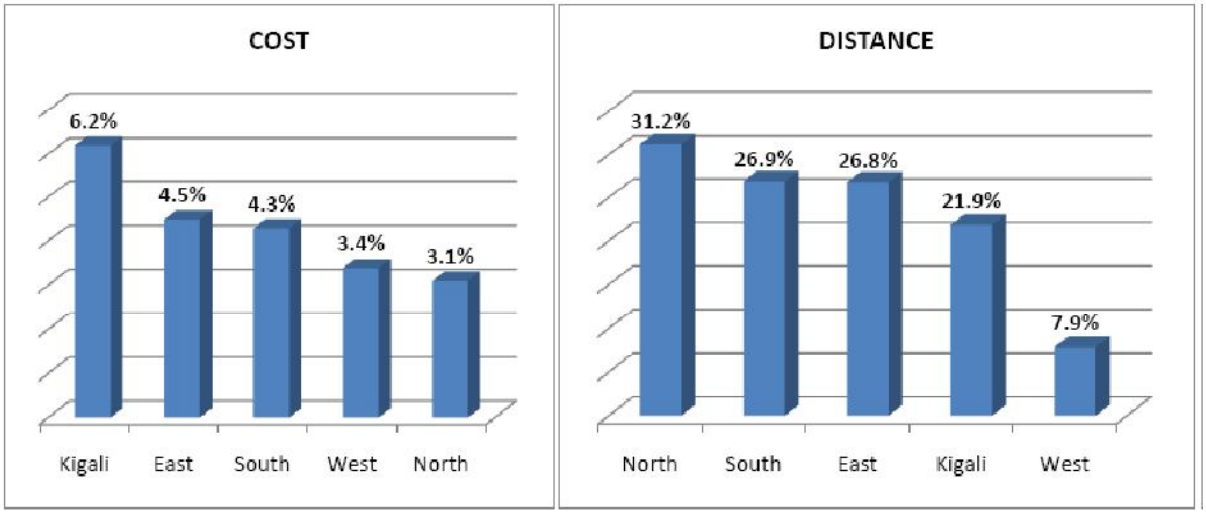


Source: Citizen Report card, RGAC, 2010

Citizens were most satisfied with the cost of healthcare (89.6%). The respondents were also satisfied with cleanliness of the centres where they received their treatment (86.4%), medical attention (74.5%) and courteous nature of the hospital staff (74.9%). On the other

hand, 43.9% were not satisfied with the distance they had to cover to access health services.

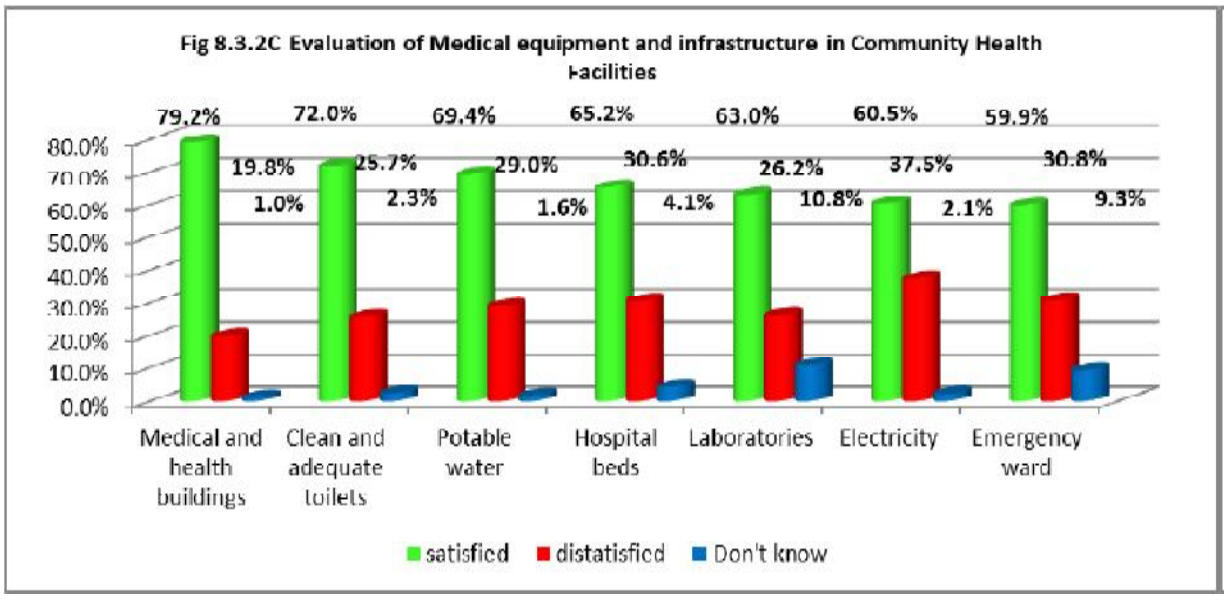
Figure 33: Citizen Report Card: Level of dissatisfaction about cost and distance to access health care, 2010



Source: Citizen Report card, RGAC, 2010

About distance and cost, household heads from Kigali were most dissatisfied with the cost of healthcare in hospitals (6.2%), relatively less dissatisfied with the distance covered to access healthcare (21.9%). Similarly, household heads in the Northern Province were the most dissatisfied with the distance covered to access healthcare but were the least dissatisfied witht the cost of healthcare where they receive treatment

Figure 34: Citizen Report Card: Evaluation of health infrastructures by the Community



Source: Citizen Report card, RGAC, 2010

About infrastructures, citizens were most satisfied with medical and health buildings (79.2%) followed by the toilets which were viewed as clean and adequate (72.0%) and potable water (69.4%). On the other hand, they were least satisfied with emergency wards (59.9%) and electricity in the institutions where they receive their healthcare (60.5%)

Table 26: Citizen Report Card: Proposed strategies to improve the quality of health service delivery

Strategy	% HH who view it as neccesary
Increasing the number of doctors and nurses	91.3
Improved health care by qualified health personnel	90.4
Expeditious medical and health service delivery	90.7
Equal treatment to all citizens by health personnel	87.6
Easy access and adequate health facilities	93.8
Adequate medicine provision as a benefit of community-based health insurance	**88.1**

Source: Citizen Report card, RGAC, 2010

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 2011, for its good functioning, CHUK employed 800 people (including 83 contractors):

Some indicators of UTHK: July 2010 – June 2011

1. The 10 leading causes of admission at CHUK (June 2010-June 2011)

Table 27: UTHK: 10 leading causes of admission, 2010-2011

Nr	Name Total Days of hospitalization	Nb of days of hospitalization	%
1	Tuberculosis	5613	15.19
2	HIV infection, AIDS	2184	5.91
3	Liver disease NEC	1435	3.88
4	Other disease of urinary system	1292	3.50
5	Other heart disease	1248	3.38
6	Other neurological diseases	968	2.62
7	Type 1 diabetes and insulin dependent	835	2.26
8	Type 2 diabetes or non-insulin dependent	741	2.01
9	Valvular NCA	713	1.93
10	Stomach cancer	659	1.78

Source: UTHK, annual report, 2010-2011

Table 28: UTHK: 10 leading causes of death, 2010-2011

Nr		Number of deaths (deaths =	Mortality relative pathology	Mortality overall relative
	Denomination	**Total deaths**	**100**	**100**
1	Tuberculosis	48	20,60	12,24
2	HIV infection, AIDS	40	34,19	10,20
3	Liver disease NEC	25	24,51	6,38
4	Other disease of urinary system	20	29,85	5,10
5	Other heart disease	18	23,38	4,59
6	Other infectious disease NEC	12	21,82	3,06
7	Meningitis and encephalitis	11	37,93	2,81
8	Type 2 diabetes or non-insulin dependent	10	22,22	2,55
9	Other diseases of respiratory system	9	40,91	2,30
10	Stomach cancer	9	32,14	2,30

Source: UTHK, annual report, 2010-2011

Table 29: UTHK: 20 most frequent diseases, 2010-2011

Nr	*Name*	*Nb of diagnostics*	*%*
1	Tuberculosis	233	**9.95**
2	HIV infection, AIDS	117	**5.00**
3	Liver disease NEC	102	**4.36**
4	Other heart disease	77	**3.29**
5	Other disease of urinary system	67	**2.86**
6	Other infectious disease NEC	55	**2.35**
7	Pneumonia	49	**2.09**
8	Other cause anaemia or indefinite	48	**2.05**
9	Hypertension with complication	48	**2.05**
10	Type 2 diabetes or non-insulin dependent	45	**1.92**
11	Valvular NCA	41	**1.75**
12	Type 1 diabetes and insulin dependent	38	**1.62**
13	Gastric function disorder	37	**1.58**
14	Stroke	33	**1.41**
15	Gastrointestinal infection	32	**1.37**
16	Meningitis and encephalitis	29	**1.24**
17	Stomach cancer	28	**1.20**
18	Duodenal ulcer	28	**1.20**
19	other respiratory infections	27	**1.15**
20	**Malaria**	**27**	**1.15**

Table 30: UTHK: Status of the main hospital indicators, 2010-2011

Indicators of July 09 to June 10	**2006**	**2007**	**2008**	**09-10**	**10-11**
Number of beds	375	418	429	421	425
Hospitalized	11990	9499	12667	12458	10881
Death	1304	999	1108	991	1215
Average Occupancy Rate	108	87	82	83%	83%
Total hospital Days	150605	120972	128201	127555	98621
Daily number of patients	486	325	351	349	355
Mortality rate	10,9%	10,6%	8,7%	8%	8,15%
Average length of stay	12,6	12,8	10	10	13,25
Annual Average turnover	31	24	30	30	27

Source: UTHK, annual report, 2010-2011

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, to continue the COHSASA accreditation process.

Table 31: UTHB: Evolution of the main hospital indicators, 2010-2011

Indicators	2005	2006	2007	2008	2009	09-10	10-11
Number of beds (ward)	417	418	418	418	314	325	341
Bed occupancy rate (%)	69%	72%	67%	65%	76.9%	72.4%	68.6%
Total length of stay (days)				99401	88147	78788	85349
Daily number of patients			280	272	241	235	234
Mortality rate (%)	3.3%	3%	5.7%	7.4%	8.6%	9.12%	10.9%
Average length of stay (days)	14	15	17	13	11	11	11.8

Source: UTHB, annual report, 2010-2011

In general Obstetrics and Gynecology service has more patients hospitalized than any other service due to the transfer of women whith labour complications. Obstetrics and Gynecology service, and Surgery, which have many patients admitted, both require a sufficient number of nurse, doctors and specialists. Pediatrics Department hosts many outpatients consultations compared to other clinical services.

For occupancy rate, Surgery has the highest with 83.4% as it hosts several patients operated that require special follow up because patients must be hospitalized long time to manage complications that may occur. Internal medicine is the second with 72.5% occupancy rate because space used is too small. They are followed by Pediatrics and ICU.

Accreditation process in the UTHB

In UTHB, the process started after the report from COHSASA in 2007 and the recommendations were implemented during the period 2009-2010 such as:

- To develop a patient health record system which is functional since 2008,

- To appoint the infection and hygiene coordinator, and appointment of a committee for hygiene, while guidelines/protocols of hygiene were drafted.
- Establishment of guidelines/protocols and policies for the laboratory service
- Rehabilitation of Pediatrics department and its equipments
- Appointment of Ethic committee and other relevant committees: monitoring and evaluation committee, accreditation task force.

According to these recommendations, activities that were implemented during the 2010 2011 are:

1. In May 2011, the Laboratory of CHUB has obtained **two stars** at the final assessment after completion of SLMTA programme (Strengthening Laboratory Management Towards Accreditation). Achievement exceeded the expected result on completion of the programme. This initiative has given to the laboratory the capacity to progress towards full accreditation.
2. Clinical areas: construction of the Maternity, emergency and Administrative bloc and the rehabilitation of the former administration bloc, Radiology department and Nephrology service.
3. The Hygiene service has established 3 Guidelines and 18 protocols; some are in-use and the others are waiting for validation.

Table 32: UTHB: Constultations and Admissions, 2010-2011

ACTIVITIES	Consultation	Old cases	New cases	Hospitalization (Patients)	Hospitalization capacity (beds)	Hospitalization days	Rate of beds occupancies (%)	Exit state												Total number of Exit	Average presence per day	Mean duration of stay
													Deaths									
								Cured	Improved	Not Improved	Escaped	Transfers	*<15 years*	*15 - 29 years*	*30 - 44 years*	*45 - 60 years*	*>61 years*	*Total*	*Deaths in %*			
Clinic	0	3	276	279	12	1391	31.8	3	213	28	0	19	***0***	***1***	***0***	***5***	***6***	***12***	***4.3***	275	4	5.0
Dermatology	3399	2	18	20	10	831	22.8	7	10	0	1	0	***0***	***0***	***0***	***0***	***0***	***0***	***0.0***	18	2	41.6
ENT	3324	1551	1885	303	10	1523	41.7	32	240	24	0	3	***0***	***1***	***2***	***0***	***0***	***3***	***1.0***	302	4	5.0
ICU	0	26	226	252	5	1235	67.7	0	140	0	0	4	***23***	***24***	***27***	***19***	***11***	***104***	***41.3***	248	3	4.9
Internal Medicine	5678	2115	3563	1195	75	19856	72.5	39	680	24	22	3	***0***	***42***	***43***	***79***	***211***	***375***	***31.4***	1143	54	16.6
OG	4855	132	4723	2269	52	11653	61.4	73	2135	7	5	2	***0***	***5***	***5***	***3***	***0***	***13***	***0.6***	2235	32	5.1
Ophtalmology	5453	909	413	87	10	385	10.5	2	82	1	0	0	***0***	***0***	***0***	***0***	***0***	***0***	***0.0***	85	1	4.4
Pediatrics	7430	5947	1481	1169	56	14689	71.9	277	563	23	36	22	***212***	***0***	***0***	***0***	***0***	***212***	***18.1***	1133	40	12.6
Stomatology	6117	2704	3413	0	0	0	0.0	0	0	0	0	0	***0***	***0***	***0***	***0***	***0***	***0***	***0.0***	0	0	
Surgery	2864	1335	1529	1669	111	33786	83.4	71	1274	99	41	54	***9***	***10***	***8***	***18***	***25***	***70***	***4.2***	1609	93	20.2
TOTAL	***39120***	***14724***	***17527***	***7243***	***341***	***85349***	**68.6**	***504***	***5337***	***206***	***105***	***107***	***244***	***83***	***85***	***124***	***253***	***789***	**10.9**	**7048**	**234**	**11.8**

Source: UTHB, annual report 2010-2011

As the mission of UTHB is to provide quality health care, the table above shows the synthetic movement of the patients received during this year.

IX.3 King Faycal Hospital (KFH)

King Faisal Hospital, Kigali (KFHK) sees itself as an implementation agent of the Ministry of Health (MoH) in partnership with other agencies.

Mandate
The primary mandate of the hospital is to provide a higher level of technical expertise than that available in the national referral hospitals to both the private and public sector and to ensure that there is a reduction in the number of transfers abroad.

Mission statement
"We, King Faisal Hospital, Kigali, are committed to providing cost-effective, self-sustaining, high quality and specialized health services in collaboration with our clients. We do this with an empowered workforce in an environment that values professionalism respects patients' rights and upholds human dignity at all times. With our partners and within available resources, we contribute to the development of health services, research and education in Rwanda".

The major activities are detailed in the table below (Clinical activities not included):

Roles and responsibilities

- National and regional medical referral facility providing quaternary care of patients from referral hospitals (CHU's) and abroad.
- Highly specialized health care services
- Centre for Clinical Education and research
- Hosting the Medical Referral Board(MRB) with aim of reducing referrals abroad and attended costs
- Establish relations and collaborate with similar Institutions regionally and internationally

On-going activities:

- KFH, K Expansion and Rehabilitation under OZ Architects Inc
- RBC Construction and its components
- Procurement of Hospital Capital Equipment
- Maintenance of Accreditation Status with COHSASA
- Maintenance of Saudi Fund for Development(SFD) program
- Advisory role on issues related to specialized services.

CLINICAL ACTIVITIES AND ACCREDITATION: Report not provided

IX.4 National Referral Laboratory (RBC/IHDPC/NRL)

IX.4.1 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.

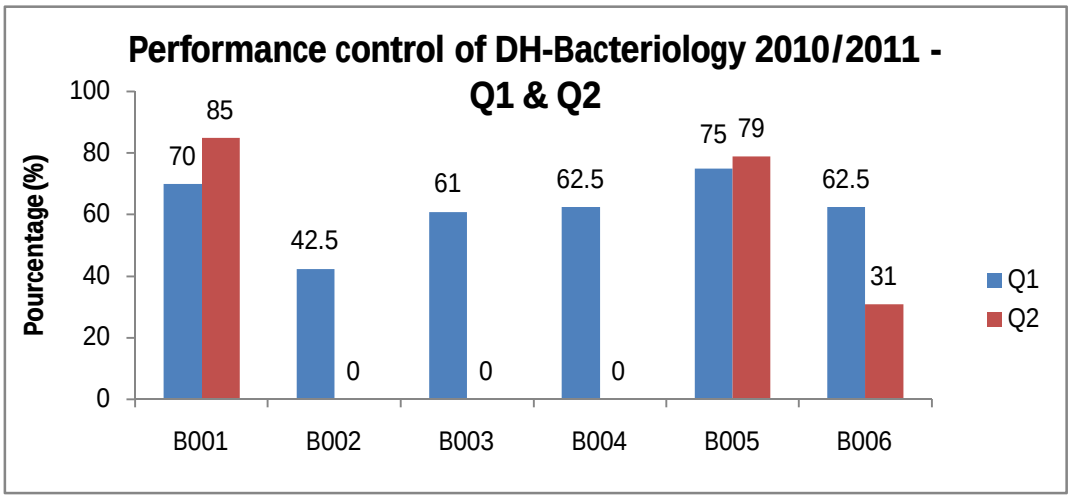
IX.4.2 Bacteriology

1. Prevent, control and survey of common epidemic bacteria: The NRL participated in outbreak investigations and collected samples from areas with suspected bacteria of epidemic potential in collaboration with the Epidemiology unit of TRAC plus and Health Facilities country wide.

2 External Quality Control: In collaboration with the National Institute for Communicable Disease (NICD), South Africa, the NRL participated in external quality control of 2010-2011 and the results were 89.2% in Q1, 96% in Q2, and 87.5% in Q3. The minimum acceptable % is above or equal to 70%.

3. Proficiency Testing: As part of improving the quality of bacteria culture drug susceptibility and Gram staining, the NRL assess the performance evaluation of District hospitals. 40 laboratories were evaluated for Gram staining and 6 laboratories for culture and drug susceptibility.

Figure 35: RBC/IHDPC/NRL: Proficiency testing for DHs, 2010-2011



The EQA result shows that the Bacteriology service achieved the acceptable percentage

IX.4.3 Mycobacteriology

1. Quality control of District Hospitals

1642 slides of 43 district hospitals and three regional hospitals were retested and feedback given. Most of the sites use Ziehl-Neelsen slides but nine sites perform fluorescence microscopy. In addition, 362 slides for fluorescence microscopy were retested and feedback given. As a result, 11 sites had discordant results.

2. **Make TB cultures from 2nd line TB patients and (MDR-TB) diagnosis**

3,597 is the total number of primary cultures made and tested. The results were sent to the TB Unit.

3. Drug Sensitivity Tests for the 1st line treatment and 2nd line treatment

A total of 536 drug sensitivity tests on Löwenstein-Jensen Medium (LJ): 300 for routine, 76 for the Interact study and 40 for the ICAP study. Other 120 drug sensitivity tests are still in process.

4. Drug Sensitivity Tests for the first and 2nd line treatment by PCR (using HAIN test)

255 drug sensitivity tests for TB patients under the 1st line treatment. 17 drug sensitivity tests were done for TB patients under the 2nd line treatment. The results were sent to the TB Unit TRAC Plus.

5. External Quality Assurance Evaluation Scheme (EQAS) of IMT Belgium

The Mycobacteriology Service participated in the external quality assurance evaluation scheme (EQAS) of the IMT Belgium and tested a panel of 30 samples for drug sensitivity in the 1st line treatment.

IX.4.4 Parasitology:

1. Quality Control : Internal QC

Done only for Malaria by re-reading of slides and comparing our results with the HC results to assure the standard and quality of malaria microscopy diagnosis.

2522 malaria blood slides from 40 DHs and 17 health facility laboratories were controlled based on quarterly random selection of 8 positive slides and 7 negative slides results. In 2010-2011 the total discordance was 4.25% and supervision was organized by the NRL to DH laboratory staff in affected health facilities including Kibilizi, Nyanza, Kirehe, Nyagatare, Munini, Mibilizi and Rwamagana Hospitals**.**

External Quality control

Ten proficiency testing panels (malaria slides for microscopy) were supplied at different periods of the year by WHO/NICD South Africa: Free panels of 10 slides each (total of 30 blood slides - thin and thick smears) were received in 2010-2011. For the first panel was received in July 2010, NRL scored 80%. For the second panel received in October 2010, the score was 80%. For the third panel received in March 2011, the score was 97.5%. For NICD, an acceptable score is 75% and above.

IX.4.5 Measles surveillance

Participate in External Quality Assurance Evaluation Scheme (EQAS) with Uganda Virus Research Institute (UVRI)

Apart from internal activities, the Measles Surveillance Service participated in the international external quality control scheme with Uganda Virus Research Institute (UVRI). NRL sent to UVRI one panel of EQC which contained 10% of specimens received (once per term) and UVRI sent one panel to NRL which contained 20 specimens once per year. 48 samples (10% of samples received at NRL) were sent to UVRI for retesting and feedback UVRI on 7th.October 2010, for retesting and feedback scored 100%

IX.4.6 Biochemistry

1. Biochemical and hematological analysis of samples in support of ARV program

Samples for analysis were submitted from TRAC Plus, WEACTx, Kigali Center Prison (KCP), Betshaida Health center, Rutonde Health center and Rugarama Health center, Nyacyonga. A total of 12,083 clinical biochemistry and 45,579 hematology samples were performed in the period July 2010 to June 2011. All results were submitted on time.

2. Participation in External Quality Assurance Assessment (EQAS)

Beginning April 2011 (4th Quarter), the NRL started participating in International Quality Assurance Program (Proficiency Testing) administered by NHLS, South Africa. Both clinical biochemistry and hematology samples were tested and results submitted to NHLS. There was 100% concordance between NRL results and those of NHLS for both clinical biochemistry and hematology panels. This activity continues every quarter.

IX.4.7 Serology

1. Retesting of HIV QC for all PMTC/VCT sites

The serology section routinely received randomly selected 10% of all HIV positive samples and 5% of all HIV negative samples on the 15th day of every month, from 510 PMTCT/VCT sites. A total of 73,365 samples were received and re-tested. Data analysis indicated an impressive performance of VCT/PMTCT with a concordance rate of 99.86%, and a discordance rate of 0.14 %.

Table 33: RBC/IHDPC/NRL: HIV/QC results for PMTCT, 2003-2011

Year	No of samples received	No of sites PMTCT/VCT	Discordance rate (%)
2003	15.000	60	3
2004	37.208	135	2.6
2005	63.964	238	2
2006	71.785	328	1
2007	71.785	350	0.8
2008	56.527	412	0.61
2009	59.800	450	0.5
2010	73.882	450	0.6
2010-2011	73.365	510	0.14

Source: RBC/IHDPC/NRL, annual report 2010-2011

2. Participation in External Quality Assessment Scheme (EQAS)

The serology section participated in EQAS administered by WHO-AFRO (NICD, South Africa. Two panels of 10 samples each were received and analyzed and results sent to South Africa. In both cases, NRL serology laboratory results were 100% concordant with those of NICD, South Africa.

3. National HIV Proficiency Testing (PT) Panel Program

To monitor the performance of HIV diagnosis using rapid testing by the laboratory network, a national PT panel program was introduced and piloted at 10 DH laboratories (Muhima, Kibagabaga, Butaro, Ruhengeli, Rwinkwavu, Kigeme, Gisenyi, Kabaya, Kabutare, and Kirehe). Nine out of 10 DH laboratories achieved a score of 100%.

IX.4.8 Immunology

1. **Perform CD4 counts on blood samples using the FACSCount machines and the FACSCalibur machine**

   From July 2010 to June 2011 the CD4 laboratory network did CD4 counts on 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. The district hospitals used FACSCount while NRL used FACSCalibur. NRL performed CD4 counts on 61,611 blood samples (22% of all CD4 counts done in lab network) using the FACSCalibur machine.

2. **CD4 proficiency testing panels for quality control to district hospitals (DHs)**

A total of 38 DHs (out of 43) participated in the CD4 external quality assessment program (PT) administered by the Immunology section of NRL. Five DHs could not participate in the PT program because they did not have CD4 testing machines.

3. **Organize retesting of CD4 counts on blood samples for quality control (QC) of district hospitals**

For QC, 30 DHs participated in retesting their CD4 samples by the immunology service of the NRL. 15 samples from each site were tested. Eight DHs (Kibagabaga, Gakoma, Kabagayi, Gisenyi, Nyanza, Kibungo, Rwamagana, Rwinkwavu) did not take part in QC activities because their CD4 testing services were out of work.

4. **Participate in the International Quality Control (EQAS) of WHO/NCID**

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.

IX.4.9 Molecular Biology

Early infant diagnosis of HIV

A total of 14,361 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 was 4.6%.

Monitoring of antiretroviral therapy of HIV patients using viral load testing

A total number of 36,190 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.

Monitoring of HIV-1 Drug resistance for HIV patients on ART

A new 24 capillary sequencer machine was installed and user training of laboratory technologists was done in January 2011. Testing activity using that new machine started in 3rd quarter. Since the beginning, 115 samples were tested.

VI.4.10. External Quality Assurance Program.

The Molecular Biology section is subscribed to three (2) different external quality assessment programs using proficiency testing panels for its various testing services that include Center of Control of the Diseases and Prevention (CDC) - Atlanta and WHO Collaborating Centre for External Quality Assurance Program - Hong Kong. The tests categories were: HIV-1 PCR, Influenza viruses PCR, HIV-1 viral load. The performance score was 100% for all the 3 tests.

IX.4 Research

Researches were conducted as follows: UTHK: 74 researches including those conducted by students. UTHB: 8 researches, RBC/IHDPC: 16. For details, see specific reports.

CONCLUSION

In the fiscal year 2010-2011, implementation of the HSSP-II continued for its second year, and a mid term review (MTR) has been conducted at the end of the fiscal year. Also, the DHS 2010 has been conducted and the both assessments showed impressive improvement of the Health Sector indicators towards Vision 2020, EDPRS 2008-2012 and MDGs targets.

Spectacular achievements are observed in Maternal and Child Health. Malaria morbidity reduced by 70% from 2003, while high impact interventions for the prevention and the management of infectious and other communicable diseases continue to be implemented. One of important innovations made to fight against diseases is the introduction of Human Papilloma Virus (HPV) vaccine and the focus on non communicable diseases (NCDs).

At the same time, construction of new health facilities, renovation, extension and equipment of the existing ones are ongoing to improve the quality of services and to address the problem of geographical accessibility. In terms of financial accessibility, the new CBHI policy has been approved and implementation based on stratified payment of premiums that ensures more equity and sustainability, has started with July 2011.

The Human Resource Development Strategic Plan is being implemented and efforts to produce skilled health professionals are made with the clinical specialization program and the upgrading of Nurses from A2 to A1 level.

The RBC started to be operationalized for a better use of resources that are mobilized to address problems generated by the burden of diseases in our country. The Health System is being strengthened for a better coordination, policy definition and resource mobilization, and health services are being strengthened in respect of the decentralization policy for the quality improvement of the health service provision. Moreover, the SPIU (Single Project Implementation Unit) has been created for a more effective and efficient management of projects with reduction of administrative costs.

Finally, the MTR of the HSSP II has identified some gaps that may impair the continuous improvement. Identified gaps are being analyzed and interventions to address them will be defined in the coming HSSP III. The next fiscal year 2011-2012 is the second year to implement the 7 year Governement Action Plan, corresponding with the 2nd Mandate of HE President Paul Kagame.

The Health Sector priorities have been determined, which actions will continue to focus on Maternal and Child Health, improved coordination and supervisions, evidence based planning and decision making. Geographical accessibility will continue to be improved, health system to be strengthened, as well as addressing the quality of service issues and the capacity building.

Finally, operationalization of the RBC will continue in order to be effective by end of fiscal year 2011-2012.

END OF THE REPORT