Republic of Rwanda

Ministry of Health

NATIONAL HIV/AIDS TARGETS
2018-2020-2030

2015
Towards Ending the AIDS Epidemic in Rwanda by 2030

A Healthy People. A Wealthy Nation

RWANDA BIOMEDICAL CENTER

UNAIDS
PREFACE
ACKNOWLEDGEMENTS
1. **INTRODUCTION AND BACKGROUND**

a) Demographic Characteristics of Rwanda

The Fourth Rwanda Population and Housing Census (RPHC4) conducted in 2012 established that the population of Rwanda was 10,515,973 residents, of which 52% are women and 48% men. This represented an increase by 2.4 million from 2002, with an average annual growth rate of 2.6%. The population of Rwanda is projected to increase to 11.3 million in 2015, 12.7 million in 2020 and 15.7 million in 2030. The population of Rwanda is young, with the average age of 22.7 years. The young people aged 15-24 represent 20.4% of the total population. With a population density of 415 persons per square kilometre (km), Rwanda has the highest population density in the Eastern and Southern African (ESA) region. Annual births were 310,000 in 2012, projected to increase exponentially to 330,000 in 2015, to 344,000 in 2018, 352,000 in 2020 and 383,000 in 2030. The population of Rwanda is still largely rural, with 83% living in rural areas. The urban population is however projected to continue to increase to 27% of the total population by 2030.

1) The current and evolving epidemiology of HIV and AIDS.

a) General Population

Rwanda experiences a mixed HIV epidemic, generalized in the adult population, with an adult HIV prevalence rate stabilized around 3 percent (DHS 2010) with aspects of a concentrated epidemic among certain key populations at higher risk of HIV infection. 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 %] in 2005 (DHS 2005) [2.78–3.36%] in 2010 (DHS 2010). HIV prevalence in 2010 remained higher among women (3.7 %) than among men (2.2 %). The sex differentiation is particularly pronounced among young people, where young women 20-24 are five times more infected than men of the same age (Figure 1). HIV prevalence is also higher in urban areas (7.1%) than in rural areas (2.3%) (Figure 2), maintaining the same trend as reported in DHS 2005 data. On the basis of Spectrum estimates it is proposed that the stable HIV prevalence at 3% is due to a proportional decrease of new infections and in AIDS-related deaths.
Figure 1 HIV prevalence by age for men and women (DHS 2010)

Prevalence (%)

Age Groups

Males | Females

15-19 | 0.8 | 0.3
20-24 | 2.4 | 0.5
25-29 | 3.9 | 1.7
30-34 | 4.2 | 3.5
35-39 | 7.9 | 3.8
40-44 | 6.1 | 7.5
45-49 | 5.7 | 5.8

City of Kigali 7.3%

West 2.7%

North 2.5%

South 2.4%

East 2.1%
b) Key Populations

HIV prevalence is very high in key populations. More than half (51%) of Female Sex Workers (FSW) surveyed in 2010 were HIV positive (FSW BSS 2010). There is no national data on HIV prevalence in Men who have sex with men (MSM). In 2009, an exploratory study of MSM in Kigali brought attention to their HIV risk and their role in the Rwandan epidemic (Chapman J. et al, 2011). Stable heterosexual relationship constitutes another group of identified key population. According to a study conducted in Kigali, Rwanda and Lusaka, Zambia in 2005 it was estimated that 60.3% to 94.2% of new heterosexual acquired infections occur within marriage or cohabitation (Kristin L. Dunkle, Lancet 2008). The discordant couple which is a subgroup of stable heterosexual relationship represents 2% of cohabitating couples (DHS 2010).

The FSW and other groups with high prevalence are core transmitters of the HIV to bridging groups, which are mainly clients of female sex workers, HIV negative partner in discordant couples and female partners of MSM (figure 6).

Figure 6: Core transmitters of HIV in Rwanda

In an effort to understand the dynamics of the HIV epidemic across risk groups, the Rwanda Biomedical Centre (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. The model uses existing demographic, epidemiological and behavioural data for each risk group from national, regional and international sources. The modelling 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 7).
The findings of the MOT showed that:\n
1) 65% of new infections were projected to occur in stable heterosexual relationships. In the Rwandan context, this risk group was considered to include a large number of new infections among sero-discordant couples.

2) 20% of new infections were projected to occur among FSW networks, composed of FSW, their clients and their non-paying partners.

3) 10% of new HIV infections were projected 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) 5% percent new infections were projected to be among the MSM population.

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

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

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

1: Rwanda DHS 2010
2: BSS FSW, Rwanda 2010
3: BSS MSM, Kampala, Uganda
4: MSM Study, Rwanda, 2011

On the basis of these results, these priority groups are identified as national key populations. Combination prevention and treatment packages have been developed for each one of these target groups, with introduction of treatment as prevention according to new national guidelines.

1 MOH/RBC, Rwanda MOT 2012
c. Mother to Child Transmission

The very strong PMTCT national programme has almost reached universal coverage and the transmission rate of HIV through MTCT has been substantially reduced. The 2013 EPI Spectrum showed a decline of new HIV infections among children between 0-14 of age to less than 500 per year. It is estimated that 90% of new infections within this age group 0-14 are related to MTCT. The success of the PMTCT program contributes to, and also continues to benefit from, the strong Mother and Child Health (MCH) program. This linkage has contributed to the reduction in maternal and child mortality in the country.

d. Care and support Programs

The quality of life for PLHIV has improved in past years with a reduction of morbidity and mortality among PLHIV. High coverage of ART, early initiation of treatment by widening eligibility criteria and improvement in diagnosis and treatment of opportunistic infection have markedly decreased morbidity and mortality. Based on national estimates 2013, annual deaths have decreased from 7,300 in 2008 to 4,500 in 2013, which represents a 38% decrease in 5 years.

NATIONAL RESPONSE TO HIV/AIDS

The Government of Rwanda adopted a multisectoral response to the HIV epidemic. This was after realization that the impact of AIDS epidemic was far reaching and beyond the Health sector. Various policy and programmatic instruments have been put in place to control the spread and mitigate the impact of the AIDS epidemic on society and the economy.

1.2.1 Policy responses to the AIDS epidemic

Vision 2020

The Government of Rwanda’s guiding development strategy, Vision 2020 includes six pillars describing strategies for achieving the country’s long-term development objectives, among which prevention, control, and mitigation of HIV/AIDS is clearly highlighted.

The Second Economic Development and Poverty Reduction Strategy (EDPRS II) 2013-2018

The EDPRS II is the current medium-term strategy for achieving Rwanda’s Vision 2020 goals, providing the framework for multi-sectoral action on HIV/AIDS. The HIV response is mainstreamed in the strategic plan for each of seven economic sectors. The EDPRS II encompasses all actors working in each sector, including private ventures and communities, with each sector under the leadership of a Government Ministry.

Health Sector Strategic Plan III

The Third Rwandan Health Sector Strategic Plan (HSSP III) provides strategic guidance to the health sector for six years, from July 2012 to June 2018. HSSP III is inspired and guided by the Vision 2020. The HSSP III aims to address HIV epidemic by: Reducing new HIV
infections; Reducing morbidity and mortality associated with HIV&AIDS; Ensuring equal opportunities for vulnerable groups and people living with HIV; and strengthening the quality management of HIV&AIDS

**National Strategic Plan on HIV and AIDS (NSP 2013-2018)**
The NSP on HIV/AIDS 2013-2018 is the reference document for all sectors, institutions, and partners involved in the fight against HIV and AIDS. The NSP sets ambitious goals for its timeframe of execution: lowering the new infection rate by two thirds; halving the number of HIV-related deaths; and ensuring that PLHIV have the same opportunities as all others (NSP 2013-2018). The NSP includes indicators and targets, making it possible to track progress and follow up on commitments made. It will be evaluated both at mid-term and at the end of the cycle. This evaluation serves as the basis for mid-course corrections and prioritizations to reach the targets within the timeframe.

**National Accelerated Plan for Women, Girls, Gender Equality, and HIV (2010-2014)**
This is a four-year strategy to accelerate actions to promote gender equality and reduce women’s and girls’ increased risk and vulnerability to HIV. The plan aims to ensure that: women’s and girls’ equal access to HIV services is guaranteed by an evidence-informed HIV response; political commitment is matched by concrete actions and resources for women and girls; and the rights of women and girls and their empowerment are protected and promoted in the context of HIV.

**Programmatic Response to HIV**

1.3 National programmatic responses to the AIDS epidemic

1.3.1 Scale up of services

Rwanda has made extensive gains in the prevention of HIV using five integrated components: HIV testing and counselling (HTC), prevention of maternal-to-child transmission (PMTCT), male circumcision, Behaviour change communication (BCC), and HIV treatment for scaling up prevention and treatment services at all levels. As a result of the increasing capacity to provide HTC services, the number of clients tested for HIV has grown steadily in the country. The decentralization of PMTCT services has resulted in the extension of the coverage of PMTCT services throughout the country. Antiretroviral (ARV) treatment has also been decentralized in order to improve geographical accessibility and the continuity of care for people living with HIV.

Great strides have been taken to ensure geographic and financial accessibility to health and HIV services to all citizens. 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+ continues to play a prominent and active role at the national and decentralized levels in the implementation of this plan.

Figure 8: Coverage of HIV services in Rwanda (HIV Annual Report 2013-14)

1.3.2 Integration of gender and HIV
Following the findings of the gender assessment of Rwanda’s national HIV response, 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 are integrated in all the interventions.

1.3.3 Integration of HIV services in the broader health system
The integration of HIV services has been achieved at various levels. This includes linkages between preventive and curative services, and between community-based and facility-based interventions. Integration of HIV services into the health system has remained a strong characteristic of the Rwandan HIV response, and this has benefited both the HIV program and the health system in general.

1.3.4 Capacity building
Strengthening the capacities of healthcare providers to ensure optimal efficiency of interventions has also contributed to the success of the response. Training and recruitment of specialized medical doctors and task shifting has helped to meet increasing demand for high quality care. Substantial investment has also been made to strengthen the organizational and
institutional capacity of the laboratory system, supply chain, as well as maintenance of medical equipment.

Progress on the 2015 HLM targets

In 2011, Rwanda signed the United Nations General Assembly Political Declaration on HIV and AIDS: Intensifying our efforts to eliminate HIV and AIDS. The Declaration reaffirmed country commitments to halt and reverse the spread of HIV and AIDS and set ambitious targets to be achieved by 2015. Below is a summary of progress on the targets. By June 2014, the country had made significant achievements and was on track to achieving almost all the adopted targets (Target 9 on restricted travel is not relevant to the country), though the target on closing the financial gap is progressing slower than the rest.

1. Reduce by half, sexual transmission of HIV
Rwanda’s current national HIV strategy prioritizes reducing sexual transmission and aims to halve HIV transmission by 50% by 30th June 2013. The country appears to be on track to reach the target by 2015, although no data is currently available to assess progress towards reducing new HIV infections. Since 2005, HIV prevalence in the general population has been stable at 3.0%. The country has adopted strategies to increase the availability and accessibility of condoms, develop minimum prevention packages for all key populations at higher risk of HIV infection, and promote voluntary male circumcision. Adoption of test and treat for female sex workers, MSM and discordant couples will contribute to achieving this goal. Challenges to achieving the target include the limited availability of funds and human resources devoted to HIV prevention and the difficulty of promoting long-term behaviour change.

2. Reduce transmission of HIV among people who inject drugs by 50% by 2015
Injecting drug use is not present or widely practiced in Rwanda and is not a contributing factor in HIV transmission. This target is therefore neither relevant nor a priority for Rwanda.

3. Eliminate new HIV infections among Children
Rwanda is currently on track to meet the target on eliminating new HIV infections among children and reducing AIDS-related maternal deaths by 2015. The NSP prioritizes prevention of mother-to-child transmission of HIV and in 2012 the country adopted a new national strategy for the elimination of mother-to-child transmission. Rwanda has scaled up the availability of PMTCT services nationwide, strengthened the capacity of health care providers to provide comprehensive services, and is now promoting Option B+ (ART for pregnant and breastfeeding mothers. The results from program data show that the mother to child transmission rate is currently below 2%. Challenges to reach the target include low utilization of modern family planning methods among HIV-positive women.
4. Increase number of People on Treatment
Rwanda is currently on track to provide universal access to lifesaving antiretroviral treatment for those in need by 2015. Rwanda has prioritized the early initiation of ARVs and ART is provided free of charge to those who are eligible. The country has also promoted task shifting of ART services to nurses to accommodate a broad geographic distribution of services. In December 2014, 95% of adults and children based on the current eligibility criteria. This means that two thirds of PLHIV (66.8%) were on ART. Challenges to achieving the target include financial and human resource constraints to implementing new treatment guidelines for early initiation of ART and the limited geographic availability of HIV testing, counselling and treatment services.

5. Halve the number of TB related deaths among People Living with HIV
Rwanda is currently on track to reduce tuberculosis deaths in PLHIV by 50% by 2015. The NSP 2013-2018 prioritizes the provision of TB screening and treatment for people living with HIV and aims for 80% of HIV-positive patients to be screened for TB in HIV care and treatment settings. The WHO Stop TB standards including intensified TB case finding, infection control measures, and provision of Isoniazid preventive therapy to people living with HIV are being implemented in all health facilities. According to TB program data, HIV prevalence among all TB cases registered in 2012 was 26% against 48% in 2004 when the TB-HIV program was initiated. TB incidence in HIV-positive patients was estimated at 25 per 100,000 in 2012 (WHO Global TB report 2013). The mortality of HIV+ TB clients was estimated at 6.5 per 100,000 in 2012. Challenges include limited diagnostic capacity, infection control measures, and difficulties in diagnosing extra pulmonary TB in HIV-positive people.

6. Closing the resource gap
Closing the resource gap and ensuring sustainable financing of the national HIV response is a clear priority for Rwanda, although the country is not currently on track to meet the target by 2015. Development aid to Rwanda has declined significantly in recent years, including funds for HIV. Under its Global Fund grant funding, Rwanda meets a required $17 million per year contribution to its HIV programs. In 2015/2016, this amount is projected to be $19 millions. Although Rwanda has been successful in achieving the domestic funding targets, given the decline in Global Fund HIV grant funds, it cannot meet the growing gap of donor HIV funds. Rwanda is exploring strategies to minimize costs and increase efficiency gains within the sector and plan a long term strategy to increase domestic funding for HIV program. A sustainable financing plan is currently under development to ensure that the country is ready to mitigate effects of the unstable funding situation.
7. Eliminate gender inequalities and gender-based abuse and violence and increase the capacity of women and girls to protect themselves from HIV.
Rwanda is currently on track to reach the target of eliminating gender inequalities and increasing the capacity of women and girls to protect themselves from HIV. The NSP recognizes the role of gender inequality in the spread of HIV and prioritizes the response to gender-based violence. The country also has a specific strategy on women, girls, gender equality and HIV. The HIV response has promoted women’s empowerment and prevention of GBV. National laws and policies protect and promote the equal rights of women and girls and in 2012 the Rwanda adopted a new national policy and strategic plan against GBV. Sociocultural beliefs and practices that continue to promote inequality and tolerate violence are the key challenges to ensuring women and girls can protect themselves from HIV.

8. Eliminate stigma and discrimination against people living with and affected by HIV through promotion of laws and policies that ensure the full realization of all human rights and fundamental freedoms
In spite of all the progress the national HIV response has made, stigma associated with HIV infection is still prominent, as documented by the Stigma Index Surveys and the DHS. Auto-stigmatization by PLHIV continue to be cited as a challenge in this area, the mentality of PLHIV vis-à-vis their health status often serve as a barrier to them accessing services. Although there is progress in reduction of stigma and discrimination results, some challenges remain. This includes low level of awareness among the PLHIV about their rights and laws that protect these rights. The PLHIV Stigma Index study in 2013 showed that more than half of PLHIV (53%) had never read nor discussed the laws and policies that protect their rights. The HIV NSP 2013-2018 aims at significantly reducing the level of stigma and discrimination. This is done through continuous sensitization against stigma, discrimination, and auto-stigmatization of people affected and infected by HIV. With the leadership of RRP+, GOR ensures that the PLHIV are greatly involved in the fight against stigma and discrimination.

9. Eliminate HIV-related restrictions on entry, stay and residence
Rwanda has no HIV-related restrictions on entry, stay and residence

10. Strengthen Integration
Rwanda is on track to meet the target to strengthen HIV service integration, which is a priority of the country’s national development and HIV policies. The NSP prioritizes the linkage of HIV services, including integration within the broader health system and linking of different modes of service delivery (i.e. clinical and community-based interventions). HIV is further mainstreamed in all national economic and development strategies and across all
sectors. The HIV response has promoted integration of HIV services with those for TB, STIs, viral hepatitis and in broader sexual and reproductive health and family planning service delivery. Challenges to integration include financial and human resources constraints, including continued donor support for vertical and not integrated programmes.

**NATIONAL TARGETS FOR 2018**

Rwanda developed and is currently implementing its HIV NSP 2013-2018. The NSP targets to reduce new HIV infections by two-thirds from 2010 baselines; Reducing by half HIV-related deaths from 2010 baselines; while ensuring that people infected and/or affected by HIV have the same opportunities as the general population. The table below summarizes the targets for NSP 2013-2018.

Table 2: National HIV targets 2018

<table>
<thead>
<tr>
<th>Indicators</th>
<th>2010 Baselines</th>
<th>2018 targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage Indicators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>People living with HIV who know their serological status</td>
<td>90%</td>
<td>No Target</td>
</tr>
<tr>
<td>People living with HIV who know their status and are initiated in antiretroviral therapy</td>
<td></td>
<td>No target</td>
</tr>
<tr>
<td>PLHIV eligible based on national guidelines</td>
<td>87.5%</td>
<td></td>
</tr>
<tr>
<td>Viral load suppression among people on antiretroviral therapy</td>
<td></td>
<td>95%</td>
</tr>
<tr>
<td>Pregnant mothers living with HIV receiving antiretroviral therapy</td>
<td></td>
<td>95%</td>
</tr>
<tr>
<td>Infants living with HIV receiving antiretroviral therapy</td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>Access to services for Key Populations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voluntary medical male circumcision uptake (15-59 years)</td>
<td>13%</td>
<td>66%</td>
</tr>
<tr>
<td>Condoms and lubricants distributed and sold per adult (15–64 years old), in specific countries</td>
<td>Condoms = 41,882,584/ 6,521,561 = 6.4</td>
<td></td>
</tr>
<tr>
<td>Social and behaviour change programme</td>
<td></td>
<td></td>
</tr>
<tr>
<td>● Access to communication of prevention and demand generation for population (15-49 years)</td>
<td></td>
<td>65%</td>
</tr>
<tr>
<td>Impact indicators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduction in new HIV infections (baseline 2010)</td>
<td></td>
<td>66%</td>
</tr>
<tr>
<td>Indicators</td>
<td>2010 Baselines</td>
<td>2018 targets</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>----------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Reduction in new HIV infections among children (baseline 2009)</td>
<td></td>
<td>98%</td>
</tr>
<tr>
<td>Reduction in Stigma (baseline 2010)</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Reduction in AIDS-related deaths (baseline 2010)</td>
<td></td>
<td>50%</td>
</tr>
</tbody>
</table>

1. **HIV testing among the PLHIV**

The RDHS 2005 found out that 31.4% of individuals that tested HIV positive in the study, had previously been tested and received results. This percentage had increased to 89.9% in RDHS 2010. This happened in the same period the Government of Rwanda scaled up testing and counselling services country wide through health facilities and mobile testing and counselling programs.

![Figure 9: HIV testing among PLHIV (Source: Rwanda DHS 2005 and DHS 2010)](image)

**HIV testing among the Key Populations**

The national strategic plan 2013-2018 identified the key population for the national response. The coverage of prior testing among these key populations in varied or some not yet known. The BSS among the sex workers carried out in 2010 revealed that 86.6% of the surveyed FSW knew their HIV status (had an HIV test within 12 months preceding the survey). The study also showed that 98% of the FSW that had an HIV test collected their results. The exploratory study on the risky behaviours among the MSM in Kigali revealed that more than three out of five (63%) had taken an HIV test and three quarters of them had taken the test within 12 months before the study. There is however gap in the data as the percentage of HIV positive that already know their status.
Testing and counselling among the young people is almost same as the general population, but higher in those aged 20-24 years (41.7% among males and 47.2%) among females.

Access to ART by PLHIV
The national ART guidelines have been modified as new science emerges and also as the ART program matures. By end of December 2014, nearly 135,000 PLHIV were on ART, based on the existing guidelines. Since 2012, PMTCT option B+ was launched and all identified HIV+ pregnant women were enrolled on ART. In 2013, WHO recommended increase the threshold for initiating ART to CD4<500 cells per mm3 and Rwanda will shift from < 350 CD4 cells per mm3 to 500 CD4 cells per mm3 in 2014. These changes in eligibility continue to affect the reported trend in coverage. With the new infections and deaths reducing, measuring ART coverage among all PLHIV makes more sense now than it did before. According to UNAIDS Estimates 2014, Rwanda has about 200,000 PLHIV (180,000-210,000). With 133,574 on ART, this means that 66.8% of PLHIV are currently accessing ART. With the shift in threshold to CD4<500 cells per mm3, adoption of test and treat for female sex workers, MSM, sero-discordant couples, this coverage will significantly increase by end of the current NSP in 2018.

Access to ART by Pregnant women living with HIV
Rwanda’s PMTCT program is implementing Option B+ using Tenofovir-based regimen to all HIV positive pregnant women, taken as lifelong treatment. From July 2014, the PMTCT program started to implement the WHO 2013 recommendations endorsed by the GOR (initiation of ART to pregnant women as soon as they are tested HIV). In addition to HIV testing during the ANC visits, negative pregnant women are re-tested in maternity at the onset of labor, in order to increase the chances to capture women who seroconverted during their pregnancies.

The number of pregnant women receiving ART in PMTCT has steadily progressed since 1999 at the program start-up. Between July 2013 and June 2014, 89% of all expected HIV positive pregnant women received ART based on the Option B+ guidelines. The national strategic plan targets to achieve 95% of all expected HIV positive pregnant women on ART.

Access to ART by Infants and Children
HIV-infected children aged 0-14 years are identified at different entry points: postnatal care, immunization visits, family-centered HIV testing and counselling And referrals from community programs to health facilities. HIV testing is offered either voluntary (VCT), initiated by the provider (PITC), or at the community level during outreach programs. For children younger than 18 months, DNA PCR testing is conducted at 6 weeks, then an HIV antibody test is conducted at 9 months and 18 months for those tested negative at 6 weeks. ART prophylaxis is provided to HIV exposed infants in all health facilities. According to the EPI-SPECTRUM estimate there are 17,270 HIV-infected children in Rwanda. The current national ART guidelines stipulate that: all children under five years, irrespective of immunological [CD4 cells count level] and clinical status; HIV-infected children with WHO stage 3 and 4; children with HIV-TB, HIV-HBV, or HIV-HCV co-infection; and children
with CD4 cells count <350 irrespective of clinical status should be enrolled on ART. At the end of June 2014 the HIV National Program has enrolled a total of 2,212 children in the pre-ART Program, and 7,853 children on ART according to enrolment criteria of. The paediatric ART coverage is still low at 60.6% compared to those in need, but very low, at 45% when compared to all estimated HIV-infected children in the country. RBC is working with partners to increase this coverage as priority of the NSP.

Viral load suppression among people on antiretroviral therapy
Decentralization of viral load (VL) machines has increased the quality of biological follow-up, and patients on treatment now receive at least one VL test per year. The country currently monitors the viral load suppression after 12 months of treatment (< 20 copies/ml). From the program data, by June 2014, 82% had achieved viral load suppression, 12 months after initiation of treatment. The Country targets by 2018, this percentage to be 95%.

Voluntary medical male circumcision (VMMC)
Since 2008, the VMMC program has been added to the existing HIV prevention interventions. Among the Rwandan male population aged 15-49 years, the RDHS 2010 estimated male circumcision prevalence at 13%. In addition to surgical VMMC, the MoH has adopted the use of PrePex® device, a non-surgical method for VMMC as a cost-effective strategy of scaling up VMMC. Early infant circumcision is being implemented as a long term strategy for HIV prevention. Male circumcision constitutes one of key prevention interventions with the objective of increasing the prevalence of males circumcised from 13% to 66% by December 2018. The results from the VMMC program showed that 138,711 males were circumcised between July 2012 and June 2013 and 129,580 between July 2013 and June 2014. The majority of males circumcised are aged between 15-29 years.

Condoms and lubricants distributed
The national prevention strategy also focuses on condom distribution as well as demand generation. Efforts continue to invest in the promotion of condom use to increase demand and build awareness around condoms. The supply of the condoms is a major focus to ensure that supply meets the demand. The condoms are both distributed freely in all public health facilities, also through social marketing.

As a result of these efforts, the 2010 RDHS reported that 85.6% and 90.7% of young women and men respectively aged 15-24 knew where they can get a condom. This was an increase from the 2005 reported 37% and 73% in women and men respectively. While 80% of female sex workers used condoms at last sex with a client, the proportion for consistent condom use with a paying sexual partner in the month preceding the survey remains disappointingly low. It rose slightly from 28% in 2006 to 33% in 2010. The Current NSP targets to distribute 41 million male and female condoms by 2017/2018, an increase from the 2010 baseline of 20 millions.

The current NSP identifies MSM as key population and targets to provide specific prevention packages, specific to their needs. These include: provision of water-based lubricants;
development and distribution of specific guidelines for prevention and clinical follow-up; development of IEC materials specific to MSM; and outreach programs through peer education programs, provision of information on HIV and STI, referral for HIV testing, promotion of condom use and STI diagnosis.

Social and behaviour change programme
NSP addresses the issue of low levels of comprehensive knowledge on HIV/AIDS in the country, through interventions targeting the general population through electronic and print media, use of community health care workers and special interventions in work places. Appropriate interventions are also to be designed and implemented for people with disabilities. Through the integration of HIV into the comprehensive sexuality education curriculum, the education sector will contribute to increasing HIV knowledge as well as affecting behaviour change among young people and promoting preventive behaviours.

TARGETS FOR 2020 AND ENDING THE AIDS EPIDEMIC BY 2030

1. Rationale for the targets
The rationale for setting new national targets are four-fold:
   1. Targets drive progress, encourage innovation, and promote accountability for results
   2. Targets need to be revised according to new scientific evidence (eg. clear scientific evidence of the preventive benefits of early treatment initiation and the related need to monitor viral suppression of people receiving ART)
   3. New targets (for 2020 and 2030) are needed to guide action beyond 2015, the end period for MDGs and 2018, the end period for the current NSP.
   4. New targets have the potential to strengthen the broader HIV response and rigorous monitoring will help Rwanda ensure epidemic control and achievement of an AIDS free generation.

2. The process of setting targets
The following factors were taken into consolidation in setting the national targets.

   ● The indicative global targets
   The indicative global targets for all indicators selected to be appropriate to the country were used as reference to inform the draft national targets.

   ● The targets set for the current HIV NSP (2013-2018)
   The country has implemented the first year on the national strategic plan 2013-2018. The targets for the NSP were developed and validated by all the stakeholders, therefore calling same stakeholders to go through the same process again was not considered appropriate. The time horizon of 2020 will be only 2 years after the current NSP and thus the assumptions used in setting the NSP targets were considered to still hold. Where the coverage indicators
are not part of the NSP targets, they were computed using the numerators and denominators that appear in the NSP.

The assumptions used the development of the NSP 2013-2018 targets

<table>
<thead>
<tr>
<th>Program Area</th>
<th>Key variable</th>
<th>Assumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care and Treatment</td>
<td>CD4 Eligibility</td>
<td>&gt;=500</td>
</tr>
<tr>
<td></td>
<td>Test and Treat</td>
<td>Female sex workers, SDC, TB/HIV, HB/HIV, pregnant women</td>
</tr>
<tr>
<td></td>
<td>ART coverage (based on the above eligibility and Test and treat)</td>
<td>Pediatric - 96%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Males – 88%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Females – 90%</td>
</tr>
<tr>
<td></td>
<td>PMTCT Coverage</td>
<td>95%</td>
</tr>
<tr>
<td>Prevention</td>
<td>Male Medical Circumcision coverage</td>
<td>66%</td>
</tr>
<tr>
<td></td>
<td>Condom Coverage</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Number of Tests (HTC)</td>
<td>3 millions</td>
</tr>
<tr>
<td></td>
<td>Key population coverage with programs</td>
<td>FSW – 80%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MSM – 60%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SDC – 80%</td>
</tr>
<tr>
<td>Impact Mitigation</td>
<td>Education Support coverage</td>
<td>35%</td>
</tr>
<tr>
<td></td>
<td>Socio-economic support coverage</td>
<td>100%</td>
</tr>
<tr>
<td>Coordination and strategic Information</td>
<td>Contribution to HIV program running costs</td>
<td>25%</td>
</tr>
<tr>
<td>Health system Strengthening</td>
<td>% contribution of HIV to Health Sector Budget</td>
<td>30%</td>
</tr>
</tbody>
</table>

Source: Table 5: Summary of the key variables of the different scenarios – NSP 2013-2015 page 72.

- Consultation with partners and civil society organizations
  The first meeting to introduce retargeting happened at the retreat to develop the joint TB/HIV concept note for Global Fund, that took place in Rubavu 14th -17th July 2014. This meeting was attended by various government agencies, international partners including the UN, United States Government/PEPFAR, Civil Society Organizations, the Rwandan Network of PLHIV (RRP+) and private sector. To avoid parallel process, retargeting was also included on agendas for various meetings to ensure that everyone understands the rationale and expected results.

- A team to develop draft targets for discussion
A small team was formed by the Rwanda Biomedical Centre to work on the draft national targets that informed the discussions and consultations. The team reviewed various documents and program data to inform the targets.

**National Targets**

1. Demographic characteristics of Rwanda in 2018, 2020 and 2030

The National Institute of Statistics Rwanda (NISR) projects that the population of the Rwanda will be 15,712,645 in 2030. As part of the exercise, additional population projections were not considered, to ensure that the HIV program uses the same population data as all other government programs. The table below shows the population projections for the 2015, 2018, 2020 and 2030 period.

Table 3: Projected Population

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Population</th>
<th>Total adults (15-59)</th>
<th>Young People (15-24)</th>
<th>Adolescents (10-19)</th>
<th>Annual Births</th>
<th>Children (0-17)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
<td>Males</td>
<td>Females</td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td>2015</td>
<td>11,262,564</td>
<td>2,877,025</td>
<td>873,827</td>
<td>2,242,647</td>
<td>1,081,051</td>
<td>1,065,256</td>
</tr>
<tr>
<td>2018</td>
<td>12,089,721</td>
<td>3,152,855</td>
<td>921,614</td>
<td>2,417,610</td>
<td>1,152,416</td>
<td>1,122,748</td>
</tr>
<tr>
<td>2020</td>
<td>12,663,116</td>
<td>3,353,961</td>
<td>967,189</td>
<td>2,575,621</td>
<td>1,179,796</td>
<td>1,140,558</td>
</tr>
<tr>
<td>2030</td>
<td>15,712,645</td>
<td>4,239,595</td>
<td>1,036,655</td>
<td>3,025,507</td>
<td>1,207,794</td>
<td>1,118,421</td>
</tr>
</tbody>
</table>

Source: NISR 2012²

2. Coverage and impact targets

Rwanda aspires to end the AIDS epidemic by 2030. The table below shows the agreed national targets for HIV response for the 2020 and 2030 time horizons.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Rwanda NSP 2018 targets</th>
<th>Midterm targets 2020</th>
<th>To ensure ending AIDS by 2030</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coverage</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People living with HIV who know their serological status</td>
<td>No Target</td>
<td>90%</td>
<td>95%</td>
</tr>
<tr>
<td></td>
<td>Already at 90% in 2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(for adults 15-49 years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific targets for Key populations identified in the NSP</td>
<td>No targets as we don’t have the baseline. Targets will be set after the Mid Term Review of NSP 2013-2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FSW, ,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSM,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDC,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People living with HIV who know their status and are initiated in antiretroviral therapy</td>
<td>83%</td>
<td>85%</td>
<td>95%</td>
</tr>
<tr>
<td>PLHIV eligible based on national guidelines</td>
<td>87,5%95%</td>
<td>95%</td>
<td>95%</td>
</tr>
<tr>
<td>Viral load suppression among people on antiretroviral therapy</td>
<td>90%</td>
<td>95%</td>
<td>95%</td>
</tr>
<tr>
<td>Pregnant mothers living with HIV receiving antiretroviral therapy</td>
<td>95%</td>
<td>95%</td>
<td>&gt;95%</td>
</tr>
<tr>
<td>Indicators</td>
<td>Rwanda NSP 2018 targets</td>
<td>Midterm targets 2020</td>
<td>To ensure ending AIDS by 2030</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>----------------------------------------</td>
<td>----------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Infants living with HIV receiving antiretroviral therapy</td>
<td>76% (concept note)</td>
<td>90%</td>
<td>&gt;90%</td>
</tr>
<tr>
<td>Access to services for Key populations</td>
<td>No target available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Percentage of female sex workers receiving a Comprehensive prevention package</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Percentage of men who have sex with men receiving a Comprehensive prevention package</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PrEP (Female Sex Workers, Men who have Sex with man, Serodiscordant couples))</td>
<td>No targets and not identified as key interv. in Rwanda, promoting TasP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voluntary medical male circumcision uptake (male 15-59 years circumcised)</td>
<td>66% (for 66% (for 15-59 years)15-59 years)</td>
<td>66%</td>
<td>80%</td>
</tr>
<tr>
<td>Voluntary medical male circumcision uptake (15-29 years)</td>
<td>No target (66 %?)</td>
<td>70%</td>
<td>80%</td>
</tr>
<tr>
<td>Condoms and lubricants distributed and sold per adult (15–64 years old), in specific countries</td>
<td>Condoms = 41,882,584/6,521,561 = 6.4</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Lubricants per MSM****</td>
<td>No targets as we don’t have baselines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condoms per FSW</td>
<td>No targets as we don’t have baselines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicators</td>
<td>Rwanda NSP 2018 targets</td>
<td>Midterm targets 2020</td>
<td>To ensure ending AIDS by 2030</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>-------------------------</td>
<td>-----------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Social and behaviour change programme</td>
<td>63.5%</td>
<td>70%</td>
<td>80%</td>
</tr>
<tr>
<td>• Access to communication of prevention and demand generation for population (15-49 years)</td>
<td>65%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potential impact to be expected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduction in new HIV infections (baseline 2010)</td>
<td>66%</td>
<td>75%</td>
<td>90%</td>
</tr>
<tr>
<td>Reduction in new HIV infections among children (baseline 2009)</td>
<td>98%</td>
<td>98%</td>
<td>&gt;98%</td>
</tr>
<tr>
<td>Reduction in Stigma (baseline 2010)</td>
<td>No targets, the NSP, doesn’t give figures, the aim is to significantly reduce stigma and discrimination giving the same opportunities to PLHIV as the general population</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduction in AIDS-related deaths (baseline 2010)</td>
<td>50%</td>
<td>–</td>
<td>90%</td>
</tr>
</tbody>
</table>
**STRATEGIES FOR REACHING THE TARGETS**

In order to achieve the goal of ending the AIDS epidemic by 2030, the following strategies will be employed

1. **Continuum of services:**
   - HIV Testing: Linking people who have tested to treatment and prevention services
   - Enrolling and retaining people in pre-ART care
   - Initiating ART including ensuring long-term retention, adherence and supplies
   - Achieving and maintaining viral load suppression.

2. **Reaching the marginalized** - as more data becomes available, the marginalized groups (young people, key populations) are identified. Strategies to serve these groups will continue to be designed.

3. **Addressing critical enablers:** human rights, supply systems, health services and civil society involvement will continue to be emphasized.

4. **Handing over where possible** - The involvement of other sectors in the HIV response in Rwanda has been enormous. At this crucial stage, the involvement will include taking lead in implementing programs aimed at impact mitigation and mitigation of vulnerabilities that increase risk. The education, social welfare and private sector will play a major role.

5. **Prioritise based on relative cost-effectiveness.** The NSP 2013-2018 was developed based on the cost effectiveness. This will continue to guide future HIV strategies.

Monitoring and evaluation of the progress towards the targets

1. **Use HMIS and routine reporting where possible – no parallel systems.** 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. This will continue to be improved. With increased provision of services to Key populations, the routine monitoring system will be updated to monitor service delivery to key and priority populations. The community-based monitoring systems will also be strengthened, with special efforts to monitor interventions happening out of health facilities as well the stigma and discrimination. The M&E systems will continue to be assessed and improved to ensure that the existing and emerging data gaps are identified and addressed.

2. **Evaluate cost-effectiveness to allow better allocation of resources**

3. **Learn from others** – HIV program in Rwanda is a learning program and has continued to learn from emerging evidence and advancements in science. Adoption of approved best practices that are applicable in Rwandan Context will continue.
OPPORTUNITIES FOR ACHIEVING THE TARGETS.

1. **STRONG POLITICAL COMMITMENT**

The leadership of the country continues to demonstrate strong commitment to the national HIV/AIDS response. This political will has been a major factor for increasing government investments as well as resource mobilization. This will continue and will facilitate progress towards these targets.

2. **INTEGRATION OF HIV INTO DEVELOPMENT PLANS AND GOALS**

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. 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 (2020) is to maintain the HIV prevalence at the current level (3 percent of adult population). HIV will remain part of the national development goals beyond 2020 to ensure that the gains are not lost and its impact on the society and economy continues to be minimised. The second Economic Development and Poverty Reduction Strategy (EDPRS 2) 2012-2017 identifies HIV as a cross cutting issue that affects all the sectors. It also appears predominantly in the Schools Health Policy 2014 and school health strategic plan 2014-2018. At the decentralized levels, all district development plans already include HIV/AIDS as one of the key cross cutting issue to address in order to achieve their development goals. This is expected to continue beyond 2018.

3. **STRONG HEALTH SYSTEM**

A functioning and well-structured health system is important to reach the goal of ending AIDS by 2030. The Government of Rwanda prioritized investments in the health systems since 1994. The national HIV programs benefited from these investments and also made significant contributions. The government will continue to improve the governance and functioning of the health system by investing in infrastructure and equipment, procurement and distribution systems, increasing quality and quantity of human resources for health while adopting new technologies as they become available.

The MOH has developed an HRH strategic plan covering the period 2011 – 2016 with focus on: ensuring a coordinated approach to HRH planning across the sector; increasing the quantity of HRH through increased numbers of trained and equitably distributed staff; increasing the quality of HRH, including improved productivity and performance of health workers; and increased capacity to plan, develop, regulate and manage HRH. The country has managed to almost double the number of doctors and nurses over the last decade to achieve a doctor/population ratio of 1/16,001 and nurse/population ratio of 1/1,291. Going forward, the government will also work on strengthening human and technical skills, and to equitably (re)distribute the health providers.
4. **INCREASED ROLE AND INVOLVEMENT OF THE EDUCATION SECTOR**

According to the population and housing census of 2012, 93% of the people aged seven and 12 (the official age for primary school) was attending primary school and 74% of the 1.37 million people aged between 13 and 18, eligible, to attend secondary school, was attending school. Also the Gender Parity Index (GPI) was closer to 1, revealing that boys and girls have equitable access to Education. This presents an opportunity to reach young people with HIV programs through schools. HIV is already part of the curriculum and Comprehensive sexuality education has also been developed and will be rolled out. With implementation of the Nine Year Basic Education (9YBE) program - a compulsory, free education for all school children, as well as Girls’ education policy that aims at ensuring that boys and girls have equal access to education opportunities, the role of education sector in the HIV program will be enhanced. The School Health Policy and Strategic Plan identify HIV/AIDS education as one key component. The Ministry of Health and other ministries will continue to provide technical support to ensure that the Ministry of Education reaches the goals in the school health policy.

The education sector will also play an important role in getting to Zero Stigma and Discrimination. The PMTCT program has already made tremendous achievements and survival rates on ART are ever improving. This means that many HIV + children and young people will be starting and remaining in schools. The MoH will support the readiness of the education sector to monitor and eliminate stigma and discrimination in schools. Teachers and school administrators will be equipped and given capacity in this regard.

5. **CONTINUED MULTISECTORAL RESPONSE TO HIV**

Beyond the education and health sector, all the EDPRS sectors will continue to implement relevant HIV interventions. For example, the Ministry of Youth and ICT will continue to implement HIV prevention activities targeting out of school youth, Ministry of Defence will also continue to implement HIV programs with in the Military personnel and their families. The ministry of local government will continue to support integration of HIV/AIDS programs in district development plans as well as multisectoral coordination at district level. Ministry of Gender and Family Promotion (MIGEPROF) will continue to ensure that the family remains at centre of all health interventions as well as working of sexual and Gender Based Violence prevention.

6. **CONTINUED CIVIL SOCIETY ORGANIZATIONS INVOLVEMENT**

In the past decade, the involvement of civil society organizations has increased tremendously. This involvement has grown beyond being service providers to advocacy and technical support. Five umbrella organizations coordinate the work of civil society organizations. These are: 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 Network of journalists in the
fight against HIV/AIDS (ABASIRWA). The civil society will continue to support the national program through being voice of the underserved, advocacy and technical assistance.

### 7. **Private Sector Involvement and Innovative Financing Mechanisms**

The national HIV/AIDS response succeeded in bringing on board the private sector and increasing its involvement. The Private Sector Federation set up well functioning HIV Unit, mandated to support and oversee HIV committees set up in private enterprises. The government will continue to involve the private sector in implementing workplace programs.

In line with the health financing policy and strategic plan, that include the involvement of the private sector in investing in health, the HIV/AIDS programs will also benefit from these investments.

### 8. **Increasing Domestic Investment in Health and Social Protection Programs**

The government of Rwanda has continued to invest in health programs, including HIV/AIDS. This trend is expected to continue. The development of the sustainable financing plan for HIV will explore opportunities to keep HIV programs running. This will include looking at innovative sources of funding.

### Potential Obstacles and Challenges

1. **Decreasing External Financing for HIV Programs**

   There was an increase in international funding from early 2000 which enabled the country to attain extraordinary achievements in the national HIV response. The current trend, however, shows a rapid decline in external funding for HIV, while domestic funding increases at a slower rate. This is likely to affect successful implementation of programs. That said, the country is currently developing a financial sustainability and transition plan for the national HIV/AIDS response. To ensure that the country remains with capacity to keep people living with HIV on life saving ART, while controlling new infections, the costs will remain high. There will be need for continued resources mobilization as well as innovative financing mechanisms.

2. **Urbanization and HIV**

   The country’s Vision 2020 estimated that the urbanization rate will be 35% by the year 2020. After the 2012 population and housing census, the NISR estimates that this rate will be 22% in 2020, increasing to 30% in 2030. This means that nearly one third of the total population will be living in urban areas, which will call for an intensification of urban-oriented HIV and
AIDS strategies, plans and programming. There will be a need to ensure that HIV and AIDS programs keep up with increase in urbanization.

**WAY FORWARD FOR RWANDA**

The retargeting exercise provided the country with an opportunity to reaffirm its commitment to ending the AIDS epidemic by 2030. The country has already recorded significant achievements in reducing AIDS-related deaths and new infections. The NSP 2013-2018 will see further improvements on these achievements and this retargeting exercise demonstrated the country’s efforts to sustain the gains. The targets will continue to be monitored and reported on and will be adjusted based on the results achieved while embracing new scientific developments.
REFERENCES
MOH/RBC, Behavioral and biological surveillance survey among Female Sex Workers, 2010
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Kristin Dunkle et al., New heterosexually transmitted HIV infections in married or cohabitating couples in rural Zambia and Rwanda, The Lancet, June 2008
MINECOFIN, Rwanda Demographic and Health Survey, 2010