Ministry of Health

Republic of Rwanda

National HIV Annual Report

2014-2015

RWANDA BIOMEDICAL CENTER

A Healthy People. A Wealthy Nation

EXECUTIVE SUMMARY

HIV prevalence in the adult population has remained stable since 2005 at 3% (RAIHIS 2013). HIV prevalence remains higher among women than among men. The highest HIV prevalence is among women aged 35-39 (7.9%) and among men aged 40-44 (7.3%). The City of Kigali, Capital of Rwanda has the highest prevalence at above 6,1% while all other provinces' prevalence is below 3%.

Although the HIV prevalence in the general population remains 3%, Key populations play an important role in the dynamic of HIV in Rwanda. Preliminary results of Behavioral Surveillance Survey (BSS) among Female Sex workers revealed a very high prevalence at 41% nationally but 56% in Kigali city.

Combating HIV and AIDS and its impacts requires political commitment and appropriate effective policies. The Government of Rwanda adopted a multi sectoral approach to the HIV epidemic and sound policies have been at the center. Vision 2020 and the Second Economic Development and poverty reduction strategy (EDPRS 2) recognize HIV/AIDS as a cross cutting issue that should be addressed in all sectors of the country economy. The third Health Sector Strategic Plan (HSSP III 2013-2018), and the National Strategic Plan for HIV (NSP 2013-2018) guide the programmatic response to the HIV epidemic. This report presents the achievements that the government of Rwanda and its partners have realized the second implementation year of the NSP 2013-18, covering the period from July 1st 2014-June 30th 2015.

The goal of the HIV prevention program is to reduce new HIV infections. During the period of the current HIV NSP, the country has set a target to reduce new infections by two-thirds by June 2018 from the 2003 baseline. To reach this target, the country is implementing a combination of HIV prevention programs.

The scale up of testing and counselling continued to ensure geographic coverage. In this reporting period, 17 new health facilities started offering testing and counselling services. This brought the total number of facilities offering HTC services to 557 As a result, over 3.6 million tests were done, 0.8% tested positive.

Male circumcision is another major component of the prevention program. In the reporting period, 162.074 males were circumcised using surgical (127.472) and non-surgical methods (34,602) in both public and private facilities. Majority of the males that received VMMC are aged between 15 and 24 years.

The country continued to implement strategies towards the elimination of mother-to-child HIV transmission. The target for the eMTCT is to keep the new pediatric HIV infections below 2% by 2015. To achieve this, a package of services that include HIV counselling and testing, enrolment into care and treatment, initiation of ART and adherence counselling, counselling about infant feeding and counselling on FP and safer sex is being implemented in all 517 PMTCT sites. Between July 2014 and June 2015, More than 372,000 pregnant women were tested for HIV in antenatal care (ANC) services. Also 85.9% of their partners were tested. 9,798, HIV-positive pregnant women received ART based on the Option B+ guidelines.

Ensuring easy access to early infant HIV diagnosis (EID) is the priority for the eMTCT program. Currently 100% of health facilities offering PMTCT services have access to EID. ART prophylaxis is provided to all HIV exposed infants. Between July 2014 and June 2015, 8,308 infants received ART prophylaxis. A three months cohort of infants born to HIV-positive mothers followed in PMTCT programs, the results showed that 1.79% became infected at 18 months after birth.

The NSP 2013-2018 identified key populations as primary focus in the five years. In this reporting period, the government implemented targeted activities for all the key populations.

The Care, support, and treatment component of the HIV National Program aim to provide services to PLHIV that will enable them to lead a normal life. These services include clinical and biological assessment for ART eligibility and disease progression, and prevention and treatment of opportunistic infections (OI) that include TB, STIs, cervical cancer, Cryptococcus, and other blood borne infections. At the end of June 2015 the HIV National Programme has enrolled a total of 1,269 children in the pre-ART programme, and 8,011 are currently on ART; 145,136 adults and adolescents are currently on ART and majority of them (96%) are on first line making a total of 153,147 People living with HIV on ART as of end of June 2015. Retention and survival rates have increased in past years, during the reporting period. 91.1% adults and 92.8% children are alive and on treatment 12 months after initiation. Nutrition support activities for PLHIV are integrated in the care and support. In the reporting period, the emphasis was on procuring and harmonizing nutrition support for malnourished and vulnerable PLHIV at all health facilities.

HIV/TB collaborative activities have been strengthened by continuing the training of health care providers and health facility managers to improve TB case finding and reporting among

HIV-positive patients. All PLHIV are systematically screened for TB at enrolment and during follow-up visits. All TB suspected patients are diagnosed using different methods, including sputum, chest X-ray and GeneXpert. During RBF Data collection exercise, 96.8% of patients who were co-infected with HIV and TB started both treatments in the last 12 months.

Mitigating the socio-economic impact of HIV on the people infected and affected remains part of the national HIV response. The impact mitigation component of the national HIV response continues to be linked with and benefit from several Government of Rwanda social protection programs.

During the reporting period, socio-economic support was provided to the orphans and vulnerable children and PLHIV. Ensuring the economic viability of associations and cooperatives of PLHIV was done through training on income generating activities as well as financial management. PLHIV continue to receive training and support in human rights and legal issues. This is aimed at fighting stigma and discrimination and ensuring that PLHIV can actually claim them.

HIV programs also support the Orphans and Vulnerable Children (OVC) to reach their full potential and have the same opportunities as all other children. This is done by supporting the OVC to access education, health, food and nutrition as well as protection among others. A national assessment of Most Vulnerable Children (MVC) was conducted in this reporting period. The results show that there are over 700,000 Orphans and vulnerable children in all the districts of the country.

The health system continues to play a vital role in the national HIV response and also it benefits from the HIV programs. Several activities to build the capacity of the institutions were implemented. These include the focus on the laboratory system and strengthening the national reference laboratory. The supply chain system continues to be strengthened to ensure that all commodities are available at the service delivery points. The national coordination activities of the national HIV response through technical working groups also implemented led by the HIV division under RBC. Civil society organizations continue to play a key role of monitoring the programs as well as implementing key prevention, care and support interventions.

The monitoring and evaluation system set up for the NSP 2013-2018 also hit the ground running with in the first year of implementation. Several studies and operations researches were implemented and successfully finalized. The Rwanda AIDS Indicator and HIV

Incidence Survey (RAIHIS) is finalized and preliminary results presented in this report and planned for wide dissemination in August 2015 as well as for BSS FSW and BSS MSM. The data collection activities for the Results Based Financing (RBF) indicators were implemented and presented in this report. Integrated supportive supervision and data quality audits are now institutionalized to ensure that the data reported from routine systems provide the accurate picture of the national HIV response.

Status at Glance

Table 1 : Situation at Glance

Indicators	Data as of June 2015
PREVENTION	
Number of Health facilities providing testing and counselling services	557
Number of HIV tests conducted in the last 12 months	3,634,746
Number of males circumcised	162,074
Number of Health facilities providing PMTCT services	517
Percent of infants born to HIV-infected mothers who are infected by 18 months	1.8%
Number of pregnant women who were tested for HIV	372,611
Percent of pregnant women that tested HIV positive	1.0%
Number of HIV+ pregnant women who received antiretroviral therapy to reduce the risk of mother to child transmission	9,798
New discordant couples registered	5,499
HIV Positive partners in discordant couples under ART	11,407
CARE & TREATMENT	
Number of PLHIV enrolled in Care at health facilities	14,632
Number of PLHIV currently in Pre-ART	19,524
Number of PLHIV currently receiving antiretroviral therapy.	153,147
Number of PLWH initiating ART in the last 12 months	22,512
Number of hospitals and health centers offering full package of HIV services (VCT, PMTCT, ART)	524
Percent of adults and children with HIV known to be on treatment 12, months after initiation of antiretroviral therapy	91.2%
Percent of viral load suppression after 12 months of treatment (< 20 copies/ml)	88.1%

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LIST OF ACRONYMS AND ABBREVIATIONS

AIDS	Acquired Immuno Defficieny Sydrom
ANC	Ante natal Care
ART	Anti-Retroviral Treatment
ARV	Anti-Retroviral (drugs)
BCC	Behavior Change Communication
BMI	Body Mass Index
BSS	Bio-behavioral Surveillance Survey
CCM	Country Coordinating Mechanism
CD4	Cluster Differentiation 4
CDC	Center for Disease
CHUK	Centre Hospitalier Universitaire de Kigali
CHW	Community Health Worker
CI	Confidence Interval
CPD	Continuing professional development
CPDS	Coordinated Procurement and Distribution System
CQI	Continuous quality improvement
CrAg	Cryptococcal antigen
CSB	Corn Soya Blend
CSO	Civil Society Organization
CTX	Cotrimoxazole
D4T	Stavudine
DC	Discordant Couples
DHS	Demographic and Health Survey
DNA	Deoxyribonucleic acid
DTS	Dry Tube Specimens
EDPRS	Economic Development and Poverty Reduction Strategy
EID	Early Infant Diagnosis
e-IDSR	E-Integrated Disease Surveillance System
EMR	Electronic Medical Recording System
EMTCT	Elimination Mother-to-child Transmission of HIV
EPP	Epidemiological Population projections
FHI	Family Health international
FP	Family Planning
FSW	Female Sex Workers
FVA	Faith Victory Association
FY	Financial Year/Fiscal Year
GBV	Gender-Based Violence

GFATM	The Global Fund for AIDS, TB and Malaria
GOR	Government of Rwanda
HAGURUKA	Association for the Defense of Women and Children's Rights
HBC	Hepatitis C virus
HBV	Hepatitis B virus
HCV	Hepatitis C Virus
HF	Health Facility
HIE	Health Information Exchange Project
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HRH	Human Resources for Health
HRTT	Health Resource Tracking Tool
HSS	Health System Strengthening
HSSP III	Health Sector Strategic Plan III
HTC	HIV Testing and Counselling
IEC	Information, Education, Communication
IGA	Income Generating Activities
IHDPC	Institute of HIV Disease Prevention and Control
iHRIS	Integrated Human Resource Information Systems
ISS	Integrated Supportive Supervision
KIP	Kigali Imbereheza Project
KP	Key Populations
KYE/KYR	Know Your Epidemic/Know Your Response
LFA	Lateral Flow Assay
M&E	Monitoring and Evaluation
MIGEPROF	Ministry of Gender and Family Promotion
MNCH	Maternal, Newborn, And Child Health
MoH	Ministry of Health
MPPD	Medical Procurement and Production Division
MSM	Men who have Sex with Men
MTCT	Mother to Child Transmission
MTEF	Midterm Expenditure Framework
MUAC	Mid Upper Arm Circumference
MVC	Most Vulnerable Children
NCC	National Commission for Children
NEAR	Switch from Nevirapine-based regimen to once a day Rilpivirine/Emtricitabine/Tenofovir in virologically-suppressed HIV-infected Rwandans
NGO	Non-Government Organization
NGO	Non-Government Organization
NNRTI	non Nucleosidique reverse transcriptase Inhibitors
NRL	National Reference Laboratory
NSP	National Strategic Plan
OBBI	Other Blood Borne Infections

OI	Opportunistic Infection
OR	Odds Ratio
OVC	Orphans and Vulnerable Children
PBF	Performance Based Financing
PCR	Polymerase Chain Reaction
PEPFAR	U.S. President's Emergency Plan For AIDS Relief
PITC	Provider-initiated Testing and Counseling
PLHIV	People Living with HIV
PMTCT	Prevention of Mother-to-Child Transmission of HIV
POC	Point of Care
QMS	Quality Management System
RAIHIS	Rwanda AIDS Indicators ad HIV Incidence Survey
RBC	Rwanda Biomedical Center
RBF	Results Based Financing
RFHP	Rwanda Family Health Project
RNA	Ribonucleic Acid
RRP+	Réseau Rwandais des Personnes Vivant avec le VIH (Rwanda Network of PLHIV)
SC	Supply Chain
SDA	Service Delivery Areas
SDC	Sero-Discordant Couples
SMLTA	Strengthening Laboratory Management Towards Accreditation
SOP	Standard Operating Procedures
SSF	Single Stream Funding
STI	Sexual Transmitted Infection
TB	Tuberculosis
TVET	Technical and Vocational Education Training
TVs	Television
UN	United Nations
UNAIDS	Joint United Nations Program on AIDS
UNFPA	United Nations Population Fund
USD	United Stated Dollars
USG	United States Government
VCT	Voluntary Counseling and Testing
VL	Viral Load
VMMC	Voluntary Medical Male Circumcision
WAD	World AIDS Day
WHO	World Health Organization

I. INTRODUCTION

1.1 Overview of the HIV epidemic in Rwanda

1.1.1 HIV prevalence

As in other parts of the world, the HIV epidemic in Rwanda came to the fore in the 1980s. The HIV epidemic was generalized *i.e.*, HIV was spreading throughout the population and not only in specific population groups. Most of the HIV transmission was by heterosexual contact and mother-to-child transmission during pregnancy, at birth, and through breastfeeding. The national prevalence among the adults has remained stable at 3% since 2005. From 2005 to 2013, HIV prevalence has declined in adults aged 15 to 39 years while slightly increasing in those aged 40 years and above. The trend is the same for both females and males. This could be explained by increased survival of PLHIV, more new infections happening in older people than in young people, and maturing epidemic.

Figure 1. Adult HIV prevalence

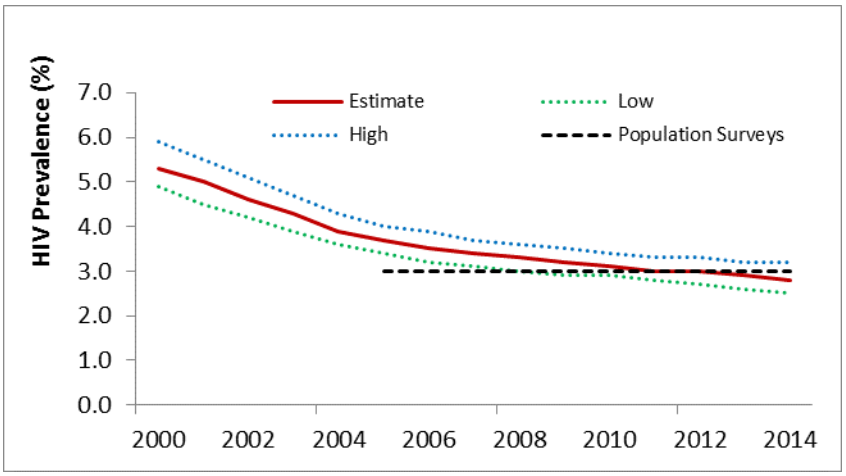
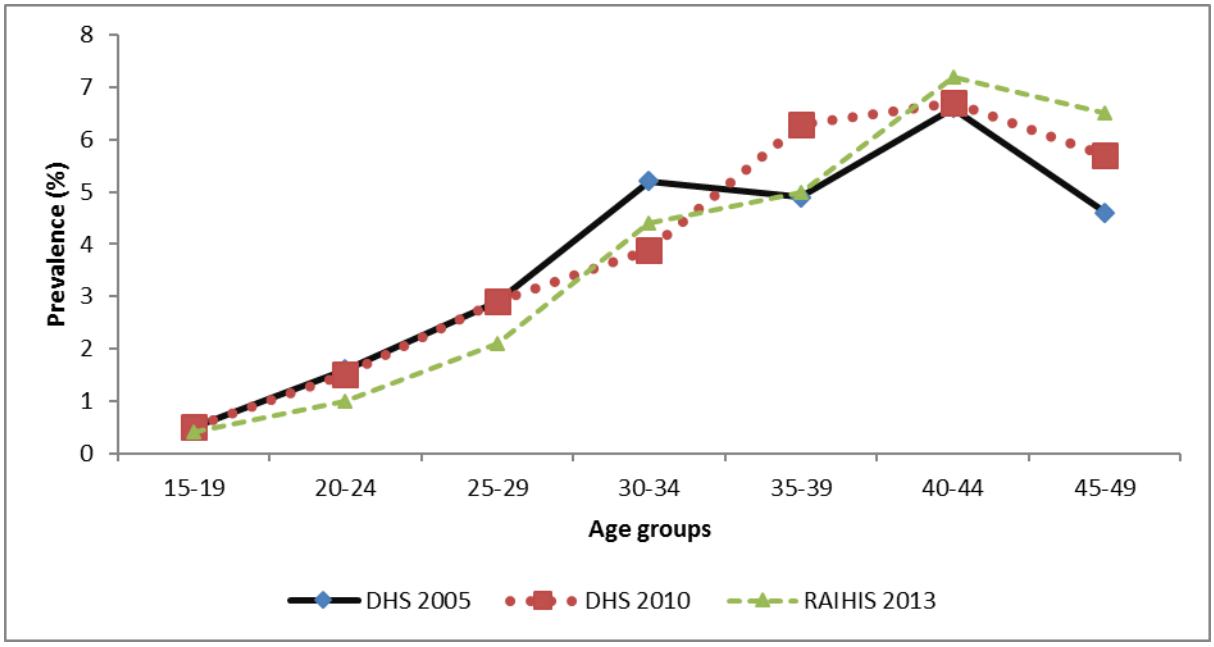


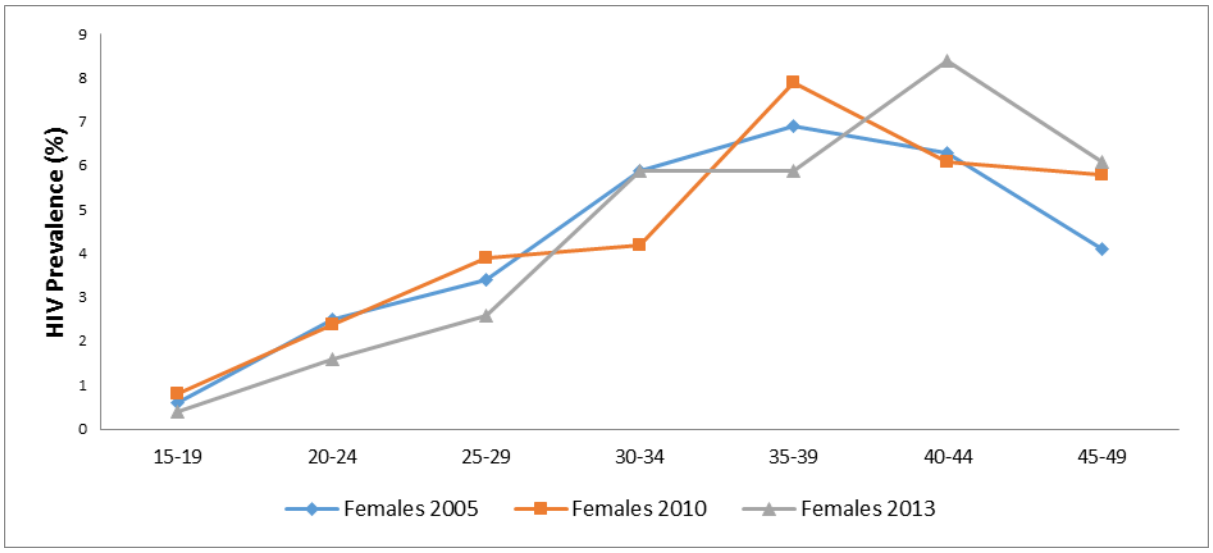
Figure 2: HIV prevalence by age (15-49 years) (DHS 2005, DHS 2010 and RAIHIS 2013[1])



Source : DHS 2005 & 2010, RAIHIS 2013

HIV epidemic in Rwanda has demonstrated to be varying by location and population. It has remained high in urban areas and females. Also some population characteristics have higher prevalence than others. For example, the HIV prevalence is 8.9% among males that reported to have paid for sexual intercourse in the 12 months prior to the survey.

Figure 3. HIV prevalence among adult females 2005, 2010, 2013



Source : DHS 2005 & 2010, RAIHIS 2013

[1] Rwanda AIDS indicator and HIV Incidence survey, 2013-2014.

Figure 4. HIV prevalence among adult males 2005, 2010 and 2013.

Source : DHS 2005 & 2010, RAIHIS 2013

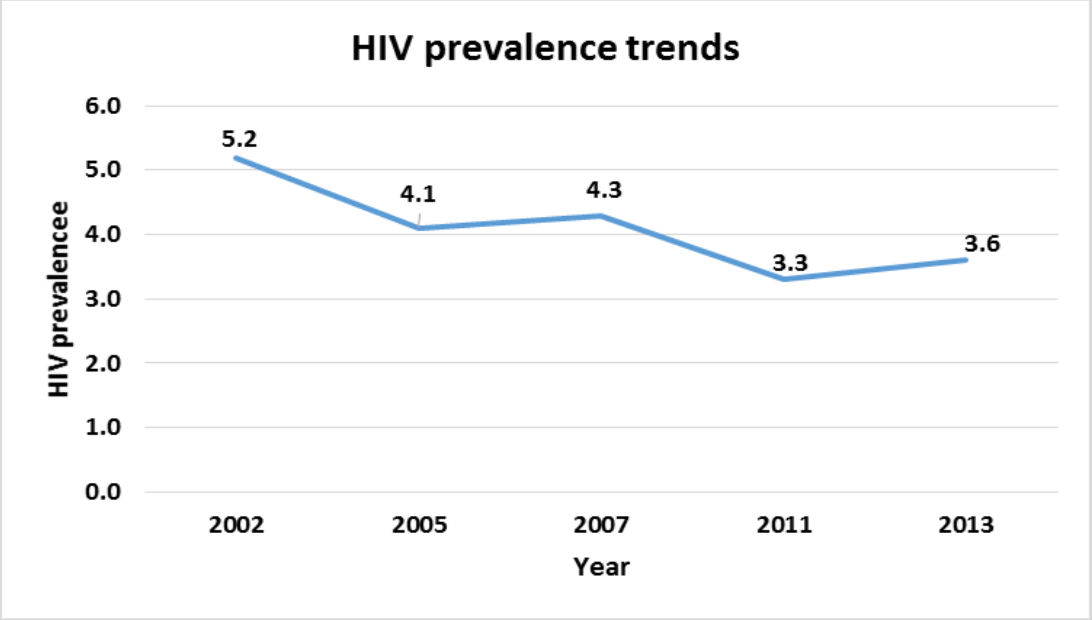
The HIV prevalence in the urban areas is consistently about twice as high as in rural areas and is higher among females than among males. Much as the HIV is generalized, it is concentrated in key populations. The NSP 2013-2018 identified main key populations as female sex workers (FSW), men who have sex with men (MSM), and sero-discordant couples (SDC). The preliminary data showed the HIV prevalence among FSWs[2] to be 41.4% nationally. This is a 9.5 percentage point decrease from what was observed in 2010 (FSW BSS 2010), where it was 51%. HIV prevalence has remained high in FSW in Kigali city, where it is 57.2% (compared to 56% in 2010). Rwanda also conducted the first behavioral surveillance survey among MSM[3]. It was a respondent driven sample of 492 males. Preliminary results show that the HIV prevalence among MSM in Rwanda is 3.3%. The study also highlighted key characteristics of MSM that will help shape interventions targeting this group. For example, the study showed high uptake of male circumcision (75.5%), high uptake of testing and counseling (84%), high prevalence of sexual violence (14%).

Rwanda also conducted sero-surveillance survey among pregnant women attending Antenatal Care (ANC) using PMTCT data. The analysis of the 2013 round showed that HIV prevalence among pregnant women (at old and new sites) was 3.1% [95% CI 2.7 - 3.7]. looking at the

[2] Combined behavioral and biological surveillance survey of HIV infection among female sex workers in Rwanda 2015
[3] Men who have sex with men behavioral surveillance survey in Rwanda, 2015

trend from sites that have been part of the sero surveillance survey since 2002 shows that the HIV prevalence has slightly increased from 3.3% that was observed in 2011. HIV prevalence in new sites was 2.3%, [95%CI: 1.9 - 2.8].

Figure 5 HIV prevalence trend in ANC sites that have been part of the sero-surveillance survey since 2002.

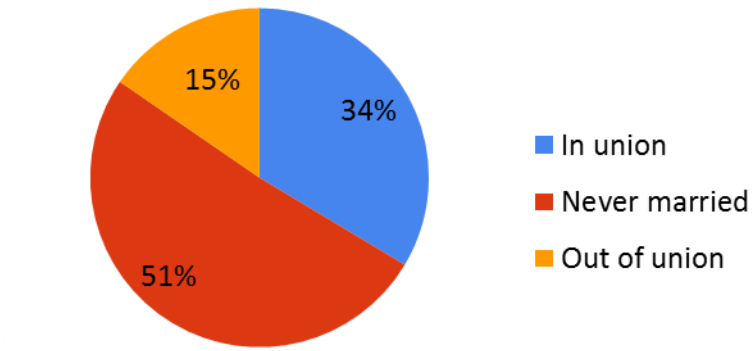


Source: ANC serosurveillance among Pregnant women (2002,2005,2007,2011 & 2013)

1.1.2 New Infections

The Rwanda AIDS Indicator and HIV incidence survey (RAIHIS) also collected data on new infections.A cohort of individuals who tested HIV negative during the AIDS indicator survey and consented to continue to be part of the survey, where tested 12 months after to estimate the number of new infections happening in HIV negative adults in 12 months.The results showed that HIV incidence was 0.27%, which means that nearly 3 new infections happened in 1000 HIV negative adults in 2013-2014. The distribution of new infections shows that more than half were unmarried (single) while one third was among those in union. Only one in seven new infections happened in widowed/divorced/separated (out of union).Also 74% of new infections happened in rural areas and 62% were among females.

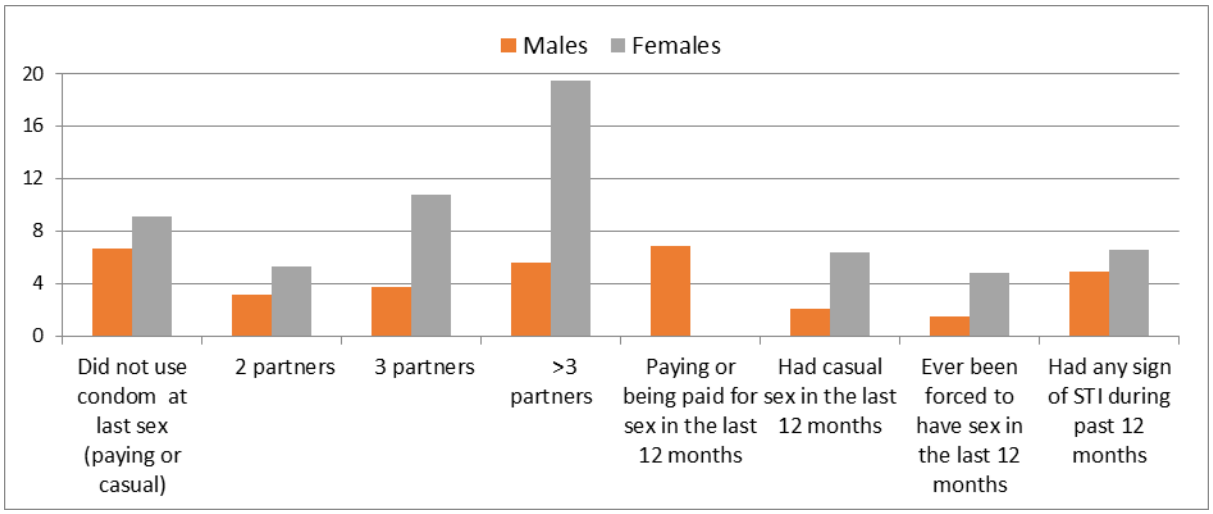
Figure 6. Distribution of new infection by marital status, RAIHIS 2013



1.1.3 HIV and Associated risk factors

Although HIV prevalence remains at 3% in adults, it continues to display variation by self-reported sexual characteristics. The data from RAIHIS shows that risky sexual behaviors are associated with high prevalence, both among females and males. Increase in sexual partners showed an increase in HIV prevalence both among males and females. Distinctively, among females that reported to having more than three sexual partners, HIV prevalence was 19.5%. The risky behaviors associated with highest prevalence among males are not using a condom in last paying sex, having 3 or more partners, and paying or being paid for sex in 12 months before the survey.

Figure 7. HIV Prevalence and risky sexual behaviors in the last 12 months (RAIHIS 2013)



Comprehensive knowledge on HIV continues to be low. RAIHIS found out that HIV much as all adults have heard about HIV, more detailed knowledge of how it can be prevented is still low and also there appears to be some misconceptions about HIV. Knowledge is higher

among people living with HIV, mainly because majority in the survey were already in care and treatment programs, therefore having more access to information and interventions.

Promotion of correct and consistent use of condoms has been part of the interventions. The data from RAIHIS and also from DHS surveys shows that self-reported consistent condom use is still low. In the RAIHIS 2013, 24.7% of HIV negative and 33.1% of the HIV+ adults that had casual sex, reported to have used a condom every time they had sex. The study among the FSW found out that 49.4% of them reporting to have used condoms consistently with paying partners. The percentage however reduces to 37.6% with non-paying partner. Among the MSM, only 45% reported to use condoms consistently.Also only 15.1% of people in discordant relationships reported to use condoms as a family planning method.

II. HIV PREVENTION PROGRAMS

2.1 Introduction

The goal of the HIV prevention program is to reduce new HIV infections. To reach the NSP targets, the country is implementing a combination of HIV prevention programs. We are reporting on activities conducted between July 2014 and June 2015. Key areas of HIV prevention programs include:

(1) HIV testing and counseling (HTC)
(2) Prevention of Mother to Child HIV Transmission (PMTCT)
(3) Discordant couple follow up program
(4) Voluntary Medical Male Circumcision (VMMC)
(5) Program targeting Key Populations
(6) Behavior Change Communication (BCC)
(7) Condom promotion and distribution
(8) Prevention of Sexual Transmissible Infections (STIs)

2.2 HIV Testing and Counseling

HIV testing and counseling (HTC) services help people to know their HIV status, and those tested positive are linked to care and treatment services, while those tested negative are provided with risk reduction counseling and information on how to remain HIV-negative. During this reporting period, the national program shifted from the use of interim HIV testing

algorithm to a new HIV testing algorithm using a combination of 3 serial HIV tests. Under this new algorithm, two options are recommended:

(1) ***Shanghai Kehua-Determine and Unigold***

(2) ***First response- Shanghai Kehua-Determine***

To increase access to HTC services, different strategies are implemented. These strategies include increasing geographic coverage of HIV testing services, provision of facility-based HTC services and outreach HTC services targeting key populations, and combination of voluntary counseling and testing and provider-initiated testing and counseling approaches (VCT and PITC).

Between July 2014 and June 2015, the number of health facilities offering HTC increased from 544 to 557 facilities making 99% of national coverage. In total, 3,634,746 tests were performed and the overall HIV positivity rate was 0.81%

3.2 Prevention of mother-to-child transmission

2.2.1. Implementation of strategies towards the elimination of mother-to-child HIV transmission (EMTCT)

By 2015, the program aims to eliminate new pediatric HIV infections (below 2%) and improve maternal, newborn, and child health (MNCH) and survival in the context of HIV. The implementation of national eMTCT plan follows five main pillars: (1) geographic coverage of services, (2) quality and efficacy of interventions, (3) access to and utilization of services, (4) health systems strengthening and (5) working with communities.

The package of services offered includes: (1) HTC for both partners, (2) blood draw for CD4 same day after HTC, (3) hemoglobin, renal and liver function testing, (4) enrolment into care and treatment, (5) initiation of ART and adherence counselling, (6) counselling about infant feeding, (7) counselling on Family Planning (FP) and safer sex.

2.2.2 Increased availability and accessibility of PMTCT services

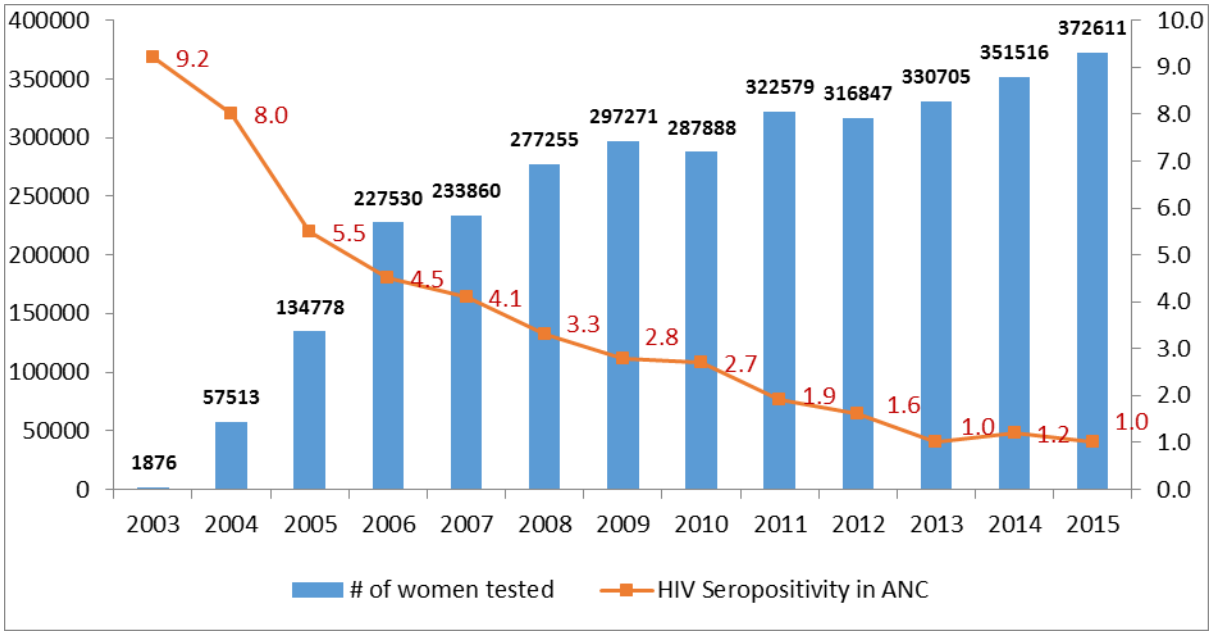
Strengthening the integration of PMTCT and maternal & child health (MCH) activities at the health facilities (HF) has been coupled with the reinforcement of community engagement. A continuous technical support was ensured with a focus on HF which newly introduced PMTCT activities in their package of services.

The coverage of PMTCT services in public health facilities has increased between July 2014 and June 2015. Health facilities offering PMTCT services increased from 494 to 517. The high service coverage is combined with a continuous quality improvement, which includes an effective utilization of high quality laboratory facilities. The geographic coverage of laboratory network has improved to allow, among others, easy access to early infant HIV diagnosis (EID). Currently, 100% of health facilities offering PMTCT services have access to EID.

The program encourages the involvement of male partners in PMTCT programs, which helps to maintain family health and adherence to treatment and prevention regimens. Together with the Government's facilitation, male partners are encouraged to attend antenatal care (ANC) services with their pregnant partners at each visit, get counseled together and tested for HIV.

The increase of PMTCT services coverage combined with a systematic HIV testing of pregnant women attending ANC, allowed a significant increase of the number of pregnant women who know their HIV status.

Figure 8: HIV positivity rate among pregnant women tested in ANC, 2003-2015

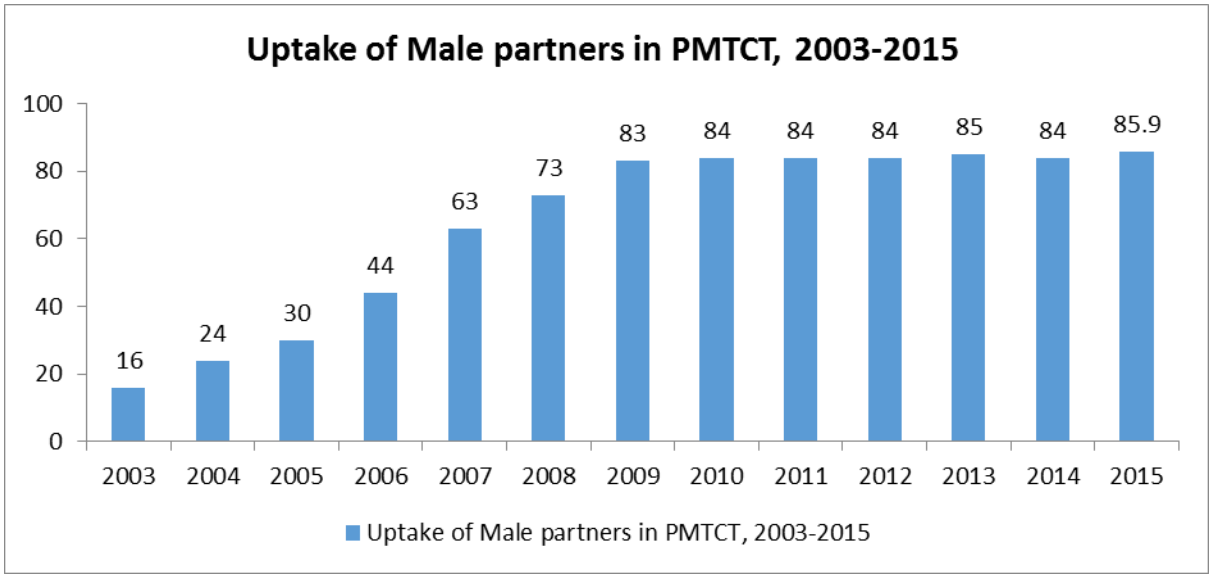


Source: TRACnet / HMIS, 2003-2015.

Since 2003, the trend of the HIV male partners testing in PMTCT programs has increased consistently. It however plateaued since 2009 and has been maintained above 80%. In the current reporting period, 85.9% male partners of pregnant women were counseled and tested

for HIV. This is a fivefold of what was achieved at the baseline of the initiative in 2003 (16%).

Figure 9: Uptake of Male partners in PMTCT, 2003-2015



Source: TRACnet / HMIS, 2003-2015.

2.2.3 ART in PMTCT services and HIV testing among HIV exposed infants

The national PMTCT program is implementing the Option B+ using Tenofovir-based regimen to all HIV positive pregnant women, taken as lifelong treatment. The PMTCT program considered recent WHO 2013 recommendations endorsed by the GOR to be implemented in the fiscal year starting by July 2014. WHO has recommended the initiation of ART to pregnant women as soon as they are tested HIV positive. In addition to HIV testing during the ANC visits, negative pregnant women will be re-tested in maternity at the onset of labor, in order to increase the chances to capture women who seroconverted during their pregnancies.

The number of pregnant women receiving ART in PMTCT has steadily progressed since 1999 at the program start-up. Between July 2014 and June 2015, 9,798, HIV-positive pregnant women received ART based on the Option B+ guidelines. Of them 62.6% were on ART before the current pregnancy. Based on the country 2015 EPP-SPECTRUM projections (8,989), this number represents 99% of all expected HIV positive pregnant women.

Systems are in place to coordinate efforts ensuring good adherence to treatment, leading to a significant decrease in HIV transmission to exposed infants. By June 2015, in a cohort of infants born to HIV-positive mothers followed in PMTCT programs, the HIV transmission rate was 1.79%.

ART prophylaxis is provided to HIV exposed infants in all health facilities. Between July 2014 and June 2015, the program counted 8,308 infants who received ART prophylaxis over 9,762 deliveries among HIV Positive women and HIV negative women in sero discordant couples (85.1%). The prevention, screening, and treatment of opportunistic infections are systematically provided to all HIV exposed infants.

2.3. Discordant couple follow-up program

Discordant couples are defined as a key population by the HIV NSP. A specific program aiming at their close follow-up is implemented in 490 health facilities countrywide. An evidence-based intervention package of services is offered and includes risk reduction counselling and condom provision, family planning counselling and service provision, repeat HIV testing for the uninfected partner every 6 months, and care and treatment for the HIV-positive partner.

Table 2: Discordant couples, Rwanda 2014-2015

Indicator	Number
New discordant couples registered	5499
HIV Positive partners in discordant couples under ART	11,407
Discordant couples followed at Health Facility	15,826

2.4 Voluntary medical male circumcision

Voluntary medical male circumcision (VMMC) has proven efficacy in reducing the risk of acquiring HIV infection and has been adopted by the WHO as a new HIV prevention intervention that needs to be implemented along with existing HIV prevention interventions (WHO 2007). The Rwanda Ministry of Health endorsed male circumcision in 2008. Among the Rwandan population aged 15-49 years, current male circumcision prevalence is 13% (RDHS 2010). Male circumcision constitutes one of key prevention interventions in the HIV

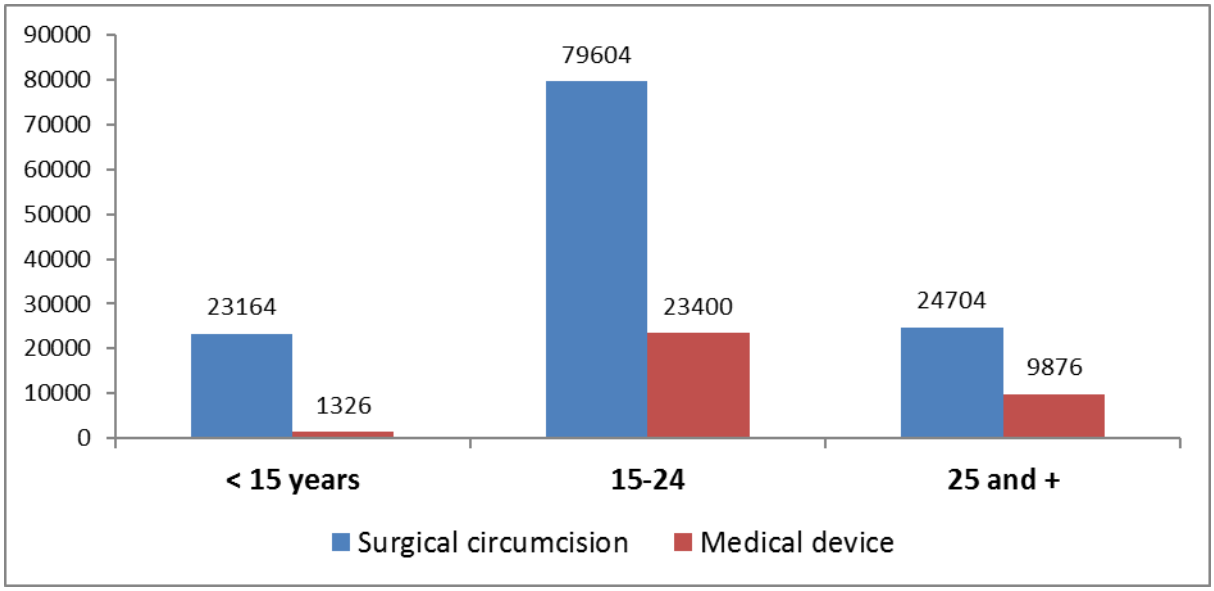
National Strategic Plan 2013-2018 with the objective of increasing the prevalence of males circumcised from 13% to 66% as of December 2018.

In addition to surgical VMMC, the Ministry of Health has adopted the use of PrePex® device, a non-surgical method for VMMC as a cost-effective strategy of scaling up VMMC. Early infant circumcision is being implemented as a long term strategy for HIV prevention and a phased out approach of adult VMMC.

The Ministry of Health has adopted the task shifting enabling nurses to perform male circumcision by surgical and non-surgical methods as a way of availing the provision of VMMC services and respond to the demand of the population. The Rwanda Biomedical Center (RBC), under the leadership of the Ministry of Health, has successfully coordinated the implementation and decentralization of VMMC in collaboration with its implementing partners. Male circumcision is included in the minimum package of services at all levels of the provision of health services and it is even provided during outreach programmes in the community and during weekends at health facilities in order to increase the number of males circumcised.

From July 2014 to June 2015, 162.074 males were circumcised. This was achieved using surgical (127.472) and non-surgical methods (34,602) in both public and private facilities. According to RAIHIS 2013 the prevalence of MC among adults 15-59 years was 20%. It had however increased to 24% in one year (RAIHIS Endpoint 2014). The graphs below indicate number of VMMC performed by age group both in public and private health facilities.

Figure 10: Number of VMMC performed by age group, July 2014- June 2015.



***Source**: RHMIS July 2014- June 2015*

2.5 Behavior change communication

Behavior change communication (BCC) is used to improve people's health and wellbeing. It is a process that motivates people to adopt and sustain healthy behaviors and lifestyles. In collaboration with the HIV Division and Rwanda Health Communication Center, BCC campaigns contributed widely in facilitating access to comprehensive HIV knowledge for the general population, key populations, and other vulnerable populations. Channels used included radio shows for the general populations, outreach campaigns, and free hotline services.

1. 2014 World AIDS Day (WAD) Campaign

The World AIDS Day is commemorated on December 1st every year. In 2014 the National theme for Rwanda was "*The Role of media in early HIV treatment to reduce Morbidity and mortality*". The Media High Council of Rwanda in conjunction with the umbrella association of journalists for Health and HIV/AIDS (ABASIRWA) held a one day consultative meeting with journalists about challenges faced in compilation, publication and dissemination of HIV related stories. The Activities for the World AIDS Day continued up to end of March 2015. These activities included district level discussion forums as well as radio programs.

Photo 1. Hon. Minister of Health Dr. Agnes Binagwaho during the Official launch of the World AIDS Day Campaign giving communication award to Nathan Mugume , RHCC division Manager

2. **Outreach campaigns**

The outreach campaigns were conducted in order to complement the provision of HIV services to people living in remote and hard to reach areas. They were provided with IEC/BCC messages, condoms and referrals for HIV testing. Youth mobilization campaigns have been conducted in all districts of the country to increase adolescents' comprehensive knowledge on HIV prevention and sexual reproductive health, and access to related services and information. In total 41,865 households were reached through local organizations and civil society with targeted messages on family planning and Male circumcision.

2.6 Key Populations

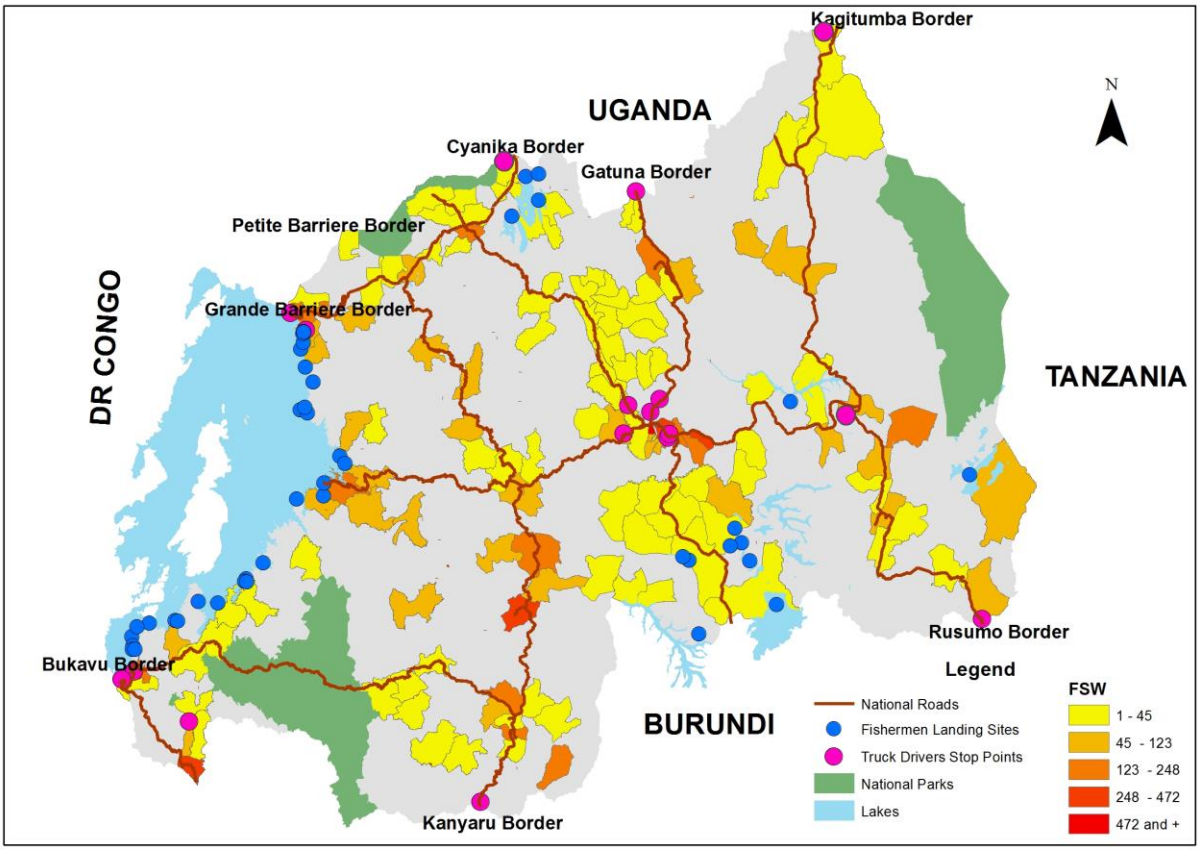
Targeting key populations with prevention interventions is aligned with the national strategy to reduce new HIV infections by focusing on key drivers of new infections in Rwanda as identified by the HIV/AIDS NSP 2013-2018 and contributing to the main outcome of "***reducing new HIV infections by sexual transmission in the main populations associated with new infections***". A combination of the following strategies is used to ensure that key populations have access to a comprehensive package of services as defined by the national program:

- Provision of facility-based services package including systematic initiation of treatment as prevention, regular screening and testing for STIs and HIV, condom provision, and provision of family planning services;
- Provision of community-based services such as HIV counseling and testing, STI screening, and condom distribution through outreach strategies;
- Linkage of community and health facility level interventions to ensure continuum of care;
- Organize support groups for different categories of key populations through the peer education approach;
- Organize mass campaigns targeting key populations to increase their awareness and service utilization.

Priority groups for key populations in Rwanda include sero-discordant couples (SDCs), FSWs and MSM. Each of these groups has a minimum package of services addressing their particular needs. Some interventions are common to all, while others are specific to certain groups.

During the current reporting period, RBC in collaboration with its partners continued to conduct quarterly technical working group meetings for key populations. Also this period marked the first year of implementation of test and treat for FSW, Discordant couples and MSM. To support the implementation of these new guidelines, 55 health facilities' staff were trained in provision of friendly services to key populations. Condoms and lubricants were distributed through various implementing partners. A module on peer educators for key population was also developed.

Key Population Location in Rwanda


Kagitumba Border
UGANDA
N
Cyanika Border
Gatuna Border
Petite Barriere Border
DR CONGO
Grande Barriere Border
TANZANIA
Rusumo Border
Bukavu Border
Legend
BURUNDI
National Roads
Fishermen Landing Sites
Truck Drivers Stop Points
National Parks
Lakes
FSW
1 - 45
45 - 123
123 - 248
248 - 472
472 and +
Kanyaru Border

III. HIV CARE AND TREATMENT PROGRAM

3.1. Introduction

Several strategies have been implemented to ensure that clients who test HIV positive are enrolled into care and treatment in a timely way. During the reporting period, 524 out of 532 **(98%)** in the country provide the complete package of HIV services. In facilities where HIV testing is provided but not ART, HIV positive patients were referred to facilities offering ART.

Within health facilities providing the complete package of HIV services, counsellors are used to accompany HIV positive clients to pre-ART and ART service. Another strategy used to strengthen linkage between HIV testing and pre/ART is the use of peer educators and community health workers. These have been used during mobile and community-based HIV testing, to accompany and follow up HIV positive clients. In the PMTCT program, infants who tested HIV positive were supported to access timely enrollment on ART by using TRACnet text messages (SMS) on mobile phones from the national reference laboratory (NRL) to the health care providers in primary health facilities. Home visits and phone calls were then used to invite clients (mother-baby pairs) to the health facilities for ART initiation. These strategies have reduced the time lag between HIV testing and ART initiation for HIV positive infants. Even though all these strategies have been implemented, we still have a gap in linking all clients tested HIV positive to care and treatment services.

An integrated national guidelines for prevention and management of HIV, STIs and Other blood borne infections were updated based on the 2013 WHO recommendations implemented countrywide starting July 2014.

3.2. Care and Support Services for PLHIV

3.2.1. Enrollment

The Care, support, and treatment services of the HIV National Program aim to provide services to PLHIV, which includes enrollment and follow-up into care services, provision of clinical and biological assessment for ART eligibility and disease progression, provision of prevention and treatment of opportunistic infections (OI) that include TB, STIs, cervical

cancer, Cryptococcus, and other blood borne infections. Health service delivery for care services are provided through ART clinics across the country. Enrollment of persons diagnosed with HIV in clinical care services soon after diagnosis is essential for counseling, ART eligibility assessment, ART initiation, and for improving their health outcomes. The National HIV Program monitors enrollment of PLHIV to HIV clinics using TRACnet data that report the number of HIV-infected newly enrolled in care services. The number of patients in pre-ART service is expected to decrease in coming years due to an increase in CD4 threshold as eligibility criteria and treatment as prevention for key groups. In addition, people are being tested for CD4 every six months to monitor their eligibility to ARVs according to national recommendation.

During the current reporting period, 14,632 patients were enrolled in pre-ART. By end of June 2015, patients in Pre-ART decreased from 32 292 in June 2014 to 19,524. This decrease is explained by the implementation of new guidelines.

Systematic OI screening, prophylaxis and treatment (CTX, IPT)

The screening, prophylaxis, and treatment of OIs is included in the routine package of services offered to PLHIV during follow-up. Cotrimoxazole is the first option to prevent OIs and is given to all PLHIV regardless of their WHO clinical stage and CD4 count, but Dapsone is used as alternative option in case of allergy to cotrimoxazole. In the reporting period, a 100% of individuals in care services received Cotrimoxazole/Dapsone prophylaxis. Tuberculosis, as one of the most prevalent opportunistic infections, is a focus for the program and patients are being screened for TB at each visit and diagnosed based on local capacity. To reduce the burden of OIs in PLHIV, the current ART Guidelines (Rwanda 2011) recommend systematic screening for Cryptococcus infection using LFA for all pre-ART patients with CD4<200 cells per mm^3 upon enrollment; patients with symptoms that reflect meningitis should have a Cryptococcal Antigen (CrAg) performed on cerebrospinal fluid after lumbar puncture for diagnosis. Fluconazole is provided as treatment for uncomplicated cases and for secondary prophylaxis.

The decision-making guide for Cryptococcal screening among PLHIV has been developed, printed, and distributed to all health facilities, along with associated SOPs, M&E tools, and supervision tools. Lateral Flow Assay (LFA) kits are available in the country and have been distributed in 63 health facilities for the program implementation.

The serum of all HIV patients, newly enrolled or in pre-ART with CD4 <200 cell/mm^3 should be immediately screened for Cryptococcal infection using LFA test (CrAg) performed on the same serum sent for CD4 count. For the current reporting period, 63 laboratory technicians from all health facilities with a CD4 counter machine have been trained on the Cryptococcal screening using LFA-CrAg.

Evidence shows that women living with HIV are at high risk of developing cervical cancer, and suggests its prevention and treatment for this specific group. In this context, cervical cancer screening has cancer has become part of the systematic OI screening package provided to PLHIV to get the right medical care, protect their health, and reduce disease progression. In addition, screening and secondary prevention for cervical cancer is included in the regular training and refresher course of healthcare providers.

3.2.2. Follow-up

All patients enrolled into HIV care services are followed to the clinic every month for OI prophylaxis refill, screening of OIs and assessment of eligibility for ART. Clinical and biological exams are performed.

An emphasis has been put on psychosocial care with a focus on HIV status disclosure and support groups for children and adolescents, which is a great contribution to service and treatment adherence.

The strong linkage between HIV testing and care services as well as regular follow-up of patients in pre-ART services have contributed to early ART initiation based on CD4 cells before clinical deterioration as shown in the graph below.

3.2.3. Nutrition

Malnutrition and HIV/AIDS act synergistically, creating a vicious cycle that weakens the immune system of the HIV-infected person. The 2014-2015 reporting period was devoted to procuring and distribution of nutrition support for malnourished and vulnerable PLHIV at all health facilities based on identified needs. The National Guidelines of Care and Nutritional Support, recommend nutrition supplement corn soya blend (CSB+) in the following groups:

- Children under 5 with Weight/Height & Weight/Age =<1- Score ≥2 (PMTCT and ART Services)
- Pregnant and lactating women with mid-upper arm circumference (MUAC) between 18cm and 23cm

- Children and adolescents aged 5-19 years with BMI/Age= <2 - Score ≥
- Other adults with BMI between 16 and 18.6

In the reporting period, **596,190 Kg** of the specialized nutritional product, fortified CSB+**,** was distributed in all 524 health facilities (district hospitals and health centers) with ART services across the country.

In addition, there was the dissemination and distribution of nutritional management tools for PLHIV in HFs across the country.

3.2.4. Psychosocial Support

Adherence is a main requirement for success of antiretroviral treatment. During this reporting year, an emphasis has been placed on key adherence issues for the most vulnerable groups, such as patients initiating ART third line regimen, children, and adolescents. Initial home-based psychosocial support was done for 39 patients who initiated ART third line regimen. To reinforce psychosocial care and support of children and adolescents, a quick assessment was done to identify disclosure counseling and support groups.

Poor mental health was identified as a barrier to care for HIV-positive patients and a cause of poor outcomes for care and treatment of PLHIV. Screening and management of mental health problems, especially depression, have been conducted prior to ART initiation and are an important aspect of the follow-up of patients and the success of the Rwanda HIV care and treatment program.

This integration of mental health and HIV services was strengthened with focus on testing in health centers and continuous mentorship for better implementation of the integrated strategy.

Other key activities realized in this year were:

- Training of 92 peer educators in Ruhango, Kabutare and CHUK
- 41 Adolescent aged 18-25 were involved in Income Generating activities
- The development of tools for adherence is ongoing
- Assessment of psychosocial need in sites to inform the development of a psychosocial training module and updating the guidelines. is ongoing

3.3. Treatment Services for PLHIV

3.3.1. Pediatric HIV program

HIV-infected children aged 0-14 years are identified at different entry points: postnatal care, immunization visits, family-centered HIV testing and counselling at health facility level. The testing is offered either voluntary (VCT), initiated by the provider (PITC), or at the community level during outreach programs. For children younger than 18 months, DNA PCR testing is conducted at 6 weeks, then an HIV antibody test is conducted at 9 months and 18 months for those tested negative at 6weeks. HIV testing for children has several limitations related to parents' or guardians' health seeking behaviors for their children, and the availability of molecular diagnostic technology for early HIV diagnosis in exposed children (before the age of 18 months), which is being overcome by strengthening sample transportation practices and decentralization of lab testing.

According to the EPP-SPECTRUM estimate there are 18,112 HIV-infected children in Rwanda. At the end of June 2015 the HIV National Programme has enrolled a total of 1.272 children in the pre-ART programme, and 8,011 children on ART according to enrollment criteria of the national ART guidelines (ART enrollment for all children under five years, irrespective of immunological [CD4 cells count level] and clinical status, HIV-infected children with WHO stage 3 and 4, children with HIV-TB, HIV-HBV, or HIV-HCV co-infection, and ART for children with CD4 cells count <500 irrespective of clinical status). The pediatric ART coverage is still low at 84.2% compared to those in need, but very low, at 44.2% when compared to all estimated HIV-infected children in the country.

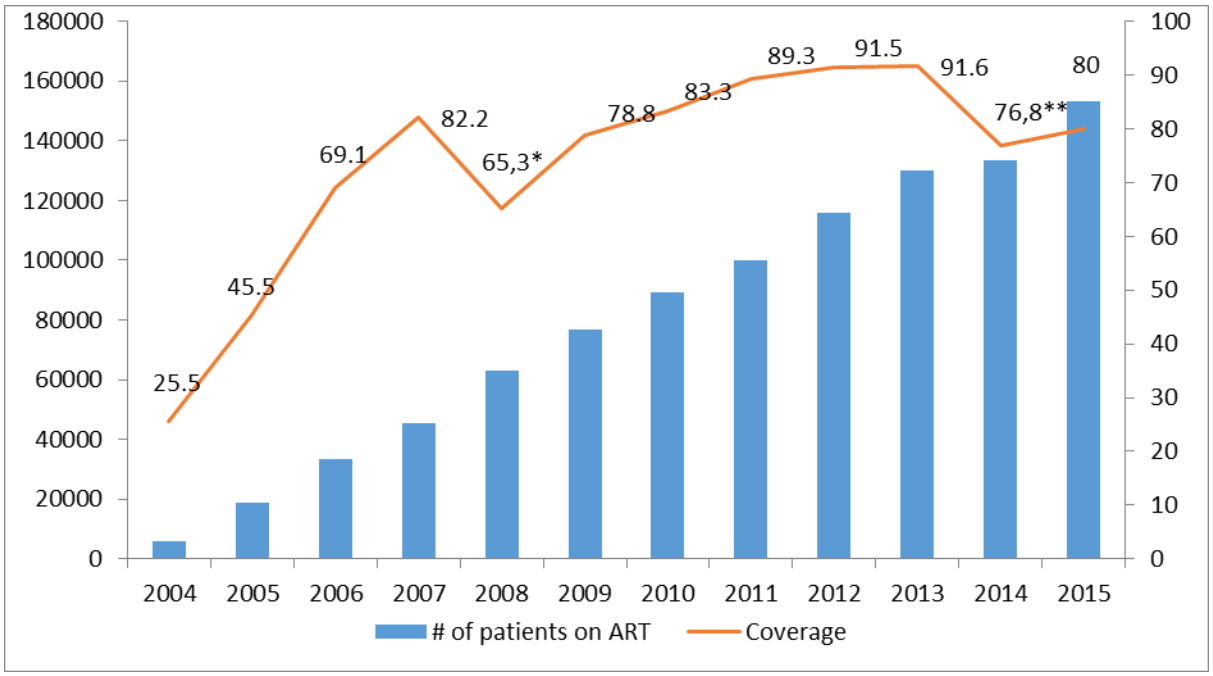
All children in pre-ART and on ART are on CTX prophylaxis. Support groups are organized across the country for HIV-infected children to provide psychosocial support and enhance adherence.

3.3.2. Adolescents and adults

Rwanda has made significant progress in the provision of treatment, care, and support services. All progress towards the reduction of morbidity and mortality due to HIV/AIDS has been made by focusing on the prevention, early diagnosis, and appropriate treatment of OIs,

as well as early initiation of ART and follow-up of PLHIV. Adolescent HIV programs have been a challenge in past years but in this reporting period a minimum package for adolescents has been integrated into the existing package of services. These achievement have been possible due to high geographic coverage in terms of health facilities and universal access to treatment for PLHIV. As the number of health facilities offering care and treatment services has increased, the number of patients on treatment has also increased. In addition, changes in eligibility criteria based on new evidence contributed significantly to achieving universal coverage.

Figure 11: HIV Treatment Coverage Evolution



Source : TRACnet /HMIS 2004-June 2015

*** indicates a period when change in eligibility happened.*

ART initiation criteria has been adapted to the 2013 WHO recommendations and country context, now recommending to increase the threshold for initiating ART to <500 CD4 cells per mm^3; therefore, Rwanda has shifted from <350 CD4 cells per mm^3 to 500 CD4 cells per mm^3 since July 2014, which caused a proportional decrease in ART coverage in initial year.

Patients on ART have been followed at different levels based on existing national recommendations. A clinical follow-up is being conducted on a regular basis by nurses trained in task shifting, with a strong support of medical doctors from the district level through a mentorship and supervision program. All patients on treatment come to the ART

clinic monthly for side effects monitoring, adherence support, and screening of OIs and STIs, with emphasis on prevention, diagnosis, and management of treatment failure.

Decentralization of viral load (VL) machine has increased the quality of biological follow-up, and patients on treatment are now receiving at least one VL test per year.

The majority, 96.2%of adult and adolescent patients on treatment are on first line regimen, with 3.7%on second line, and only 0.03% patients on third line.

3.3.3. Care and treatment cascade (towards 90-90-90)

Rwanda is on track to achieve the 90-90-90 for the adults. The data from Rwanda AIDS indicator survey showed that 97.8% adults living with HIV reported to have had an HIV test and received their test results. 97.5% of PLHIV reported to be enrolled in care and 92% of them reported to be taking ARVs daily. When denominators from projections and program data are plotted, they demonstrate a different picture. The focus of the care and treatment program is to focus on the 90-90-90 for children and adolescents. Also the focus will continue to be addressing the barriers that still hinder PLHIV to go for HIV testing, mainly stigma and discrimination, limited Knowledge and fear.

Results from the HIV drug resistance monitoring among patients on First Line ART found out that 88.1% of adults on first line ART had achieved Viral Load suppression after the first year. This increased to 91.5% after 36 months. The main focus will be increasing the coverage of ART, with implementation of test and treat for key populations and targeted testing and counseling.

Figure 12 HIV Cascade toward 90-90-90 targets for adults, Rwanda June 2015

- 82 ,6 % of Rwandans ever tested for HIV,
- 81,5% of eligible people living with HIV are on ART
- 88% of people on ART are virally suppressed.

(Source: EPP Spectrum 2015, RAIHIS 2013 and Drug Resistance Monitoring 2015)

3.4. TB HIV Integration

3.4.1. One stop services

One stop services were elaborated to receive all TB-positive patients with or without HIV infection, thus helping in the prevention and reduction of new TB cases among PLHIV.

3.4.2. TB screening and treatment

HIV/TB collaborative activities have been strengthened by continuing the training of health care providers and health facility managers to improve TB case finding and reporting among HIV-positive patients. With the objective of reducing the burden of TB in PLHIV through early initiation of ART, all PLHIV are systematically screened for TB at enrollment and during follow-up visits. From this active screening, all TB suspected patients are diagnosed using different paraclinical exams, including sputum microscopy, culture, chest X-ray and GeneXpert. 6416 suspect cases during screening,

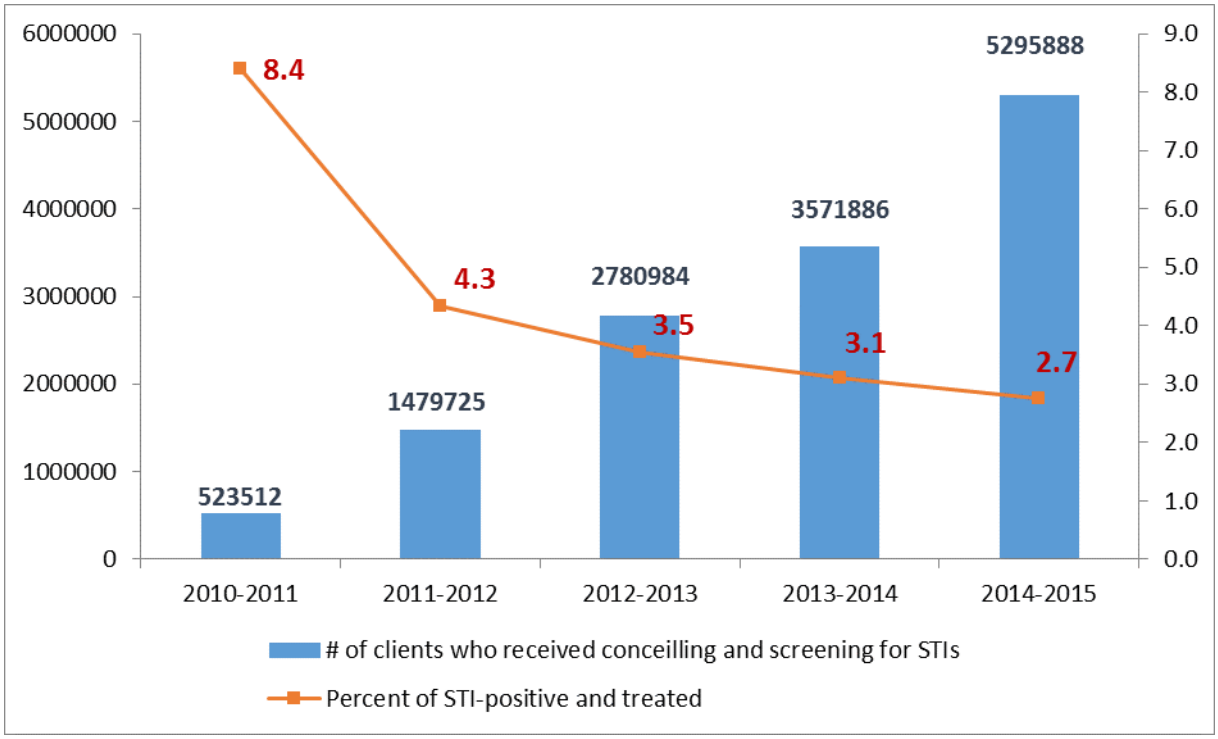
Training of health care providers and on site mentorship activities have been intensified to strengthen active TB screening in all PLHIV, including those on treatment and those not yet on treatment. Those on treatment who are co-infected continue their ART and start anti-TB treatment, while those not yet on treatment who test TB-positive are initiated on ART and the anti-TB treatment without waiting for any other criteria. Evaluation meetings with health care providers at district hospitals are being conducted on a quarterly basis for close monitoring and support to decentralized levels.

3.5. HIV,STIs &OBBIs

3.5.1. STI screening, diagnosis and treatment

The Rwanda HIV National Strategic Plan 2013-2018 established strategies aimed at increasing systematic STI screening in all patients who consult health facilities, including all HIV-positive clients. As shown by figure 11 below. During follow-up, the number of people screened for STIs in all health facilities increased while the proportion of STI-positive patients decreased. The figure 11 below illustrates the number of patients screened for STIs and number of patients diagnosed and treated for STIs from August 2010 to June 2015 (includes HIV-positive and HIV-negative population).

Figure 13: Evolution of STIs screening and diagnosis from August 2010 to June 2015



Source : TRACnet/HIMS 2010-2015

During July 2013 to June 2015, training of health care providers and trainers was conducted on STI prevention and management, clinical mentorship, and supervision. This training resulted in an improved treatment of positive cases and improved STI indicators reported in TRACnet as shown by the graph above. The procurement of FDA-approved rapid tests for syphilis, herpes simplex type 2, Hepatitis B and C viruses, gonorrhea and chlamydia is in process, in order to validate their use in Rwanda. For this goal, updating the STI national guidelines and training of healthcare providers (trainers and providers) were conducted

during this fiscal year, and drugs against STIs were put in the national essential drugs list, ensuring that all health facilities will have access to them. Finally, a strong integrated clinical mentorship was implemented in all district hospitals to support clinicians in systematic STI screening and management in PLHIV.

3.5.2. Sensitization on STIs and HIV prevention in Youth

High priority is given to the primary prevention of STIs because when untreated, STIs may result in different complications like cervical cancer, pelvic inflammatory disease, adverse outcomes in pregnancy, and can facilitate HIV transmission.

During this reporting period, the national program focused on STI prevention sensitization activities among youth, whereby 9 youth friendly centers, 54 secondary schools were reached. Within youth friendly centers, 4260 youth were reached and 22,563 youth were reached in both secondarily schools and universities. The general population was also sensitized for HIV/STI prevention using media including Rwanda radio and community radios.

3.5.3. Hepatitis B and C prevention

During this fiscal year, updating the Hepatitis B and C national guidelines was done during this fiscal year. Drugs against Hepatitis B and C were put in the national essential drugs list. Kigali city authorities and its population were sensitized on their role in Hepatitis B and C prevention during the World Hepatitis Day campaign. The general population was sensitized for Hepatitis B and C prevention using media including Rwanda radio, television and community radios.

3.5.4. Hepatitis B screening and vaccination

The HIV NSP 2013-2018 includes a strategy focusing on systematic screening of Hepatitis B virus (HBV) and Hepatitis C virus (HCV) among HIV-positive people. The objective is for early initiation of ART to cure Hepatitis B or improve clinical evolution of liver disease due to HBV and HCV, or vaccination of those screened HBV-negative. For this purpose, 60,000 HIV-positive people countrywide were screened for Hepatitis B and received HBV vaccine. As of June 2014, 523 out of 13,861 (3.8%) people screened HBs Ag + and were put on TDF-based regimen. In addition, HBV vaccination was provided to medical students and all health care providers with high risk to Hepatitis B infection in all health facilities. A mentorship of treatment in HIV and HBV co-infected people who already had HBV test results was conducted in all prisons in the country; the same mentorship was conducted in 48 health

facilities with HBV-positive patients in the city of Kigali, Rubavu District, Musanze District, Rusizi District and South Province within patients had HBV positive test. The validation process of these diagnostic reapid tests (DRTs) is ongoing. Hepatitis B and hepatitis C national guidelines were revised and approved by the ministry of health.

3.6. Continuous capacity building

3.6.1. Standards of quality of care

Continuous quality improvement (CQI): Efforts have been made to ensure quality of services through continuous quality improvement activities. In March 2014, HIV clinical mentors from fifteen hospitals were refreshed on quality improvement principles. Following this refresher training, clinical mentors implemented CQI projects, such as QI trainings for healthcare providers from all health facilities in their catchment areas, in which a total of 236 providers were trained.

HIV clinical mentorship: In order to provide quality services in HIV, STI, and OBBI prevention, and care and treatment for PLHIV, an integrated clinical mentorship program was put in place at 15 hospitals in Rwanda. Six key QI indicators were selected at the national level to be used for quality measurement and to guide QI projects in all 15 district hospitals supported by HIV clinical mentorship.

Based on the gaps identified in these indicators, integrated mentorship visits and formative supervision were organized with focus on difficult case management, D4T phase out, ART third line initiation, updates on new HIV guidelines, PMTCT, screening and treatment of TB, cryptococcal infection, STIs, and Hepatitis B.

Training of trainers: During the reporting period, a number of trainings of trainers were organized countrywide where a total of 74 trainers were trained on STI guidelines, and 28 trainers were updated on the integrated HIV national guidelines.

Training of providers: From July 2013 to June 2015, following the revision of the HIV national guidelines, a total of 1,068 healthcare providers (medical doctors and nurses) from all health facilities offering HIV services in Rwanda (referral and district hospitals, health centers, prisons, and private clinics) were trained on the new guidelines. In May and June 2015, a five-days training of 56 healthcare providers on HIV and sexually transmitted

infections including hepatitis B and hepatitis C in general population and in Key Populations was conducted.

Training on task shifting: In the context of increasing accessibility of ART to those in need, RBC in collaboration with Rwanda Family Health Project (RFHP) organized a need-based task shifting training. This training was designed to initiate nurses on ARV prescription, with a total of 76 nurses from Gicumbi and Ruhango Districts trained.

Training on cryptococcal infection screening: Cryptococcal infection is common among HIV-positive people with low CD4 cell counts, and while typically asymptomatic, if not treated on time it can lead to early mortality due to immuno-reconstitution syndrome. In this reporting period, 63 of 69 lab technicians from all health facilities with CD4 count machines were trained on screening for cryptococcal infection in all pre-ART HIV-infected patients with severe immunosuppression (< 200 CD4 cell) using CrAg LFA.

Training on integrated supply chain management: In order to ensure the timely availability and appropriate use of safe, effective, and quality medicines and, related data management in healthcare services, the Ministry of Health and RBC organized an integrated training targeting 96 pharmacists, store managers, and data managers from referral and district hospitals pharmacists.

This training intended to give pharmacy staff all skills required to address supply chain issues related to logistics and patient data management in various public health programs.

IV. IMPACT MITIGATION

4.1. Working with Civil Society Organizations and Non-Health Sector Public Institutions in the Implementation of HIV/AIDS Programs

In this year July 2014 to June 2015, 36 local NGOs and 5 Umbrella organizations (Private Sector Federation - PSF, the Umbrella of PLWHIV – RRP+, and the Umbrella of NGOs involved in HIV/AIDS – Rwanda NGOs Forum and RCLS) and 1 non-health sector public institution (MIGEPROF/NCC) received funds to implement HIV prevention- and socio-economic impact mitigation-related interventions, and most of activities are implemented at community-level.

The key populations for such interventions are, among others, households with HIV-infected people, those people living in poor conditions, orphans and other vulnerable children (OVCs). Activities mainly focused on support for Income Generating Activities (IGAs). Income Generating Activities (IGAs) for people infected and affected with HIV that are economically disadvantaged are funded in 60 administrative sectors (2 sectors by districts) of Rwanda. At the end of June 2015, cumulatively, 7319 beneficiaries were supported.

Table 3. Support for Income Generating Activities

No	District	Cumulative Number of IGAs beneficiaries	Budget disbursed for IGAs (USD) for 2014-2015	Implementing agency
1	Bugesera	240	40,000	Millennium Villages Project
2	Burera	240	40,000	ATEDEC
3	Gakenke	270	40,000	CROIX ROUGE
4	Gasabo	239	40,000	AVEGA
5	Gatsibo	240	40,000	CREDI
6	Gicumbi	240	40,000	DIOCESE BYUMBA
7	Gisagara	241	40,000	ARTCF
8	Huye	240	40,000	CENTRE IGITI CY'UBUGINGO

9	Kamonyi	241	40,000	RAPP
10	Karongi	240	40,000	AGHR
11	Kayonza	240	40,000	ARDR
12	Kicukiro	243	40,000	ACCESS PROJECT
13	Kirehe	270	40,000	AESD
14	Muhanga	240	40,000	CARITAS KABGAYI
15	Musanze	242	40,000	ASSOCIATION BAMPOREZE
16	Ngoma	270	40,000	AIMR
17	Ngororero	240	40,000	ACD
18	Nyabihu	243	40,000	APROFAPER
19	Nyagatare	240	40,000	BENISHYAKA,FIOM RWANDA , FRSL+/RW
20	Nyamagabe	240	40,000	MISSION OF HOPE
21	Nyamasheke	240	40,000	STRIVE FOUNDATION
22	Nyanza	270	40,000	SNEP
23	Nyarugenge	239	40,000	AEE
24	Nyaruguru	240	40,000	ASOFERWA
25	Rubavu	240	40,000	ADEPE
26	Ruhango	240	40,000	ADEPR
27	Rulindo	243	40,000	CIRDI
28	Rusizi	240	40,000	RRP+ RUSIZI
29	Rutsiro	240	40,000	DIOCESE NYUNDO
30	Rwamagana	228	40,000	HDI
	Grand total	7,319	1,200,000	

4.2. Joint Support to OVCs' Scholarship

The Global Fund together with other source of funds registered tremendous results in social and economic protection of OVCs. A total number of 47,465 OVCs received support for secondary and vocational school education. This number comprises 7,410 OVC supported by NCC/GF Project, 5,326 OVC supported by ADRA; 2,301 OVC supported by AEE Rwanda, 273 supported by AMA, 611 supported by ASEF, 21 by BSD, 618 by AVSI, 22,561 by

CARITAS , 41 by Centre Urugwiro, 57 by FVA, 740 OVC supported by FHI360, 36OVC supported by FHR, 888 OVC supported by FXB, 315 OVC supported by Global Communities, 13 OVC supported by Haguruka, 128 OVC by HHC, 5 by IJM, 20 OVC supported by Centre Komera, 60 by SACCA, 34 by Rwanda AID, 291 by SOS,49 OVC supported by Strive Foundation Rwanda,131 OVC were supported by Handicap, 10 OVC by Anchor of Hope, 175 OVC supported by Ubumwe Community Center, 2,142 OVC were supported by YWCA and 15 by World Relief.

Table 4. : Support to orphans and other vulnerable children through GF resources

No.	Activity	Planned	Cumulative result	Budget Planned (in USD)	Budget Utilized (in USD)	Comment
1	Provide secondary school fees for OVC	988	1,568	98,800	145,586	During this reporting period, 1,568 OVC received educational support in secondary school
2	Support for foster care for orphans including CHH	790	790	534,400	533,687	The fund for the OVC foster care families were transferred to all Districts. 790 families already received their technical and financial support for their income generating activities

No.	Activity	Planned	Cumulative result	Budget Planned (in USD)	Budget Utilized (in USD)	Comment
3	Provide vocational training for OVC in need	4,930	5,842	357,454	543,018	School fees was provided for OVC
4	Joint planning meeting with project stakeholders in TVET	360	55	27846	2309	The joint planning meeting was held by 3 Districts (Gatsibo, Nyagatare and Nyaruguru).This meeting included District and TVET schools representatives at District level
5	Joint planning meeting with the representatives of foster care families including CHH	586	40	45,327	545	The planning meeting was held at District level with foster care families supported to start the income generating activities and the activity is on going

No.	Activity	Planned	Cumulative result	Budget Planned (in USD)	Budget Utilized (in USD)	Comment
6	Material support to ECD	22	22	35,730	35,730	The funds for ECD was sent to the District and 22 were supported as ECD model

V. HEALTH SYSTEM STRENGTHENING

5.1. Introduction to HSS

Health system strengthening supports the national health sector strategy to achieve the targets through strengthening the service delivery, health workforce, infrastructure, health commodities (such as equipment and medicines), and logistics. All these support systems belong to the health sector as a whole, but contribute in a very significant manner to the success of the HIV program, and in reciprocity, the HIV response in Rwanda is allocating an important part of its budget to strengthen these different aspects of the health system.

5.2. Capacity building

Strengthening the capacity of healthcare providers is a priority to improve the quality of services and to ensure optimal efficacy and efficiency of interventions. Increasing resources are being allocated for the training and recruitment of specialized medical doctors to meet increasing demand for high quality care. Integrated trainings focusing on task shifting, with appropriate training of nurses to fulfill responsibilities previously reserved for physicians, allows for better coverage of services for the increasing number of patients receiving ART. Apart from improving knowledge and skills of healthcare providers and other health workforce members, capacity building activities also aim at organizational and institutional strengthening to ensure continuity of quality service provision, in spite of the frequent problem of human resource of rapid turnover.

5.3. Human resources for health

Human resources are a core component of health systems and is paramount to high quality service delivery. As HIV progressively becomes a chronic disease, it needs to be better integrated into the general system of healthcare provision, particularly health programs with strong linkages to HIV interventions, including sexual and reproductive health, nutrition, and mental health. Integration of HIV services into the health system has always been a strong characteristic of the Rwandan HIV response, and this has benefited both the HIV program and the health system. In this fiscal year, we kept the momentum to increase the availability

and capacity of human resources for HIV response and health care delivery in general. Key activities for the period of July 2014 to June 2015 include:

- **Continuous professional development program (CPD)**

Continuing professional development (CPD) consists of educational activities that serve to maintain, develop or increase the knowledge, skills and professional performance of a medical doctor.

- **Trainings and mentoring**

To continuously improve the quality of care provided to patients, short integrated trainings for in-service health care providers were done with a focus on new changes in HIV guidelines for prevention, care, treatment and support. Health care providers were trained on different HIV topics. Focus in prevention was put on new HIV testing methodology, sexual and reproductive health, new changes in the PMTCT guidelines, HIV couple counseling and discordant couple counseling. Regarding HIV care and treatment, training emphasized early initiation of ART, management of co-infections and comorbidities, prevention and management of treatment failure, and optimizing treatment adherence. In addition, there were also trainings on monitoring and evaluation of HIV services and supply chain management.

HIV clinical mentoring is also key for HIV response in order to provide high quality services to PLHIV. Clinical mentors are now placed in 15 hospitals, including four provincial hospitals serving other health facilities in the catchment area. In the last fiscal year, the mentoring program focused on quality improvement of HIV services offered to patients and 236 providers were trained on CQI. Quality key indicators were selected and their performance assessed. Based on gaps identified in these indicators areas, integrated mentorship visits and formative supervisions were organized with focus on difficult cases management, D4T phase out, ART third line initiation, updates on new HIV guidelines, PMTCT, screening and treatment of TB, cryptococcal infection , STIs and Hepatitis B.

5.4. Integrated supervision

MoH/ RBC have introduced a new model of integrated supportive supervision coupled with data quality audit (ISS/DQA), which emerges from the HSSP III framework and aims at delivering the highest quality service possible through regular facility-level quality assurance and quality improvement activities. It uses a practical system of objective measures to foster

improvements in the procedures, personal interactions, and management of health data. The specific objectives of ISS/DQA are:

- To assess compliance to National Guidelines and/or protocols and highlight the areas for improvement at health facility level, services and systems related strength/ gaps are identified
- To assess the processes of data collection, validation and reporting, data sources are reviewed and TRACnet/HMIS reported data are compared.
- To highlight weaknesses in the routine monitoring system and design strategies that will strengthen decentralized capacity to improve quality of data collected and reported.

During the reporting period, 43 district hospitals and 42 selected health centers were visited by MoH/RBC teams, while district hospitals visited more than 500 health centers countrywide.

5.5. Trainings and mentorship

The accessibility of ART reached universal coverage in Rwanda where more than 80% persons need ARVs are receiving them but these persons will live longer depending on quality of services. Rwanda Government started mentorship intending to help health care providers to boost the quality of services provided. However this mentorship started regularly in some 10 District Hospitals and 5 Provincial hospitals. In addition to that it was some areas in HIV program were in urgent need of improvement than others such were:

- ✓ Linkage to care and treatment of children tested HIV positive in PMTCT, VCT and PIT;
- ✓ ART pediatric dosage
- ✓ Starting ARV to persons TB/HIV coinfected and those with CD4 below to 500 cells
- ✓ Diagnosis and management of treatment failure using viral load

In this regard since February 2015 there was a countrywide mentorship activity with objective of assessing the magnitude of above mentioned problem and conducting evidence based mentorship in all ART health facilities. During this mentorship 507 health facilities visited and more than 1521 health care providers mentored.

5.6. Infrastructure and equipment

Health infrastructure and equipment (health centers and hospitals, maternities, laboratory and pharmacies at central and decentralized levels) are crucial for provision of HIV services, but also have a larger mission to support health services in general. Regarding infrastructure: 37 VCTI have been renovated, 31 HC maternities have been renovated, five district pharmacies have been renovated, 2 Satellite laboratories under construction, 15 laboratories have been renovated, 5 District Pharmacies have been renovated, and the construction of 7 modern maternity wards are under construction at 7 District Hospitals. The Medical Maintenance Center has provided preventive and curative maintenance in all health facilities: 468 health centers and 44 district hospitals. In addition, there has been hiring of contractors to conduct maintenance of special lab equipment, namely Siemens and Sysmex machines.

5.7. Laboratory system

The laboratory network is organized in a tiered system with the National Reference Laboratory (NRL) coordinating the network comprised of four referral hospitals (CHUK, CHUB, RMH, KFH); 5 provincial hospitals (Rwamagana, Ruhango, Bushenge, Ruhengeri and Kibagabaga), 41 district hospital laboratories, and approximately 500 health centers, each with a specified testing package. This system provides comprehensive testing for HIV diagnosis, HIV infection staging, and clinical monitoring during ART, in addition to testing for TB, STIs, and OIs.

Accreditation of laboratories: The accreditation process improves laboratory services in offering measurable improvement outcomes including reduced results turn-around time, effective workflow, document development, and commodities monitoring. The process started in 2009 and to date, 23 referral and district hospital laboratories have been enrolled. The major achievements in the last 12 months include:

- Additional five laboratories were assessed and all attained the minimum standard recognition of 1 star under the WHO/SLIPTA process, bringing the total to 15 in the country
- Eight new laboratories were enrolled and are undergoing improvement projects
- Thirty-two trainees were enrolled into Strengthening Laboratory Management Towards Accreditation (SMLTA).

- Fifteen SLMTA candidates qualified as both facilitators and mentors, and 5 qualified as mentors, bringing the total of facilitators to 20.

  Three candidates were recommended to become SLMTA Master Trainers bringing to a total of 4. The Master Trainers are internationally acclaimed SLMTA trainers, enabling Rwanda to conduct its own SLMTA workshops.

Quality improvement in laboratory testing: A high priority of the laboratory network is to provide accurate HIV diagnostic and monitoring tests for all patients. In the last 12 months, NRL has sought to strengthen quality management systems through the expansion of proficiency testing (PT) for routine tests in all referral district hospitals. This is in addition to the already existing proficiency testing for specialized tests such as VL, EID, TB, and malaria. All 49 referral and district hospital laboratories were enrolled in an external quality assurance program providing PT for CD4, hematology, and biochemistry. In the last year Rwanda implemented a new algorithm comprised of 3 HIV rapid tests, replacing the previous algorithm of 2 rapid test and ELISA as a tie breaker. To monitor performance for the tests, PT panels for HIV rapid tests were included for the same hospitals in April 2014. In addition, NRL has expanded production and distribution of dry tube specimens (DTS) for proficiency testing in all health centers testing sites in the country. Some of the major achievements in Quality Management System (QMS) are:

- 100% participation of 49 referral and district hospitals in the quarterly PT program
- Training of 49 participating hospital staff in using computerized reporting system to track performance and problem identification for corrective action
- 95% coverage of DTS to all testing sites for the HIV rapid testing

5.8. Supply chain system

The Rwanda Pharmaceutical Supply Chain (SC) for HIV commodities is composed of different levels and institutions collaboratively engaged to manage and operate the SC. They are drawn from public and private sectors with the national level supporting the health facilities to increase access to healthcare services by availing health commodities. Information flow through the network provides data and feedback useful for decision-making at all levels of the SC.

5.8.1. HIV commodities quantification exercise

In order to both inform the Coordinated Procurement and Distribution System (CPDS) of the country needs and to ensure adequate supply of ARV drugs, it is essential to develop accurate, replicable forecasts and supply plan for future needs. To this end, the Quantification Committee under the leadership of CPDS operates on a yearly basis to produce a 24-month forecast and one year procurement plan for HIV commodities.

The Quantification exercise took place from 06th to 17th October 2014. The quantification Committee has reviewed and validated the collected data, baseline assumptions for the quantification. The analysis accounted for the past rate of growth of the program, anticipated future growth and new strategies of the program.

For laboratory, the exercise took into account the recommended tests for HIV/AIDS patients as per the 2013 guidelines, the number of tests performed the year preceding the quantification exercise, the types and number of available platforms, and the usage rate of each reagent or consumable.

5.8.2. Procurement and distribution

The procurement and distribution was coordinated by MPPD. The contract framework has been used to increase the procurement efficiency minimizing stock outs in HIV drugs and lab commodities. The distribution has been conducted from MPPD to district pharmacies, from district pharmacies to health facilities, and from health facilities to the patient, who is the ending point of distribution.

5.8.3. Capacity building

To ensure sustainability of a coordinated HIV supply chain for health commodities, continuous capacity building has been implemented through mentorship, supervision, and trainings. We have conducted training for staff from district hospitals, referral hospitals, and district pharmacies to provide them with a package of updated scientific knowledge on national guidelines, health products supply chain management. The overall training objective was to provide skills on program national protocols and program commodities supply chain management, especially on logistics and patient data management. 30 district pharmacy store managers, 15 data managers and 40 health facilities attended the training.

VI. GOVERNANCE MECHANISMS

6.1. National Coordination

Rwanda applies the "Three Ones" guiding principles for the coordination of AIDS response. The country has a multisectoral HIV NSP 2013–2018 that serves as the basis for coordinating the work of all partners. The national response is coordinated by RBC's Institute for HIV Disease Prevention and Control (RBC/IHDPC). A national HIV and AIDS Monitoring and Evaluation Plan was developed and updated in 2013. These above mentioned three pillars provide the foundation for strengthening the environment and fostering a multisectoral response that contributes to the attainment of national targets. These three pillars contributed to bringing together self-coordinating entities, reinforcing partnerships and funding mechanisms for result-oriented programs. The key guiding documents on which the response is aligned include: Rwanda Vision 2020, Economic and Poverty Reduction Strategy (EDPRS 2) and Health Sector Strategic plan (HSSP III).

RBC/IHDPC, as coordinating body, supported functioning of various technical working groups (prevention, treatment, impact mitigation, research, etc.) which contributed to ensuring harmonization and alignment of partner/stakeholder plans with national priorities and targets. The coordination mechanism supported development of the current NSP and its operational plan. With support of development partners, RBC/IHDPC involved various stakeholders through different workshops/meetings which focused on 'Knowing your epidemic and knowing your response' (KYE/KYR). The process involved national institutions, EDPRS sectors, line ministries, civil society, and private sector for the development of the new NSP and its operational development. The process therefore served as a learning opportunity in evidence use and results-oriented programming.

To ensure effective integration of the HIV response, GoR restructured and integrated the coordination of infection diseases into one department currently called Institute for HIV Disease Prevention and Control (IHDPC). The department coordinates namely HIV, STIs, TB, malaria, and facilitates efficiency and coordination of the response. The IHPDC constitutes the main disease control department of the Rwanda Biomedical Centre and provides a framework that contributes greatly to policy design, formulation of strategies and guidelines, and ensuring oversight of the implementation of HIV interventions. During the reporting period, comprehensive HIV guidelines were produced and disseminated to inform and guide service providers at all levels of HIV response.

Under the IHDPC, the HIV Division coordinates the HIV, AIDS, STI and other blood borne infections programs. This unit is responsible for national planning, formulation of policies, organizing training of trainers, and the development of the curricula for clinical programs. It provides technical assistance and gives guidelines in the organization and effective management of HIV and AIDS, STI, other blood borne infection control programs. It is also responsible for monitoring, evaluating and coordinating health sector activities as a whole in response to HIV. It ensures the coordination of research on STI, OI, VCT, PMTCT, TB, and ART, as well as socio-behavioral research. During this period, the division initiated and supported the first HIV incidence and indicators household survey, different program evaluations and operational researches to guide an informed decision in HIV response.

Governance mechanism of the HIV response in Rwanda values inputs from various development partners who are part of different technical working groups, which includes, among others, CCM, PEPFAR steering committee, and Joint Health sector Review fora. The CCM Rwanda serves as main forum that brings together international partners, national institutions, CSOs, and private sector partners to discuss and provide guidance on TB, HIV, and malaria programs implementation. This forum continues to be the main approval line of strategic documents for the three diseases, such as new NSP 2013–2018 and its two-year operational plan. In the framework of conducting closer follow-up of the implementation of HIV programs, quarterly partners' coordination meetings were held. These quarterly meetings contributed to assessing achievements based on performance indicators. This year, special attention was given to the six results-based financing (RBF) indicators.

RBC held HIV stakeholders coordination meeting in this year. It was attended by national and international partners, civil society, People Living with HIV, Private sector and other relevant government institutions. The objectives of this meeting were:

- To share with stakeholders the progress in the implementation of NSP 2013-2018 and discuss together the challenges;
- Sharing with stakeholders content of joint TB/HIV concept note; and
- To validate country HIV/AIDS targets for ending AIDS by 2030 (90-90-90 targets).

6.2. Civil Society and Private Sector

Rwanda considers the involvement of civil society organizations (CSOs) an essential element in the way towards controlling AIDS epidemic. CSOs are organized into umbrellas that

coordinate contribution of their member organizations in programs design, advocacy, capacity building, and activities implementation. 30 CSO sub-recipients of Global Fund grants contributed to implement interventions in prevention, care, treatment, and impact mitigation. Some of them are specialized and work only in a few service delivery areas (SDAs) and with specific target groups. The largest CSOs, such as international NGOs are able to work in many different SDAs and with different groups. Cooperatives of PLHIV and affected people focus on impact mitigation with income-generating activities (IGAs), but they are also involved in positive prevention programs. The existence of umbrellas and their advocacy efforts have led to a greater participation of civil society in planning and formulation of policies at the community and national levels. This in turn has contributed to an increased awareness of the needs of the community, particularly the most vulnerable people. Greater involvement of PLHIV has been achieved in many ways and the needs of PLHIV and affected people are taken into greater consideration.

VII. MONITORING AND EVALUATION

7.1. Surveys and surveillance

The RBC/HIV Division in collaboration with CDC-Rwanda, The one UN and other partners conducts behavioral and biological surveillance surveys (BSS) among high risk populations of HIV infections, and other HIV studies to monitor HIV epidemic and evaluate the impact of various interventions.

The BSS were specifically conducted among Men who have sex with men (MSM) and Female sex workers (FSWs) to measure behavioral tendencies of high risk groups regarding HIV/AIDS and other sexually transmitted infections.

The major results from the recently conducted BSS and other studies are presented below:

7.1.1. 2015 BSS among FSW

The BSS-FSW was planned and implemented in collaboration between the RBC/HIV Division, and CDC-Rwanda. The funds were provided by CDC/PEPFAR-Rwanda through a Cooperative Agreement number 5U2GPS002048.

Majority of the FSWs (41.5%) in the survey were in the 15-to-24-year-old age group. Among the surveyed FSWs, the majority (62.2%) completed primary education. Many FSWs (33%), had no other work than sex work. A majority of FSWs (64%) had never married or cohabitated, while 30% are divorced or separated. The majority (54.2%) had between one and four years of experience into sex work and 42.8% reported recruiting clients from venues (Bars, Hotels, lodges…).

Based on the preliminary HIV rapid tests results, the prevalence of HIV among FSWs in Rwanda was 41.4% (95% confidence interval CI: 38.2-44.6%), with variations among Provinces, 37.2% (CI: 32.2-42.7%) in North, 45.4% (CI: 38.2-52.8%) in South, 46.6% (CI:39.9 – 53.4%) in West, 34.3% (CI:28.8 -40.2%) in East and 51.2% (CI: 45.1-57.2%) in the City of Kigali. The prevalence of HIV among FSWs was higher among FSWs aged 40 and above as compared to FSWs aged 15-19 years: 60% (CI: 47.1-71.7%) versus 22.4% (CI: 17.7-29.4%).Among surveyed FSWs, confection of HIV was 1.3%, 0.5 and 16.8 with Hepatitis B, Hepatitis C and other STIs respectively.

In Rwanda, 45% of FSWs sold sex for money for the first time between the ages of 15-19. In addition, 6.7% started having sex for money under the age of 15 years.
Condoms use at last sex with a client was 83.5%, while condom was consistently used with a client by 49.5% of FSWs versus 37.6% with a non-paying partner. Consistent condom use with a client was higher among younger FSWs aged 15-19 compared to FSWs aged 40 and above: 52.3% versus 43.2%. However it was the opposite with a non-paying sex partner (30% versus 56.5%).

In the week preceding the survey, the majority of FSWs (50.5%) had 3-5 paying partners. Compared to other provinces, the City of Kigali and the Western Province had a higher number of FSWs receiving 6 or more paying partners in the week preceding the survey (23.1% and 22.4% respectively).
Comprehensive knowledge of HIV among FSWs was estimated at 48.6% and 71.5% if the faithfulness is not considered. In the 12 months preceding the survey, a large number (69.7%) of FSWs had HIV test at least once and 97.8% of FSWs knew their status. Among HIV positive FSWs, 93% were enrolled into care and treatment services and 59.3% were on ART. The majority (71.1%) of FSWs reported having ever experienced any type of violence, among which 42.5% was physical violence while 57.5% reported sexual violence.

7.1.2. BSS among MSM

The BSS-MSM was planned and implemented for the first time in collaboration between the RBC/HIV Division, CDC-Rwanda and Projet San Francisco/Emory University. The funds were provided by CDC/PEPFAR-Rwanda through a Cooperative Agreement number 5U2GPS002048.

Between January and May 2015, 1146 invitations were sent out, and 804 men came to the research site. After screening process for eligibility, 495 men were eligible and consented to participate in the study. The majority of men were young (mean age: 24 years), 98.0% were single, 52.6% reported have ever had sex with a female partner, 51.0 % had completed at least secondary school and 75.5% were circumcised. The median age at first sex with another man was 19 years whereas the median age of the first male sexual partner was 22 years.

The sexual behaviours among MSM were assessed during the last 12 months. The survey respondents reported a median of four male regular partners and two casual sexual partners.

The results also revealed that MSM are involved in commercial sex. The MSM reported having on average two (IQR 1-4) paying sexual partners in the last 12 months. While 42.5% reported having ever been paid with money, goods, or services for sex, 17.6 % reported sex work as their main source of income.

Approximately 14% of MSM reported ever been forced to have sex against their will, whereas 8.3% reported having ever suffered any form of violence or abuse because they had sex with other men. Regarding condom use among MSM, 71.4% reported having used condom in the last sexual intercourse with a man, and 45.0% reported consistently use of condoms in the last 30 days prior to the survey. The overall self-reported of STIs symptoms in the last 12 months was 13.6%. The most frequent STI symptom was genital discharge (6.5%). Most of MSM (84%) have ever had an HIV test and the HIV prevalence was 3.3% (95% CI: 2.0-5.4).

7.1.3. Rwanda AIDS Indicator and HIV incidence Survey (RAIHIS)

The RAIHIS was conducted by the RBC-HIV Division in collaboration with the Global Fund, The OneUN, and the University of Rwanda; and used DHS methodology with approval by the National Institute of Statistics of Rwanda. The GF is the major funder of the survey, other contributors include the UNAIDS and RBC.

A sample of 14,222 respondents participated in Rwanda AIDS Indicator Survey (52.2% female) and 13,056 were tracked in the HIV incidence cohort (48.3% female). Overall prevalence of HIV was 3.0% (95% CI: 2.6-3.4). It was higher among women 3.5% [95%CI: 3.0-4.0] than men (2.4%, 95%CI: 2.1-2.8), and higher in urban areas (5.6%) than rural areas (2.6%). HIV prevalence increased with age in both sexes. HIV prevalence was high among individuals who were divorced/separated or widowed (11.1%).

About half of participants (53.6% of women; 52.6% of men) had comprehensive HIV knowledge. Only about a third of people had comprehensive knowledge of PMTCT (34.8% of women; 28.2% of men); however it was slightly higher HIV-positive women (44.3%). Condom use showed room for improvement: only 25% of those who had casual sex consistently used condoms and only 33.1% among those who tested HIV positive reported consistent condom use during casual sex. The survey also showed that 82.6% of survey participants ever had an HIV test. For the HIV positive respondents who self-reported never to have had test, the main reasons for not testing were: fear of others knowing their HIV

status (40.5%) or being confident of their HIV negative status (56.6%). One-fifth of Rwandan men aged 15-59 (20.2%) were circumcised in 2013, with an increase of 4% in 2014.

It was also found that the prevalence of syphilis among both sexes was 0.9% (1.0% of women, 0.8% of men). The results show that 97.5% of the respondents who were HIV positive self-reported to be enrolled in care and treatment services. Nearly all who were enrolled in care and treatment reported to be taking ARVs (92%). For respondents in HIV sero-discordant relationship, 97.5% reported to be taking ARVs. Based on biomarkers collected, 33% of those not yet on enrolled in care were eligible for ART and 45.7% of those who were enrolled in care but not yet on ART were eligible, according to CD4 criteria in the 2014 treatment guidelines.

As per results of HIV incidence survey, HIV incidence in adults who had tested HIV negative at the baseline was 0.27% (2.7 new infections per 1000 HIV negative adults). HIV incidence was lowest in adults aged 26-35 years (0.21%) and highest in adults aged 46-55 years (0.38%). Considering the sex, HIV incidence was higher among females (0.31%) than males (0.21%). Regarding marital status, HIV incidence was highest among the widowed (1.30%), never married (0.35%) and the divorced (0.38%). It was however lower among the married (0.14%). HIV incidence survey also showed urban rural variation. It was higher in urban areas where it was 0.65% compared to 0.22% in rural areas. Most new infections occurred in women (62%), and in rural areas (74%).

7.1.4. HIV drug resistance monitoring among patients on first line ART in Rwanda

The survey was conducted in collaboration between CDC-Rwanda and RBC-HIV division, the funds were provided by CDC.

It was found that the virological suppression (VL<400 copies) was 88.1% and 91.5% after 12 and 36 months of ART respectively. The virological failure was 12% at 12 months which was associated with age below 25 years (OR 4.6, $p<0.001$), adherence below to 95% (OR 2.8; $p<0.001$) and CD4 at ART initiation <200 cells/mL (OR 2.4; $p<0.001$). Among those virologically failing, 22.9% patients were failing ART without drug resistance mutation (potential drug resistance) and 77.1% (54/70) presented drug resistance mutations and would shift to another effective ART line. The predominant mutations for NRTIs mutations were M184V, K65R in 72.2%, 53.4% respectively; for NNRTIs Y181C, K103N, G190A were 53.4%, 25.9% and 22.2% respectively and only minor mutations for PIs.

7.1.4. Syphilis sero-surveillance among pregnant women attending ANC/PMTCT sentinel sites in Rwanda.

The survey was conducted in collaboration between CDC-Rwanda and RBC-HIV division. The funds were provided by CDC.

In total, 28,761 pregnant women presented for a first ANC consultation of their current pregnancy between Jul-Dec 2013 (mean age 27.7 years; 43.4% from urban areas). Over half of women were between the ages of 20-29 years old (56.0%) and most were married (76.1%) or cohabitating (17.3%). For 30.2% of women, this was their first pregnancy. Nearly all (98.2%) women were tested for HIV in their ANC visit and 3.14% tested positive (95%CI: 2.7, 3.7). HIV prevalence rates were higher at the 30 original surveillance sites (3.6%, 95%CI: 3.0, 4.3) compared to the 35 new sites (2.3%, 95%CI: 1.9, 2.8). Older age (25-49 years, OR 1.7, p=0.018), urban residence (OR 2.0, p<0.001), having 4+ pregnancies (OR 1.1, p=0.021), and syphilis infection (OR 5.9, p<0.001) were significantly associated with HIV-infection.

When examining the 24 sentinel sites that have been tracked since 2002, HIV prevalence has declined significantly from 5.2% in 2002 to 3.6% in 2013 (p<0.001). Women who were married/cohabitating (OR 0.5, p=0.004) and living outside of Kigali had significantly lower odds of HIV-infection. Syphilis prevalence was 0.5% (95%CI: 0.4, 0.8) at all 65 sites. The prevalence of syphilis has decreased significantly when comparing trends at the 24 sites tracked from 2002 (4.0%) to 2013 (0.8%, p<0.001). The prevalence of syphilis co-infection among HIV-positive pregnant women was 3.5% (95%CI: 1.9, 6.1) at all 65 sites, a decrease from the 24 sites showing 9.2% in 2007 and 10.8% in 2011.

7.1.5. **Kigali Imbereheza Project (KIP) study**

KIP is a psychosocial clinical trial study that aims at improving ART adherence among HIV+ youth in Rwanda using a Trauma Informed Cognitive Behavioral Intervention delivered by their carefully selected, trained, and supervised peer older youth. KIP study is a 5 year NICHD funded collaborative project between RBC, WE-ACTx, CHUK, UIC, and CCHHS as implementers. It targets 360 14-21 old youth and their caregivers and they will be enrolled in 9 cohorts. Currently 6 cohorts have completed baseline assessments and intervention sessions, and some cohorts have completed 6 month, 12 month or 18 month follow up assessments. However, the number of participants who completed follow up assessments is low to make any conclusion about the impact of the intervention. Hopefully by June 2016, as

more than 3 quarters will have finished at least 6 month follow up assessment, we will be able to share some results about the intervention impact.

7.1.6. NEAR Rwanda Clinical Trial

Switch from Nevirapine-based regimen to once a day Rilpivirine/Emtricitabine/Tenofovir in virologically-suppressed HIV-infected Rwandans ("Near-Rwanda")

This is an open-label 48-week randomized pilot study in virologically-suppressed patients comparing the efficacy, safety, and tolerability of two antiretroviral regimen strategies. It's a collaborative study between Rwanda Biomedical Center, Rwanda Military Hospital as study site and Stanford University as sponsor getting funds from Gilead Sciences Inc.

Eligible subjects were virologically-suppressed (e.g., HIV RNA level<50 copies/mL) HIV-infected patients on nevirapine-based first line ART regimen for at least 6 months. 150 subjects (ARM A: 100 patients were initially randomized to switch to Complera and ARM B: 50 patients randomized to remain on their current therapy followed by a delayed switch to Complera at 24 weeks) were enrolled into the study and followed on-study for 48 weeks.

The enrolment of subjects started in May 2014 with 150 patients 99 (66%) in Arm A (immediate switch), 51 (34%) in Arm B (delayed switch), among them 67 (45%) were females and 83 (55%) were males

Progress to date: All study patients have completed 48 weeks study visit; the next step will be data analysis according to primary and secondary objectives.

7.1.7. 2014 International HIV Research and Paediatric Conference

The international HIV research conference was organized for the 7th time in Rwanda. The conference theme for year 2014 was "Using evidence to save lives'. In using evidence to save lives, we need service delivery models, which extend beyond routine health service delivery, models which are based on evidence to strengthen HIV prevention, care and treatment in all our population groups.

The event united about 400 participants from different Countries and all health sectors, representing a unique wealth of expertise (International and Local HIV / AIDS Experts, funders, and implementers). The conference came in a year we celebrate 20 years of fight against HIV infection and AIDS burden in Rwanda. In order to maximize the impact and allow an integrated coordination, this conference was organized in a three in one approach, as it combined previous bi-annual events: the HIV research conference, the paediatric conference and ultimately the celebration of the 2014 World AIDS Day campaign, with the theme *"Role of Media in early HIV treatment to reduce AIDS related morbidity and mortality"*.

For Rwanda in particular, this year concludes the second year of National HIV strategic plan 2013-2018 and evidences and findings that were presented during this conference provided unique opportunity to ascertain the progress made towards attaining the overall strategic plan ambitious goals, namely

- Lowering the new infection rate by two thirds from an estimated 6,000 per year currently to 2,000;
- Halving the number of HIV-related deaths from 5,000 to 2,500 per year;
- Ensuring that people living with HIV (PLHIV) have the same opportunities as all others.

The event was honoured to have key speakers who abundantly and effectively discussed evidence based HIV programming and sustainable financing in Rwanda. Important and actionable recommendations were generated and will move us a step closer to using evidence to save lives and towards developing the sustainable HIV financing strategy for Rwanda.

From the presentations and children's discussions, the following key recommendations were raised:

HIV Research

- **Track 1: Controlling and preventing HIV and co-infections**
  - ✓ Establish a clear referral system between testing points and care services
  - ✓ Mobile VCT targeting priority populations such as FSW, adolescents and a well-defined system to link those positive to care services should be established
  - ✓ Build the human resources capacity to improve the rigor of clinical trials– particularly around ethics.
  - ✓ Scale up prepex-based procedures, and surgical circumcision means in order to meet population demand
  - ✓ Implement strategies that would enhance ART adherence among pregnant women and increase chances of viral load suppression.

- **Track 2: HIV & Health system strengthening, stepping up the pace**

- ✓ Strengthen the Accreditation process and urge Hospitals Countrywide to comply with national standards as far as internal developed policies and procedures
- ✓ Invest in effective prevention strategies to avert high costs of treatment
- ✓ Implement study that compare patient outcome by different cost bases, in order to define the effective model of ART care

- **Track 3: Focusing on Key Populations (FSW, MSM...)**
  - ✓ Improve/increase behavior change messages and the use of condom among key populations (MSM and FSW).
  - ✓ Reinforce the condom supply chain to the community level
  - ✓ Reinforce the implementation of the new protocol of initiating ART for all HIV positive female sex workers
  - ✓ Produce specific education materials for Key populations including FSW

- **Track 4: Psycho-Social studies**
  - ✓ Strengthen capacity of health care workers to address stigma and discrimination associated with HIV and AIDS
  - ✓ Develop strategies to address self-stigma

HIV Pediatric

The recommendations of children were into four categories:

1. **Family & Community**
   - Sensitizing parents to talk with their children on Reproductive health and HIV/AIDS, and to give them what they need for day to day life to prevent them from falling into risky situations
2. **Schools**
   - Put in place special strategies for schools to be able to care for children infected by HIV/AIDS, for example their nutrition and ARVs intake, in a way that they don't feel discriminated.
   - Recruit a permanent staff in schools for counseling & psychosocial support.
   - Put in place special & clear measures to monitor children behavior in schools, especially the boarding schools, to avoid fornication, drugs/alcohol consumption and other risky behaviours.
3. **Health Sector/ Facilities**

- Facilitate provision of ARVs, for example through trained peer educators in the community, with a view to ensure that children who are on ARVs are correctly adhering to the treatment plan.
- Manufacture one "ARV tablet, small and not bitter", to be taken once a month, in order to increase children's adherence to ARV treatment.

4. Media

- Ensure that the media (TVs, Radios, newspapers, online) includes documentaries to continue sensitizing people on HIV/AIDS prevention and care with increased emphasis on youth and adolescents.
- Media role in communicating to the population benefits for early testing and enrolment for HIV services to reduce AIDS related morbidity and mortality.

Photo: The conference was officially closed by the Rwandan First Lady, Mrs. Jeannette KAGAME. In her closing remarks, Mrs. KAGAME recognized the participations of Children in the conference and recommended the researchers for working hard to mitigate the impact of HIV/AIDS on the world's population.

7.1. Routine data systems

Table 5: Routine Data system in Rwanda

Area	System Name	Geographic Coverage	Donors /Partner(s)	Description
Patient monitoring Systems	Electronic Medical Record /OpenMRS	322 health facilities. Expansion underway to all health facilities	GOR-PEPFAR-Global Fund-MSH-PIH	Standalone system that captures individual patients' data for clinical monitoring. Plans are on the way to implement additional primary health care modules in addition to the deployed HIVAIDS module.
Aggregate M&E Indicator Reporting	Rwanda Health Management Information System (RHMIS)	Nationwide	GOR-PEPFAR-Global Fund	Web-based reporting system of health-related aggregated data using DHIS-2 platform with geospatial information capacity. It used by all health facilities (private and Public)
	Performance-based financing (PBF)	Nationwide	GOR-PEPFAR-Global Fund-MSH	Web-based database that collect s selected number of output indicators used to track progress and calculate performance based payments for community health worker cooperatives, health centers and district hospital. The system also uses data from quarterly quality evaluations to ensure that data and service quality are maintained, and to reduce the performance payment accordingly
	TRACnet	Nationwide	GOR-PEPFAR-Voxiva Inc.	Phone and web-based reporting system that collects HIV AIDS TB OI aggregated data. The system was migrated on the RHMIS from October 2014

Supply Chain Management Information System	Electronic Logistical Management Information Systems (e-LMIS)	District pharmacists, MPPD	GOR-PEPFAR	An automated pharmaceutical management system (e-LMIS) was rolled out in March 2014 to improve quality and timely access of data. Captures basic data on ARV and TB commodities consumption, stock status, and information on stock outs at health facilities.
Laboratory Information System	LIS	NRL	GOR-PEPFAR	Stores laboratory data and supports laboratory management. The system will be expanded to all district level laboratories to develop a national electronic network of laboratories
Blood Bank Information System		5 regional centers	GOR-PEPFAR	Blood bank commodities and testing data
E-Integrated Disease Surveillance System	e-IDSR	Nationwide All health facilities	GOR-PEPFAR	Collects aggregate data of diseases under surveillance Outbreak response data
Human Resources, Training Information Systems	Integrated Human Resource Information Systems (iHRIS)	Central database\	GOR-PEPFAR	HRIS collects and aggregates data on health workforce and links to MOH principal personnel office.
Health Information Exchange Project	Rwanda HIE	Operational 1 district (Rwamagana)	GOR-PEPFAR-Jembi Health system	Ensure exchange of patient health records across health facilities

7.2. RBF indicators

The newly adopted results-based financing (RBF) model aims to increase countries' ownership, and is based on the establishment of a performance contract with GFATM. The disbursement of funds will be strictly based on six pre-defined performance indicators. The RBF model was recently granted to Rwanda due to three main reasons: (1) its proven track record of achieving impact, (2) strong political commitment to fight HIV and to do it with

increased ownership and partnership, and (3) strong, adequate systems and processes in place that can support the realization of that vision.

The Rwandan RBF model has three major components: indicators, assurance, and collaboration. The six pre-defined performance indicators are listed in the table below. Assurance mechanisms are present at the strategic, operational, and financial levels. Finally, collaboration among funding entities is encouraged.

The source of information was registers (Pre-ART/ART, postnatal follow-up for exposed infants, TB cases, and laboratory for TB). For three of the six indicators (MTCT, retention on ART, and HIV/TB), retrospective data was collected and analyzed. Data was collected by data managers from 508 health facilities, under the supervision of district hospital data managers and mentored by staff from RBC Planning and M&E and HIV, STIs, and OBBI Divisions. Data managers filled the forms and entered the data into an Excel database. Data cleaning and merging were done by RBC staff.

RBF Performance Indicators:

Indicator	**Data Source**	**Baseline**	**Target (by end June 2015)**	**Results (June 2015)**
% of infants born to HIV+ mothers, who are infected by 18 months (MTCT)	Cohort Data (health facility registers)	1.8% by 18 months	1.70% by 18 months	1.79% by 18 months
% of adults and children with HIV known to be on treatment 12 months after initiation of ARVs (retention on ART)	Cohort Data (health facility registers)	91.7%	92.5%	91.2%
%of eligible adults & children currently receiving ARVs (ART Coverage)	TRACnet and EPP Spectrum	76.8%	79%	80%
% of female sex workers reporting the use of a condom during penetrative sex with their most recent client (key	BSS Female Sex Workers	80%	82%	83.5%

population)				
% of men reporting the use of a condom the last time they had anal sex with a male partner (key population)	BSS MSM	71.4%	N/A	N/A
% of HIV/TB co-infected patients receiving both HIV and TB treatment (TB/HIV)	Health facility registers	92.8%	93.2%	96.8%

VIII. FINANCING THE NATIONAL HIV RESPONSE

8.1. Introduction

The financing of the national HIV response is a subset of the Health Sector Financing Strategy. The aim remains to improve the access of the population to health services, including HIV services. HIV programs continue to benefit from government and international funding and support. The major funding sources for the Rwanda HIV programs are:

- Government Revenues which include revenues generated from taxation, loans, grants, donations – reported as Government contribution.
- Development Partners contributions through General and Sector Budget Support and Donor funds, partially on budget as seen in the development budget, and partially earmarked and project related. These include the Global Fund for HIV & AIDS, TB and Malaria, PEPFAR and contribution from One UN.
- Health insurance pooled funds (Mutuelle de Santé or Community based health insurance) from household expenditures. This is not captured in this report.
- Private funds are also not captured in this report.

The data collection for the contribution of all these sources is not conducted on a regular basis, therefore the report will focus on funding sources where data were available as explained above.

8.2. Funding Source for HIV Expenditures in Rwanda FY 2014/15

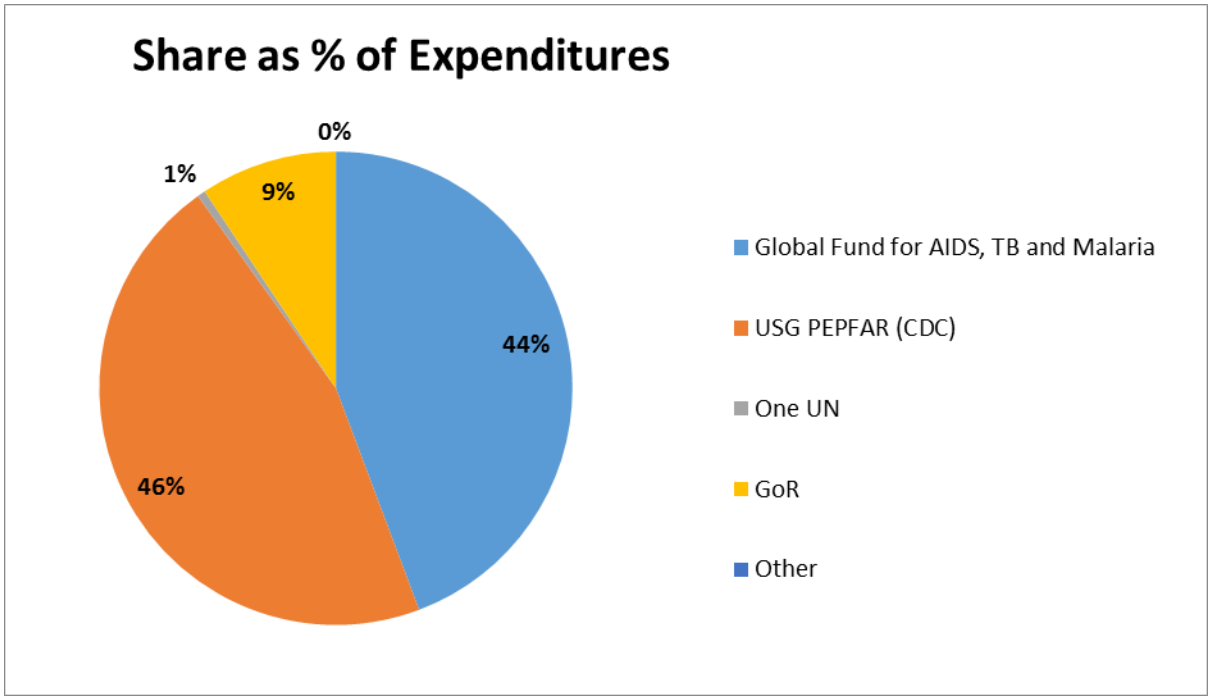
The Ministry of Health and the Rwanda Bio-medical center in collaboration with its partners worked on the design and development of the Health Resource Tracking Tool (HRTT), where all health sector actors (government institutions and development partners) report on a periodic basis. The system is designed to collect expenditures and budgets on a quarterly and annual basis. The system is currently operating. During the reporting of 2014/2015, this system was not used as they started capturing the financial data of 2013/2014 and budget 2014/2015. Based on the progress, this system will facilitate on the financing for HIV by the NSP 2013-2018 and also the health sector in 2015/2016 fiscal year. To facilitate the collection of financial information for this year's report, a separate data collection process was adopted. The data was collected from the main funding sources, especially from MOH, SPIU (for GF), PEPFAR, and UN agencies (One UN). The data for international NGOs and other bilateral agencies was estimated based on the data reported previously in HRTT.

8.3. Public and external funding sources for HIV

The Global Fund for AIDS, TB and Malaria (GFATM) was budgeted to contribute the largest among all external funds with USD 123.6 million (53% of the total budget, the figures considered are coming from the second amendment of grant agreement approved by the Global Fund). The United States Government (USG) was expected to contribute USD 69.1 million representing 29% of the total HIV budget.

In the expenditures, USG PEPFAR made the largest contribution with USD 97,337,531 million, followed by GFATM with USD 94,075,544 million. The Government of Rwanda contributed USD 19.8 million while ONE UN contributed USD 1.1 million. The FY 2014/15 total HIV spending is 90% of the planned budget and represents a 20% increase of the expenditures compared to the previous fiscal year 2013/14. The total HIV spending is USD 212,480,300 million, with 9% from public funding and 91% from external funding. This total spending doesn't include Out Of Pocket (OOP) and contributions of private sector.

Figure 14: Contribution of Different Funding Sources



Among external funders, USG PEPFAR represents a large proportion in HIV spending, followed by GF, UN Agencies and international NGOs.

Table 6: HIV & AIDS funding sources

Funding Sources	Budget planned in USD	Share as % of Budget	Amount Spent in USD	Share as % of Expenditures
Global Fund for AIDS, TB and Malaria	123,647,773	53%	94,075,544	44%
USG PEPFAR (CDC)	69,162,668	29%	97,337,531*	46%*
One UN	1,893,019	1%	1,189,730	1%
GoR	18,036,955	8%	19,877,495	9%
Other	22,115,427	9%	0	0%
Total	**234,855,842**	**100%**	**212,480,300**	**100%**

*USG expenditure amount for March to June is based on estimation of expenditures made from previous years. During the budgeting process, the USG budget used by International NGOs was not included in the operational plan 2014-2015.

Table 7 GoR HIV Funding per MTEF Program Category

MTEF Program	Total GoR Contribution in Health Sector		GoR Contribution in HIV	
	Budget	**Spent**	**Budget**	**Spent**
ADMINISTRATIVE AND SUPPORT SERVICES	8,057,334	7,835,052	1,194,445	1,175,258
HEALTH SECTOR PLANNING AND INFORMATION	140,302	135,375	23,643	20,306
HEALTH HUMAN RESOURCES	44,944,608	44,944,385	6,741,691	6,741,658
FINANCIAL AND GEOGRAPHICAL HEALTH ACCESSIBILITY	34,395,313	34,321,334	5,208,768	5,148,200
POLICY DEVELOPMENT AND HEALTH SERVICE REGULATION	1,279,001	1,266,613	195,579	189,992
MATERNAL AND CHILD HEALTH	4,234,469	4,195,779	-	-
SPECIALISED HEALTH SERVICES	21,209,177	14,241,630	2,161,597	2,136,245
HEALTH QUALITY IMPROVEMENT	14,554,443	879,888	100,453	131,983
DISEASE PREVENTION AND CONTROL	6,248,989	8,104,117	2,410,779	4,333,854
Grand Total	**135,063,634**	**115,924,173**	**18,036,955**	**19,877,495**

As the table shows, for FY 2014-2015 GoR is contributing to HIV expenditures the total amount of $19,877,495, with HIV Expenditures by MTEF program ranging from a low of $20,306 (0.10%) for Health Sector Planning and Information to a high of $6,741,658 (33.92%) for Human Resources for Health. The top 3 MTEF programs are HRH, Financial and Geographical Health Accessibility and disease prevention and control and represent 66.47% of the total GoR contribution to HIV with $6.7 million, $5.1 million, and $4.3 million respectively. The largest portion of HIV expenditures funded by GoR is allocated to HIV spending through general health system strengthening.

8.4. Government contribution to HIV & AIDS

Methodology used to estimate the GOR allocations to various health programs

The GoR funds are allocated to different health programs during the annual planning and budgeting process, which entails prioritization process by the Ministry, RBC and decentralized levels basing on HSSPIII and different disease program strategic plans serve as guiding documents. The planning phase also uses the disease burden and services utilization data from HMIS to inform an effective resource allocation. The output from this process is

entirely reflected in the Mid-Term Expenditure Framework (MTEF) that becomes part of the budget law voted by the Parliament.

Apart from program specific financing, the estimation of GoR contribution takes into consideration all other health related programs costs, categorized as health systems strengthening costs in the categories of (i) Human resources (salaries) (ii) Infrastructures (including constructions, renovation and equipment) (iii) Quality of services (including performance based financing and accreditation programs (iv) Specialized health services (v) Health commodities (drugs, consumables…) and (vi) Health insurance for indigents.

The percentage utilized to estimate GoR contribution is based on disease burden and services utilization based on HMIS data collected from Rwandan health facilities. The following table shows the percent shares of services utilization by disease category at hospital, health centers and community levels. This services utilization percentage of each disease category is then applied to each MSP cost category mapped with each proxy MTEF program mentioned above and related sub-items.

Table 8 Services utilization by medical condition/disease category

Medical conditions / Disease category	Percent share services utilization (%)
HIV	15%
Malaria	2.9%
Tuberculosis	1.8%
Other infections	22.3%
Non communicable diseases	19%
Maternal and child health	39%

Source: HMIS data, 2012-2013

Table 9 GoR HIV NSP Funding per type of budget entity FY 2014/2015

Type of Budget entity	Budget FY 2014-2015 in USD	Expenditures in USD	Expenditure share
MINISANTE	6,216,345	6,639,913	33%
REFERRAL HOSPITALS	2,371,033	1,855,941	9%
RWANDA BIO-MEDICAL	3,037,614	4,969,678	25%

CENTER(RBC)			
DISTRICT HOSPITALS	6,411,963	6,411,963	32%
Grand Total	**18,036,955**	**19,877,495**	**100%**

As the table shows, for FY 2014-2015 GoR is contributing to HIV expenditures the total amount of $19,877,495 (that is 100% execution of the budget). By ranging HIV Expenditures by type of budget entity from the highest to the lowest, it is obvious that the highest share of HIV expenditures is held by MINISANTE with 33%; followed by District hospitals with 32%; RBC with 25% and then Referral hospitals with 9%.

Table 10: GoR HIV NSP Funding per NSP cost category FY 2014/2015

NSP Cost Category	Budget 2014/2015 in USD	Expenditures 2014/2015 in USD	Expenditure share
1. Human Resources	9,602,815	9,594,051	48%
2. Technical Assistance	863,311	871,842	4%
3. Training	17,413	8,642	0%
4. Health Products and Health Equipment	186,809	207,858	1%
5. Medicines and Pharmaceutical Products	152,777	145,676	1%
6. Procurement and Supply Management Costs	2,078,074	4,002,273	20%

7. Infrastructure and Other Equipment	2,523,931	2,431,532	12%
8. Communication Materials	54,059	54,456	0%
9. Monitoring & Evaluation	192,472	199,008	1%
10. Living Support to Clients/Target Populations	1,733,119	1,732,743	9%
11. Planning and Administration	417,736	417,506	2%
12. 12. Overheads	214,438	211,908	1%
Grand Total	**18,036,955**	**19,877,495**	**100%**

The top 4 NSP cost categories with the highest share of expenditure are Human resources with 48%; Procurement and Supply Management Costs with 20%; infrastructure and Other Equipment with 12% and Living Support to Clients/Target Populations with 9%. The remaining 8 NSP cost categories are represented with 11%.

8.5. The Global Fund contribution

For the Global Fund contribution, the budget for the year 2014–2015 was USD 123,647,773 which is 53% of contribution to the HIV NSP operational plan for this ending fiscal year. From this budget, a total of USD 94,075,544 has been effectively spent by the sub-recipients; that is 44% of HIV NSP total expenditures. The balance of USD 29,572,229 has been carried over to this fiscal year 2015/2016 and is committed with contracts whose payments will progressively be carried out during the year 2015/2016. The huge portion is mainly for rehabilitation of 7 modern maternity wards & 2 satellite laboratories at district hospital level, rehabilitation of 31 maternities & 15 laboratories at health center level, rehabilitation of district pharmacies; acquisition of Medical equipment and health commodities for health facilities, rehabilitation of infectious disease,…..).

Table 11: GF HIV NSP funding per type of budget entity FY 2014/2015

HIV GF Grant Subrecipients	Budget FY 2014-2015 in USD (A)	Expenditures as at 30th June 2015 in USD (B)	Balance (C) = (A) - (B)	Expenditure share
MoH	17,952,185	17,147,181	805,005	**18%**
NGOs	4,767,139	4,712,232	54,907	**5%**
Other Public Institutions	6,365,907	5,393,668	972,239	**6%**
RBC	90,262,828	64,240,795	26,022,033	**68%**
Referral Hospitals	2,756,191	1,273,287	1,482,904	**1%**
Umbrellas	1,543,523	1,308,381	235,141	**1%**
Grand Total in USD	**123,647,773**	**94,075,544**	**29,572,229**	**100%**

The table above shows the HIV NSP budget execution per type of budget entity of the GF contribution for the FY 2014-2015. The largest expenditure was done by RBC (Health facilities inclusive) with 68%; followed by MoH with 18%; other public institutions with 6%; NGOs with 5% and finally Umbrellas and referral hospitals with 2%.

Table 12: HIV NSP GF Grant budget execution per cost category as of 30th June 2015

NSP Cost Category	Budget	Expenditures in USD	Expenditure share
01. Human Resources	31,708,189	28,754,535	31%
02. Technical support	80,054	74,108	0%
03. Training	1,736,956	1,632,258	2%
04. Health Products and Health Equipment	19,972,792	15,270,299	16%
05. Medicines and Pharmaceutical Products	16,841,768	15,187,776	16%
06. Procurement and Supply Management Costs	2,042,159	1,589,678	2%
07. Infrastructure and Other Equipment	25,567,612	11,006,336	12%
08. Communication material	2,172,343	1,805,527	2%
09. Monitoring and evaluation	4,149,765	2,711,036	3%
10. Living Support to Clients/Target Populations	15,235,582	13,050,892	14%
11. Planning and Administration	795,646	416,853	0%

12. Overheads	3,344,907	2,576,246	3%
Grand Total in USD	**123,647,773**	**94,075,544**	**100%**

The table above shows the HIV NSP budget execution per cost category of the GF contribution for the FY 2014-2015, representing a total rate of 76% expenditures over budget.

8.6. The USG/PEPFAR contribution

Expenditures are based on reports from OGAC for the period of July 2014–March 2015. Data on expenditures are not yet available for March–June 2015. Therefore, an estimation of expenditures was made for March-June 2015 based on expenditures from previous years. These amounts include management and operations which are inclusive of USG seconded staff and technical staff.

8.7. ONE UN Contribution

The One UN developed several flagship programs to fund HIV activities implemented from July 2014 to June 2015. The total budget for the flagships is USD 1,893,019. This was used as a planned funding level for ONE UN. The data on expenditures is not yet available from all agencies and estimates were used for this report based on historical available information. The estimated budget execution rate is 63% of the planned budget. The data will be available and ready for the data collection for the HRTT in December 2015.