



Republic of Rwanda

Ministry of Health

**Rwanda Health Sector
Performance Report
2019-2020**

FOREWORD

All sectors of life are currently affected by the COVID-19 pandemic globally. The COVID-19 outbreak has put countries' health systems on an extraordinary pressure and has underscored the need to build resilient national health systems. Like in other countries, Rwanda's Health Sector has also been tested by the COVID-19, and all national efforts for the half of Rwanda's FY 2019-2020 have been largely dedicated to the response and management of the COVID-19 pandemic. As a result, the Health Sector Performance on operational plans for the Fiscal Year (FY) 2019-2020 has been marred by the occurrence of the COVID-19.

Despite unavoidable socioeconomic and long-term effects of the pandemic on populations, efforts previously invested in strengthening Rwanda's Health System's preparedness and responses to outbreaks and emergencies have allowed Rwanda to timely adopt and implement a National Preparedness and Response Plan to the Coronavirus Disease 2019. Through an integrated and multi-sectoral approach, it has been possible to mitigate the impact of the COVID-19 pandemic, and lessons learnt from the response to the disease have strengthened and will continue to shape Rwanda's efforts towards building a national resilient health system.

On behalf of Rwanda's Health Sector Team, I would like to express my deep and sincere gratitude to all people who worked tirelessly to help Rwanda to manage the COVID-19 pandemic correctly. I am extremely grateful to all Development Partners for their sustained financial and technical support throughout the COVID-19 pandemic. I am very much thankful to all Agencies of the Government of Rwanda, including Security Organs and the Local Government Members, for their unconditional contributions in ensuring the compliance with all measures taken to prevent the spread of COVID-19 in the community. Also, I express my thanks to the Private Sector and the Civil Society Organizations for their support and valuable contributions to the country response to COVID-19. Lastly, my special thanks go to the General Population and the entire community for their unhinged cooperation in the prevention and control of COVID-19 pandemic.

Dr. NGAMIJE M. Daniel
Minister of Health



TABLE OF CONTENT

FOREWORD.....	i
TABLE OF CONTENT	ii
LIST OF TABLES.....	vii
LIST OF FIGURES.....	viii
LIST OF ACRONYMS.....	1
INTRODUCTION.....	3
1. HEALTHCARE SERVICE DELIVERY	3
1.1. Outpatient department (OPD) visits in health facilities	3
1.2. Hospitalization.....	5
1.3. Access to clinical laboratory services	5
1.4. Access to Safe surgery and anesthesia services	6
1.5. National Blood Transfusion.....	7
1.6. Referral Healthcare Services	7
1.6.1. Butare University Teaching Hospital (CHUB)	7
1.6.1.1. Background.....	7
1.6.1.2. CHUB Healthcare Services Delivery in 2019-2020	8
1.6.2. Kigali University Teaching Hospital (CHUK).....	9
1.6.2.1. Background.....	9
1.6.2.2. CHUK Healthcare Services Delivery in 2019-2020.....	9
1.6.3. Huye Isange Rehabilitation Center	12
1.6.3.1. HIRC Background and Status	12
1.6.3.2. HIRC Performance in 2019-2020.....	12
1.6.3.2.1. Inpatient and outpatient care.....	12
1.6.3.2.2. Laboratory Testing.....	13
1.6.3.2.3. Social Reintegration.....	13
1.6.3.2.4. Medical Expertise	14
1.6.4. Neuropsychiatric Hospital CARAES Ndera	14
1.6.4.1. CARAES Ndera and Status	14
1.6.4.2. Hospital Capacity, outpatient consultations, and hospitalization	14
1.6.4.3. Causes of outpatients consultations in psychiatric department and in the Neurology department	16
1.6.4.4. Causes of hospitalization in the psychiatric department and in the neurology department	18
1.6.5. Emergency Medical Services	19

1.6.5.1.	Overview of the Emergency Medical Services Division	19
1.6.5.2.	Calls and time response in 2019-2020.....	20
2.	HEALTH SYSTEM STRENGTHENING.....	24
2.1.	Governance and policy development.....	24
2.1.1.	Guidelines and Standards.....	24
2.1.2.	Strategic Plans.....	24
2.2.	Human Resources for Health	24
2.3.	Geographical accessibility to Healthcare Services.	26
2.4.	Access to quality medicines, food and drugs for the Rwanda population.....	27
2.4.1.	Food and Drugs Inspection and Safety Monitoring.....	27
2.4.1.1.	License and visa issuance	27
2.4.1.2.	Inspection	27
2.4.2.	Adverse Drug Reaction Monitoring	27
2.4.2.1.	Recalled products.....	27
2.4.2.2.	Mapping of Food Sector	28
2.4.3.	Registration and Marketing Authorization	28
2.4.3.1.	Drugs and Health Technologies.....	28
2.4.3.2.	Food products.....	28
2.4.4.	Quality Control of regulated products.....	28
2.4.4.1.	Testing equipment	28
2.4.4.2.	Test reports.....	29
2.4.5.	Documentation	29
2.4.6.	Trainings	31
2.5.	Health Information Systems.....	31
2.6.	Health Financing	32
2.6.1.	Health Insurance	32
2.6.1.1.	Government subsidies to the community-based health insurance scheme.....	32
2.6.1.2.	Subsidies from health insurance entities.....	33
2.6.1.3.	Subsidies to the community-based health insurance scheme from telecommunication or fuel trade companies.....	33
2.6.2.	Performance Based Financing	33
3.	DISEASES PREVENTION AND CONTROL	35
3.1.	Non-communicable Diseases (NCDs) and Injuries	35
3.1.1.	Prevention and early detection of NCDs:.....	35
3.1.2.	NCDs care and treatment.....	35

3.1.3.	NCDs Monitoring, Evaluation and Research	35
3.1.4.	Injury registry.....	36
3.1.5.	Mental Health Services	38
3.1.6.	Oral health, eye care, earing and hearing care	38
3.2.	Communicable Diseases	39
3.2.1.	Malaria control and prevention.....	39
3.2.1.1.	Vector control interventions	39
3.2.1.1.1.	Distribution of LLINs	39
3.2.1.1.2.	Indoor residual spraying (IRS)	40
3.2.1.1.3.	Outdoor Mosquito Control Initiatives	40
a.	Distribution of Mosquito Repellents.....	40
b.	Stocking of Larvivorus Fish for Mosquito Larvae Control	41
3.2.1.2.	Malaria case management	41
3.2.1.3.	Malaria Surveillance and Epidemiology	44
3.2.1.4.	Achievements in malaria control and prevention as by June 2020.	44
3.2.1.4.1.	Malaria Incidence	44
3.2.1.4.2.	Malaria Morbidity.....	45
3.2.1.4.3.	Malaria Test Positivity Rate	46
3.2.1.4.4.	Uncomplicated Malaria Cases.....	46
3.2.1.4.5.	Severe Malaria Cases.....	47
3.2.1.4.6.	Malaria Mortality.....	48
3.2.2.	HIV and AIDS.....	49
3.2.2.1.	HIV Prevention.....	49
3.2.2.1.1.	HIV testing services	49
a.	HIV self-testing.....	50
b.	Index testing and partner notification.....	51
c.	HIV Case-based surveillance and recency testing	51
3.2.2.1.2.	Prevention of Mother-To-Child HIV Transmission.....	51
a.	HIV Testing in antenatal care (ANC) services	52
b.	HIV self-testing among male partners of pregnant women attending ANC	52
c.	Follow up of HIV exposed children	52
3.2.2.1.3.	Voluntary Medical Male Circumcision	53
3.2.2.1.4.	HIV Prevention services for Adolescent Girls and Young Women (AGYW)	53
3.2.2.1.5.	HIV Prevention Services for Key Populations	53
3.2.2.1.6.	Condoms programming	54
3.2.2.1.7.	Pre-Exposure Prophylaxis	54

3.2.2.1.8.	HIV Awareness	54
3.2.2.2.	HIV Care and Treatment.....	54
3.2.2.2.1.	HIV Continuum of Care.....	55
a.	Linkage and enrolment	55
b.	Antiretroviral treatment coverage	55
3.2.2.2.2.	Progress towards 90-90-90.....	56
3.2.2.3.	Screening and Management Opportunistic Infections.....	57
3.2.3.	Viral Hepatitis and Sexually Transmitted Infections.....	57
3.2.4.	Tuberculosis.....	58
3.2.4.5.	TB Treatment Outcome.....	61
3.2.5.	Leprosy prevention and control	63
3.3.	Maternal Health and Child Health Services	64
a.	Antenatal care services (ANC).....	64
b.	Assisted delivery	64
c.	Maternal mortality.....	65
d.	Child Health	65
e.	Family planning.....	65
f.	Nutrition.....	66
g.	Sexual and gender-based violence (SGBV) cases received at Health Facilities.....	66
3.4.	Epidemiology and Disease Surveillance.....	67
3.4.1.	National Ebola Viral Disease Contingence Plan.....	67
3.4.2.	Coronavirus Disease 2019, National Preparedness and Response Plan	67
3.4.3.	Situation after the confirmation of the first COVID-19 case in Rwanda	68
3.4.4.	Diseases morbidity in all health facilities.....	70
3.4.5.	Causes of death in Rwanda	72
3.4.5.1.	Key mortality indicators	72
3.4.5.1.1.	Crude death rate	72
3.4.5.1.2.	Infant mortality rate	73
3.4.5.1.3.	Under-five mortality rate.....	73
3.4.5.1.4.	Age-specific death rate.....	73
3.4.5.2.	Causes of death.....	74
3.4.5.2.1.	Background	74
3.4.5.2.2.	Medical certification of cause of death.....	74
3.4.5.2.3.	Data quality and usability	75
a.	Distribution of usable death causes by three broad groups	76
b.	Distribution of deaths with defined causes in three broad groups by age and sex	76

- c. Priorities for action improvements..... 77
 - d. Verbal autopsy for community death notification in CRVS 78
- 3.5. Health sector budget execution..... 80

LIST OF TABLES

Table 1 Annual trends of OPD visit in health facilities from the FY 2016-2017 to FY 2019-2020.....	3
Table 2 Contribution of the Private Sector to the Health Sector.....	4
Table 3 Hospitalization by facility type	5
Table 4 Trends of laboratory tests performed nationally: 2016-2020 by fiscal year	6
Table 5 Number and type of surgery performed	6
Table 6: Staffing in the CHUB 2019-2020	8
Table 7 Comparison of CHUK main clinical indicators for the year from July 2015 to June 2019	10
Table 10 Evolution of consultation and Activity comparison	14
Table 8 Distribution of beds in CARAES NDERA	15
Table 9: Number of patients consulted from Provinces and Kigali city	15
Table 11 Causes of outpatient consultations in the neurology department	16
Table 12 Pathologies frequency in psychiatry	17
Table 13: Causes of hospitalization in psychiatry department.....	18
Table 14: Causes of Hospitalization in neurology department.....	19
Table 15 Response type	20
Table 16 Event type	20
Table 17 Circumstances that pushed for the ambulance call.....	21
Table 18 Receiving health facilities.....	22
Table 19 Time response for primary transfers.....	23
Table 20 Public Health Facilities in Rwanda in 2016-2020	26
Table 21 PBF Execution in the FY 2019-2020.....	34
Table 22 PBF Budget execution by Program FY 2019-2020	34
Table 24 Oral, eye, ear and hearing disease	39
Table 25 Different tools and guidelines produced and distributed to all CHWs in 2019-2020	42
Table 26 TB detection and contribution of each screening level (FY2019-2020).	58
Table 27 Under 5 years initiated on tuberculosis preventive therapy, July 2019-June20.....	62
Table 28: Key results in Childhood TB management.....	62
Table 29 HIV Screening among TB presumptive cases.....	63
Table 30 challenges caused by the lockdown and Implemented mitigation measures	69
Table 31 COVID19 testing and treatment.....	70
Table 32 Top ten causes of morbidity in all health facilities in the FY 2019-2020, by age groups	71
Table 23: Comparison of key mortality indicators CRVS with indicators from other sources	72
Table 33 Health Sector Budget Execution for FY2019/2020	80

LIST OF FIGURES

Figure 1 Trends of outpatient visit in health facilities from July 2019 to June 2020.....	4
Figure 2 Outpatients by clinical departments/services in 2018-2019 and 2019-2020	8
Figure 3 Comparison of Inpatients between 2018-2019 and 2019-2020.....	9
Figure 4 Consultations in the Major Departments for the Year From July 2019-June 2020	11
Figure 5 Admissions from July 2019 to June 2020 by Key Departments	11
Figure 6 Trends of consultations and admission over last 6 Years	11
Figure 7 Classification of patients according to the place of origin	13
Figure 8 Classification of patients according to the illicit drug used	13
Figure 9 Patients by provenance	15
Figure 10 Evolution of the number of ambulances.....	23
Figure 11 Top 10 cancers in males in 2018.....	36
Figure 12 Top 10 cancers in females in 2018.....	36
Figure 13 Mechanisms of Injuries among deceases patients.....	37
Figure 14 Indoor Residual Spraying Districts, FY2019/2020.....	40
Figure 15 Quantity of mosquito repellents distributed per month and per product by SFH	41
Figure 16 Community Malaria Case Management in Children under 5 and Adults	42
Figure 17 Severe Malaria Management and Community Case Management Scale Up, 2014-2020	43
Figure 18 Impact of Extended HBM on Malaria Mortality, 2014-2020	43
Figure 11 Malaria Incidence per 1000, (2008-2020).....	44
Figure 12 Malaria Incidence per 1000 by District in the FY 2019-2020.....	45
Figure 21 Trends in Malaria Cases: FY 2019-2020, 2018-2019 and 5 Years back monthly average.....	46
Figure 13 Malaria Cases per Level of Services Provision, 2014-2020	47
Figure 22 Malaria Cases per Level of Services Delivery and Cases Fatality Rate, 2013-2020.....	47
Figure 23 Total Severe Malaria Cases from 2014-2020	48
Figure 24 Total Malaria Related Deaths from 2014-2020.....	48
Figure 26 HIV sero-positivity rate by age group.....	50
Figure 27 Cascade of Index Testing and Partner Notification	51
Figure 28 Number of Patients enrolled from July 2019 to June 2020	55
Figure 29 Trend in treatment coverage, 2004-2020.....	55
Figure 30 Cascade of Care and Treatment	57
Figure 31 Age pyramid of TB cases all forms by sex, FY 2019-2020	59
Figure 32 Notification by and provinces.....	59
Figure 33 Notification of TB cases by district.....	60
Figure 34 Trends of Health Facility delivery coverage rate 2017-2020	64
Figure 35 Health Facility delivery coverage rate (by month) in the last three FY	64
Figure 36: SGBV Cases received at Health Facility, 2016-2019	66
Figure 18. Distribution of age specific death rates by sex.....	73
Figure 19: Distribution of causes of death by usability from HMIS, 2019.....	75
Figure 20: Distribution of usable deaths causes by three broad groups	76
Figure 21: Death causes in broad groups by age of males	76
Figure 22: Death cause in broad groups by age of females	77
Figure 23: Priority action areas for improving data quality from HMIS, 2019	78

LIST OF ACRONYMS

AIDS	Acquired Immuno-Deficiency Syndrome
ANC	Ante Natal Care
ART	Anti-Retroviral Treatment
BCC	Behavioral Communication and Change
CBHI	Community Based Health Insurance schemes
CHUB	Butare University Teaching Hospital (Teaching Hospital)
CHUK	Kigali University Teaching Hospital (Teaching Hospital)
CHW	Community Health Worker
FSW	Female Sex Worker
CVD	Cardio Vascular Disease
DHS	Demographic and Health Survey
EMR	Electronic Medical Records
EMTCT	Elimination of Mother to Child Transmission
FP	Family Planning
GBV	Gender Based Violence
GFATM	Global Fund for AIDS, TB and Malaria (GF)
GoR	Government of Rwanda
HC	Health Centre
HF	Health Facilities
HIV	Human Immuno-Deficiency Virus
HMIS	Health Management Information System
HP	Health Post
IRS	Indoor Residual Spraying
JANS	Joint Assessment of National Strategies
KFH	King Faisal Hospital
LLIN	Long Lasting Impregnated (Bed) Nets
MC	Male Circumcision
MDA	Mass Drug Administration
MH	Mental Health
MIGEPROF	Ministry of Gender and Family Promotion
MINECOFIN	Ministry of Finance and Economic Planning
MoH	Ministry of Health
NCD	Non-Communicable Diseases
NRL	National Reference Laboratory
NTD	Neglected Tropical Diseases
NISR	National Institute of Statistics of Rwanda
NST	National Strategy for Transformation
PBF	Performance Based Financing
PLWHA	People Living with HIV and AIDS (see PVVIH)
PMI	Presidential Malaria Initiative
PMTCT	Prevention of Mother-to-Child Transmission (of HIV)
QA	Quality Assurance
QC	Quality Control
RBC	Rwanda Biomedical Centre

RCHC	Rwanda Centre for Health Communication
RDT	Rapid Diagnostic Tests (for Malaria)
RH	Reproductive Health
RMNCAH	Reproductive Maternal, Neonatal, Child and Adolescent Health
SMM	Senior Management Meeting
STH	Soil Transmitted Helminths
STI	Sexually Transmission Infections
TB	Tuberculosis
TWG	Technical Working Group
UN	United Nations
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
USD	US Dollars
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

INTRODUCTION

The Rwanda FY 2019-2020 has been an unusual period for the Health Sector because of the Coronavirus Disease 2019 (COVID-19). Its first six months were characterized by a regular implementation of the Health Sector Operational Plan 2019-2020, and the last six months were totally focused on the prevention and control of the COVID-19 pandemic. This performance report highlights key achievements registered by the Rwanda Health Sector for the period July 2019-June 2020 in different areas, including healthcare services delivery, health systems strengthening, and diseases prevention and control.

1. HEALTHCARE SERVICE DELIVERY

Healthcare services delivery in the FY 2019-2020 was affected by the COVID-19 pandemic because of restrictions on people's movements to avoid the spread of the virus. The extent to which the pandemic impacted healthcare services delivery is yet to be determined, from the last six months of the FY 2019-2020 show a decline in the number of people seeking healthcare services in health facilities, especially during the COVID-19 lockdown from March to May 2020.

1.1. Outpatient department (OPD) visits in health facilities

The total number of outpatient visits in health facilities decreased from 19,026,514 total visits in the FY 2018-2019 to 18,860,619 total visits in the FY 2019-2020. Health Centers received 60% of all outpatient visits registered in the FY 2019-2020. While the total number of visits decreased in Health Centers, Community Health Workers (CHWs) Home-Based Care program, and in Referral Hospitals, it increased in Health Posts, Private Health Facilities, District and Provincial Hospitals. This trend can be interpreted as the effects of the COVID-19 lockdown. For instance, the total number of visits in health posts increased by 260% and the number of visits in health centers decreased by 15%. Because health posts are closer to the community than health centers, and in a walkable distance, people would have preferred to visit health posts than travelling to health centers. These data also show that investments made in the establishment and increase of health posts over the last five years countrywide are paying off.

Table 1 Annual trends of OPD visit in health facilities from the FY 2016-2017 to FY 2019-2020

Facility Type	OPD new cases			
	FY 2016-2017	FY 2017-2018	FY 2018-2019	FY 2019-2020
Health Posts	71,212	86,634	1,445,119	3,824,343
Private Health Facilities	593,850	615,013	847,643	1,072,167
Health Center	13,327,004	14,755,758	13,268,067	11,302,357
Prison Clinic	131,520	141,545	147,662	175,223
CHW Home-Based Care	2,475,802	2,446,200	2,398,468	1,558,153
District and Provincial Hospitals	551,772	638,849	712,355	725,365
Referral Hospitals	177,829	194,022	207,200	203,011
Grand total	17,328,989	18,878,021	19,026,514	18,860,619
Total Population	11,671,371	11,949,508	12,232,059	12,518,758
Per Capita utilization rate	1.48	1.58	1.56	1.51

Source: Rwanda Health Management Information System (Extracted RHMIS July 01, 2019-June 30, 2020)

Public health facilities remain the number one provider of Healthcare services in Rwanda. Over nine out of ten OPD new cases are consulted in public health facilities. The proportion of OPD new cases in private health facilities increased by 2 percent in the FY 2019-2020 compared to the previous FY 2018-2019.

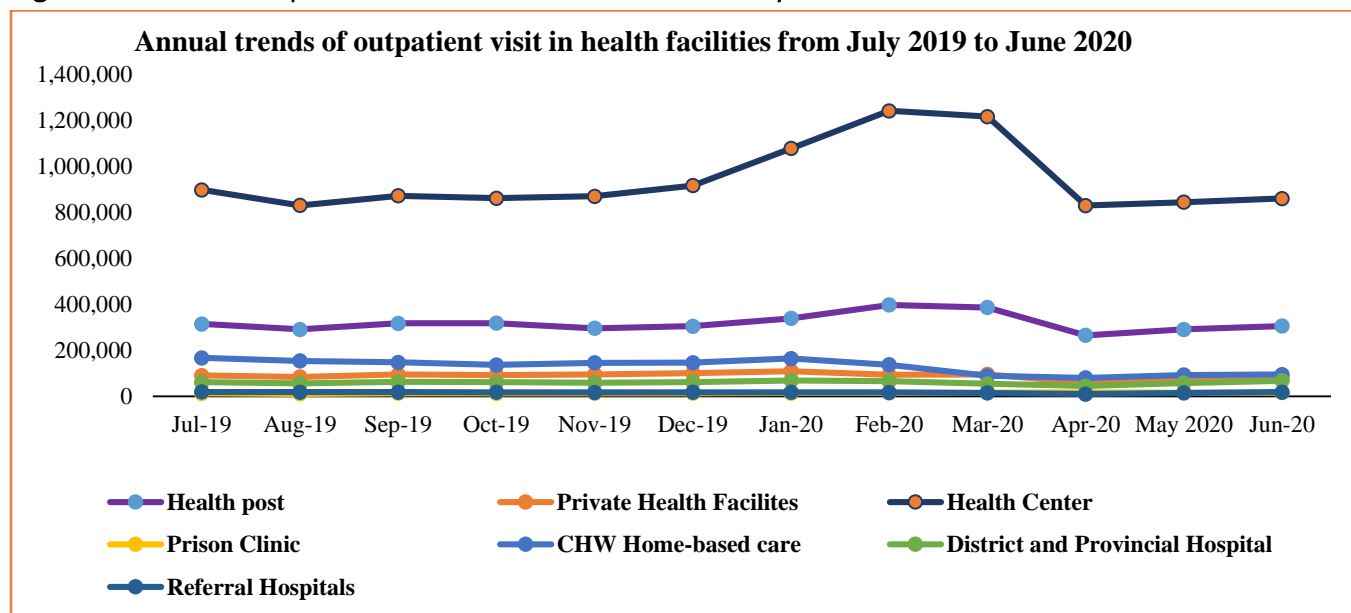
Table 2 Contribution of the Private Sector to the Health Sector

Health Facility(HF) type	OPD new cases			
	FY 2016-2017	FY 2017-2018	FY 2018-2019	FY 2019-2020
Public Health Facilities	16,735,139	18,263,008	18,178,871	17,788,452
Private Health Facilities	593,850	615,013	847,643	1,072,167
Total	17,328,989	18,878,021	19,026,514	18,860,619
Coverage rate Public vs Private HFs				
Public HFs (Percentage)	97	97	96	94
Private HFs (Percentage)	3	3	4	6

Source: Rwanda Health Management Information System (Extracted RHMIS July 01, 2019-June 30) 2020

The comparison of monthly outpatient visits in the FY 2019-2020 shows that outpatient visits decline in March and April 2020. Explained above, this a period where the country was observing a total lockdown to prevent the spread of the covid-19 in the community in Rwanda.

Figure 1 Trends of outpatient visit in health facilities from July 2019 to June 2020



1.2. Hospitalization

Unlike in the outpatient department, the number of hospitalizations in 2019-2020 did not decrease. There is a steady increase of hospitalizations across all types of health facilities. Over 95% of all hospitalizations are found in public health facilities, mainly in health centers and public hospitals.

Table 3 Hospitalization by facility type

Facility Type	Private Facilities		Health center		Hospital		Total
	Number	%	Number	%	Number	%	
FY 2016-2017	17,590	2.5	251,261	35.9	431,278	61.6	700,129
FY 2017-2018	17,706	2.5	246,821	35.4	433,263	62.1	697,790
FY 2018- 2019	24,905	3.4	248,573	34.0	457,117	62.6	730,595
FY 2019- 2020	27,515	3.7	271,729	36.3	448,925	60.0	748,169

Source: Rwanda Health Management Information System (Extracted RHMIS July 01, 2019-June 30) 2020

The national average bed occupancy rate in the FY 2019-2020 was 44% and the average length of stay in hospitalizations was 4 days. People spend less time less in private health facilities (one day on average) and more days in District Hospitals and Provincial Hospitals (4 days) and in referral hospitals (6 days). The bed occupancy rate increases by the level of healthcare services and becomes higher in referral hospitals (72% in the FY 2019-2020). The smallest bed occupancy rates is found in private health facilities (12% in the FY 2019-2020).

Tableau 4: Health facilities bed occupancy rate and average length of stay

	Bed occupancy rate (%)				Average length of stay (days)			
	FY 2016-2017	FY 2017-2018	FY 2018-2019	FY 2019-2020	FY 2016-2017	FY 2017-2018	FY 2018-2019	FY 2019-2020
Private HFs	9	9,9	9	12	2	1	1	1
HCs	18	21	30	29	2	2	2	2
DH and PH	65	66	66	62	4	4	4	4
RH	68	79	78	72	6	6	6	6
National average	40	44	46	44	6	6	5	4

Source: Rwanda Health Management Information System (Extracted RHMIS July 01, 2019-June 30) 2020

1.3. Access to clinical laboratory services

- National Reference Laboratory (NRL) is the central level that oversees the quality of health services delivered within the laboratory network in order to improve the diagnostic capacity of health facilities in Rwanda.
- In the 2019/2020 fiscal year, NRL achieved the highest international standards with ISO16189 certificate of accreditation. The first of this kind for laboratories in Rwanda.
- NRL was able to diagnose and detect EVD when Ebola epidemic occurred in DRC and the country was not sending samples abroad any more unlike in the past three years ago when samples were sent in UVRI Uganda.

- NRL was able to detect and diagnose COVID-19 in country and decentralized the testing to 11 more sites and increased test capacity from 200- 5000 samples per day in six months period, and the country is now the first in the region with the highest testing capacity by volume per million people tested.
- We have increased the testing hubs of viral load and hepatitis from 8 to 14 hubs and now able to even test HPV as part of the routine screening in all 14 hubs.
- In the digitalization journey, the NRL has shifted to paperless for epidemic control data and also Laboratory Information System (LIS) is live in all HIV viral load testing hubs.
- Finally, this reporting period was marked by a discovery of new TB strain by one Researcher in the National Reference Laboratory.
- The annual total number of laboratory tests done in all Health Facilities in Rwanda continued to increase. Compared to the previous FY (2018-2020), the number of laboratory tests done in health facilities increased by 3,231,351 laboratory tests in the FY 2019-2020.

Table 4 Trends of laboratory tests performed nationally: 2016-2020 by fiscal year

Types of tests	FY2016-2017	FY2017-2018	FY2018-2019	FY 2019-2020
Thick Blood smears	5,685,575	6,103,744	4,896,528	3,558,844
Rapid tests	911,060	897,388	928,355	1,406,502
Stools	1,792,803	1,972,322	1,975,987	2,335,439
Urine	1,231,489	1,536,339	1,956,653	3,678,485
Bacteriology	46,993	49,146	63,282	1,529,660
Blood	6,075,655	6,339,002	6,938,876	6,679,670
Cerebro Spinal fluid	3,089	3,255	10,188	9,765
Other	2,863,753	3,526,253	4,844,381	5,391,782
Total	19,794,913	21,914,642	23,507,621	26,738,972

Source: Rwanda Health Management Information System(Extracted RHMIS July 01, 2019-June 30) 2020

1.4. Access to Safe surgery and anesthesia services

Compared to the previous Fiscal Year, access to surgery services decreased in the FY 2019-2020. This decrease can also be associated with the COVID-19 lockdown which put on hold some planned surgeries in hospitals due to restricted people's movements.

Table 5 Number and type of surgery performed

Period	SURGERY TYPES		
	Major surgery	Minor surgery	Grand Total
FY 2016-2017	70,892	47,922	118,814
FY 2017-2018	78,640	52,565	131,205
FY 2018- 2019	89,620	63,844	153,464
FY 2019- 2020	93,809	47,598	141,407

Source: Rwanda Health Management Information System (Extracted RHMIS July 01, 2019-June 30) 2020

As progress for the implementation of the National Surgical, Obstetrics and Anesthesia Plan (NSOAP) 2018-2024 shown in the table below:

- the number of surgeries has decreased slightly due to COVID pandemic. This is specifically the elective ones;
- the number of Surgical, anaesthesia and Obstetrics-Gynecology (SAO) providers per 100,000 population has increased in the past 2 years due to the increased in country production of health professionals providing surgery and anesthesia services.

Indicators	FY 2016-2017	FY 2017-2018	FY 2018-2019	FY 2019-2020
Surgical volume per 100,000 population	1,005	1,098	1,255	1,128
Perioperative mortality tracking rate	NA	76.2	100	100
Perioperative mortality rate	0,6	0,6	0,5	0,6
Cataract surgical rate per one million population	269	313	510	374
SAO provider density per 100,000 population	NA	NA	11	12

Source: Rwanda Health Management Information System (Extracted RHMIS July 01, 2019-June 30) 2020

1.5. National Blood Transfusion

National Centre for Blood Transfusion (NCBT) has the mandate of providing safe, effective and adequate blood and blood products to all patients in need. NCBT has five Regional Centers for Blood transfusion (RCBTs) located in all administrative provinces and the City of Kigali. In the FY 2019-2020, blood collection activities were carried out in 5 fixed and 568 mobile collection sites countrywide. NCBT serves 66 transfusing public and private health facilities. From July 2019 to June 2020, NCBT registered the following achievements:

- A total of 1,392 blood collection sessions out of 1420 planned sessions were completed, and 65,441 (95.49%) out of 68,525 out of blood units that were planned to be collected in the FY 2019-2020 were collected.
- The total demand of blood units by health facilities reached 91,591 Blood components units and the center distributed 85,631 Blood components units, i.e., 93.49% of blood components units' demand satisfaction.
- Between March and June 2020, due to the lockdown adopted to prevent the spread of the Covid-19 pandemic, NCBT was not able to carry out field sessions to collect blood units. To mitigate the consequences of the lockdown on supply of blood units, Rwanda Biomedical Centre collaborated with Rwanda Defense Force (RDF) and Rwanda National Police (RNP), and both RDF and RNP community donated blood that covered the gap caused by the closure of Schools and Churches where blood is collected in normal times.

1.6. Referral Healthcare Services

1.6.1. Butare University Teaching Hospital (CHUB)

1.6.1.1. Background

Butare University Teaching Hospital (CHUB) is located in the Southern Province of Rwanda. It is one of national referral hospitals in Rwanda. The hospital has got over 534 staff and an inpatients' bed capacity of 500 beds.

Table 6: Staffing in the CHUB 2019-2020

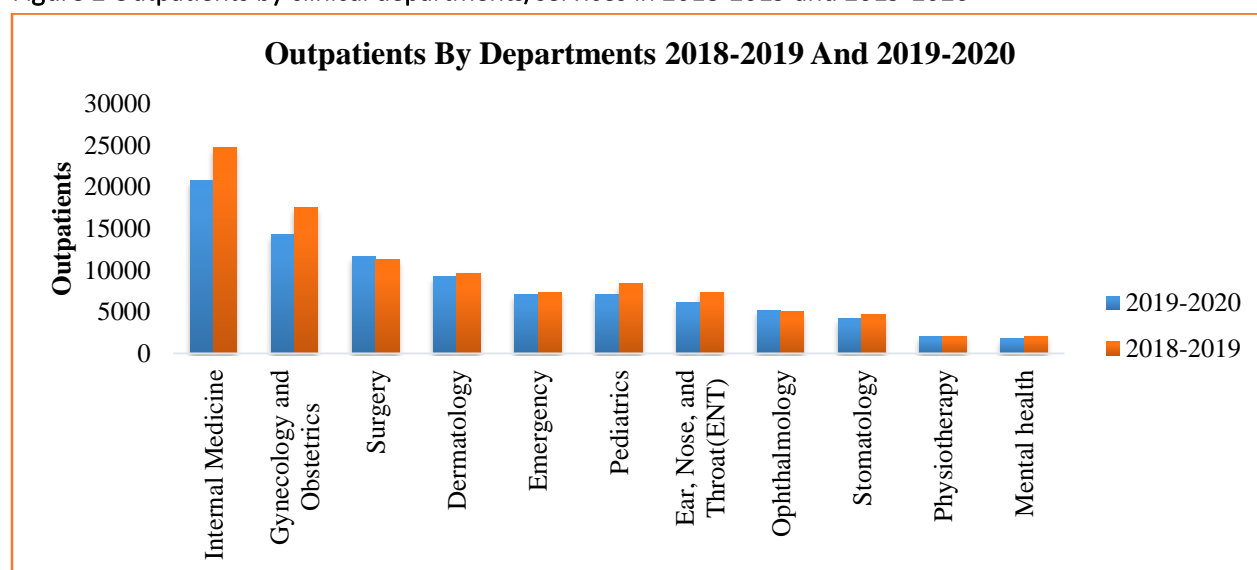
Description	Numbers
Total CHUB staff	537
CHUB Clinical staff	459
Academic doctors	8
Expatriate doctors	1
CHUB Administration Staff	69

CHUB Administrative data 2019-2020

1.6.1.2.CHUB Healthcare Services Delivery in 2019-2020

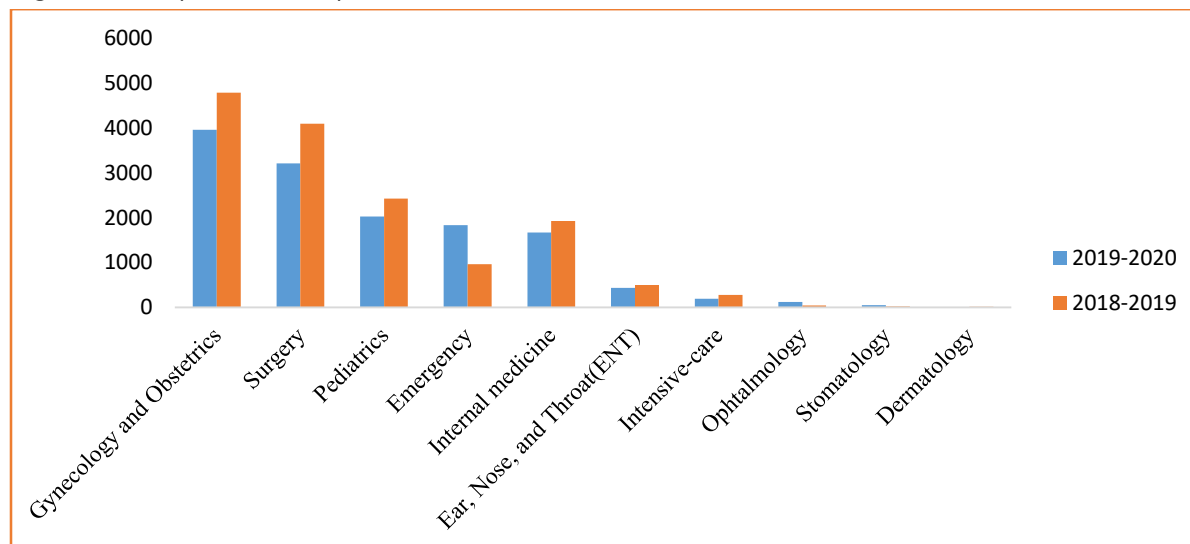
For the FY 2019-2020, the total number of patients who consulted CHUB Outpatient Department (OPD) services decreased by 11% (10,724) from the previous FY 2018-2019. This trend is observed almost in all services or departments except Ophthalmology and Surgery for different reasons. The reduction of outpatients in this FY was caused by the lockdown due to COVID-19 pandemic from March to May 2020. During the lockdown, the number of outpatients seeking care at CHUB has decreased by 40% especially in April 2020, except in the Surgical Ophthalmology Units.

Figure 2 Outpatients by clinical departments/services in 2018-2019 and 2019-2020



During the FY 2019-2020, the number of inpatients also decreased by 11% compared with the figures of the FY 2018-2019. This decrease is believed to be associated with the lockdown that was implemented to control the spread of the COVID-19 pandemic.

Figure 3 Comparison of Inpatients between 2018-2019 and 2019-2020



The Average length of stay (LoS) in CHUB was 8 days during the FY 2019-2020, and the bed occupancy rate (BoR) was of 74%. Compared with the previous year 2018-2019, the BoR has decreased by 5%. The mortality rate (MR) in 2019-2020 was 5.9 % indicating 789 deaths out of 13459 inpatients that were admitted in that period. Compared with 2018-2019, the mortality rate has increased by 1.1%.

1.6.2. Kigali University Teaching Hospital (CHUK)

1.6.2.1. Background

CHUK is the biggest public referral hospital in the country. It is located in the Centre of the City of Kigali (Nyarugenge District). It was built in 1918 and was working as a Health Centre till 1965 when it became a hospital. The Hospital has now the capacity of over 500 beds, and over 16,000 thousand patients are admitted every year.

1.6.2.2. CHUK Healthcare Services Delivery in 2019-2020

During the period from July 2019 to June 2020, the total number of consultations reached 103,640 cases were received, decreasing from 109,176 consultations received in 2018-2019. Emergencies cases were 11899, decreasing from 19,998 cases in the previous Fiscal Year (FY). The decrease of the number of consultations in 2019-2020 compared to the previous FY was due to the covid19 lockdown which resulted in the decrease of consultations between March and May 2020. Patients from District hospitals outside the City of Kigali was decreased considerable due to the Covid-19 lockdown.

CHUK conduct surgical outreach program in District Hospitals to bring surgical specialized healthcare services closer to patients. Surgical outreach is a program jointly implemented by CHUK and the Ministry of Health (MoH). CHUK provides technical expertise, and the MoH support surgical outreach program financially. This intervention is meant to improve geographical accessibility to surgical services and to decrease the financial burden for patients.

In this financial year, CHUK recorded slightly lower admissions compared to the last three FYs. This low admission goes hand in hand with the consultation but also the referral system of Rwanda as the number of patients transferred reduced both the consulted and admitted patients reduced. The continuous decrease of admission and consultations in CHUK over the last three years can be linked to effects of the efforts recently invested in the establishment of 4 Provincial and 3 Regional Referral Hospitals to reduce the pressure on CHUK and improve geographical accessibility to referral healthcare services. In 2014, the Government of Rwanda decided to upgrade Bushenge, Rwamagana, Ruhango, and Kinihira District Hospitals into Provincial Hospitals, and Ruhengeri, Kibuye and Kibungo District Hospitals into Regional Referral Hospitals. On top of that, the Ministry of Health also resolved to support CHUK to do specialized medical outreach programs in District Hospitals to treat patients in their District. All those efforts were expected to decrease the number of patients travelling from all parts of Rwanda to seek specialized healthcare in CHUK and ensure equity on access to specialized and tertiary healthcare services for all the Rwandan population.

Table 7 Comparison of CHUK main clinical indicators for the year from July 2015 to June 2019

Key Performance Indicator	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020
Number of beds per year	390	397	391	402	398
Total patients admitted/Inpatients	16,151	16,798	18,132	17,725	16,747
Total deaths per year	846	1,082	867	891	879
Mortality rate in the Hospital per year	0.06	0.06	0.05	0.05	0.05
Average length of stay per year	7 days	7days	6 Days	7days	7 days
Rotation coefficient			0.5	0.4	0.4
Bed occupancy rate per year	0.8	0.8	0.8	0.9	0.9
Total Deliveries per year	2,031	2,269	2,678	2,640	2,459
Normal deliveries per year	1,018	1,044	1,228	1,087	1,060
Abnormal deliveries per year	986	1,225	1,448	1,553	1,399
Live born per year	2,002	2,272	2,683	2,626	2,450
Average daily number of patients per year	323	330	313	348	347
Total admission days	113,057	116,864	110,780	124,919	124,688

CHUK Administrative data 2019-2020

Figure 4 Consultations in the Major Departments for the Year From July 2019-June 2020

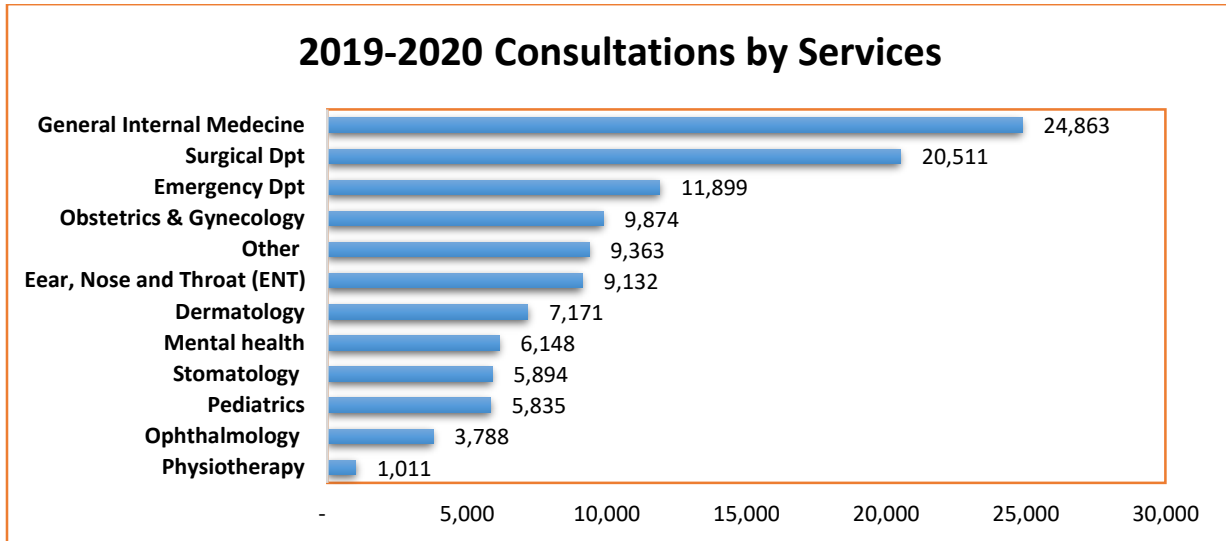


Figure 5 Admissions from July 2019 to June 2020 by Key Departments

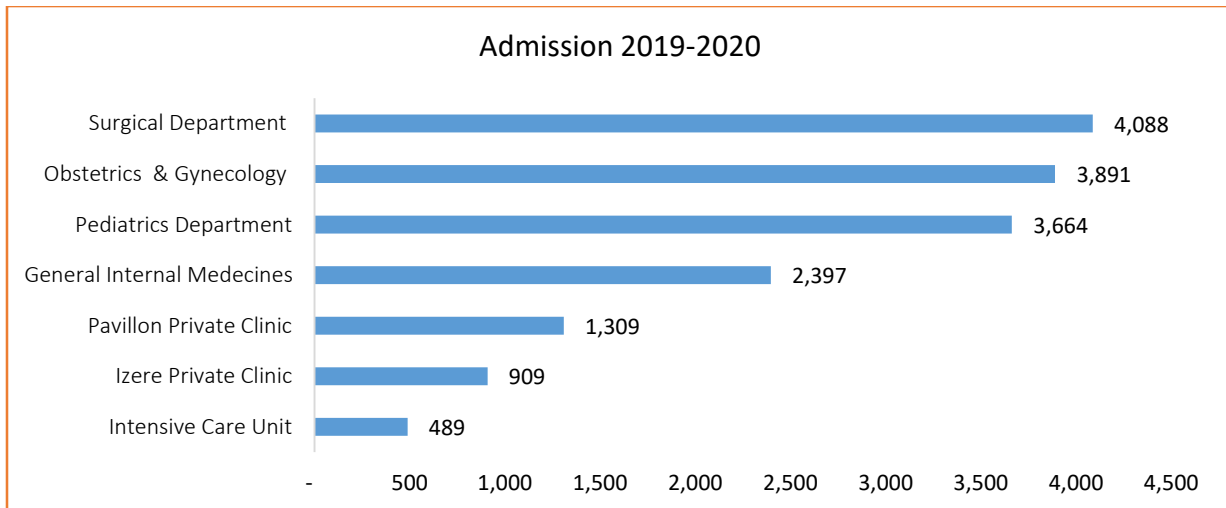
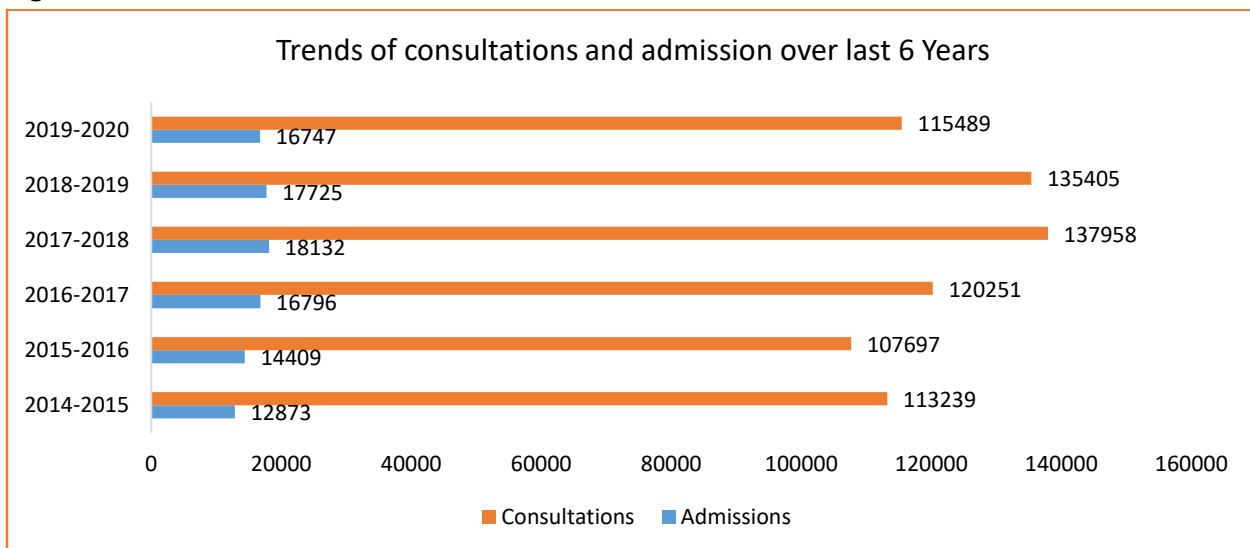


Figure 6 Trends of consultations and admission over last 6 Years



1.6.3. Huye Isange Rehabilitation Center

1.6.3.1. HIRC Background and Status

- Huye Isange Rehabilitation Center (HIRC) was created in 2014 by the Ministry of Health (MoH) in partnership with the Rwanda National Police, Ministry of Local Government (MINALOC) and the Ministry of gender and family promotion (MIGEPROF).
- The Ministry of Health certified this institute as a referral rehabilitation center in his letter no 20/4673/DGCPHS/2015 dated 19 October 2015.
- HIRC has a vision to become a regional center of excellence for drug and alcohol addiction treatment by providing high quality, innovative, supportive and comprehensive care to individuals living with the devastating effects of drug and alcohol addiction.
- The center's mission is to improve the lives of individuals living with the devastating effects of drug and alcohol addiction, and lessening its adverse impact on families and society as a whole, by providing a range of harm reduction and supportive treatment modalities through a multi-disciplinary approach. Currently, HIRC has 36 staff. The current staff size is still very small compared with the center's mission and mandate.

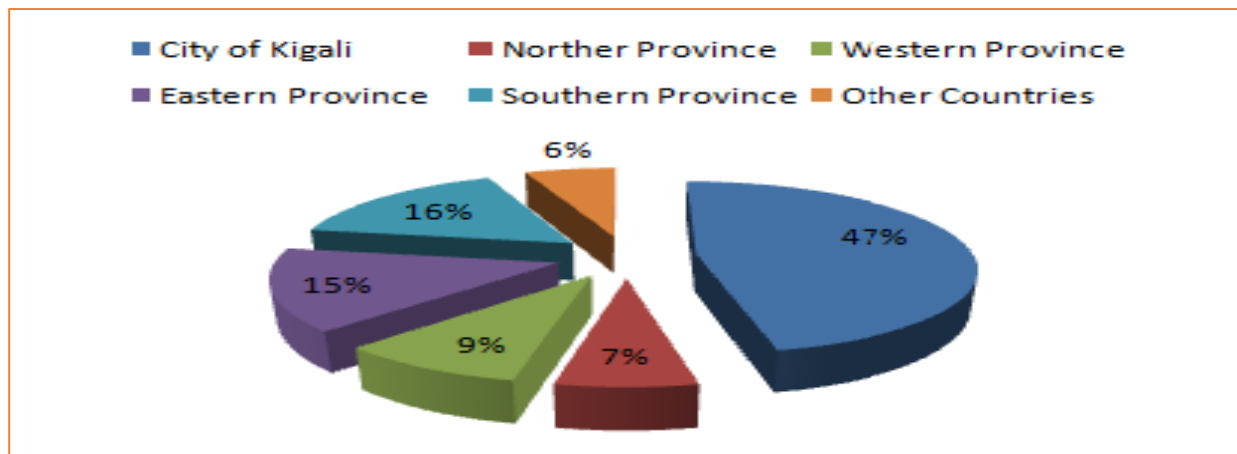
1.6.3.2. HIRC Performance in 2019-2020

- As mentioned above, HIRC's mission and mandate is to improve the lives of individuals living with the devastating effects of drug and alcohol addiction, and lessening its adverse impact on families and society as a whole, by providing a range of harm reduction and supportive treatment modalities through a multi-disciplinary approach. The achievement of this mission is done through different activities such as inpatients and outpatients care; laboratory testing; social reintegration and medical expertise.

1.6.3.2.1. Inpatient and outpatient care

- For the inpatient care, the HIRC bed capacity is 90 beds. In the FY 2019-2020, a total of 341 patients were received by the HIR, including 277(81.2%) patients who were treated as inpatients and 64 (18.8%) who were treated in the outpatient department(OPD).
- Out of the total number of 341 patients received, 159 of them(46.6%) were from the city of Kigali;23(6.7%) from the Northern Province; 31(9.1%) were from the Western Province; 52(15.2%) from the Eastern Province; 55(16.1%) from the Southern Province while 21 (6.1%) were from other countries such as Burundi, Republic Democratic of Congo (DRC) and Cameroon. These numbers are represented in the following figure.

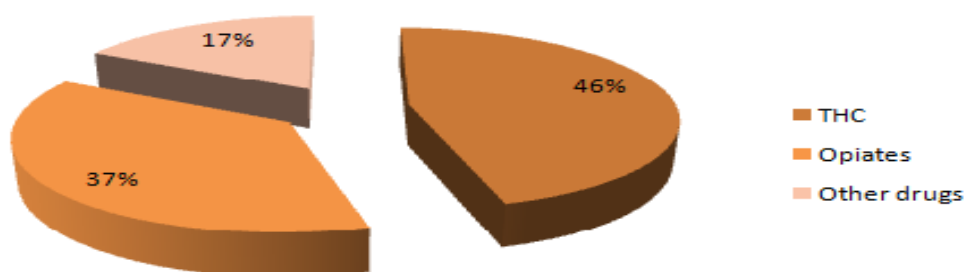
Figure 7 Classification of patients according to the place of origin



1.6.3.2.2. Laboratory Testing

- During the FY 201-2020, a total number of 1564 laboratory tests were performed as follows:
 - Drug screening tests: 936 tests which represents 59.8% of all tests.
 - Hematology:19 tests (= 2% of tests)
 - Biochemistry tests: 41 tests (4.3% of all tests).
 - Serology tests (HIV, Hepatitis B and C):495 tests (=31.6% of all tests)
 - Parasitological tests (Stool analysis, blood smears):73 tests (=4.6% of all tests)
- Among the 936 drug screening tests, 426 or 45.5% were positive to Tetra–hydro-cannabinoids (THC); 348 or 37% tested positive to opiates, while 162 or 17% were positive to other drugs as reflected by the figure bellow.

Figure 8 Classification of patients according to the illicit drug used



1.6.3.2.3. Social Reintegration

Social difficulties are part of the triggers of mental disorders including alcohol and illicit drug abuse. Thus, social reintegration is key to the care of patients so as to prevent further relapses and achieve an optimal state of health, psychological functioning, and social well-being. During the FY 2019-2020, all patients discharged were socially reintegrated in partnership their families; local governments of different districts; government institutions such as the Genocide Survivors Assistance Fund(FARG) and Rwanda Demobilization and Reintegration Commission (RDRC); and other non-governmental organization like Handicap International and Compassion International.

1.6.3.2.4. Medical Expertise

In the framework of complementarily with other government institutions, HIRC conducted 25 medical expertise for detainees following the demand of Rwanda Investigation Bureau (RIB).

1.6.4. Neuropsychiatric Hospital CARAES Ndera

1.6.4.1. CARAES Ndera and Status

The Neuropsychiatric Hospital CARAES Ndera is the National Referral Hospitals in Mental Health. The hospital operates under a partnership between the Brothers of Charity (a religious institution) and the Government of Rwanda to provide specialized medical care to patients with mental illness. CARAES NDERA has two other branches: CARAES Butare located in Huye District, Southern Province, and ICYZERE Psychotherapeutic Centre, in Kicukiro District, City of Kigali. CARAES Butare perform multidisciplinary clinical activities, including psychological counselling to outpatients and hospitalized patients, and supervision of interns. The Icyizere Psychotherapeutic Centre was created in October 2003. It provides psychotherapeutic care to people with post-traumatic stress disorder and their complications as well as addiction problems, in a peaceful, calm environment, similar to the family environment. Below is a summary of achievements registered by CARAES NDERA for the FY 2019-2020.

1.6.4.2. Hospital Capacity, outpatient consultations, and hospitalization

The Neuropsychiatric Hospital CARAES Ndera has a capacity of 404 beds, including 102 beds in CARAES Butare and 29 beds in Icyizere Centre. In the year 2019, the occupation rate (Tx) reached 147.4 percent¹. Overall, 73,675 patients (all ages), including new and old cases were consulted in The Neuropsychiatric Hospital CARAES Ndera. A total of 51,448 patients were consulted CARAES NDERA, 15,222 patients at CARAES BUTARE, and 7,005 patients at ICYZERE Centre. The majority of patients consulted came from the City of Kigali (43.5%) and the Eastern Province(20.7%). Regarding hospitalization, throughout the year 2019, a total of 5,364 were hospitalized in CARAES NDERA with affiliated Centers. A total of 1030 patients were hospitalized in CARAES BUTARE, and 302 patients were admitted in hospitalization in Icyizere Centre. The number of patients in outpatients consultation and hospitalization departments has been increasing over the last five years.

Table 8 Evolution of consultation and Activity comparison

ACTIVITES	2015	2016	2017	2018	2019
Consultations	60511	60232	70444	69888	73675
Hospitalizations	3399	4707	5003	5329	5364

CARAES NDERA Administrative data 2019-2020

¹ This rate is obtained by applying the following formula($Tx = \frac{EN*100}{365*HC}$). Tx: Occupation rate, EN: Effective nights, HC: Hospital bed capacity

Table 9 Distribution of beds in CARAES NDERA

Ward	Patients in crises Ward	Improved Patients Ward	Total
Men (Wards A et B)	57	40	97
Women (Wards D et C)	67	40	107
VIP Service	8	-	8
Children (Kundwa Centre)	18	-	18
Neurology	-	24	24
Chronic patients (Home St Jules)	-	19	19
CARAES Butare	59	43	102
Icyizere Centre	-	29	29
Total			404

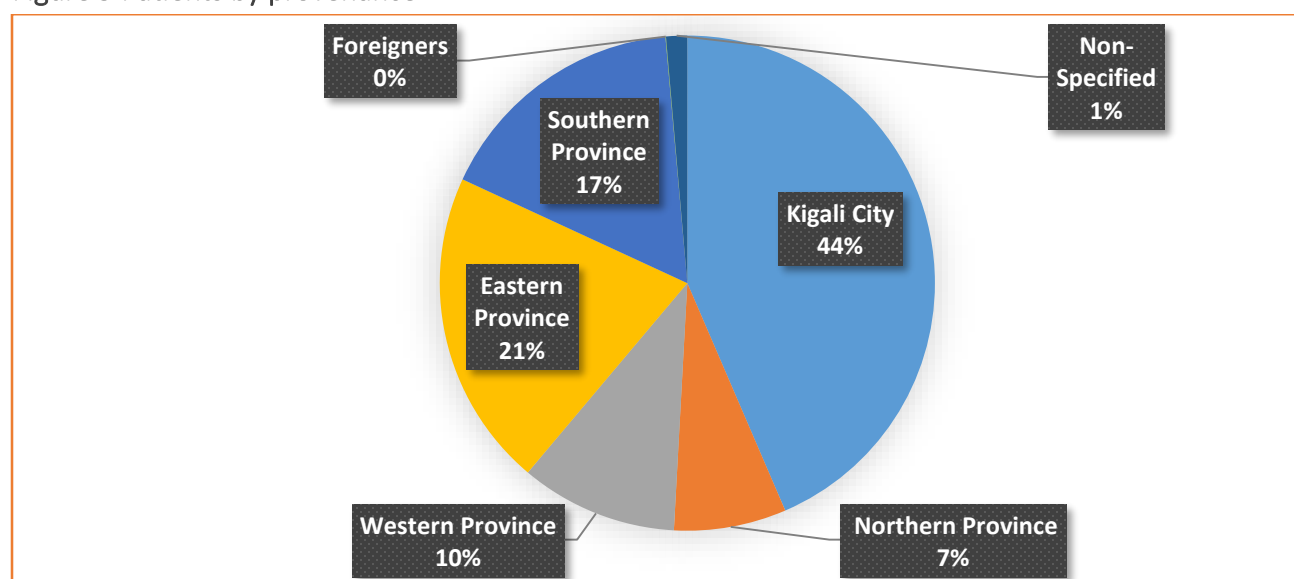
CARAES NDERA Administrative data 2019-2020

Table 10: Number of patients consulted from Provinces and Kigali city

Origin	Patients received in Ndera	Patients received in Butare	Patients received in Icyizere Centre	Total	%
Kigali City	25612	108	6350	32070	43.53
Northern Province	4288	925	193	5406	7.34
Western Province	3430	3988	151	7569	10.27
Eastern Province	11946	3206	130	15282	20.74
Southern Province	5145	6995	166	12306	16.70
Foreigners	12	0	15	27	0.04
Non-Specified	1015	0	0	1015	1.38
Total	51 448	15222	7005	73675	100

CARAES NDERA Administrative data 2019-2020

Figure 9 Patients by provenance



1.6.4.3. Causes of outpatients consultations in psychiatric department and in the Neurology department

The top five causes of outpatient consultations in the psychiatric department include:

- Schizophrenia (54.64%);
- Acute and transient psychotic disorder (12.39%);
- Bipolar Disorder (10.95%) followed by
- Somatoforms (9.28%)
- Depression disorder (3.47%).

In the neurology department the following are top four causes of outpatients consultations:

- Epilepsy (61.04%).
- Headaches syndrome (22.68%)
- Migraine (8.20%).
- Parkinson disease(5.25%)

Table 11 Causes of outpatient consultations in the neurology department

N ^o	PATHOLOGIES	TOTAL	%
G40	Epilepsy	10268	61.04
G44	Other headache syndromes	3816	22.68
G43	Migraine	1379	8.20
G20	Parkinson disease	884	5.25
	Without Diagnosis	220	1.30
G30-G32	Other degenerative diseases of the nervous system	47	0.28
G20-G26	Other Extra pyramidal and movement disorders	46	0.27
G41	Status epilepticus	29	0.17
	Others	29	0.17
G47	Sleep disorders	27	0.16
	NCD'S	13	0.08
G90-G99	Other disorders of the nervous system	11	0.07
G80-G83	Cerebral palsy and other paralytic syndromes	10	0.06
G10-G14	Systemic atrophies primarily affecting the central nervous system	10	0.06
G50-G59	Nerve, nerve root and plexus disorders	9	0.05
G70-G73	Diseases of myoneural junction and muscle	6	0.04
G60-G64	Polyneuropathies and other disorders of the peripheral nervous system	5	0.03
G46	Vascular syndromes of brain in cerebrovascular diseases	6	0.03
G45	Transient cerebral ischemic attacks and related syndromes	2	0.01
G35-G37	Demyelinating diseases of the central nervous system	2	0.01
	Others comorbidity	2	0.01
	TOTAL	16821	100

Administrative data- Neuropsychiatric Hospital CARAES Ndera, 2019-2020

Table 12 Pathologies frequency in psychiatry

N°	Pathologies	Total	%
F20	Schizophrenia	27474	54.64
F23	Acute and transient psychotic disorders	6234	12.39
F31	Bipolar disorders	5506	10.95
F45	Somatoform disorders	4664	9.28
F32	Depression	1743	3.47
	Without Diagnosis	1645	3.27
F20-F28	Other psychotic disorders (Other Psychological problems)	730	1.45
F30	Mania	383	0.76
F12	Mental and behavioral disorders due to use of cannabinoids	373	0.74
F10	Mental and behavioral disorders due to use of alcohol	322	0.64
F00-F09	Organic, including symptomatic, mental disorders	281	0.56
F10-F19	Mental and behavioral disorders due other psychoactive substances	204	0.40
F43.1	Post-Traumatic Stress Disease (PTSD)	176	0.35
F40-F48	Other Neurotic disorders(Neurological problems)	172	0.34
F70-F79	Mental retardation	84	0.17
F90-F98	Behavioral and emotional disorders with onset usually occurring in childhood and adolescence	82	0.16
F50-F59	Behavioral syndromes associated with physiological disturbances and physical factors	49	0.09
	Others	46	0.09
F30-F39	Other mood disorders	35	0.07
F14	Mental and behavioral disorders due to use of cocaine	3	0.06
F60-F69	Disorders of adult personality and behavior	4	0.06
	NCDs	25	0.05
F80-F89	Disorders of psychological development	23	0.04
F99-F99	Unspecified mental disorder	12	0.02
	Others comorbidity	9	0.02
	TOTAL	50278	100

Administrative data- Neuropsychiatric Hospital CARAES Ndera, 2019-2020

1.6.4.4. Causes of hospitalization in the psychiatric department and in the neurology department

In the psychiatric department Schizophrenia (39.88%), acute and transient psychotic disorders (23.46%), bipolar disorders (12.08%), mental and behavioral disorders due other psychoactive substances (4.34%), and other psychotic disorders/other psychological problems (3.65%) were the top five causes of consultations in 2019. In the in the neurology department, Epilepsy is the first cause of hospitalization (63.12%), other disorders of the nervous system (13,60%), other headache syndromes (7,77%), status epilepticus (2,59%) and other degenerative diseases of the nervous system were the top five causes of hospitalization in 2019.

Table 13: Causes of hospitalization in psychiatry department

N°	Pathologies	Total	%
F20	Schizophrenia	1921	39.88
F23	Acute and transient psychotic disorders	1130	23.46
F31	Bipolar disorders	582	12.08
F10-F19	Mental and behavioral disorders due other psychoactive substances	209	4.34
F20-F28	Other psychotic disorders (Other Psychological problems)	176	3.65
F30	Mania	151	3.13
F32	Depression	136	2.82
F12	Mental and behavioral disorders due to use of cannabinoids	134	2.78
F99-F99	Unspecified mental disorder	122	2.53
F45	Somatoform disorders	82	1.70
F10	Mental and behavioral disorders due to use of alcohol	68	1.41
F90-F98	Behavioral and emotional disorders with onset usually occurring in childhood and adolescence	37	0.77
F70-F79	Mental retardation	26	0.54
F43.1	Post-Traumatic Stress Disease (PTSD)	17	0.35
F30-F39	Other mood disorders	9	0.19
F00-F09	Organic, including symptomatic, mental disorders	6	0.12
F14	Mental and behavioral disorders due to use of cocaine	3	0.06
F80-F89	Disorders of psychological development	3	0.06
F40-F48	Other Neurotic disorders(Neurological problems)	2	0.04
F50-F59	Behavioral syndromes associated with physiological disturbances and physical factors	2	0.04
F60-F69	Disorders of adult personality and behavior	1	0.02
TOTAL		4817	100

Administrative data- Neuropsychiatric Hospital CARAES Ndera, 2019-2020

Table 14: Causes of Hospitalization in neurology department

N°	Pathologies	Total	%
G40	Epilepsy	195	63,12
G90-G99	Other disorders of the nervous system	42	13,60
G44	Other headache syndromes	24	7,77
G41	Status epilepticus	8	2,59
G70-G73	Diseases of myoneural junction and muscle	6	1,94
G20	Parkinson disease	5	1,62
G80-G83	Cerebral palsy and other paralytic syndromes	3	0,97
G60-G64	Polyneuropathies & other disorders of the peripheral nervous system	2	0,64
G50-G59	Nerve, nerve root and plexus disorders	2	0,64
G10-G14	Systemic atrophies primarily affecting the central nervous system	2	0,64
G45	Transient cerebral ischemic attacks and related syndromes	1	0,32
G43	Migraine	1	0,32
G35-G37	Demyelinating diseases of the central nervous system	1	0,32
G20-G26	Other Extrapyrarnidal and movement disorders	1	0,32
G47	Sleep disorders	0	0
TOTAL		309	100

Administrative data- Neuropsychiatric Hospital CARAES Ndera, 2019-2020

1.6.5. Emergency Medical Services

1.6.5.1. Overview of the Emergency Medical Services Division

The Emergency Medical Services(EMS)Division was created in 2007 to provide ambulance services to the community of the City of Kigali and dispatch ambulances of hospitals across the country, 24 hours a day, and 7 days a week. The EMS Division has got 66 staff members that consist of a division manager, a prehospital team leader, certified anesthetists and nurses, dispatchers and ambulance drivers. The operational team consisting of an ambulance anesthetist, an ambulance nurse and an ambulance driver that works on 8-hour shifts aboard the ambulance during day hours, and on 10-hour night shifts. The ambulance anesthetist also functions as the regulator of calls received at 912-communication center. The division has four operational stations, located at CHUK, AVEGA Clinic, REMERA Health Center and KARONGI District. It operates 9 ground ambulances and 1 boat ambulance in Lake Kivu.

1.6.5.2. Calls and time response in 2019-2020

In the FY 2019-2020, a total of 24,354 calls were received, including 15,581 calls classified as “disturbing calls”. Below are details of the support provided to the remaining 8773 non-disturbing calls received from July 2019 to June 2020.

Table 15 Response type

Response Type	Total	%
Information	612	7.0
Complete Intervention	7,417	84.5
Incomplete Intervention	227	2.6
Outside EMS Intervention	517	5.9
Total	8,773	100

Administrative Data-SAMU 2019-2020

The top three events linked to completed interventions carried out include events like trauma cases, internal medicine case, as well as cases of obstetrics and gynecology.

Table 16 Event type

Event Type - Complete Interventions	Total	%
Trauma	3,486	47.0
Internal Medicine	2,297	31.0
Obstetrics/Gynecology	1,285	17.3
Pediatric	198	2.7
Neonatal	147	2.0
Environmental	2	0.0
Other	2	0.0
Total	7,417	100

Administrative Data-SAMU 2019-2020

Road Traffic Accidents (RTA), labor and delivery related problem, COVID19 and Non-communicable disease (NCD) were the top four circumstances that led to the call for ambulances in the FY 2019-2020.

Table 17 Circumstances that pushed for the ambulance call

Circumstance - Complete Interventions	Total	%
Road Traffic Accidents (RTA)	2,747	37.0
Labor and Delivery Related Problem	825	11.1
COVID19	769	10.4
Non-communicable disease (NCD)	680	9.2
Fall	316	4.3
Assault/Aggression	292	3.9
Infectious Disease	292	3.9
Gynecology Emergency	239	3.2
Pediatric Emergency	156	2.1
Antepartum Related Problem	150	2.0
Neonatal Emergency	143	1.9
Mental Health Related Problems	141	1.9
Gastro Intestinal Problems	126	1.7
Overdose/Poisoning	102	1.4
Pulmonary Problems	97	1.3
Neurologic Problems	86	1.2
Post-Partum Related Problem	66	0.9
Structure failures / machinery	53	0.7
Burn	42	0.6
PTSD	32	0.4
Other	32	0.4
Blast	9	0.1
Drowning	8	0.1
Sexual Assault	6	0.1
Allergic Reaction/Anaphylaxis	6	0.1
Bite	2	0.0
Total	7,417	100.00

Administrative Data-SAMU 2019-2020

Close to half of patients served were transferred to Kibagabaga District Hospital and CHUK, and one in ten cases were handled on site.

Table 18 Receiving health facilities

Hospital	Total	%
Kibagabaga DH	2,245	30.3
CHUK	1,234	16.6
On Site	874	11.8
Rwanda Military Hospital	326	4.4
Cor-unum HC	130	1.8
Rwampara HC	107	1.4
Remera (Gasabo) HC	157	2.1
Muhima DH	459	6.2
Kabusunzu HC	74	1.0
Rugarama HC	39	0.5
Kacyiru DH	74	1.0
Muhima HC	91	1.2
Masaka DH	287	3.9
Kagugu HC	73	1.0
Gikondo HC	47	0.6
King Faisal Hospital	198	2.7
Gahanga HC	24	0.3
Kabgayi DH	13	0.2
Other	965	13.0
Total	7,417	100.0

Administrative Data-SAMU 2019-2020

The time response for primary transfers in 2019-2020 is estimated at 59 minutes, and the time response on secondary transfers is 55 minutes. The overall average response time is 57 minutes.

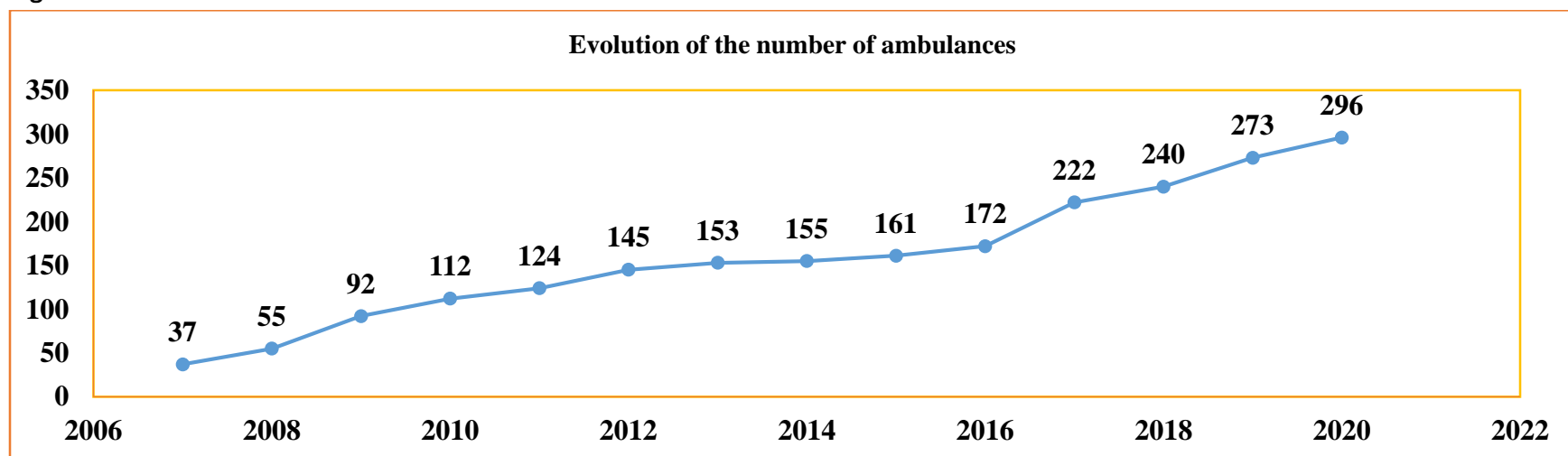
Table 19 Time response for primary transfers

Average Response Time (Minutes)	Primary Transfer			Secondary Transfer		
	Time	Target	% within Target	Time	Target	% within Target
To Alert Team	02:35	03:15	71%	03:41	03:15	83%
To Leave	01:28	01:15	37%	00:30	01:15	55%
To Arrive at Scene	16:36	10:15	34%	16:17	10:15	50%
To Arrive at HF	38:35:00	45:15:00	38%	35:58:00	45:15:00	32%
Average Total Time	00:59:14	01:00:00		00:56:26	01:00:00	

Administrative Data-SAMU 2019-2020

In the 2019-2020 FY, 23 new ambulances were acquired. There are now 296 ambulances deployed in different Hospitals.

Figure 10 Evolution of the number of ambulances



EMS Division was 100% involved in fighting against Covid-19 pandemic at the beginning of February 2020 in Rwanda. About 1094 calls from the Community, 114 call center, district command posts, quarantine and Treatment centers were received at covid-19 command post and were addressed appropriately. As of the end June 2020, a total of 1017 contacts testing were done in Byumba hospital, and 163 covid-19 confirmed and suspected cases have been evacuated from Byumba, Remera Rukoma, Kabgayi, Rutongo, Nyamata, Kirehe, Munini, and Gihundwe to quarantine and treatment centers. EMS Division trained Districts Command Posts and Hospitals on the preparedness and response to Covid-19. A total of 783 interventions were performed by EMS Division for moving patients from home or health facilities to isolation and treatment centers.

2. HEALTH SYSTEM STRENGTHENING

2.1. Governance and policy development

Several policies and other strategic documents for Rwanda's Health Sector have been developed in the FY 2019-2020. All developed documents can be accessed on <https://moh.gov.rw/index.php?id=390>. Some of developed documents include:

2.1.1. Guidelines and Standards

- Rwanda Health Post Accreditation Standards
- Rwandan Health Post Accreditation Standards Performance Assessment Toolkit
- Integrated National Health Sector Referral Guidelines (INHSRG)
- Facility transfer forms 2020
- Community transfer form 2020
- Guidelines to operate a private Emergency Medical Services (EMS) or private ambulance services.
- District Health System Guidelines

2.1.2. Strategic Plans

- Mental Health Strategic plan 2020-2024
- Rwanda National Strategy for Health Professions Development 2020-2030.
- Coronavirus Disease 2019, National Preparedness and Response Plan

2.2. Human Resources for Health

To achieve Universal Health Coverage, the Government of Rwanda continues to invest in the capacity development of all health systems, with a special focus on the quality and increase of the quantity of Human Resource for Health. The health sector is continuously increasing the number of qualified health Professionals. As of end of end of June 2020, there were 1,518 physicians working in both private and public health facilities (including 493 specialists and 1,025 general practitioners), 10,447 nurses and 1,562 midwives.

The health sector is continuously increasing the number of qualified health Professionals. As of end of June 2020, their number has dramatically increased during the last 10 years as follows:

- Doctors per population ratio has improved from one doctor/16,001 people in 2010 to 1/8,247 in 2020.
- Nurses per population ratio has improved from one nurse/1,291 people in 2010 to 1/1,198 in 2020.
- Midwives per population ratio has improved from 1 midwife/66,749 Women in Reproductive age people in 2010 to 1/2,340 in 2019.

Table 1: Health Professionals per population in Rwanda in 2020

Staff per population ratio	Number	Ratio Per Population	Ratio/1,000 Population
Population	12,518,757		
Medical Doctor	1,518	8,247	
Nurse	10,447	1,198	
Midwife per Women in reproductive age	1,562	2,340	
Total	13,527		1,08

Administrative Data-MoH 2019-2020

The current health worker density in Rwanda is 1.08 skilled health workers (physicians, nurses and midwives) per 1,000 population, while WHO health workforce density used to recommend a minimum of 4.45/1, 000 to achieve the SDGs. To expedite the improvement of the quality and increase of Human Resources for Health in Rwanda, the Government of Rwanda has created a national Human Resource For Health Secretariat. The Prime Minister’s Order N° 040/03 of 28/02/2020 which established the Human Resources for Health Secretariat gave it the following mission: *“to build health education infrastructure and capacity of health workforce necessary to create a high-quality and sustainable healthcare system”*. The Secretariat has the following responsibilities:

- Oversee the health professional education and training in public and private institutions to ensure the quality of health professional training;
- Build the capacity of higher learning public institutions providing health professional education and clinical teaching sites in order to sustain high quality education;
- Advocate for adequate infrastructure and equipment for quality health professional education;
- Coordinate faculty recruitment and management;
- Put in place strategies to attract student’s enrollment in health profession education;
- to coordinate the teaching sites expansion;
- Coordinate academic partnership in health sector at national, regional and international level;
- Provide support in teaching hospital reforms;
- Ensure the quality of health professional teaching;
- Provide support in improvement of health professional skills through continuous professional development programs in the public and private health sectors;

- Support training and sustain the role of health managers into the public sector health system.

2.3. Geographical accessibility to Healthcare Services.

The Ministry of Health has a plan to have a healthcare facility structure for each administrative entity in Rwanda; down from a comprehensive primary healthcare in community up to the referral health services at provincial, regional and national levels. By June 2020, there were 8 referral hospitals and each Province had a Provincial Hospital. Each Administrative District had at least one District Hospital, and there 510 Health Centers for 416 Administrative Sectors. For Administrative Cells, 209 Additional Health Posts were constructed from 2019 to June 2020.

To improve access to modern hospitals, five new Hospitals are being constructed and are at an advanced level of completion. These include:

- Gatunda Hospital : construction works were completed at 98 % by June 2020
- Gatonde Hospital : construction works were completed at 95% by July 2020
- Nyabikenke Hospital construction works were completed at 77.1 % by June 2020
- Nyarugenge Hospital: construction works were completed at 99% by June 2020
- Munini Hospital: construction works were completed at 65.32% by June 2020

Table 20 Public Health Facilities in Rwanda in 2016-2020

Health Facility type	2016	2017	2018	2019	(June 2020)
National Referral Hospital	8	8	8	8	8
Provincial Hospital	4	4	4	4	4
District Hospital	36	36	36	36	37
Health Center	499	503	504	509	510
Prison Clinic	14	13	13	13	13
Health Post	471	505	703	885	1094
Private Dispensary	125	130	130	123	122
Private Clinics and polyclinic	123	128	128	149	158
Private Hospital	5	5	8	8	8
Total	1285	1332	1534	1735	1954

Administrative Data-MoH 2019-2020

Construction works for the establishment of the “Institut de Recherche contre le Cancer de l’Appareil Digestif (IRCAD)” in Rwanda have also started and were at 11,5% % by June 2020.

The Ministry of Health procured medical equipment for 7 newly constructed/upgraded health facilities: Byumba DH, Gatunda DH, Gatonde DH, Nyamiyaga HC, Gatsata HC, Nyange HC, Kinazi HC and Nyarugenge DH. In addition to that Ten (10) fully Digital X-Rays were purchased and distributed to 10 public hospitals.

For improved infection prevention control in health facilities, 14 laundry machines were purchased for 14 hospitals that did not have laundry equipment. In the framework of a comprehensive national response to COVID-19 pandemic, a total of 20 quarantine, isolation and treatment centers were set up and renovations done countrywide. Intensive Care Units (ICU) were set up in about 6 strategic treatment centers. With support from UNDP, the Government of Rwanda launched the anti-epidemic

robots to support the response to COVID-19 pandemic. Anti-epidemic robots were deployed at the Kigali International Airport and in 2 COVID-19 treatment centers for different activities, including but not limited to COVID19 awareness campaigns, temperature screening, relaying doctor's message to patients in their rooms, and sometimes delivering medications to patients.

2.4. Access to quality medicines, food and drugs for the Rwanda population.

To ensure Rwandans have access and consume quality food and drugs, the Government of Rwanda created a Rwanda Food and Drugs Authority (RFDA) in 2018. RFDA mandate is to assure the safety, quality and efficacy of human and veterinary medicines, food, biological products, cosmetics, medical devices, household chemical substances and clinical trials, and the control and use of tobacco products, through the enforcement of relevant national and international standards to protect public health. Below are some achievements registered by Rwanda FDA in the FY 2019-2020.

2.4.1. Food and Drugs Inspection and Safety Monitoring

2.4.1.1. License and visa issuance

The Authority has issued 10,473 import licenses, 102 export licenses and 6,927 VISA for different regulated products including medicines, food products and other regulated products.

2.4.1.2. Inspection

A total of one thousand, five hundred and eighty-six (1586) inspections were carried out. Two (02) pharmaceutical manufacturing facilities were licensed, seven (7) small scale manufacturing plants (small compounding) were licensed, six hundred and thirty-six (636) Food manufacturing facilities were inspected and sixty-two (62) were licensed out of one hundred eighty-one (181) that applied for licensing, fifty (50) food outlets were inspected and one hundred and sixty five (165) food importers were licensed in Pharmaceutical Regulatory Information Management System and four (4) food supplement shops were given authorization, four hundred and fifty (450) premises for Human pharmaceutical pharmacies were inspected and seventy-two (72), including 19 wholesale and 53 retail pharmacies were licensed, three hundred and forty-four (344) premises of veterinary medicines were inspected and ten (10) were licensed, fifty four (54) Good Distribution Practices (GDP) inspections, recall audit was conducted in forty eight (48) premises, and two (2) Good Clinical Practices (GCP) inspection.

2.4.2. Adverse Drug Reaction Monitoring

The Authority issued 12 medicines safety information, received and analyzed 850 Adverse Drug Reactions/Adverse Events Following Immunization (ADR/AEFI) reports which shows an increase of 286% of the last year 2018/2019.

2.4.2.1. Recalled products

Rwanda FDA has sampled and tested 98 products for Post Marketing Surveillance and recalled 35 pharmaceutical products and 9 food products from the market. It has also conducted a baseline survey of pharmaceutical services in Rwanda in partnership with other stakeholders. A curriculum for pharmacovigilance was developed and it is being integrated in the University of Rwanda teaching schedules.

2.4.2.2. Mapping of Food Sector

Rwanda FDA conducted a food industry mapping exercise to identify their location, products manufactured, capacity and category of manufacturing capabilities. A total of 636 industries were mapped during the exercise and this will help Rwanda FDA to work with other government institutions in making a long-term plan for the industry development and regulation.

2.4.3. Registration and Marketing Authorization

The Law establishing Rwanda Food and Drugs Authority empowers the Authority to carry out its mandate in the area of Registration and Marketing Authorization. Significant progress towards assurance of quality, safety and efficacy of food, drugs and health technologies available for sale on the Rwandan market is made through establishing technical regulations and guidelines. Assessment process of food, drugs and health technologies requires submission of dossiers application in accordance with the requirements available in the related guidelines. The Authority has actively participated in East African Community joint assessment and World Health Organization Collaborative Registration Procedure. After receiving the application, there is first and second assessment. When one or more items are missing or the samples tested have failed to meet the standard requirements, a query response is sent to the applicant. When no queries, the product is registered and it is assigned a unique registration number. Rwanda FDA has registered the following achievements in the area of assessment and registration of regulated products

2.4.3.1. Drugs and Health Technologies

Rwanda FDA received a total of 772 requesting for drugs and health technologies marketing authorization. the Authority has screened 417 applications with feedback to the applicants, 49 new applications were fully assessed (first and second assessment), 71 additional data or query responses were fully assessed (first and second assessment) and 43 products were approved and registered while 192 applications are pending approvals. In addition, the Authority has conducted six (6) EAC joint reviews whereby ten (10) applications requesting for medicines marketing authorization have been assessed by Rwanda FDA. The Authority has also conducted assessment of Ten (10) applications requesting medicines registration through World Health Organization Collaborative Registration Procedure (WHO-CRP).

2.4.3.2. Food products

Rwanda FDA received a total of 373 requesting for processed food registration. The Authority has assessed 301 Applications, 234 were requested for Additional data and query responses have been sent while 140 processed foods were assessed and approved and registered

2.4.4. Quality Control of regulated products

The following achievements were registered in the Quality Control of regulated products

2.4.4.1. Testing equipment

The Authority acquired equipment that test milk and milk products, alcoholic drinks and animal feed, two High Performance Liquid Chromatography (HPLCs) was also acquired for quality testing of drugs and medicated cosmetics. The Five-year plan for operationalization of Quality Control Laboratory was prepared and approved by Rwanda FDA Board of Director and then submitted to

the Ministry of Finance and Economic planning for consideration. It is expected that Quality Control Laboratory will be 100% operationalized in the 2025.

2.4.4.2. Test reports

The Authority tested and reported 425 samples of in different categories that includes medicines, hand sanitizers, rice, alcoholic drinks and maize flour and other food samples from pre market, post shipment and Post Market Surveillance, when with the 34 samples that were tested in 2018/2029, we find a big increase in number of samples attributed to the fact Rwanda FDA Quality Control Laboratory was handed over from Rwanda Standards Board in March 2019 with only few equipment that needed important upgrade, it is also planned that in the 2020/2021 the number of samples to be tested reach 700 samples. Rwanda FDA Registered and successful participated in the 2019 African Medicines Quality Forum (AMQF USP Ghana) inter laboratory comparisons (ILC) for paracetamol (assay and Dissolution) and registered for 2020 AMQF (USP Ghana) inter laboratory comparisons (ILC) for Azithromycin (pH) Amodiaquine tablets (related substances) and Ibuprofen assay.

2.4.5. Documentation

One of the goals of Rwanda FDA is to have a functioning Quality Management System (QMS) in accordance with national and internationally recognized standards.

To deliver on its mandate, the Authority needs to have documentation in place which responds to ISO 9001:20215 QMS requirements and there was a need to demonstrate how all process are carried out in well-structured documented manner:

- The Authority has developed, validated and published on website 2 regulations and guidelines for pharmaceutical and Medical devices imports and exports control, export & import control of medicated cosmetics and 3 stakeholder's consultation meetings on current implemented procedures (Premise licensing, import and export control and fees regulations). All these fall in the area of Food and Drugs Inspection and Safety Monitoring practices.
- Four (4) technical regulations, nine (9) guidelines containing forms and formats, three (3) Standard operating procedures were developed to facilitate the assessment and registration of both medicines and health technologies before they are placed on the Rwandan market.
- Five (5) documents have been developed in response the COVID -19 pandemic to mitigate and guide the implementation of regulatory functions. These includes Guidelines on specifications of coverall protective clothing, guidance on manufacturing and use of barrier masks, guidelines on requirements and specifications of eye protectors and face shields, guidelines on requirements and specification of ventilators and guidelines on preparations of hand sanitizers.
- The Authority has also successfully established an authorized lists of Human Medicinal products; Veterinary and Medicated Cosmetics as reference lists for importation and export purposes.
- In addition, one regulation relating to food fortification and the regulation related to regulatory services tariff/ fees and fines have been developed and published on website. These regulatory documents were developed in the area of Food and Drugs Assessment and Registration.
- five (5) draft guidelines related to processed foods were developed and waiting approval before end of December 2020.
- In the area of Quality control laboratory, Quality manual was developed as per World Health Organization (WHO) Good practices for pharmaceutical quality control laboratories (GPCL) and ISO/IEC 17025 General requirements for the competence of testing and calibration laboratories; 5 Standards Operating Procedures (SOPs); 5 Standards test methods (STM) and 5 work Instructions (WI) were developed).
- Five-year plan for operationalization of Quality Control Laboratory was also developed, approved by the Board of Directors and submitted to Ministry of Finance and Economic planning for consideration. The division also participated in development of 5 guidelines that will assist in protection and fighting COVID-19 (2 for masks, 1 for Coverall, 1 ventilator and 1 for face shield).

2.4.6. Trainings

Rwanda FDA has in its line of capacity building trained some of its staff and stakeholders from different fields to increase efficiency and effectiveness in service delivery. The following staff members and stakeholders were trained in various domains:

- Two (2) laboratory officers attended four months training on Advanced Pharmaceutical Product Quality using Mass Spectrometry and other State of the Art Technique that was held in L.E.A.F. Pharmaceuticals LLC 216 West Cumming Park Woburn, Massachusetts 01801, USA.
- Four (4) FDA staff members were trained on Pharmacovigilance tools
- One FDA staff member trained on Good Clinical Practices Conducted by WHO
- Twenty-eight (28) FDA staff members were trained on basic skills for food products assessment

2.5. Health Information Systems

Rwanda Health Sector has vowed to capitalize information technology to improve healthcare services delivery. In this move, three projects were developed during the FY 2019-2020:

- **Development of Rwanda Medical Procedures and ICD-11 (Nomenclature):** The Rwanda Medical Procedures and ICD-11 (nomenclature) have been developed and will be used in Electronic Medical Records (EMR) or any other application that needs to use data related to medical procedures or ICD-11. This will help to have one single source of data. Training of trainers for users in all public health facilities has been conducted.
- **Development of Kigali Hospital Network Dashboard:** The Kigali Hospital Network will allow public or private Health Facilities across the City of Kigali to share information regarding patients, availability of healthcare providers, availability of equipment and beds management. This dashboard will allow Health Facilities to have visibility on data shared in real time. The dashboard is expected to facilitate making a right decision when transferring patients. The development of this dashboard is ongoing.
- **The development of the National Product Catalog (NPC).** The NPC will be the repository for Product Master Data for all health products entered and managed in the country. The NPC will allow public and private supply chain systems to interoperate. It will allow a health product to be tracked from different applications by using a Product Master Id. The development of National Product Catalog has been approved and will be developed in FY 2020-2021). The NPC will serve as Product Registry within the interoperability layer.

2.6. Health Financing

2.6.1. Health Insurance

During the start of the Fiscal Year 2019-2020, the Government of Rwanda reaffirmed its commitment to the sustainability of the community based health insurance (CBHI), an insurance scheme that covers over 90 percent of the Rwanda Population. The Government not only decided to increase its subsidies to the scheme, but it also identified and recommended other subsidies to be directed to the scheme. These developments were highlighted in the Prime Minister's Order N° 034/01 of 13/01/2020 Related to the Community-Based Health Insurance Scheme Subsidies related to the community-based health insurance scheme subsidies which updated the amount and sources subsidies to channeled to the CBHI.

2.6.1.1. Government subsidies to the community-based health insurance scheme

During the fiscal year 2019-2020, the Government allocated:

- Six billion Rwandan francs (FRW 6,000,000,000) as annual budget allocation paid by the Ministry in charge of finance;
- Three thousand Rwandan francs (FRW 3,000) per annum for each needy person in category one of Ubudehe paid by the Ministry in charge of finance;
- Fifty percent (50%) of registration fees for pharmaceutical products and medical devices paid by the Ministry in charge of health;
 - one hundred percent (100%) of the amount collected as medical research fees paid by the Ministry in charge of health;
 - ten percent (10%) of fees charged on services offered to gaming companies paid by the Ministry in charge of trade;
 - fifty percent (50%) of fees collected for motor vehicle mechanical inspection paid by Rwanda National Police;
 - ten percent (10%) of fees collected from road traffic fines paid by Rwanda National Police;
 - a hundred percent (100%) of the amount collected as penalties for trade of substandard products paid by the public institution in charge of standards;
 - one hundred Rwandan Francs (FRW100) from parking fee levied on vehicles for each hour of parking, paid by the City of Kigali;
 - zero point five percent (0.5%) of the net salary of the employee, paid by the employer;
 - ten percent (10%) of tourism revenues shared to beneficiary Districts, paid by Rwanda Development Board (RDB);
 - twenty thousand Rwandan francs (FRW 20,000) levied for transfer of ownership on cars and ten thousands Rwandan Francs (FRW 10,000) levied for transfer of ownership on motorcycles, paid by Rwanda Revenue Authority;
 - four thousand Rwandan Francs (FRW 4,000) per hectare of marshland, five thousands Rwandan Francs (FRW 5,000) per hectare of hillside and two thousands Rwandan francs (FRW 2,000) per hectare of radical terraces, paid by beneficiary District.

2.6.1.2. Subsidies from health insurance entities

The subsidies from each health insurance entity operating in Rwanda is five percent (5%) of all annual contributions collected in its health insurance category. Subsidiaries from Public Institution having medical insurance scheme in its attributions is ten percent (10%) of all annual contributions collected.

2.6.1.3. Subsidies to the community-based health insurance scheme from telecommunication or fuel trade companies

- Each telecommunication company pays its subsidies to the community-based health insurance scheme as follows:
 - the first and the second year after the publication of this Order in the Official Gazette of the Republic of Rwanda: two point five percent (2.5%) of the company's annual turnover;
 - from the third year of publication of this Order in the Official Gazette of the Republic of Rwanda: three percent (3%) of the company's annual turnover.
- Each fuel trade company pays to the community-based health insurance scheme subsidiaries equivalent to twenty Rwandan francs (FRW 20) per liter sold.
- Each telecommunication company or fuel trade company transmits to the Rwandan Utilities Regulatory Authority its paid subsidies in the manner prescribed by that Authority. The Authority transmits to the community-based health insurance scheme the amount of subsidies granted by the 15th of the month following the one for which subsidies were paid.

2.6.2. Performance Based Financing

Since 2006, the Ministry of Health scaled up Performance Based Financing (PBF) as an output health financing mechanism aimed at providing health workers and their respective health facilities monetary incentives when they achieve specified qualitative and quantitative performance indicators. In 2008 the community PBF took place as strategy to sustain Community Health Workers (CHWs) system. PBF is implemented across the Rwanda health system and at each administrative level corresponds a category of Health Facility, except for health posts. Community PBF (C_PBF) is implemented at the village level through trained community health workers (CHWs) who operate within each community. Health posts are located at the cell level and due to their private or faith-based organizations affiliation they are not integrated yet into the PBF system. Health Center PBF is implemented at the level of an Administrative Sector, and District and Provincial hospitals are implementing the district hospital PBF model (recently linked with accreditation). Central level and the referral hospitals are implementing the central level PBF model. In the FY 2019-2020, PBF continued to be implemented at all levels. PBF monthly and quarterly evaluations were conducted focusing on both quantitative and qualitative. Based on invoices sent to Ministry of Health for consolidation and payment, the transfer of PBF fund from central level was done on quarterly basis.

The transfer of PBF HIV, TB, PMA, SPRP, Maternal Child Health and Eye care indicators for FY 2019-2020 were done to accounts of Health Facilities and CHWs Cooperatives. In the FY 2019-2020, a total of **FRW 14,133,842,832**, including **FRW 11,480,842,639(81%)** for Clinical PBF (in all Health Facilities) and **FRW 2,653,000,193(19%)** for Community PBF were disbursed to stimulate qualitative and quantitative performance indicators across the entire Rwanda Health System.

Table 21 PBF Execution in the FY 2019-2020

PBF Budget by Source of Fund	Packages	Percentage	Amount
Ordinary Budget	- Top-up to referral Hospitals - Complementary package of activities (CPA) and Minimum Package of activities of Activities(MPA)	47	6,697,141,086
GF SSF	- HIV & TB (HFs & CHWs) - DSC	21	3,017,669,207
World Bank	SPRP (HFs & CHWs)	15	2,183,405,173
CDC COAG	HIV	12	1,677,540,074
Enabel	MCH indicators (HFs & CHWs)	3	407,915,499
Fred Hollows Foundation	Eye care	1	100,737,635
Leonardo Delvecchio Foundation Rwanda	Eye care	0.3	49,434,158
Total Amount		100	14,133,842,832

Administrative Data-MoH 2019-2020

Table 22 PBF Budget execution by Program FY 2019-2020

PBF Budget by Program	PBF Execution FY 2019-2020	Percentage
Clinical PBF	11,480,842,639	81
Community PBF	2,653,000,193	19
Total Amount	14,133,842,832	100

Administrative Data-MoH 2019-2020

3. DISEASES PREVENTION AND CONTROL

3.1. Non-communicable Diseases (NCDs) and Injuries

During the FY 2019-2020, efforts were focused on the decentralization of NCDs prevention, early detection, care and treatment.

3.1.1. Prevention and early detection of NCDs:

To raise community awareness on NCDs risk factors, different events were organized including the celebration of diseases specific days (World Cancer Day, World Diabetes Day, World Heart Day), radio and TV shows, distribution of printed materials. Community checkup for NCDs has been strengthened at primary healthcare level where the coverage of eligible people screened for NCDs increased from 30% to 76% (1,322,487 people out of 2,190,471 eligible). A new cervical cancer screening strategy in women between 30 and 49 years old has been initiated. Women are screened using HPV DNA tests and treatment of precancerous lesions using thermal ablation at the level of the health center. The program started in Musanze and Gasabo districts where 142 health care providers have been trained on cervical screening and all health facilities were provided with thermal ablation machines.

3.1.2. NCDs care and treatment

In the framework of decentralizing NCDs care and treatment towards universal health coverage, the following activities implemented:

- Training of 97 health centers from 5 districts on management of Hypertension, Asthma and Diabetes and established NCDs clinics in those facilities
- Established Electronic Medical Records System (OpenMRS) for NCDs in 42 hospitals and phased out paper-based patients' consultations and follow up.
- Conducted clinical mentorship in 42 hospitals to improve the quality of services provided to patients with NCDs
- Launch of the Pain Free Hospital Initiative in 5 additional hospitals where through onsite training 245 health care providers have been trained on pain assessment and management. In those hospitals, pain scores (pain reporting by patients) have significantly reduced from severe pain (6-10) to mild pain (1-2).

3.1.3. NCDs Monitoring, Evaluation and Research.

In the area of NCDs Monitoring, Evaluation and Research, efforts were focused on strengthening the National Cancer Registry. The registry was established in 2018 with an office at RBC. The registry started with a population-based registry covering Kigali City and hospital registry for cancer centers and hospitals providing cancer diagnosis and treatment services countrywide. Since 2018, a total of 2875 cases (1167 males and 1708 females) were received by diagnosis and treatment centers in Rwanda. The graphs below summarize the top cancers registered since 2018 in Rwanda.

Figure 11 Top 10 cancers in males in 2018

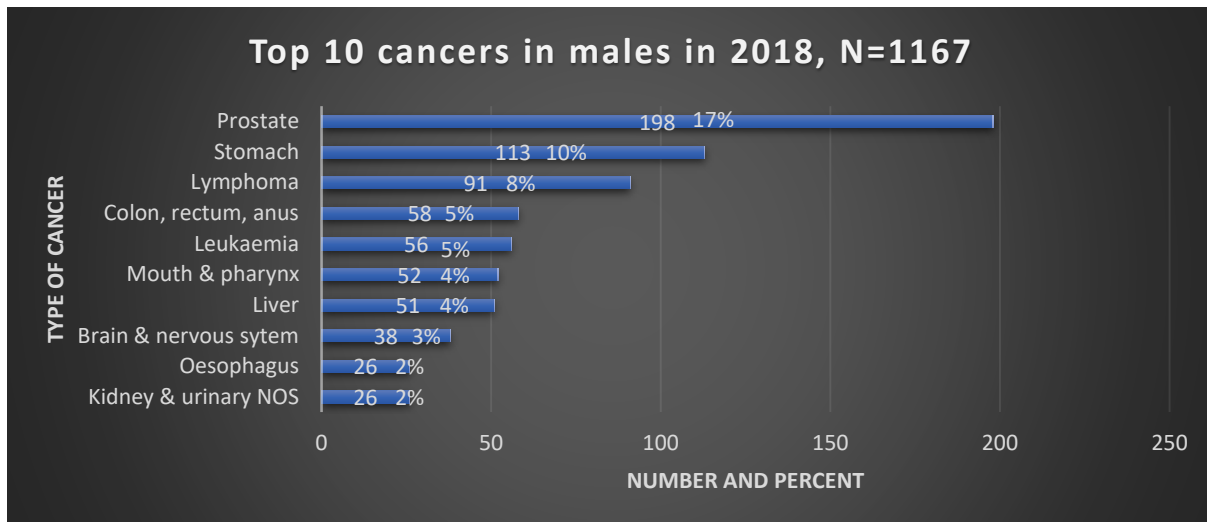
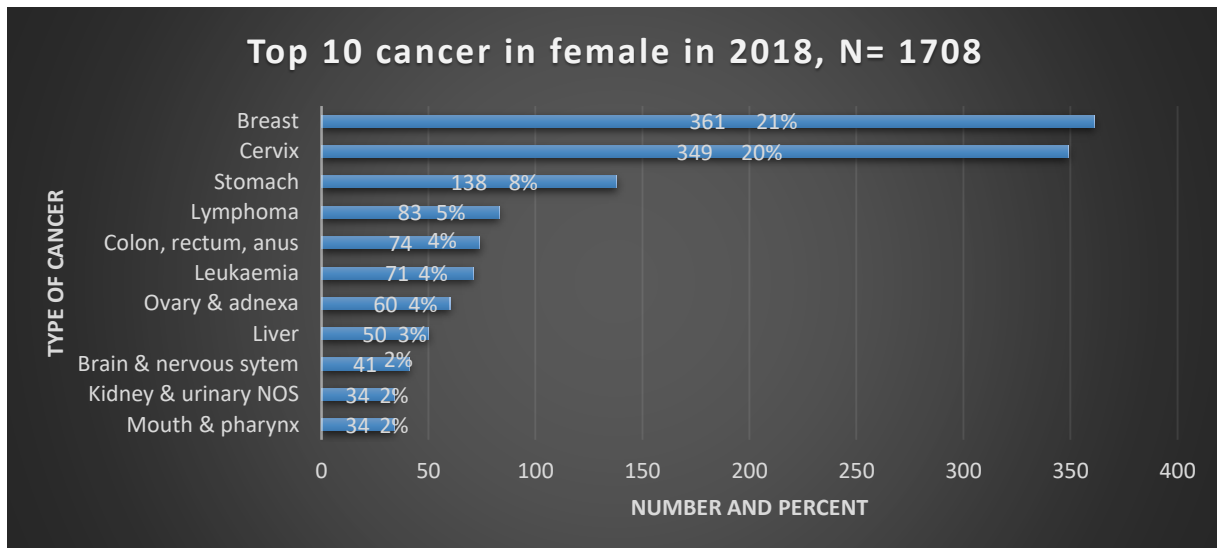


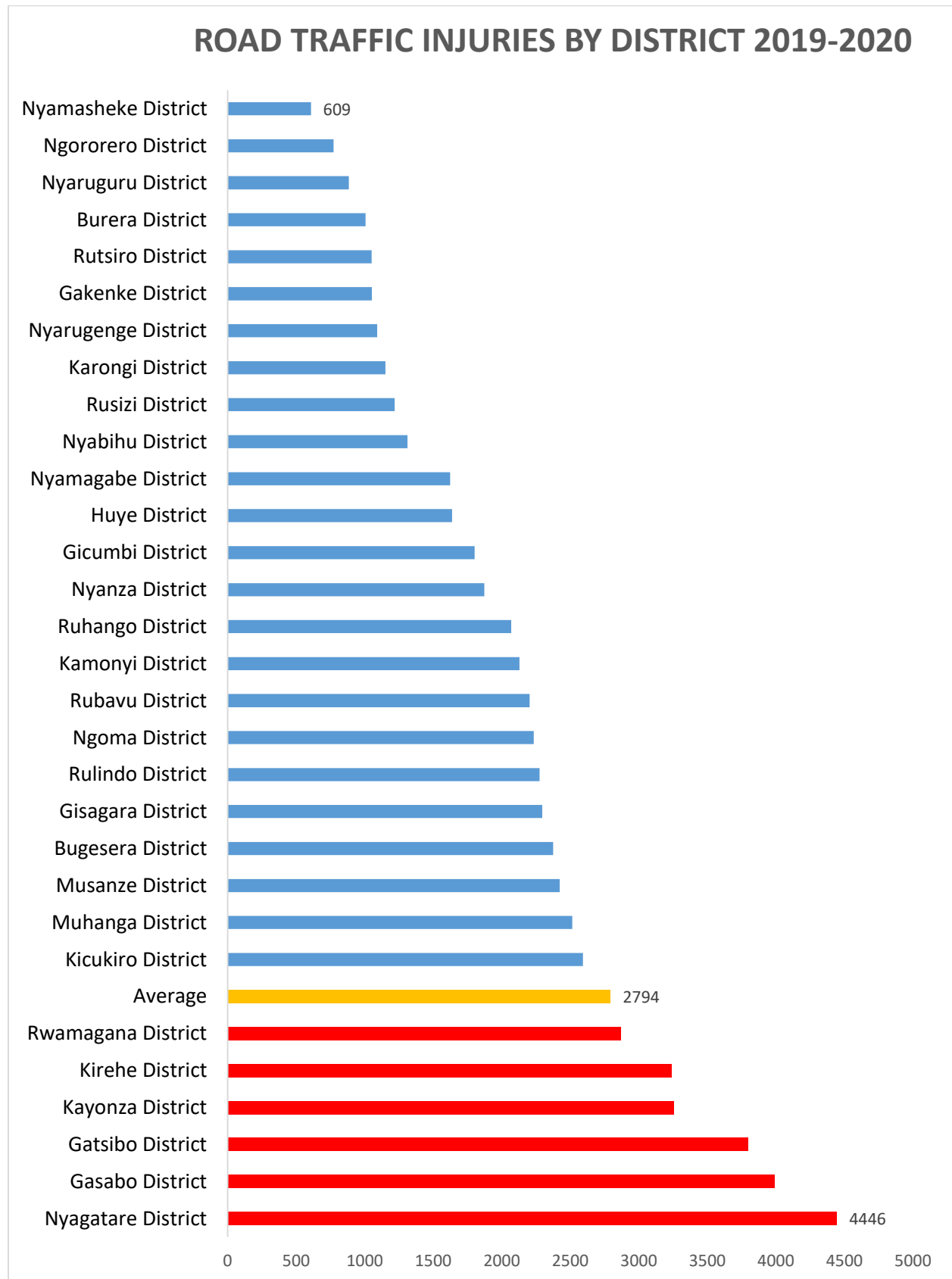
Figure 12 Top 10 cancers in females in 2018



3.1.4. Injury registry

A DHIS 2 based digital platform is being piloted in 4 health facilities namely CHUB, CHUK, RMH and Ruhengeri. The tool will inform the MoH about the burden of injuries for further decisions. The graph below presents the snapshot of data on deceased patients from the registry since the establishment in July 2019:

Figure 13 Mechanisms of Injuries among deceases patients



3.1.5. Mental Health Services

The World Mental Health Day was celebrated at the national level on the 10th October 2019 in Nyamagabe District at Nyagisenyi Stadium. Around 5000 people including high Government Officials, local leaders, Representatives of mentally ill people association, mental health stakeholders, schools and population attended the event. It was an opportunity to raise public awareness on the prevention of the mental health problems among the general population, and those which affect the young population particularly and to sensitize them on the availability and utilization of the services. Mental health stakeholders were encouraged to promote open discussion about mental disorders, and fully invest their efforts in prevention, promotion and treatment services.

Forty-three (43) General Practitioners from district, provincial and referral hospitals were trained on assessment, management of mental, neurological, and substance use disorders; and three health care providers from Nyanza, Kibuye and Bushenge hospitals received a four-week training on how to use Electroncephalogram machine at Ndera Neuropsychiatric Hospital.

In the fight against drugs abuse, the Mental Health Division contributed to the organization and medical screening of youth residents in transit centers across the country particularly Kigali Transit Center. Field visits at Nyamagabe Rehabilitation Center to assess the quality of mental health services provided to youth residents in the Centre have been organized. Moreover, the mental health professionals from IWAWA Rehabilitation and Vocational Centre benefited from an internship at Huye Isange Rehabilitation Centre.

3.1.6. Oral health, eye care, earing and hearing care

In order to improve access to eye, oral, ear and hearing care, the Ministry of Health developed and is implementing the National Oral Health Strategic Plan 2019-2024, the National Ear And Hearing Care Plan 2018-2024 and the National Strategic Plan For Eye Health 2018-2024. The implementation of these plans is contributing to the increase of people accessing and using available Oral, eye, ear and hearing disease services. A consultative meeting with all stakeholders in order to establish a driver eye screening program has been conducted in February 2020. This was to discuss how the current legal framework for the driving license acquirement could be revised in order to ensure proper vision check for drivers.

Table 23 Oral, eye, ear and hearing disease

Oral, eye, ear and hearing disease	FY 2016-2017	FY 2017-2018	FY 2018- 2019	FY 2019- 2020
OPD oral diseases	599,909	713,033	826,584	889,498
OPD eye diseases cases	520,191	327,953	232,786	616,431
OPD Ear and Hearing diseases	110,113	124,234	148,638	166,792

3.2. Communicable Diseases

3.2.1. Malaria control and prevention

Malaria remains a major public health problem and is among the top leading causes of morbidity in Rwanda. Important efforts continue to be invested in malaria control and prevention, including the vector control interventions focused on mass and routine distribution of Long-Lasting Insecticide Nets (LLINs), and the Indoor Residual Spraying (IRS) in high endemic districts and the adoption of mandatory laboratory confirmation prior to the treatment, and the malaria cases management consisting in the use of artemisinin-based combination therapy (ACTs) in the treatment of uncomplicated malaria cases, and the national scale up of community-based malaria treatment program.

3.2.1.1. Vector control interventions

Two core vector-control interventions used in Rwanda are Indoor Residual Spraying (IRS) and Long Lasting Insecticidal Nets (LLINs). The IRS intervention consisted of the spraying of interior surfaces of dwellings with a residual insecticide to kill or repel endophilic mosquitoes². Since 2008, the above core vector-control interventions have been supplemented with other measures including larval source management using bio-larvicides and environmental management, mosquito repellents, fish farming in fish ponds and water dams.

3.2.1.1.1. Distribution of LLINs

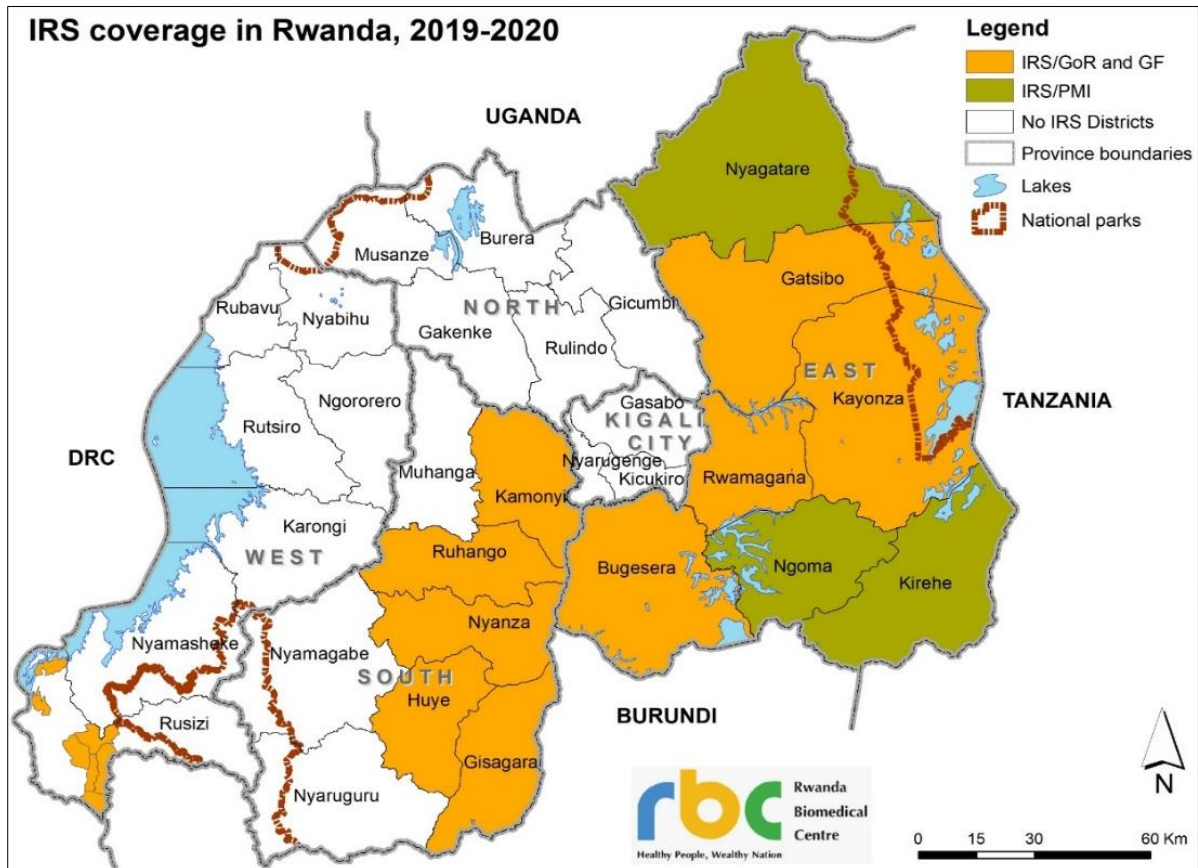
Rwanda started mass distribution of LLINs in 2009 with a target to achieve universal coverage through for households, and with a focus on most vulnerable groups: under five years children and pregnant women. LLINs Mass distribution campaigns are organized every 2 to 3 years. For this reporting period, 5,566,006 Rectangular LLINs (including 769,150 LLINs IG2 Nets, 1,399,528 PBO Nets, and 3,397,328 Standard LLINs) were distributed to general population through mass campaign (Households Distribution) in 24 districts.

² WHO 2018, Malaria terminology, Global Malaria Programme, Geneva-Switzerland. 38 pp

3.2.1.1.2. Indoor residual spraying (IRS)

For this reporting period, the number of Indoor Residual Spraying (IRS) districts increased from 10 in FY2018/2020 to 12 districts (Nyagatare, Kirehe, Bugesera, Gatsibo, Ngoma, Kayonza, and Rwamagana in Eastern Province; and Huye, Nyanza, Gisagara, Ruhango and Kamonyi in Southern Province) fully sprayed in FY2019/2020 with seven high burden sectors of Rusizi Districts sprayed as outbreak control strategy. In these targeted IRS Districts, a 99,3% coverage (1,231,070 out of 1,239,880 structures were sprayed) was achieved with a total population of 4,867,811 out of 4,899,459 protected (99,4%).

Figure 14 Indoor Residual Spraying Districts, FY2019/2020

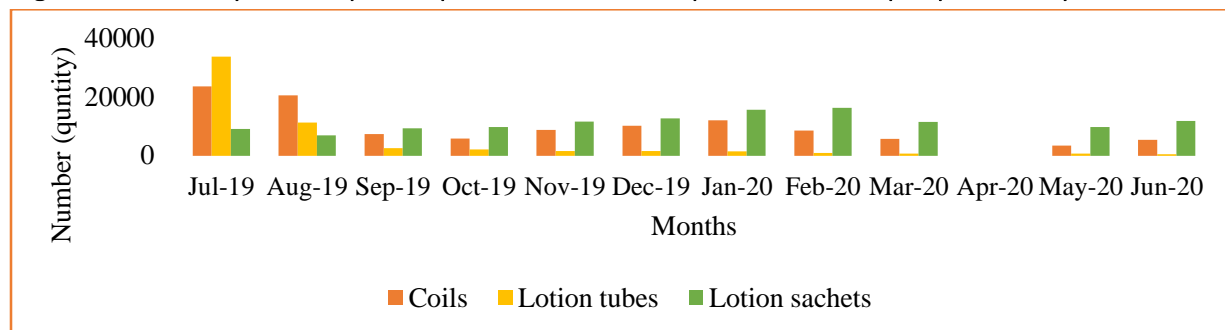


3.2.1.1.3. Outdoor Mosquito Control Initiatives

a. Distribution of Mosquito Repellents

In collaboration with the Society for Health Family (SFH), 294,611 mosquito repellents were distributed through socio-marketing channels. Three formulations were distributed and representing respectively: Coils or Baygon coils: 38%, lotion tubes 19.5%, and lotion sachets 42.5%. For the three above formulations, it appears an incremental decline of sold quantity overtime for lotion tubes and coils. The trends may have resulted from the stock out of the two products due to the demand increase and the effects of the covid19 lockdown from March to May 2020.

Figure 15 Quantity of mosquito repellents distributed per month and per product by SFH



b. Stocking of Larvivorus Fish for Mosquito Larvae Control

The mosquito larval control includes stocking ponds, rivers, and water bodies near human settlements with larvivorous fish as one of the oldest biological control of malaria vectors. The species of *Oreochromis niloticus* commonly known as Tilapia is a widely larvivorous fish grown in Rwanda and elsewhere. Its introduction in rice fields and irrigation schemes as well as channels is a very quick solution for mosquito abatement in stagnant water bodies. In the FY 2019/2020, and in collaboration with Rwanda Agricultural Board (RAB) and the Ministry of Agriculture and Livestock, 20 millions of Tilapia fingerings were stocked in water bodies with a plan to scaling up to 30 million of fingerings during FY 2020/2021.

In addition to fisheries, the aquaculture has been implemented through 128 fish farming cooperatives with 3248 members, 42 irrigation schemes (dams) with 2940 members and 42 private operators. The above performance has been enabled by the involvement of private operators and the establishment of 12 hatcheries of fingerings of Tilapia. The four units are classified as of high capacity while the remaining 8 units are of medium capacity to produce fingerings.

3.2.1.2. Malaria case management

Diagnosis and treatment is a crucial component in malaria control. In this FY 2019-2020, the following activities were implemented through program strategies to improve access to early malaria diagnosis and appropriate case management. All stakeholders continued to be involved in ensuring that all patients with suspected malaria are properly diagnosed and receive timely and appropriate treatment.

Almost all patients with suspected malaria cases are parasitologically confirmed by either rapid diagnostic tests (RDTs) or blood slide (BS), then malaria is categorized either uncomplicated or severe malaria for the purpose of prescribing appropriate treatment. With the roll out of Home-based Management of Malaria (HBM) to all ages since October 2016, Community Health Workers are now well equipped to provide timely treatment in the community for all cases of uncomplicated malaria, preventing severe malaria and death, and limiting malaria transmission.

Malaria diagnosis (the proportion of suspected malaria cases that received a parasitological test at public health facilities and in the community (for children under 5 years and adults) was sustained at

99.9 % over the review period. Likewise, the proportion of confirmed malaria cases that received the first line antimalarial treatment was sustained at 100% in 2019-2020. The proportion of the population tested for malaria through RDT or slide microscopy Annual Blood Examination Rate(ABER) decreased from 71% in 2018/19 to 56,6% during the FY 2019-2020. The ABER indicates that the endemicity of malaria and the risk of contracting malaria is still high.

The Integrated Malaria Control Guidelines (4th Edition, 2020) was reviewed to include key changes on the real time notification of severe malaria and stock status by community health workers through Rapid SMS and the introduction of Fludora Fusion 56.25WP for IRS according to the insecticide resistance management strategy and the LLINs SoPs for quality management. In order to improve the management of malaria cases in community, different tools and guidelines were produced and distributed to all CHWs (binomes) in collaboration with INGOBYI Activity:

Table 24 Different tools and guidelines produced and distributed to all CHWs in 2019-2020

Description	Quantity	Beneficiaries
Community registers for treating malaria in adults	69,543	CHWs/Binomes
iCCM register Folio papers	19,098	CHWs/Binomes
Compilation register for iCCM and malaria in adult integrated for binomes	19,098	CHWs/Binomes
Monthly report	10,996	CHWs/Binomes
Drug request register	1,447	CHWs/Binomes
Store cards	190980	CHWs/Binomes

Since 2016, the community case management in children under five, children above five and adults is implemented countrywide. The figure 1 below shows that 95% of children above five and adults are seeking treatment within 24 hours of signs and symptoms onset at community level same as to 95% in 2018-2019.

Figure 16 Community Malaria Case Management in Children under 5 and Adults

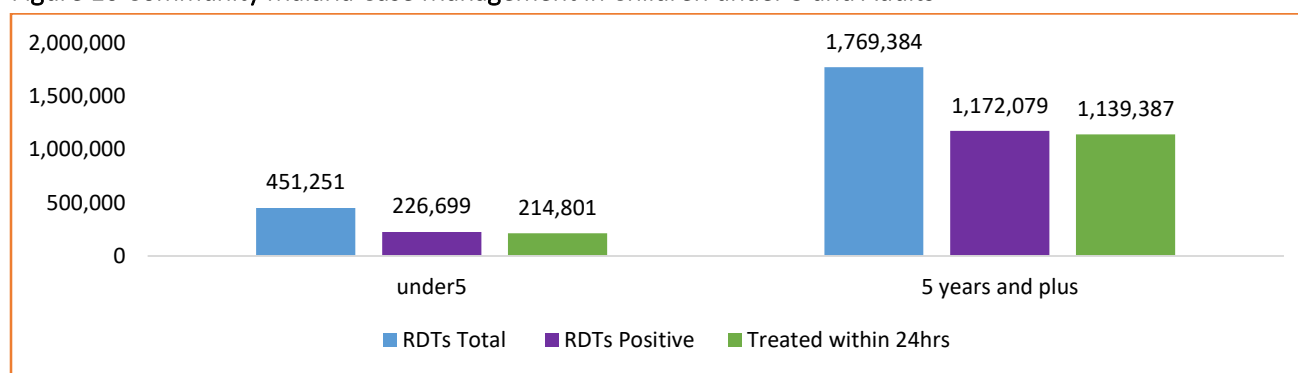
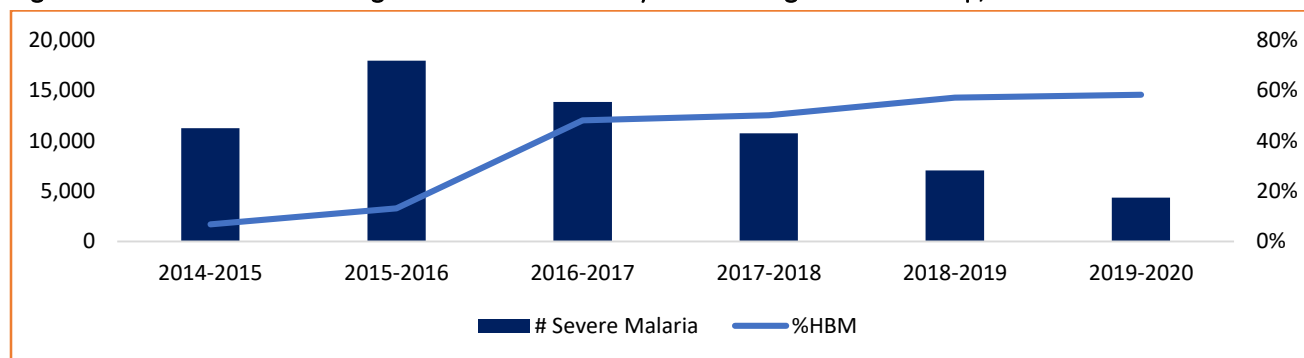
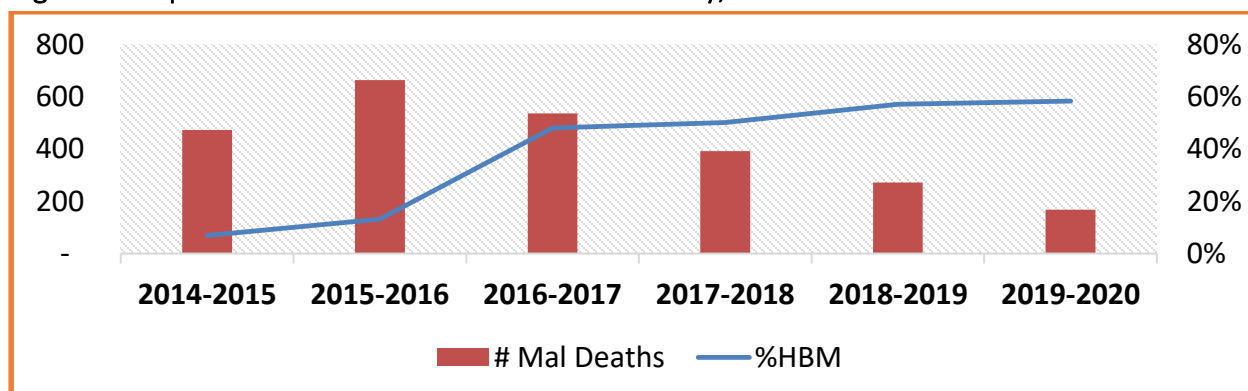


Figure 17 Severe Malaria Management and Community Case Management Scale Up, 2014-2020



Since 2016, the HBMA was scaled up in all districts and implemented. The above figure shows a steady increase of proportion of children under 5 and above 5 years old and adults who are seeking care in community were from 13% to 58% in 2015-2016 and 2019-2020 respectively. The inverse trends are observed in severe malaria cases (10,748 Severe Malaria cases in FY2017/2018 to 4,358 severe malaria cases in 2019/2020) more than 50% decrease in severe malaria and mortality compared to 2016. Deaths due to malaria decreased significantly malaria in District, Provincial and Referral Hospitals with a malaria fatality rate (17/100000 in FY 2015-2016 to 7,1/100000 in FY 2019-2020) thanks to different strategies put in place especially the adopted scaled up of Home-based management of fever for adults at community level.

Figure 18 Impact of Extended HBM on Malaria Mortality, 2014-2020



To Strengthen the Community Case Management through Capacity Building, a Supervision of the Home based management (HBM) program is regularly done to ensure that malaria cases are managed correctly in the community. During this reporting FY, 3796 Community Health Workers (CHWs) from 168 Health Centers and 31 Hospitals were reached. They were mentored on malaria management, real time notification on severe malaria and malaria commodities stock management through RapidSMS, proper drug storage, availability of community health tools, adhering to Treatment and RDT algorithms.

3.2.1.3. Malaria Surveillance and Epidemiology

Malaria is by far the most common tropical parasitic disease today. It threatens at least four in ten people worldwide. It is a killer disease, especially in tropical Africa where 90% of the world's cases occur. To date, Malaria remains also a major public health challenge in Rwanda, with the entire population at risk. From 2013, malaria morbidity has been increasing in Rwanda despite efforts deployed in malaria control activities. A malaria surveillance system in a burden reduction setting collects data on malaria epidemiology to provide information for planning, implementing, and monitoring and evaluating malaria control interventions. Data on individual cases and deaths are recorded on outpatient department and inpatient registers, then aggregated into a monthly report for analysis. In Rwanda, data are collected through routine health information systems, integrated disease surveillance and response systems (HMIS, SISCom and IDSR). Subnational and national levels use of aggregated data on cases and deaths to identify trends over time, assess the efficacy of malaria control interventions, and make programmatic adjustments. In addition, operational research such as Surveillance of antimalarial drug efficacy and drug resistance, Entomological surveillance and vector control monitoring, Malaria Indicator Surveys and other studies are conducted on regular basis to support evidence decision making to fight against malaria.

3.2.1.4. Achievements in malaria control and prevention as by June 2020.

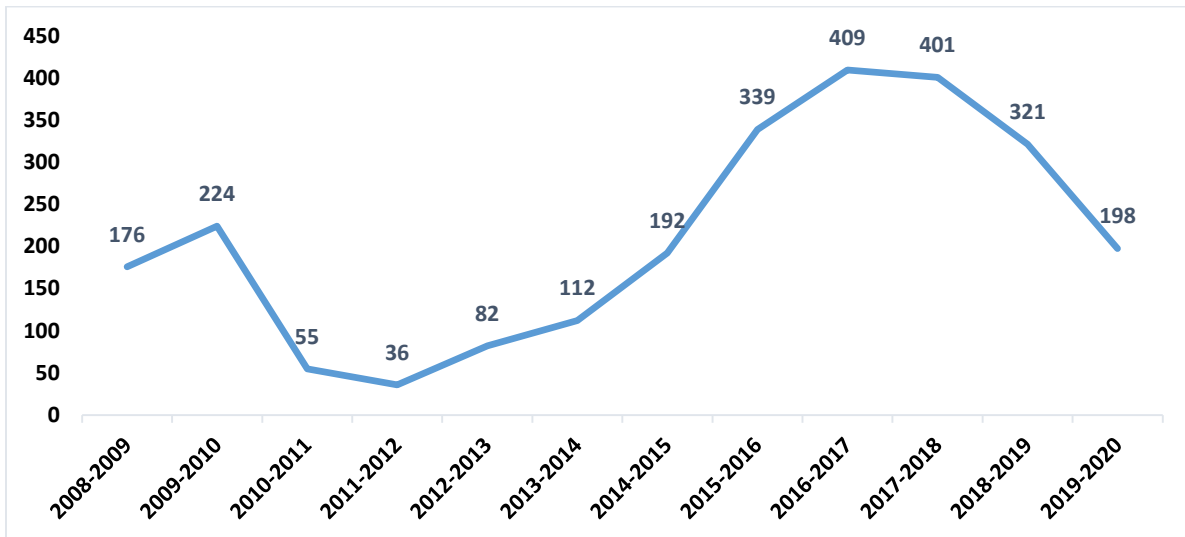
A combination of many interventions for malaria control and prevention in Rwanda since the last five years had allowed to decrease malaria incidence and mortality as follows:

- 38% reduction in Malaria Incidence from 2018/19 to 2019/2020 and 20% from 2017/2018 to 2018/2019
- 37% reduction in un-complicated malaria Cases from 2018/2019 to 2019/2020 and 15% from 2017/2018 to 2018/2019
- 38% reduction in severe malaria cases from 2018/19 to 2019/2020 and 34% from 2017/2018 to 2018/2019
- 39% reduction in malaria deaths from 2018/19 to 2019/2020 and 31% reduction from 2017-2018 to 2018-2019
- By June 30, 2020, over 58% of all malaria cases are being treated at community level by Community Health Workers(CHWs)

3.2.1.4.1. Malaria Incidence

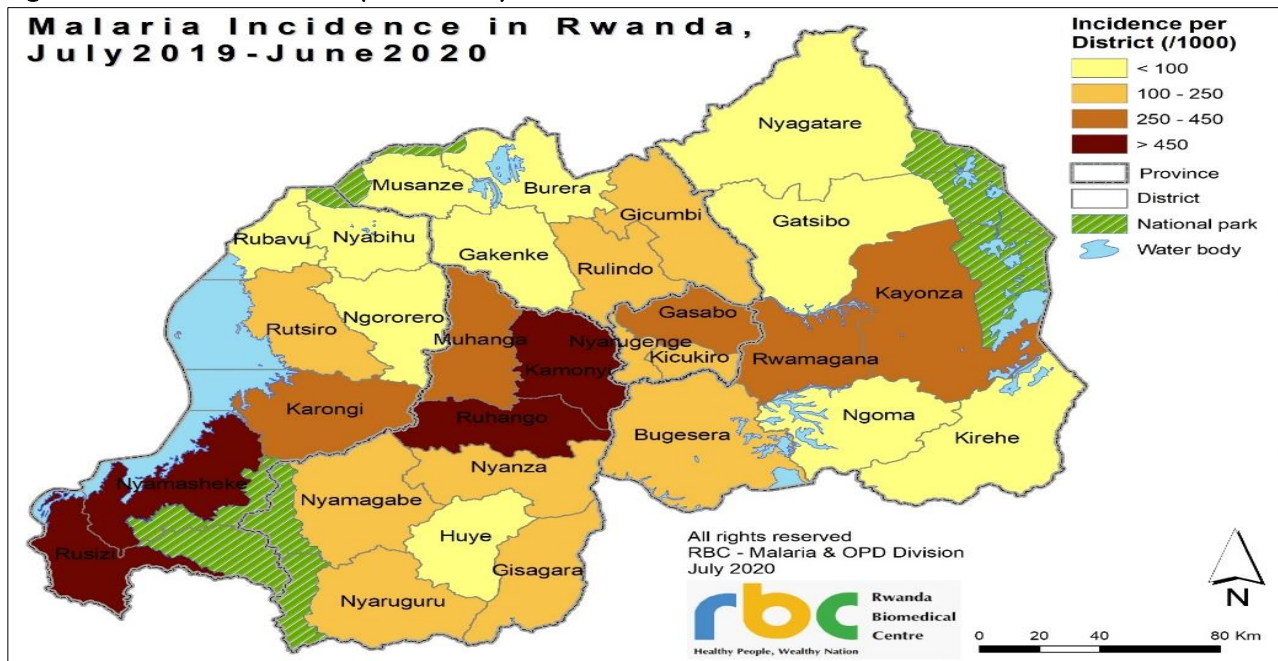
Malaria incidence has been calculated to the average projected population for 2019 and 2020 using medium projection. With the end of this reporting Fiscal Year 2019-2020, malaria incidence in Rwanda reduced from 321 per 1,000 person per year in FY2018-2019 to 198 per 1,000 (38% reduction) while the National Slide Positivity Rate (SPR) dropped from 44.4% in FY2018/2019 to 34.5% in FY2019/2020.

Figure 19 Malaria Incidence per 1000, (2008-2020)



Nine districts have incidence above the national average: Nyamasheke, Rusizi, Kamonyi, Ruhango, Kayonza, Gasabo, Rwamagana, Karongi and Muhanga district. The following districts have incidence below 100 per 1000: Kirehe, Gakenke, Ngororero, Rubavu, Huye, Nyagatare, Gatsibo, Musanze, Burera and Nyabihu districts. The Map below show more details of malaria incidence per districts.

Figure 20 Malaria Incidence per 1000 by District in the FY 2019-2020



3.2.1.4.2. Malaria Morbidity

During the FY 2019-2020, malaria cases in the Out Patient Department (OPD) represents 13% of all OPD new cases of consultation compared to 22 % of all of individuals attending outpatient's consultation in health facilities during 2018-2019. The proportional morbidity of malaria varies across districts from 1% in Nyabihu, Musanze, and Burera districts to more than 30% in Kamonyi, Kayonza and Rusizi districts.

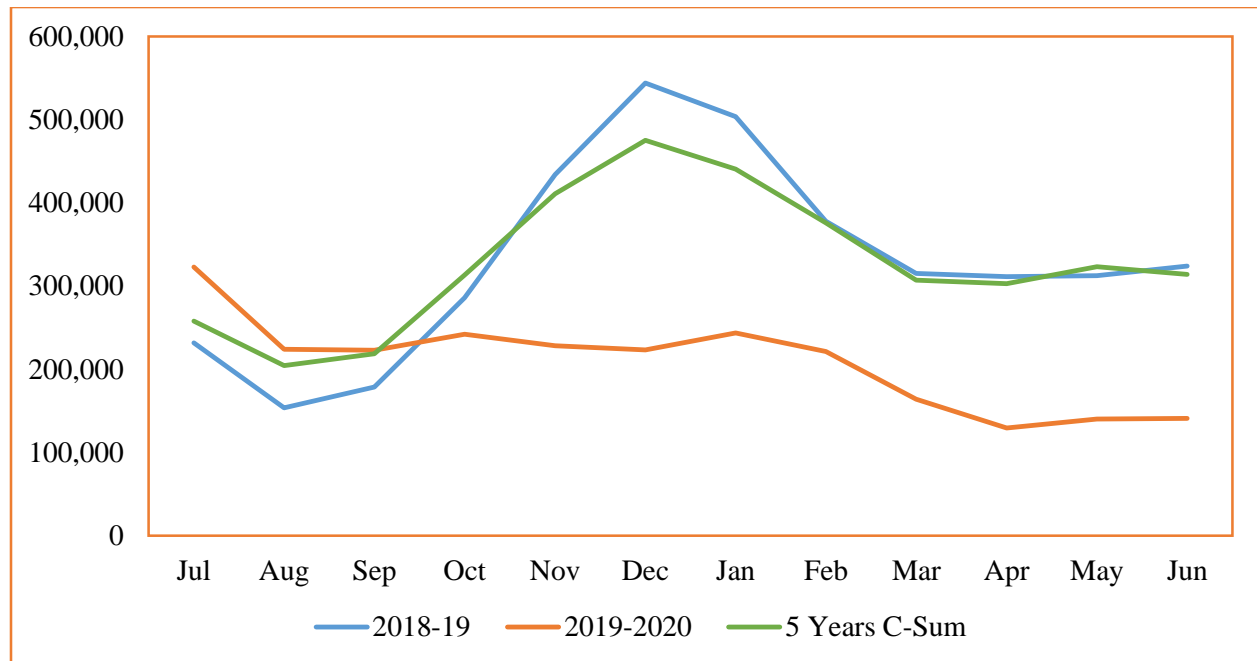
3.2.1.4.3. Malaria Test Positivity Rate

During the FY 2019-2020 a total of 7,168,149 lab tests were performed compared to 9,028,161. This includes 3,528,882 blood smears exams and 3,639,267 Rapid diagnostic tests. The number of RDTs done by community health workers is 2,220,635 representing 31% of all malaria tests performed. The average slide positivity rate is 34.5% whereas at community level it is equal to 63% and 22% at health facility level.

3.2.1.4.4. Uncomplicated Malaria Cases

From July 2019 to June 2020 a total of 2,504,222 outpatients Malaria cases were notified including 1,458,501 (58%) malaria cases treated at the community level. Malaria cases treated in private health facilities account for 1.4% (35,845) and 367,569 malaria cases (14.7%) were treated by private health posts. Under 5 children account for 338,898 malaria cases (13.5%) and Pregnant Women 18,684 (0.7%).

Figure 21 Trends in Malaria Cases: FY 2019-2020, 2018-2019 and 5 Years back monthly average



Note: The 5 years average was calculated using C-Sum method.

Figure 22 Malaria Cases per Level of Services Provision, 2014-2020

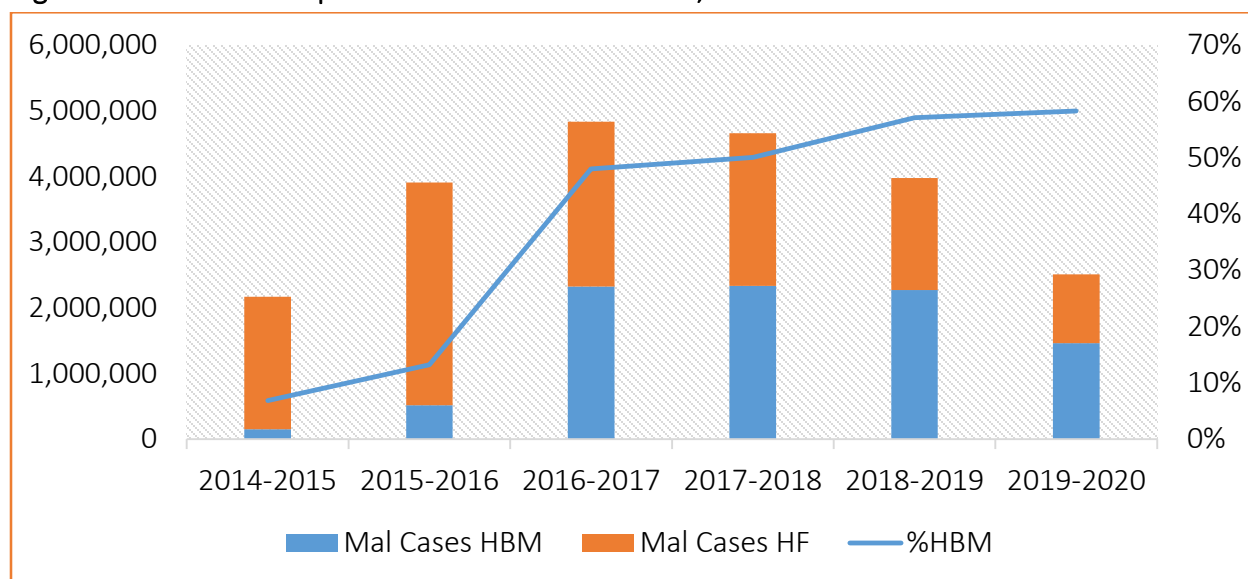
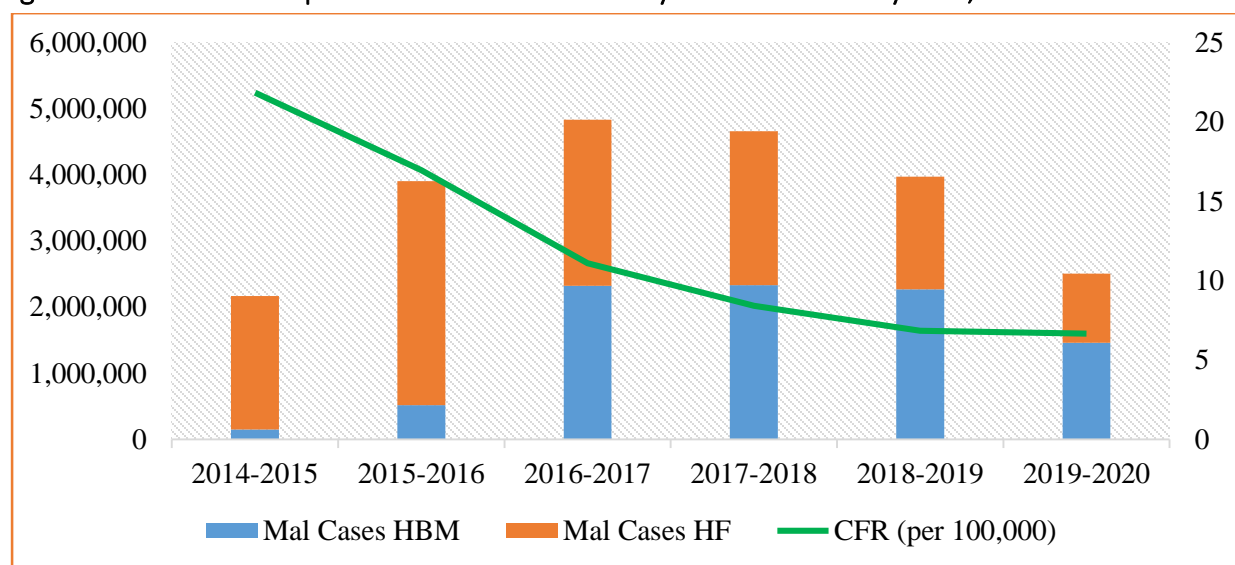


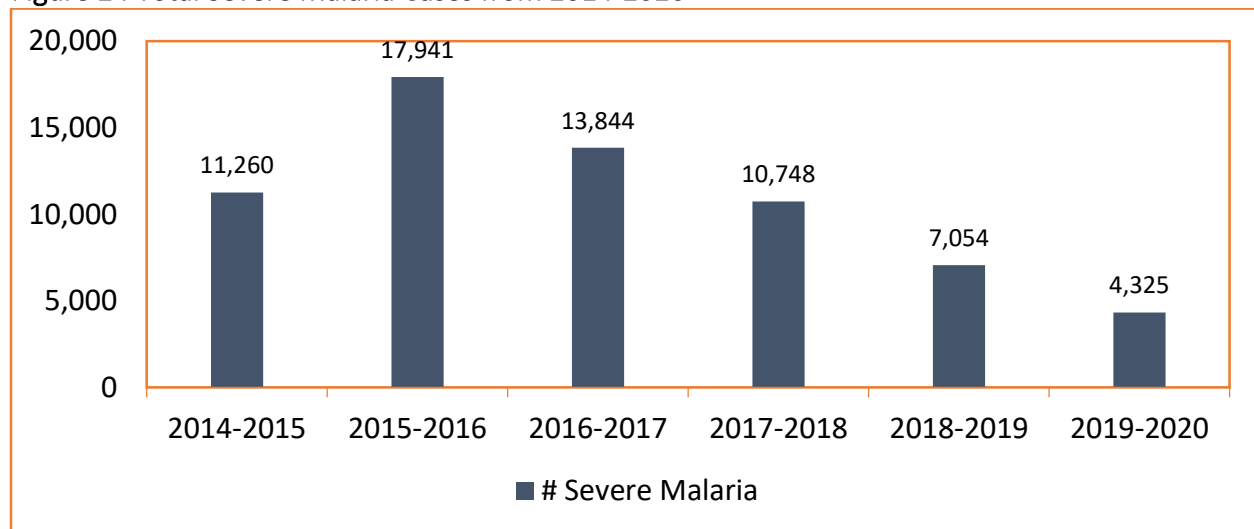
Figure 23 Malaria Cases per Level of Services Delivery and Cases Fatality Rate, 2013-2020



3.2.1.4.5. Severe Malaria Cases

Over the reporting period, 4,358 malaria severe cases were reported at in health facilities. Compared to 7054 malaria sever cases reported in the FY 2018-2019, this represents 38% of reduction in malaria severe cases. This indicates that interventions such home based treatment of children and adults, as initiated since the last five years to improve access to malaria early diagnosis and treatment, have been successfully contributing to the decrease of the number of severe cases.

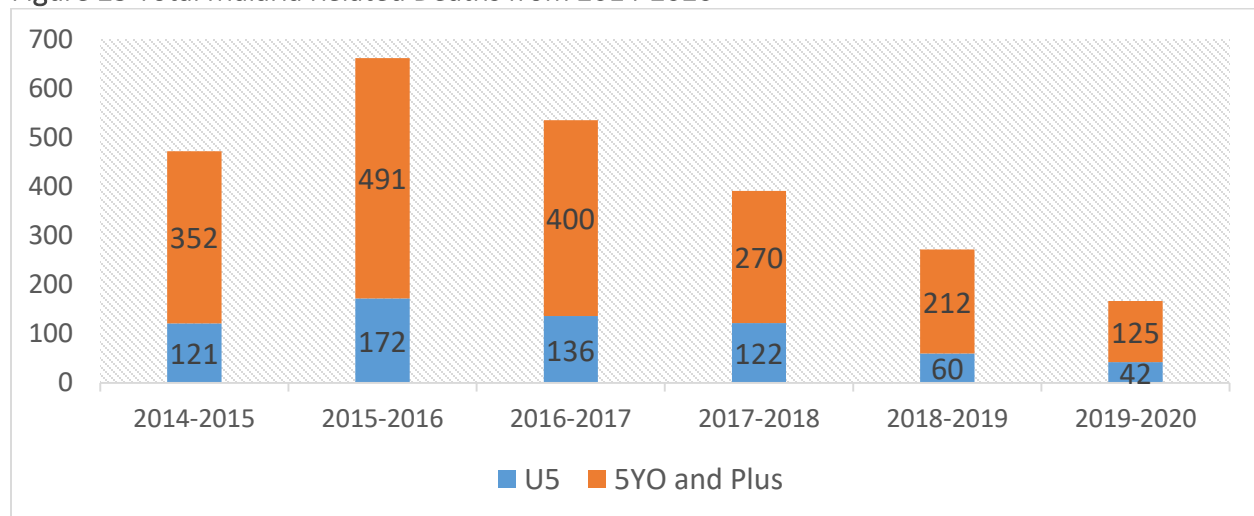
Figure 24 Total Severe Malaria Cases from 2014-2020



3.2.1.4.6. Malaria Mortality

The number of deaths due to malaria decreased significantly from 372 in FY2018-2019 to 167 deaths in FY2019-2020 (39% reduction). This trend confirms a steady decrease in malaria deaths over the past five years, and it is an indication that multiple interventions deployed for malaria control and prevention are working.

Figure 25 Total Malaria Related Deaths from 2014-2020



3.2.2. HIV and AIDS

Over the last 15 years, HIV prevalence among the general population in Rwanda has been stabilized and maintained at 3%. According to recent findings from the Rwanda Population-based HIV Impact Assessment (RPHIA) conducted in 2019, the overall HIV prevalence among people aged 15-64 was 3.0%; i. 3.7% in women and 2.0% in men. RPHIA also revealed that HIV prevalence in urban areas was 4.8% and 2.5% in rural areas. Further, the HIV prevalence was higher (4.3%) in the City of Kigali, which is predominantly urban, and lower in the Northern Province (2.2%). HIV prevalence was approximately two or more times greater in older adolescent girls and young women (ages 15-24 years) than in older adolescent boys and young men (1.2% vs. 0.5%). In general, Rwanda's HIV prevalence rises with age. The HIV prevalence peaked at 6.5% among men aged 55-59 years and 7.4% among women aged 50-54 years. According to the same assessment, the overall percentage annual incidence of HIV infection among adults was 0.08% (95% CI: 0.02% - 0.14%) which corresponds to approximately 5,400 new cases of HIV infection among adults in the country during the year. Percentage annual incidence of HIV infection among adults in the City of Kigali was 0.11% (95% CI: 0.00% – 0.26%).

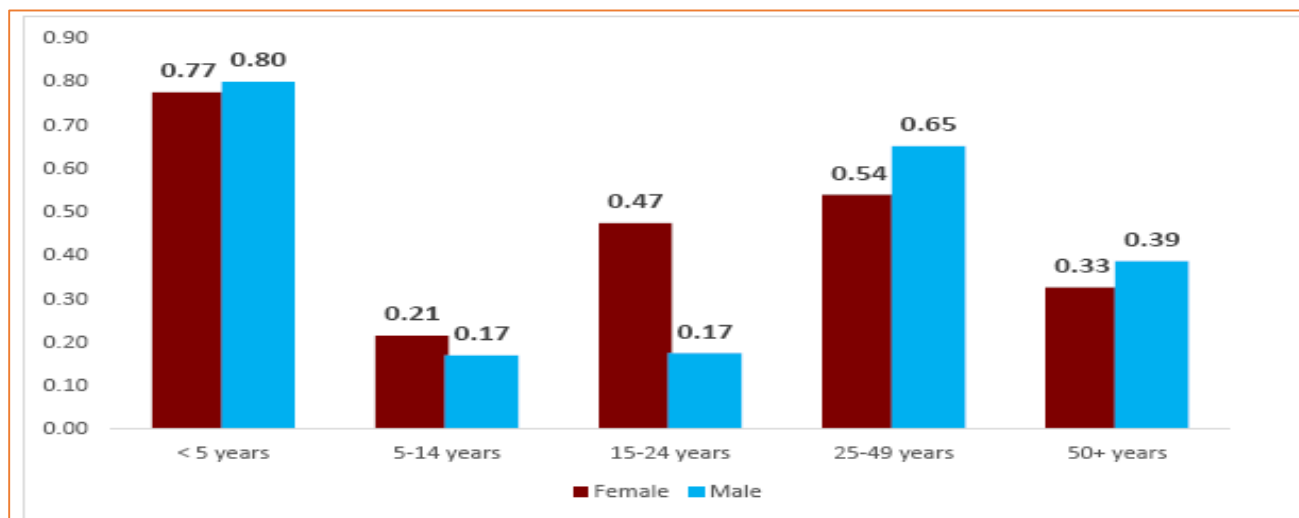
3.2.2.1. HIV Prevention

HIV Prevention program has been a cornerstone of the national response. Evidence-based combination prevention interventions are implemented as outlined in the national HIV guidelines. The interventions and strategies in this package are HIV Testing Services and counselling (HTS), Prevention Mother to child Transmission (PMTCT), Voluntary Medical Male Circumcision (VMMC), Condom programming, Key Populations (KPs) services, Pre-Exposure Prophylaxis (PrEP) and HIV awareness across the country to reach those who are at risk of acquiring HIV. Those approaches have allowed Rwanda to successfully reach the UNAIDS goal of 90% of people living with HIV (PLHIV) being aware of their status.

3.2.2.1.1. HIV testing services

HIV testing services are essential to determine person's HIV status and ensure linkage to appropriate HIV prevention, treatment, care and other support services for PLHIV. The national HIV program has been expanding innovative evidence-based HIV case finding strategies, including HIV self-testing and index testing and partner notification. The Active HIV case-based Surveillance (ACBS for HIV) offering index testing, partner notification and recency testing package, was scaled up to more than 60 Health facilities to continuously follow HIV positive people across the cascade of care. From July 2019 to June 2020, health facilities provided 2,632,630 HIV tests for HIV testing services countrywide, with an overall positivity rate of 0.46%.

Figure 26 HIV sero-positivity rate by age group



In order to reduce the number of unnecessary tests, the HIV testing screening (HTS) tool was piloted in 21 health facilities in the City of Kigali and Eastern Province. Thus, 46 health care providers were trained on HIV testing Screening tool in order to reach targeted people at high risk. As far as HTS quality improvement is concerned, mentorship and trainings and experience sharing sessions were conducted on new HIV Testing strategies including index and recency testing and partner notification, HIV self-testing and Case Based Surveillance (CBS) to 265 health care providers from all Hospitals.

a. HIV self-testing

Since 2017, HIV self-testing was initiated as an additional testing strategy to complement the standard HIV testing in order to reach people living with HIV with unknown HIV status and those at high risk of HIV. The testing kits reach the community through two main models of distributions:

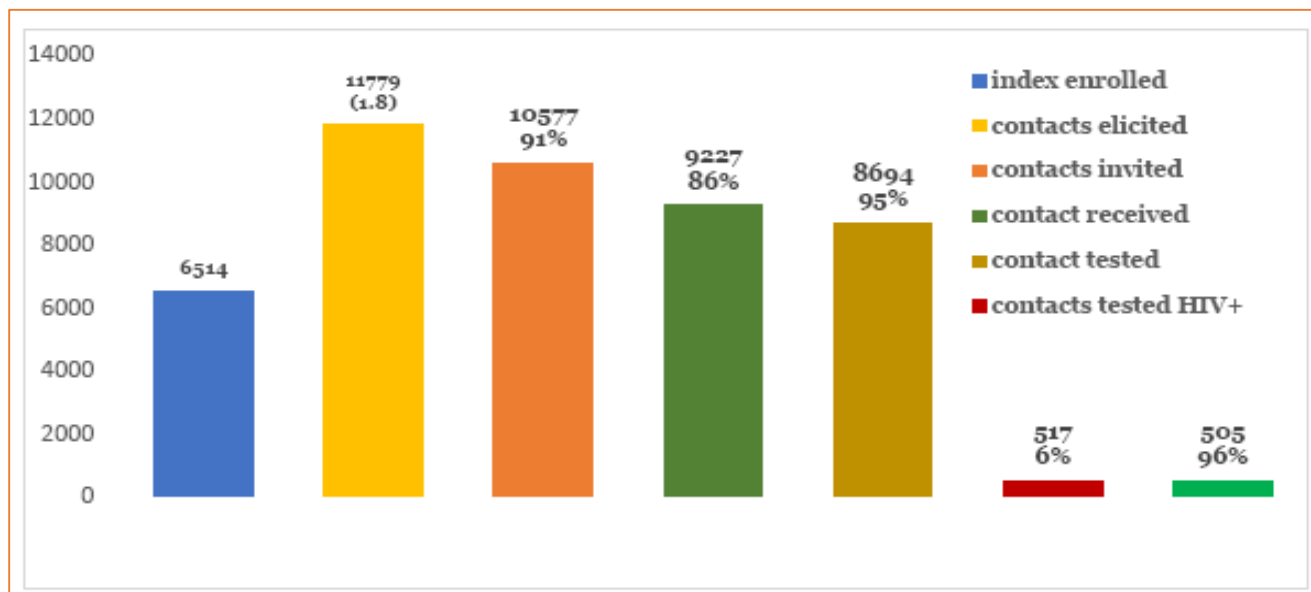
- Facility-based distribution with integration of index testing and partner notification as a way to offer HIV testing services to invited partners who refuse to come, but still want to be tested;
- Private pharmacies and online distribution.

As reactive results are confirmed by a trained provider at health facility, nonreactive results are linked to HIV prevention services and positive clients are linked to HIV care and treatment services. Between July 2019 and June 2020, a total of 68,804 HIV self-test were distributed within Health facilities while 3,600 HIV self-test kits were distributed by private pharmacies. During the same period, the number of private pharmacies distributing HIV self-testing increased from 19 up to 59 across the country.

b. Index testing and partner notification

Partner notification is a voluntary process whereby a trained provider asks people who are diagnosed HIV-positive about their sexual partners and family members. If the HIV positive client agrees, the provider offers his or her partners HIV testing services. Between July 2019 to June 2020, 6,514 index clients have been identified in health facilities implementing index testing and partner notification. Among the elicited partners reached and tested, the yield of HIV is estimated at 6%. Implementation of index testing and partner notification improve HIV testing coverage and the national program will continue the scale up and related quality improvement activities.

Figure 27 Cascade of Index Testing and Partner Notification



c. HIV Case-based surveillance and recency testing

Since 2018, the Case-based surveillance (CBS) for HIV was introduced as a strategy to continue measuring and monitoring the incidence, progression and outcome of HIV via the collection of patient level data for a series of key or sentinel events. For comprehensive monitoring of HIV epidemic, the recency testing was also integrated into CBS and routine HIV testing services. From client tested positive, recency testing make a difference between recently infected people (< -12 Months) and those with long-term infection acquired more than 12 months ago. Two modes of service delivery are currently used:

- Centralized HIV recency testing: It is performed at the National Reference Laboratory (NRL) and at viral load hubs located in all Provinces of the country;
- Point-of-care testing (POCT): This is performed at 23 innovative health facilities in the City of Kigali.

3.2.2.1.2. Prevention of Mother-To-Child HIV Transmission

A comprehensive package of PMTCT services include HIV education, HIV testing for pregnant women in antenatal consultation and maternity, provision of lifelong ARV to HIV infected mothers and ARV

prophylaxis for HIV-exposed infants, and post-natal follow-up of mother-infant pairs until 24 months after delivery.

a. HIV Testing in antenatal care (ANC) services

From July 2019 to June 2020, a total number of 349,199 pregnant women with unknown HIV status were tested for HIV, a decrease from 352,654 in the last fiscal year. Among them, 1,648 (0.47%) tested HIV positive. The prevalence of HIV among all women in ANC (including those who already know their status) was estimated at 2.26%. Of the 253,154 male partners tested for HIV in PMTCT, 0.35% (887 male partners) were HIV positive. HIV testing is done during labor and delivery for women who have not been tested earlier during their pregnancy and those who might have seroconverted after the first negative result in antenatal care. Of the 292,272 pregnant women (women tested HIV negative during ANC and those who have not been tested earlier in their pregnancy) tested during labor and delivery, 1,345 (0.46%) tested HIV positive. Out of the total number of HIV-infected pregnant women who identified in this reporting period, 97.5 % initiated ARV treatment. In addition, in order to increase the uptake of HIV testing of male partners hard to reach, the HIV self-test kits were distributed to male pregnant women who attended ANC visits without their partners.

b. HIV self-testing among male partners of pregnant women attending ANC

Couple HIV counselling, testing and treatment of those who tested positive greatly contributes to the prevention of mother to child transmission of HIV. The national coverage of male partner testing in PMTCT is estimated at 85%, but this coverage varies between health facilities. To reach the remaining gap, the program has introduced the distribution of HIV self-test (HIVST) to target “hard to reach” partners of pregnant women received in PMTCT program. Six health centers in the City of Kigali with relatively low partner testing were selected as pilot sites. A total number of 5,441 self-test kits were distributed within these health facilities. HIVST was integrated into routine ANC services and enhanced counselling on the importance of partner testing was provided to all women coming for the first ANC visit without partners. Acceptability of HIV self-testing was 100% and there was no reported or observed negative impact. At six months of pilot phase, there was an average increase of 20% (66 % - 85.5%) in partners testing.

c. Follow up of HIV exposed children

According to the National HIV Guidelines in use, infants born to HIV infected mothers are followed up in PMTCT program up to 24 months post-partum to closely monitor their HIV status. To enable timely early infant diagnosis and rapid ARV initiation for those tested HIV across the follow up, HIV exposed children are tested in different points in time (6 weeks, 9 months, 18 months and 24 months) as a standard of care. At 6 weeks of birth, children are tested using PCR while for testing beyond this age uses rapid test followed by PCR confirmation to those tested HIV positive.

In effort of reduce the turnaround time, PCR testing is done using a combination of convention and point of care methods. With the scale up of point of care EID capacity in the high volume sites, the turnaround time in these particular sites has been reduced to only 3 days from sample collection to ARV initiation. A retrospective cohort analysis of HIV exposed infants who were tested for HIV during the PMTCT follow-up period, has shown that 98.35% of exposed infants were HIV-free at 24 months.

3.2.2.1.3. Voluntary Medical Male Circumcision

Since 2008, Voluntary Medical Male Circumcision (VMMC) is part of a comprehensive set of HIV prevention interventions. Different service delivery models are used to provide VMMC services. Those include routine service delivery and special campaigns. Both conventional surgical method and device-based methods are used to deliver. Furthermore, Early Infant Male Circumcision (EIMC) for infant aged below 2- month old continues to be provided in 11 districts hospitals. The graph below shows how the prevalence of VMMC decreases by age. According to the RPHIA study conducted in 2018-19, the male circumcision prevalence was estimated at 39.9% with the high prevalence among younger adolescents and men in the city of Kigali. The graph below shows the MC prevalence per province, as per RPHIA results.

During this reporting period, Circumcision campaigns were put on hold in line with strategies put in place to curtail the spread of the COVID-19 pandemic. However, VMMC procedures performed increased from 346,157 to 401,987 between July 2019 and June 2020, including 348,154(86.8 %) and 53,833 (13.2%) done using surgical and medical devices respectively. The circumcision procedure using medical devices has decreased from 32% to 13.2% due to phase out of Prepex devices. In this reporting period, active surveillance of Shang Ring device was introduced to complement the conventional surgical method. The graph below presents VMMC performance by district. The National HIV program has made an effort to increase access of male circumcision services to young adults who are sexually active and at greater risk of HIV acquisition. The graph below shows an increase of VMMC performance up to 10% and 8 % at the age of 20-24 years and 25-49 years old respectively.

3.2.2.1.4. HIV Prevention services for Adolescent Girls and Young Women (AGYW)

Rwanda Biomedical Centre in collaboration with its partners initiated the interventions focused on Adolescent Girls and young women as a group at risk of HIV in order to empower and strengthen families, and mobilizing the community. The aim of this Initiative is to foster the development of women and girls to be Determined, Resilient, Empowered, AIDS-free, and Mentored and Safe individuals (DREAMS) with the ability to realize their full potential. During this reporting fiscal year, the focus was to train Peer educators in and out of school on sexual and reproductive health (SRH), HIV and STI, GBV, life skills, interpersonal communication, referral for HIV testing and VMMC. Moreover, Outreach activities targeting adolescent women were conducted to strengthen the knowledge on HIV prevention, SRHR services and linkage to HIV services.

3.2.2.1.5. HIV Prevention Services for Key Populations

The HIV prevalence rate among key populations (KPs) has been estimated to be higher than the general population at 35.5% among female sex workers (FSW) and 7.0% among men who have sex with men (MSM). The government of Rwanda has included in the NSP specific interventions to target key populations, especially FSWs and MSM to reduce their risk of HIV acquisition and ensure linkage to HIV treatment services for those living with HIV. In this program, activities focused mainly on conducting training of peer educators for Female Sex Workers (FSW) and men Having Sex with men

(MSM) on HIV and AIDs and sexual Health issues, refer for HIV testing, promotion of condom use and STI diagnostic. Between July 2019 and June 2020, 19,416 FSW were enrolled in prevention programming. A comprehensive package of services was provided to key populations including HIV testing, condoms, PrEP and ARV treatment.

3.2.2.1.6. Condoms programming

To have access to condom provision, different channels are used. In total, 29,912,778 condoms have been distributed in this year; 11,885,725 distributed through health facilities, 16,580,813: Social marketing and 1,446,240 distributed through 8 condoms kiosks displayed in all Districts of the City of Kigali, Rubavu, Rusizi and Huye Districts.

3.2.2.1.7. Pre-Exposure Prophylaxis

The National HIV guidelines recommend PrEP as an additional intervention in the package of services for key populations. In the first phase of PrEP implementation, female sex workers, Male who have sex male and discordant couples were targeted in 22 health facilities located in the City of Kigali. During this reporting period, 2,248 FSWs and 177 discordant couples initiated PreP.

3.2.2.1.8. HIV Awareness

Different interventions were conducted to increase awareness on HIV, STIs and Hepatitis. These interventions consist of production and distribution of information, education and communication (IEC) materials, mass media (newsletter supplements, Radio & TV shows and spots), mass campaigns and outreach campaigns. Live talk shows were organized on both public and private radio to provide the general population with information on new HIV programs & services as well as to increase awareness of HIV services accessibility. In this reporting period, ten TV shows and 42 radio talk shows were conducted on New HIV strategies of HTS, PMTCT, VMMC, Care and Treatment services (Test and treat and adherence on ART), and for Other blood borne infections (STIs and Viral Hepatitis). In addition, radio and TV adverts on HIV prevention were broadcasted on two TV and ten different radio stations. DJ Mentions on HIV prevention have been broadcasted through four TV and six radio. Information was provided through public and private radio and TV stations. The web banners also have been displayed on four different online newspapers (Igihe.com, New Times, Umuseke and Kigali Today). Educational materials were developed and distributed to provide the population with Information, Education and Communication strategies and Behavior Change Communication related to HIV and other blood borne infections. Posters on PMTCT, ASRH and OIs distributed in all health facilities, including Youth Friendly Centers.

3.2.2.2. HIV Care and Treatment

The HIV Care and treatment is a priority of the national HIV program to control HIV epidemic. It is one of the pillars to prevent HIV transmission but also improves the quality of life of PLHIV. In the FY 2019-2020, HIV Care and Treatment program put emphasis on the follow up and implementation of the changes in HIV management, mainly:

- Introduction of Dolutegravir (DTG) for all PLHIV from 20kg of weight.
- Transition to Dolutegravir (DTG) for women of childbearing age
- Updated DSDM categorization

- Piloting TPT implementation
- Phase out of AZT and Nevirapine 200 mg in the first line regimen, and Cotrimoxazole drawdown.

3.2.2.2.1. HIV Continuum of Care

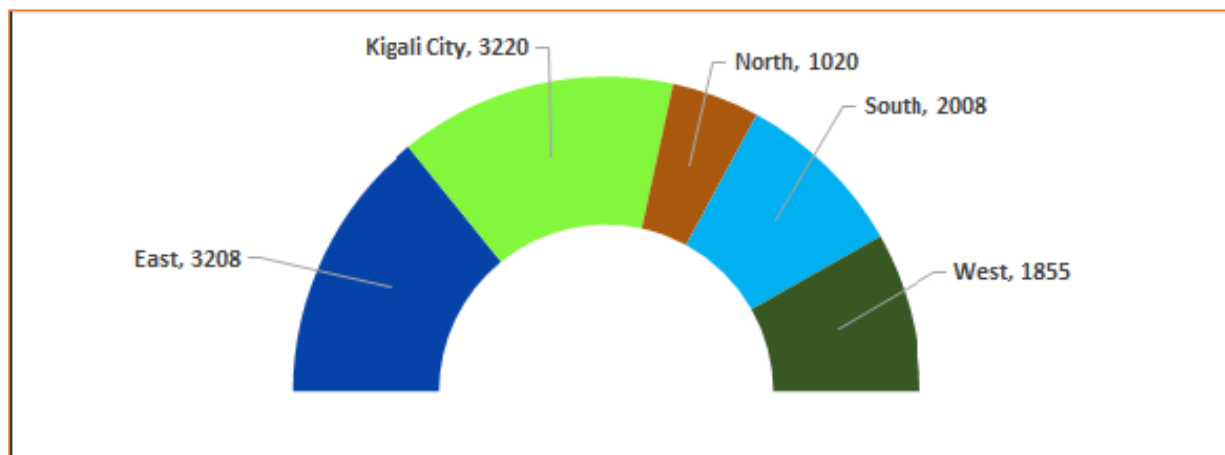
a. Linkage and enrolment

Timely linkage of HIV-positive clients to care and treatment is an important part of improving health of PLHIV and reduction of HIV transmission. It is against those benefits that, since 2016, the National HIV program has been implementing ‘Treat All’ strategy. All clients tested HIV-positive should be linked the same day and enrolled or initiated on Antiretroviral Therapy (ART) regardless of their CD4 count. Treat All strategy allowed to have an increasing number of patients on ART over the years. The HIV Care and Treatment program in Rwanda has developed and enhanced strategies to improve linkage and initiation on ART for all newly tested HIV positive patients, namely:

- Communication between testing entry points and ART services
- Same day enrolment
- Enhanced counselling at enrolment
- Same day initiation where feasible and if not, initiate clients within one week

The figure below shows that 11,311 clients were enrolled and initiated on ART during the reporting period. The figure shows that Kigali City has the highest number of 3,220 patients initiated on ART, representing 28.5% of the total patients enrolled from July 2019 to June 2020.

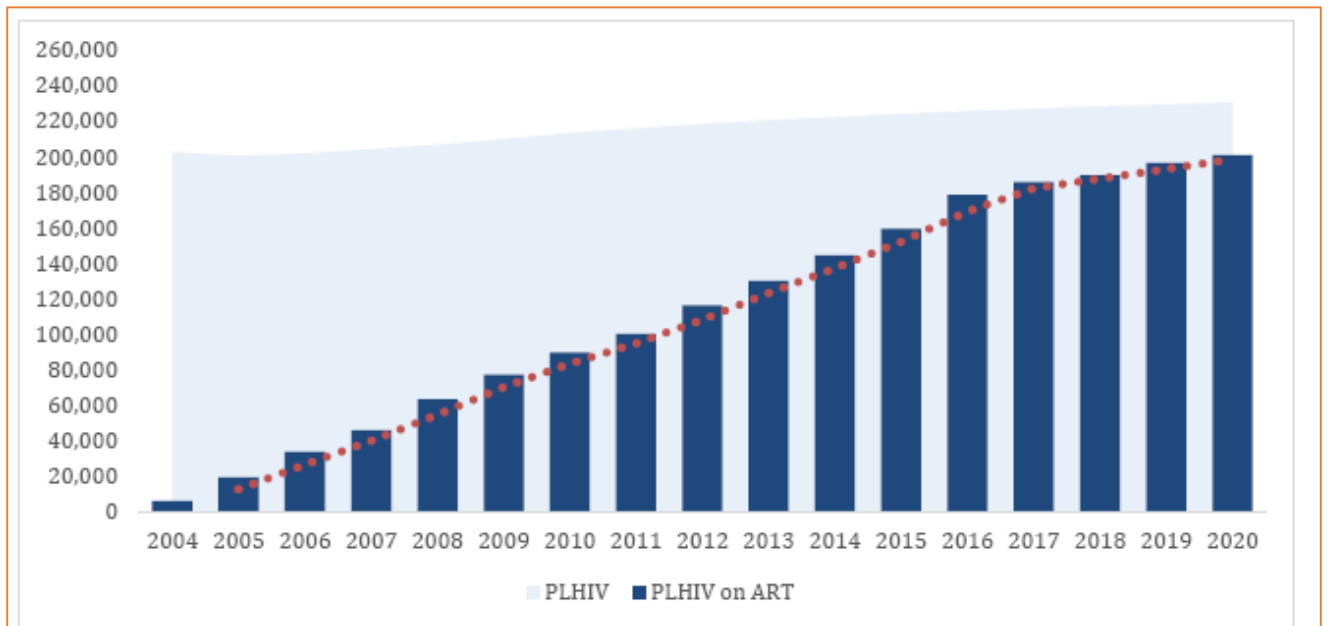
Figure 28 Number of Patients enrolled from July 2019 to June 2020



b. Antiretroviral treatment coverage

HIV management guidelines are revised every two years and eligibility criteria for being initiated to ART has changed from a minimum CD4 count of 200 to the current strategy, “Treat All”, of treating all PLHIV regardless of CD4 count. The figure below shows the trend of ART initiation from 2004 in comparison of the estimated number of PLHIV. By June 2020, the overall number of patients on ART was 200,930, representing the coverage of 87.2%. The coverage of ART has increased significantly from 2004, when ART scale-up began in Rwanda.

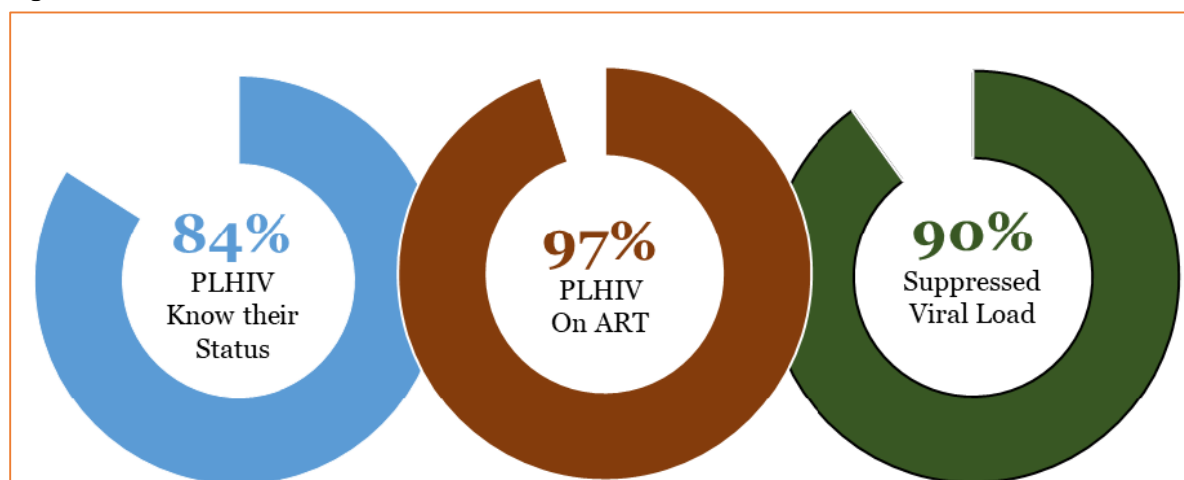
Figure 29 Trend in treatment coverage, 2004-2020



3.2.2.2.2. Progress towards 90-90-90

Rwanda has made great strides towards achieving the United Nations Program on HIV/AIDS (UNAIDS) 90-90-90 target that helps end the epidemic. Innovative strategies in HIV prevention and management have been adopted based on evidence to achieve the global target by 2020. This led the country to almost be ahead of the UNAIDS target before 2020. As per RPHIA study, the cascade of care highlights that 83.6% of all PLHIV in Rwanda know their HIV status (1st 90). 97.5% of them are on ART while 90.1% of those receiving ARV achieved viral suppression below 1000 copies/ml.

Figure 30 Cascade of Care and Treatment



3.2.2.3. Screening and Management Opportunistic Infections

Antiretroviral therapy (ART) scale up in “treat-all” strategy has substantially decreased HIV comorbidities and HIV mortality in Rwanda. However, it is always relevant and highlighted in our guidelines that every PLHIV would be screened for opportunistic infections (OIs) at enrolment and each clinical visit to identify patients with the highest risk of OIs, and immune reconstitution inflammatory syndrome (IRIS).

Non-Communicable Diseases (NCDs) are now emerging with high prevalence in PL HIV. NCDs screening has been integrated at health facilities in order to increase retention in care for HIV/NCD patients through reduced appointment frequency. Mainly hypertension, diabetes and cervical cancer are screened at each clinical visit. Tuberculosis (TB) has been the most prevalent OI among PLHIV. By strengthening, TB prevention among PLHIV, Tuberculosis Preventive Therapy (TPT), has been adopted for PLHIV, screened TB negative using symptoms screening, and X-ray. Monitoring and Evaluation (M&E) tools are being used for their follow up.

3.2.3. Viral Hepatitis and Sexually Transmitted Infections

With effective vaccines and treatment for Hepatitis B (HBV) and an increasingly affordable cure for Hepatitis C (HCV), combating viral hepatitis has become a focus for national strategic plans in Rwanda. Capitalizing on its success in rapid expansion of HIV services and care has led the way in reducing its hepatitis burden. Rwanda has been the first country in the region to launch a national viral hepatitis control program, to establish a dedicated hepatitis unit in 2011, to put in place first national guidelines in 2013, to put in place first hepatitis C treatment from 2015, vaccination and screening campaigns from 2016 and finally to launch hepatitis C elimination plan in 2018. During the period of 12 months, from July 2019 throughout June 2020, several activities were conducted to support prevention, care and treatment of viral hepatitis B and C as well as STIs.

The following key achievements were noted:

- Awareness, sensitization, mass screening and vaccination campaigns as the most effective ways to reduce the burden of HBV and HCV. Radio talks and TV shows were done to raise general population's awareness. Since 2002 up to date, HBV vaccination has been done to over 6,000,000 people with focus to have all people aged 0 to 17 years old vaccinated. In 2019-2020 only, over 50,000 adult people were vaccinated against HBV and 352,750 children, we count over 402,750 people who were vaccinated against HBV during this fiscal year.
- Training for healthcare providers including Medical doctors, nurses and data managers to ensure proper decentralization of Hepatitis and STIs management services;
- Implementation of HCV elimination joint Umuhigo in all Districts aiming at testing of population aged 15 years and above;
- Initiation of HBV and HCV treatment for 2,611 patients and 16,891 patients, respectively;
- Patients aged 15 years and above visiting different health facilities for several health issues are actively checked for STIs signs and symptoms and all pregnant women and their partners are systematically screened for STIs especially for syphilis.

3.2.4. Tuberculosis

3.2.4.1. Tuberculosis (TB) control

The Ministry of Health through Rwanda Biomedical center developed a new national strategic plan to fight TB and Other communicable lung diseases for a period on 2019- 2024. In the TB screening and diagnosis area, this strategic plan adopted the extension of use of molecular testing as initial diagnostic testing and reinforce the screening of TB among people at high risk to develop TB. The development of the new strategic plan used a patient centered framework approach to make the plan more evidence based. For the first time, interventions were modelled to estimate the impact on TB mortality and incidence. The use of TB impact modeling estimate (TIME) revealed that expanding the use of molecular testing as initial diagnostic test and management of latent TB(TB contact and PLHIV) will help to reduce TB incidence and mortality.

3.2.4.2. TB screening and diagnosis

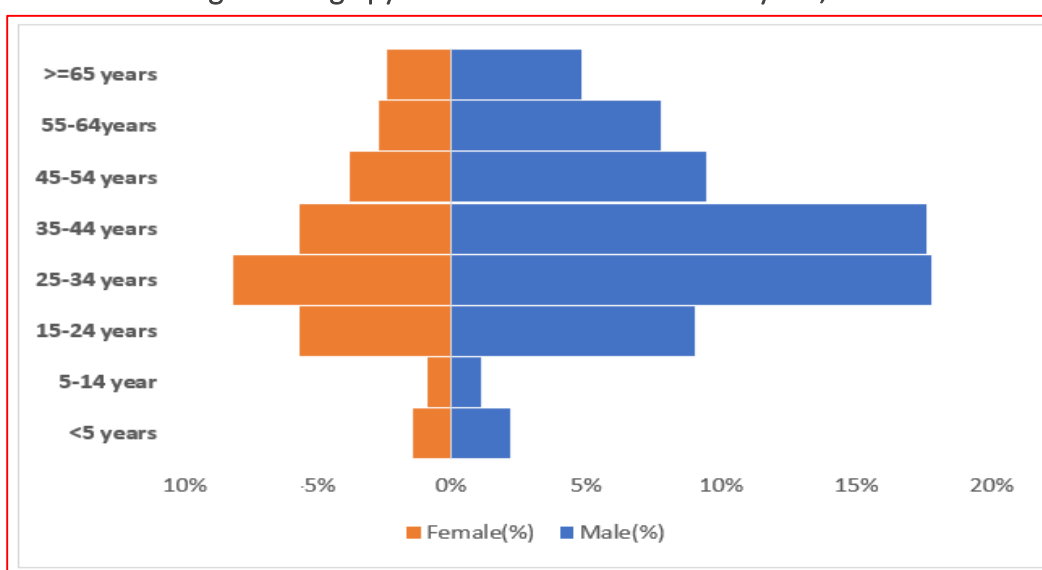
In total, 140,566 TB presumptive cases were identified during this FY 2019-2020 versus 187,871 in 2018-2019 FY which represented 25% of reduction. The contribution of Community health was at 43.44% of all presumptive compare to 56.9% during 2018-2019 FY. Twenty thousand two hundred twenty (20,220) chest x-rays were performed and 1,325 images were abnormal suggestive TB. Almost all (99.6%) of TB presumptive known were tested for HIV and 13.6% were HIV positive. The total number of all TB cases diagnosed was 5,668 included 76 RR/MDR-TB cases. To ensure the quality of diagnostic test, external quality control is performed at NRL for smear microscopy and Xpert done by district hospitals and at Supra nation reference laboratory for all Xpert, Culture, LPA and DST done. External quality assurance was conducted in 88.6% of all CDT visited at least 3 times and the performance for microscopy was at 94.9%.

Table 25 TB detection and contribution of each screening level (FY2019-2020).

Detection	CDT	CT	CHWS	TOTAL
Presumptive TB Case	45,726	33,950	61,203	140,879
	32.5%	24.1%	43.4%	100%
B+ among presumptive TB case	2,216	1067	1,080	4,363
	50.79%	24.46%	24.75%	100%
Positivity rate	4.8%	3.1%	1.8%	3.1%

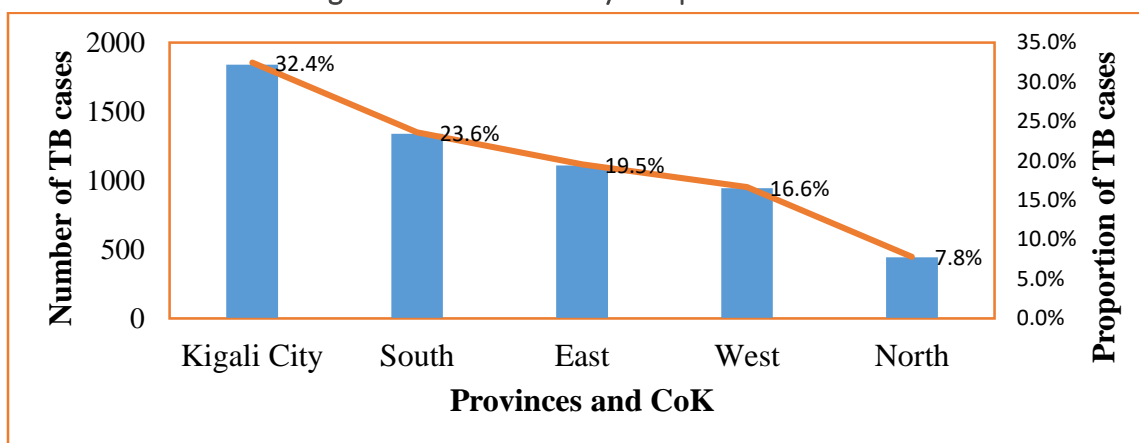
Among notified TB cases, 6% were under 15 years, male represented 70% and 16.3% were brought by CHWs. Two third (2/3) of TB cases were bacteriologically confirmed and new and relapse represented 90.1%. The proportion of HRG was 50.4% compared to 53.4% in 2018-2019 FY and 61.8% of notified TB cases used molecular test as initial diagnostic testing. Treatment initiation was 5377 (94. 8%).

Figure 31 Age pyramid of TB cases all forms by sex, FY 2019-2020



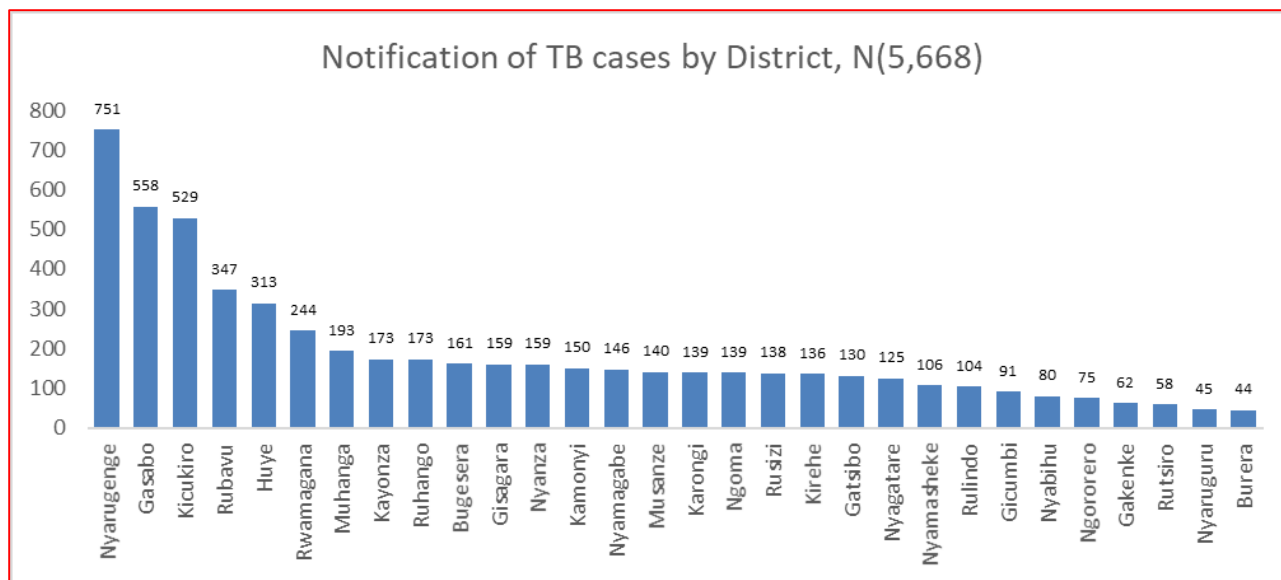
The City of Kigali notified one third (32%) of total TB cases followed by south province (24%), East province (19%), West province (17%) then North province (8%) with the low notification.

Figure 32 Notification by and provinces



The notification of TB cases by district shows that 51.78%(2,935) of total cases were notified by seven districts: Nyarugenge, Gasabo, Kicukiro, Rubavu, Huye, Rwamagana and Muhanga. However, two districts namely Burera and Nyaruguru have lowest notifications with 45 and 44 TB cases respectively.

Figure 33 Notification of TB cases by district



3.2.4.3. TB management and treatment outcomes

In the TB management and treatment outcomes, all planned TB medicines were procured at 95% however 17% laboratories commodities delayed due to issue of transport caused by SARS-COV-2 pandemic but no stock out of reagent was noticed in laboratory at both central and decentralized level. The overall treatment success rate TB was 86.6%. When considering the type of TB, 88.1% for bacteriological confirmed TB cases and 82.1% of clinically diagnosed cases were successfully treated. The main unfavorable TB treatment outcome was “died” which represented 6% for bacteriological confirmed cases new and relapse and 14.9% for clinically diagnosed cases. The proportion of co-infected TB/HIV on antiretroviral therapy (ART) by the end of their TB treatment reached 97.4% while the target was 90%. TSR of co-infected case for susceptible TB cases was 77.6% and 75.9% MDR TB cases.

Adverse Events (AEs) of TB drugs was done using information on the reporting Tuberculosis individual records (e-TB). Only 53% (3009/5668) of patients had data on adverse events filled and 1.4% (42/3009) reported adverse events. For 45 MDR TB patients on shorter regimen, two reported having grade III of adverse events.

3.2.4.4. TB prevention

For TB prevention, the new national strategic plan for recognized the importance of implementing management of latent TB (LTBI) and proposed to extend this management among PLHIV and household contact of index cases. During this Fiscal Year, management of LTBI was started among PLHIV in five districts emphasized specifically among newly enrolled HIV people and this will be extended for all PLHIV nationwide in the FY 2020- 2021. A total of 1,547 HIV +newly enrolled were screened and 59% were initiated on treatment of latent TB. Isoniazid preventive therapy among under 5 years has been initiated in Rwanda for many years and this 2019-2020 FY, 1389 (97.7%) were screened for TB and 1341 initiated on TB preventive therapy.

The implementation of systematic TB screening among health care workers (HCWs) as well as community health workers has been conducted to control TB among the frontline workers. The proportion of HCWs and CHWs screened for TB was 80% and 87% respectively.

3.2.4.5. TB Treatment Outcome

Treatment outcome data presented for this reporting period(FY 2019-2020) come from the cohort of TB cases registered from 1st July 2018 to 30th June 2019. Total TB cases registered in all forms were 5955, among them 5,845 TB cases were initiated on 1st line TB treatment while 110 cases moved to 2nd line TB treatment. Among bacteriologically confirmed new and relapse TB cases (B+ N&R), the treatment success rate (TSR) was 88.0% (3,734/4,241), including 77.5% cured and 10.5% of treatment completed. For clinically diagnosed (CD), the treatment success rate was 82.1% (1237/1506).

The main unfavorable TB treatment outcome was “died” which represented 6% (252/4,241) for bacteriological confirmed cases new and relapse and 14.8% (223/1506) for clinically diagnosed cases. Not evaluated were 1.1% (46/4241) and 2.1% (32/1506) for B+ N&R and clinically diagnosed respectively.

When considering the treatment outcomes for all forms(DS&DR), it was observed that 86.4% (5146/5955) were successfully treated. For all susceptible TB, the treatment success rate was 86.4% (5051/5845); 8.2% (479/5845) died and 1.3% (78/5845) was not evaluated. 79.3% (917/1,157) for all TB patients with HIV infections on ART were successfully treated (cured or treatment completed); 14% (161/1157) among them were reported died and 1% (12/1157) not evaluated. Adequate nutritional intake is essential to ensure adequate absorption of TB drugs and contribute to patients’ recovery. The NSP 2019-2024 advocates for the provision of nutritional support to all TB patients who present moderate and severe malnutrition (BMI below 18.5). During this FY 2019-2020, Corn-Soya Blend (CSB) was distributed in all district hospital based on the number of TB cases and the estimated cases with BMI<18.5. Around 27,090 kg were distributed to hospitals.

From July 2019 to June 2020, around 97% (1,396/1,427) of all children under 5 years who were contacts of pulmonary tuberculosis bacteriologically confirmed cases were screened for TB. Of

them 10.1% (141/1,396) were identified as presumptive TB cases and 29.1% (41/141) diagnosed with TB among presumptive TB. The number of under 5 years contacts of pulmonary tuberculosis bacteriologically confirmed cases put on IPT was 1343.

Table 26 Under 5 years initiated on tuberculosis preventive therapy, July 2019-June20.

	Number	Screened	Presumptive	TB Cases
Contacts of TPB+ <5ans years	1,427	1,396	141	41
Put on IPT	1,343			

In collaboration with the pediatric association, a mentorship to reinforce knowledge on diagnostic and management of childhood TB was conducted in February 2020 in 7 hospitals which are Muhima, La Medicale, Masaka, Kibagabaga, Rwamagana, Gisenyi, and Kabutare. In the City of Kigali, the mentors was done in health centers.

The following recommendations were formulated during the mentorship:

- Document all pediatric patients with a history of cough and or fever lasting more than 2 weeks and do systematically screening of patients in pediatric ward round especially in severely malnourished children,
- Avail tuberculin skin tests in the health facilities for use in the screening,
- Do regular cough triage and to document it in the appropriate register; use TB algorithm for pediatric TB diagnosis,
- Do regular supervision visit on childhood TB of the health facilities;
- Organize onsite training on childhood TB

Table 27: Key results in Childhood TB management

Indicator	Target 2019-2020	Results
Proportion of children 0-14 years notified among TB case new and relapse	8%	5.7% (315/5567)
Proportion of children with TB successful treated	90%	93.4 % (423/448)
Proportion of eligible children aged 0 to 4 years who are contacts of bacteriologically confirmed index patients started on TB preventive treatment (treatment for LTBI) who completed TPT	90%	99.7% (907/910)
Proportion of eligible children aged 5 to 14 years who are contacts of bacteriologically confirmed index patients started on TB preventive treatment (treatment for LTBI) who completed TPT	NA	NA

Among 140,879 TB presumptive registered, 13% knew their HIV status and 87% didn't know their HIV status of whom 99.6% were tested for HIV. The HIV prevalence among TB presumptive was 13.6%. See table.

Table 28 HIV Screening among TB presumptive cases

Screening of HIV among presumptive TB	Number
TB Presumptive living with HIV/AIDS	18,371
TB Presumptive With unknown HIV status	122,658
TB Presumptive With unknown HIV status tested for HIV	122,167
TB Presumptive With unknown HIV status whose Status become HIV+ (after test)	841
Total HIV positive Presumptive	19,212

Active case finding among PLHIV was conducted in three health facilities of Nyamata DH (Nyamata DH, Nyamata HC. Mareba HC) using also chest x-ray as screening tool. A total of 431 out of 959 (44.9%) people living with HIV were screened for pulmonary tuberculosis, 8.8% were presumptive TB and one TB case was diagnosed. Among TB cases diagnosed, the HIV prevalence was 19.9%(1132/5667). The treatment success rate (cured or treatment completed) for all TB patients with HIV infection was 77.6% (924/1190), death represented 15.5% (184/1190), and lost to follow up and not evaluated were 5.3% (63/1190) and 0.8% (10/1,190) respectively. Ninety-seven percent (97.4%(1,186/1218)) of co-infected TB/HIV patient started ART before the end of TB treatment. See figure below.

3.2.5. Leprosy prevention and control

The elimination of leprosy as public health problem was defined by WHO as a registered prevalence of less than 1 case per 10,000 population. Rwanda has already achieved this target of leprosy elimination (0, 02) and the next step will be to receive certification from the WHO. For this reporting period, a national strategic 2019-2024 for the Leprosy control was developed. It aims at the elimination of leprosy in Rwanda. This new strategic plan emphasizes on the control of Leprosy in endemic and non-endemic areas. During this fiscal year, 20 leprosy cases were diagnosed among them 19 were new cases and 1 retreated case after default. The proportion of MB cases represented 57.9% and 89.5% of cases were female. The proportion of G2D among new cases is 15.8 % for MB and 0% for PB. The treatment completion rates for PB registered from July 2018 to June 2019 and MB forms registered from July 2017 to June 2018 for new cases were respectively 92% and 100%.

3.3. Maternal Health and Child Health Services

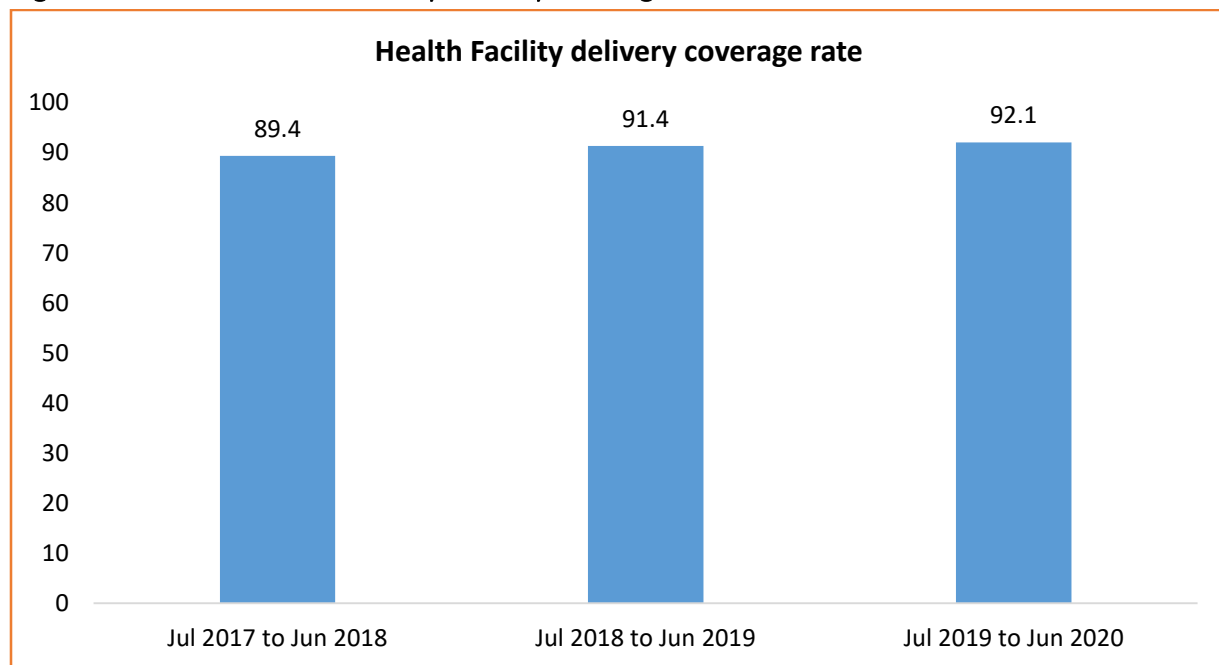
a. Antenatal care services (ANC)

In the FY 2019-2020, around 42 % of pregnant women attended ANC health services within the first quarter while only 35% completed the four standard visits during the pregnancy period.

b. Assisted delivery

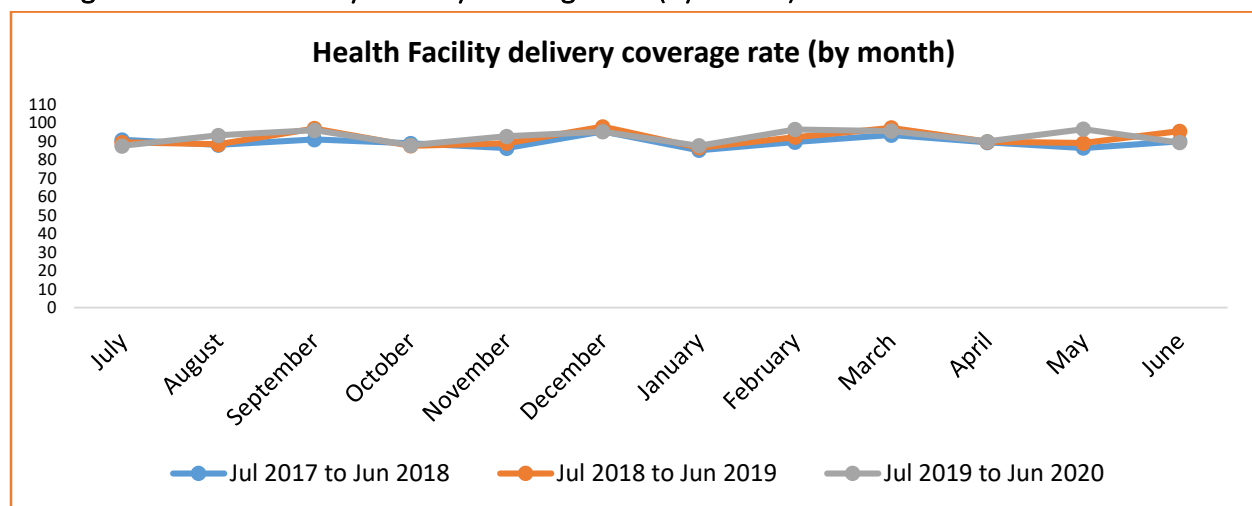
In the FY 2019-2020, health facility assisted delivery reached 92.1%, which represents a slight increase compared to the previous FY 2018-2019 (91.4%).

Figure 34 Trends of Health Facility delivery coverage rate 2017-2020



The proportion of pregnant women going to Health Facilities for delivery has been increasing over the last three fiscal years.

Figure 35 Health Facility delivery coverage rate (by month) in the last three FY



It appears that, for the last three fiscal years, many deliveries in health facilities occurred in September, December and March.

c. Maternal mortality

The institutional maternal mortality rate declined from 165/100,000 live births in 2017/18 to 141/100,000 live births in 2019-2020. Direct obstetrical causes were responsible of 73% of deaths and post-partum hemorrhage is still the leading cause.

d. Child Health

Perinatal mortality decreased from 31.3‰ in 2015/16 to 25.9‰ in 2019/2 and 99% of newborn were born alive. The number of under 5 children received and treated in Integrated Management of Childhood Illness (IMCI) services increased from 57% in 2015-2016 to 84% in 2019-2020. Training modalities refined from heavily loaded sessions to low-dose high frequency training in Basic Emergency Obstetric and New-born Care at health center level and Comprehensive Emergency Obstetric and New-born Care to improve uptake of skills. Maternal, Neonatal and Child Death are monitored, and actions taken through a strengthened Surveillance and Response system, replacing the old Deaths Audits.

Around 93% of children received Bacille Calmette-Guérin vaccine (BCG), 84% received polio 0; over 95% of children have been vaccinated with pentavalent vaccine 1st dose, 95% children have been vaccinated with pentavalent vaccine 2nd dose, 96% children were vaccinated with pentavalent vaccine 3rd dose, 97% were vaccinated for Measles & Rubella (MR1) 1st dose at 9 months of age, while 93% were vaccinated for MR2 at 15 months of age and 92% pregnant women received Tetanus vaccine. The cold chain capacity at national vaccine store was reinforced and now is 139,143.2L net storage capacity for positive for cold rooms, net volume and negative is 8,571.4L net volumes for freezer rooms. In the Cold Chain Equipment Optimization Platform (CCEOP) framework, 423 refrigerators were purchased to increase the cold chain capacity of decentralized level.

e. Family planning

By June 30, 2020, the contraceptive prevalence rate was at 51% for all methods combined and modern contraceptive prevalence rate was at 50%. Around 52% of women who gave birth from July 2019 to June 2020 received also a FP method in post-partum period. There was a positive trend of FP uptake from 36% in 2015/16 to 51% to 2019/20 and PFP increased from 32% to 53%.

To address issues related to FP uptake, the MCCH division is promoting the integration of counseling on family planning in antenatal and post-natal care, and the expansion of social marketing for condoms, emergency and long-lasting contraceptives to improve availability and reduce the high unmet need of the last five years. Two MCH week integrated campaigns were organized and conducted by RBC/MOH with development partners during the FY 2019-2020. A total of 57,110 clients received FP methods.

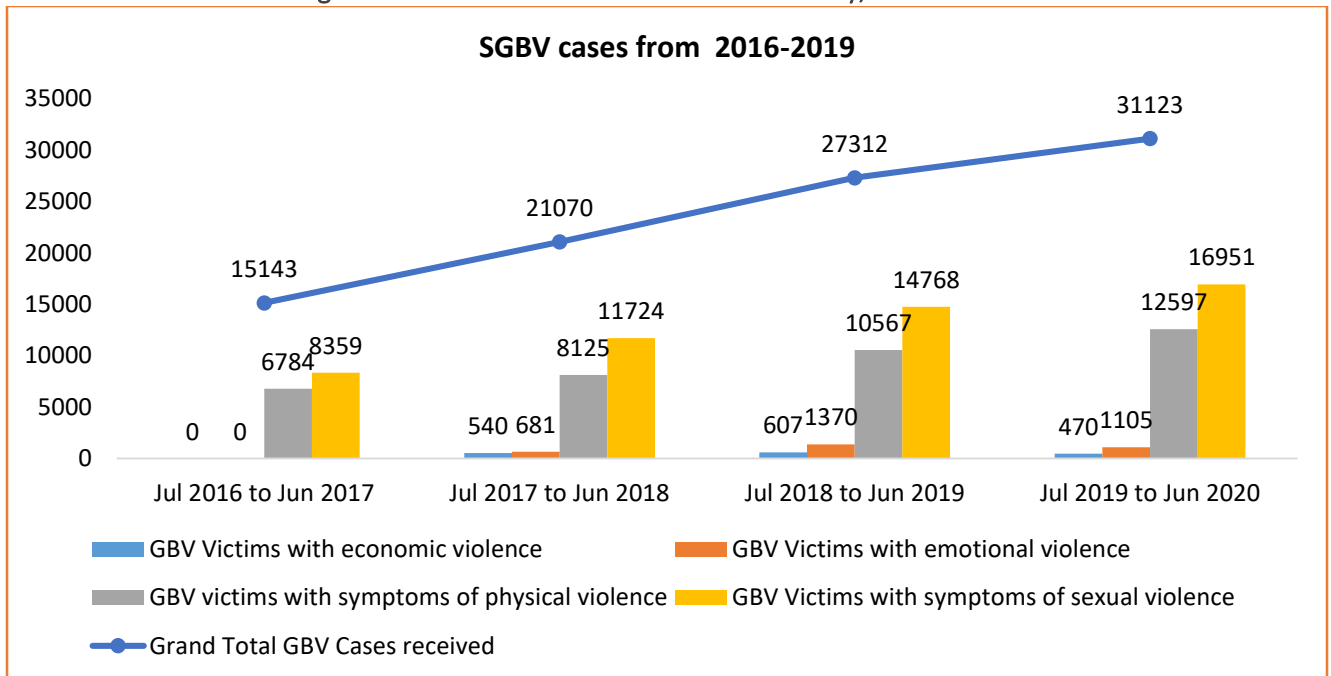
f. Nutrition

By end of June 2020, the screening for nutritional status of under 5 years using weight for age was at 77%. The global acute malnutrition was 0.7%. The trend of growth monitoring coverage since last five years is increasing from 71% in 2018-2019 to 75% in 2019-2020. In 2 consecutive campaigns, children aged 1 to 15 year were dewormed respectively in October 2019 and June 2020. A total of 5,262,627 children were reached in the first campaign and 4,943,350 children were reached in the second campaign. Due to schools closing as preventive measure to control the COVID 19 pandemic, the June’s campaign used a community approach for deworming.

g. Sexual and gender-based violence (SGBV) cases received at Health Facilities

Efforts invested in SGBV awareness raising has greatly contributed to Health services seeking among victims. The number of SGBV victims who come to seek healthcare services has been increasing over the last years. A total number of 31,123 SGBV victims were reported in the FY 2019-2020.

Figure 36: SGBV Cases received at Health Facility, 2016-2019



3.4. Epidemiology and Disease Surveillance

For this reporting period, two major diseases received more attention than the others: Ebola Virus Disease (EVD) and COVID-19 Pandemic.

3.4.1. National Ebola Viral Disease Contingence Plan

Since the Ebola Viral Disease (EVD) outbreak was declared in North Kivu, Democratic Republic of Congo (DRC) in August 2018, bordering countries, including Rwanda, were at a high risk for Ebola transmission. As a result, the Government of Rwanda adopted measures related to the preparedness and response plan for EVD. A National Ebola Viral Disease Contingence Plan was adopted and is being implemented, focusing on the rehabilitation hospital isolation units, construction of water, sanitation and hygiene (WASH) facilities and shelters for thermal screening cameras, and the installation of thermal imaging cameras at port of entries to strengthen and facilitate the implementation of EVD preparedness plan.

3.4.2. Coronavirus Disease 2019, National Preparedness and Response Plan

The COVID-19 was first reported to the WHO Country Office in China on 31 December 2019. It was initially identified as a pneumonia of unknown cause detected in Wuhan Province, in China. The outbreak was declared a Public Health Emergency of International Concern on 30 January 2020. On 11 February 2020, WHO announced a name for the new coronavirus disease: COVID-19. From day the COVID-19 was reported to WHO and communicated to the world, the Government of Rwanda started to follow up on the trend and evolution of the disease, provided advice to the population, coordinated with partners on the response to the disease, helped the Rwandan population prepare, procured and distributed medical supplies and drugs, and managed inter-sectoral response to the pandemic. The next paragraphs summarize the progress made by the Government of Rwanda regarding the response to the COVID-19.

The first case of COVID-19 was detected in Rwanda on March 14, 2020. As of May 5, 2020, out of 35096 people screened since the confirmation of the first COVID-19 case in Rwanda, there were 261 confirmed cases of COVID-19. All the people who tested positive for the COVID-19 were referred to designated sites for COVID-19. Treatment. A total of 128 people has fully recovered from the COVID-19, and 133 are pursuing the treatment. Rwanda has not yet registered a COVID-19-related death.

When the COVID-19 outbreak was confirmed in China and communicated by WHO to the World, Rwanda immediately activated her readiness and response plan to the disease as follows:

- A National Steering Committee Chaired by the Right Hon. Prime Minister was established to oversee Rwanda's preparedness and response to the COVID-19 pandemic in all its aspects, mainly the capacity for screening COVID-19, availing isolation and treatment sites in case of confirmed COVID-19 in Rwanda;
- A national mass media campaign focused on the COVID-19 awareness raising and preventive measures was initiated countrywide. It focused on handwashing and sanitization, social distancing and hygiene in public places.

3.4.3. Situation after the confirmation of the first COVID-19 case in Rwanda.

In the first week of after first COVID-19 case was confirmed in Rwanda on March 14, 2020, the level of alertness was increased without restriction movements of people and goods and the following measures were taken:

- All public gathering (meetings, workshops, churches, schools, etc.) were suspended
- Two COVID-19 treatment sites were launched at Kanyinya Modernized Health Center and at Namaste Lapalisse Hotel.
- Several isolation sites were also opened. As of March 05, 2020 there were 8 operational isolation sites (Kabgayi, Hilltop Hotel, Masoro-AUCA, IPRC-Kicukiro, Nyarutarama, Kagarama, Dove Hotel and Lapalisse Hotel). There are also other isolation sites in Gasabo and Kicukiro Districts.
- All Hospitals, both private and public, availed two rooms for isolation sites: one for males and another for females.
- A national, multidisciplinary command post was established to coordinate daily the management of the national response to COVID-19 outbreak. The command post has four cells:
 - The Epidemiology and Operations Cell: It includes the rapid response team, contact tracing team, the laboratory team, the hospital coordination team;
 - The administration and logistics cell;
 - The risk communication Cell;
 - The Planning Cell.

- The national mass media campaign focused on the COVID-19 awareness raising and preventive measures was intensified countrywide, and handwashing and sanitization, social distancing and hygiene in public places was enforced.
- On the March 21, 2019, one week after the first COVID-19 in Rwanda, the Government of Rwanda raised alertness at its highest level and started implementing the total lockdown that restricted people’s movements and imposed a “Stay at home” as a solution to control the spread of the virus in the community. The lockdown impacted hugely on people living conditions, especially those in vulnerable and unstable socioeconomic situations. Those would have also deranged people’s welfare. However, after comparing risks and consequences for all scenarios and situations, the Government adopted the lockdown as the last solutions and put in place measure to mitigate its impacts. Regarding the health sector, the following are challenges that were identified and implemented with mitigation measures.

Table 29 challenges caused by the lockdown and Implemented mitigation measures

Challenges caused by the lockdown	Implemented mitigation measures
Risk of starvation for very people households that depend on daily casual employment	<ul style="list-style-type: none"> • Supply of food and other households’ basic needs to households at the risk of starvation to poor households • Maintaining existing social support to households as per Ubudehe Categories
Living conditions for people in isolation and treatment sites for COVID-19	<ul style="list-style-type: none"> • All expenses related to the COVID-19 treatment and stay in the isolation sites are supported by the Government of Rwanda. • Patients who recover from the COVID-19 are transported by the Government back their homes. • Because of the mental distress associated with COVID-19, a team of trained psychologists’ health people in treatment and isolation sites to manage their mental distress.
Risk of the ordinary healthcare services delivery because of limited transport and restriction on people’s movements.	<ul style="list-style-type: none"> • All health facilities were not concerned by the lockdown. Healthcare professionals staying away from their health facilities were facilitated to stay near their health facilities; • All hospitals and health centers were instructed to work closely with the Local Government to ensure that the supply of medical care is maintained and that all people who need emergency care are facilitated to reach the Hospital. • Supply of drugs and medical supplies in the community was also sustained through District Pharmacies and other channels. For instance, people with chronic disease on a chronic treatment was supplied treatment using Drones (e.g. Cancer treatment) or were given drug for a longer period (e.g. Patient on ART).

As of June 30, 2020 Rwanda had performed 75,875 tests and 655 people had tested positive for COVID-19.

Table 30 COVID19 testing and treatment

Month	# of testing labs	# of tests done	#of confirmed cases	# of recovered cases	# of COVID-19 treatment Centers	# of COVID_19 designated beds in TCs	# of beds occupied in TCs
Mar-20	1	9,099	75	-	2	125	75
Apr-20	1	21,690	168	104	2	193	139
May-20	1	37,279	127	152	3	146	113
Jun-20	5	75,875	655	191	9	751	576

3.4.4. Diseases morbidity in all health facilities

In the FY 2019-2020, respiratory diseases were the number one cause of consultations in Health Facilities among under 5 years children and among those aged 5 years and above. They represented 22.19% among under 5 years children and 24.63 % among those aged 5 years and above for all OPD consultations done in that period.

Table 31 Top ten causes of morbidity in all health facilities in the FY 2019-2020, by age groups

Top ten causes of morbidity from five years old and above in all health facilities, Jul 2019 to Jun 2020		
Disease Group	# of cases	%
Respiratory disease	3,588,384	24.6
Intestinal parasites	1,127,840	7.7
Bone and Joint Diseases injuries	1,043,555	7.2
Malaria cases	940,948	6.5
Oral disease	905,248	6.2
Skin Diseases	734,769	5
Gastritis and duodenitis	707,757	4.9
Diseases of urinary tract system	692,741	4.8
Eye disease	593,953	4.1
injuries	371,860	2.6
Other diseases	3,864,703	26.5
Total Cases	14,571,758	100
Top ten causes of morbidity among under-five years old in all health facilities, Jul 2019 to Jun 2020		
Respiratory disease	605,912	22.2
Diarrhea	254,011	9.3
Skin Diseases	228,064	8.4
Intestinal parasites	163,751	6
Malaria cases	109,451	4
Eye disease	86,500	3.2
injuries	37,568	1.4
Ear disease	30,955	1.1
Bacterial infection	12,539	0.5
Malnutrition	12,314	0.5
Other diseases	1,189,643	43.6
Total Cases	2,730,708	100
Top ten causes of morbidity in all health facilities, Jul 2019 to Jun 2020 (all age groups)		
Respiratory disease	4,194,296	24.2
Intestinal parasites	1,291,591	7.5
Malaria cases	1,050,399	6.1
Bone and Joint Diseases injuries	1,048,692	6.1
Skin Diseases	962,833	5.6
Oral disease	905,248	5.2
Gastritis and duodenitis	708,729	4.1
Diseases of urinary tract system	697,342	4
Eye disease	680,453	3.9
Diarrhea	527,792	3.1
Other diseases	5,235,091	30.3
Total Cases	17,302,466	100

3.4.5. Causes of death in Rwanda

Information on the number of deaths and their causes is invaluable in evaluating and tracking progress towards the national, regional and international goals. The information on the mortality levels, trends and differentials is important for the identification of emerging diseases and conditions, formulation of evidence-based health policies and tracking of the population health status. According to the National Institute of Statistics of Rwanda, the total number of deaths registered in Civil Year 2019 was 23,791 deaths. These data were considered for analysis to estimate mortality statistics in Rwanda for the same year 2019.

3.4.5.1. Key mortality indicators

Vital statistics on deaths provide for the reliable source of mortality indicators such as crude death rates, infant and under-five mortality rates, and age- and sex-specific mortality rates. These data permit the calculation of life expectancy at birth and at other ages. Due to low completeness in death registration, adjustment techniques were used to enable the computation of more accurate indicators. The table below compares key mortality indicators derived from unadjusted registration records and following adjustment; and then shows results obtained with a comparison with the data from other sources.

Table 32: Comparison of key mortality indicators CRVS with indicators from other sources

Indicator	CRVS (Observed)	CRVS (Adjusted)	RDHS 2014/15	4 th PHC (Proj.)
Crude death rate (‰)	2	5.9	-	6.1
Sex ratio at death	124.4	-	-	-
Infant mortality rate (‰)	11.2	31.3	32	38.4
Under five mortality rate (‰)	13.9	38.5	50	53.8

Source: Rwanda Vital Statistics Report 2019

3.4.5.1.1. Crude death rate

The crude death rate (CDR) is the simplest measure of mortality that can provide insights into the health status of a population over time. In addition, the CDR provides a useful indicator of possible problems with the completeness of mortality data. The CDR is a measure of the number of deaths relative to the size of the population at a given point in time, usually at the mid-year. It is expressed in numbers of deaths per 1,000 population per year. The CDR is called a 'crude' rate because it does not take into consideration the age and sex structure of the population. In practice, the risk of death in a given population group varies according to age and sex as well as patterns of socioeconomic status, and environmental and other factors. The calculated CDR using the observed data from CRVS was as small as 2 deaths per 1000 population in 2019 (see Table below); as a result of low death registration completeness. However, the literature shows that CDR very rarely falls below 4 per 1000 populations even in populations with very high life expectancy. Against this background, adjustment techniques were adopted to produce a more accurate estimate of CDR where the adjusted value of CDR at national became 5.9 per 1,000 population.

3.4.5.1.2. Infant mortality rate

Infant mortality rate represents the number of infant deaths (deaths before one year of age) per 1,000 live births in a given population and at a specific period of time, usually a year. The IMR calculated using the CRVS web-based system-generated data showed a value of 11.2 per 1000; a small value due to low completeness. By adjusting observed data, the IMR became 31.3 infant deaths per 1,000 live births, a value that is close to the IMR value obtained under RDHS 2019/2020 (33 per 1000).

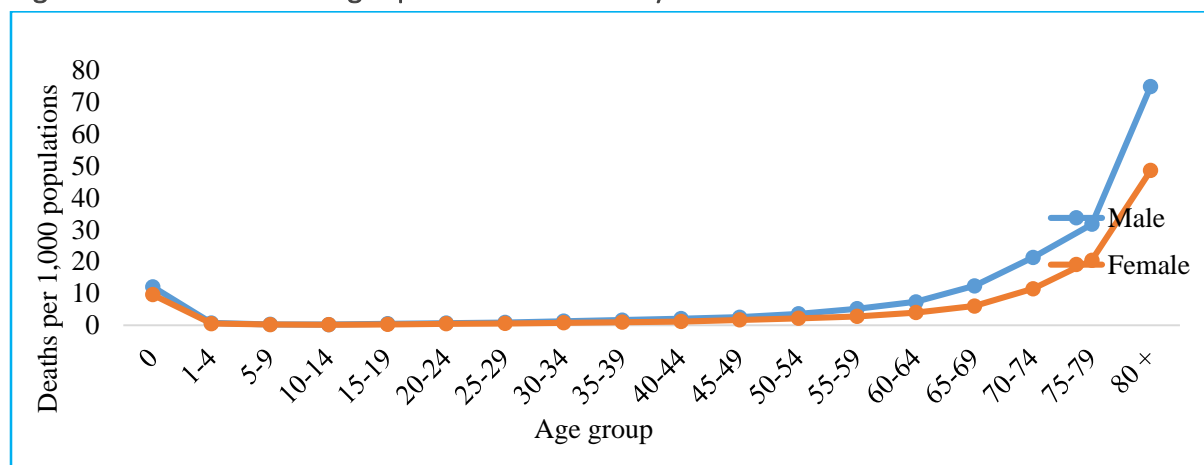
3.4.5.1.3. Under-five mortality rate

Under-five mortality rate represents the number of deaths occurring among children before reaching the age of 5, per 1,000 live births in a given population during a specific period of time (usually a year). The U5MR computed using CRVS web-based system-generated data returned a value of 13.9 deaths per 1,000 live births in 2019. The adjusted CRVS data showed U5MR equivalent to 38.5 deaths per 1000 live births, a low value when compared to RDHS 2019/2020 results of 45 deaths per 100 live births.

3.4.5.1.4. Age-specific death rate

The age-specific death rate (ASDR) is the number of deaths for a specific age or age group in a specific area during a specified period divided by the population of the same age or age group in the same area. The ASDR is a specific indicator of deaths among a given population that reflects mortality behavior across different age ranges. The figure below shows the death rate in Rwanda according to the data recorded by the CRVS web system which shows a sharp increase among the elderly people aged 60 and above and high mortality rates are at below less than one year. The ASDR values were similar for females and males until age 35 after which ASDR is higher for males compared to females.

Figure 37. Distribution of age specific death rates by sex



Source: Rwanda Vital Statistics Report 2019

3.4.5.2. Causes of death

3.4.5.2.1. Background

Recording cause of death is the subset of mortality module in the civil registration system in Rwanda. Prior to October 2017, medical doctors in Rwanda had not been trained on certifying causes of death according to standards guidelines. The 2016 World Health Organizations' (WHO) International Death Certificate was not used in health facilities and the quality of cause of death data was poor. Therefore to resolve that, The Ministry of Health issued a ministerial order to all Health facilities requesting them to correctly certify and report deaths using Medical Certification of Causes of Deaths and International Classification of Diseases (ICD), 10th Revision from 1st January 2018, for defining and reporting diseases and health conditions and enables the comparison and sharing of health and mortality information. The WHO has recommended the countries to use the standardized tools in District Health Information System DHIS 2 mortality module that has been linked to the CRVS system for better reporting and comparability with other mortality statistics,

Currently, over 98% of Health facilities are certifying and reporting deaths and causes of death. 12,512 deaths were reported using standardized WHO recommendable tools in DHIS2 mortality module in 2019.

The use of the ICD facilitates storage, retrieval and analysis of data and enables the systematic and standardized recording, analysis, interpretation comparison and sharing of morbidity and mortality data within a population and across countries.

ICD-10 causes of death are organized into 21 chapters covering three broad groups of causes:

- Group 1: Infectious and parasitic diseases (i.e. tuberculosis, pneumonia, diarrhoea, malaria, measles); maternal/perinatal causes (i.e. maternal haemorrhage, birth trauma); and malnutrition.
- Group 2: Non communicable diseases (i.e. cancer, diabetes, heart disease, stroke); and mental health conditions (i.e. schizophrenia).
- Group 3: Injuries (i.e. road accidents, homicide, and suicide).

In principle, every death should have a defined cause. However, when the quality of medical certification is imperfect, some deaths will be assigned to ill-defined causes of limited value for public health purposes (sometimes designated as “unusable” or “garbage” codes).

3.4.5.2.2. Medical certification of cause of death

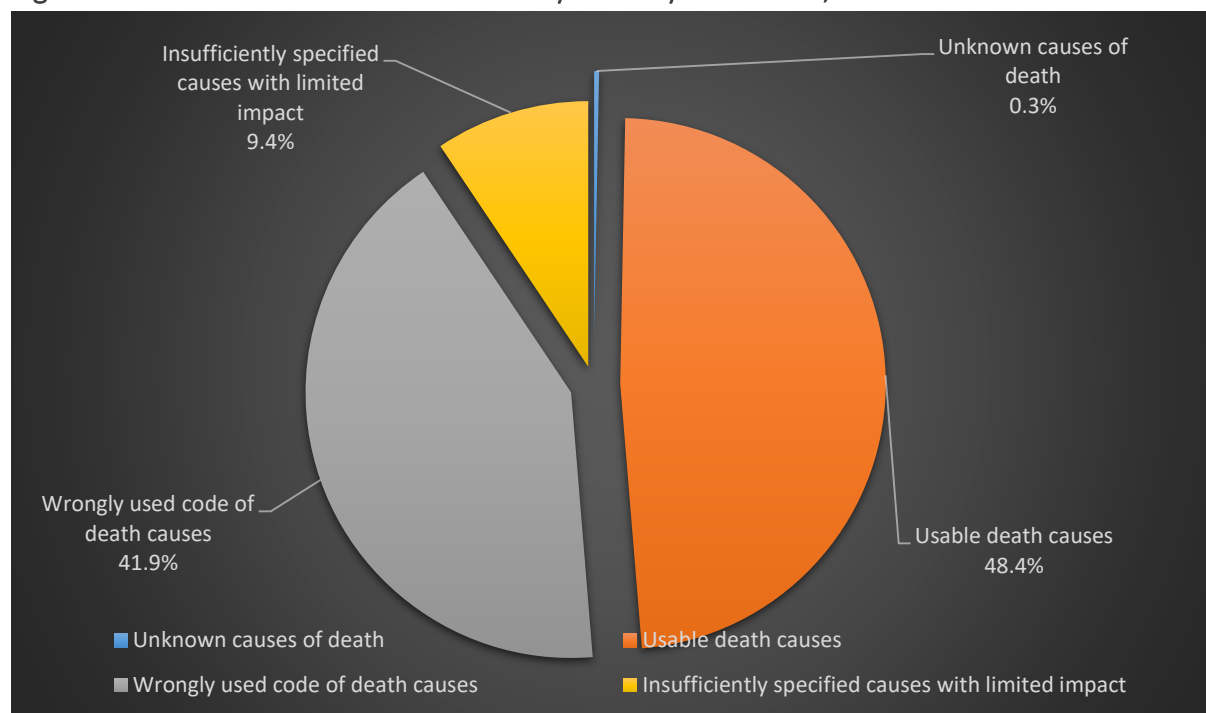
To improve the quality of causes of death statistics in Rwanda, the government initiated two major interventions namely: the introduction of verbal autopsy to gain a better understanding of the patterns of causes of death when people die out side health facility where there is no physician to certify death; and the integration of Medical Certification of Causes of Death (MCCOD) and International Classification of Disease (ICD 10) 2016 Edition into Health care settings to determine underlying causes of death that occur in Health facilities.

Mortality data from the civil registration and vital statistics system are the only source of health information data available at national and local administrative levels on a continuous basis. An accurate, complete and timely civil registration system provides the foundation for the production of reliable and routine vital statistics. However, the data can suffer a wide range of quality limitations such as late, timeliness, completeness and accuracy of reporting such as ill-defined causes of death and misreporting or misclassification of causes of death. Therefore, it is important to check the data quality and to be transparent about data limitations and identify areas for improvement. For this report, ANACONDA version 4.01 (Analysis of National Causes of Death for Action) was used to check the quality of causes of death and assess the plausibility of national mortality and cause of death statistics.

3.4.5.2.3. Data quality and usability

The first year of experience in medical certification of cause of death according to international standards shows that quality improvements continue to be required. It is important to continue the capacity building of certifiers using WHO standardized tools and quarterly MCCOD quality assessment on individual death certificate using Death certificate quality assessment tool (Appendix 3) to improve the quality of causes of death reported. The ANACONDA tool has been used to provide a detailed information about the quality of cause-of-death information from the Health information system. This indicates that currently only 48.4% of the cause of death data are usable from a public health perspective, as shown in Figure below.

Figure 38: Distribution of causes of death by usability from HMIS, 2019



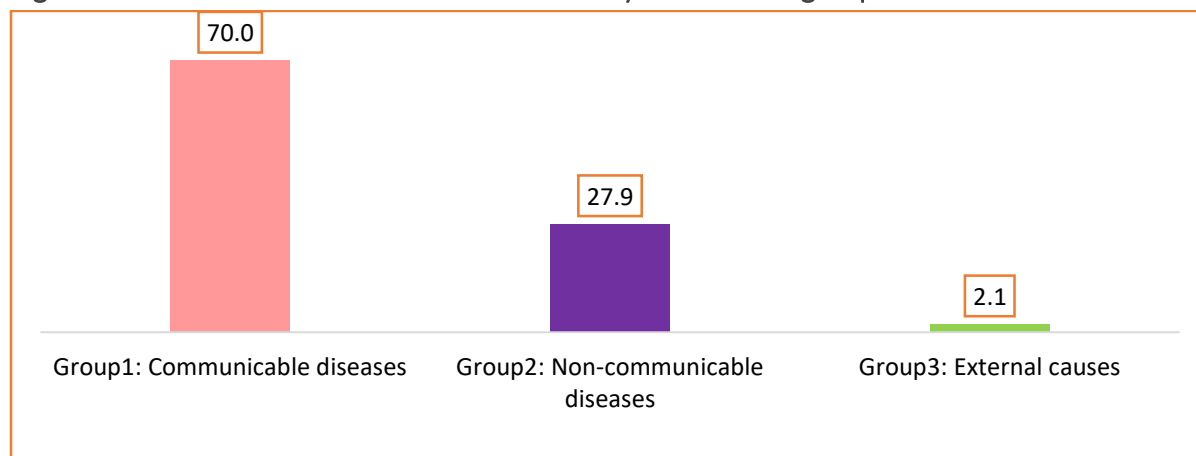
Source:

Rwanda Vital Statistics Report 2019

a. Distribution of usable death causes by three broad groups

Considering the distribution of usable cause of death codes in three broad groups in figure 20, the causes of death are dominated by communicable diseases with 70.0% followed by Non-communicable diseases with 27.9% and group of injuries and external causes. It is not surprising because the standardization and roll out of deaths and causes of death certification in Health facilities began early 2018, and efforts have been focused on quality improvement of mortality reporting.

Figure 39: Distribution of usable deaths causes by three broad groups

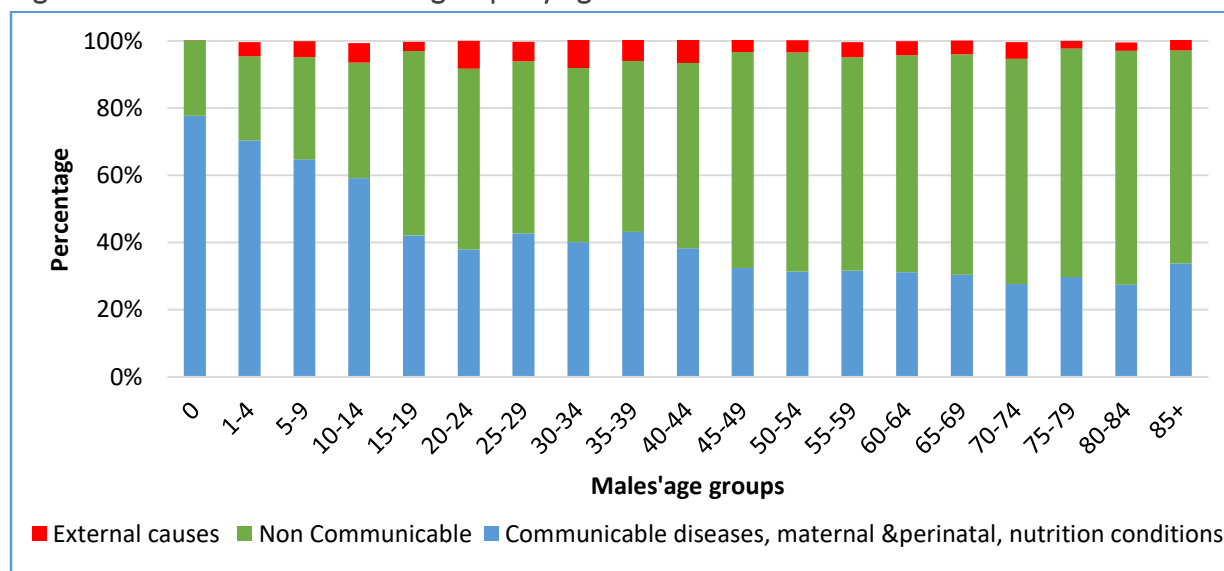


Source: Rwanda Vital Statistics Report 2019

b. Distribution of deaths with defined causes in three broad groups by age and sex

The three main groups of cause of deaths were considered namely for the reported data with causes of deaths and are revealed that the Communicable diseases, maternal & perinatal, nutrition conditions; the group for Non-communicable conditions/diseases and group for all other external causes and injuries. Mortality due to these groups was tracked across the age groups for both males and females. At the early stages of life, most of death causes are due to the group of communicable disease while the group of non-communicable takes over after the age of 10. More focus should be given to the non-communicable conditions to bring down mortality rates. The external causes and injuries were also predominant in males than females but lower than expected, possibly due to the wrongly used codes. More details are found in the figures below and annexes.

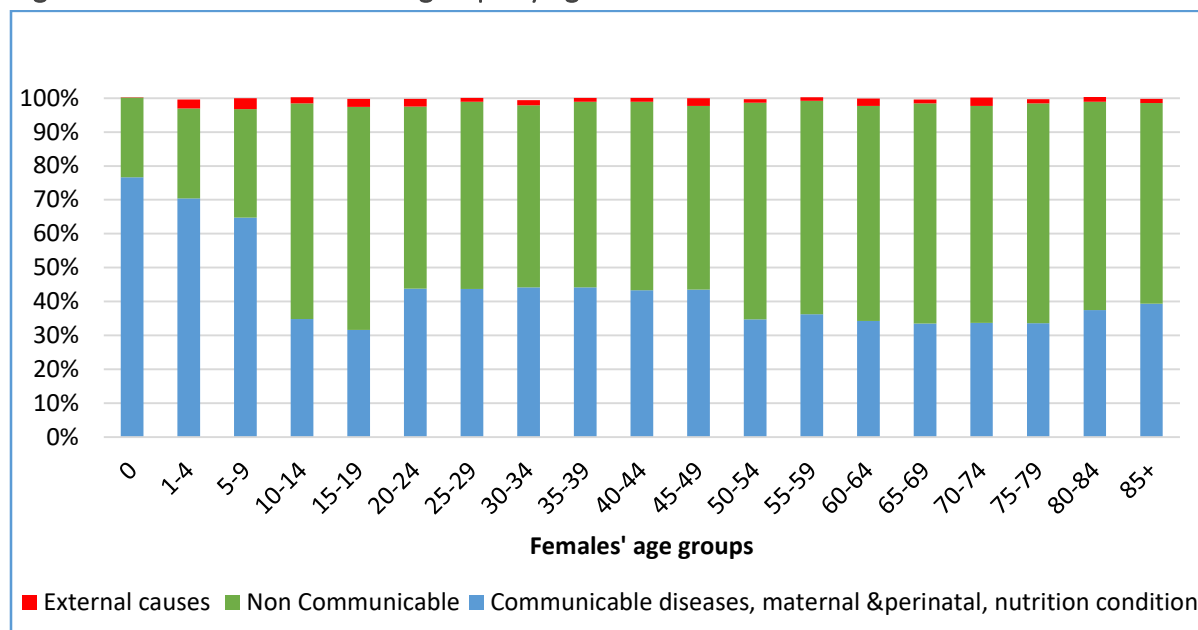
Figure 40: Death causes in broad groups by age of males



Source: Rwanda Vital Statistics Report 2019

In the above figure, communicable diseases, perinatal and nutrition conditions is high in the early age and low in the old age while the high in the old age for male. The external causes were also high among the young children at school age and in the group of active persons but very low in general for male compared to the regional representation of causes of death.

Figure 41: Death cause in broad groups by age of females



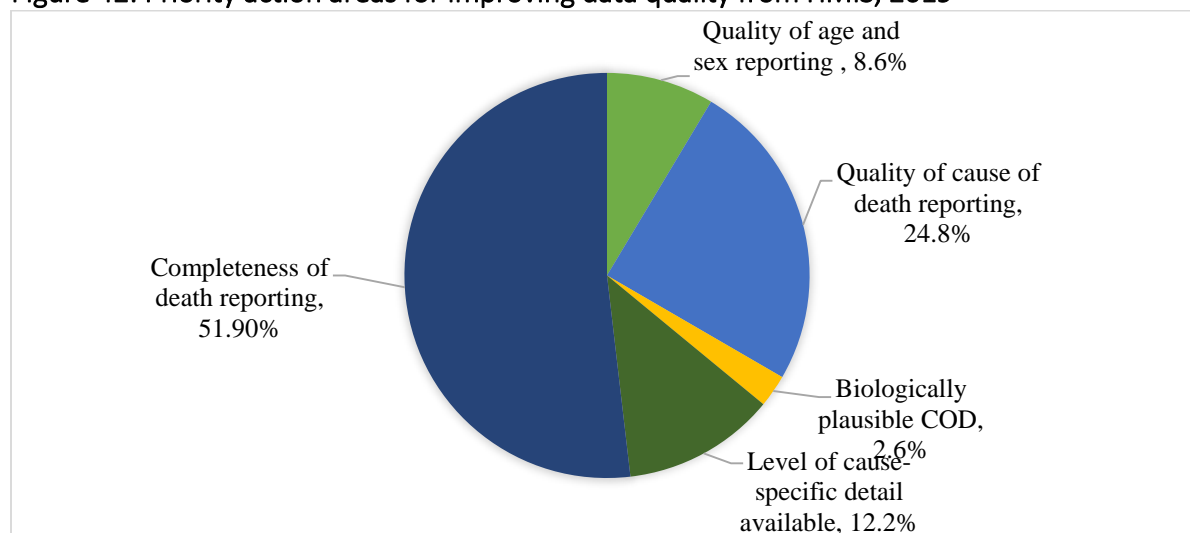
Source: Rwanda Vital Statistics Report 2019

In above figure, the group of communicable diseases, maternal, perinatal and nutrition conditions represents high share in the early age and in more fertile age (20 and 45 years) while the non-communicable diseases is very high starting to the age of 50. This shows a need to focus on the change of life style and living condition as that age is for the active persons.

c. Priorities for action improvements

According to the results, a great percentage of causes of death coding were related to the garbage codes and unspecified codes which are not well used. This shows the need to continue the capacity building of certifiers using recommended WHO standards. Figure 23 illustrates priority policy actions for improving the quality of causes of death according to the ANACONDA tool. Efforts are required on improving completeness of cause of death reporting for community deaths where causes of death are not reported, and there is high ranking of garbage codes dominated by ill-defined conditions and low level of cause specific details available for external causes which shows the need of improving the quality of causes of deaths reported in HMIS. Efforts are currently underway to implement verbal autopsy to address the gap in terms of cause of death information for community deaths.

Figure 42: Priority action areas for improving data quality from HMIS, 2019



Source: Data from HMIS Rwanda 2019

In response, the Government of Rwanda is focusing on key priority actions to improve the quality of mortality and cause of death reporting in the national vital statistics system, as shown in Figure 23. A major effort will be directed to improving registration completeness in order to permit calculation of key mortality indicators. In addition, ongoing capacity development will be supported in order to improve the quality of causes of death determination.

d. Verbal autopsy for community death notification in CRVS

It has been realized that a large number of deaths occur outside health facilities whereby they are not timely notified and recorded in CRVS system. This generally induces under-reporting of deaths and causes of death. As a solution to this, a new platform known as Home-Based Care Practitioners (HBCP) program has been piloted in community at cell administration to boost the reporting of community deaths and probable causes of death using verbal autopsy techniques that are internationally recognized.

The HBCP program was initiated to follow up palliative care patients suffering from chronic diseases, including end-of-life care and bereavement support to families which could in turn reduce the charges for the hospitals and avail the sickbeds for other patients, follow up NCDs stable patients at home, Screening of NCDs and conduct verbal autopsy using standardized Smart VA questionnaire. The home-based care staff were differentiated with voluntary community health workers by their educational background, work package.

These staff were trained to notify community deaths in CRVS web-based system and conduct verbal autopsies to determine a probable cause of death for deaths occurring in the community. CRVS web-based application is linked with the Inter-VA questionnaire installed in their android tablets. The program was piloted within 107 cells selected across all provinces of Rwanda, and has been successful. A separate analysis of data collected through HBCP was not considered in this report due to low coverage of the program that results into non-country representative VA data.

3.5. Health sector budget execution

The table below presents a summary of the Rwanda Health Sector Budget Execution for the FY 2019-2020. The Health Sector Budget Execution for FY2019/2020 considers both Domestic Budget and External Sector Budget Support.

Table 33 Health Sector Budget Execution for FY2019/2020

MTEF Programs/Sub-Programs	Budget	Committed Amount	% of Execution
ADMINISTRATIVE AND SUPPORT SERVICES	59,576,268,376	56,831,509,273	95%
Administrative and support services: MINISANTE	2,617,415,477	2,511,208,023	96%
Administrative and support services: Health Facilities	14,187,973,575	16,902,734,747	119%
Administrative and support services: RBC	41,597,457,063	36,493,357,759	88%
Administrative and support services: FDA	1,173,422,261	924,208,744	79%
HEALTH SECTOR PLANNING AND INFORMATION	48,603,430,850	42,559,584,803	88%
Health sector planning, monitoring and evaluation	19,210,392,381	14,103,807,024	73%
Health information and technologies	2,005,972,301	757,578,968	38%
Health financing	27,387,066,168	27,698,198,811	101%
HEALTH HUMAN RESOURCES	4,563,044,321	3,892,920,599	85%
Health professional development	4,563,044,321	3,892,920,599	85%
HEALTH SERVICE DELIVERY AND QUALITY IMPROVEMENT	45,755,383,900	36,130,716,117	79%
Health promotion and communication	260,830,297	242,276,788	93%
Blood transfusion	787,277,623	712,974,209	91%
Lab diagnostic quality assurance	1,782,059,687	933,488,384	52%
Health research	11,558,339	11,617,800	101%
Health infrastructure and equipment	21,912,424,988	16,187,037,055	74%
Medical production, procurement and distribution	18,012,424,988	15,161,685,214	84%
Health service regulation	1,918,698,217	1,261,406,406	66%
Hygiene and environmental health	721,358,775	1,385,005,278	192%
Pre-hospital and emergency services	348,750,986	235,224,983	67%
MATERNAL, CHILD AND ADOLESCENT HEALTH	5,283,857,936	4,432,555,296	84%
Maternal and child health improvement	900,828,485	1,043,181,559	116%
Vaccine preventable diseases	1,826,344,543	1,553,892,762	85%

MTEF Programs/Sub-Programs	Budget	Committed Amount	% of Execution
Nutrition	760,224,050	637,077,864	84%
Community health	328,131,130	183,973,228	56%
Family planning	1,058,511,892	974,354,883	92%
Adolescent sexual and reproductive health	409,817,836	40,075,000	10%
SPECIALISED HEALTH SERVICES	1,530,639,708	1,530,639,708	100%
Specialized service delivery	1,492,989,708	1,492,989,708	100%
Clinical and operational research	19,650,000	19,650,000	100%
Health facilities mentoring and supervision	18,000,000	18,000,000	100%
FOOD AND DRUGS REGISTRATION & INSPECTION	440,802,502	397,617,081	90%
EW01 food and drugs assessment & registration	55,675,218	57,075,546	103%
EW02 food and drugs inspection & safety monitoring	385,127,284	340,541,535	88%
INFECTIOUS DISEASES PREVENTION AND CONTROL	11,548,560,557	33,430,159,023	289%
HIV/AIDS, STIS and other blood borne diseases	7,204,809,750	9,711,028,048	135%
Tuberculosis and other respiratory communicable diseases	609,519,121	390,592,091	64%
Malaria and other parasitic diseases	3,358,636,197	3,320,435,664	99%
Epidemic surveillance and response	375,595,489	20,008,103,220	5327%
NON-COMMUNICABLE DISEASES AND MENTAL HEALTH PREVENTION AND CONTROL	617,383,791	466,621,078	76%
mental health	202,205,765	180,143,533	89%
non communicable diseases	415,178,026	286,477,545	69%
Earmarked to District	47,363,033,699	48,326,171,884	102%
Grand Total	224,665,021,849	227,531,873,784	101%

In the FY 2019-2020, a total of FRW 227,531,873,784 were spent across the Rwanda Health Sector. The overall budget execution exceeded the planned budget and reached 101 percent. That overspending was mostly observed in the Infectious Diseases Prevention and Control whereby it increased by 289% due to measures and interventions carried out to respond to covid19 pandemic.