

Republic of Rwanda



Ministry of Health

# Rwanda HIV and AIDS National Strategic Plan

July 2013 – June 2018



RWANDA  
BIOMEDICAL  
CENTER

A Healthy People. A Wealthy Nation

## PREFACE

During the implementation of the National Strategic Plan 2009–2012 on HIV and AIDS, Rwanda has continued its progress towards universal access to HIV and AIDS services. The new HIV and AIDS National Strategic Plan July 2013–June 2018 (thereafter referred to as ‘the NSP’) presented here is set on pursuing the same objective, with inspiration from the global targets of “zero new HIV infections, zero HIV-related deaths and zero stigma and discrimination due to HIV”.

The NSP is the result of more than a year of preparatory work, starting with the development of Rwanda's second Economic Development and Poverty Reduction Strategy 2013–2018 (EDPRS2), which confirmed the response to HIV and AIDS as a cross-cutting national development priority. A wealth of available national and international data has contributed to ensure that the NSP is based on the most up to date understanding of the epidemic, that the strategies are based on evidence of what works in Rwanda and elsewhere, and that the strengths and weaknesses of the systems and mechanisms for responding to HIV and AIDS are addressed through the NSP.

The development of the NSP itself, which was carried out during 2013, has been based on broad participation of all of the actors involved in addressing HIV and AIDS in Rwanda: communities, civil society organizations, ministries and development partners. As a result, we are confident that the strategies identified in the plan are those that are the most likely to achieve the ambitious results we are aiming for.

The difficult international financial environment has affected HIV funding internationally and Rwanda is no exception to this. This situation has led us to prioritize the strategies and interventions presented in this NSP based on their estimated impact and cost effectiveness. This prioritization exercise required a lot of difficult choices to be made during the NSP development process and will undoubtedly continue to do so during the implementation period.

It is now our responsibility to rise to the challenge and combine the necessary individual and collective resources in our drive towards universal access to HIV services. Let us continue our work with renewed energy and determination.

**Dr. Agnes BINAGWAHO**

*Rwanda Minister of Health*



## ACKNOWLEDGEMENTS

Rwanda Biomedical Center (RBC) would like to take this occasion to express its deep appreciation and sincere thanks to all who participated in the development of the NSP 2013-2018.

The NSP development process was mainly coordinated through the programmatic technical working groups (TWG) that met regularly in working sessions and workshops to provide their inputs and advice since the beginning of the previous NSP Mid-term review and until the final validation of the NSP document. These TWGs are composed of representatives from all groups of stakeholders involved in the national HIV response: civil society organizations, private sector partners, non-health EDPRS sectors, decentralized units of health institutions and local government, development partners (UN family, USG, CHAI) and several divisions and units within MOH and RBC. HIV and PMEC Divisions of RBC were the leading agencies coordinating this process, but all partners and stakeholders participated actively in all the steps of NSP development and ensured that the final NSP document is fully inclusive and comprehensive.

May all partners be congratulated here for their active participation in the elaboration of the new HIV NSP, and more broadly for their precious and continuous contribution to the fight against HIV and AIDS.

**Dr Marc HERANT**

*Director General of Rwanda Biomedical Center*



## EXECUTIVE SUMMARY

The NSP was developed over a seven-month process with broad participation from stakeholders including the community, civil society, partners, and the Government of Rwanda. It is also aligned with other key national priorities and strategies such as Vision 2020 (1), EDPRS 2 (2), the Health Sector Strategic Plan (HSSP III) (3) as well as international ones such as the drive to realization of the Millennium Development Goals (MDGs) and new guidelines in the management of HIV. Finally the drafting of the NSP was guided by a number of core principles: national mobilization and ownership, equity and human rights, gender equity, integration of HIV services into the national health system, cost effectiveness of interventions, and national capacity building.

As of 2013, the epidemic in Rwanda has stabilized at a prevalence of 3 percent (4) as a result of a strong national response to control the spread of HIV, and to diagnose and treat affected individuals. However, behind this statistic hides a number of vulnerable groups that face a high burden of disease and are key to the transmission of the epidemic, in particular, through sex workers and their clients, and discordant couples. It has become clear that consolidating the gains of the last few years as well as making further headway in a cost-effective manner will require focused attention on the needs of these groups.

Going forward, the NSP sets ambitious goals for its timeframe of execution:

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

To achieve these goals, three main levers of intervention are available: prevention of new infections, care and treatment, and impact mitigation. It is under these three levers that this NSP develops and prioritizes specific activities that will deliver on the goals with the highest impact for a given investment.



**For the prevention of new infections,** this NSP follows a two-pronged approach:

- Interventions directed at the general population that either build further behavior change (e.g. condom usage) or provide a lasting benefit of reduced disease transmission (e.g. male circumcision, screening in pregnancy). Key 2018 targets include, raising the usage of condoms in non-cohabiting intercourse by 13 percent (absolute), increasing the fraction of the male adult population that is circumcised from 13 percent (4) to 66 percent, and decreasing the estimated new infections in children from 1,000 to less than 200 per year.
- Interventions directed at groups especially susceptible to high transmission such as female sex workers (FSW), men who have sex with men (MSM), and sero-discordant couples (SDC), in particular with treatment as prevention as a new approach to be added to the behavioral and other supportive interventions. Key 2018 targets include: decreasing transmission through FSW by a factor >20, through MSM by a factor >5 and through SDC by a factor >2.

**For care and treatment,** this NSP incorporates recent evidence-based changes in international guidelines, notably the initiation of therapy at a CD4 count of 500 (vs. 350 previously), treatment of sex workers and MSM regardless of CD4 count, and the general philosophy that treatment plays an important role in prevention. A corollary of this approach is that it requires more extensive outreach to bring broader populations under treatment. Interventions in this areas fall under two broad categories:

- Extension of coverage further into the population with a target of increasing the level from a current estimate of 80 percent of eligible people on anti-retroviral therapy (ART) treatment to 90 percent by 2018, and
- Improved quality of care with strong adherence to standards of care, nutritional support wherever needed (target 95 percent), and psychosocial support (target 80 percent to receive specialized consultation).

**For impact mitigation,** this NSP has three overarching goals:

- Ensuring economic opportunity and security of PLHIV through support and development of cooperatives and promotion of self-reliance toward food security;



- Protecting orphans and vulnerable children (OVC) with a key target to maintain a high level of school attendance (>85 percent) in the 10–14 age group;
- Reducing stigma and discrimination.

Overall national coordination of the NSP is led by the HIV Division within the Institute for HIV and Other Disease Prevention and Control of the RBC, but it is an effort to which the broadest array of stakeholders participates including other divisions of RBC (e.g. National Reference Laboratory, Health Communication Center, Medical Procurement, etc.), the social cluster of ministries in the Government of Rwanda, civil society organizations, and many international and local partners. At the population level, the national health system is the main focus of implementation, and many of the interventions included in this NSP either leverage the health structure that has been standing up' in Rwanda over the last decade, or further strengthen it to enable an adequate volume and quality of services to the population.

Rounding the NSP is a robust and detailed monitoring and evaluation (M&E) plan tied to a complete set of 51 key performance indicators that will ensure that progress is well understood, that winning approaches are exploited to the fullest, and that challenges are diagnosed and corrected early.

Given the uncertainty of the availability of future funding, the NSP has been costed under three scenarios corresponding to a funding level of US\$1,032 million, US\$913 million, and US\$834 million over five years. For each scenario, the evolution of various parameters of impact of disease was calculated based on the best evidence available: while it is expected that the high scenario would enable meeting all the targets, the consequences of a low scenario would be essentially that of status quo; i.e. maintaining current control of the HIV burden in Rwanda but with limited further progress in reducing it.

Ultimately, a strategy is about choosing what to do and not to do with the resources at hand to achieve the desired result. In creating this NSP, there has been a significant effort to quantify the relative impact and costs of various interventions to guide the selection of approaches that would be the most cost effective. But these analyses often rely on best estimates and triangulations between a heterogeneous set of available data points. At the



same time, the science and knowledge base of HIV continues to progress and expand. Therefore, while this NSP is meant to provide guidance, clarity of purpose and national alignment as we tackle the scourge of HIV, it does not imply that strategy is frozen for the next five years. As a result, we expect that this NSP will evolve during its five-year lifespan as new facts and evidence comes to light and new contexts emerge.



## TABLE OF CONTENT

PREFACE .....	i
ACKNOWLEDGEMENTS .....	ii
EXECUTIVE SUMMARY .....	iii
TABLE OF CONTENT .....	vii
LIST OF FIGURES .....	ix
LIST OF TABLES .....	x
ABBREVIATIONS AND ACRONYMS.....	xi
1. INTRODUCTION.....	1
2. WHERE WE ARE: SITUATION ANALYSIS.....	3
2.1 Know your epidemic .....	3
2.2 Know your response.....	6
2.2.1 Main stakeholders.....	6
2.2.2 Main achievements in the HIV response.....	7
2.2.3 Main challenges and strengthening measures .....	10
3. WHERE WE WANT TO GO.....	13
3.1 Policy environment.....	13
3.1.1 National policies.....	13
3.1.2 International policies .....	14
3.2 Overarching principles .....	15
3.2.1 National mobilization and ownership.....	15
3.2.2 Equity and human rights.....	15
3.2.3 Gender equity .....	16
3.2.4 HIV integration.....	16
3.2.5 Cost-effective and evidence-based planning and response .....	17
3.2.6 Capacity building.....	18
3.3 Overarching result framework.....	19
4. HOW WE WANT TO DO IT .....	21
4.1 Prevention result framework .....	21
4.2 Care and treatment result framework .....	36
4.3 Impact mitigation result framework .....	45





4.4	HIV management and health support systems .....	51
5.	TOOLS WE HAVE: GOVERNANCE MECHANISMS .....	53
5.1	National level coordination .....	53
5.2	Decentralized/district level leadership and coordination.....	53
5.3	EDPRS sectors .....	54
5.4	Civil society organizations .....	54
5.5	Private sector .....	55
5.6	Public sector .....	55
5.7	Operationalizing the NSP at implementation Level .....	56
5.8	Partnership for greater harmonization and alignment of donors with NSP priorities ...	56
5.9	Financial management mechanisms .....	56
6.	ASSESSMENT OF WHAT WE ARE DOING: M&E PLAN ON HIV AND AIDS .....	58
6.1	Purpose of the national M&E plan .....	58
6.2	Development of the M&E plan .....	58
6.3	National and program-level indicators .....	59
6.4	M&E systems in Rwanda .....	59
7.	FINANCIAL RESOURCES: COSTING AND PRIORITIZATION OF THE NSP .....	66
7.1	Objective and process.....	66
7.2	Costing methodology.....	66
7.3	Impact methodology and cost effectiveness .....	67
7.4	Costing results .....	69
7.5	Funding estimates and gap analysis.....	70
7.5.1	Funding estimates.....	70
7.5.2	Role of government and sustainable HIV financing.....	71
7.6	Scenario development .....	73
7.7	Conclusions .....	75
7.8	Challenges and limitations .....	76
8.	CONCLUSION .....	78
	REFERENCES .....	xv
	ANNEXES .....	xviii
	Annex 1: NSP PERFORMANCE FRAMEWORK.....	xviii
	Annex 2: Costing tables .....	xxx



## LIST OF FIGURES

Figure 1: HIV prevalence by sex (DHS 2005 and 2010) .....	3
Figure 2: HIV prevalence by age for men and women (DHS 2010).....	3
Figure 3: Distribution of new infections by mode of transmission (MOT 2012).....	4
Figure 4 : Overarching result framework .....	19
Figure 5 Prevention result framework .....	23
Figure 6 Care and treatment result framework.....	38
Figure 7 Impact Mitigation result framework .....	47
Figure 8: Cost effectiveness – infections averted.....	68
Figure 9: Expected funding .....	71
Figure 10: Percentage of Government of Rwanda budget allocated to health .....	72
Figure 11 Projected HIV-related deaths by level of funding.....	75
Figure 12 Projected new HIV infections by level of funding.....	76
Figure 13: Cost by impact and outcomes .....	xxx
Figure 14: Breakdown of the costing by recurrent and investment costs (US\$) .....	xxxii
Figure 15: Key assumptions on quantities for the 1B scenario (care and treatment) .....	xxxiii
Figure 16: Key assumptions on quantities for the 1B scenario (prevention).....	xxxiv
Figure 17: Key assumptions on quantities for the 1B scenario (impact mitigation) .....	xxxv
Figure 18: Key assumptions on unit costs.....	xxxvi
Figure 19: Key assumptions on impact computations and cost effectiveness.....	xxxvii



## LIST OF TABLES

Table 1: HIV incidence, prevalence and behavioral data for main risk groups in Rwanda. ....	6
Table 2: Main programmatic achievements in the HIV response, by service delivery category. ...	8
Table 3: Major challenges and programmatic strengthening measures, by service delivery category. ....	10
Table 4: NSP costing by program area and outcome .....	69
Table 5: Summary of the key variables of the different scenarios .....	74



## ABBREVIATIONS AND ACRONYMS

**ABASIRWA:** Abanyamakuru Barwanya Sida mu Rwanda baharanira n’ubuzima (Rwanda Media network against HIV and AIDS and for health promotion)

**AIDS:** Acquired Immune Deficiency Syndrome

**AIM:** AIDS Impact Module

**ART:** Anti-Retroviral Treatment

**ARV:** Anti-Retroviral (drugs)

**BCC:** Behavior Change Communication

**BMI:** Body Mass Index

**BSS:** Behavioral Surveillance Survey

**CAMERWA:** Centrale d'Achats des Médicaments Essentiels du Rwanda

**CD4:** Cluster Differentiation 4

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

**CDLS:** Comité de District de Lutte contre le SIDA

**CHW:** Community Health Worker

**CNLS:** Commission Nationale de Lutte Contre le SIDA (National AIDS Control Commission)

**DALYs:** Disability Adjusted Life Years

**DDP:** District Development Plan

**DHS:** Demographic and Health Survey

**EDPRS 2:** Economic Development and Poverty Reduction Strategy 2

**EMR:** Electronic Medical Recording System



**EMTCT:** Elimination Mother-to-child Transmission of HIV

**FOSA:** Formation Sanitaire (Health Facility)

**FSW:** Female Sex Workers

**GBV:** Gender-Based Violence

**GF:** Global Fund

**GIPA:** Greater Involvement of People living with HIV and AIDS

**HAART:** Highly Active Antiretroviral Therapy

**HBV:** Hepatitis B Virus

**HCC:** Health Communication Center

**HCT:** HIV Counseling and Testing

**HCV:** Hepatitis C Virus

**HF:** Health Facility

**HIV:** Human Immunodeficiency Virus

**HMIS:** Health Management Information System

**HSSP III:** Health Sector Strategic Plan III

**ICT:** Information Communication Technology

**IDU:** Injecting Drug Users/Intravenous Drug Users

**IEC:** Information, Education, Communication

**IHDPC:** Institute of HIV Disease Prevention and Control

**IV:** Intravenous

**IYCF:** Infant and Young Children Feeding



**MESST:** Monitoring and Evaluation Systems Strengthening Tool

**MC:** Male Circumcision

**MDGs:** Millennium Development Goals

**M&E:** Monitoring and Evaluation

**MIFOTRA:** Ministère de la Fonction Publique et du Travail (Ministry of Public Service and Labor)

**MINECOFIN:** Ministry of Economy and Finances

**MERG:** UNAIDS Monitoring and Evaluation Reference Group

**MPPD:** Medical Procurement and Production Division

**MoH:** Ministry of Health

**MOT:** Mode of Transmission

**MSM:** Men who have Sex with Men

**MSW:** Male Sex Workers

**MTR:** Mid Term Review

**MUAC:** Mid Upper Arm Circumference

**NCBT:** National Center for Blood Transfusion

**NCC:** National Commission for Children

**NGO:** Non-Government Organization

**NRL:** National Reference Laboratory

**NSP:** National Strategic Plan

**OAG:** Office of Auditor General

**OBBI:** Other Blood Borne Infections



**OI:** Opportunistic Infection

**OVC:** Orphans and Vulnerable Children

**PEP:** Post-Exposure Prophylaxis

**PEPFAR:** President's Emergency Plan For AIDS Relief

**P ICT:** Provider-initiated Counseling and Testing

**PIT:** Provider-initiated Testing

**PLHIV:** People Living with HIV

**PME:** Planning, Monitoring and Evaluation

**PMTCT:** Prevention of Mother-to-Child Transmission of HIV

**PSF:** Private Sector Federation

**PWD:** People With Disability

**QMS:** Quality Management System

**RBC:** Rwanda Biomedical Center

**RCA:** Rwanda Cooperative Agency

**RCLS:** Confessions Religieuses pour La Lutte Contre Les SIDA (Rwanda Interfaith Network against HIV and AIDS)

**RRP+:** Réseau Rwandais des Personnes Vivant avec le VIH (Rwanda Network of PLHIV)

**RPPA:** Rwanda Public Procurement Authority

**SDC:** Sero-Discordant Couples

**SRH:** Sexual and Reproductive Health

**STI:** Sexual Transmitted Infection



**TWG:** Technical Working Group

**TRAC Plus:** Centre for Treatment and Research on AIDS, Malaria, Tuberculosis and Other Epidemics

**TB:** Tuberculosis

**UNAIDS:** Joint United Nations Program on AIDS

**UNGASS:** United Nations General Assembly Special Session on HIV and AIDS

**UN:** United Nations

**UPHLS:** Umbrella des Personnes Handicapées dans la Lutte contre le SIDA  
(Umbrella of People with Disabilities in the Fight against HIV and AIDS)

**USG:** United States Government

**USPLS:** Umbrella of Public Sector against HIV and AIDS

**VCT:** Voluntary Counseling and Testing

**VPDD:** Vaccine Preventable Diseases Division

**WHO:** World Health Organization

**YFC:** Youth Friendly Center





## 1. INTRODUCTION

In line with the processes set out in the national development policy documents guiding Rwanda's ambitious and positive overall development trajectory in recent years, the HIV response is seen as a long-term development objective in Rwanda, intrinsically linked to development goals around poverty reduction and economic growth. In 2007, as the Government of Rwanda began preparations for the development of its third HIV and AIDS NSP, it took the opportunity to redouble its efforts to understand the Rwandan epidemic and sharpen the national response. Working through national agencies and various development partners, it set to better define the problem and understand the dynamics of the changing HIV epidemic in the country. From 2007 to 2009, several empirical and analytic reviews were conducted to inform the development of an evidence-based and data-driven HIV response. This involved synthesizing and triangulating HIV information from multiple sources, conducting modeling to understand modes of transmission, and studying HIV risk among vulnerable groups such as FSW and MSM.

By late 2008, through research and data analysis, the government and its partners had identified and generated new information on the important drivers of the epidemic. Combined with other emerging data, key decision makers in government translated this knowledge into a comprehensive strategy in the NSP 2009–2012(7). The plan included a detailed situational analysis of both the HIV epidemic and response, based on the 'know your epidemic / know your response' strategic planning approach.

This NSP (July 2013–June 2018) is essentially the continuation of the previous one that ended in June 2013. We have kept the same overarching goals, modifying only the targets in line with the overall progress achieved in the HIV response during the last four years.

This document is shorter and is conceived to give a general vision of where Rwanda is now in reversing the tide of HIV and AIDS, where we want to arrive by the end of this five year period and how we plan to get there. The HIV and AIDS situation analysis included in this document provides an overview of the main elements of the current epidemic and response, the policy environment, and overarching principles which guide the implementation of the HIV response in Rwanda. The results framework indicates



where we want to go in the next five years while the remainder of the document describes how we plan to get there (detailed intervention framework, governance, M&E plan and costing and prioritization).

The NSP for the coming five years has been developed with active participation of all the main HIV stakeholders through a series of workshops that have taken place since late 2012. The content of the new NSP is the result of these consultations and was presented and validated by HIV stakeholders and decision makers (Ministry of Health general senior management meeting) in October 2013.

While this plan in some ways is a continuation of the previous one, recent epidemiological data about the HIV response coupled with global evidence on best practices in HIV prevention and treatment delivery have been used to update certain aspects of the plan based on the most rigorous and up-to-date information available. The main strategic changes and innovations of this new NSP include: a stronger focus on prevention and treatment for key populations, new guidelines for eligibility criteria for ART (treatment as prevention for key populations and increased CD4 threshold for treatment initiation for the general population) and the adjustment of costing estimates to the projected decrease in external funding, with prioritization on the most cost-effective interventions.

This document is designed to present only the main strategic orientations of the national HIV response for the next five years. More details on operationalization and costing of activities are available in the NSP operational plan.

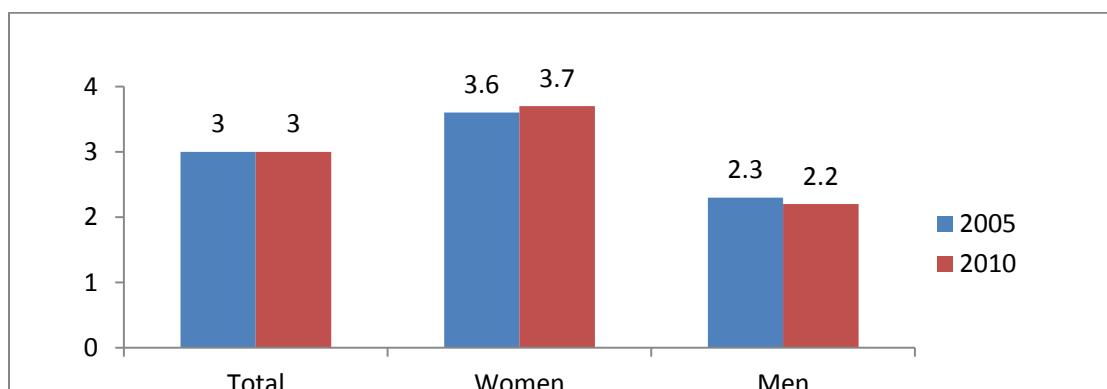


## 2. WHERE WE ARE: SITUATION ANALYSIS

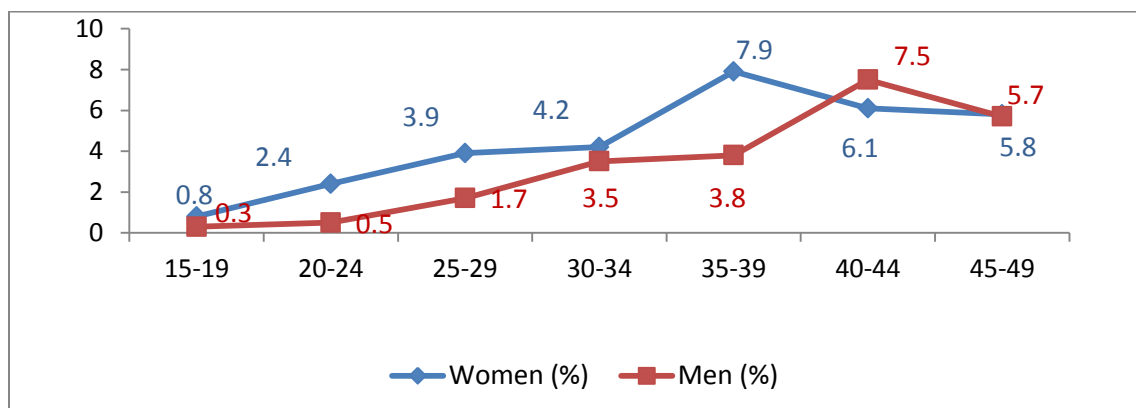
### 2.1 Know your epidemic

Rwanda continues to experience a mixed HIV epidemic, generalized in the adult population, with an adult HIV prevalence rate stabilized around 3 percent (4), and concentrated in some high risk groups such as FSW. The HIV prevalence in the population aged 15–49 as estimated through the Rwanda Demographic and Health Survey (DHS) remained the same in both 2005 and 2010 at approximately 3 percent (confidence intervals [2.6–3.5 percent ] in 2005 (8); [2.78–3.36 percent] in 2010 (4) (Figure 1). HIV prevalence in 2010 remained higher among women (3.7 percent) than in men (2.2 percent) (Figure 2) and higher in Kigali City (7.3 percent) than in the other provinces (average 2.4 percent), maintaining the same trend as reported in DHS 2005 data.

**Figure 1: HIV prevalence by sex (DHS 2005 and 2010)**



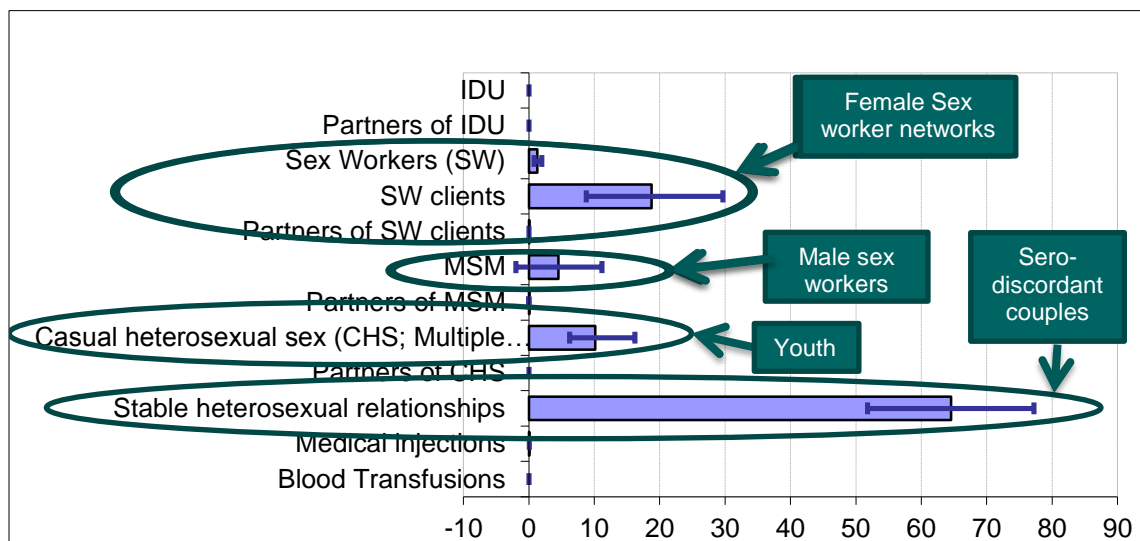
**Figure 2: HIV prevalence by age for men and women (DHS 2010)**



Though HIV prevalence has remained relatively stable in the general adult population, representing sexual HIV transmission, prevalence rates among HIV-exposed infants, representing vertical transmission, have drastically declined. The transmission of HIV from mother to child is down to 2.9 percent for HIV-exposed infants at 18 months of age from 6.9 percent in 2009(9).

In an effort to understand the dynamics of the HIV epidemic across risk groups, the RBC commissioned an application of the UNAIDS Modes of Transmission (MOT) model in order to estimate the expected distribution of new HIV infections by exposure group (10). The model uses existing demographic, epidemiological and behavioral data for each risk group from national, regional and international sources. This exercise was led by the HIV and PME Divisions within RBC with close collaboration of partners including UNAIDS, Centers for Disease Control and Prevention (CDC) and MEASURE Evaluation. The modeling exercise is limited to sexual transmission and is applied to the adult population 15–49. These data were then used to model the expected distribution of new HIV infections across risk groups (Figure 3).

**Figure 3: Distribution of new infections by mode of transmission (MOT 2012)**



The modeling results were presented and analysed in a participatory workshop first with RBC and then with key stakeholders during NSP planning workshops in order to draw key conclusions with implications for the design of this new plan. Key findings and conclusions are presented below.



- 1) Stable heterosexual relationships constituted the risk group where the majority of new infections were projected (65 percent). In the Rwandan context, this risk group was considered to include a large number of new infections among sero-discordant couples.
- 2) The second group where a substantial proportion of new infections (20 percent) were projected was among FSW networks, composed of FSW, their clients and their non-paying partners.
- 3) The third group where a substantial proportion of new HIV infections (10 percent) were projected was among those participating in casual heterosexual sex. For the purposes of this model and in the Rwandan context, these results were interpreted as youth aged 15–24, as they compose the majority of sexually active individuals out of union according to existing data.
- 4) The last group where a substantial proportion of new infections (5 percent) was projected was among the MSM population. Based on the available data, however, this finding was interpreted to be representative of a specific subset within this population: male sex workers, who qualitative data suggest are the members of this community most easy to target in both research and interventions, as MSM remain a hidden population in Rwandan society because of social stigma associated with sexual orientation.

Table 1 below summarizes the results of the MOT(5) modeling exercise and the best available data for the different risk groups identified that were used to generate the modeling results. These data were validated as the ‘best estimates’ of current data by risk group for Rwanda by the national technical working group (TWG) on HIV prevention in February 2013.



**Table 1: HIV incidence, prevalence and behavioral data for main risk groups in Rwanda.**

Risk group*	Contributions to HIV incidence (MOT)	HIV prevalence	Key behaviors		Comprehensive knowledge
			Condom use at last sex	HIV test in last 12 months	
SDC	65%	3.43% <sup>1</sup>	10.71% <sup>1</sup>	45% <sup>1</sup>	57% <sup>1</sup>
FSW	20%	51% <sup>2</sup>	83% <sup>2</sup>	89% <sup>2</sup>	22% <sup>2</sup>
Youth	10%	1% <sup>1</sup>	54% <sup>1</sup>	57% <sup>1</sup>	50% <sup>1</sup>
MSM/MSW	5%	13.7% <sup>3</sup>	50% <sup>4</sup>	51% <sup>4</sup>	20% <sup>4</sup>

\* Ordered in terms of magnitude as identified by MOT 2012(5)

<sup>1</sup>: Rwanda DHS 2010 (4)

<sup>2</sup>: BSS FSW, Rwanda 2010 (11)

<sup>3</sup>: BSS MSM, Kampala, Uganda (12)

<sup>4</sup>: MSM Study, Rwanda, 2011.(13)

On the basis of these results, these priority groups are identified in this NSP as our key populations. Combination prevention and treatment packages have been elaborated for each one. SDC, FSW and their clients and MSM will be followed regularly and the seropositive members of these high risk groups will be started on ART within the new ‘treatment as prevention’ approach, irrespective of their CD4 level. For youth, interventions targeting high risk groups, particularly in the out-of-school group, will be prioritized to decrease their vulnerability to HIV infection.

## 2.2 Know your response

### 2.2.1 Main stakeholders

During the course of the last NSP, important changes happened in the central coordination of the HIV response. The National AIDS Commission (CNLS) and the Treatment and Research AIDS Center (TRAC Plus) were merged together with several other national health institutions (National Reference Laboratory, CAMERWA, National Blood Transfusion Center, Central Maintenance Workshop, Rwanda Health Communication Center) into one coordinating body, the RBC, which oversees not only the HIV and AIDS program but also TB, malaria and other diseases such as non-



communicable diseases, mental disorders and neglected tropical diseases. This has contributed to a better integration of the HIV and AIDS program in the health sector. Several MoH directions are also closely involved in HIV interventions (Maternal and Child Health, Health Financing Unit, Human Resources, Clinical Services, Planning and M&E). Apart from health sector institutions, other sectors, coordinated by lead ministries also contribute to the multi-sector response. The role of civil society, coordinated by umbrella organizations, has been significantly strengthened as well as the private sector. Two other umbrella organizations coordinate the workplace programs in private enterprises (Private Sector Federation) and public institutions (Umbrella of the Public Sector against HIV and AIDS).

### **2.2.2 Main achievements in the HIV response**

The most comprehensive review of the HIV response during the last NSP (2009–2012) is the joint mid-term review that was conducted in early 2012(14). Updated data on the national response are provided by other exercises such as the Annual HIV report, UNAIDS Country Progress Report (15) and the ‘Know your epidemic/Know your response’ workshop held at the start of this NSP planning process.

During the last five years, the coverage of HIV services has continued to increase to reach levels associated with the global standards of universal access. According to programmatic data reported through TRAC net, as of June 2013(9), the percentage of health facilities offering voluntary counselling and testing (VCT) services rose to 98 percent, compared to only 43 percent in 2009. Facilities offering services to prevent mother-to-child transmission have also increased, offered at 97 percent of facilities countrywide; while ART services are now available at 93 percent of facilities. This significant increase in geographic coverage was coupled with improvements in the quality of services being delivered. For example, high enrolment and retention rates have permitted Rwanda to reach universal access for ART with a coverage of 91.6 percent of the estimated number of eligible adults currently receiving treatment, compared to 63 percent in 2009 (6),(9). Since July 2012 up to June 2013, patients newly initiated on ARVs were 16,972 and the cumulative number of death was 1,273 (9). The morbidity



related to HIV has been markedly reduced due to universal coverage of ARVs and treatment for opportunistic illnesses (OI).

These successes of the HIV response are to a large extent due to strengthening of the national health system. The network of health facilities is well decentralized, with almost all administrative sectors equipped with a health center (only 20 out of 416 sectors do not yet have a health center), and health posts are now being developed or upgraded to bring primary healthcare closer to isolated areas. Mobile services and outreach activities are implemented to reach isolated and marginalized populations, particularly hard-to-reach key populations such as FSW and MSM. Health care providers in health facilities are trained to provide adapted and respectful services to these key populations as well as to other vulnerable groups with specific needs (youth, people with disabilities). In terms of financial accessibility, the community-based health insurance scheme (called Mutuelles de santé) now covers 85 percent of the general population. With other health insurance programs, it is estimated that 91 percent of all Rwandans are protected by health insurance(3). HIV services are partly supported by external funding and partly included in the insurance package. Table 2 below summarizes the main achievements of the HIV response during the last NSP.

**Table 2: Main programmatic achievements in the HIV response, by service delivery category.**

Service	Coverage / access / availability	Other important programmatic highlights or key services offered
<b>IEC/BCC in general pop</b>	4,061,939 contacts* for population 15–49; 2,108,008 contacts for population 15–24 (MTR)	Contacts documented are small groups or individual interactions with community health workers and peer educators
<b>Condom availability and accessibility</b>	24 million condoms available for distribution (MTR);	Health facility- and community-based distribution are taken into account, as well as social marketing through condom outlets
<b>Youth-friendly services</b>	23 youth-friendly centers in 21 districts	Anti-AIDS clubs both in school and out of school for youth sensitization
<b>Key population services</b>	FSW: 31,915 contacts* Truck drivers: 21,000	Minimum package of services adapted to each key population group, including peer education,





	contacts* MSM: 1,503 contacts* PWD: 30,068 contacts* Prisoners: 5,204 contacts* (MTR)	HCT, condom distribution, STI prevention and treatment, etc.
<b>PMTCT</b>	97% facilities offer PMTCT services, 88% offer all 4 components (TRAC net)	Male partner involvement in PMTCT has made significant progress during the last NSP period
<b>Male circumcision</b>	70% [347 FOSA out of 494 FOSA] have staff trained to perform MC (MTR)(14)	Procurement of MC kits has been processed to ensure all competent health facilities are equipped for MC
<b>HTC</b>	3,487,726 HIV tests done in 2012	Mobile VCT are conducted to reach marginalized or isolated groups
<b>ART</b>	93% of hospitals and health centers offering full package of HIV services (VCT, PMTCT, ART) (TRAC net)	Adherence follow-up and care and support services ensure low levels of abandonment of treatment and of ARV drug resistance
<b>PLHIV services</b>	31,319 capacity building contacts, 35,155 income-generating activity contacts, 594 legal support contacts, 9,701 food security contacts, 35,224 provided with Mutuelle* (MTR)	
<b>OVC services</b>	36,674 health services offered; 16,593 nutrition services offered; 79,631 education services offered; 3,089 shelter services offered; 9,911 legal protection contacts; 36,331 psychosocial support services offered; 30,612 socio-economic support serviced offered.	
<b>Gender equity</b>	63% of HF offer referral services for survivors of GBV	ART coverage for eligible women is significantly better than for men
<b>M&amp;E</b>	100% of HF reporting regularly in national M&E system, 80% of partners reporting regularly in community-based M&E system (MTR)	
<b>Human resources</b>	1,464 nurses have been trained to implement task shifting, enabling them to prescribe ARV drugs for standard ART patients (1 <sup>st</sup> line regimen). The performance-based financing (PBF) system is providing motivation to health staff for excellence in their duty.	
<b>Health Financing</b>	The HIV program has been sufficiently funded in recent years, thanks to domestic commitment and to important international support. The community-based health insurance program has provided almost universal access (91%) to HIV and general healthcare.	
<b>Procurement and distribution</b>	The procurement and distribution system for HIV drugs and other health commodities is functioning well and ensuring regular treatment to 120,000 patients in ART program.	
<b>Linkage between health facilities and community</b>	45,011 CHW working at <i>umudugudu</i> level for mother and child health, prevention of infectious diseases and referral of patients to the HF when needed	

\*Contacts are cumulative and should not be interpreted as people reached.



### 2.2.3 Main challenges and strengthening measures

The main conclusions and recommendations generated by these reviews are presented by programmatic area in Table 3 below. The table also includes details on how this NSP addresses these main challenges.

**Table 3: Major challenges and programmatic strengthening measures, by service delivery category.**

Service	Major challenges (MTR, KYE/R synthesis, HSSP3, etc.) / key recommendations	How this NSP addresses challenges
<b>IEC/BCC in general pop.</b>	Better targeting of adapted IEC and BCC messages delivered during community outreach sessions and for key populations	Prioritization and scaling up of combination prevention interventions for vulnerable youth and key populations; Improve the community-based HIV M&E system
<b>Condom availability and accessibility</b>	Fight stigma around condom use and ensure better access to condoms for youth and key populations	Improve the community-based network for condom distribution, prioritizing availability for youth and key populations
<b>Youth-friendly services</b>	Increase the quantity and quality of youth-friendly center services and technical and financial support for anti-AIDS clubs for in-school and out-of-school youth	Target one youth-friendly center/district and train healthcare providers for youth-friendly services in health facilities
	Extend mobile VCT to reach young people and key populations with non-stigmatizing testing services	Target vulnerable youth with high risk behaviors (particularly out-of school youth)
<b>Key population services</b>	Improving the quantity and quality of peer educators reaching key populations, specifically for hard-to-reach groups such as FSW and MSM	Peer educators training and integration in combination prevention packages and linkage with clinical services (including treatment as prevention)
	Better definition of key populations targeted based on high risk behaviors and more rigorous prioritization of target populations and geographical areas for service delivery	Priority given to interventions targeting key populations, on the basis of MOT findings. General population prevention interventions reduced
<b>PMTCT</b>	Tracing system of patients in service to reduce loss to follow up (mother-infant pair in PMTCT, discordant couples, key	Training of healthcare providers and integrated supervision/mentoring to maximize enrolment and retention of



	population group)	PLHIV eligible for ART under the treatment as prevention strategy
<b>Male circumcision</b>	Identify the best funding mechanism for MC services and ensure it is accessible	Mass campaigns to facilitate access of large number of people to MC services; Introduction and scale up of Prepex method for MC
<b>HTC</b>	Extend mobile VCT to reach young people and key populations with non-stigmatizing testing services;	Strategies are in place to decrease unnecessary repeat testing of low risk population and conduct regular testing of hard-to-reach high risk populations.
<b>ART</b>	Gap between HIV testing entry points and enrollment into the Care and Treatment program. 28% of patients start ARVs with advanced immune compromised status (CD4 < 200 cells/ml).	Focus on linkage between HIV testing and care and treatment
	Pediatric ART coverage below 50%	Increase pediatric ART coverage by active search for HIV-positive children
	Focus on quality of services and particularly in drug resistance surveillance (training, laboratory equipment and infrastructure, support community-based monitoring)	Formative supervision and targeted mentoring will contribute to capacity building of healthcare providers and improving quality of services.
	Develop strategies adapted to the needs of different target groups, particularly children and adolescents	Targeted case tracing will be conducted to identify HIV-positive children in need of treatment and training of healthcare providers for adapted counseling for adolescents on ART.
<b>HIV care and support</b>	Strengthen nutritional support and mental health services for PLHIV	The national nutrition and mental health programs will be scaled up as part of the strengthening of the general healthcare system and access to these services by PLHIV will be implemented and monitored.
<b>PLHIV services</b>	Increase information and sensitization of the community on rights of PLHIV and ensure enforcement of laws to protect these rights	Protection of PLHIV human rights will be systematically included in sensitization campaigns for the general population and in the training program of public servants involved in law enforcement (police, legal officers, local government agents).



<b>OVC services</b>	Better coordination mechanism at district level between CDLS, civil society implementers and decentralized structures monitoring child protection	District health management team members will participate in the district OVC committee in charge of overseeing OVC service provision.
<b>Gender equity</b>	Strengthen the participation of young women, including HIV-positive women, in the planning, design, and implementation of HIV prevention events targeting them	Vulnerable girls and women who are part of the key population groups will be trained and supported to participate in HIV planning and coordination meetings at national and district level.
<b>M&amp;E</b>	Improve the community-based HIV M&E system	New indicators and data collection tools will be introduced and the community-based system will be integrated with the facility-based M&E system into a single comprehensive HIV M&E system
<b>Human resources</b>	High turnover rate, requiring renewed training for high number of healthcare providers	Coordinated HRH planning improving training, supervision, mentoring and working conditions of healthcare workers.
<b>Health financing</b>	Projected decrease in external funding, that will not be completely compensated by increase in domestic funding	Prioritization of high impact and cost-effective interventions. Increase in private investment in health services.
<b>Procurement and distribution</b>	Occasional stock-outs in ARV drugs and antibiotics and unreliable availability of condoms at community level	Improve active distribution system and strengthening of district pharmacies to ensure regular provision of drugs and condoms at decentralized level
<b>Linkage between health facilities and community</b>	Heavy workload of community health workers, insufficient collaboration with community-based organizations	Improve the coordination of joint interventions between health facilities and community-based organizations through the district health management team



### 3. WHERE WE WANT TO GO

After reviewing the current situation of the HIV epidemic and response, the next question is to define what are the main orientations of the NSP. This encompasses the identification of the main national and international policy and strategic frameworks that are guiding the development of this NSP, the description of the overarching principles that are followed in the proposed strategies and interventions and the presentation of the overarching result framework of the NSP for the next five years.

#### 3.1 Policy environment

##### 3.1.1 National policies

The strategies presented in this NSP are aligned with Rwanda's Development strategic documents: Vision 2020, EDPRS2 (2013–2018)(1) and HSSP3 (2012–2018)(3).

Vision 2020, which gives long-term objectives for the country's development progress, recently revised several of its key indicator targets because those that had been set initially have already been achieved. Among these is the target for HIV prevalence that has been reduced from 8 percent to 3 percent (the current level). As Rwanda is striving to come close to the general objective of the global HIV response of 'No new HIV infections' and 'No HIV-related deaths', our goal for the medium term is to maintain the HIV prevalence at the current level (3 percent of adult population).

The new EDPRS (2013–2018) considers HIV as one of its cross-cutting issues and acknowledges the extensive gains made in preventing HIV using five integrated components: VCT, prevention of mother-to-child transmission (PMTCT), male circumcision, behaviour change communication (BCC), and HIV treatment. HIV is also identified as an important program within the health sector strategy of EDPRS2(2), as one of the foundational issues on which emerging economic priorities can be developed. The goal of the health sector in Rwanda within the EDPRS framework is to improve the quality, demand and accessibility of primary healthcare, of which HIV is an important component.



The HSSP 2012–2018 (3) also gives a general orientation on health sector priorities in the HIV response for the coming five years, identifying the key challenges to which the health sector needs to concentrate in order to achieve universal access for HIV prevention and treatment services.

### **3.1.2 International policies**

Apart from these guiding national documents, the NSP is also aligned with the main international strategic documents, such as the MDGs(16) and the new UNAIDS Investment Framework (17). The spectacular progress achieved by Rwanda in the last five years, not only for the health indicators, but also for those measuring social and economic development shows that Rwanda is on track for achieving most 2015 MDG targets. For MDG 6A specifically, the aim is to have halted and begun to reverse the spread of HIV and AIDS and to provide universal access to treatment of HIV and AIDS for all those who need it by 2015. Comparing the stabilization of HIV prevalence between the current national HIV prevalence and past estimates, coupled with declining rates of HIV-related mortality, plausible evidence suggests that the spread of the infection is halting. Even though we do not have consistent and comparable measurements of HIV incidence for risk groups within the country over time to allow for the analysis of temporal trends, projections of new infections obtained by statistical models (EPP/Spectrum) suggest that HIV incidence is on a downward trend. In terms of access to ART for eligible HIV patients, the current coverage is estimated at over 90 percent of patients, well within the definition of universal access.

All the key interventions identified by the UNAIDS Investment Framework (17) (PMTCT, promotion of condom use and distribution, working with key populations, treatment, care and support to PLHIV, male circumcision and BCC programs) are programmatic priorities within the NSP logical framework. The critical enablers and synergies with development sectors identified in this framework are also taken into account in our NSP (described in the next chapter on overarching principles). Furthermore, to adapt to the changing economic environment and prepare for possible financial constraints in the implementation of our NSP, we have conducted an in-depth



prioritization exercise that generated three scenarios with different levels of costing described in the costing chapter of this document.

## **3.2 Overarching principles**

### **3.2.1 National mobilization and ownership**

One of the main reasons behind Rwanda's success, not only in addressing HIV and AIDS, but in the health sector in general, and more widely in the country's social and economic development has been the strong commitment of decision makers and opinion leaders to join efforts to reach jointly set targets, and to hold donors and development partners accountable for a common nationally-led vision. HIV is a cross-cutting issue for EDPRS 2, which means that all economic development sectors are accountable for contributing to the national HIV response and all sectors of Rwandan society are aware of their responsibility in addressing the epidemic. Of course, external support has been and continues to be a major contributor to the national HIV response, but the strategies adopted and the relationship between national and international actors all aim at strengthening the alignment of all stakeholders to national priorities and the sustainability of interventions. This continues to be a strong principle that will guide the implementation of this NSP.

### **3.2.2 Equity and human rights**

In spite of the strong results achieved by Rwanda in the last decade in addressing the HIV epidemic, issues of stigma and discrimination relating to the HIV epidemic are still persistent. Great strides have been taken to ensure geographic and financial accessibility to health and HIV services to all citizens, yet some marginalized groups still experience barriers to accessing appropriate and adapted services.

Regarding the involvement of PLHIV in the planning and management of the HIV program, the Rwandan network of PLHIV (RRP+) plays an important role of advocacy and representation in all the decision-making bodies for the HIV response. RRP+ is also involved in interventions for economic empowerment of PLHIV (through cooperative formation and strengthening) and in addressing stigma and discrimination related to HIV.





The RRP+ will continue to play a prominent and active role at the national and decentralized levels in the implementation of this plan.

### 3.2.3 Gender equity

Following the findings of the recent gender assessment of Rwanda's national HIV response (18), the promotion of gender equity remains a priority orientation of the HIV response. The principles outlined in the gender and HIV strategy adopted in 2010 and operationalized in the National Accelerated Plan for Women, Girls, Gender Equality and HIV 2010–2014 (19) are integrated in this NSP.

### 3.2.4 HIV integration

The integration of HIV services is achieved at various levels:

- Complementarity of HIV services. The HIV response employs combinations of and achieves synergy between different HIV strategies and services in order to offer a comprehensive package of services adapted to different target groups. This includes linkages between preventive and curative services, and between community-based and facility-based interventions.
- Integration of HIV services within broader health programs. 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 healthcare. 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 general. In this NSP, a large component of the overall planning of resources is linked to health infrastructures and equipment and to human resources for health, which cannot be managed separately for the HIV program, but on the contrary analysed through a systemic approach, where HIV is contributing to, and benefiting from, the general health system's resources.
- HIV mainstreaming. The multi-sector integration of HIV in the wider national development agenda is ensured by the identification of HIV as a cross-cutting





issue within EDPRS 2. Each sector within EDPRS has specific HIV mainstreaming strategies and targets.

- Regional integration of the HIV response. With the strengthening of the East African Community, citizens in each East African country entertain more socio-economic opportunities across countries, leading to higher regional mobility. As such, it is becoming increasingly relevant and important to establish harmonized protocols and guidelines for HIV prevention and care interventions in all countries of the region. Regular regional coordination meetings take place between the health sector and HIV decision makers to develop regional reference documents that will be uniformly applied.

### **3.2.5 Cost-effective and evidence-based planning and response**

The planning process of this NSP has been based on existing evidence, both at national and international levels, to assess progress made to date in the national HIV response and to select the best strategies for achieving national targets.

The national M&E system has been central to obtaining up-to-date data through routine monitoring, surveillance and surveys and research and evaluation. One area of improvement in our M&E system during the coming period will be to strengthen the evaluation component of the system, with the objective to gather data that will allow us to better assess the degree to which impact results are being achieved in terms of reduction of new HIV infections and HIV-related deaths.

Special emphasis will be placed on improving the quality of services. This will be achieved through the strengthening of the integrated supervision system that will identify areas of weakness within our interventions and the associated mentoring designed to address and correct these weaknesses.

Finally, one of the most important trends that is taken into account in the strategic planning process is the declining trend of external funding for the HIV response. This new NSP maintains ambitious national targets for the reduction of new HIV infections and of HIV-related deaths, but to take into account the difficult financial environment, different scenarios with varying levels of funding have been elaborated, with



prioritization of the most cost-effective interventions in the scenarios with lower budgets. The methodology for the development of these scenarios and for prioritization of interventions is described in the Costing and Prioritization chapter at the end of this document.

Another strategy adopted to maximize cost efficiency of HIV interventions is to increasingly call upon civil society and private actors for activities where they have expertise and bring comparative advantage for efficient implementation.

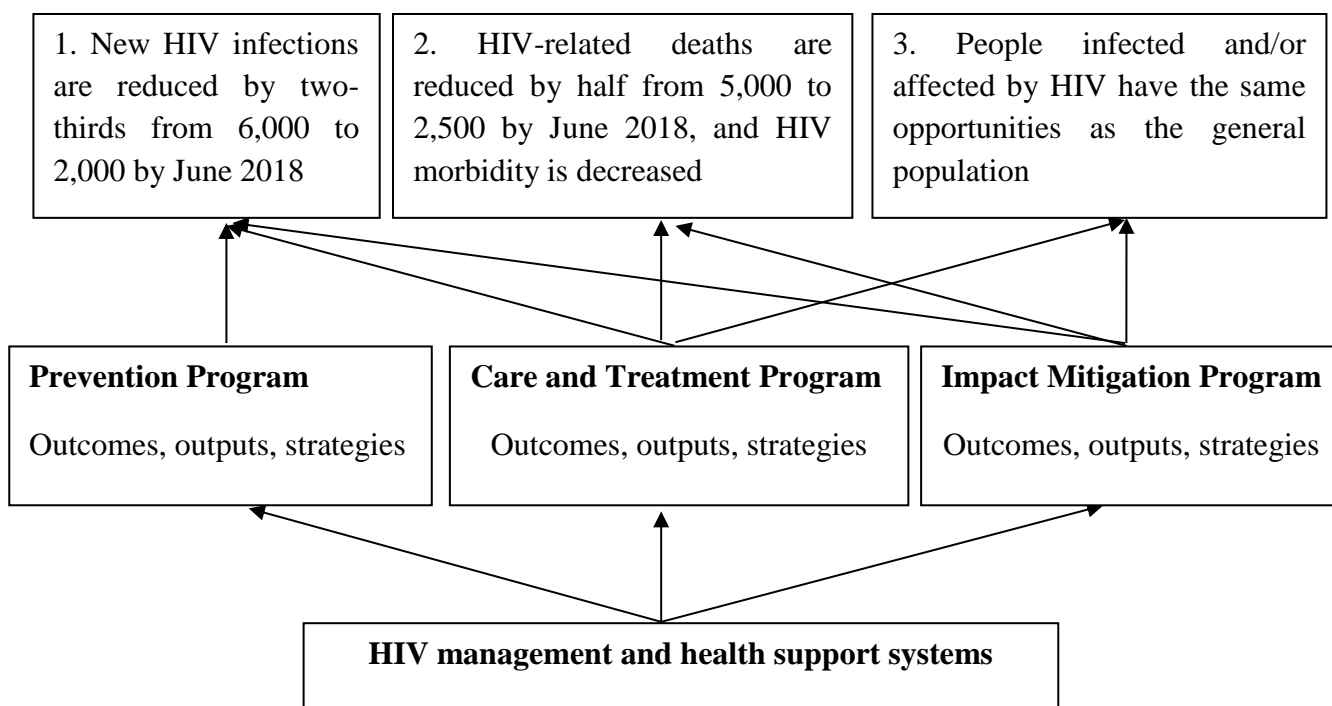
### **3.2.6 Capacity building**

Strengthening the capacities of healthcare providers is a priority to improve quality of services and ensure optimal 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. Task shifting, with appropriate training of nurses to fulfil responsibilities previously reserved to physicians, allows for better coverage of services to the increasing number of patients receiving ART and freeing physicians for management of more complex medical problems. 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 instability and rapid turnover.



### 3.3 Overarching result framework

**Figure 4 : Overarching result framework**



The NSP has three impact level results towards which all interventions are oriented. When possible, quantitative targets have been set to indicate the magnitude of the changes expected to take place during that period in response to the HIV epidemic. Because of the complexity in measurement of observed trends at the national level in HIV incidence and mortality, these targets are based on estimates generated by statistical software (MOT for new infections, EPP/Spectrum for HIV-related deaths) and not on empirical data. Although each of the three main programs (Prevention, Care and Treatment and Impact Mitigation) can be more closely associated with one of these three overarching results, the diagram above illustrates the fact that each individual program contributes to more than one impact result. For example, it is now well documented that ART and associated care and treatment interventions not only reduce HIV-related mortality and morbidity but also contribute also to preventing new HIV infections.

Similarly, although quantification of impact is not possible, different components of the Impact Mitigation program contribute not only to the improvement of livelihoods of



people infected and affected by HIV, but also to preventing new infections and supporting adherence to treatment, thereby reducing deaths and morbidity. The detailed result framework for each of the three programs is presented in the following sections.

Two other components are supporting the three programs in a transversal manner: HIV management, including coordination and monitoring and evaluation of HIV interventions (mostly related to the role of RBC-based institutions) and health support systems, where resources supporting the general health system and not identified specifically for HIV services are captured (health infrastructures and equipment, human resources for health, integrated supervision program).



## 4. HOW WE WANT TO DO IT

In order to achieve the overall results presented above, a detailed logical framework has been developed for each of the three main programmatic areas of the HIV response. These logical frameworks are structured according to the different levels of results targeted by each program (impacts, outcomes and outputs) and identify the main strategies and the detailed interventions to be implemented to achieve these results.

### 4.1 Prevention result framework

#### Best practices and lesson learned in the last decade

- Political engagement to the HIV response
- Availability of financial support from both the Government of Rwanda as well as different partners
- Regular revision of guidelines with regards to integration of key populations, elimination of mother-to-child transmission (EMTCT) new protocol, male circumcision using the Prepex device, discordant couple follow-up program etc.
- Identification of minimum package for key population and its consideration in the previous NSP
- Elaboration of EMTCT policy and implementation plan
- Improved quality of services through clinical mentorship in HIV prevention
- Consideration of HIV prevention activities done in the community

#### Challenges in HIV prevention program

- New HIV infections despite availability of prevention interventions
- Decreased funding in the HIV response
- Limited accessibility of condom at community level
- Repeat testers in HCT settings
- Loss to follow up of people in HIV preventions services
- Low national rate of male circumcision
- Late consultation of pregnant women
- High prevalence of pregnancies in known HIV-positive women
- High HIV prevalence in FSW
- High staff turnover
- Low coverage of adolescents and youth-friendly prevention services
- Monitoring an evaluation of HIV prevention activities done community
- Low accessibility of DNA/PCR testing for infant in PMTCT



## **Innovations to address challenges and sustain best practices**

- Strengthen the component of counseling and emphasizing risk assessment and risk reduction. This will contribute to the reduction of HIV re-testers.
- Initiate fingerpick method for HIV testing
- Implement and monitor the referral system to improve linkage between HIV testing and treatment services
- Integrate trainings by increasing onsite training
- Reinforce monitoring and evaluation of HIV services in communities by elaborating specific tools
- Revise and update the distribution plan of condom and setting M&E strategies
- Revise and update HIV guidelines
- Elaborate tools for specific groups (IEC tools adapted to all types of disability, M&E tools for FSW, tools for discordant couples)
- Promote weekend voluntary medical male circumcision through campaigns to meet the demand
- Introduce at large scale adult safe and quick non-surgical methods for male circumcision
- Initiate early male infant circumcision
- EMTCT strategies that focus on all four prongs
- Integrate youth-friendly services in existing services provided at health facilities and reinforce linkage between youth-friendly centers and health facilities
- Strong involvement of CHWs in HIV prevention

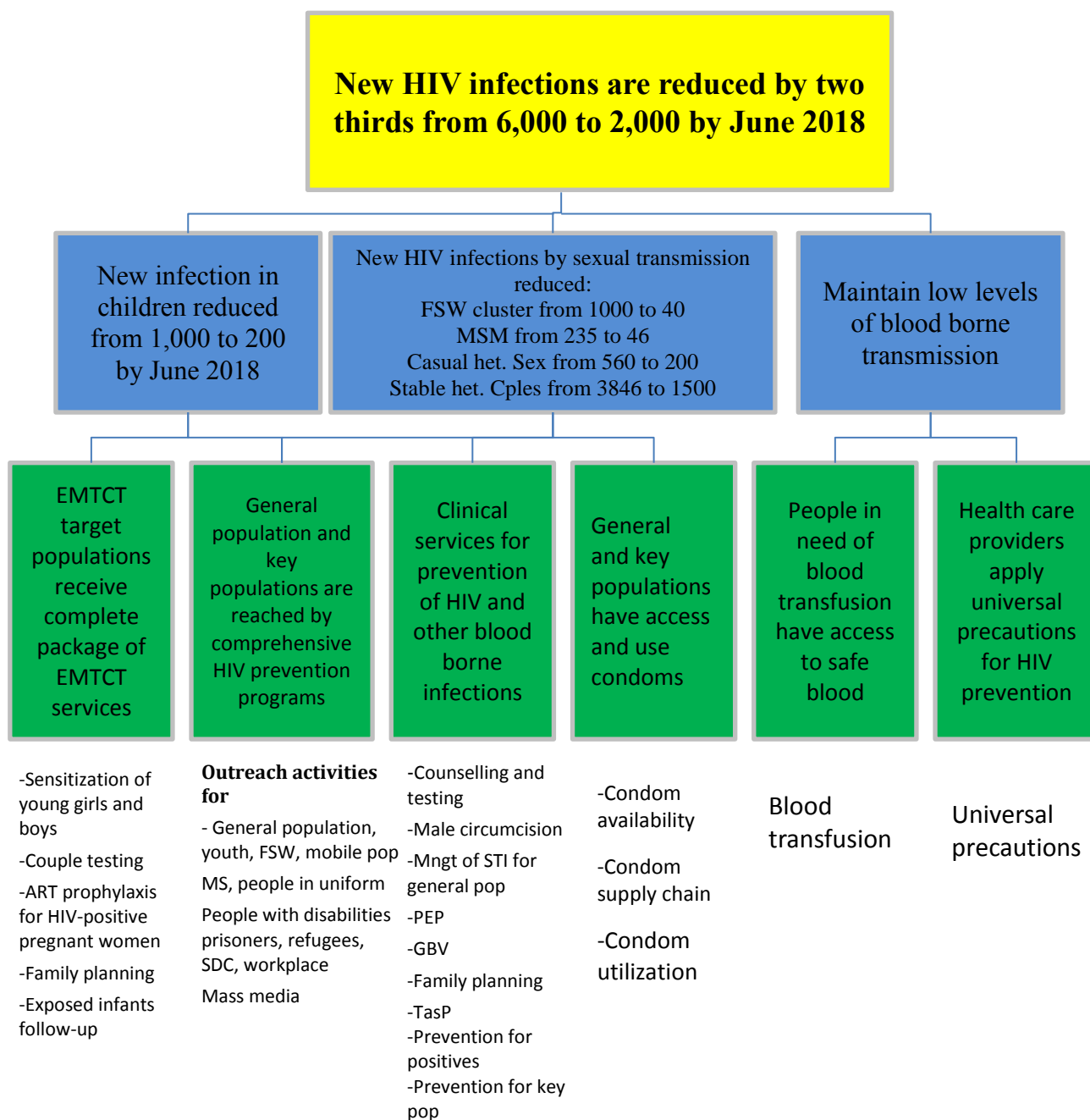
## **Strategies for reaching out and providing HIV services to key populations**

A combination of strategies will be 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 STI and HIV, condom provision, provision of family planning services
- Provision of community-based services such as HCT, STI screening, condom distribution through outreach strategies
- Linkage of community and health facility level interventions to ensure continuum of care;
- Establishment of support group of different categories of key populations through peer education approach
- Organize mass campaigns targeting key population group to increasing their awareness and service utilization



**Figure 5 Prevention result framework**



**IMPACT 1: New HIV infections are reduced by two-thirds from 6,000 to 2,000 by June 2018**

The goal of the HIV prevention program is to reduce new HIV infections. The MOT study estimated new HIV infections in Rwanda at 6,000 in 2012. Over the course of this new NSP, the country has set a target to reduce new infections by two-thirds, thus reaching 2,000 by June 2018.

To achieve this target, prevention interventions will focus on key drivers of new infections in Rwanda as identified by the MOT study and they will contribute to three outcome results:

1. New HIV infections by sexual transmission are reduced in main population groups associated with new infections.
2. New infections in children are reduced from 1,000 to 200.

**Outcome 1.1: Reduction of new HIV infections by sexual transmission Better remove this surrounding table and put only theme color.**

3. Maintain low levels of blood borne transmission.

To reduce new HIV infections by sexual transmission, combined prevention interventions will target the main groups associated with new infections:

- FSW networks from 1,000 to 40
- MSM from 235 to 46
- Youth from 560 to 200
- SDC from 3,846 to 1,500





The outcome results will be achieved through the following outputs:

**Output 1.1.1: General population and key populations are reached by comprehensive community-based HIV prevention services**

**Key prevention interventions targeting the general population**

To ensure that all Rwandans are informed about the major modes of HIV and STI transmission, methods for HIV and STI prevention and the existence of key services (condom availability, HCT, family planning, male circumcision, etc.) that exist to help them remain HIV-negative, combination of HIV prevention interventions will be used through community events and national sensitization campaigns, including mass media campaigns and through HIV workplace programs. The following activities will be done:

- Community sensitization involving local authorities and community health workers to promote safe sexual behavior including HIV and STI prevention education, communication against gender-based violence (GBV) communication and counseling, family planning, HIV testing, and promotion of condom use;
- Campaigns to reduce discrimination of key populations
- Male circumcision campaigns at the village level

**Key interventions implemented by mass media**

Media networks will play a big role in information dissemination and community education through implementation of integrated BCC broadcast programs on HIV and AIDS. This will be carried out through the following proposed key priorities:

- 1) Creation of new and strengthening of existing coalitions of media organizations on specific themes of HIV prevention;
- 2) Development and initiation of broadcast programs on HIV and AIDS through radio, TV and print;
- 3) Promotion of health service utilization including comprehensive HIV services;
- 4) Strengthening and provision of specific support to media associations of PLHIV for Greater involvement of People living with HIV and AIDS (GIPA);



- 5) Gender mainstreaming into HIV prevention through media partnership broadcasting program.

### **Key interventions in the workplace program**

The workplace program is implemented by private and public sectors in Rwanda. The private sector intervenes in the private companies' workplaces such as agriculture, commerce, financial institutions, liberal professionals, tourism, Industries, arts and crafts, women entrepreneurs, young entrepreneurs and ICT private institutions, while the public sector/MIFOTRA intervenes in ministries, districts offices and other public institutions.

The main interventions that will be coordinated by the Private Sector Federation (PSF) and the Umbrella of Public Sector against HIV and AIDS (USPLS) in the new NSP are the promotion and social marketing of condoms in hotspots (hotels, lodges and bars) and more generally in workplaces and implementation of a minimum package of HIV services in the workplace (sensitization, VCT, referral to clinical services, reduction of stigma and discrimination).

### **Key interventions for youth**

Young people will also be reached through school based sexual health and HIV and AIDS education and anti-AIDS clubs for out-of-school youth. Although sensitization activities will be addressed at the general youth population, most HIV prevention interventions will target the most vulnerable youths, including out-of-school youth. Key activities include:

- Integration of sexual and reproductive health and HIV prevention component into schools' curricula;
- Provision of a complete package of prevention education with out-of-school youth through peer education, including information on sexual and reproductive health (SRH), HIV and STI, GBV, life skills, and referral for HIV testing and STI;
- Improve services for GBV survivors and PMTCT for women aged 15–24 years.



## **Key interventions for people with disabilities**

There is no data showing that HIV prevalence in people with disabilities is higher than in the general population in Rwanda. The main challenge for this group is to ensure access to services.

Interventions for people with disabilities will focus on:

- Development of appropriate IEC materials customized to each specific category;
- Sensitization campaigns intended to reduce stigma and discrimination in the community
- Raise awareness of people with disabilities to enable them to claim for their rights.

## **Key interventions targeting key populations**

The major effort in prevention interventions is focused on priority groups identified by the MOT exercise: SDC, FSW and their clients, vulnerable youth (particularly young women aged 15–24) 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.

### Common interventions:

- Development and distribution of specific guidelines for prevention and clinical follow-up;
- Development of IEC materials specific to each key population;
- Outreach programs through peer education programs, provision of information on HIV and STI, referral for HIV testing, promotion of condom use and STI diagnosis;
- SDC, FSW and MSM are targeted by an intensive package of services at facility level (regular follow up, testing of HIV-negative members of these groups every six month, ART for HIV-positive members as treatment for prevention, family planning and SRH services, STI screening and treatment, condom provision, and also provision of water-based lubricants for MSM).



### Specific interventions:

- Peer education for FSW and MSM also addresses the problem of gender-based violence to which they are particularly vulnerable;
- Targeted STI screening and HCT of FSW and their clients in hotspots;
- Targeted SRH and PMTCT services for pregnant FSW;
- Advocacy with law enforcement and local authorities to improve protection of FSW and MSM;
- Strengthen FSW and MSM participation in policy development and program implementation;
- Provision of health insurance to poor FSW to reduce financial barriers to access adequate health services;
- Reduction of socio-economic vulnerability of sex workers by encouraging FSW to create associations and cooperatives.

Other groups are targeted because of their specific working or living environment: mobile populations (long distance truck drivers and their assistants, and fishermen on Lake Kivu), people in uniform, prisoners and refugees and internally displaced persons.

#### **Output 1.1.2: General and key populations have access and use condoms**

Consistent and correct use of condoms dramatically reduces the risk of acquiring STI including HIV. To ensure that male and female condoms are available accessible and used by general and key populations, the following strategies will be used.

#### **Condom availability and accessibility to general and key populations**

This strategy will seek to strengthen commodity management strategies to ensure that there is seamless availability of condoms in all service points within the health facility at all times. Working with the social marketing and private sectors, partnership with the central and decentralized health sectors will be strengthened to ensure availability of condoms at the community level with a focus on hot spots and around high risk zones.



This will involve a review of current supply chain system and specific measures to strengthen quantification, procurement, inventory management and distribution of the condoms targeting all potential user groups but particularly key populations.

### **General population especially key populations consistently use and demand for condoms**

It is critical to increase the demand and utilization in tandem with increase in procurement and supply of condoms. Therefore activities related to increasing risk perception for HIV infection will be conducted under the continuum of demand and utilization services for condoms. This strategy also envisages the promotion of use through addressing socio-cultural barriers that hamper open discussion about condom use and capacity to negotiate for safe sex through condom use, especially among young people and women with specific focus on FSW. IEC materials will be produced and distributed for condom promotion around high risk zones ensuring that target populations have knowledge about condom features and benefits including usage, price and availability.

#### **Output 1.1.3: Clinical services for prevention of HIV and other blood borne infections**

The objective of this output is to ensure that clinical services are available, accessible and affordable. Those services have to be provided with the highest quality possible without discrimination especially to key populations. During the next five years, we will make sure the following services reach general and key populations:

#### **HIV counselling and testing**

The objective of this strategy is that the general population with specific focus on key populations has access to affordable HCT services to identify HIV infected people and link them to ART, and also identify those who are negative and advise them on risk reduction.

For the general population, the strategy will aim at avoiding repeat testing of people at low risk and reaching those who have not yet been tested and do not know their status.



For key populations, outreach interventions will be implemented to reach them outside health facilities and ensure regular HCT and medical follow-up. In this respect, innovative technologies and approaches including the finger prick will be introduced to increase access to services. Strong linkages will be built to ensure provision of prevention and care and treatment services after testing. Quality assurance system will be strengthened to ensure correct test results and periodically review the testing algorithm.

HTC guidelines will be updated and disseminated as well as IEC materials. Training of service providers including HIV testing using finger prick method and couple counselling and testing will be scaled up with special emphasis on those in private health facilities. Provider-initiated counselling and testing (PICT) services within all service units in health facilities will also continue to be strengthened.

### **Male circumcision**

This strategy will target 66 percent of male adults (15–59 years) by 2018. The use of innovative technologies, like Prepex device, will increase the supply of voluntary medical male circumcision including in non-clinical settings. About 25 percent of newborns will be offered early infant male circumcision.

Different approaches will be used to reach this large proportion of the male population within a short period of time, including mobilizing the general population through organized male circumcision campaigns in districts hospitals, schools including higher institutions of learning, refugee camps and providing services to young people during holidays, circumcising newborns and conducting outreach services including targeting clients in prison settings.

Male circumcision alone cannot provide complete protection against HIV, people should continue to use other prevention methods such as male and female condoms, delaying sexual debut and reducing the number of sexual partners. The feasibility of including male circumcision in the package provided by medical insurance schemes will continue to be studied to ensure universal access to this service.



## **Prevention of STI in general and key populations**

The prevention of STI is important for HIV prevention because of the significant role of STI as co-factor of HIV infection. An emphasis will be put on strengthening the integration of STI programs into HIV services. STI programs will be implemented in all health facilities, youth-friendly centers, in schools and among key populations.

Key interventions will focus on (1) provision of drugs and consumables for STI screening and treatment; (2) development/updating of communication tools for healthcare providers on STI screening, counselling and referral for key populations; (3) training of healthcare providers on particular STI management for key populations; (4) development/updating and production of STI diagnosis algorithm for all health facilities.

## **Post-Exposure Prophylaxis**

Access to post-exposure prophylaxis (PEP) and addressing the barriers to accessing these services is important to prevent new HIV infections from GBV and accidental exposure. Key interventions will focus on (1) elaboration and multiplication of PEP policy/tools for healthcare workers, and (2) provision of drugs for PEP.

## **Gender-based violence**

GBV activities will focus on advocacy for reduction in barriers to rapid access to medical services (e.g. revision of law stipulating that legal services are the entry point for GBV cases, enhance collaboration between legal and clinical services). Effort will be put in reinforcing linkages and referral systems between the community, police authorities and health services for comprehensive care of survivors. A one-stop center will be built at each district hospital and GBV services will be integrated in existing HIV services at each health facility. HIV guidelines will be revised to integrate GBV component and specific IEC materials will be developed. Special legal, psychological and care packages will be provided to the most vulnerable groups, such as children, young girls and FSW facing GBV at community levels. Also the discrimination faced by women and youth living with HIV will be given a special attention in sensitization and campaigns.



## **SRH services (particularly family planning) integrated with HIV services**

Unmet need for family planning will be met by ensuring greater integration of services for HIV care, support, treatment, family planning, and other reproductive health services. This will require the development of appropriate tools, and the training of healthcare providers and community health workers. The involvement of male partners of HIV-positive women is key to increase the uptake of family planning services.

## **Treatment as prevention**

Recent research has indicated that ART is an effective HIV prevention measure by reducing viral load among HIV-positive individuals and thus reducing transmission risk during unprotected sex. Good ART coverage in Rwanda will continue to contribute to reduction of HIV incidence. Treatment as prevention will be considered for all pregnant women, PLHIV in discordant couples, FSW, MSM and all patients with TB and Hepatitis B co-infection regardless of treatment eligibility threshold criteria. Everyone in the mentioned categories will start ARVs for life as soon as possible after being tested positive for HIV.

In addition, the treatment eligibility threshold for all PLHIV will be increased from a CD4 count of 350cells/mm<sup>3</sup> to 500 cells/mm<sup>3</sup>. This will increase the number of persons on ARVs.

## **Prevention with positives**

Primarily HIV prevention efforts in Rwanda have been focused on changing risk behaviors of HIV-negative individuals. However, greater attention is now being paid to prevention among HIV-positive individuals. Changes in the risk behaviors of HIV-infected individuals are likely to have larger effects on the spread of HIV than comparable changes in the risk behaviors of HIV-negative individuals. Helping PLHIV adopt safer behaviors is an important part of a comprehensive prevention approach. Broadly, positives prevention goals have been defined as reducing sexual transmission of HIV to partners, identifying HIV-positive partners/family members for care and treatment, reducing the risk of patient acquiring new STI and new strains of HIV, reducing unintended pregnancy and mother-to-child HIV transmission, reducing alcohol





use that contributes to high risk transmission behaviors and poor adherence, and reducing viral load through increasing adherence to care and treatment.

### **Clinical prevention services to key populations**

Some of the key populations may have limited access to health services in general and HIV programs in particular. They face limitations in access to services, discrimination and stigma from both healthcare providers and the community.

Specific attention will be paid to addressing barriers key populations encounter to access health services. Health care providers will be trained on friendly services provision to key populations, in particular FSW and MSM. These friendly services will include HCT at health facility level and in the community through outreach, family planning and reproductive healthcare, STI screening and treatment.

A special focus will be put on strong linkages to care and treatment for FSW and MSM tested positive for HIV so that they can start ART the earliest possible regardless any other eligibility criteria. This will go together with targeted adherence programs.

### **Outcome 1.2: New infections in children are reduced**

The country is aiming at reducing new HIV infections in children from 1000 to 200 by June 2018. This can only be achieved through EMTCT.

The overall goal of the national EMTCT initiative is to eliminate new pediatric HIV infections and improve maternal, newborn and child health and survival in the context of HIV.

The PMTCT program was initiated in the country and was progressively scaled up to achieve full national coverage. As the PMTCT program achieved a lot in terms of increasing service availability at the national level (97 percent of health facilities offering PMTCT services according to TRAC net)(9), the EMTCT strategy emphasizes re-orientation and re-organization of existing program activities in order to scale up and expand service coverage, upgrade quality and improve access to, and utilization of, maternal, newborn and child health services both at national and district level. The scale up will mainly focus on upgrading PMTCT standalone sites to the level of offering



PMTCT full package of services, and increasing the coverage of service provision among private health facilities.

**Output 1.2.1: EMTCT target populations receive complete package of EMTCT**

The EMTCT program has been running through health facility-based interventions. More emphasis will be put in community engagement, ranging from increasing use of services to improved adherence of those enrolled in the program for follow-up visits. A sustainable linkage between facilities and the community will be established and correctly monitored. The following strategies will be used:

**Sensitization of young girls and boys of the importance of PMTCT services**

In order to enhance primary prevention, youth sensitization will be reinforced and provided through their peers. Anti-AIDS clubs and other peer educator systems will be working through a more effective and monitorable system. Pre-nuptial consultation will be reinforced will cover all components of primary prevention, as it was currently limited to HCT in several facilities. Vulnerable young girls, such as FSW and other girls involved in transactional sex, will be particularly targeted.

**Couple testing**

Couple testing was acknowledged to be a good strategy as it forms the basis of mutual support in service utilization. To encourage couples to use services, EMTCT implementation relies on strategies to reinforce male partner involvement. Local authorities, community health workers, mass media and community sensitization campaigns will sensitize male partners on the benefits of their involvement in antenatal care. This will contribute to the effective implementation of the new guidelines for treatment as prevention in discordant couples.

**ART prophylaxis for HIV-positive pregnant women**

ART prophylaxis for HIV-positive pregnant women will continue to be available to all women in need, aiming at maintaining their good health status and preventing the HIV transmission to their children. The quality of services will be improved to increase the retention of pregnant women receiving ART.



## **Family planning**

The prevention of unintended pregnancies among women living with HIV and AIDS will continuously be supported, so that no woman will have an unmet need for family planning. The availability of condoms for dual protection will be ensured and will always be coupled with counselling for consistent and correct utilization.

## **Exposed infants follow-up**

Services meant for exposed infants follow-up include early HIV testing, treatment and nutritional support to those in need. They will be enhanced and will be available in public and private health facilities through systematic follow up and care to the mother-infant pair.

This will be achieved by optimizing the number of health facilities offering PMTCT services and the quality of services offered as well.

### **Outcome 1.3: Reduction of new blood borne infections**

The estimated number of new HIV infections through blood transmission in both clinical and non-clinical settings is very low. In terms of clinical settings, the blood transfusion system screens all donated blood for most common blood borne infections (HIV, HBV, HCV, syphilis) and universal precautions are generally followed in health facilities. In terms of non-clinical settings, the number of IV drug users is still believed to be very low in Rwanda, although there has not yet been any empirical research conducted to estimate the real prevalence of this problem in Rwandan society. The goal of this outcome is therefore essentially to maintain low levels of HIV and other blood borne infections transmission through blood.

#### **Output 1.3.1: People in need of blood transfusion have access to safe blood**

The National Center for Blood Transfusion (RBC/NCBT) is ensuring systematic screening for HIV and other blood borne infections in all donated blood. The improvements targeted during the next five years are to increase geographic accessibility



of blood transfusion services by strengthening the regional blood transfusion centers and blood banks, increasing financial sustainability of the program by establishing a cost

### **Output 1.3.2 Health care providers apply universal precautions for HIV**

recovery system, improving the quality of services by setting up a Quality Management System (QMS, and strengthening equipment maintenance capabilities.

According to DHS 2010 (4), 99 percent of respondents who had received an injection in the last 12 months declared that syringe and needle was taken from a new, unopened package. To maintain this high level of application of universal precautions, the main strategies are to provide sufficient equipment to health facilities (incinerators) and to healthcare providers (syringes and safety boxes) and refresh their training about safe injections and waste management.

## **4.2 Care and treatment result framework**

### **Best practices and lesson learned in the last decade**

- Political commitment to HIV response
- Availability of financial support from both the Government of Rwanda as well as different partners
- Regular revision of guidelines with regard to ART eligibility criteria for early treatment initiation
- Decentralization of ART services
- Task shifting from medical doctors to nurses of ART prescription and patient follow-up (Nurses now prescribe ART to adult patients in need)
- Improved quality of services through clinical mentorship in HIV care and treatment
- Strengthening health system (Lab capacity at health facility level)
- Availability of ART first, second and third line drugs



## Challenges in HIV care and treatment

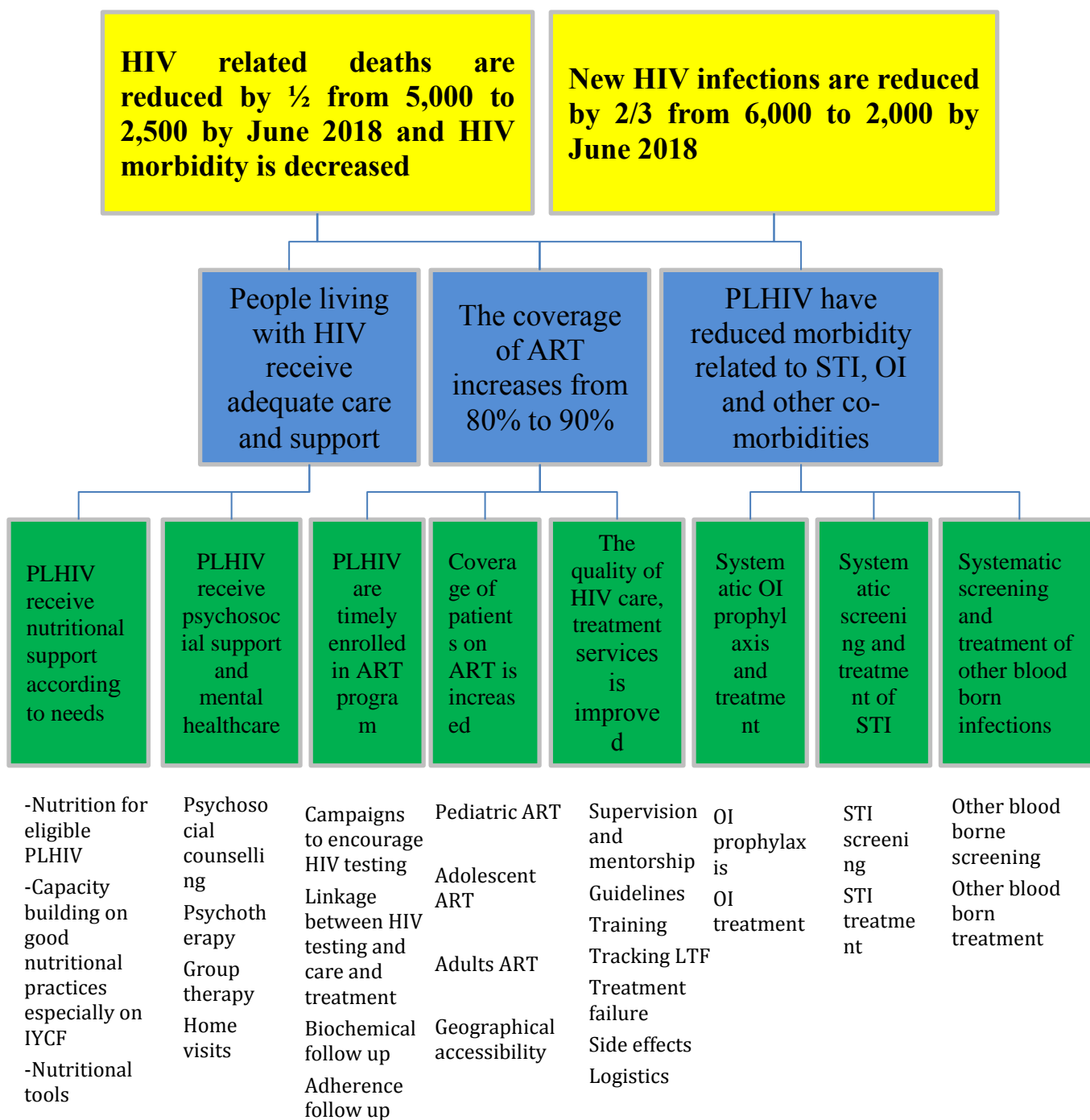
- Decreased funding in HIV response
- Low coverage of ART in children compared to those in need
- Low accessibility to viral load and Genotyping tests
- Low lab capacity to screen/diagnose STI, OI and other co-morbidities
- Insufficient linkage between HIV testing and HIV care and treatment services
- Insufficient adherence to ART for specific groups like children, adolescents
- Insufficient staff retention due to high turnover
- Insufficient nutrition support to those eligible
- Insufficient adolescents and youth friendly services

## Innovations to address challenges and sustain best practices

- Integrate services and trainings (reduce routine training and increase onsite trainings)
- Tools for patients' education on ART adherence to increase their HIV care knowledge (Leaflets, visual audio etc.)
- Revise protocol for facilitating adherence (pill burden, frequency, side effects)
- Implement and monitor the referral system to improve linkage between HIV testing and treatment services
- Special monitoring of key groups: children and adolescent (viral load monitoring increased, support groups, friendly services)
- Update national guidelines for early initiation of ART and initiate treatment as prevention strategy for key population
- Improve active screening of OI and other co-morbidities to reduce mortality and morbidity (TB, Crypto, Hepatitis B)
- Upgrade nurses trained on task shifting for ART pediatric and second line prescription and scale up of basic task shifting
- Strong involvement of community health workers in HIV care, support and treatment.



**Figure 6 Care and treatment result framework**



**IMPACT 2: HIV-related deaths are reduced by ½ from 5,000 to 2,500 by June 2018 and HIV morbidity is decreased**

This impact result targets the health status of PLHIV as well as their physical and mental wellbeing. It therefore encompasses not only access to treatment and care, but also adherence to treatment and quality of care. The indicator chosen for this result takes into account the EDPRS indicator and is also used by all major international stakeholders: Percentage of people still alive (adults and children) and on treatment 12 months after initiation of ART (baseline: 92.7 percent, target: over 90 percent in 2018).

This result will be achieved through the following three outcomes, related to specific types of services required to reduce morbidity and mortality within the framework of comprehensive care and treatment for PLHIV:

- Outcome 2.1: PLHIV have reduced morbidity related to STI, OI and other co-morbidities
- Outcome 2.2: The coverage of ART increases from 80 percent to 90 percent.
- Outcome 2.3: People living with HIV receive adequate care and support.

**Outcome 2.1: People living with HIV have reduced morbidity related to STI, OI and other co-morbidities**

This outcome is subdivided into three outputs, designed to ensure that specific important co infections and morbidities are adequately addressed within the framework of a comprehensive care and treatment package.

**Output 2.1.1: Systematic OI screening, prophylaxis and treatment**

Cotrimoxazole will still be the first option to prevent OI and will be given to all PLHIV regardless of their WHO clinical stage and CD4 count, and in case of allergy to Dapsone will still be an alternative. Particular attention will be paid to Cryptococcus and TB infections as mortality and morbidity of these OI are high and delayed ART initiation is frequent (28 percent of patients who started ART in 2010 had CD4 <200 cells). Screening of Cryptococcus meningitis will be systematic for all PLHIV with CD4<200



cells per mm<sup>3</sup>. Fluconazole will be used as treatment for uncomplicated cases and for secondary prophylaxis.

To reduce the burden of TB in PLHIV, TB case finding will be intensified through systematic screening of TB symptoms for all HIV patients at enrollment into HIV clinics and at every contact with a care provider during follow up visits. Capacity of health facilities will be strengthened regarding paraclinical examinations for those suspected of TB. Patients with HIV/TB co-infection will be put on ART regardless of their CD4 count. To achieve those targets, the collaboration of TB and HIV programs at the health facility level will be strengthened, with support of a well-functioning M&E system.

Screening for cervical cancer will become part of the systematic OI screening for PLHIV. This will be included in the regular training and refresher course of healthcare providers.

#### **Output 2.1.2: Systematic screening and treatment of STI**

This strategy aims to increase STI systematic screening from 40 percent to 75 percent of all HIV-positive clients, improve treatment of positive cases and improve STI indicators reporting in TRAC net. Additional strategies such as introduction of rapid test of herpes simplex type 2, gonorrhoea and chlamydia in all district hospitals will be implemented. For this goal, emphasis will be put on updating STI national guidelines, training of healthcare providers, and availing drugs against STI at all health facilities. A strong integrated clinical mentorship will be needed to support clinicians in appropriate STI systematic screening and management in PLHIV.

#### **Output 2.1.3: Systematic screening and treatment of other blood borne infections**

Evidence shows that HIV, Hepatitis B Virus and Hepatitis C Virus are transmitted in similar ways, and it is common for an individual to be co-infected. In fact, people with HIV who acquire Hepatitis B and Hepatitis C infections are more likely to become chronically infected with Hepatitis leading to severe complications such as liver cancer and cirrhosis than persons who do not have HIV. Furthermore, some specific groups are at high risk of acquiring or transmitting these types of Viral Hepatitis (HBV and HCV).





These include healthcare providers, pregnant women, HIV infected people, FSW and MSM and should be screened for both Hepatitis B and C infections for further specific management.

This strategy will focus on systematic screening of HBV and HCV for HIV-positive people for early initiation of ART to cure Hepatitis B or improve clinical evolution of liver disease due to HBV and HCV. For this purpose, serologic markers (liver tests) will be done to screen for Hepatitis B and Hepatitis C but also viral load and genotyping tests will be performed for these specific groups for treatment initiation and treatment monitoring. Other blood borne infection guidelines will be implemented at all health facilities and healthcare providers trained and mentored on comprehensive management of HIV-positive people with HBV and HCV co-infection.

**Outcome 2.2: The coverage of ART increases from 80% to 90%**

Rwanda already has good coverage of ART according to existing protocols among adults (91.6 percent of those who need ART are receiving it) but low among children (below 50 percent of those who need ART are receiving it). However, WHO is now recommending to increase the threshold for initiating ART to  $CD4 < 500$  cells per  $mm^3$  and Rwanda will shift from  $< 350$   $CD4$  cells per  $mm^3$  to  $500$   $CD4$  cells per  $mm^3$  in 2014, which will cause a proportional decrease in coverage in initial years. The 91.6 percent coverage achieved with the previous guidelines turns into 80 percent coverage with the new guidelines, which is used as baseline value to measure progress during the period of this NSP(6).

Therefore major efforts are required to increase capacity to deal with new patients, to identify new patients, and to maintain and further improve quality. The main challenges to implement these new changes will be to attract people who are infected but still healthy to come for testing and subsequently for regular treatment, as the majority of people presently under treatment have only been detected after symptoms had appeared (meaning  $CD4$  count at the time of initiation of treatment = 260 in 2011). This will be achieved by better targeting of HCT to high risk groups and people who have not been



tested yet and by improving counseling of HIV-positive people to ensure their enrolment and retention in the ART program.

**Output 2.2.1: HIV-positive people are timely enrolled into ART program**

The key strategies for this output are:

- Increase communication campaigns to encourage HIV testing
- Strengthening the linkage between HIV testing entry points and care and treatment through home visits, monitoring meetings within health facilities and within districts
- Biochemical and adherence follow up

**Output 2.2.2: Coverage of patients on ART is increased.**

Successful ART is associated with dramatic decreases in AIDS-defining conditions and their associated mortality. The priority will be to increase children on ART through family approach testing, linkages to care of HIV-infected children, increasing geographic accessibility by accreditation of more health facilities eligible to offer ART and scaling up task shifting strategies for treatment of children and ART second line.

**Output 2.2.3: The quality of HIV care and treatment services is improved**

As geographic and financial access to HIV services is high, the main challenge of the program is to maintain and improve the quality of services, with an aim to improve the quality of life of PLHIV. This will be achieved through integrated training of providers, integrated clinical mentorship, improvement of ART eligibility criteria (CD4 threshold, key population), early detection of ARV treatment failure (viral load at six months for adolescents on ART). As viral load monitoring will become more accessible, CD4 control will be done twice a year for pre-ART patients and only once a year for patients on ART. For availability of HIV and AIDS medications and commodities, quality control will be conducted by pharmaco-vigilance and the supply chain will be strengthened to ensure timely and reliable distribution. To ensure the implementation of all above strategies, clinical mentorship and formative supervision will be strengthened. In



estimating the human resources needed to provide quality services to an increasing number of patients, it was assumed that the current level of staffing could absorb the additional workload, but of course, any staff reduction would hamper quality and quantity of services.

### **Outcome 2.3: People living with HIV receive adequate care and support**

Provision of care and support services to patients on ART is essential to ensure adherence to treatment and reduce HIV-related mortality and morbidity. The two outputs contributing to this outcome are nutritional and psychosocial support.

#### **Output 2.3.1: People living with HIV receive nutritional support according to needs**

Nutrition and HIV are strongly interdependent. Malnutrition is a common complication of HIV infection and likely to play a significant and independent role in its progression, morbidity and mortality. In order to reduce malnutrition among PLHIV, we will integrate and reinforce nutritional care and support within HIV and AIDS services particularly in care and treatment and PMTCT services in all health facilities through:

- Nutritional rehabilitation for eligible PLHIV: The criteria for enrolment on nutritional support to PLWHIV are defined in the National Guideline of Care and Nutritional Support for PLWHIV. Those criteria are based on nutritional assessment through anthropometric measurement (body mass index (BMI) for adults, BMI/age for children and adolescents, weight/height or weight for age for children under 5 years old, and mid-upper arm circumference (MUAC) for pregnant and lactating mothers).
- Capacity building on infant and young children feeding (IYCF) practices: We adapted UN comprehensive communications strategies to empower healthcare providers and community health workers on the benefits of breastfeeding for mothers taking ART and safe complementary feeding from six months. This NSP will put emphasis on training of the above mentioned groups.



- Capacity building on good nutritional practices: Evidence shows that poor feeding practices are linked to malnutrition among PLHIV. Efforts will focus on enhancing knowledge and skills. To this end, we will target healthcare providers and model mothers members of associations/cooperatives of PLHIV.
- Development and dissemination of nutritional tools (nutrition/HIV IEC materials): We will develop and disseminate appropriate nutritional/HIV counselling cards for use in health facilities.

**Output 2.3.2 People living with HIV receive psychosocial support and mental healthcare**

**Psychosocial counseling**

During the coming five years, the HIV care and treatment program will enhance psychosocial care and support of different categories of PLHIV such as children adolescents, youth and adults. The psychosocial care and support will be provided through individual psychosocial consultations, reinforcement of HIV disclosure and support groups especially for children and adolescents. To achieve this, capacity building of healthcare providers through training and/or recruitment of more specialized staff will be an important element for management of complicated cases and ensure improvement of quality of life of PLHIV.

**Mental health support - Psychotherapy**

Integration of mental health and HIV is an identified strategy to improve quality of care of patients with HIV and mental health problems. Through mental health screening for PLHIV, all patients identified with mental health problems will be treated and supported. HIV prevention measures for people with mental disorders will be put in place. Provider-initiated testing (PIT) and HIV adapted prevention education will be provided to clients with mental health problems.



## **Mental health support – Group therapy**

In addition to individual care, group therapy will be part of a package for patients with both HIV and mental health problems. This specific approach will enhance social reintegration and stigma reduction for this specific group.

## **Mental health support – Home visits (Combined with adherence follow up- home visits)**

Home visits and community outreach activities as part of psychosocial and palliative care are important components to provide care and resolve adherence issues related to abandonment and loss to follow up. This intervention will target especially patients on ART. Patients with mental health problems are a specific group to consider for this special follow up.

### **4.3 Impact mitigation result framework**

#### **Best practices and lesson learned in the last decade**

- Steady increase in the number of OVC receiving services according to the minimum package of activities, with over two and a half times more services provided in the first half of 2011 compared to 2009. The implementation of OVC activities was at 87 percent.
- Significant progress achieved in providing socio-economic support services to PLHIV and HIV-affected people
- Continuous progress during the implementation of the previous NSP in providing legal support services to infected and affected populations, and local authorities are more involved in community-led activities to reduce stigma and discrimination and promote the human rights of PLHIV.
- Significant progress in increasing the availability of services for all victims of GBV at the community level, functional referral systems with the police and community-based organizations for GBV survivors. One of the biggest successes was the creation of four one-stop centers in the country that provide comprehensive services to survivors.



## Challenges in HIV impact mitigation

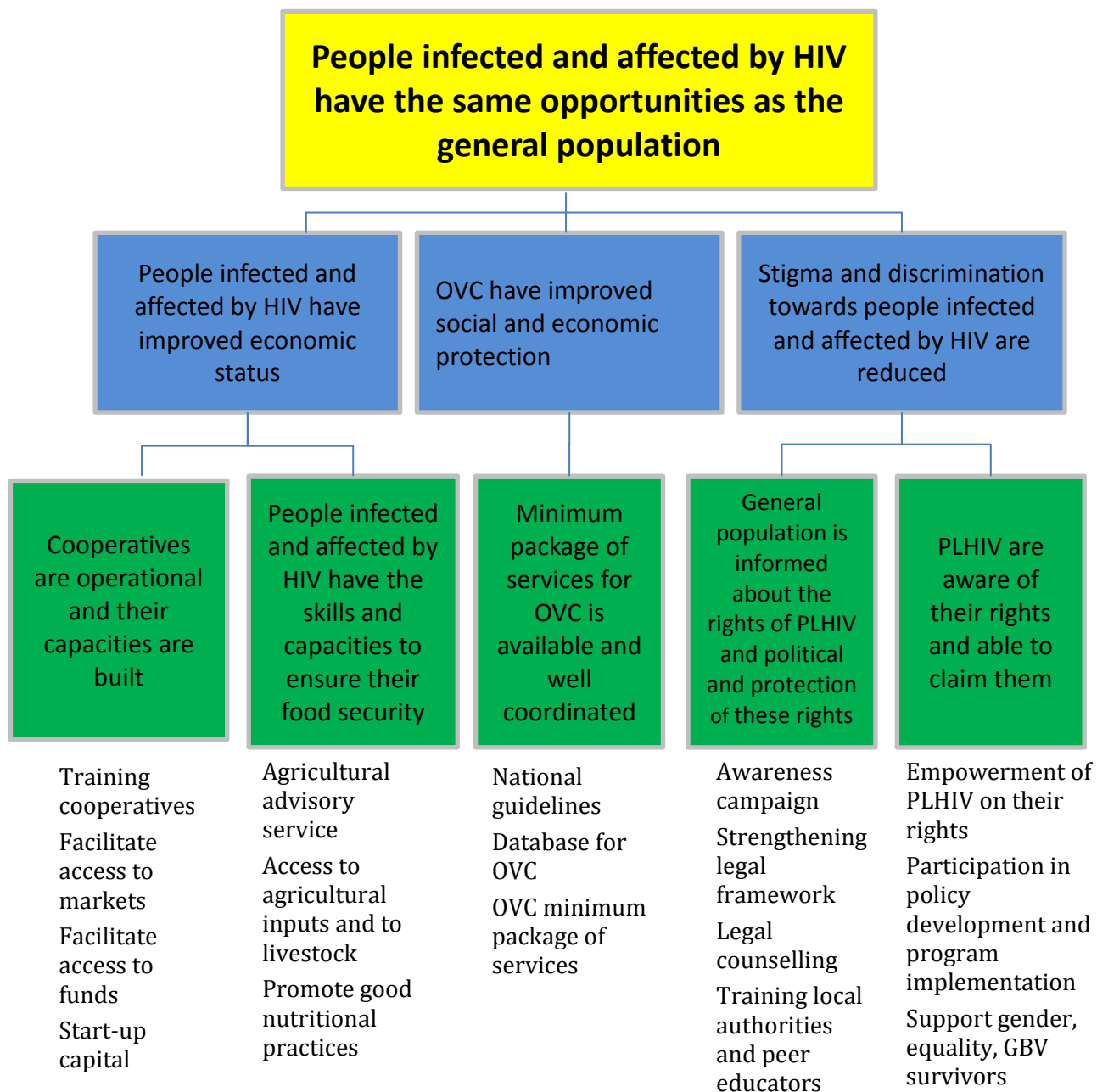
- The number of partners and subsequent funding to support OVC was far lower than the need
- OVC have difficulty accessing some services, particularly financial support services. For instance, some child-headed households cannot access credit without start capital.
- The perceived fears of stigma continue to exist at the community level for OVC.
- Some specific groups of OVC, who are under-served, such as street children, are relatively more vulnerable than some children receiving services. Many of the challenges mentioned above were related to coordination of OVC activities.
- Although there was progress in implementation of social economic activities, one output concerning improving access to credit for people infected/affected by HIV was not well implemented.
- Stigma and discrimination issues still exist in some areas; auto-stigmatization by PLHIV was cited as a challenge in this area, the mentality of PLHIV vis-à-vis their health status can often serve as a barrier to them accessing services.
- The rights of PLHIV are not well protected, especially in the workplace and for youth.
- Specific vulnerabilities of women and the challenges in providing gender-specific services targeting young women – GBV services still experience weak coordination and collaboration at the national and decentralized levels.

## Innovations to address to challenges and sustain best practices

- National Commission for Children (NCC) will play a stronger role in OVC coordination by bringing partners together to ensure dissemination and respect of the national minimum package of OVC services at all levels, a standard identification system for OVC support that all partners and levels can easily follow, and updated OVC database in the country to provide stakeholders with the appropriate information.
- Develop mechanisms and strategies to improve access to credit for people infected/affected by HIV by sensitizing them to be in cooperatives
- Continuous sensitization against stigma and discrimination and auto-stigmatization of people affected and infected by HIV
- Strengthen the protection of rights of people infected and affected by HIV especially at the workplace and in schools
- Provide gender-specific services targeted to young women and their particular vulnerabilities. Coordination and collaboration at the national and decentralized levels will also be strengthened.



**Figure 7 Impact Mitigation result framework**



### **IMPACT 3: People infected and affected by HIV have the same opportunities as the general population**

This impact result will be measured by comparing the level of poverty of PLHIV to that of the general population, using data from DHS. Three outcome results will contribute to this impact result: economic empowerment of PLHIV, social and economic protection of OVC and reduction of stigma and discrimination towards PLHIV.

#### **Outcome 3.1: People infected and affected by HIV have improved economic**

There are two main channels through which support has been provided to PLHIV to improve their economic status: through strengthening cooperatives for better access to credit and implementation of income-generating activities and through agricultural technical support to improve food security of households infected and affected by HIV.

##### **Output 3.1.1: Cooperatives are operational and their capacities are built**

There are currently 382 cooperatives supervised by the network of PLHIV (RRP+) that have been accredited by the Rwanda Cooperative Agency (RCA) and 425 other associations are in process to become cooperatives. The strategies projected for the next five years to promote economic empowerment of PLHIV will be through the establishment of new cooperatives and strengthening of existing ones:

- Provide management and governance training to cooperatives;
- Create links between industries and cooperatives of people infected and affected by HIV to access markets;
- Link cooperatives with finance institutions for easier access to funds;
- Provide start-up capital to cooperatives and to initiatives by young PLHIV for business activities.

Cooperatives will undertake income-generating activities geared towards market needs and will develop business plan to easily access credit. Emphasis to be put on project design management and implementation and leadership skills.





**Output 3.1.2: People infected and affected by HIV have the skills and capacities to ensure their food security**

The main strategies to strengthen the capacities of households of PLHIV to attain food security are based on the technical assistance provided by agriculture technicians in the context of their role with the general population, ensuring that people infected and affected by HIV will benefit from their support when needed: access to agricultural advisory services, access to agricultural inputs and to livestock and promotion of good nutritional practices.

**Outcome 3.2: OVC have improved social and economic protection**

Apart from improving the quality of life of children of HIV infected parents who may themselves be infected; this outcome also contributes to reducing new HIV infections by decreasing the vulnerability of these children.

**Output 3.2.1: Minimum package of services for OVC is available and well coordinated**

The NCC is the national institution in charge of coordinating OVC interventions. The Commission has established a minimum package of services for OVC including the following elements: health services, nutrition support, education support, shelter support, social protection by community volunteers, psychosocial support by peer educators and socio-economic support. Among those services, educational support is the component with the largest budget, providing school fees for children in secondary schools and to a larger extent to those in vocational schools.



**Outcome 3.3: Stigma and discrimination towards people infected and affected by HIV are reduced**

The coordination of these services is provided by a large number of civil society organizations (national and international) will be guided by national guidelines for the OVC selection criteria and by a comprehensive national database to monitor all interventions for OVC support.

In spite of all the progress made for universal access to treatment for PLHIV, stigma associated with HIV infection is still prominent, as documented by the recent Stigma Index survey (20). This stigmatization of PLHIV is the result of persistent prejudice among the general population and of self-stigma among people infected and affected by HIV. Stigma thus serves as a formidable barrier to accessing services for many PLHIV and must be adequately addressed in the context of achieving universal access.

**Output 3.3.1: General population is informed about the rights of people living with HIV and political and legal provisions for protecting these rights are promoted**

Awareness campaigns for the general population on the rights of PLHIV will be conducted. The legal framework protecting the rights of PLHIV will be strengthened and legal counseling will be provided to PLHIV and OVC who need these services. Local authorities and peer educators working with PLHIV and OVC will receive training on laws protecting the rights of these vulnerable groups.

**Output 3.3.2: People living with HIV are aware of their rights and able to claim**

PLHIV and OVC still have limited knowledge of their rights and often lack self-confidence and agency to act upon them. The right to have access to family property is one of the topics where women living with HIV and OVC are often abused because of their ignorance and vulnerability. GBV is another area of abuse of these vulnerable groups. Raising the awareness of PLHIV and OVC about the mechanisms they can appeal to for protection of their rights is an important strategy to address stigma and



discrimination. This requires collaboration between the justice sector, health sector, police and local authorities. PLHIV and OVC also have to be encouraged to participate in policy development processes and program implementation of interventions targeting them.

#### **4.4 HIV management and health support systems**

Apart from the three main programs leading the national HIV response as described above, there are also cross-cutting components providing the support systems and the resources needed for the implementation of interventions. They are categorized into two types of involvement.

On the one hand, HIV-specific management mechanisms are supervised by central institutions (RBC and MoH for health sector institutions), government ministries leading the economic development sectors and civil society umbrellas for the coordination and monitoring and evaluation of the national HIV response. HIV-specific training is also included in this component.

On the other hand, a lot of resources essential for the functioning of the HIV program are coming from the health sector, but not as HIV-specific resources. As has been the case in the past, the HIV program is contributing to the strengthening of the health sector as a whole, and at the same time, general health resources are mobilized to implement HIV interventions.

- For example, most human resources providing HIV services to the population as well as management staff are not HIV specific, and devote only part of their time to HIV. The training of nurses to provide HIV services previously reserved for medical doctors (task shifting) is contributing to the capacity building of the health workforce. Integrated supervision and mentoring are also important activities to increase the competency of health staff. Performance based financing mechanisms support the provision of quality services for general healthcare but also specifically for HIV services.



- Similarly, health infrastructures (health centers and hospitals, maternities, laboratory and pharmacies at central and decentralized levels) are crucial for provision of HIV services but have a larger mission for general health services.
- Community-based health insurance (Mutuelles de santé) is a major health system program that ensures accessibility to general healthcare for a large proportion of the Rwandan population (91 percent) and is also benefiting PLHIV.
- Cooperatives of community health workers are being rewarded for the services they give to their communities through community performance-based financing (covering HIV and many other types of services)
- The setting up of the Electronic Medical Record (EMR) system whereby each patient will have an electronic record of all personal health related data will be a precious tool to monitor certain HIV indicators for which data could previously only be collected through specific (and costly) population surveys.

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, this NSP is allocating an important part of its budget to strengthen these different aspects of the health system.



## 5. TOOLS WE HAVE: GOVERNANCE MECHANISMS

### 5.1 National level coordination

The RBC-Institute of HIV Disease Prevention and Control (IHDPC) is the national coordinating agency responsible for ensuring that all HIV interventions in Rwanda are harmonized and aligned with national priorities and strategies, in keeping with the Three Ones principles (one national coordinating body, one national strategy, one national M&E framework). To achieve this, a standard format has been designed both for annual plans and for quarterly and annual reporting that is used by all partners involved in the national response to HIV and AIDS. Annual plans and annual reports are developed by all districts, economic sectors, and umbrella organizations and are consolidated into a national HIV annual plan and report.

RBC/IHDPC coordinates clinical and non-clinical aspects of the national response to HIV and other disease prevention and control. Within IHDPC, the HIV Division coordinates HIV, AIDS and STI and other blood borne infections activities. It is responsible for national planning, formulation of policies, 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.

Apart from the HIV Division, a number of other divisions within RBC are also playing important roles contributing to the HIV response: National Reference Laboratory (NRL) Division, National Center for Blood Transfusion (NCBT), Health Communication Center (HCC), Medical Procurement and Production Division (MPPD), Tuberculosis and Other Respiratory Diseases Division (TB) and Vaccine-Preventable Diseases Division (VPD).

### 5.2 Decentralized/district level leadership and coordination

Within the decentralization process, the local government at district level is responsible for the management of all public services. The coordination of the HIV response at



district level is located within the District Health Unit, in charge of planning and monitoring all health interventions in the district.

### **5.3 EDPRS sectors**

*Implementation:* In EDPRS 2 covering the 2013–2018 period, HIV is addressed as a crosscutting issue and priority activities have been identified in all 12 economic sectors. They include not only ministries and public institutions, but also all private and community organizations involved in the same field of activities. HIV and AIDS activities implemented by each sector at the district level are integrated into the five-year District Development Plans (DDP) and district annual work plans.

*Coordination:* Under the coordination of a lead ministry, each of the 12 EDPRS sectors has a strategic plan, as well as an annual work plan, within which HIV activities are integrated. Each sector has put in place an HIV focal point that has the responsibility to coordinate the implementation of its HIV priority activities at central and decentralized levels. RBC/IHDPC/HIV Division will support each lead ministry to coordinate HIV activities undertaken by the sector at the district level and will ensure that HIV interventions of different sectors are delivered in a coordinated way at the district level.

### **5.4 Civil society organizations**

*Implementation:* Civil society organizations will be major contributors to the implementation of the NSP. In the field of prevention, many outreach activities for the general population will be implemented by community health workers and/or civil society organizations. Civil society organizations will be important actors for the implementation of new strategies developed in this NSP for delivery of a comprehensive package of preventive interventions for identified Key populations and most vulnerable groups (FSW and their clients, MSM, mobile workers, discordant couples, PLHIV for positive prevention, people with disabilities, etc.).

There will be a concerted effort to improve collaboration and coordination mechanisms between civil society organizations and the health services to ensure complementarity and synergy of their interventions.

In the field of care and treatment, 40 percent of healthcare facilities are managed by faith-



based organizations and are fully integrated in the healthcare system. There is good collaboration with MoH and public coordinating bodies to ensure quality of care and respect of national guidelines and standards.

Associations and cooperatives of PLHIV and affected people have been key players in the implementation of activities aimed at mitigating the impact of HIV and AIDS including income-generating activities. Faith-based organizations are also strongly involved in the provision of psychosocial support to PLHIV and OVC. In all these areas of activities, civil society's role as a major implementer will be enhanced by improved mechanisms of collaboration with public services and within the established national framework for comprehensive packages of services.

*Coordination:* The different sectors of civil society are coordinated by five umbrella organizations: Rwanda NGO Forum on HIV and AIDS, Faith-Based Organizations Network against AIDS (RCLS), Rwanda network of PLHIV (RRP+), Umbrella of People with Disabilities in the Fight against HIV and AIDS (UPHLS) and ABASIRWA, network of journalists (newspapers, radio and TV stations).

Civil society umbrella organizations have various roles in common in relation to coordination: planning, monitoring, documentation and sharing of best practices, capacity-building of their members, participation in national decision-making bodies and technical working groups and advocacy for a better recognition of the role of civil society in the response to HIV.

## **5.5 Private sector**

To coordinate the HIV response in enterprises of the private and para-public sectors, the Rwandan Private Sector Federation has set up an HIV Unit. This unit has the mandate to support and oversee HIV committees set up in private enterprises and business development committees based at the district level.

## **5.6 Public sector**

Similarly, to coordinate workplace programs in public sector institutions, MIFOTRA has established the Public Sector Umbrella in the Fight against AIDS (USPLS). It mobilizes the public sector to provide a coordinated and effective response to the epidemic. One



hundred and thirty public institutions are registered in its database.

### **5.7 Operationalizing the NSP at implementation Level**

This NSP document includes a general operational plan that identifies the actors involved, the general timeframe and the budget estimation for each activity. Based on this general plan, each actor will develop its own work plan taking into account the orientations given by the NSP, both at central and decentralized levels. Interventions will be categorized according to the setting where they will be implemented: community or facility/institutional setting.

At the national level, each EDPRS sector will develop its annual operational plan, drawing on the NSP to guide the implementation of its HIV priority activities. At the district level, all actors involved in the local HIV response will come together to elaborate the district annual work plan.

### **5.8 Partnership for greater harmonization and alignment of donors with NSP priorities**

In spite of the progressive decrease in external HIV funding, the successful implementation of the NSP continues to depend to a large extent on the support of Rwanda's development partners, comprising official donors, local and international NGOs, civil society, and the private sector.

In line with the Paris Declaration on Aid Effectiveness, the Government of Rwanda recognizes the importance of mutual accountability in its relationships with donors, and will take steps to strengthen these reciprocal obligations through the use of new and existing systems. During the implementation period of the last NSP (2009–2013) (7), the main external donors contributing to the national HIV response (GF, PEPFAR and the One UN program) have all aligned their program to the strategies and priorities set by the NSP. This accomplishment should be continued and strengthened during this new NSP.

### **5.9 Financial management mechanisms**

Rwanda's financial management mechanisms are structured as follows:

The national procurement system is supervised by Rwanda Public Procurement Authority





(RPPA) which is an agency affiliated to the Ministry of Economy and Finances (MINECOFIN). It oversees the implementation of the existing public procurement laws and public procurement policies issued by the Cabinet. The different procuring entities (ministries, public institutions and decentralized administrative entities) submit their annual procurement plan and monthly procurement reports to RPPA, which provides them with supervision and technical assistance for capacity building and conducts audits regularly.

The national financial and audit systems are under the authority of MINECOFIN supervising and providing technical assistance to the budget entities. Each entity submits its annual budget to MINECOFIN on the basis of its negotiations with donors and requests funds from MINECOFIN after submission of monthly and quarterly financial reports.

The Office of Auditor General (OAG) reports to the Parliament and conducts audits of all budget agencies and government projects. It verifies if the Government of Rwanda accounting and financial data are accurate and if the government collects or spends the authorized amounts, and for purposes envisaged by the Parliament and donors. It also verifies if budget entities have internal control system to safeguard the reception, custody and adequate use of public goods and finally if programs were implemented with economy and efficiency. Its functions are guided by laws and cabinet decisions establishing the regulations of public financial management.

Other important assurance frameworks are also in place such as the Office of the Ombudsman to ensure transparency and deal with corruption and fraud, the Office of the General Prosecutor to monitor implementation of audit findings (OAG report to the Parliament) and follow up of mismanagement reported and the Parliamentary Public Fund Committee to oversee the implementation of audit recommendations on reported mismanagement.

MoH and the public institutions under its authority (including RBC) follow the general financial management mechanisms described above.



## 6. ASSESSMENT OF WHAT WE ARE DOING: M&E PLAN ON HIV AND AIDS

### 6.1 Purpose of the national M&E plan

As the Government of Rwanda continues to implement and scale up comprehensive HIV prevention, care and support interventions for its population, the need for a strong evidence base for planning and programming purposes remains crucial. Based on the work of the previous plan, this M&E plan outlines the strategies that will be implemented from 2013 to 2018 in order to further strengthen a fully functional HIV M&E System that meets the data and information needs of all stakeholders at all levels and focuses on key population.

### 6.2 Development of the M&E plan

This M&E Plan was developed according to the guiding principles of functional M&E systems generally accepted by the international community and followed a participatory process engaging all HIV M&E stakeholders at both national and district levels. RBC, in collaboration with partners, organized a workshop in June 2013 to assess the functioning of the national M&E system by using the M&E Systems Strengthening Tool (MESST) and the UNAIDS Monitoring and Evaluation Reference Group (MERG)'s approved assessment tool for the 12 components of a functional national HIV M&E system.

The M&E plan was developed to strengthen an overall system which is able to measure to what extent all HIV services are delivered in a quality-assured manner, target the appropriate population, and ultimately contribute to the achievement of NSP output-level results in accordance with the NSP results framework. The system prioritises strategies to promote the use of data for decision making at all levels of the HIV sectors, as the overall objective of any well-functioning M&E system.

Based on the NSP result framework for each overarching result, indicators were assigned for each result level in the NSP, with the most recent baselines available, and target results provided for each indicator. These indicators constitute the list of common national indicators (See matrix of indicators in Annex 1). The matrix of national indicators was developed with the contribution of all main stakeholders and is coherent



with key national indicators, namely EDPRS 2 and the Health Sector Strategic Plan (HSSPIII). Additionally, the list refers to the most recent international guidelines (MERC Indicator Registry) and includes a key subset of indicators from MDG, UNGASS, PEPFAR, Global Fund and Universal Access indicators.

### **6.3 National and program-level indicators**

National and program-level indicators (community-based and health facility-based) will be monitored regularly (depending on the indicator type) and made operational at the district level (service delivery level) to ensure adequate data collection at all levels. For each national and program-level indicator, an indicator reference sheet describes the definition, the frequency and level of measurement, the entity responsible for data collection, the source of data, and where pertinent more information about the limitations and interpretation of each indicator. Indicator Protocol Reference Sheets for national and program-level indicators for both the community-based and facility-based M&E system are attached in Annex 1. The activities described in the 12 components included in this chapter will ensure that high quality data to report on these national and program-level indicators are collected, managed, quality-assured, analysed and used, both for reporting purposes and for program improvement and strategic decision making.

### **6.4 M&E systems in Rwanda**

The HIV M&E system is primarily divided between health facility-based and non-facility-based, or community-based, components of monitoring and evaluating the national HIV response, and is decentralized from the national to district levels. Community-based activities are defined as all non-facility-based activities. The health facility-based components of the M&E framework are led by MoH and RBC at the national level and District Health Officers at the district level.

Recruitment of M&E staff and better M&E planning and coordination have contributed to improve overall system performance at central and decentralized levels.

However, high staff turnover is causing instability of M&E staff; for community based M&E system, support is needed in the dissemination of finalized M&E tools and the



continued training of local partners. The frequency and quality of supervision visits from central to decentralized level have to be improved, as well as the follow up after supervision visits. Research capacity in the health sector is still insufficient and the current systems for the dissemination of program data and results from studies and evaluations need to be strengthened.

In order to make sure that all essential components were included in the final M&E plan, it was decided to organize the M&E system around the twelve essential components of a functional M&E system, which outlines a comprehensive framework incorporating all M&E-related tasks.

### **Component 1: Organizational structures with HIV M&E functions**

All organizational structures of the HIV M&E system (health facility and community-based components, at central and decentralized levels) need to be further strengthened, with more emphasis on the community-based components of the system and at the decentralized level. In general, HIV M&E is integrated and mainstreamed within the existing M&E structures of RBC.

RBC coordinates M&E for health facility and for community-based interventions across EDPRS sectors, including public and private sector institutions and the civil society through the umbrella organizations. RBC also coordinates the M&E at central level: research, studies, annual reporting, etc.

RBC is also responsible for providing guidance and capacity building to the lower levels. Districts are responsible for coordinating all M&E interventions at the district level. RBC and the districts work in close collaboration with governmental and non-governmental partners to coordinate and implement M&E activities. For example, district health system infrastructure is responsible for the collection and management of facility-level HIV data. Civil society organizations and decentralized umbrella organizations are responsible for data collection and management of community-level HIV data. Central systems at MoH, RBC and all central-level development partner organizations are responsible for managing decentralized data that is fed up to the central level and sharing these data with RBC and other key stakeholders.



## **Component 2: Human capacity for HIV M&E**

In addition to ensuring that M&E staff are put in place at all levels, the staff also need training to have the minimum job requirements and satisfactory skill sets to properly perform their required M&E tasks. Capacities of M&E staff will be built for facility-based and community-based HIV M&E staff at central and decentralized levels, including RBC, MoH staff and EDPRS focal persons at both central and decentralized levels. This capacity-building support will be delivered through public institutions like the School of Public Health where M&E modules were developed specifically for this purpose in the last M&E plan.

## **Component 3: Partnerships to plan, coordinate, and manage the HIV M&E system**

Activities under this component will include activities to strengthen technical working groups involved in the implementation and management of the HIV M&E system by improving the linkages between the national and decentralized levels for M&E. The Planning, Monitoring and Evaluation Technical Working Group will continue to provide overall guidance and technical assistance to the implementation of the national M&E system.

The working group is primarily responsible for developing and implementing the integrated HIV M&E annual work plan each year (See Component 5). It meets quarterly to review progress on implementation of the annual work plan, and to perform additional ad-hoc tasks as required.

## **Component 4: National multisectorial HIV M&E plan**

In line with the results-based planning and management approach adopted for the NSP, planning and M&E activities are interlinked. Current M&E tools will be revised to align to the new NSP strategies and expected results. The NSP and the M&E plan will be jointly reviewed by all stakeholders at mid term to ensure that adequate progress is being made towards the achievements of targets for 2018. At the end of the implementation period, a similar joint commission will evaluate the overall success of the NSP.



### **Component 5: Annual costed national HIV M&E work plan**

In order to ensure the timely implementation of all HIV M&E-related activities necessary for the full functioning of the M&E system, it is important to have a national integrated HIV M&E annual work plan which describes all annual activities. For each year of implementation of the M&E Plan 2013–2018, a national integrated HIV M&E annual work plan will be jointly developed by all HIV M&E stakeholders, including activities, implementers, timelines, and activity costs for the successful implementation of all M&E activities in the country.

### **Component 6: Advocacy, communications and culture for HIV M&E**

The HIV sector in Rwanda already entertains a strong positive culture for M&E, and most stakeholders at all levels of the system recognise the importance of data and taking evidence-based decisions. To maintain and build on this existing culture, efforts will be made to incorporate sessions and presentations on the importance of M&E in other meetings, workshops and conferences to further increase awareness.

### **Component 7: Routine HIV program monitoring**

The routine monitoring of facility-based HIV services is already well established through a series of published standing operating procedures guiding the collection and management of HIV data, but can be improved to document the quality of service delivery at health facilities. The community-based monitoring system needs to be strengthened, with special efforts to monitor interventions targeting key populations and vulnerable groups.

#### **Routine reporting of community-based activities implemented at district level**

Community-based data for routine reporting of district-level implementers are collected at the service delivery level through individual program records kept by community-based civil society organizations using standardized tools developed at the central level. These reports are consolidated at the district level and results are entered directly into HMIS. Civil society organizations' individual data collection systems vary in complexity and capacity, which is an area that will require specific focus during this plan.



### **Routine reporting at health facilities**

In general, health facility information is collected through various registers on a daily basis at the time of service delivery. Each facility reports on monthly aggregate data to be entered into TRAC net or HMIS. Also, the EMR needed to follow several national HIV indicators will be scaled up to cover all health facilities in the country.

### **Routine reporting of community health worker activities**

There is also a system of data collection linking the health facility to the community through community health workers working at the village level. This data is included in the monthly health facility report.

### **Component 8: Surveys and surveillance**

Several biological and behavioral surveys (DHS 2015, BSS for key populations) will be conducted during the implementation of the NSP. Sero-surveillance in sentinel sites will continue in pregnant women and to assess quality of HIV services. RBC will ensure that data collection on benchmarks and indicators to be reported as part of the national indicators are incorporated into all surveys and surveillance activities. RBC will also ensure that key indicators to facilitate program evaluation (e.g. questions around program exposure) are also included.

### **Component 9: National and sub-HIV databases**

TRAC net database captures data for HIV health facility site-specific data while the HMIS captures other health data. There is a plan to merge both and ensure interoperability with other databases collecting HIV data. MoH/RBC is planning to merge the two databases (HMIS and TRACnet) together with the existing electronic reporting system into one single comprehensive reporting platform for health data (including HIV).



## **Component 10: Supportive supervision and data auditing**

In the newly established integrated supervision system, all health services are assessed in a common supervision visit. The weaknesses identified during these visits are then addressed through targeted mentoring conducted by specialized mentors for capacity building. There are two principle levels of supervision in the facility-based system: RBC conducting integrated supervision visits, employing both qualitative and quantitative data collection activities at the district level and DH conducting supervision visits to its district-level HIV implementers. Other supervisory visits include visits to community-based activities. These supervisory visits are jointly conducted on a quarterly basis by RBC central level staff and district staff in charge of health monitoring. The findings are therefore shared for further improvement of the quality of reported HIV data at community level. Thus, the district is responsible for assuring data quality of district-level HIV implementers who directly report to them; the EDPRS sector district representatives and the civil society umbrella organization district representatives are equally responsible for assuring the quality of data reported to them by their respective constituencies, which they subsequently report to district.

At the national level, a bi-annual data audit is conducted by RBC to assess the completeness of district-level reporting and the degree to which national-level tools and formats are being respected both by district-level HIV implementers and districts.

Bi-annual data quality audits ensure the soundness of data that is being reported both from the service delivery level to the district level, and from the district level to the national level via HMIS. Improving the quality of collected data is essential to ensure that evidence-based decision making is informed by the most accurate information.

## **Component 11: HIV evaluation and research**

The Research Committee on HIV and AIDS will develop a better coordination mechanism of HIV clinical research in the country, to assure one national research agenda adopted by all partners conducting research in the country, and linked to an overall evaluation agenda. A formal mechanism will be developed to collect and disseminate the results of research projects that have been approved by the committee.





The research agenda, defining key priority areas for research and evaluation in the country, will be based on information gaps identified in the new NSP and additionally identified country information needs, including HIV risk among key population and other vulnerable populations, and information on the effectiveness of different HIV interventions, including ART adherence and resistance studies and evaluations of the effectiveness of EMTCT services. The impact evaluation on achievement of MDG6 will be an important component of this research agenda (details in M&E work plan).

### **Component 12: Data dissemination and use**

The M&E system needs to develop data dissemination mechanisms at all levels to ensure that all relevant stakeholders have access to most up-to-date information available that can inform their program decisions. Information products include the following: HIV and AIDS Annual Report, HIV at a glance, dashboards and a NSP indicator snapshot.

Focus will be put on district-level data dissemination and use to assure that district-specific data is not only reported to the national level, but is disseminated locally to local HIV stakeholders and used in decision making.

In addition, three national conferences are organized annually to foster the exchange of information and experiences between all HIV stakeholders (Partnership Forum, National Research and Exchange Conference on HIV and AIDS, and the National Pediatric Conference on Children Infected and Affected by HIV and AIDS).

Three main strategies will be implemented to strengthen data use:

- 1) Review of national and program-level indicators and standardization of data collection tools so that data collected will be useful in informing the decision-making process;
- 2) Institutionalization of feedback mechanisms at all levels of reporting to address data quality issues but also to improve quality of care;
- 3) Building the capacity of decentralized entities in analyzing and use of data.



## 7. FINANCIAL RESOURCES: COSTING AND PRIORITIZATION OF THE NSP

### 7.1 Objective and process

The NSP is driven by the overarching principle of delivering an “ambitious but realistic” plan by prioritizing the most cost-effective interventions. The key objective was to find a way to achieve the best outcomes through a more focused approach.

In order to achieve this, the following iterative planning process was undertaken:

1. Development of bottom up strategies, activities and related epidemiological impacts, carried out by 3 programmatic working groups (Care and Treatment, Prevention, Impact Mitigation) that included members from the RBC, developing partners, civil society organizations and the private sector;
2. Estimation of costing information and related cost effectiveness carried out by the planning team.
3. Forecast of funds that can be available and development of scenarios aligned with the levels of funding expected and the targeted epidemiological impact.

Sections 7.2 and 7.3 provide an overview of the costing methodology, the impact methodology and the analysis of the cost effectiveness, respectively. Section 7.4 introduces the costing results to reach the targets of the NSP. The remaining sections introduce the analysis of the expected funds and the development of scenarios of cost and impact, followed by a brief conclusion to the costing exercise.

### 7.2 Costing methodology

The NSP costing was carried out to help understand the amount of financing required in the period 2013–2018 to implement the core activities defined in the NSP. The methodology considers the cost of activities in addressing HIV at all levels of the health system and excludes any financial implication for the patients and their careers or the society as a whole.

The methodology used was based on the strategic framework of the World Health Organization (WHO) and the related concept incorporated into the costing tool One



Health developed by the Futures Institute (21). An integrated health sector approach assuming two different types of costs:

- Health system costs at the level of service provision such as human resources, infrastructure, logistics, and integrated supervision that have been estimated holistically for the entire health sector during the costing of the HSSP 2012–2018. The contribution of HIV was estimated considering the ratio of HIV equivalent outpatient visits out of the total health sector visits.
- HIV program specific costs for each programmatic intervention related to the cost of drugs and consumables, living support to beneficiaries, training/workshops, HIV management and M&E, outreach costs and IEC material.

### **7.3 Impact methodology and cost effectiveness**

As mentioned above the programmatic teams defined the key strategic interventions based on estimates of the epidemiological impact. The impact computations have been developed using both the epidemiological statistical software package EPP/Spectrum, specifically the AIDS impact module (AIM) (22) , and in house impact models developed by the program teams.

In line with the goals of the NSP, two impact indicators were selected: infections averted and deaths averted. In addition, the indicator of disability-adjusted life years (DALYs) saved was selected to provide a comparison across diseases.

The methodology for estimating the epidemiological impact was based on a probabilistic approach considering the different relative mortality or risk of infection with or without specific interventions. This does not take into account the impact of combined interventions. In term of infections averted the impact was defined considering the reduced HIV risk attributable to consistent and correct condom use and to adherence to ARV treatment employed as a prevention strategy. In term of deaths averted, the impact was estimated with the reduction of deaths to an individual attributed to ARVs.

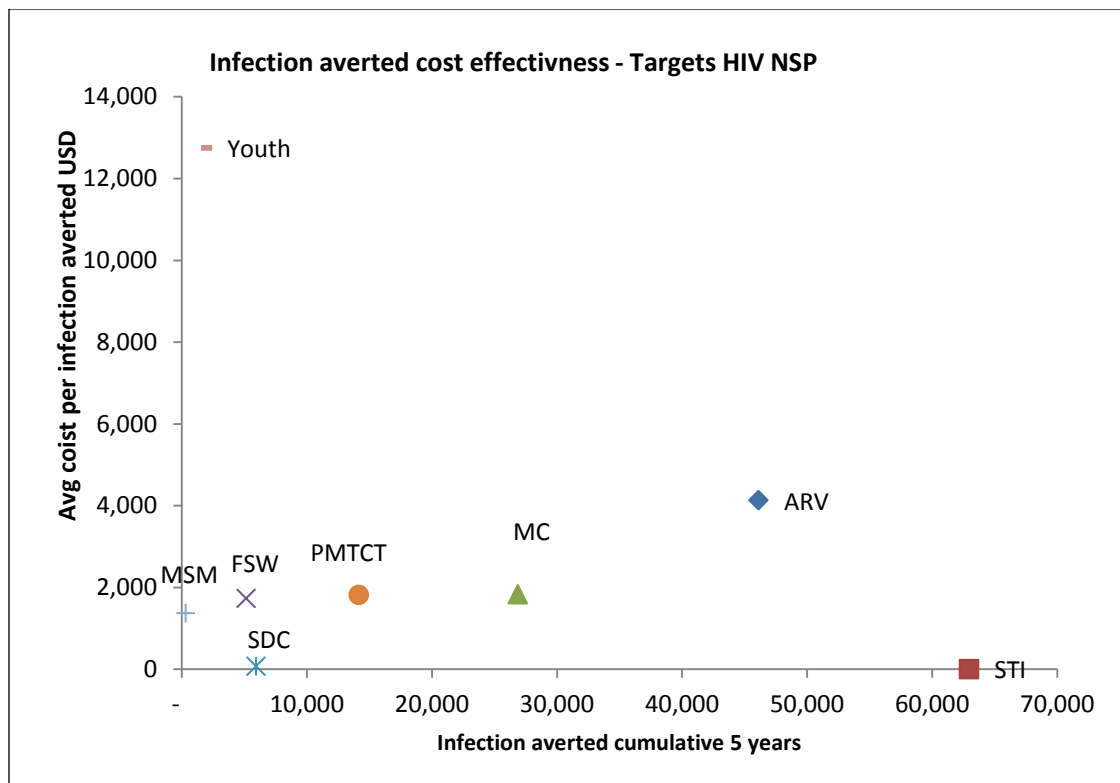
The epidemiological impact was then adjusted to consider the impact of different size estimates of the health systems (human resources, infrastructure and integrated and



supportive supervision). It has been assumed that a reduction of overall health system capacity might lead to a linear decrease of the epidemiological impact.

The following table reports the cost effectiveness analysis for the NSP in term of infections averted.

**Figure 8: Cost effectiveness – infections averted**



The results show that the most cost-effective interventions to avert new infections are represented by the management of STI, the treatment as prevention strategies (ARV) and male circumcision. Other interventions such as PMTCT and key interventions for MSM, FSW or SDC have similar cost per infection averted but lower number of infections averted.

It should be noted that key interventions for the youth consider only the impact of condom use. This data might be underestimated as the full impact of outreach youth interventions is also captured in other interventions such as STI management and male circumcision.



In term of DALYs saved by prevention and care and treatment interventions, the impact was estimated by the extension of years of life of a person with the interventions. The cost effectiveness considered the difference between the prevention and care and treatment cost for the same persons if they would have been infected.

#### 7.4 Costing results

As reported in the table below the costing for the entire planning timeframe of the activities reported in the NSP is equal to around **US\$1,032 billion**.

**Table 4: NSP costing by program area and outcome**

<i>Figures in US\$</i>	2013	2014	2015	2016	2017	Total five years
Blood safety	5.706.024	5.706.024	5.706.024	5.706.024	5.706.024	28.530.120
Universal precautions	63.826	107.097	69.202	125.344	74.866	440.335
General and key population interventions	9.089.407	8.725.110	10.804.560	10.396.275	12.300.639	51.315.990
EMTCT	7.317.521	6.522.544	6.885.170	6.486.912	6.269.365	33.481.513
Condoms	3.588.647	3.727.656	3.400.104	3.585.176	3.733.859	18.035.441
Clinical service to general and key populations	11.612.461	16.016.532	20.111.341	19.870.263	20.375.381	87.985.978
<b>Prevention</b>	<b>37.377.885</b>	<b>40.804.963</b>	<b>46.976.401</b>	<b>46.169.994</b>	<b>48.460.133</b>	<b>219.789.376</b>
Nutrition for PLHIV	2.361.827	2.405.110	2.508.621	2.567.282	2.664.114	12.506.954
Psychosocial support and mental health	2.423.856	1.379.480	1.706.099	1.377.639	1.722.169	8.609.244
ART	20.255.014	24.698.616	27.401.808	29.941.438	32.996.859	135.293.735
Enrollment and follow up	16.310.338	16.721.361	17.432.139	17.915.560	18.589.792	86.969.191
Management STI for PLHIV	25.496	26.325	27.288	28.305	29.186	136.601
Management OI	262.460	361.622	346.110	333.600	321.090	1.624.882
<b>Care and treatment</b>	<b>41.638.991</b>	<b>45.592.515</b>	<b>49.422.066</b>	<b>52.163.825</b>	<b>56.323.210</b>	<b>245.140.606</b>
Cooperatives	698.366	665.610	666.870	665.610	508.130	3.204.588
OVC	14.297.319	12.472.635	13.980.666	12.472.635	13.980.666	67.203.920
Food security	4.248.003	2.879.349	4.466.144	2.976.935	3.029.405	17.599.837
Stigma - General population	663.787	1.125.472	518.866	1.125.472	511.969	3.945.567
Stigma - PLHIV	1.120.651	90.407	1.125.533	86.470	1.125.533	3.548.592
<b>Impact mitigation</b>	<b>21.028.126</b>	<b>17.233.474</b>	<b>20.758.079</b>	<b>17.327.122</b>	<b>19.155.702</b>	<b>95.502.503</b>
Monitoring & Evaluation	7.179.451	4.320.137	6.698.398	3.405.285	5.985.501	27.588.772
Coordination	8.835.303	8.873.055	8.835.303	8.873.055	8.972.114	44.388.829



<b>HIV strategic information and management</b>	<b>16.014.753</b>	<b>13.193.192</b>	<b>15.533.701</b>	<b>12.278.340</b>	<b>14.957.615</b>	<b>71.977.601</b>
Human resource for health	47.062.937	49.906.257	52.920.946	52.430.124	51.478.802	253.799.067
Health infrastructure	25.470.000	28.860.000	27.060.000	29.430.000	23.490.000	134.310.000
Supervision & mentoring	2.376.040	2.376.040	2.376.040	2.389.304	2.389.304	11.906.728
<b>Health system cost allocated to HIV</b>	<b>74.908.978</b>	<b>81.142.298</b>	<b>82.356.987</b>	<b>84.249.428</b>	<b>77.358.105</b>	<b>400.015.796</b>
<b>TOTAL US\$</b>	<b>190.968.733</b>	<b>197.966.441</b>	<b>215.047.234</b>	<b>212.188.709</b>	<b>216.254.765</b>	<b>1.032.425.883</b>

## 7.5 Funding estimates and gap analysis

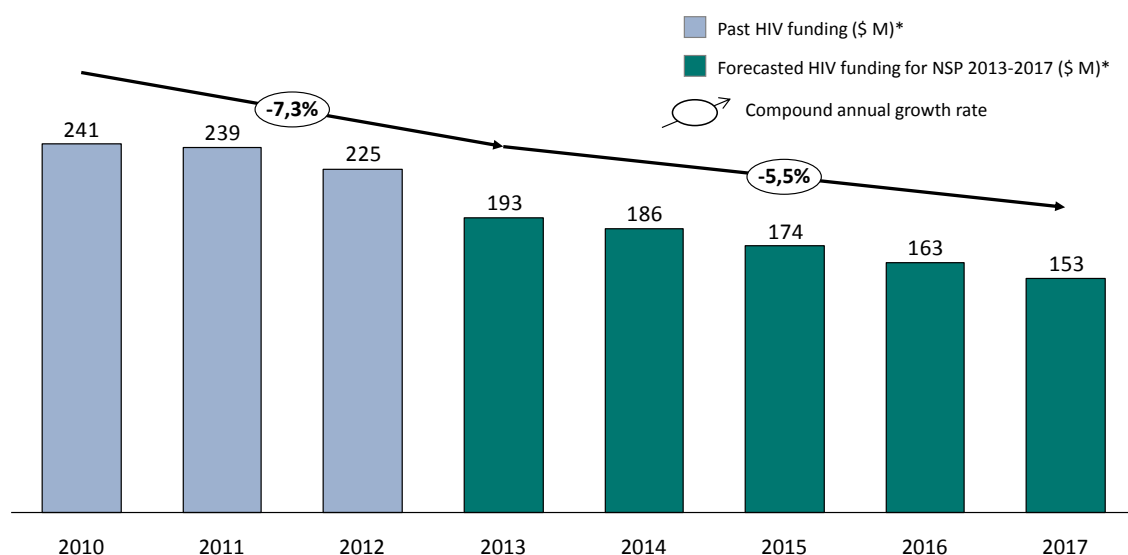
### 7.5.1 Funding estimates

Three funding sources were considered in the forecast calculations: Government of Rwanda, Global Fund and PEPFAR. Historical data on funding from these sources was collected, and an exponential regression analysis was applied to forecast future funding. The funds expected were also discounted by the percentage of overheads not directly reaching the HIV program.

Figure 2 presents the results of this analysis. As shown, future funding for HIV in Rwanda would decrease at around 5 percent a year until 2017, and Rwanda would receive a total of **US\$ 869 million** during those five years. This forecast is meant to provide high level guidance to the development of realistic scenarios; however, it shouldn't be considered a fully accurate picture of future funding, for three reasons: (i) past funding levels are not always indicative of what future funding levels will look like, (ii) the regression analysis was done with limited historical data, and (iii) a new Global Fund funding model is being set up, and the funding allocation criteria might be considerably different from what the Global Fund has used in the past.



**Figure 9: Expected funding**



The comparison of the costing (US\$1.032 million) with the funds estimation (US\$869 million) results in a funding gap for the five years period equal to **US\$163 million**.

For the funding gap and the overarching goal of NSP to be realistic and in line with the financial resources expected, three scenarios with different cost and impact were developed. The following sections will describe the scenario development and results in term of impact and cost.

### 7.5.2 Role of government and sustainable HIV financing

Donor funding has been essential in supporting the Government of Rwanda to scale up its HIV response, and will continue to be needed. Historically, financing for HIV from government and funding from donors have been complementary – donors, in particular, have had an important role in funding treatment, including costs for ARVs and other medicines. In recent years, MoH has allocated domestic resources to key interventions aimed at strengthening the health system (for example, infrastructure, human resources, recurrent facility costs), and at building a strong, decentralized health system that has mobilized communities to raise awareness of HIV.

The need to decrease the dependency on external funds is critical and extends beyond the HIV response. Innovative financing mechanisms and additional sources of domestic

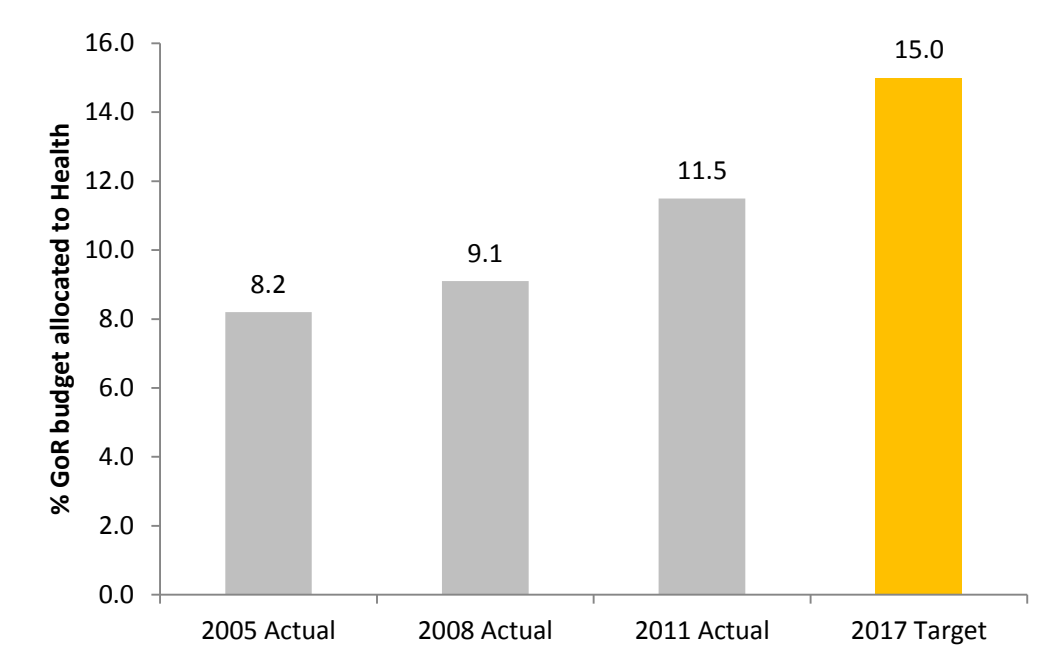


funding have been defined for the whole health system in a national health financing strategy. HIV financing aligns to the national strategy and priorities. Equity and access to treatment for all plays an important role in defining the allocative policy of MoH. In the short and medium term, though decreasing, external funding will continue to play a significant role in supporting the country's response to HIV and other diseases.

A stronger alignment to national priorities of all funds, domestic and external, the reduction in wastage and inefficiencies both at the strategic and implementation level, sector-wide and unified mechanisms to monitor and evaluate funds allocation and use, are among the necessary elements to support the transition for MoH towards a more financially sustainable and independent position.

That commitment to a sustainable HIV response is a priority for Rwanda. The contribution and annual increase by the Government of Rwanda to the health sector budget from 8.2 percent in 2005 to 11.5 percent in 2011, is evidence of this commitment. Rwanda is positioned to meet the Abuja target of allocating 15 percent of the government's budget to health in 2017.

**Figure 10: Percentage of Government of Rwanda budget allocated to health<sup>1</sup>**



<sup>1</sup> Source of data: HSSP III 2012–2018





## 7.6 Scenario development

As reported above, the key guiding idea for the scenario development was to identify the most cost-effective interventions and “achieve the best outcomes given what is available”. Three scenarios were developed according to the following criteria:

- A first scenario below the **funding** expected with a total cost of US\$834 million for the period 2013–2018;
- A second scenario reaching the **HIV epidemiological targets** with a total cost of US\$1,032 million;
- A third scenario representing a **middle point** in term of impact and cost between the first and the second scenario, with a total cost of US\$913 million.

The three scenarios assume that starting from 2014 the WHO guidelines of treatment will be implemented. Specifically it has been assumed an eligibility criterion for HAART for all patients with CD4 count less than 500 and a test and treat strategy for FSW and MSM. In addition all the scenarios preserve the current guidelines of test-and-treat strategy for SDC, pregnant women, HepB-HIV and TB-HIV co-infected. In terms of ART coverage, only the HIV EPI target scenario is considering a scale up of the coverage of treatment while the others consider only a preservation of the status quo in terms of adult ART coverage. For all the three scenarios it has been considered a not negotiable priority to scale up treatment for children.

For HIV prevention, it is has been considered essential that all three scenarios should preserve the targets for outreach interventions to key populations. The HIV EPI target scenario considers aggressive targets for male circumcision with the goal to reach 66 percent of the male population in 2018, compared with only 48 percent in 2018 for the other two scenarios.

Regarding impact mitigation, the three scenarios account for a progressive decrease of support, mainly decreasing the socio-economic support while preserving stigma and discrimination activities.

In terms of health system support, it was assumed a range of HIV contributions to the total health sector between 20 percent and 30 percent. The range of contribution of HIV



has been estimated according to two different sources of information. Firstly, from a financial point of view, the Annual Financial Report on HIV expenditures (2010–2011)(23) states that HIV spending accounted for 21 percent of the total health sector expenditure. Secondly, from a programmatic point of view, the analysis of absorption of HIV equivalent outpatient visits over the overall visits of the entire health system conclude that HIV visits represent around 28 percent of the total volume of visits of the health sector. The table below summarizes key variables of different variables.

**Table 5: Summary of the key variables of the different scenarios**

		\$1.032M scenario	\$913M scenario	\$834M scenario
	CD4 eligibility	<500	<500	<500
<b>Care and Treatment</b>	Test and Treat	FSW, MSM, SDC, TB/HIV, HB/HIV, Pregnant women	FSW, MSM, SDC, TB/HIV, HB/HIV, Pregnant women	FSW, MSM, SDC, TB/HIV, HB/HIV, Pregnant women
	Target of ART coverage*	96% (pediatric) 88% (men) 90% (women)	96% (pediatric) 73% (men) 87% (women)	96% (pediatric) 73% (men) 87% (women)
	Target of PMTCT coverage	95%	90%	90%
	Male circumcision (% pop.)	66%	48%	48%
<b>Prevention</b>	Condoms coverage	100%	100%	100%
	VCT (number of tests)	3 million, targetting high risk groups	3 million, targetting high risk groups	3 million, target-ting high risk groups
	Coverage key population	FSW: 80% MSM: 60% SDC: 80%	FSW: 80% MSM: 60% SDC: 80%	FSW: 80% MSM: 60% SDC: 80%
<b>Impact mitigation</b>	Edu. support coverage	35%	30%	30%
	Socio-economic support coverage	100%	100%	0%
<b>Coordination + Strategic Info</b>	Contribution to HIV program's running costs (%)	25%	20%	15%
<b>Health System</b>	Contribution HIV (% HS budget)	30%	25%	20%



## 7.7 Conclusions

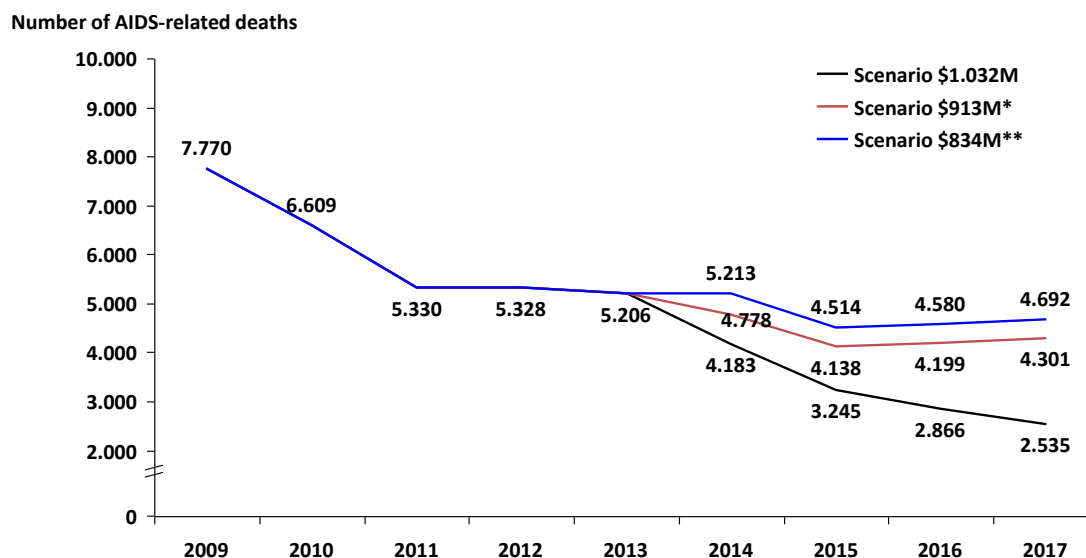
The two figures below show that considering a scenario of **US\$834 million** would reverse the positive trend Rwanda has been achieving in reducing new HIV infections and that there would be an increase in new infections. In term of deaths averted, the initial reduction of HIV-related deaths given by the introduction of new treatment policies will be partially offset from by an increase of HIV-related deaths.

The middle scenario of **US\$913 million** over five years, would allow improvements, mainly in impact mitigation, HRH, and infrastructure. Rwanda would continue the positive trend in its response to new HIV infections, although at a slower pace.

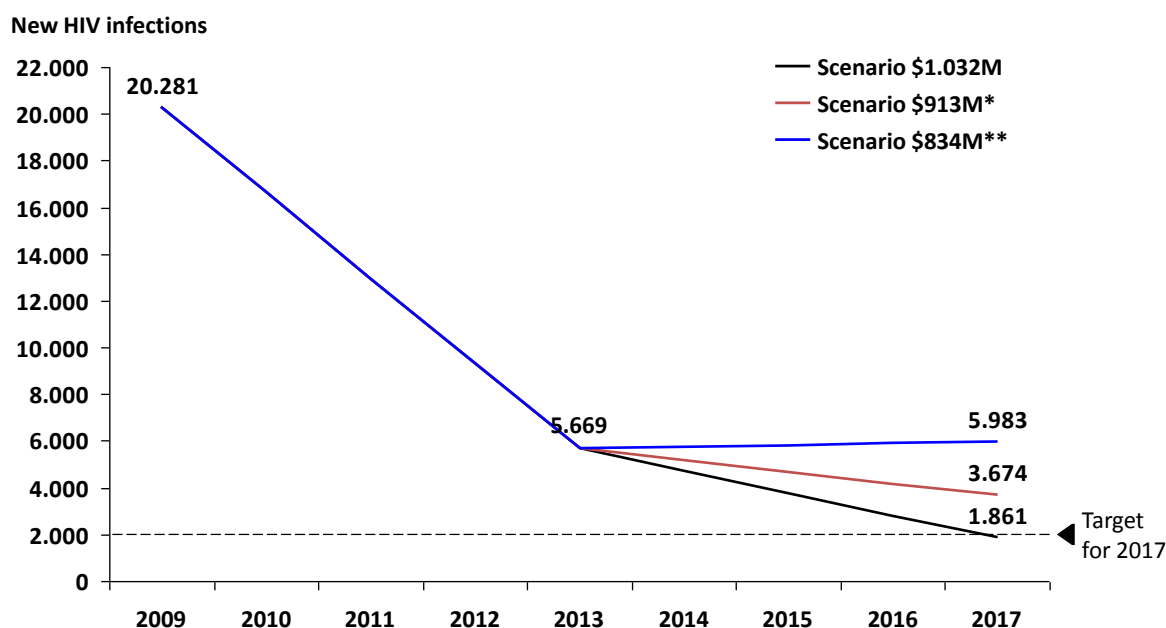
Achieving the EPI targets set by the Government of Rwanda would require a level of funding equivalent to **US\$1.032 million** over five years. This investment over five years would allow Rwanda to reduce new HIV infections by two thirds. In addition, AIDS-related deaths would be halved by 2018.

Therefore, the targets for the indicators presented in the M&E plan and the NSP performance framework are based on the assumption that Rwanda will be able to mobilize resources to achieve a level of funding equivalent to **US\$1.032 million over five years**. Of course, if the level of resources should be lower, this will have a direct effect on the ability of the HIV program to reach its targets.

**Figure 11 Projected HIV-related deaths by level of funding**



**Figure 12 Projected new HIV infections by level of funding**



### 7.8 Challenges and limitations

The estimation of the cost and impact of the NSP represented an important learning experience for all stakeholders involved in the HIV response.

Firstly, the main challenge in estimating the impact of prevention activities was the lack of literature regarding the impact of preventive interventions in the Rwandan context. As a consequence, the available epidemiological models were basing their assumptions on international studies that might not be completely applicable to Rwanda. The programmatic working groups faced the problem by developing their own impact estimates in a participatory way by considering not only international accepted data but also information internally generated. Even though this process might have not taken advantage of sophisticated epidemiological models, the result was the development of impact computation that has created large alignment and understanding on the variables affecting the impact.

Secondly, for the impact mitigation strategies the program team had no quantitative data to estimate the impact of interventions of stigma, discrimination and OVC support. The impact mitigation working group based their considerations on qualitative assumptions



considering inputs from all the stakeholders. The result of this process has been a strategy of impact mitigation that fitted inside the overall HIV strategy.

Finally, the main costing challenge was due to the lack of a costing baseline resulting from an integrated accounting system. The planning team faced the problem by launching an intense process of data collection from all the different program implementers. Through this process the planning team was able to provide cost for all the interventions with a high level of operational details. The result of the process was the engagement of all the programmatic staff that was able to connect the strategy to their operational duties.



## 8. CONCLUSION

The planning of the NSP July 2013–June 2018 has taken into account the important achievements of the last four years. The targets set for this planning period are in continuity with progress made in recent years in addressing HIV and AIDS: continue the reduction in new HIV infections and in HIV-related deaths. To achieve these ambitious targets, HIV interventions will have to be better integrated with other programs within the health sector and also with other socio-economic development sectors. The achievement of these targets will also depend on the level of funding that will be allocated to the HIV response. With the current uncertainty in external funding, the reduction in new infections and in HIV-related deaths might not reach the expected levels, and progress could even be halted if funding is below the current projections.



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## Annex 1: NSP PERFORMANCE FRAMEWORK

## 1. PREVENTION PERFORMANCE FRAMEWORK

Impact Assessment	PREVENTION: Outcomes	PREVENTION : Output	Core Indicator	Baseline	TARGET
					2017–2018
1. New HIV infections are reduced by 2/3 from 6,000 to 2,000 by June 2018			HIV prevalence in the adult population aged 15–49 (disaggregated by sex and urban/rural)	Female: 3.7% Male: 2.2% Urban: 7.3% Rural: 2.2%	Keep it as it was in last NSP (3%)
			HIV prevalence in the population aged 15–24 (disaggregated by sex and urban/rural)	Female: 1.5% Male: 0.4% Urban: Rural:	Keep it as it was in last NSP (0.5%)
			HIV incidence in general population	0.12	0.04
	1.1 Reduction of new HIV infections by sexual transmission		Percentage of key populations <sup>22</sup> (FSW, MSM) who are HIV infected	FSW: 51% MSM: Prisoners:	FSW: 45% MSM: Prisoners:



			Percentage of discordant couples who remain discordant after enrolment to couples' counselling and testing at 12, 24, 36 months	No data	95%
		1.1.1 General population and key populations are reached by comprehensive HIV prevention programs	Percentage of women and men aged 15–49 who reported using a condom the last time they had high risk sexual intercourse (non-married non-cohabitating partner).	Women: 42% Men: 66%	Women: 60% Men: 75%
			Percentage of young women and men aged 15–24, who have had sexual intercourse before the age of 15	<b><u>Less than 15:</u></b> F: 3.8% M: 11.3%	<b><u>Less than 15:</u></b> F: 3.8% M: 11.3%
			Percentage of population aged 15–49 who had more than one sexual partner in the last 12 months (disaggregated by age and sex)	Female: 0.6% Male: 4.1%	Female stable, Men 3%;
			Percentage of men and women who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission (disaggregated by age and sex)	<b>Female: 55.5%</b> 15–24: 53% 15–49: 56% <b>Male: 51.6%</b> 15–24: 47% 15–49: 52%	<b>Female: 65.5%</b> 15–24: 63% 15–49: 66% <b>Male: 61.6%</b> 15–24: 57% 15–49: 62%
			Percentage of key populations (FSW, MSM, youth, discordant couples) who both correctly identify ways of preventing the sexual transmission of HIV and who reject major	FSW: 22% Youth: 12% MSM: DC:	FSW: 60% Youth: 50% MSM: DC:



			misconceptions about HIV transmission (disaggregated by risk pop)		
			Percentage of men reporting the use of a condom the last time they had anal sex with a male partner	37%	50%
			Percentage of FSW reporting consistent condom use in the last 30 days	33%	50%
			D2. Number of contact with youth where HIV information, education, communication or behavior change communication through HIV youth clubs (anti-AIDS clubs)	1,404,330 (Cumulative contact)	3M
			D3. Number of contacts with key populations reached by HIV prevention interventions (disaggregated by category of key pop.).	FSW: 31,915 cumulative TD: 21,000 cumulative services MSM: 1,503 cumulative PWD: 30,068 cumulative Prisoners: 5,204 cumulative	FSW: 55040 TD: 10,963 MSM: 22,412 PWD: 631,318 Prisoners: 254,596
			Percentage of key populations reached with HIV prevention programs disaggregated by category of key pop.).	No data	80% of key populations
			Number and percentage of discordant couples who have received HIV counselling and testing and who know their results in the last 3 months	70% (4980/7140)	85%



		1.1.2. Male and female condoms are available and accessible to general and key populations	Number and proportions of condoms distributed nationwide during the last 12 months	90% (24,000,000/26,000,000)	90% (33,685,037/37427819)
		1.1.3: General population and key populations have access to HCT, MC and other clinical services for prevention of HIV and other blood borne infections	Percentage of women and men aged 15–49 who received an HIV test in the last 12 months and who know their results	Women: 38.6% Men: 37.7%	Women: 38.6% Men: 37.7%
			Percentage of FSW who received HIV test in last 12 months	89%	95%
			Prevalence of male circumcision among adolescent and adult men aged between 15–59	15–59 years: 13%	15–59 years: 66%
			Number of STI cases treated in the last 12 months	189,946	253,047
			Number of people who received PEP in last 12 months	1,591/1,785 (89%) occupational and non occupational	95%
			Percentage of health facilities with PEP services available	68%	100%



			Percentage of health centers and hospitals offering STI treatment that have capacity to test for syphilis	88% [433 / 494 FOSA]	100%
			Percentage of negative partners in SDC who sero-converted in the last 12 months	3%	3%
	1.2 Elimination of new HIV infections by Mother-to-child transmission (EMTCT)		Percentage of HIV-positive children born to known HIV-positive mothers [at 6 weeks and 18 months]	At 6 weeks: 2.1 % At 18 months: 2.9%	At 18 months < 2%
		1.2.1 EMTCT targeted population receive the complete package of EMTCT	Number and percentage of health facilities that provide all four items from minimum EMTCT package <sup>24</sup>	Public: 88% [435 / 494 FOSA]	Public: 95%
			Percentage of HIV-positive pregnant women who received ART to reduce the risk of mother-to-child transmission	88%	95%
			Percentage of pregnant women who were tested for HIV and know their results	98%	98%
			Percentage of children of HIV-positive mothers who received an HIV test at 6 weeks and 18 months	Test at 18 months 87% Test at 6 weeks: 93%	At 18 months: 95% At 6 weeks: 95%



	1.3: Reduction of new blood borne infections	1.3.1 People in need of blood transfusion have access to safe blood	Percentage of donated blood units screened for HIV in a quality assured manner	100%	100%
		1.3.2 Health care providers apply universal precautions for HIV prevention	Percentage of people in the general population reporting that last injection was given with a syringe and needle taken from a new, unopened package	Female: 98.8% Male: 99.2%	99.5%



## 2. CARE & TREATMENT PERFORMANCE FRAMEWORK

			TARGET		
Care & Treatment: Impact Result	Care & Treatment: Outcomes	Care & Treatment: Output	Core Indicator	Baseline	2017–2018
2. HIV-related deaths are reduced by ½ from 5,000 to 2,500 by June 2018 and HIV morbidity is decreased			Percentage of adults and children with HIV known to be on treatment 12 months, 24 months and 36 months after initiation of antiretroviral therapy <sup>20</sup>	<u>Adults:</u> At 12 mo: 94% At 24 mo: No data At 36 mo: No data  <u>Pediatrics:</u> At 12 mo: 94% At 24 mo: No data At 36 mo: No data	<u>Adults:</u> At 12 mo: 95% At 24 mo: No data At 36 mo: No data  <u>Pediatrics:</u> At 12 mo: 95% At 24 mo: No data At 36 mo: No data
			Percentage deaths of TB/HIV-related co-infection	17%	8%





2.1: PLHIV Systematically Received OI Prophylaxis, Treatment and Other Co-infections Treatment		Percentage of co-infected people HIV-HepB enrolled in HIV care and treatment who received treatment for HepB in the last 12 Months	Not available	80%
	2.1.1: PLHIV systematically receive OI and other co infection prophylaxis and treatment according to need.	F3. Number and percentage of HIV-positive patients who receive prophylactic cotrimoxazole/Dapsone	154,744	192,490
2.2: PLHIV Eligible for ART receive it		19. Percentage of adults and children eligible for ART receiving it according to national protocol	Adult: 91% Children: 47%	95% (Adults + children)



	2.2.1 HIV infected persons are timely enrolled and initiated on ART	Percentage of PLHIV initiating ART at early clinical stage (WHO stage I and II)	86%	87%
		F1. Total number of new patients enrolled in the care and treatment program during the reporting year	25,830	9,300
		F7. Number of new patients who started ART during the last year	16,693	6,000
	2.2.2: Coverage of patients on ART is increased	2.1.1.1 Percentage of hospitals and health centers offering full package of HIV services (VCT, PMTCT, ART)	88%	100%
	2.2.3: The quality of HIV care and treatment services is improved	F9& F10. Percentage of HIV-positive patients under treatment regimen (disaggregated by regimen line)	1st line : 98% 2nd line: 2% 3rd line: 0.01%	1st line : 97% 2nd line: 3%
		Percentage of viral load suppression after 12 months of treatment (< 20 copies/ml)	1st line: 77%	95%



	2.3: PLHIV receive Care and support according to needs	2.3.1: PLHIV receive nutritional support according to needs	F16. Percentage of HIV-positive people with moderate and severe malnutrition who have received nutritional or treatment supplement (disaggregated by age and malnutrition type (moderate and severe))	<u><b>Moderate:</b></u> Adults: n/a Pediatrics: n/a <u><b>Severe:</b></u> Adults: n/a Pediatrics: n/a	<u><b>Moderate:</b></u> Adults: 95% Pediatrics: 95% <u><b>Severe:</b></u> Adults: 95% Pediatrics: 95%
		2.3.2 PLHIV receive Psychosocial support and Mental healthcare	2.3.1.1 Number of PLHIV who received at least one home visit and/or palliative care service in last 12 months	n/a	80%



### 3. IMPACT MITIGATION PERFORMANCE FRAMEWORK

					TARGET
Impact Assessment	IMPACT: Outcomes	IMPACT: Output	Core Indicator	Baseline	2017–2018
3. People infected and affected by HIV have the same opportunities as the general population			Percentage of PLHIV in poverty is not more than the general population		
	3.1 People infected and affected by HIV have improved economic status	3.1.1: Cooperatives are operational and their capacities are built	Percentage of cooperative with RCA certificates (disaggregated by district)		
		3.1.2: People infected and affected by HIV have the skills and capacities to ensure their food security			



	3.2: Orphans and vulnerable children (OVC) have improved social and economic protection		Current school attendance among orphans and non-orphans aged 10–14	<p><b><u>Orphans</u></b> F: 83.8% M: 91.2%</p> <p><b><u>Non-orphans</u></b> F: 96% M: 96.2%</p>	<p><b><u>Orphans</u></b> Female: 83.8% Male: 91.2%</p> <p><b><u>Non-orphans</u></b> Female: 96% Male: 96.2%</p>
		3.2.1: Minimum package of services for OVC is available and well coordinated	D11. Number of cumulative services provided to OVC according national minimum package of services (disaggregated by services)	36674 health, 16593 nutrition, 79631 education, 3089 shelter, 9911 legal and social protection, 36331 psychosocial, 30612 socio-economic	Keep
	3.3: Stigma and discrimination towards people infected and affected by HIV are reduced	3.3.1: General population is informed about the rights of PLHIV and political and legal provisions for protecting these rights are promoted	Percentage of population expressing accepting attitudes in relation to PLHIV (disaggregated by sex)	<p>Women: 53%</p> <p>Men: 64.4%</p>	<p>Women: 95%</p> <p>Men: 95%</p>



		3.3.2: PLHIV are aware of their rights and able to claim them	Percentage of PLHIV who reported that they have had their rights abused because of their HIV status (disaggregated by sex)	Women: 31.7% Men: 36.5%	0%
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## Annex 2: Costing tables

Figure 13: Cost by impact and outcomes

NS OUTCOMES	Values					
	Sum of Year 1 USD	Sum of Year 2 USD	Sum of Year 3 USD	Sum of Year 4 USD	Sum of Year 5 USD	Sum of Total USD
<b>1. Prevention</b>	<b>37.377.885</b>	<b>40.804.963</b>	<b>46.976.401</b>	<b>46.169.994</b>	<b>48.460.133</b>	<b>219.789.376</b>
Reduction of new blood borne HIV infections	5.769.850	5.813.121	5.775.226	5.831.368	5.780.890	28.970.455
Reduction of new HIV infections by sexual contact	24.290.514	28.469.298	34.316.005	33.851.714	36.409.878	157.337.409
Reduction of new HIV infections from mother to child	7.317.521	6.522.544	6.885.170	6.486.912	6.269.365	33.481.513
<b>2. Care and Treatment</b>	<b>41.638.991</b>	<b>45.592.515</b>	<b>49.422.066</b>	<b>52.163.825</b>	<b>56.323.210</b>	<b>245.140.606</b>
All people living with HIV eligible to ART receive it	35.552.817	40.375.067	43.748.529	46.720.860	50.410.936	216.808.210
People living with HIV receive Care and support according to ne	4.785.683	3.784.589	4.214.721	3.944.921	4.386.283	21.116.198
People Living with HIV Systematically Received OI Prophylaxis	1.300.490	1.432.858	1.458.816	1.498.044	1.525.990	7.216.198
<b>3. Impact Mitigation</b>	<b>21.341.355</b>	<b>16.920.246</b>	<b>21.071.307</b>	<b>17.013.894</b>	<b>19.155.702</b>	<b>95.502.503</b>
People infected and affected by HIV have improved economic s	4.946.369	3.544.960	5.133.015	3.642.545	3.537.535	20.804.425
Orphans and vulnerable children (OVC) have improved social ar	14.610.547	12.159.407	14.293.894	12.159.407	13.980.666	67.203.920
Stigma and discrimination towards people infected and affectec	1.784.438	1.215.879	1.644.399	1.211.942	1.637.501	7.494.159
<b>4. M&amp;E</b>	<b>7.179.451</b>	<b>4.320.137</b>	<b>6.698.398</b>	<b>3.405.285</b>	<b>5.985.501</b>	<b>27.588.772</b>
Monitoring & Evaluation	7.179.451	4.320.137	6.698.398	3.405.285	5.985.501	27.588.772
<b>5. Coordination</b>	<b>8.835.303</b>	<b>8.873.055</b>	<b>8.835.303</b>	<b>8.873.055</b>	<b>8.972.114</b>	<b>44.388.829</b>
Coordination	8.835.303	8.873.055	8.835.303	8.873.055	8.972.114	44.388.829
<b>6. Health System Cost</b>	<b>74.908.978</b>	<b>81.142.298</b>	<b>82.356.987</b>	<b>84.249.428</b>	<b>77.358.105</b>	<b>400.015.796</b>
Human Resource	47.062.937	49.906.257	52.920.946	52.430.124	51.478.802	253.799.067
Integrated supervision	2.376.040	2.376.040	2.376.040	2.389.304	2.389.304	11.906.728
Infrastructure	25.470.000	28.860.000	27.060.000	29.430.000	23.490.000	134.310.000
<b>Grand Total</b>	<b>191.281.962</b>	<b>197.653.213</b>	<b>215.360.462</b>	<b>211.875.481</b>	<b>216.254.765</b>	<b>1.032.425.883</b>



**Figure 14: Breakdown of the costing by recurrent and investment costs (US\$)**

Su OUTCOMES	Cost type		Grand Total
	Investment	Recurrent	
<b>1. Prevention</b>	<b>36.687.290</b>	<b>183.102.086</b>	<b>219.789.376</b>
Reduction of new blood borne HIV infections	8.009.090	20.961.365	28.970.455
Reduction of new HIV infections by sexual contact	9.808.229	147.529.181	157.337.409
Reduction of new HIV infections from mother to child	18.869.972	14.611.541	33.481.513
<b>2. Care and Treatment</b>	<b>7.283.622</b>	<b>237.856.984</b>	<b>245.140.606</b>
All people living with HIV eligible to ART receive it	7.283.622	209.524.588	216.808.210
People living with HIV receive Care and support according to needs	-	21.116.198	21.116.198
People Living with HIV Systematically Received OI Prophylaxis, Treatment at	-	7.216.198	7.216.198
<b>3. Impact Mitigation</b>	<b>6.238.046</b>	<b>89.264.457</b>	<b>95.502.503</b>
People infected and affected by HIV have improved economic status	2.929.960	17.874.465	20.804.425
Orphans and vulnerable children (OVC) have improved social and economic p	3.308.087	63.895.833	67.203.920
Stigma and discrimination towards people infected and affected by HIV are re	-	7.494.159	7.494.159
<b>4. M&amp;E</b>	<b>826.890</b>	<b>26.761.882</b>	<b>27.588.772</b>
Monitoring & Evaluation	826.890	26.761.882	27.588.772
<b>5. Coordination</b>	<b>1.746.324</b>	<b>42.642.505</b>	<b>44.388.829</b>
Coordination	1.746.324	42.642.505	44.388.829
<b>6. Health System Cost</b>	<b>87.660.000</b>	<b>312.355.796</b>	<b>400.015.796</b>
Human Resource	-	253.799.067	253.799.067
Integrated supervision	-	11.906.728	11.906.728
Infrastructure	87.660.000	46.650.000	134.310.000
<b>Grand Total</b>	<b>140.442.172</b>	<b>891.983.711</b>	<b>1.032.425.883</b>





Figure 15: Key assumptions on quantities for the 1B scenario (care and treatment)

Strategy	Description	Source	Coverage					Number of services				
			2013	2014	2015	2016	2017	2.013	2.014	2.015	2.016	2.017
PLHIV	PLHIV	Spectrum	204.898	208.497	212.651	216.762	221.301	204.898	208.497	212.651	216.762	221.301
PLHIV > 15	PLHIV > 15	Spectrum	185.339	191.227	197.493	203.441	209.480	185.339	191.227	197.493	203.441	209.480
PLHIV < 15	PLHIV < 15	Spectrum	19.559	17.270	15.158	13.321	11.821	19.559	17.270	15.158	13.321	11.821
Eligibility Criteria	Implementation of policy for eligibility of treatment	Rwanda Policy	cd4<350, test and treat as current guideline	cd4<350, test and treat for FSW and MSM	cd4<350, test and treat for FSW and MSM	cd4<350, test and treat for FSW and MSM	cd4<350, test and treat for FSW and MSM					
Coverage for ART Program	People on ART program / PLHIV	Baseline - Tracnet May 2013	87%	89%	90%	92%	93%	178.853	184.670	191.425	198.559	204.742
ARVs for men	Number of men receiving ARVs/ Men needing ARVs	Spectrum for need (53,398) , Tracnet (39,200)	75,5%	77,0%	80,7%	84,3%	88,0%	42.000	53.633	58.696	63.817	69.161
ARVs for women	Number of women receiving ARVs/ # of women needing ARVs	Spectrum for need (78,327) , Tracnet (67,821)	82%	87%	88%	89%	90%	74.200	92.202	97.028	101.548	106.020
ART Adult 2nd & 3 Line	people in second line / people in ARV treatment	Tracknet	2%	2%	2%	2%	2%	2.324	2.917	3.114	3.307	3.504
PLHIV on Pre- ART	Number of PLHIV on Pre ART/Number of people in ART program	Tracnet Report of May 2013	31%	17%	14%	12%	10%	54.553	30.635	27.400	24.794	21.061
Cotrimoxazole for infant exposed + Children on ART	Children taking prophylaxis / children in need of prophylaxis	Spectrum needs - 22689 in 2012	66%	70%	73%	77%	80%	13.286	12.033	10.825	10.225	9.704
Management of opportunistic infections	Number of people of receiving OIs treatment	Quantification report OI people receiving OI (6,294 cases)	6.294	8.672	8.300	8.000	7.700	6.294	8.672	8.300	8.000	7.700
Pediatric ART	Number of children receiving ART/ # of children needing ART	Tracknet (0-15 years) 7,597 - Report may 2013	59%	67%	77%	87%	96%	8.100	8.200	8.300	8.400	8.500
ART Pediatric 2 Line	% of ped on 1st line	Tracknet	6%	6%	6%	6%	6%	486	492	498	504	510
Biochemical follow up	Number of people receiving biochemical follow up/ # PLHIV	Tracknet: number of people ART and pre art ( 164,059 report may 2013)	87%	89%	90%	92%	93%	178.853	184.670	191.425	198.559	204.742
Nutrition service for moderately malnourished	Number of moderately malnourished receiving support / # people in ART program	Macharia	12%	12%	12%	12%	12%	21.462	22.160	22.971	23.827	24.569
Nutrition service for household at risk	Number of household at risk receiving support (1,5 people - family size for each PLHIV) / Number people in ART program	Nutrition workgroup	8%	8%	8%	8%	8%	10.928	11.120	11.341	11.561	11.803
Nutrition service severely malnourished	Number of severely malnourished receiving support / # people in ART program	Nutrition workgroup	4%	4%	4%	4%	4%	7.154	7.387	7.657	7.942	8.190
Mental support for PLHIV (integrated in HIV)	People receiving mental health support / # people enrolled in ART program	Psychosocial workgroup	60%	60%	60%	60%	60%	19.466	20.118	20.876	21.678	22.372
			30%	30%	30%	30%	30%	51.226	52.941	54.938	57.048	58.873
			35%	35%	35%	35%	35%	59.764	61.765	64.094	66.556	68.685
Prophylaxis for adult	Number of adults receiving prophylaxis / number of PLHIV > 15	Tracknet (ART and pre ART report may 2013 164,059)	87%	89%	90%	92%	93%	171.783	177.407	183.953	190.864	196.878
Management of STIs for PLHIV	People enrolled in ART program receiving STI treatment / People enrolled in ART program in	Need STI treatment : DHS prevalence STI in PLHIV 14,6%	100,0%	100,0%	100,0%	100,0%	100,0%	26.113	26.962	27.948	28.990	29.892
Adherence Follow Up	people receiving ART		60%	60%	60%	60%	60%	74.580	92.421	98.415	104.259	110.209
Psychosocial counseling	People enrolled in C&T Program	Assumed every people nerolled is having 1 visit per year	100%	100%	100%	100%	100%	178.853	184.670	191.425	198.559	204.742



Figure 16: Key assumptions on quantities for the 1B scenario (prevention)

Strategy	Description	Source	Coverage					Number of services					
			2013	2014	2015	2016	2017	2.013	2.014	2.015	2.016	2.017	
Blood safety	Units of blood	Strategic Plan blood transfusion	51.682	51.682	51.682	51.682	51.682	51.682	51.682	51.682	51.682	51.682	51.682
Condoms	Condoms distributed / target condoms	RBC Quarterly report 26,980,602 out of target 2017 vision 41.882.583	72%	79%	86%	93%	100%	29.996.149	33.011.695	36.027.241	39.042.787	41.882.584	
EMTCT	# of women receiving EMTCT services/women needing EMTCT	Tracknet included in spectrum data 9,057	90%	93%	95%	95%	95%	7.644	7.728	7.797	7.655	7.507	
Counseling and Testing	Number of test	Tracknet for number of test 2012 (3,487,726 tests)	3.031.248	3.031.248	3.031.248	3.031.248	3.031.248	3.031.248	3.031.248	3.031.248	3.031.248	3.031.248	3.031.248
Coverage for ART Program (following testing strategy)	People on ART program (pre art and ARV) /PLHIV	Tracnet May 2013	87%	89%	90%	92%	93%	178.853	184.670	191.425	198.559	204.742	
Male circumcision >15	# of people circumcised / total number of male (15-49)	DHS Pop male 15-49 2,668,257	17%	26%	40%	53%	66%	105.500	280.000	420.000	420.000	420.000	
Male circumcision <15	number of people circumcised	DHS pop male 0-15	0,17%	0,30%	0,50%	0,74%	1,03%	2.000	3.500	5.000	6.500	8.000	
STIs management for General population (excluding people treated that are HIV+)	#number of people receiving STIs treatment (non HIV positive) /#people	Mutagoma for number of people treated (78838 - 26000 people	15%	19%	25%	32%	42%	68.120	90.798	120.991	161.026	214.358	
PEP	#number of people receiving PEP /#people needing PEP	Tracknet	88%	88%	88%	88%	88%	9.826	10.077	10.330	10.584	10.838	
FP integrated in HIV service	# of people receiving FP in HIV services /# of women who come	EMTCT plan - Contraceptives use among women living with HIV (first	65%	69%	73%	76%	80%	59.733	64.171	69.032	74.148	79.021	
Key interventions for FSW	# of FSW receiving minimum Package /# of FSW	CNLS net	60%	65%	70%	75%	80%	7.367	8.163	9.033	9.980	11.008	
Key interventions for MSM	# of MSM receiving minimum Package /# of MSM	ICAP and AHF reports 1202 people reached	30%	35%	40%	50%	60%	1.500	1.790	2.102	2.710	3.362	
Key intervention for youth - in school	# of youth in school receiving minimum Package /# of youth 10-24	Estimate prevention unit based on youth statistical yearbook	70%	76%	84%	90%	100%	2.050.512	2.277.150	2.586.064	2.857.344	3.282.857	
Key intervention for youth - out of school	# of youth out of school receiving minimum Package /# of youth 10-24	Estimate prevention unit based on MTR number of contacts	11%	20%	30%	40%	50%	139.248	271.142	416.905	569.531	729.046	
Key intervention mobile population	# of mobile people receiving minimum Package /# of mobile people	MTR report 10,492 Contacts	54%	58%	62%	66%	70%	5.282	5.803	6.374	6.997	7.674	
Key intervention for Disabilities (to be included in general population)	# of PWD receiving minimum Package /# of PWD	MTR report 30,068 contacts	3%	5%	7%	8%	10%	17.125	27.542	38.601	50.431	63.132	
Key intervention for SDC	# of SDC receiving minimum Package /# of SDC	MTR report 8324	41%	51%	61%	70%	80%	10.921	13.821	16.925	20.263	23.857	
Key intervention for prisoners	# of prisoners receiving minimum Package /# of prisoners	MTR report 5,204	25%	42%	58%	74%	90%	14.362	24.052	34.332	45.324	57.123	
Key intervention for People in uniform	# of people in Uniform receiving minimum Package /# of people in	MTR report 150,027	90%	91%	92%	94%	95%	152.252	158.096	164.874	172.531	180.992	
Key intervention for general population	# of people reached by prevention services /# of general	MTR report (Check DHS) 4,061,939	80%	82%	85%	87%	90%						
Key intervention for refugees and surrounding community	# of refugees receiving minimum Package /# of refugees	MTR report 71,482	100%	100%	100%	100%	100%	70.018	70.018	70.018	70.018	70.018	



**Figure 17: Key assumptions on quantities for the 1B scenario (impact mitigation)**

Strategy	Variable	Description	Coverage					Number of services				
			2013	2014	2015	2016	2017	2013	2014	2015	2016	2017
Overall # of OVC	# of OVC	# of OVC	100%	100%	100%	100%	100%	62.749	62.749	62.749	62.749	62.749
Health service for OVC	Coverage of health service for OVC	OVC supported for health service /# of OVC	100%	100%	100%	100%	100%	62.749	62.749	62.749	62.749	62.749
Nutrition support for OVC	Coverage of Nutrition support for OVC	OVC supported for Nutrition / # of OVC in need nutrition	20%	20%	20%	20%	20%	10.950	10.950	10.950	10.950	10.950
Education support for OVC	Coverage of Education support for OVC	OVC supported for Education / # of OVC	15%	15%	15%	15%	15%	9.412	9.412	9.412	9.412	9.412
Shelter support for OVC	Coverage of Shelter support	OVC supported for Shelter / # of OVC	0%	0%	0%	0%	0%	-	-	-	-	-
Social protection for OVC	Coverage of Social protection	OVC supported for Social /# of OVC	0%	0%	0%	0%	0%	0	0	0	0	0
Psychosocial support for OVC	Coverage of Psychosocial support	OVC supported for Psychosocial / # of OVC	0%	0%	0%	0%	0%	0	0	0	0	0
Social economic support	Coverage of Social economic support	OVC supported for social economic / # of OVC	0%	0%	0%	0%	0%	0	0	0	0	0
Child participatory approach for OVC (TVET)	Coverage of Child participatory approach for OVC	OVC receiving participatory approach/# of OVC	20%	20%	20%	20%	20%	12.550	12.550	12.550	12.550	12.550
Start up Kit for OVC (after graduation TVET)	Coverage of OVC in need of Start up kit every year	OVC supported with Start up kit / # OVC	7%	7%	7%	7%	7%	4.179	4.179	4.179	4.179	4.179
Overall # of cooperative	Number of Cooperatives	# of cooperatives	100%	100%	100%	100%	100%	382	402	422	442	462
PLHIV and affected by HIV have access agriculture advisory services	Coverage of cooperatives receiving agriculture advisory services	# cooperatives receiving agriculture advisory services/ # of cooperatives	100%	100%	100%	100%	100%	382	402	422	442	462
Access to agricultural inputs	Coverage of cooperatives receiving agricultural inputs	# cooperatives receiving agricultural inputs / # of cooperatives	65%	65%	65%	65%	65%	248	261	274	287	300
Access to livestock	Coverage cooperatives receiving livestock	# of cooperatives receiving livestock/# of cooperatives	26%	26%	26%	26%	26%	99	105	110	115	120
Promote good nutritional practices	Coverage of PLHIV with good nutritional practices	# of cooperatives with good nutritional practices/# of cooperatives	100%	100%	100%	100%	100%	382	402	422	442	462



**Figure 18: Key assumptions on unit costs**

Cost element	Methodology / Assumptions	Source of information
Inflation and growth rate of unit costs	Assumed a conservative inflation rate and unit costs growth rate equal to zero	Team assessment
ARV drugs	Cost per patient per year for each ARV regimen for first, second and third line adult and pediatric. Considered an increase of the unit cost due to the shift of new patients to more expensive regimens	Quantification report – November 2012
Consumables for Biochemical follow up	Cost per patient per year comprehensive of consumables. Included the cost of CD4, Viral load, Hematology, Biochemistry, general lab consumables	Quantification report – November 2012
Drugs for opportunistic infections management	Average cost per year per case. Assumed a distribution of OI as Herpes zoster (27%), Cryptococcus meningitis prevention (27%), Diarrhea (17%), Candidiasis (Oral and Esophageal) 17%, Others 12%	Quantification report – November 2012
Prophylaxis for adults	Cost per adult patients per year. Assumed use of Co-trimoxazole in different dosages and Dapsone	Quantification report – November 2012
Prophylaxis for children and exposed infants	Cost per pediatric patients per year. Assumed use of Co-trimoxazole in different dosages	Quantification report – November 2012
Nutrition support for PLHIV	Cost per case per year broken down for severely, moderately malnourished and household at risk	Nutrition sub-working group
Drugs and testing for STI management	Cost per case including testing for syphilis. Assumed distribution of STI as Chlamydia treatment (30%), Gonorrhoea treatment (30%), Candidiasis (20%), Syphilis treatment (10%), Others (10%)	STI sub -working group
Drugs for mental health	Cost per case. Assumed 60% of people in ART need psychotherapy and 19% receive drugs. Assumed a distribution of case as Antidepressant (7%), Mood stabilizer (5%), Anxiotic (5%), Antipsychotics (2%).	Mental health sub-working group
Adherence follow up.	Considered transport allowance for Health care providers and community health workers to 60% of the patients receiving ARVs.	Adherence sub-working group
Blood transfusion	Cost per unit. Assumed the cost included in the strategic plan of blood transfusion.	Strategic Plan Blood transfusion



Condoms procurement	Cost per male and female condoms	UNDP database
Counseling and testing	Cost per test and control tests. Assumed 64% of the test done with HIV rapid test – Elisa and 36% with finger prick tests.	Quantification report – November 2012
Male circumcision consumables	Cost for both Prepex and surgical circumcision. Assumed a distribution of 85% Prepex and 15% surgical MC	Report “PrePex Cost analysis paper Draft _17May13” - May 2013
Family planning drugs and consumables (integrated in HIV services)	Cost per patient. Assumed a distribution of integrated cases as: injectable (61%), implant (13%), condoms male and female.	HIV-family planning integration desk MoH
Outreach interventions to key population	Considered cost of peer education, IEC material, training of peer educators, Mobile VCT and STI screening, lubricants, involvement in planning and coordination, sensitization surrounding communities, supporting materials.	Prevention working group
PMTCT	Considered cost of transportation IEC material, training of peer education of mothers, cost of ARV and Exposed infants prophylaxis, training private facilities, awareness campaign, facility upgrades, community tools for infants follow up, testing of pregnant mothers, EMTCT surveillance.	Prevention working group  Quantification report – November 2012
PEP	Cost per case0 Considered treatment for 30 days	Quantification report – November 2012

**Figure 19: Key assumptions on impact computations and cost effectiveness**

**Scenario 1B**

Infection averted	2013	2014	2015	2016	2017	TOTAL
ARV	7.207	8.835	9.425	9.997	10.578	46.041
STI	11.977	12.305	12.608	12.894	13.172	62.955
Male circumcision	2.359	4.714	6.603	6.603	6.603	26.881
FSW interventions	1.204	1.334	1.471	1.615	1.765	7.389
SDC Interventions	725	959	1.193	1.427	1.638	5.944
PMTCT	2.556	2.865	2.942	2.908	2.889	14.160
MSM interventions	40	52	64	86	109	352
Youth 15-24 male/female	261	295	330	337	384	1.608
<b>TOTAL</b>	<b>26.330</b>	<b>31.359</b>	<b>34.636</b>	<b>35.868</b>	<b>37.138</b>	<b>165.330</b>





**Cost per infection averted**

<i>USD</i>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>AVERAGE</b>
ARV	4.570	4.270	4.345	4.382	4.477	4.404
STI	2	2	2	2	2	2
Male circumcision	1.695	1.741	1.942	1.847	1.954	1.865
FSW interventions	1.297	1.231	1.303	1.260	1.341	1.289
SDC Interventions	60	92	57	91	58	72
PMTCT	2.581	2.191	2.245	2.147	2.152	2.256
MSM interventions	2.117	1.364	1.289	1.191	1.105	1.314
Youth 15-24 male/fem:	13.427	11.112	14.640	11.902	13.822	13.026
<b>AVG</b>	<b>1.852</b>	<b>1.828</b>	<b>1.943</b>	<b>1.911</b>	<b>2.003</b>	<b>1.913</b>

**COST**

<i>USD</i>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>TOTAL</b>
ARV	32.935.410	37.719.842	40.949.865	43.803.881	47.351.005	202.760.003
STI	25.496	26.325	27.288	28.305	29.186	136.601
Male circumcision	3.999.870	8.204.429	12.820.832	12.192.985	12.904.508	50.122.625
FSW interventions	1.562.067	1.641.921	1.916.388	2.033.976	2.366.995	9.521.347
SDC Interventions	43.855	88.152	67.968	129.238	95.805	425.018
PMTCT	6.596.986	6.278.513	6.605.139	6.242.881	6.218.247	31.941.765
MSM interventions	85.359	70.264	82.509	102.925	120.962	462.019
Youth 15-24 male/fem:	3.509.452	3.278.793	4.833.868	4.015.990	5.310.827	20.948.930
<b>TOTAL</b>	<b>48.758.495</b>	<b>57.308.239</b>	<b>67.303.857</b>	<b>68.550.182</b>	<b>74.397.536</b>	<b>316.318.309</b>

