

KINGDOM OF SWAZILAND
MINISTRY OF HEALTH

ANNUAL HIV PROGRAMS REPORT



Monitoring & Evaluation Unit
Strategic Information Department



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LIST OF ACRONYMS

ANC	Antenatal Care
ART	Antiretroviral Therapy
CIHTC	Client Initiated HIV testing and counselling
BCC	Behaviour Change Communication
CSO	Central Statistics Office
DHS	Demographic Health Survey
EGPAF	Elizabeth Glazier Paediatric AIDs Foundation***
ENSF	Extended National Strategic Framework
HMIS	Health Management Information Systems
HSS	HIV Sero-surveillance Survey
HSRP	Health sector response plan
HTC	HIV Testing and Counselling
ICAP	
IEC	Information Education & Communication
IHM	Institute of Health Management
LLAPLa	Life Long ART for Pregnant and Lactating women
MCP	Multiple Concurrent Partnerships
MDGs	Millennium Development Goals
MoH	Ministry of Health
MoT	Modes of Transmission
MTCT	Mother to Child Transmission
NAP	National Action Plan
NERCHA	National Emergency Response Council on HIV and AIDS
NGO	Non-Governmental Organization
NR	Non-Reactive
NRL	National Reference Laboratory
NSF	National Strategic Framework
PEP	Post Exposure Prophylaxis
PIHTC	Provider Initiated HIV testing and counselling
PLHIV	People (person) Living with HIV
PMTCT	Prevention of Mother to Child Transmission
QA	Quality Assurance
RPR	Rapid Plasma Reagin (syphilis screening test)
SADC	Southern Africa Development Community
SDHS	Swaziland Demographic Health Survey
SDGs	Sustainable Development Goals
SHIMS	Swaziland Incidence Measurement Survey
SID	Strategic Information Department
SNAP	Swaziland National AIDS Program
STI	Sexually transmitted infection
UNAIDS	Joined United Nations Program on HIV & AIDS
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
URC	
VCT	Voluntary counselling and testing
VMMC	Voluntary Medical Male Circumcision
WHO	World Health Organization

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EXECUTIVE SUMMARY

Swaziland has made strides in the fight against HIV and AIDS in the last decade. According to the report of the Swaziland HIV Estimates and Projections Models (2015), HIV prevalence for 15-49 years will decline at a very low rate from 28.05% in 2013 to 27.97% in 2016 with a further decline to 27.46% projected in 2016. There has been an increase in HTS uptake, ART initiations, ART retention and reduction in positivity rate for the general population.

Over the years, HIV testing shows an upwards trend, from 153 996 in 2010 to 431 187 in 2015. The positivity rate among general population has declined from 23% in 2010 to 6% in 2015. A total of 12, 177 males were circumcised in 2015. From those circumcised, the highest proportion (64%) were males age group 10-14. Among the regions, Manzini had the highest proportion (31%) of males circumcised.

Twenty percent (7074) of the pregnant women come in for their first ANC booking with an already HIV positive status and of these 68% were on ART. HTS uptake among pregnant women has slightly decrease from 97% in 2014 to 90% in 2015. Positivity rate at ANC is 37% with 93% of these women on ART. Of note is the increase of positivity rate among infants 6-8 weeks. Over the years positivity rate for these age category has been at 2% but since 2014 it has increased to 3%.











There has been an increase in the number of health facilities providing ART services focussing mainly in the provision of comprehensive HIV services through accreditation from SNAP. With HTS being the gateway to care and treatment services, all people testing HIV positive people are linked and enrolled into a basic package of care referred to as Pre-ART which intends to delay the progression to AIDS stage, prevent and manage common opportunistic infections, and provides an opportunity for early ART initiation. In 2015, 77% of the people initiated on Pre-ART were screened for TB, 4% were diagnosed with TB and 1% were initiated on TB treatment. Those started on CTX and IPT accounted for 55% and 3%, respectively.

22, 797 people (1 187 children 0-14 years and 21 610 adults 15 years and older) were newly initiated on ART in 2015 with 70% of these initiations done at clinics and 30% done at the hospitals and health centres. These are the fruitful results of the successful scale-up and decentralization of HIV care services to the lower level health facilities.




The country has also experienced an increase in the number of people currently on ART in both children and adults from 125, 421 in 2014 to 147,274 in 2015. This translates into 82% ART coverage based on ART eligibility criteria (those in need of ART). Retention at 36 months has increased from 83% to 84% for children and 78% to 83% for adults in 2014 and 2015, respectively. Among PLHIV eligible for TB screening, the country had surpassed the 2015 target stipulate in the eNSF (2014-2015) of 70%, 97% of those diagnosed with TB were enrolled on TB treatment.

Other major achievements for the program include the fully roll-out of new Integrated HIV guidelines and also adoption of the UNAIDs globally targets; the 90-90-90 which stipulates that 90% of PLHIV must be diagnosed, of those, 90% must be put on treatment, of those 90% must be virally suppressed.

HIV KEY PERFORMANCE INDICATORS

Program Area	Indicator	Baseline 2011	Targeted in 2015	2015 Achievement	Target 2018	Progress status
HTS	Increased proportion of Sites providing HTS	83%(201/242) 2010	85%		95%	
	# of people who have tested for HIV in the last 12 months and know their HIV status	178,823	500 000	413 660 (86%)	700 000	
VMMC	Number of males aged 10-49 who are circumcised	Data not available	15 000	11 269 (75%)	21 000	
	Percentage of new born male infants circumcised within 2 months	1149	5 000	Data not available	10, 000	-
Condoms	# of condoms distributed per year	6,5Million : Male Condoms	10 million : Male condom	10 733 323 : Male Condoms	14millions: Male condom	
		202 100 : Female Condoms	350 000: Female condom	376,051 : Female Condoms	500 000:Female condoms	
ART	Percentage of eligible adults aged 15 and older who are currently receiving ART.	84%	90%	83%	95%	
	Percentage of eligible children aged 0-14 who are currently receiving ART.	63%	80%	72%	90%	
	Percentage of adults and children with HIV still alive and known to be on treatment 36 months after initiation of ART.	68%: Adults	75% Adults	83%	80%	
66%: Children		70% Children	84%	75%		
HIV/TB	% of PLHIV enrolled in care who are screened for TB	Not available	70%	100%	100%	
	Percentage of HIV+ patients screened negative for TB who are given INH	Not available	50%	Not available	60%	
	% of ART and/ or TB health facilities implementing IPT	Not available	Not available			

Note that HTS indicator tracks # of tests not # of people tested.

Legend key	
	Target off-track, requires action
	Target on-track, likely to be achieved
	Target achieved.



CHAPTER 1: INTRODUCTION

1.1. Background

Swaziland has made strides in the fight against HIV and AIDS in the last decade. According to the report of the Swaziland HIV Estimates and Projections Models (2015), HIV prevalence for 15-49 years will decline at a very low rate from 28.05% in 2013 to 27.97% in 2016 with a further decline to 27.46% projected in 2016. The slight decrease can be attributed to reduction in the number of new infections starting at 9,530 in 2013 to 8,658, 8,359 and 7,886 in 2015, 2017 and 2020 respectively. Both SHIMS (2011) and Estimates and Projections models (2015) support the evidence of declining new HIV infections. According to the report of the Swaziland HIV Estimates and Projections Models (2015), adults 15-49 years, HIV incidence will decline over the years from 2.23 in 2013 to 1.72 in 2018 and 1.58 in 2020. SHIMS (2011) reported that the HIV incidence was 2.38% among adults aged 18-49 years.

Epidemiological data for Swaziland indicates that the HIV epidemic has a gender and age bias. SHIMS 2011 reported an increase in new HIV infections in women aged 18-19 years, 20-24 years and 30-34 years and men aged 30-34 years. Due to this data, the country has prioritised interventions targeting adolescents and youth as most at risk populations.

The provision of PMTCT has evolved over the years with the introduction of more efficacious regimens and strategies. The four prong approach is implemented in Swaziland which involves Prong 1; mainstreaming of HIV services into other health care entry points; Prong 2; provision of family planning to HIV positive women who do not intend having children; Prong 3; Prevention of Mother to Child Transmission and Prong 4; the provision of Treatment and Care to HIV positive pregnant and lactating women. According to the Sentinel surveillance 2010, HIV prevalence amongst pregnant women was at 41%. According to the 2014 HIV annual report, the positivity rate for exposed infants aged 6-8 weeks was 3% which is a slight increase from the 2% reported in 2011. This trend presents a challenge for the country if it is to achieve the 1% target stipulated in the eNSF 2014-2018. To combat mother to child transmission of HIV, the country has adopted the new WHO HIV guidelines whereby all HIV positive pregnant and lactating women are initiated on Life Long ART.

1.2. Methodology

This report demonstrates the performance of all HIV prevention, care and treatment for 2015. Data used was from routine data which is submitted by health providers to the regional health offices (SID) in monthly summaries for HTS and PMTCT. However for ART data, ART files and prescriptions are submitted at mother facilities for capturing. Patient level data was also sourced from the Client Management Information System that has been implemented in 3 pilot sites. The methodology employed for this report follows a retrospective longitudinal review of patient data. The data was collected, sorted, cleaned, and analysed by a team comprising SID M&E Officers, development partners, SNAP, HIV implementing partners and other stakeholders in a report writing workshop organised by the Strategic Information Department.

Simple descriptive statistics were run to produce frequencies that were stratified by independent categorical variables including sex, age group, and region. Results were mainly presented in frequency tables and graphs where applicable.

As a limitation, the team encountered some challenges during the data management and analysis process which revolved around certain inconsistencies and data quality issues such as incomplete data. In addressing those challenges, remedial actions were taken where comprehensive data quality profiling, data tracing and verification, and cleaning of data was performed.

1.3. Strategic directions

The achievement of impact level indicators will help the country fulfil its global and regional commitments. The strategic objectives listed below will be used to measure the outcomes (achievements) of the programmes:

1. 50% reduction of new HIV infections among adults and 90% reduction of new HIV infection among children by 2015.
 - Reduce incidence rate of HIV from 2.9% (2011) to 1.4% (2015) and maintained through to 2018.
2. Avert 15% deaths among PLHIV and in particular those with TB/HIV co-infection.
 - Increase life expectancy for females from 47.2 years to 50 years (2015) and 55 years (2018), and for males from 43.2 years (2015) and 50 years (2018).

The background of the page is a solid blue color. It features a collage of semi-transparent images related to HIV/AIDS. At the top, there are images of pills, some labeled 'HIV'. Below these, there are images of hands, one showing a red mark. In the center, there is a poster with the text 'HIV AIDS' and a graphic of two figures. At the bottom, there is an image of a bar of soap. The collage is overlaid with several white-outlined rectangular boxes of varying sizes and positions, creating a layered, geometric effect.

CHAPTER 2: PROGRAM DESCRIPTION

2.1. Program coordination

Swaziland National AIDS Program (SNAP) was established within the MoH in 1987 to respond to the HIV epidemic whose core mandate is to coordinate health sector based interventions as they account for more than 70% of the total HIV response.

SNAP deliver its services through several thematic areas as shown below;

Prevention	Treatment and Care
<ul style="list-style-type: none">● HTS● VMMC● STI● Condon Promotion● Post Exposure Prophylaxis● Social and behaviour change communication● Most at risk population● PMTCT	<ul style="list-style-type: none">● HTS● Pre ART and ART● TB/HIV● Community Based Care and Support (CBCS)● Psychological care● PMTCT

There are strategic documents in place which helps to guide implementation of HIV/AIDS services within the program; the Health Policy of 2006, National Multi -Sectoral HIV and AIDS Policy (2006), the National Health Sector Strategic Plan 2014 – 2018, the Health Sector Response Plan to HIV and AIDS 2009 – 2014, the HIV Prevention policy and the eNSF (2014- 2018).

2.2. Leadership and Governance

The Swaziland National AIDS Program comprises of a decentralized leadership and governance structure. The national office works closely with the regional offices in the provision of services under SNAP.

The Program Manager and Deputy Program Manager are responsible for the coordination and management of the health sector response to HIV. The Program Manager reports to the MoH Directorate. The Deputy Program Manager supports the regional offices to function well. There are also 5 technical leads under the Program Manager who help between service delivery as well as technical assistance (including Program management).

Below is the Organogram for the Swaziland National AIDS Program:

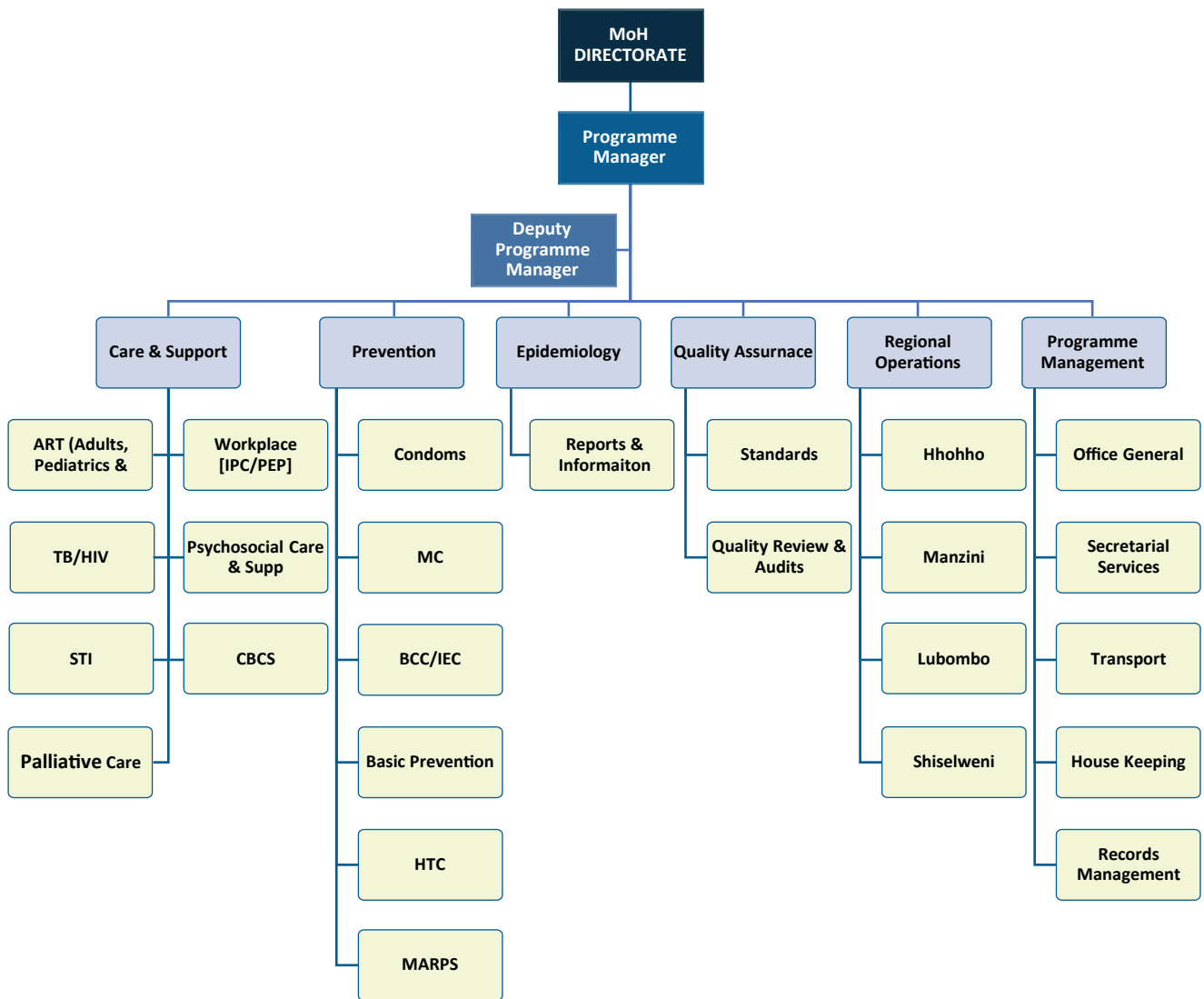


Figure 1: Organogram for the Swaziland National AIDS Program

2.3. Human Resources

The National AIDS program has a coordinator who leads all functions in each thematic area. Within each thematic area, there are leads who are responsible to provide technical assistance and coordinate all activities as shown in the table below;

Table 2: Staff Composition within SNAP

Functions within SNAP	Staff Composition	
	Coordinators	Officers
Coordination and Management of the Health Sector response	Program Manager Deputy Program Manager	
HIV Testing Services (HTS)	HTS National Coordinator HTS community Coordinator	-
Social and Behavior Change (SBC)	vacant	-
Condom Promotion and Distribution	vacant	-
Male Circumcision	National Coordinator	vacant
Customized Intervention for Key populations	National Coordinator	Program Officer
Treatment , Care and Support for PLHIV	National Coordinator Guidelines Coordinator Adherence Physio social Coordinator	Senior Officer (2)
TB/HIV	TB/HIV Coordinator	-
Palliative Care	National Coordinator	Program Officer
Sexual Transmitted Infections	National Coordinator	-
Regions	Regional AIDS Coordinators (4)	Psychological Care and Support officers (4)

2.4 Technical and Financial support

Despite the economic challenges that the country had faced over years, the Government of Swaziland remains committed to funding HIV response services, commodities and supplies. This is clearly explained by the fact that Government continue to maintain a budget allocation for HIV services such as budget for procuring of ARVs and others. In ensuring efficiency in HIV service delivery, development and implementing partners had also played a pivotal role such as capacity building for health care workers and provision of resources at all levels.

2.5. Strategic Information

In order to measure the program performance, data is essential. To ascertain the program's performance within the Ministry of Health, the Swaziland National AIDS Program and M&E Unit work in collaboration to lead the monitoring and evaluation of all the thematic areas which are within the program. Both SNAP and M&E have devoted staff which ensures the use of data to make informed decision.

Data used is collected and collated at facility level from standardized, registers, then submitted at regional level for capturing into the Health Management Information System (HMIS) and electronic Patient Management Information System. Validation of data is done at all level; facility, regional and national level. For further validation, data quality assessments are conducted semi-annual in all regions. For some indicators which are not routinely collected, surveys are conducted. However, not reporting through a single channel for some indicators still remain a challenges within the HIV program.

2.6. Service Coverage

HIV Prevention

Service coverage has increased over the last five years in the provision of HIV prevention services. However, in 2015 an increasing trend has only been observed in ART coverage. According to HMIS database, the number of facilities providing HIV testing and counselling has declined from 205 in 2013 to 221 in 2015. A downward trend has also been seen among facilities providing PMTCT services, from 162 facilities in 2013 to 157 in 2015. ART services provision showed an upwards trend, from 133 sites (SAM 2013) to 170 sites in 2015. The table below also depicts that among the three HIV prevention services, Manzini has the highest number of sites when compared with other regions. Worth mentioning is that Shiselweni had the least facilities in provision of all the below mentioned HIV prevention services.

Table 3: HIV services provided by regions

Region	HTS	PMTCT	ART
Manzini	78	46	60
Lubombo	53	40	37
Hhhohho	55	40	41
Shiselweni	35	31	32
Grand total	221	157	170

Source: HMIS 2015

The background of the page is a solid blue color. Overlaid on this are several semi-transparent rectangular images. At the top, there is a large white-outlined rectangle. Below it, there are several smaller white-outlined rectangles of varying sizes, some overlapping each other. These rectangles frame various images: a close-up of pills, hands being washed, a poster with the text 'HIV AIDS' and a graphic of two figures, and a bar of soap. The text 'CHAPTER 3: Program Results' is centered in a white box that overlaps the middle of these images.

CHAPTER 3:

Program Results

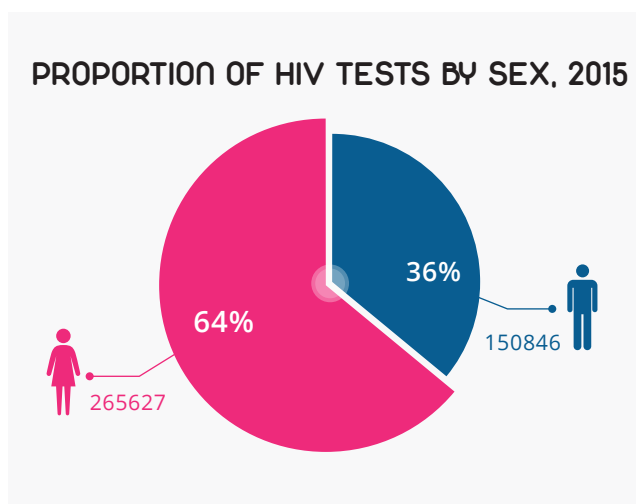
3.1. HIV Testing Services

The program has strived to provide universal access to HIV prevention, care, treatment and support services that are sustainable and of high quality. Access to HIV care and treatment services begins with HIV testing services, which take place at health facilities and during community campaigns and events. Integration of HTS as a core service at all points is encouraged in all health facilities. Furthermore, all eligible clients who undergo testing are linked to care and treatment services to ensure enrolment to pre- ART and/or ART initiation.

3.1.1. HTS for general population

The Swaziland HIV Incidence Measurement Survey (SHIMS) conducted in 2011 showed an HIV prevalence rate of 31% and an incidence of 2.38 % in age group 18-49 years. According to 2015 estimates and projections, the HIV prevalence will stabilize at an average of 28% till 2020. It further showed that the prevalence is higher in females when compared to males, by over 10% on average from 2013 to 2020. In younger people aged 15-24, HIV prevalence in females is more than twice that of males in the same group, 16.0% and 7.1% in 2013 respectively. The total number of people living with HIV will slightly increase, from 211, 231 in 2013 to 244, 946 in 2020. With the aforementioned epidemiological trend of HIV, HIV testing services (HTS) remain a critical entry point for HIV prevention, treatment, care and support services in the country.

This subsection presents the total numbers of HIV anti-body tests from the HTS database, as well as DBS tests from the EID database over the past 5 years, 2010 to 2015. In addition to the total figures, outcomes will be presented and discussed by region, sex and age.



Source: HMIS 2015

The figure presents the number of individuals who were tested for HIV for both males and females. A total of 416 473 tests were conducted in 2015 which is an increase of 6.4% from 2014 and 37% from 2010. Worth noting is that females (64%) continue to have the highest number of tests conducted when compared to males (36%) regardless of the continuous efforts which the program had put in place to scale-up HIV testing among males.

Figure 2: Number and proportion of patients tested for HIV by sex, 2015

3.1.2. Knowledge of HIV status and HTS positivity rate by sex

The knowledge of HIV status among women age 15 -49 years has improved from 47.3% in 2010 to 66.5% in 2014 and for men age 15-59 years from 32.2% in 2010 to 55.3% in 2014 according to MICS (2014). Improved knowledge and understanding of HIV and availability of free ART has encouraged more people to undertake an HIV test. Furthermore, the experience of people living longer and fulfilling lives on ART has been a motivator for people to know their HIV status. The Swaziland National AIDS Program has a key performance indicator of “% of people tested and received results”. This indicator is required for both tracking the eNSF and global reporting.

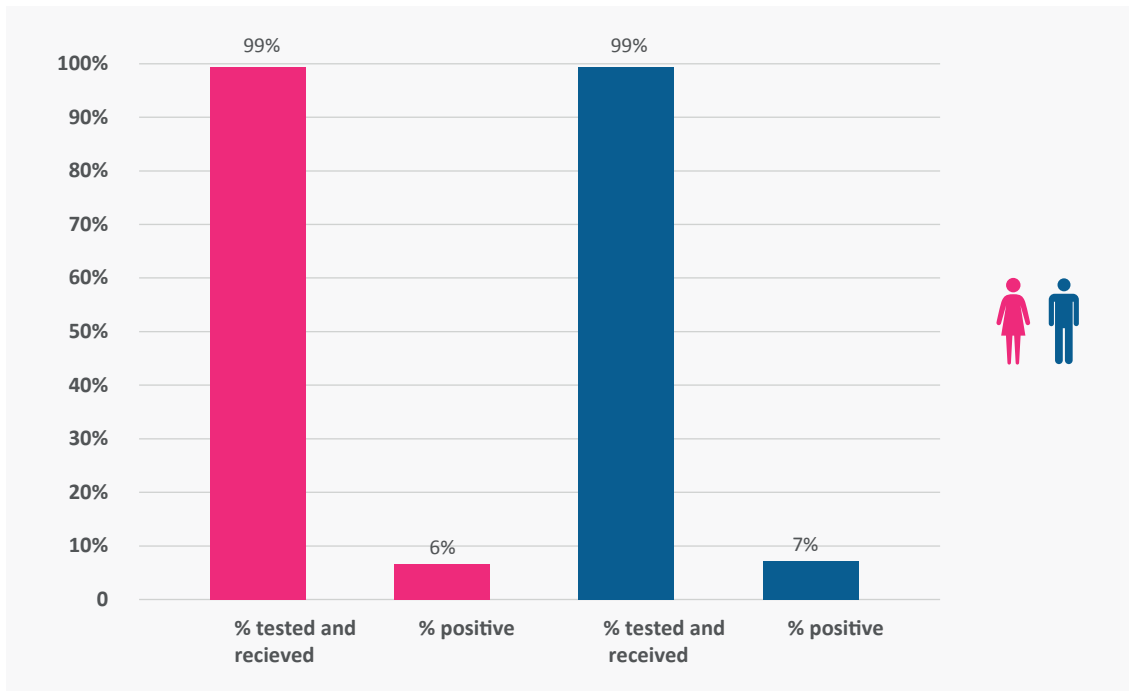


Figure 2: Known HIV status and tested HIV positive by sex

Figure 2 presents the proportion of patients who tested and know their HIV status and also the positivity rate among sexes in 2015. As shown in the figure above, in both sexes, 99% of those who tested know their HIV status which illustrate that the country is doing exceptional well in terms of ensuring that those who test for HIV receive their HIV results. Worth noting is that although females had the highest number of test conducted, their positivity rate is slightly lower (6%) than those of males (7%). This can be attributed to the fact that males present late, already sick for health service (poor health seeking behavior).

HTS POSITIVITY RATE AMONG AGE GROUPS AND SEXES

According to the HIV estimates and projections 2015, HIV incidence is higher among females age 15-49 years at 2.27 compared to males age 15-49 years at 1.64 in 2015. These incidence is projected to decline in 2016 to 2.17 for female and 1.57 for male in the already mentioned ages.

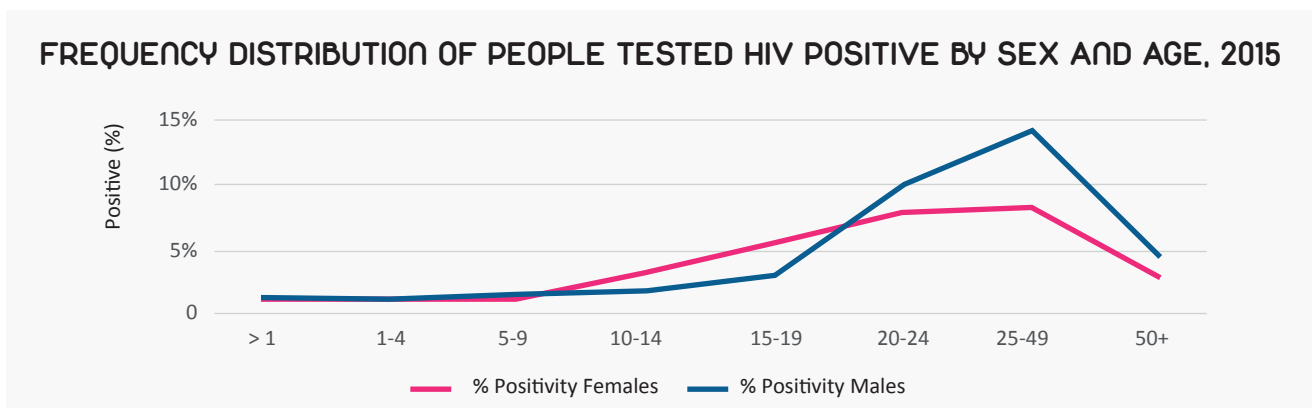


Figure 3: Frequency distribution of patients tested HIV positive by sex and age, 2015

Source: HMIS 2015

Figure 3 above shows the positivity rate among males and female for different age groups in 2015. Worth mentioning is that on average, males (7%) shows a high positivity rate when compared to females (6%) which is the contrary for previous years. Among the age groups, males experienced the highest positivity rate in age group 25-49 (14%) whereas females have a peak at age group 20-49 (8%) years. Positivity rate is higher among women within the age group 10-19 years whereas males are higher within the age groups of 20 – 49. A significant decline from those above 50 years is also observed in both sexes with females having the lowest proportion than males.

Table 4: Number of tests conducted by sex and region, 2015

Region	Females			Males			Grand Total		
	Number Tested	Number Received Results	Number HIV+	Number Tested	Number Received Results	Number HIV+	Number Tested	Number Received Results	Number HIV+
HHOHHO	68 842	68 331	4 046	37 651	37 314	2 508	106 493	105 645	6 554
LUBOMBO	58 317	58 187	2 911	33 087	32 988	1 802	91 404	91 175	4 713
MANZINI	92 695	91 709	6 825	58 365	57 818	4 107	151 060	149 527	10 932
SHISELWENI	48 428	48 247	2 392	24 439	24 341	1 291	72 867	72 588	3 683
NATIONAL	268 282	266 474	16 174	153 542	15 2461	9 708	421 824	418 935	25 882

The table above presents the number of tests conducted by region in 2015. In all the regions, females have the highest number of tests conducted when compared to males. Manzini had the highest number of test conducted in both sexes than other regions followed by Hhohho and Shiselweni having the least. From those who tested and received results, all the regions did exceptional well. These is evident by the fact that in all the tests conducted in the regions, 99% of the clients received their results. Worth mentioning is that, Manzini had the highest (7%) positivity rate followed by Hhohho (6%) with Shiselweni and Lubombo having the least (5%) positivity rate.

CMIS Pilot Sites

In an effort to improve the quality of data, the Ministry of Health is piloting a patient centered health information system (CMIS) in 3 facilities, namely Siteki PHU, KSII and Nhlanguano Health Center. Of note is that, KSII has been implementing for a full year, with Siteki PHU started in April and Nhlanguano Health Center in May. This system capture individual tests as opposed to number of tests conducted. The transition of HMIS from paper based to electronic system in the country could result in possible changes in the reported program data compared to the past.

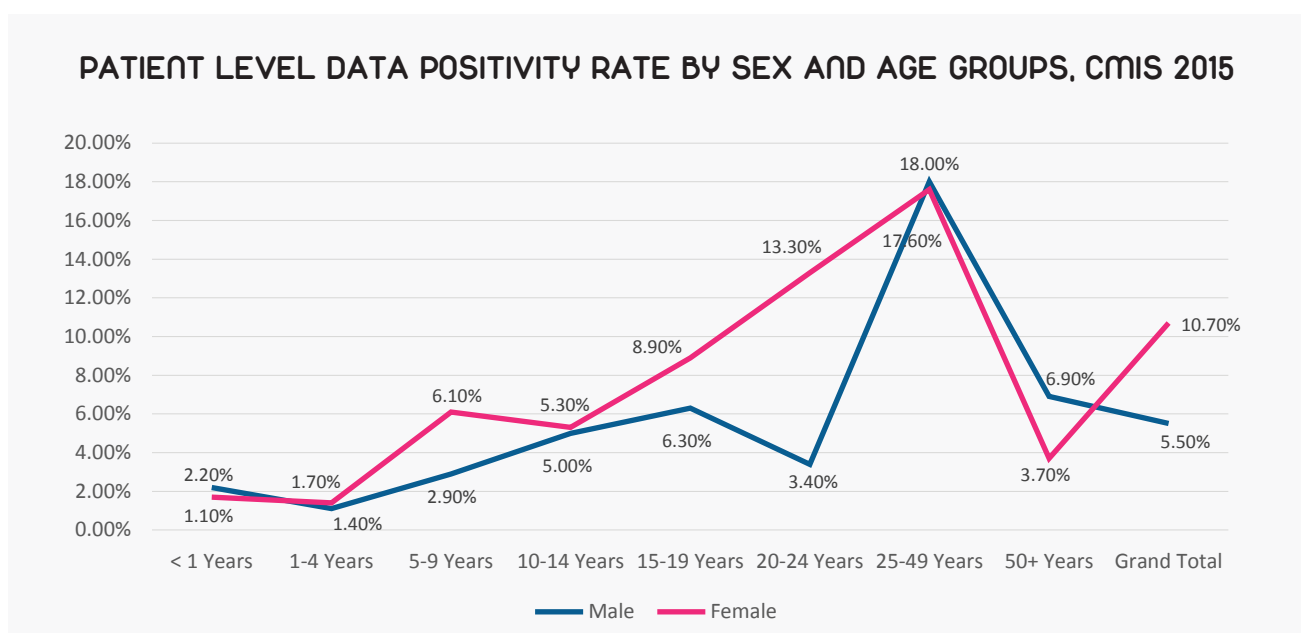
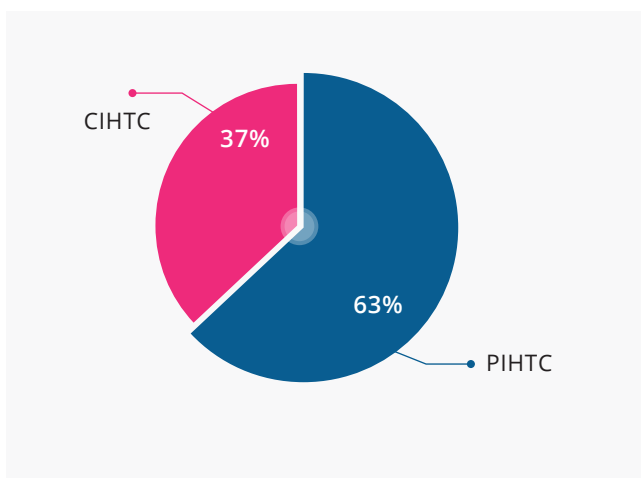


Figure 4: Positivity rate by sex and age group

Figure 4 above presents the positivity rate for males and females among different age groups in the three CMIS pilots sites mentioned earlier. From this system there are fewer males (5.5 %) who tested HIV positive in contrast to females (10.7%). A peak is observed in age group 25-49 in both sexes. A drastic decline for those more than 50 years is seen in both males and females.

HTS Approaches

This subsection will compare the performance of Swaziland’s two main HTS approaches, namely PIHTS and CIHTS. According to the Swaziland Integrated HIV Management guideline 2015, CIHTS is when an individual voluntarily seeks HIV testing and counselling while PIHTS is HIV testing and counselling offered by a Health Care Provider.



Among the two approaches, PIHTS continue to be the most preferred approach among clients testing for HIV. In 2015 CIHTS shows a slightly increase from 12% in 2014 to 37% in 2015. This can be attributed to the ongoing national campaigns; HTS and couples months.

Figure 5: Frequency distribution of HIV tests performed by HTS approaches, 2015

HTS TRENDS

In an effort to scale-up HTS among the entire populace, the country had reached a level where it cannot continue with business as usual. This is evidence by the strengthening of prevention strategies such as putting more emphasis on partner and couple testing, review of HIV guidelines to address needs of key populations, universal testing for 9 and 18 months, continuous training of health care provider, placement of HTS counselors in the high volume sites as well clinics and also prioritizing the provision of HTS as an entry point to all core HIV programs.

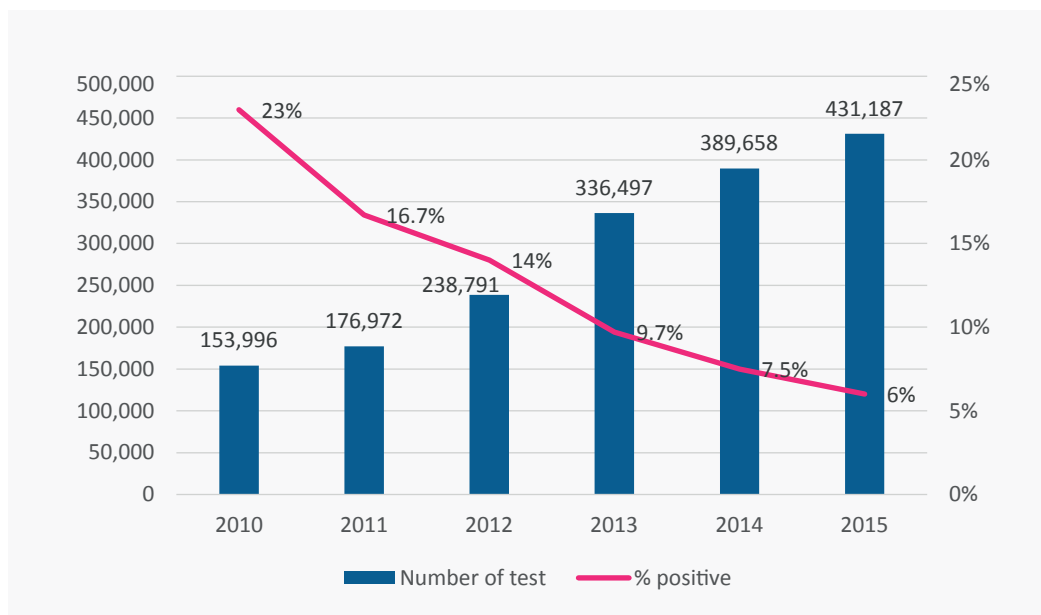


Figure 6: HIV positivity rate among patients tested by year, 2010-2015

Figure 6 above illustrates the positivity rate over the past 5 years. Over the years, the number of HIV test conducted shows an increasing trend. In 2015 an increase of 64.3% and 9.6% in 2010 and 2014 is observed respectively. Worth noting is that, although the number of test conducted shows an upper wards trend, the positivity rate shows a decline from 23% in 2010 to 6% in 2015. These notable decline in the positivity rate can be attributed to the HIV prevention strategies that the program had intensified over the years.

Referral to care

In an effort to improve linkages to post-test services the program have reviewed the HTS register to incorporate referral made such as for care & treatment, screening for TB , STIs, MC and others using HTS as an entry point. Progress have also been made by developing the national referral form which links the clients from facility to facility and community to facility. However, referring a client from facility to community still remain a challenge since the already existing national referral do not cater for such.

Couple Testing and Counselling

In a continuous effort to scale-up HTS uptake among couples, the program has introduced “Love Test “campaigns and in a process of developing partner invitation slips in all health facilities. To collect this data routinely, a new variable on couple testing has been introduced in the new HTS data collection tools. Triaging in some facilities have also played a pivotal role in increasing the demand for HTS among couples.

3.2 VOLUNTARY MEDICAL MALE CURCUMCISION

The Ministry of Health through SNAP recognized that a scale- up of VMMC services to reach the globally accepted coverage levels of up to 80% among adults and adolescents for public health impact has not been met in the country. Therefore, a high priority has been placed on the scale-up of VMMC among adolescents and adults aged 10-29 years as a catch-up phase and routine provision of Early Infant Male circumcision (EIMC) as a long term “sustainability” response.

The MC services have now been integrated into a majority of public hospitals and health centers; NGO supported fixed sites, outreaches, mobile services and targeted campaigns. Intensified advocacy for MC has resulted in improved MC uptake among young men during school holidays.

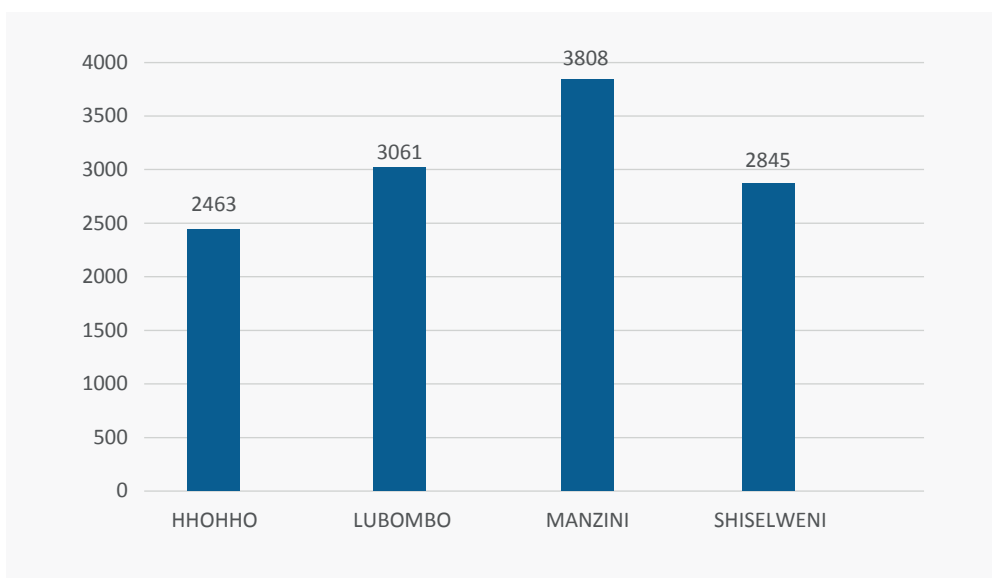


Figure 7: Number of males circumcised by region, 2015

The figure above shows the number of male circumcised by region in 2015. A total of 12,177 males were circumcised in 2015. Of those circumcised, Manzini had the highest proportion (31.3%) of male circumcised when compared with other regions. Lubombo became the second (25.1%) and the least (20.2%) being Hhohho.

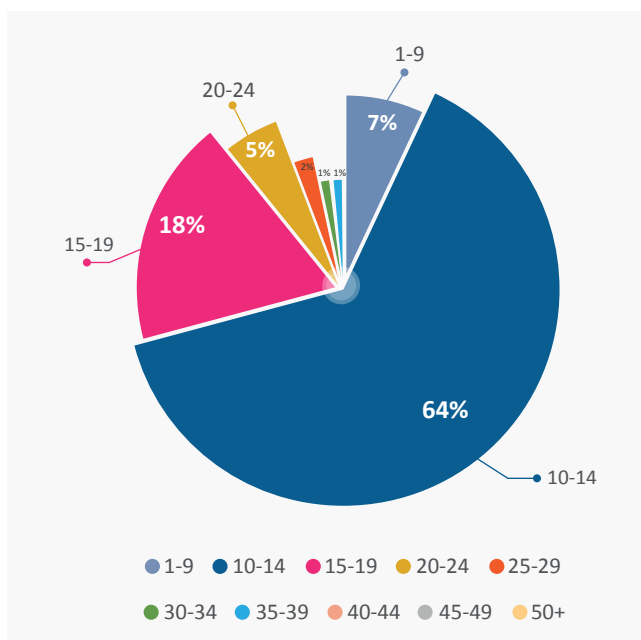


Figure present male circumcised by age group in 2015. The figure presents a similar pattern as the one reported in the 2014 report. Among males who came for the MC services, adolescents and adult men from age 10-29 years have the highest proportion when compared with other age groups. However, they were more adolescent youth (10-24) than adults with 64% comprising of early adolescent males.

Figure 8: Number of males circumcised by age, 2015

3.3. Prevention of Mother to Child Transmission

The country has been implementing PMTCT since 2003, piloted in 3 facilities country wide. The provision of PMTCT has evolved over the years with the introduction of efficacious regimens and new strategies which include the SRH/HIV integration. The 4 prong PMTCT approach is implemented in Swaziland which involves main streaming of HIV testing in all SRH entry points; provision of family planning to HIV positive women who do not intend having children; prevention of mother to child transmission of HIV as well as the provision of treatment and care.

In 2014, the country started to implement the new WHO HIV guidelines whereby all HIV positive pregnant and lactating women are initiated on the life-long ART. This was initiated in a few facilities then rolled out to other facilities providing PMTCT services. The PMTCT section covers; HTS uptake, positivity rate, ARV's uptake among pregnant women, Family Planning & HIV integration and care for exposed infants (testing, positivity rate, CTX).

4. HIV Testing Services for Pregnant Women

Table below shows the number of pregnant women; women who came in with an already positive status; those tested for HIV at ANC and testing HIV positive at ANC. The main indicators that this table answers to are the proportion of women who were tested at ANC and the positivity rate at ANC. The table shows the trend from 2012 to 2015. There were 30,433 pregnancies reported through HMIS in 2015. Over the years, more than 20% of pregnant women came for ANC with an already HIV positive status. HIV testing has improved whereby almost all pregnant women are tested for HIV, however in 2015, testing for pregnant women has slightly declined to 90%. The positivity rate amongst pregnant women has remained high with 37% of pregnant women being HIV positive.

Table 6: HTS for pregnant women

Year	# of women making at least 1 ANC Visit	# of women who know their HIV status prior to ANC	# of women offered HTC at ANC	# of women testing HIV positive at ANC	# of women who know their HIV status	Total pregnant positive women
2012	32,434	6,337 (20%)	23,514	4,827 (21%)	29,851 (92%)	11,164(34.4%)
2013	29,835	6,809 (23%)	22,742	4,496 (20%)	29,551 (99%)	11,305(38.4%)
2014	29,740	7,102 (24%)	21,978	3,539 (16%)	29,080 (97%)	10,560(35%)
2015	30,433	7074 (23%)	20497	3,339 (16%)	27,571 (90%)	10,012(37%)

Source: HMIS 2015

ART Uptake at ANC

As per the new Intergrated HIV guidelines, pregnant women living with HIV are eligible for ART initiation regardless of CD4 count. Scientific advances in the area of HIV have informed the provision of efficacious regimens. In 2002, positive pregnant women were given the single dose NVP, with the review of PMTCT guidelines the women were then initiated to AZT or ART based on their CD4 count. In 2014 WHO introduced new guidelines on HIV whereby all positive pregnant and lactating women should be initiated on life-long ART. The introduction of more efficacious regimens is done to improve mother to child transmission outcomes. In 2009 positivity rate amongst exposed infants aged 6-8 weeks was around 6%, with the introduction of more efficacious regimes the positivity rate dropped to 2% (PMTCT impact study 2012).

Table 7: ART Uptake among pregnant women

	Already HIV + at ANC	Already on ART	Testing + at ANC	Initiated ART at ANC	Total +	Total on ART
Hhohho	1991	1311 (66%)	913	1527	2904	2838 (98%)
Lubombo	1412	959 (68%)	480	1202	1892	1876 (99%)
Manzini	2443	1632 (67%)	1432	1700	3875	3332 (86%)
Shiselweni	1228	936 (76%)	514	978	1742	1627 (93%)
Total	7074	4838 (68%)	3339	5407	10413	10245 (93%)

The table shows the ART uptake by region. According to data from HMIS, 68% of the women who come in with an already HIV positive status were on ART with more (76%) women coming from Shiselweni. In total there were 10,245 (93%) women on ART with Lubombo having the highest.

Sero-Conversion

The HIV guidelines stipulates that pregnant and lactating women are eligible for retesting after every 8 weeks. This is done to determine sero-conversion so as to initiate appropriate HIV services. The table shows the sero-conversion rate among pregnant women at ANC, L&D and at PNC. Generally sero-conversion seems to be decreasing over the years with the exception at labor and delivery whereby it was 1% in 2013 and increased to 3% in 2015.

Table 8: Sero-conversion among pregnant women

Year	ANC		Labor and Delivery		PNC	
	# of women re-tested	# tested HIV+	# of women re-tested	# tested HIV+	# of women re-tested	# tested HIV+
2013	9,302	199 (2.1%)	2,429	225 (1%)	3,526	73 (2%)
2014	10,910	271 (2.4%)	2,534	42 (1.6%)	4,955	104 (2%)
2015	13,395	200(1%)	1678	55 (3%)	5,536	72 (1%)

Viral load

Viral load is assessed 6 months after initiation of ART. According to the WHO recommendations for a public health approach 2010 version on antiretroviral therapy for HIV infection in adults and adolescents, targeted viral load assessments are done when a client has a clinical or immunological failure. It also helps to prevent unnecessary treatment switches from the first-line antiretroviral treatment. With the increased scale-up of antiretroviral therapy within the context of limited resources, targeted viral load evaluations becomes the best option.

In the case of Swaziland, in 2015, only pregnant women on ART who showed symptoms of treatment failure (targeted) were assessed for viral load. Sixty-eight percent (4,838) of the women who came with an HIV positive status were already on ART (not to imply they had been on ART for longer than 6 months). Of the 1,142 women on ART assessed for viral load only 18% had an undetectable viral load.

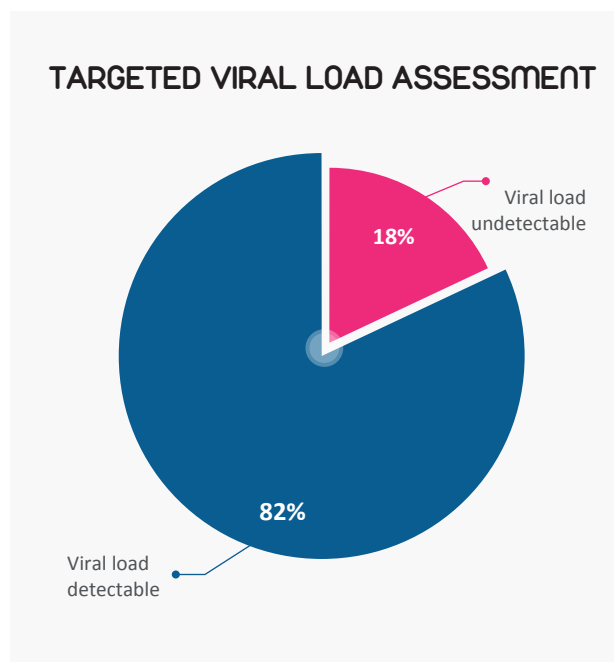


Figure 9: Viral load Assessment for targeted pregnant women

Family Planning and HIV integration

PMTCT prong 1 entails the provision of HTS (information and testing) services among FP women. This is done to prevent new HIV infections in women of reproductive age. Data collection tools were reviewed in the middle of 2015 to properly capture this information, therefore the data presented below show data from July to December 2015. Of all (18,938) the women seen at FP clinics 23% were eligible for HIV testing and 18,936 were then tested for HIV with 3% turning out to be positive. Of note is the 139% of the positive women linked to HIV care and treatment. The high proportion could be attributed to that some women come for FP services with an already positive status but not on ART.

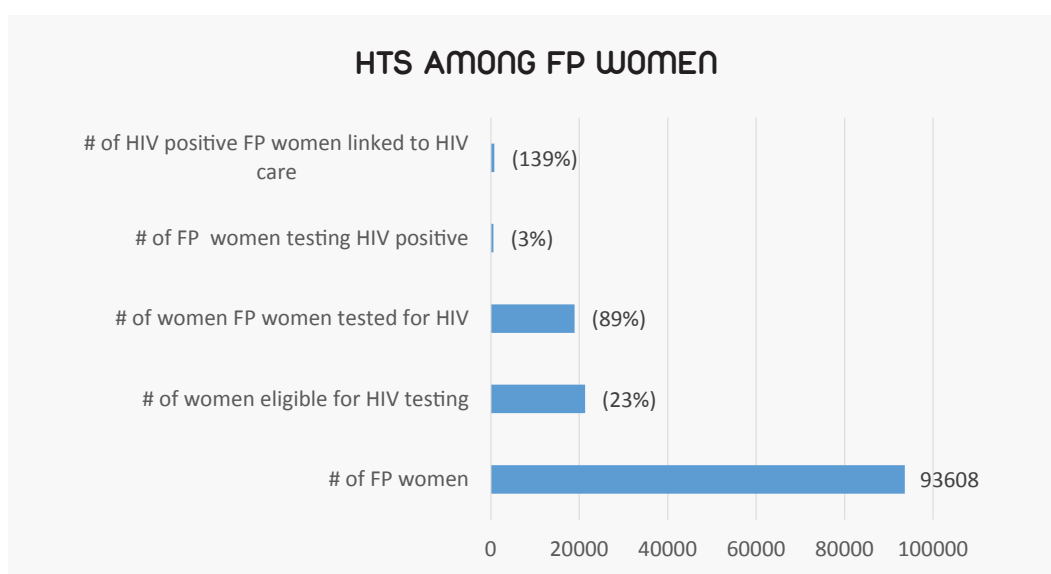


Figure 10: HTS uptake among FP women

Care for the exposed infants

To determine the HIV status of exposed infants, in 2007 the country established DNA PCR testing using the dried blood spot (DBS) at 6-8 weeks of birth. Positivity rate at ANC is 37% and the proportion of exposed infants as per the figure below is 36% and 97% of these were given CTX. Testing coverage for exposed infants using DNA PCR at 6-8 weeks has remained high over the years with 95% tested in 2015. Out of these 3% tested HIV positive.

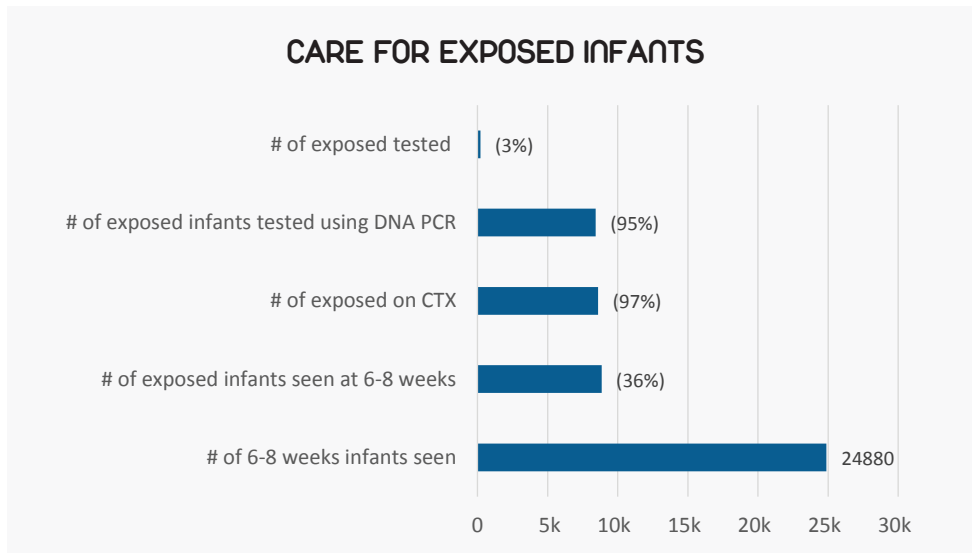


Figure 11: Care for Exposed infants 6-8 weeks

According to the eNSF the MTCT rate of HIV among infants aged 6-8 weeks should be at 1% by 2018. The PMTCT impact study that was conducted in 2012 for exposed infants at 6-8 weeks depicted a 2% mother to child transmission rate; a similar trend was observed also with routine data since 2011. However, since 2014, a slight increase in this age category was observed with 3% of exposed infants tested HIV positive.

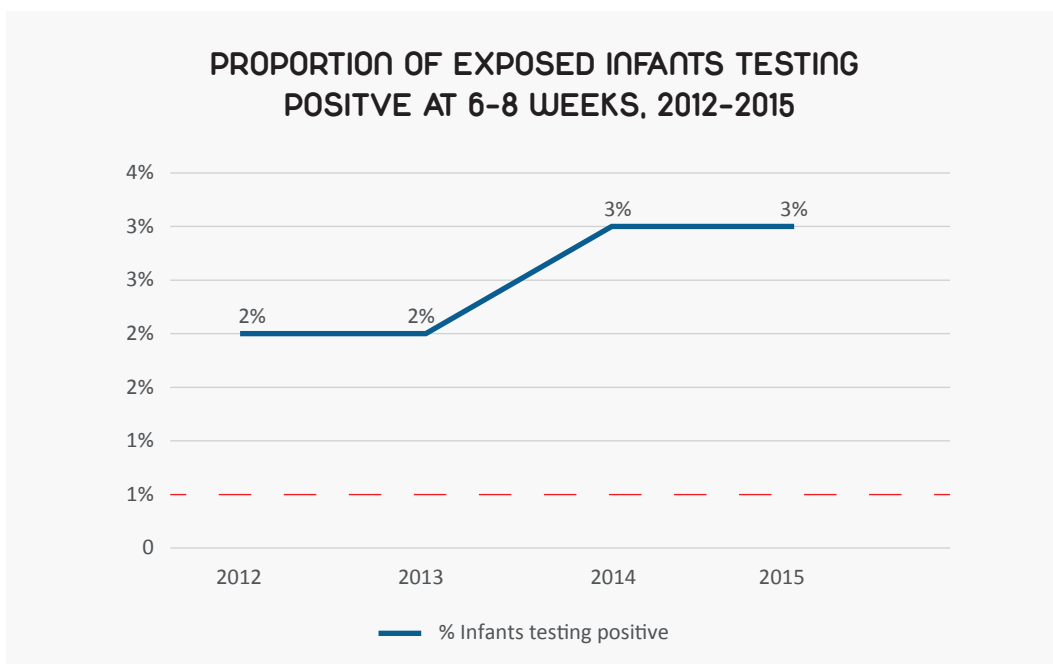


Figure 12: Trend of Proportion of Children Testing Positive at 6-8 weeks

3.4 HIV Care and Treatment

Pre ART

Access to HIV care and treatment services begins with HIV Testing Services (HTS) which is the gateway to HIV prevention, care and treatment services. All people testing positive for HIV are referred to and enrolled into a basic package of care referred to as Pre-ART, irrespective of CD4 result or WHO clinical staging. Pre-ART aims to delay progression to AIDS stage, prevent and manage common opportunistic infections (OIs), and provides an opportunity for early initiation of ART. All PLHIV enrolled into Pre-ART are closely monitored and actively followed up with basic care which consist of at least, biannual CD4 cell count testing, regular screening for TB, provision of Cotrimoxazole, isoniazid preventative therapy, secondary prophylaxis for cryptococcosis with fluconazole, provision of family planning and NCD screening. The provision of Pre-ART services is structured such that there is an efficient transition clients from the Pre-ART to ART, and there is the ability to accommodate longitudinal patient data for several years for both ART and Pre- ART services provided.

Pre-ART enrolment

Currently there is not enough data to monitor the Pre-ART from all the health facilities providing this service to PLHIV in the country. This is in part due to the fact that not all health facilities are capturing Pre-ART data. For the year 2015, there were 12 449 PLHIV who were enrolled into Pre-ART with 645 children (0-14 years) and 11 804 adults (+15 years). Among those enrolled for Pre-ART 77.12% were screened for TB with 3.86% confirmed for TB and 1.09% initiated for TB treatment. Those started on cotrimaxazole accounted for a proportion of 55.43% and those started on IPT had a proportion of 2.80%. There were 9 818 PLHIV who were assessed for ART eligibility through CD4 count and WHO staging, accounting for a proportion of 78.87% and 1 114 PLHIV were initiated on ART with a proportion of 8.95% among the PLHIV enrolled in Pre-ART.

Antiretroviral Therapy (ART)

Antiretroviral therapy has been identified as one of the interventions that can help lower the risk of HIV transmission from one person to another and also to improve the health outcomes of people living with HIV (PLHIV). As part of Swaziland's vision to prevent AIDS-related morbidity and mortality, and to eliminate new HIV infection, the country has adopted the 2013 WHO consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection. In line with this vision, Swaziland is strengthening its policies to ensure that all children receive early HIV diagnosis and are linked immediately to appropriate care. Other key innovations in this document include ART for all children under 5 years and the HIV-positive partner of a sero-discordant couple.

Over the past few years, the Ministry of Health in collaboration with implementing partners (IPs) and financial support from donors, has been successful in the scaling up and decentralization of HIV care services in the country. Figure 9 shows that 70% of ART initiations took place at the primary healthcare level (clinics) compared to 30% ART initiations in hospitals and health centres in 2015. These fruitful results of the decentralization strategy of HIV services can be attributed to increased accessibility and uptake of services made possible by the decentralization of services to lower level health facilities which are closer the people in the communities.

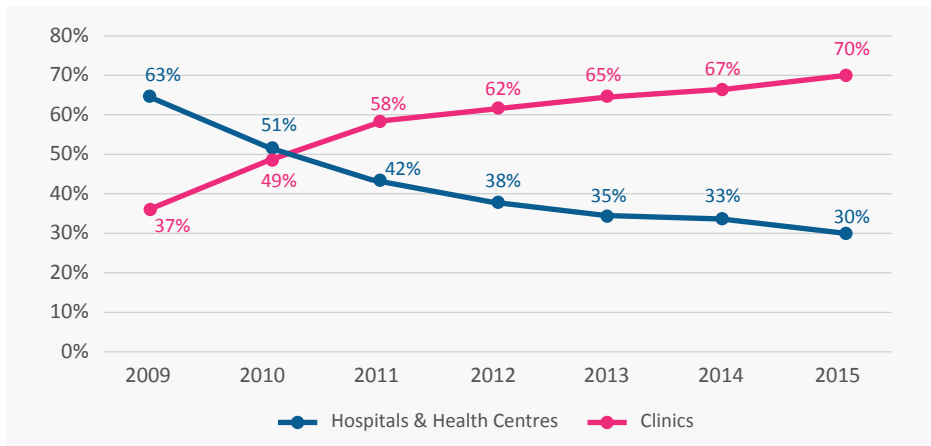


Figure 13: Trend of Patients newly initiated on ART by facility level, 2009-2015

ART Coverage

The ART coverage refers to the number of people with advanced HIV infection receiving ARV therapy according to nationally approved treatment protocol among the 'estimated' number of people living with advanced HIV. This indicator assesses the progress in providing ARV combination therapy to all people living with HIV. The WHO recommends that the ART coverage be based on the total number of PLHIV and on the number of PLHIV in need of ART. The ART coverage based on total number of PLHIV makes it possible comparisons of ART coverage among countries with different ART criteria. In addition, it facilitates tracking of trends in ART coverage in a country.

Figure 10 shows the ART coverage for children less than 15 years and adults 15 years and older based on ART eligibility (PLHIV in need of ART) and 90-90-90 target (all PLHIV) for 2015. The data presented shows that the ART coverage based on the number of PLHIV in need of ART was 82% and 66% based on the 90-90-90 target. The ART coverage for children less than 15 years was 72% and 46% based on the ART eligibility criteria and the 90-90-90 target, respectively. For adults aged 15 years and older, the ART coverage was at 83% for ART eligibility and 68% for the 90-90-90 target.

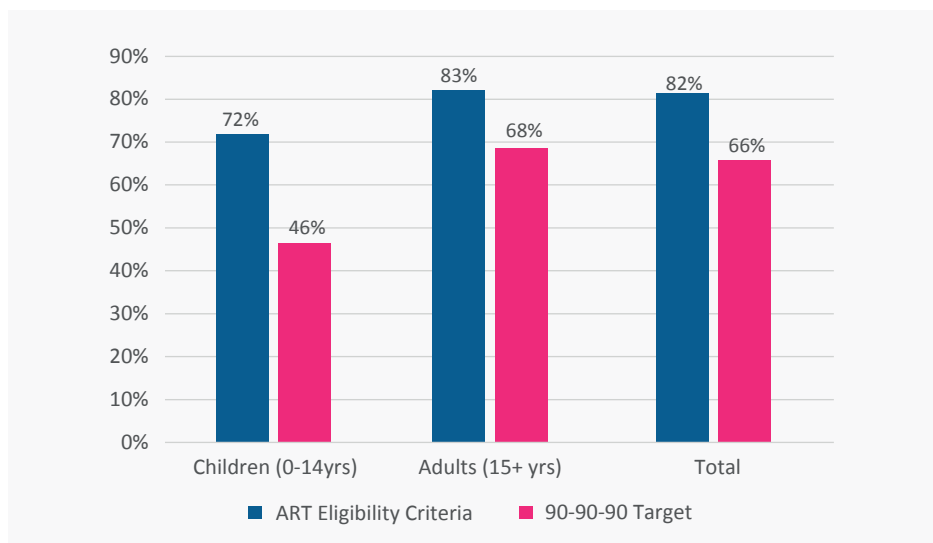


Figure 14: ART coverage based on ART eligibility criteria and 90-90-90 Target for children (0-14 years) and adults (15+ years), 2015

More than ever, antiretroviral therapy (ART) is now a core component of the national health sector response to HIV. Thus, capturing progress in ART scale-up is critical to monitoring the overall HIV prevention and treatment cascade.

Figure 11 shows the ART coverage trends for adults aged 15 years and older based ART eligibility criteria from 2012-2015 and 90-90-90 target for 2015 by sex. The data presents ART coverage for 2015 shows a decrease on the number of PLHIV receiving ART and this trend correlates with the results of the 2015 Swaziland HIV Estimates and Projections on the ART coverage trends for adults which shows a decline for 2015 and a steady increase towards 2020.

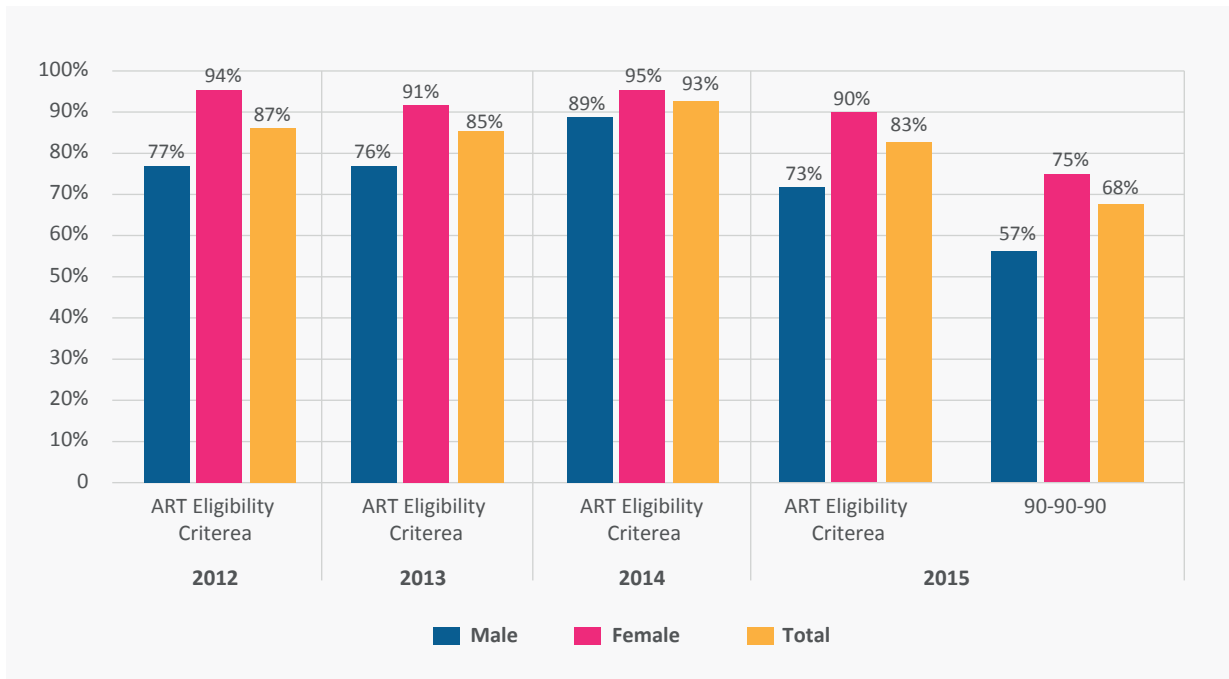


Figure 15: ART Coverage Trends for adults (15+ years) based on ART eligibility criteria and 90-90-90 target by sex, 2012-2015

New ART Enrolments

New ART enrolments refers to people who are newly initiated on ART which include treatment-naïve patients with no prior use of ART, patients who have previously received only PEP or PrEP, and non-naïve patients with or without records who received ART from sources outside the formal health-care system not counted as being new in the ART system. This measures the overall scale-up of the ART programme and provides information to assess enrolment among specific priority populations and age groups.

Table 9 shows that there number of children (0-14 years) and adults (15+ years) who initiate ART by region from 2011 to 2015. There were 22 797 people were newly initiated on ART for the year 2015 with 1 187 children (0-14 years) and 21 610 adults (15+ years) who initiating ART.

Table 9: Number of Patients newly enrolled on ART by age and region, 2011-2015

Region	Age Category	2011	2012	2013	2014	2015
Hhohho	Children (0-14)	494	307	259	332	275
	Adults (15+)	3 316	3 514	3 536	3 828	6 015
Lubombo	Children (0-14)	298	267	263	316	259
	Adults (15+)	2 422	2 336	2 468	3 289	3 570
Manzini	Children (0-14)	375	454	416	414	442
	Adults (15+)	4 433	5 916	6 379	7 987	8 663
Shiselweni	Children (0-14)	218	206	228	189	211
	Adults (15+)	2 628	2 438	2 830	3 053	3 362
Sub Total	Children (0-14)	1 385	1 234	1 166	1 251	1 187
	Adults (15+)	12 799	14 204	15 213	18 157	21 610
Grand Total		14 184	15 438	16 379	19 408	22 797

Source: HMIS 2015

The number of people newly initiated on ART has been increasing over the last five years with adults (15+ years) having the most noticeable increase. There Manzini region had the highest number of people initiating ART over the years and the Shiselweni region has had the least number of people who initiate ART.

Current (Active) on ART

The number of people currently on ART refers to the of people actively on ART plus those restarted during the reporting period excluding people who died, stopped treatment, or were lost to follow-up (defined as not attending their scheduled appointment >90 days, and having not returned into care). There were 147 274 people active on ART by December 2015 as shown in Table 12 showing an increase in the number of people currently receiving ART over the years. Adults aged 15 years and over constituted for 94.5% (139 211/147 274) of the people currently receiving ART for 2015 and children less than 15 years constituted for the remaining 5.5% (8063/147 274) of people on ART.

Table 10: Number of Patients active on ART by age and region, 2011-2015

Region	Age Group	2011	2012	2013	2014	2015
Hhohho	Children (0-14)	2 201	2 409	2 639	2 383	1 767
	Adults (15+)	19 571	22 296	27 299	31 312	39 034
Lubombo	Children (0-14)	1 490	1 590	1 671	1 821	1 978
	Adults (15+)	11 956	14 049	15 734	23 067	25 913
Manzini	Children (0-14)	1 782	2 185	2 241	2 420	2 849
	Adults (15+)	21 631	29 058	33 757	43 946	51 690
Shiselweni	Children (0-14)	1 085	1 247	1 392	1 282	1 469
	Adults (15+)	12 677	14 700	16 997	19 190	22 574
Sub Total	Children (0-14)	6 567	7 431	7 943	7 906	8 063
	Adults (15+)	65 835	80 103	93 787	117 515	139 211
Grand Total		72 402	87 534	101 730	125 421	147 274

Source: HMIS 2015

Worth mentioning is that an upward trend in the number of people actively on ART is observed in all the regions of the country. The Manzini region has, over the years, had the highest number of people active on ART and the Shiselweni region has had the least number of people on ART.

Clinical characteristics of people initiating ART

Baseline CD4 count at initiation

Baseline CD4 count serves as a significant prognostic indicator for treatment outcome particularly in limited resource settings and it is very useful to describe this clinical characteristic for people enrolling on ART. Table 13 shows the distribution of Baseline CD4 for patients newly enrolled into ART by sex for 2015. It can be observed that 69% of the patients newly enrolled into ART had a baseline CD4 of 350 cells/mm³ and less with 27% of the patients with a baseline CD4 of 100 cells/mm³ and less. Only 31% of the patients were initiated with baseline CD4 count more than 350 cells/mm³ with 18% patients initiated with a baseline CD4 of 351-500 cells/mm³ and patients initiated with CD4 above 500 cells/mm³ at 13%.

Table 11: Baseline CD4 count frequency distribution for patients initiated on ART by sex, 2015

Sex		BASELINE CD4 Count				
		<=100	101-200	201-350	351-500	>500
Female	#	3 995	2 016	4 188	3 194	2 313
	%row	25%	13%	27%	20%	15%
	%col	66%	59%	69%	79%	87%
Male	#	2 036	1 390	1 920	874	344
	%row	31%	21%	29%	13%	6%
	%col	34%	41%	31%	21%	13%
TOTAL	#	6 031	3 406	6 108	4 068	2 657
	%row	27%	15%	27%	18%	13%
	%col	100%	100%	100%	100%	100%

Source: HMIS 2015

The data as presented on Table 13 also shows that women present to health care facilities with higher CD4 counts than their male counterparts. The proportion of female patients who were initiated on ART with baseline CD4 count above 350 cells/mm³ was 35% for the year 2015 and 65% initiated with a CD4 ≤350 cells/mm³ whilst 19% males initiated ART with CD4 >350 cells/mm³ and 81% initiated with a CD4 ≤350 cells/mm³.

Trends in Baseline Median CD4 Count at ART Initiation

Figure 12 shows the trends in baseline median CD4 count for patients who initiate ART by sex and year of initiation. From the data presented it can be observed that the baseline median CD4 count is improving over the years from 187 cells/mm³ in 2011 to 282 cell/mm³ in 2015 for all patients initiating ART.

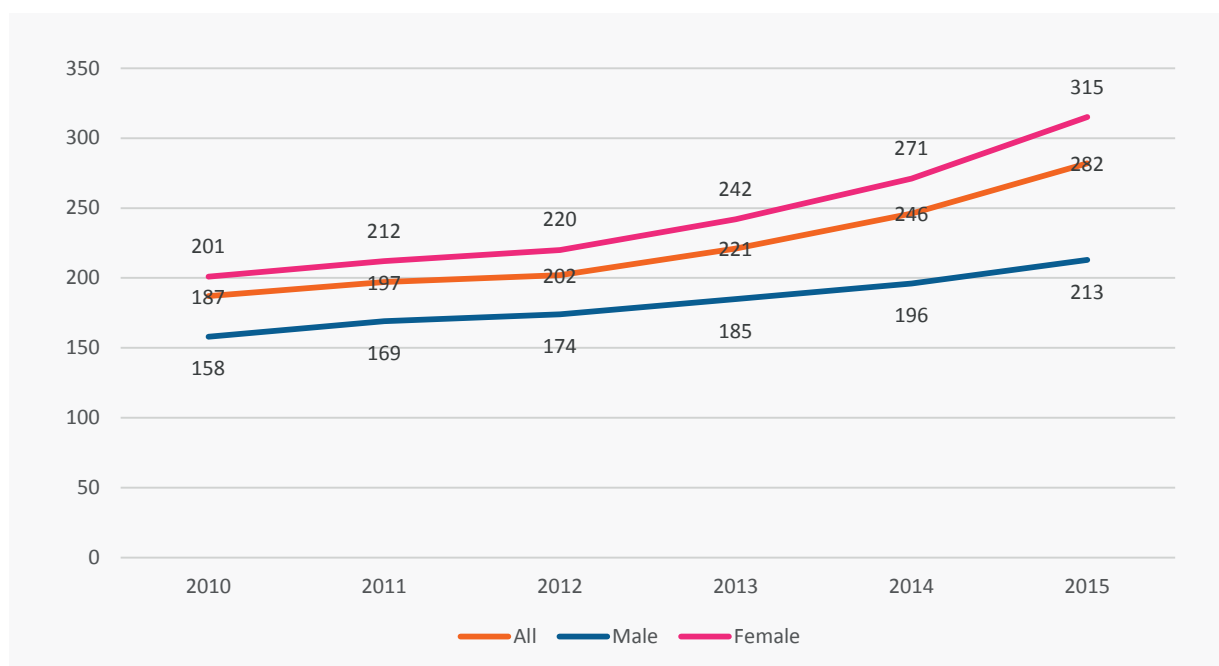


Figure 16: Baseline Median CD4 Count Trends at ART Initiation by sex, 2011-2015

It can also be observed that the data presented in Figure 12 correlates with the data presented in Table 13 that women present with higher CD4 count in health facilities than their male counterparts. The baseline median CD4 count for females initiating ART has been higher than that of males initiating ART over the years (2011-2015). The baseline median CD4 count for females in 2015 was at a high of 315 cells/mm³ and 213 cell/mm³ for males.

WHO clinical stage at initiation

The WHO clinical staging has been shown to be a practical and accurate way to manage HIV-infected patients, with international studies showing agreement between clinical manifestations included in the WHO staging system and laboratory markers including CD4 cell count and total lymphocyte count. It uses standardized clinical parameters to direct medical decision making for patients with HIV/AIDS and can be used solely based on patient clinical features. Table 14 presents the 2015 baseline WHO clinical staging for patients initiating ART by sex. The data shows that a majority of patients present themselves for HIV treatment in relatively good health clinically, as demonstrated by the larger proportion of patients initiating ART in the WHO clinical stage I (62.2%) and II (20.4%).

Table 12: Baseline WHO Clinical Staging frequency distribution for patients initiated on ART by sex, 2015

SEX		WHO Clinical Stage				TOTAL
		I	II	III	IV	
FEMALE	#	7 904	2 136	1 272	175	11 487
	%row	68.8%	18.6%	11.1%	1.5%	100%
	%col	78.5%	64.6%	52.0%	47.8%	70.9%
MALE	#	2 171	1 171	1 172	192	4 706
	%row	46.1%	24.9%	24.9%	4.1%	100%
	%col	21.5%	35.5%	48.0%	52.3%	29.1%
TOTAL	#	10 075	3 307	2 444	367	16 193
	%row	62.2%	20.4%	15.1%	2.3%	100%
	%col	100%	100%	100%	100%	100%

Source: HMIS 2015

On the contrary, the WHO clinical staging results do not correlate well with the CD4 count at ART initiation results in Table 13. This may be the result of the capacity of health care workers to elicit the appropriate history and physical findings to stage the clients appropriately when initiating patients using the WHO clinical stage.

Functional status at initiation

The WHO functional status at initiation is another important measure of HIV disease progression in patients who initiate ART. It acts as one of the predictors of HIV treatment response and retention on ART. Table 15 shows the frequency distribution of the baseline WHO functional status for patients initiating ART in 2015. The data presents that 97.25% of the patients who were newly enrolled into ART were categorised as working with 1.6% categorised as ambulatory and 0.4% were bedridden. This shows that more people presented to health facilities with few opportunistic infections.

Table 13: Baseline WHO Functional Status frequency distribution by sex, 2015

Gender		WHO Functional Status			TOTAL
		Working	Ambulatory	Bedridden	
Male	#	4600	172	38	4810
	%row	95.6%	3.6%	0.8%	100%
	%col	29.1%	47.8%	43.2%	29.6%
Female	#	11 121	186	49	11 356
	%row	97.9%	1.6%	0.4%	100%
	%col	70.3%	51.7%	55.7%	69.8%
TOTAL	#	15 825	360	88	16 273
	%row	97.25%	2.21%	0.54%	100%
	%col	100%	100%	100%	100%

Source: HMIS 2015

Regimen distribution (Current on ART)

Adult Regimen

Table 14 shows data on the ART first line regimen distribution for adults aged 15 years and older for 2015. The presented data shows that the majority of patients were on AZT+3TC+NVP with 34.34% and TDF+3TC+EFV with 32.75%. This is in line with the Swaziland Integrated HIV Management Guidelines 2015 which states that the recommended standard first line ART should be based on following regimens: TDF+3TC+EFV, TDF+3TC+NVP, AZT+3TC+EFV, and AZT+3TC+NVP.

Table 14: Percentage of Adults (15+ years) on First Line ART Regimen, 2015

FIRST LINE REGIMEN	Percent
ABC+3TC+AZT	0.01%
ABC+3TC+D4T	0.001%
ABC+3TC+EFV	1.044%
ABC+3TC+NVP	0.324%
ABC+DDI+EFV	0.014%
AZT+3TC	0.01%
AZT+3TC+DDI	0.004%
AZT+3TC+EFV	10.98%
AZT+3TC+IDV+RTV	0.003%
AZT+3TC+NVP	34.34%
AZT+3TC+SQV+RTV	0.014%
AZT+TDF+3TC+EFV	0.06%
D4T+3TC+EFV	4.53%
D4T+3TC+NVP	11.08%
TDF+3TC+ABC	0.07%
TDF+3TC+EFV	32.75%
TDF+3TC+EFV+AZT	0.09%
TDF+3TC+NVP	4.71%
TOTAL	100%

Source: HMIS 2015

Table 15 presents data for the second line ART regimen for adults aged 15 years and older for 2015. The majority of patients are on the regimen TDF+3TC+LPV/r with 33.86% followed by ABC+3TC+LPV/r with 28.63% and AZT+3TC+LPV/r with 21.82%. This is also in line with the recommended second line ART formulations as stated in the Swaziland Integrated HIV Management Guidelines (2015) which is TDF and AZT based second line ART formulations. Another observation is that the number of patients on second line ART is about 2% of all people currently on ART.

Table 15: Percentage of Patients on Second Line ART Regimen, 2015

Second Line ART Regimen	Percent
ABC+3TC+LPV/r	28.63%
ABC+DDI+LPV/r	2.76%
ABC+TDF+LPV/r	0.49%
AZT+3TC+ABC	1.18%
AZT+3TC+ABC+LPV/r	0.79%
AZT+3TC+LPV/r	21.82%
AZT+3TC+SQV+RTV	1.09%
AZT+3TC+TDF+LPV/r	1.58%
AZT+DDI+LPV/r	2.37%
AZT+TDF+LPV/r	0.30%
D4T+3TC+LPV/r	4.15%
D4T+DDI+LPV/r	0.30%
TDF+3TC+AZT+LPV/r	0.59%
TDF+3TC+LPV/r	33.86%
ABC-NVP-DRV/r	0.10%
TOTAL	100%

Source: HMIS 2015

Table 16: Non-Nucleoside Reverse Transcriptase inhibitor (NNRIT) Regimen distribution for children (0-14 years), 2015

Children Regimen

Table 16 presents data on the Non-Nucleoside Reverse Transcriptase Inhibitor (NNRIT) based regimen for children aged 0-14 years for the year 2015. The data shows that a majority of the children were on AZT+3TC+NVP at 52.50% followed by D4T+3TC+NVP with 27.80%.

NNRIT BASED REGIMENS	Percent
AZT+3TC+NVP	52.50%
AZT+3TC+EFV	8.90%
D4T+3TC+EFV	3.70%
D4T+3TC+NVP	27.80%
TDF+3TC+EFV	2.40%
Others	4.70%
TOTAL	100%

The distribution of the Protease Inhibitor (PI) regimen distribution for children 0-14 years for 2015 is presented in Table 19. A majority of the children are on the regimen AZT+3TC+LPV/r with 40.10% and followed by ABC+3TC+LPV/r with 36.10%.

Table 17: Protease Inhibitor (PI) Regimen distribution for children (0-14 years), 2015

PI BASED REGIMENS	Percent
AZT+3TC+LPV/r	40.10%
D4T+3TC+LPV/r	22.50%
ABC+3TC+LPV/r	36.10%
Others	1.40%
TOTAL	100%

Source: HMIS 2015

ART Retention

Retention of patients on ART is a critical measure of programme quality and an early warning indicator of HIV drug resistance (HIVDR). Retention in and adherence to ART are crucial not only for patient outcomes but also to slow the development of resistance to ARVs, thus improving the quality of life for PLHIV. High quality ART patient management – that is, early treatment initiation, adherence to treatment regimens and retention in care – directly increases the likelihood of viral suppression and avoidance of drug resistance.

Table 18 shows ART retention rates trends for children less than 15 years and adults aged 15 years and older from 2008 to 2015 at 6, 12, 24, 36, 48, and 60 months. From the data it can be seen that, generally, there is an improvement in ART retention for patients over the years. With the retention of people on ART at 36 months after initiation for both adults and children being a priority for SNAP, for 2015 the ART retention at 36 months was at 84% for children aged 0-14 years and 83% for adults aged 15 years and older. This shows an improvement in the 36 months retention from the previous years and has surpassed the 2015 targets which were 70% retention for children and 75% for adults.

Table 18: ART Retention Rates for children (0-14 years) and adults (15+ years) by cohort, 2008-2015

Cohort	6 months		12 months		24 months		36 months		48 months		60 months	
	<15 Yrs	15+ Yrs	<15 Yrs	15+ Yrs	<15 Yrs	15+ Yrs	<15 Yrs	15+ Yrs	<15 Yrs	15+ Yrs	<15 Yrs	15+ Yrs
2008	88%	85%	82%	78%	75%	71%	68%	65%	62%	59%	57%	53%
2009	87%	85%	81%	78%	74%	71%	68%	64%	63%	58%	77%	69%
2010	87%	86%	80%	80%	73%	71%	65%	62%	80%	74%	76%	74%
2011	89%	88%	82%	80%	69%	69%	83%	78%	78%	78%		
2012	84%	87%	76%	77%	87%	82%	84%	83%				
2013	85%	86%	91%	88%	87%	87%						
2014	97%	96%	93%	92%								
2015	98%	97%										

Source: HMIS 2015

On another note, the 6 month ART retention has improved in 2015 to 98% for children (0-14 years) and 97% for adults (+15 years) as compared to 2014 from 97% and 96% for children and adults, respectively. At 12 months, 93% children and 92% adults were retained in care for the same year (2015). The retention at 60 months after ART initiation was 76% for children and 74% for adults.

ART attrition

ART Attrition is defined as loss to follow-up, death, transferred out (censored after transfer) and/or discontinuation of ART for any other reason. Loss to follow up is defined as not showing up for more than 3 months for a scheduled clinic or pharmacy pick-up visit.

Table 21 presents the distribution on the number of children aged 0-14 years and adults aged 15 years and older who died and lost-to-follow-up to treatment for the year 2015. The data illustrate that the total number of people who died in the past year (2015) was 1044 with 555 females accounting for a proportion of 53.16% and 489 males accounting for a proportion of 46.84% of all people who died. The number of people who were lost-to-follow-up stood at 3134 people with 2125 females and 1009 males, with a proportion of 67.80% and 32.20%, respectively. There were 43 children aged 0-14 years who died with a proportion of 4.12% and 1001 adults aged 15 years and older with a proportion of 95.88%. For those who were lost-to-follow-up, there were 144 children (0-14 years) and 2990 adults (15+ years) accounting for a proportion of 4.59% and 95.41%, respectively.

Table 19: ART Attrition outcome distribution (deaths and lost-to-follow-up) by age and sex, 2015

SEX		DEATHS		TOTAL DEATHS	Lost to follow up (LTFU)		TOTAL LTFU
		Children (0-14 yrs)	Adults (15+ yrs)		Children (0-14 yrs)	Adults (15+ yrs)	
FEMALE	Number	22	533	555	66	2059	2125
	%Row	3.96%	96.04%	100%	3.11%	96.89%	100%
	%Col	51.16%	53.25%	53.16%	45.83%	68.86%	67.80%
MALE	Number	21	468	489	78	931	1009
	%Row	4.29%	95.71%	100%	7.73%	92.27%	100%
	%Col	48.84%	46.75%	46.84%	54.17%	31.14%	32.20%
TOTAL	Number	43	1001	1044	144	2990	3134
	%Row	4.12%	95.88%	100%	4.59%	95.41%	100%
	%Col	100%	100%	100%	100%	100%	100%

Source: HMIS 2015

Due to the insufficiency of data collection tools, reporting ART patient deaths and lost-to-follow-up is a challenge. The cause of death in most cases cannot be determined and lost-to-follow-up may include unreported deaths, those who self-transferred and those patients who unilaterally stopped treatment.

Pediatric ART

Paediatric, adolescents and young adults (0-24 years) are key population groups in the provision of antiretroviral therapy under HIV care and treatment. The cascade of care is the same for HIV-infected infants and children as for adults – diagnosis, linkage, enrolment, treatment and viral suppression. Most of the paediatric HIV indicators are identical to those for the adult population, with specific age disaggregation providing the information on children. However, the collection, organization, reporting and interpretation of strategic information for children living with HIV presents specific challenges.

From time to time, HIV-exposed infants and young children may be lost to follow-up before determination of their HIV status, making it difficult to accurately count the number of HIV positive children. Adolescents may not be able to provide consent to HIV diagnosis and care, and they are often excluded from surveys, making it difficult to understand and document the HIV epidemic and the response in this population. The consequent dearth of data on children has limited the capacity of programmes to tailor their services to young clients and to monitor how well they are meeting needs.

PAEDIATRIC ART INITIATIONS

Table 22 presents distribution of children and young adults newly enrolled on ART by year of initiation. As presented in the table, there were 6 032 infants, children, adolescent and young adults who were newly enrolled on ART in 2015. From the data presented, it can be seen that for the year 2015, 80.32% of the initiations were contributed by the age group 15-24 years and the remaining 21.68% were contributed by the age group 0-14 years.

Table 20: ART initiation Trends for Paediatrics, Adolescents and youth by age, 2011-2015

AGE GROUP	YEAR OF INITIATION				
	2011	2012	2013	2014	2015
<1 years	173	191	165		338
1-4 years	675	620	529		302
5-9 years	390	401	348		232
10-14 years	384	327	380		315
15-19 years	699	740	939		1 145
20-24 years	2 917	3 456	3 937		3 700
Total	5 238	5 735	6 298		6 032

Source: HMIS 2015

CURRENT ON ART

By the end of December 2015, there were 19 571 children and adolescents actively on ART as shown in Table 21. It can be observed that the 58.66% of the children on ART was a contribution of the age group 15-24 years and the remaining 41.34% was a contribution for the age group 0-14 years. A thorough analysis of the age distribution in the active cohort is key in informing design of appropriate interventions to strengthen retention in care.

Table 21: Frequency distribution of Paediatrics active on ART by age, 2011-2015

AGE GROUP	YEAR ACTIVE ON ART				
	2011	2012	2013	2014	2015
<1 year	1 419	1 731	2 001	52	305
1-4 years	1 443	1 705	1 920	1 592	1 751
5-9 years	2 084	2 381	2 631	3 035	2 958
10-14 years	1 401	1 647	1 925	3 227	3 077
15-19 years	-	-	-	-	3 524
20-24 years	-	-	-	-	7 956
Total	6347	7464	8477	7906	19 571

Source: HMIS 2015

A) FIRST LINE ART REGIMEN FOR PAEDIATRICS AND ADOLESCENTS AND YOUTH

Table 24 shows the first line ART regimen distribution for paediatric, adolescents and young people for the year 2015. The majority of paediatric patients on the first line ART regimen are using AZT+3TC+NVP with a proportion of 41.28% followed by those on TDF+3TC+EFV with a proportion of 23.55%. The age group 20-24 years has the highest contribution on the number of patients on the first line ART regimen with a proportion of 29.13% followed by the age group 10-14 years with a proportion of 27.37%.

Table 22: First Line ART Regimen distribution for Paediatrics, Adolescents and Youth by age, 2015

FIRST LINE REGIMEN	AGE GROUP						TOTAL
	<1 yr	1-4 yrs	5-9 yrs	10-14 yrs	15-19 yrs	20-24 yrs	
ABC+3TC+AZT	0	3	1	0	1	0	5
ABC+3TC+D4T	0	3	4	0	0	0	7
ABC+3TC+EFV	2	12	29	105	21	18	187
ABC+3TC+NVP	4	41	22	30	6	9	112
ABC+DDI+EFV	0	0	0	2	0	0	2
AZT+3TC	0	0	0	0	0	1	1
AZT+3TC+DDI	0	3	1	0	1	0	5
AZT+3TC+EFV	4	38	144	380	275	201	1042
AZT+3TC+IDV+RTV	0	0	0	0	0	1	1
AZT+3TC+NVP	25	343	993	1964	926	775	5026
AZT+3TC+SQV+RTV	0	0	0	0	1	0	1
AZT+TDF+3TC+EFV	0	0	0	0	1	2	3
D4T+3TC+EFV	0	5	74	153	137	47	416
D4T+3TC+NVP	3	148	988	623	341	114	2217
TDF+3TC+ABC	1	0	1	1	1	3	7
TDF+3TC+EFV	27	43	18	62	540	2178	2868
TDF+3TC+EFV+AZT	0	1	0	0	1	0	2
TDF+3TC+NVP	8	6	5	13	44	198	274
Total	74	646	2280	3333	2296	3547	12176

Source: HMIS 2015

SECOND LINE REGIMEN FOR PAEDIATRIC AND ADOLESCENTS

Table 22 presents the second line ART regimen distribution for paediatric and adolescents by age group for the year 2015. The data presented shows that the bulk of patients are on AZT+3TC+LPV/r with a proportion of 40.08% followed by those on ABC+3TC+LPV/r with a proportion of 35.04% in the second line ART regimen. The largest contributor in the second line ART regimen is the age group 1-4 years with a proportion of 59.85% and the 5-9 years age group followed with a proportion of 14.36%.

Table 23: Second Line ART regimen distribution for Paediatrics, Adolescents and Youth by age, 2015

Second Line ART Regimen	AGE GROUP						TOTAL
	<1 yr	1-4 yrs	5-9 yrs	10-14 yrs	15-19 yrs	20-24 yrs	
ABC+3TC+LPV/r	95	254	30	80	3	4	466
ABC+DDI+LPV/r	0	4	0	1	2	1	8
ABC+TDF+LPV/r	0	1	0	0	0	1	2
AZT+3TC+ABC	0	2	0	2	0	1	5
AZT+3TC+ABC+LPV/r	0	1	0	0	1	0	2
AZT+3TC+LPV/r	22	326	90	72	18	5	533
AZT+3TC+SQV+RTV	0	0	0	0	1	0	1
AZT+3TC+TDF+LPV/r	0	1	0	0	0	0	1
AZT+DDI+LPV/r	0	2	1	0	0	0	3
D4T+3TC+LPV/r	0	205	67	14	4	1	291
TDF+3TC+AZT+LPV/r	0	0	0	0	0	1	1
TDF+3TC+LPV/r	0	0	3	0	1	13	17
TOTAL	117	796	191	169	30	27	1330

Source: HMIS 2015

For the children aged 0-4 years that are on a formulation that has LPV/r are most likely that this is their first line ART regimen which maybe they were possibly NVP exposed. This is not to suggest that they have failed a standard first line ART regimen.

PAEDIATRIC ART (ATTRITION) OUTCOMES

Tracking children and adolescents through the cascade of care and treatment is a challenge as their needs vary by age group. There are many service provision points where HIV-infected children are identified and enrolled to care since early initiation of ART is a priority among infants and children less than five years of age, all of whom are eligible for ART. At the other end of the paediatric age spectrum, adolescents often have high ART attrition rates and high mortality rates. There is a huge need for monitoring systems to track children through the HIV cascade as they progress from infancy to childhood and eventually making the transition to adulthood.

Table 24 presents the distribution of Paediatric ART outcomes disaggregated by age group for the year 2015. There were 19 571 paediatric ART clients that were active on ART in 2015 with the 20-24 years age group accounting for large proportion of those currently enrolled on ART at 40.65% followed by the 15-19 years with a proportion of 18.01. The less than 1 year age group contributed the least number of paediatric ART patients with 1.56%.

There were 131 deaths that were reported with those aged 15-19 years and 20-24 years accounting for the highest proportions of 38.93% and 28.24%, respectively. Those aged less than 1 year accounted for the lowest proportion of 2.29%. A total of 730 paediatric ART patients were reported as lost-to-follow-up with the age groups 20-24 years and 15-19 years accounting for the highest proportions of 54.25% and 26.03%, respectively. The lowest number of those lost-to-follow-up was reported for those less than 1 year with a proportion of 0.82%.

Table 24: Paediatric ART patient outcomes by age, 2015

AGE GROUP	ART OUTCOMES		
	ACTIVE	DEAD	LOST-TO-FOLLOW-UP
<1 yr	305 (1.56%)	3 (2.29%)	6 (0.82%)
1-4 yrs	1 751 (8.95%)	23 (17.56%)	45 6.16%)
5-9 yrs	2 958 (15.11%)	11 (8.40%)	49 (6.71%)
10-14 yrs	3 077 (15.72%)	6 (4.58%)	44 (6.03%)
15-19 yrs	3 524 (18.01%)	51 (38.93%)	190 (26.03%)
20-24 yrs	7 956 (40.65%)	37 (28.24%)	396 (54.25%)
TOTAL	19 571 (100%)	131 (10%)	730 (100%)

Source: HMIS 2015

3.5 TB/HIV Co-infection

Tuberculosis (TB) is the leading cause of death from a curable infectious disease and remains the leading cause of morbidity and mortality among persons living with HIV (PLHIV). In 2014, the World Health Organization (WHO) estimated 9.6 million new cases of active TB disease, of which 12% were among PLHIV. Swaziland, a low-middle income country with an estimated population of one million people, has been hit particularly hard by both diseases. In addition to the highest HIV prevalence of 31% among the 18-49 age group (SHIMS 2011). According to the Global TB report (2015), Swaziland had the third highest rate of TB incidence (733 cases per 100,000 population), and the highest rate of TB/HIV co-infection of 73% in 2014. WHO recommends intensified TB case finding (ICF) as the main strategic intervention to reduce TB-associated morbidity and mortality among PLHIV. This strategy involves a cascade of processes that includes symptom screening for all PLHIV at every clinical encounter, and subsequent diagnostic evaluation of those with presumptive TB. PLHIV who screen negative for active TB should be provided isoniazid preventive therapy (IPT) to reduce the risk of progression from latent to active disease, while patients diagnosed with active TB should be initiated on TB treatment. Patients enter this cascade when they enrol in HIV care or treatment services and exit at various points depending on results of their screening and/or diagnostic tests, the quality and completeness of data recording, or patient non-adherence. In addition, TB infection control (TBIC) measures should be put in place in congregate and health facilities providing TB and/or HIV care to reduce the risk of TB transmission.

This section will look at PLHIV screened for TB, confirmed and initiated on TB treatment. However, because of unavailability of data, IPT initiation will not be covered in this section.

Table 25: HIV/TB Cascade

Region	Patients Seen	Seen and Eligible for TB Screening	Screened for TB.	Presumptive for TB	Confirmed for TB	% confirmed	Started on TB tx	% started on TB tx
Hhohho	34 853	34 291	34 517	769	204	27%	199	98%
Lubombo	22 473	22 143	22 431	271	43	16%	42	98%
Manzini	48 309	46 771	47 792	819	536	65%	533	99%
Shiselweni	25 871	25 421	25 830	434	51	12%	47	92%
Grand Total	131 506	128 626	130 570	2 293	834	36%	821	98%

The table above shows a TB cascade for PLHIV in 2015 by region. A total 131, 506 ART patients were seen and of those 130,570 were screened for TB. Out of those screened for TB, 2293 were presumptive cases with 31% of the patients confirmed to have TB. Worth noting is that 97% of those confirmed were started on TB treatment which can be attributed to the continuous training of Health care workers and provision of site supervision and mentoring. Also quarterly review meeting had played a pivotal role in scaling-up TB screening and initiations.

Eligible ART patients screened for TB by region and age

Figure 17: Eligible ART patients screened for TB by region and age, 2015

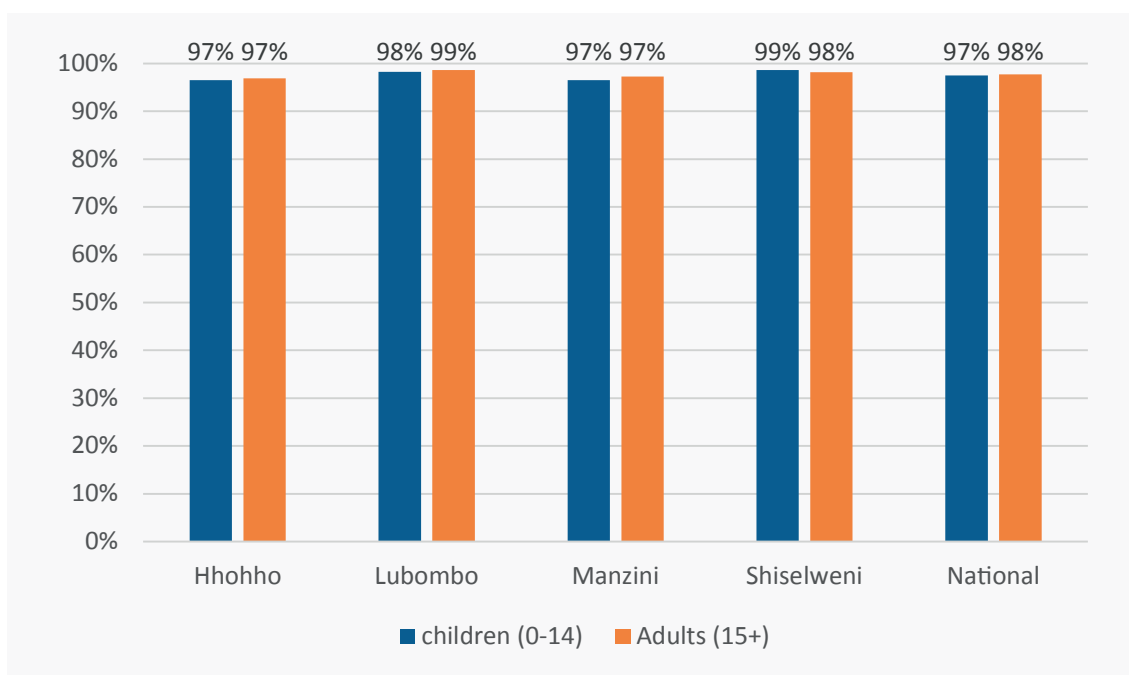


Figure 17 above shows TB screening by regions and age groups among PLHIV in 2015. As presented in the figure above, TB screening in all the age groups is offered to almost all patients eligible for screening. This is clearly explained by that in all the age groups within the regions, more than 90 % of the patients had received TB screening service.




Table 26: Proportion of ART patients diagnosed TB and initiated on TB treatment, 2015

Region	Age groups	Confirmed for TB	Started on TB Tx	% on TB Tx
Hhohho	Children (0-14)	17	17	100%
	Adults (15+)	187	182	97%
Lubombo	Children (0-14)	1	1	100%
	Adults (15+)	42	41	98%
Manzini	Children (0-14)	16	16	100%
	Adults (15+)	520	517	99%
Shiselweni	Children (0-14)	1	1	100%
	Adults (15+)	50	46	92%
National	Children (0-14)	35	35	100%
	Adults (15+)	799	786	98%

The figure above shows the proportion of ART patients diagnosed with TB and initiated on TB treatment in 2015. Among the regions, Manzini had the highest number of patients confirmed to have TB and put on TB treatment. Hhohho followed with Shiselweni having the least number of patients initiated on TB treatment. In all the regions, children (0-14 years) diagnosed to have TB were all started on TB treatment which is a greatest achievement for the program. Great performance was also observed among adults (15+), all the regions except for Shiselweni (92%) . Continuous training of health care providers on TB/HIV collaborative activities and mentoring by regional mentors and the programs had contributed significantly to such an achievement.

90-90-90 targets at a Glance

Key Performance Indicators

			Indicator	Baseline/Data Source	Indicator Target	2015 Target, 90-90-90	2015 Achievement	2015 Estimated Shortfall
	90	Knowing HIV status	% of PLHIV who have been diagnosed	63% (SHIMS, 2011)	90% of all people living with HIV will have been diagnosed	184 247 (Adults, ages 15+)	128 973 (Adults, ages 15+)	55 274
	90	Currently on ART	% of PLHIV on ART	117 515 (Adults, ages 15+)	90% of all people with diagnosed HIV infection will receive antiretroviral therapy	165 822 (Adults, ages 15+)	139, 211 (Adults, ages 15+)	26 611
	90	Viral suppression	% on ART virally suppressed	89.9% (SHIMS, 2011)	90% of all people on antiretroviral therapy will have viral suppression	149 240 (Adults, ages 15+)	125 290 (Adults, ages 15+)	23 950

Background to 90-90-90

As the world post MDGs 2015, and the deadline for the 2011 Political Declaration on HIV and AIDS, the limited progress around HIV resulted in new global discussions around the best way to end the AIDS epidemic by 2030.

The 90-90-90 treatment targets stipulate that 90% of PLHIV must be diagnosed, of those, 90% must be on treatment, of those 90% must be virally suppressed.

Why focus on ensuring PLHIV receive treatment?

- HIV treatment prevents HIV-related illness; growing evidence of the clinical benefits of earlier treatment initiation
- HIV treatment averts AIDS-related deaths
- HIV treatment prevents new HIV infections
- HIV treatment saves money; Early initiation of treatment enhances both health and economic gains

Implementation of the Swaziland Integrated Guidelines

In 2014 Swaziland officially rolled out the National Integrated HIV Management Guidelines that included ART for all pregnant and lactating women, and an increase in CD4 count to a new threshold of ≤ 500 cells/mm³ based on the WHO 2013 Guidelines. Responding to emerging evidence on the benefits of earlier initiation of ART for patients' clinical prognosis and for reducing HIV transmission, WHO revised its recommendations for ART treatment initiation in 2013. Under the new recommendations eligibility for ART expanded to adults and older children with CD4 counts of ≤ 500 cells/mm³. (The previous recommendation was to reserve treatment for CD4 counts of ≤ 350 cells/mm³.) Other groups, including children under the age of five years, sero-discordant couples, pregnant women and TB patients, are eligible regardless of CD4 count.

The country has noted improved progress in ART treatment over the last 10 years. To reach the 90-90-90 targets as a country, the next step would be to move towards "test and treat".

90-90-90:


By 2020

 **90%**
of all people living with HIV will know their HIV status.

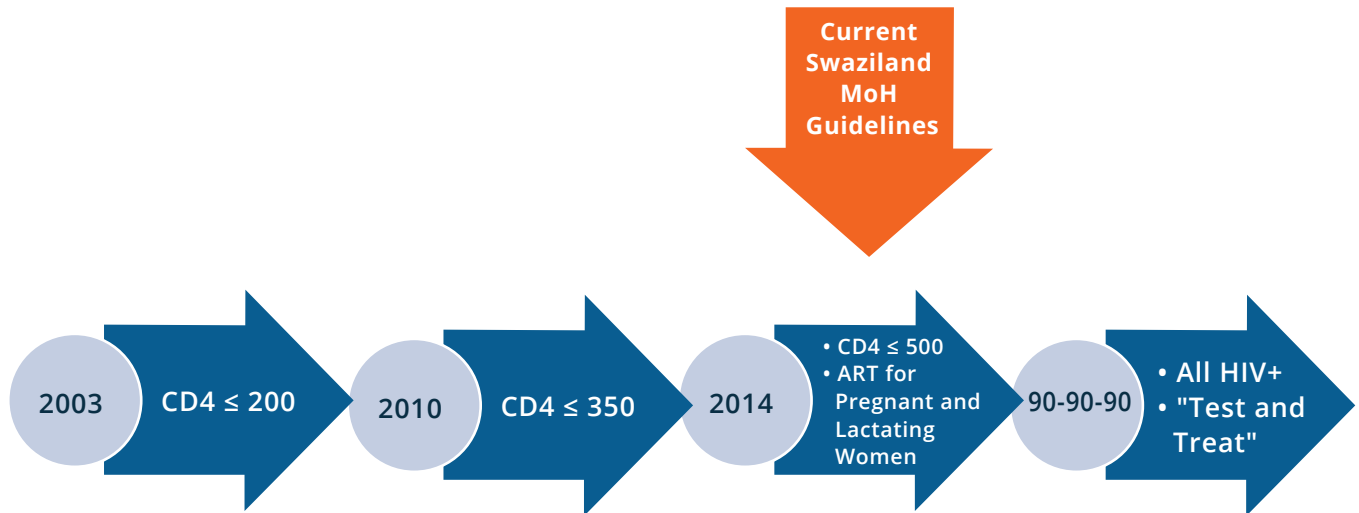
By 2020

 **90%**
of all people with diagnosed HIV infection will receive sustained ART.

By 2020

 **90%**
of all people receiving ART will have viral suppression.

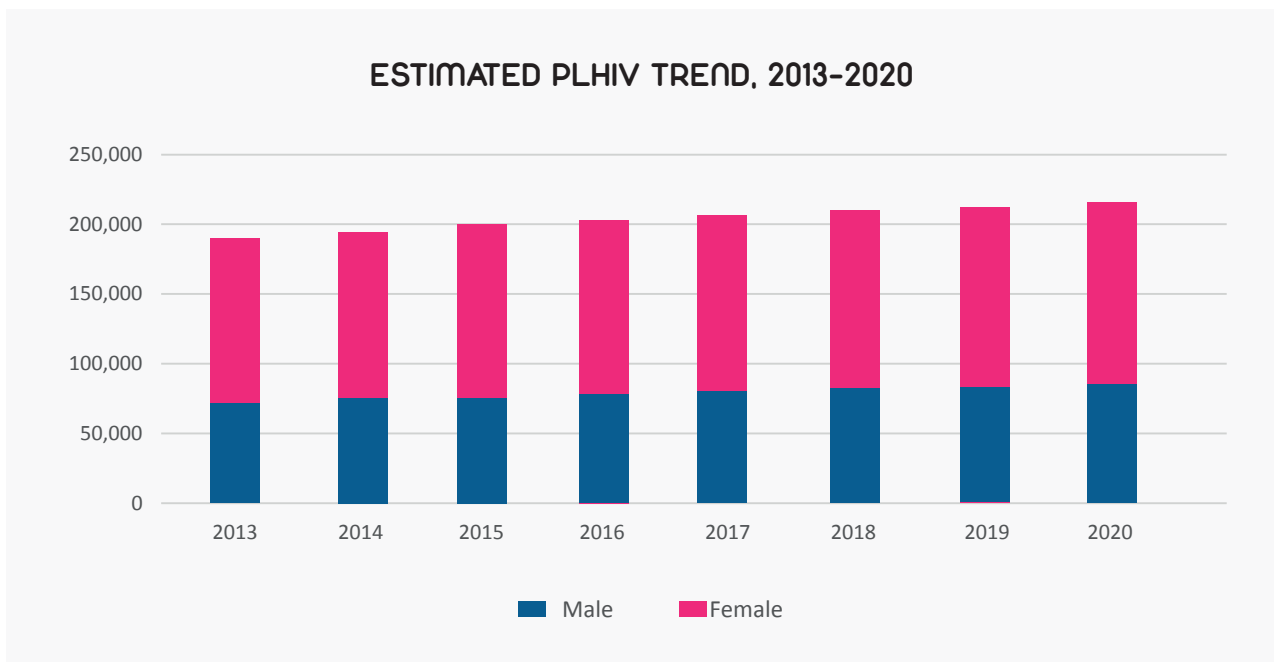
Swaziland ART progress:



ART Coverage in Swaziland

Based on the HIV Estimates and Projections, the country currently has an ART coverage of 83% of those in need, but a coverage of 76% of all estimated PLHIV. The amount of effort to reach the 90% coverage is only 12%, in 2015 that would have been an additional 26 611 people on ART.

Table 27: Estimated PLHIV Trend (2013-2020)



The country has been able to increase the number of people on ART every year since 2011. In 2015 there were 27 232 more adults on ART than the previous years. However, some of these adults could have been children in the previous years.

SWAZILAND 90-90-90 CASCADE FOR ADULTS(AGED 15+), 2015

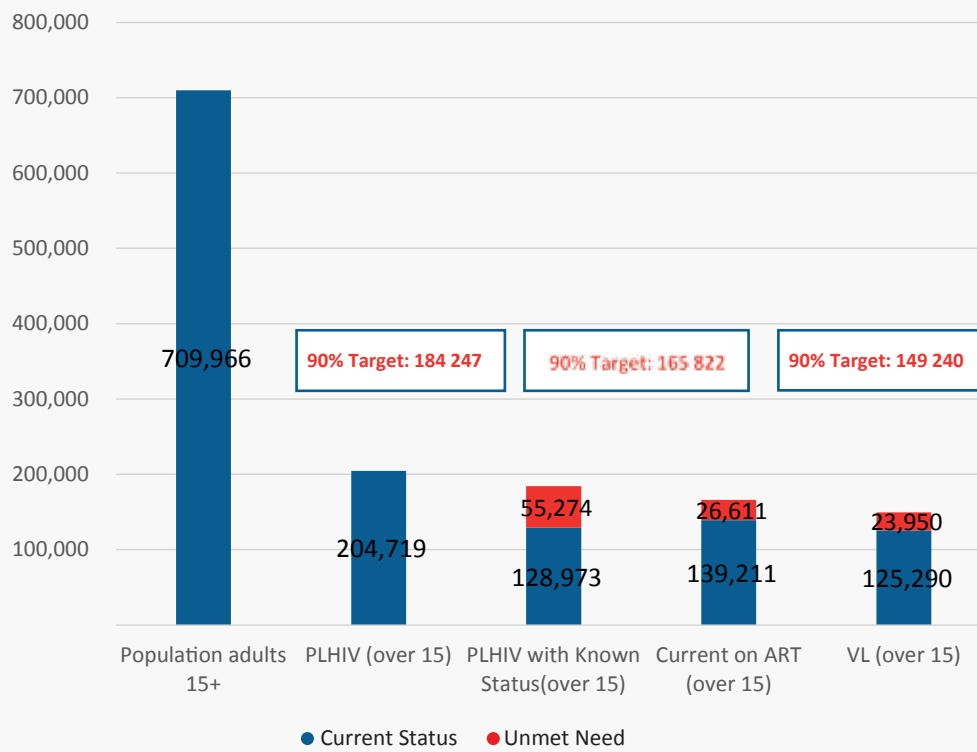


Figure 18: Swaziland Estimates for 90-90-90 for Adults, 2015

According to the 90-90-90 estimates, Swaziland faces the biggest unmet need among males when compared to females. A large contributing factor is the fact the women are given ART for PMTCT. There is therefore a need to scale up interventions that reach men at various points. A large proportion of men estimated to have HIV are not on ART. The graph below shows that of those on ART, 6 779 women were possibly missed, as compared to 19 833 males in 2015.

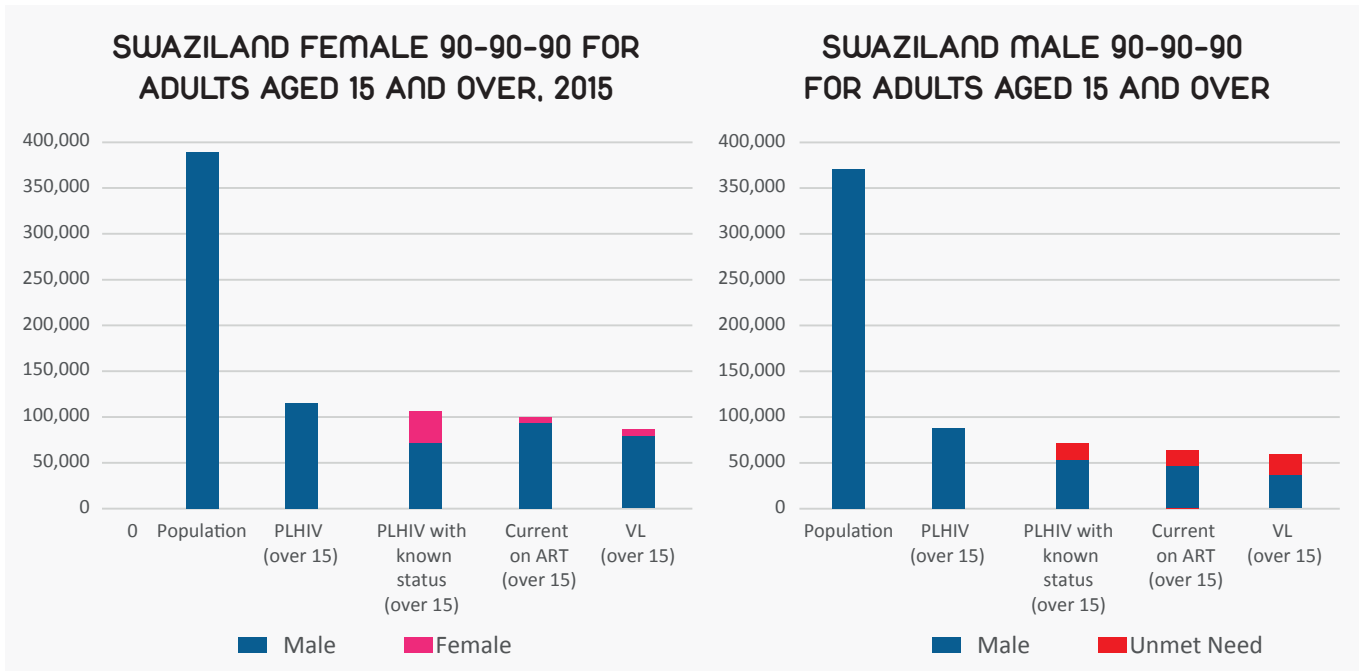


Figure 19: Swaziland 90-90-90 Estimates by sex, 2015

The estimated number of people in Swaziland based on the 2015 Swaziland HIV Estimates and Projections is expected to increase over the next 5 years. The current data from HMIS indicates that the number of people actively on ART has been increasing over the last 5 years as well. In 2015, there was 27 232 more people actively on ART as compared to 2014. The increase can be attributed to the rollout of the National Integrated HIV management guidelines. With this trend, to reach 90-90-90 targets of 2020, the country must have almost 50 000 more people actively on ART.

The background of the slide is a solid blue color. It features a collage of semi-transparent images. At the top, there are several white-outlined rectangular boxes of varying sizes, some overlapping each other. The collage includes: a close-up of several white pills; a pair of hands, one holding a small red object; a poster with the words 'HIV' and 'AIDS' written in a simple font, and a graphic of two stylized figures; and a bar of white soap. The overall design is clean and professional, with a focus on the theme of HIV/AIDS.

CHAPTER 4: Major program achievements and challenges

4.1 POLICY AND ADVOCACY

Swaziland has succeeded in mounting a successful response to the HIV/AIDS pandemic. These has been possible through the use of strategic documents put in place by the Ministry of Health through SNAP in implementing services related to HIV which are the Health Sector Response to HIV/AIDS plan 2014-2018 and the new adopted HIV guidelines 2015

4.2 CAPACITY BUILDING

Capacity building involves equipping health care providers with current required skills as well equipping facilities with proper infrastructure and equipment to provide quality health services.

- The program in collaboration with partners has successfully conducted trainings on; training of health care providers to properly provide CIHTS at community level; Training of health care providers on TB/HIV collaborative activities during IMAI, NARTIS, TB/HIV and Advanced IMAI trainings; trainings on LLaPLa
- Adherence and Psychosocial Support curriculum also adapted to HTS counselors
- Mentoring of sites on TB/HIV collaborative activities

4.3 SERVICE DELIVERY

HIV supporting partners have played a major role in supporting MoH to increase access to HIV services through;

- The commemoration of couple testing campaign month “Love test month” and campaign focusing on the informal couple named “Are you more than Just” has scale-up HIV testing among couples.
- The development and implementing of quality improvement plans and projects have contributed in improving the provision of quality HIV health services in facilities.
- Scaling up VMMC services among adult men age 15-29 years have improved VMMC service uptake in the country, however increasing male circumcision uptake among neonates still remain a challenge. Inadequate resources also contributed negatively in the provision on VMMC services.
- The roll-out of Llapla has increased ART uptake among pregnant and lactating women.
- Accessibility to ART for PLHIV have been improved by decentralization of PIMA machines and introduction of Third line ART regime for pediatrics.
- Also the full roll-out of the new Integrated HIV Management guidelines has increase the number of people currently on ART. ART pilots such as Treat ALL, EAAA, MaxART and finalization of community ART SOPs has also contributed immensely in scaling –up ART uptake.
- To strengthen TB/HIV collaborative activities, the program has established a regional coordinating committee and have a TB/HIV coordinator. In terms of IPT initiation and reporting, the country is still facing some challenges. This is due to stock-out of INH, fear of side effects and inaccurately recording and reporting of IPT.

4.4 DATA and M&E

The Strategic Information Department continue to generate quarterly Service Coverage reports (QSCR) and program annual reports to measure service coverage and uptake, however there is still minimal involvement in report writing process. These has a negative impact on the ownership and use of the report for programing and decision making. To ascertain programs and facilities performance, quarterly, semi-annual and annual program reviews (QRM and NaHSAR) are conducted in collaboration with implementing partners. In such forums, the ministry together with partners are able to critically discuss data to inform performance of programmes, and deduce relevant actions that are aimed at improving health programmes and performance of the same. The M&E Unit together with SNAP conducted a review for the HIV program. The aim of this review was to examine the extent to which SNAP is functioning in accordance to prescribed goals and objectives as well as to assess progress related to intermediate results as outlined in the HSRP 2014-2018.

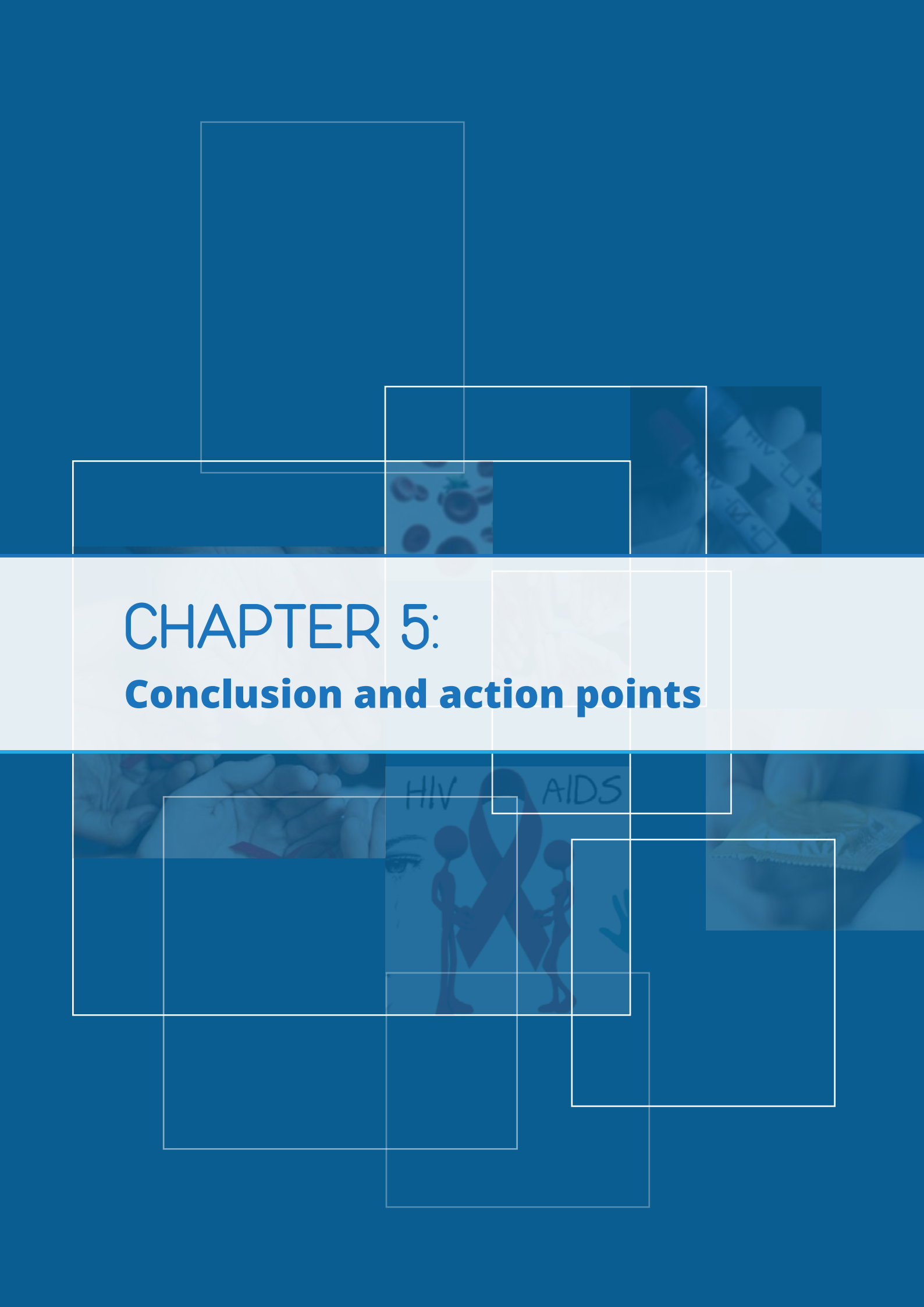
In addition, SID is continuously improving data collection tools and systems. For instance, PMTCT data collection tools have been reviewed to be in line with the new Integrated HIV and Management guidelines which now include LLaPLA and viral load testing. HTS data collection tool had also been reviewed to incorporate couple testing and referral variables in an effort to strengthen couple testing and referrals. Introduction of HTS monthly summary report has also played a pivotal role in improving the quality of data in terms of timeliness.

The parallel systems of reporting used by private facilities pose a challenge in calculating retention rates, attrition and ART regimen breakdown for patients. The program still experience data management challenges in terms of IPT capturing and reporting; no use of standard register to capture and report IPT thus difficult to track initiations, side effects and outcomes.

The ministry is piloting a patient centred health information system (known as the Client Management Information System) in few health facilities. The main benefit of this system is that clients will have a unique identifier hence improve data quality. However, some challenges have been noted in all the pilot sites such as inaccuracy in data reported.

The program conducted the following studies;

- Evaluation of TB/HIV collaborative activities
- Intervention to improve IPT delivery in Swaziland
- Evaluation of urine TB Lipoarabinomannan (LAM) in increasing TB case detection in PLHIV

The background of the slide is a dark blue color with a collage of semi-transparent images. At the top, there are several white-outlined rectangular boxes of varying sizes. The collage includes: a pair of hands, a close-up of pills, a poster with the text 'HIV AIDS' and a red ribbon symbol, and a bar of soap. The text 'CHAPTER 5: Conclusion and action points' is centered in a white box.

CHAPTER 5:

Conclusion and action points

5.1. Conclusion

The Swaziland National AIDS Programme continues to implement and coordinate HIV prevention, care and support activities in all the 4 region of the country. Although the response to HIV/AIDs in the country is still a challenge, the program has witnessed a major success in terms of access to interventions such as HTS, PMTCT, ART and VMMC. This is evident by the fact that in 2015 there has been a significant increase in the number of people accessing HTS however the set target of 500 000 tests was not achieved. Furthermore, in an effort to end the pandemic, the country has aligned in achieving the 90-90-90 UNAIDS targets.;

According to the eNSF (2014-2018), 15,000 young men age 10-49 should be circumcised in 2015. The data in chapter 3, reveals that 12,177 males were circumcised during the year which is 81% of the total target.

The data in the PMTCT section shows that over 20% (7,074) of the pregnant women come in for their 1st ANC booking with an already HIV positive status and of these 68% were already on ART. HTC uptake among pregnant women slightly decreased from 97% in 2014 to 90% in 2015. Positivity rate at ANC is 37% with 93% of these women on ART. This is attributed to the roll out of LLAPla. Generally, sero-conversion is decreasing however at L&D sero-conversion is increasing from 3% to 1% in 2015. In 2015 viral load assessment was introduced for pregnant women and data collection tools were reviewed to capture this. Of note is the increase of positivity rate among infants tested for HIV at 6-8 weeks. Over the years, positivity among this age category was 2% but since 2014 it has increased to 3%. This is contrary to what is expected with regards to the introduction of LLAPla.

The country has also experienced an increase in the number of people currently on ART in both children and adults from 125, 421 in 2014 to 147, 274 in 2015. This translates into 82% ART coverage based on ART eligibility criteria (those in need of ART). Retention at 36 months has increased from 83% to 84% for children and 78% to 83% for adults in 2014 and 2015, respectively. Among PLHIV eligible for TB screening, the country had surpassed the 2015 target stipulate in the eNSF (2014-2015) of 70%, 97% of those diagnosed with TB were enrolled on TB treatment. IPT initiation and reporting still remain a challenge for the program. Swift efforts are needed to be put in place for the program to be able to achieve its set target.

In an effort to achieve the UNAIDS global set targets (90 90 90), according to the HIV estimates and projections report (2015), the country among PLHIV adults (15+), has managed to diagnose 70% , 68% of those were put on to ART and 89% were viral suppressed.

5.2. Action points

Based on the findings presented in this report, the following action points were made:

Linkage to HIV care-tracking of referrals

- Continue with the implementation of the National Referrals and linkage systems
- Capacitate health care workers in tracking and following referred clients
- Train all counselors on both PIHTS and CIHTS settings on Adherence and Psychosocial support counseling
- Support the use of the referral directory in all the regions
- Close supervision and mentoring of private facilities on proper ART regimens for new initiations, switching and substitution;

Scale up of CIHTS/Partner Testing

- Intensive Sensitization and mobilization of the general community about the benefits of partner testing and together

Quality Assurance and Quality Improvement

- Develop quality improvement plans and implement actions together with facility focal persons
- Conduct QA assessment to all testing points using the Step Wise Quality control tool
- Work closely with the Laboratory to train health care workers on Quality assurance activities for testing
- Train all HTS implementers on External and Internal quality assurance

Increase VMMC uptake

- VMMC uptake among males 15-29 years and neo- natal is below target thus there is need increase demand by developing multiple strategies to increase MC service uptake
- Integrate MC services with other health services.
- Address socio-cultural, myths and misconceptions of MC that create barriers to service uptake.

Increase IPT uptake

- IPT uptake among eligible patients is very low; therefore, there is need to strengthen IPT implementation in all facilities through trainings, health education to clients, improve INH supply and improving clinical and laboratory monitoring of side effects (pharmacovigilance)
- Develop standardized IPT register to improve recording and reporting of side effects and outcomes among clients initiated on IPT
- Develop facility based Quality improvement plans and projects.

Scale-up TB/HIV collaborative activities

- Develop the TORs for the regional coordinating committees to monitor and coordinate TB/HIV collaborative activities
- Capacity building for NTCP and SNAP officers on TB/HIV collaborative activities. This will enhance integration of TB services within their thematic areas.

PMTCT

- Investigate on the increase of sero-conversion at PMTCT
- Strengthen adherence messages among women on ART to improve PMTCT outcomes on the infants born from HIV positive mothers and undetectable viral load.

Improve data quality

- Identify children less than 12 years with wrong ART formulations (TDF based regimen) and establish their current regimen then update the mother site RxPMIS databases.
- Capture Pre-ART data into electronic database for all health facilities with the help of regional implementing partners.

6. References:

1. Ministry of Health. Swaziland HIV Incidence Measurement Survey. Mbabane; 2011
2. Ministry of Health. Swaziland HIV Estimates and Projections Models Report. Mbabane; 2015
3. Swaziland Ministry of Health. Sentinel Surveillance Report. Mbabane: Ministry of health; 2010
4. Swaziland Ministry of Health. HIV Program report. Mbabane: Strategic Information Department; 2014
5. Ministry of Health. Health Policy - 2006
6. National Multi -Sectoral HIV and AIDS Policy (2006),
7. The National Health Sector Strategic Plan II 2014 – 2018. Ministry of Health, Mbabane.
8. Ministry of Health. The Health Sector Response Plan to HIV and AIDS 2014-2018. Swaziland National AIDS Program. Mbabane; 2014
9. Ministry of Health. The Extended National Multi-sectoral HIV and AIDS Framework. Mbabane: Print park; 2014
10. Ministry of Health. Swaziland Integrated HIV Management Guidelines of 2015. Mbabane; Print Park; 2015
11. Central Statistics Office. Multi-Cluster Indicators Survey. Mbabane: CSO; 2010
12. Ministry of Health. PMTCT Impact Evaluation study. Mbabane: Ministry of Health; 2012
13. WHO. Consolidated Strategic Information Guideline for HIV in the Health Sector. WHO Press. 2015
14. WHO. Health in 2015: from Millennium Development Goals to Sustainable Development Goals. WHO Press. 2015
15. The kingdom of Swaziland. Political declarations on HIV / AIDS in 2011. Mbabane; 2011
16. UNAIDS. 90-90-90: An ambitious treatment target to help end the AIDS epidemic by 2020. UNAIDS; 2014

ANNEXES

Table: Number of HIV tests by age, sex and test results, 2015

Age groups	Females			Males			Grand Total		
	Number Tested	Number Tested & Received Results	Number HIV+	Number Tested	Number Tested & Received Results	Number HIV+	Number Tested	Number Tested & Received Results	Number HIV+
>1	7322	7099	98	7128	6934	115	14450	14033	213
1-4	14128	14104	177	13335	13302	188	27463	27406	365
5-9	10850	10770	153	10713	10623	161	21563	21393	314
10-14	21746	21619	707	12710	12654	249	34456	34273	956
15-19	45384	45154	2519	17092	16969	530	62476	62123	3049
20-24	79622	78976	6403	38278	37908	3857	117900	116884	10260
25-49	66696	66320	5506	38644	38500	5482	105340	104820	10988
50+	19879	19824	577	12946	12904	589	32825	32728	1166
Grand Total	265627	263866	16140	150846	149794	11171	416473	413660	27311

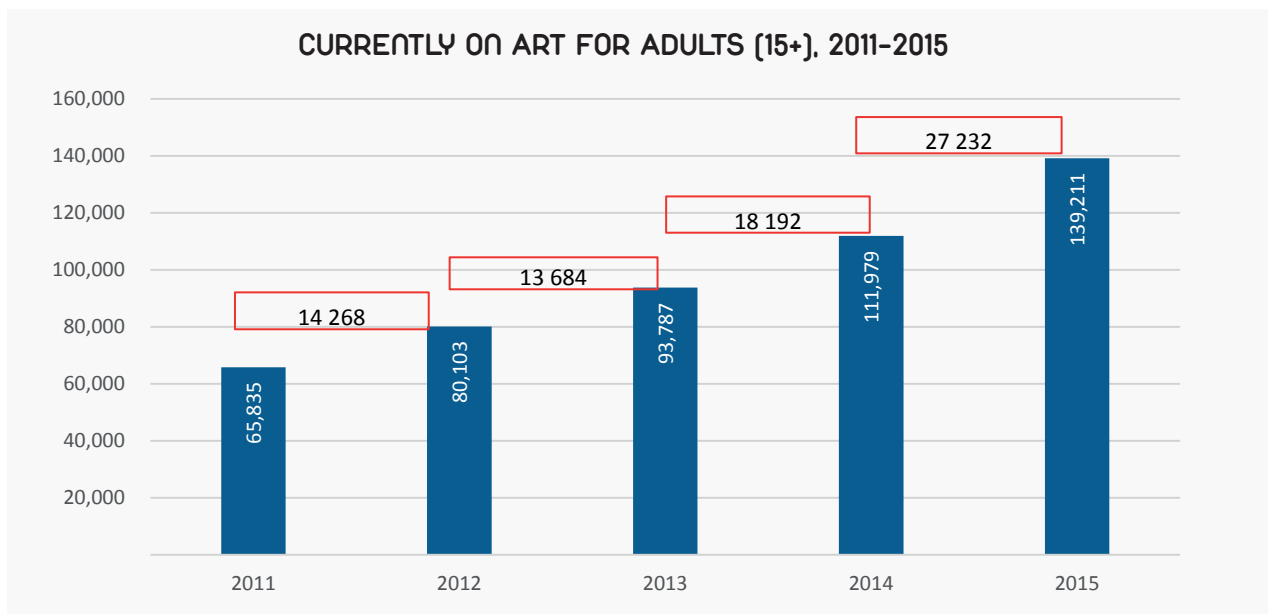
CMIS site

Number of HIV test conducted by age, sex and test result, 2015

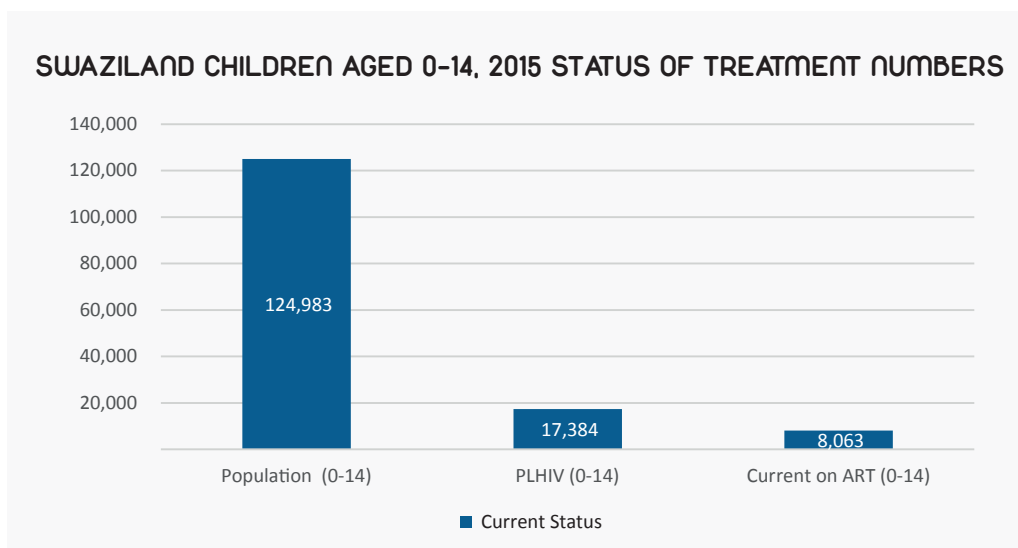
Males					
Age-Group	Number Tested	Number Received Results	% Received Results	Number HIV+	% Positive
< 1 Years	928	115	12,4%	20	2,2%
1-4 Years	835	325	38,9%	9	1,1%
5-9 Years	34	13	38,2%	1	2,9%
10-14 Years	20	15	75,0%	1	5,0%
15-19 Years	80	55	68,8%	5	6,3%
20-24 Years	232	161	69,4%	8	3,4%
25-49 Years	567	358	63,1%	102	18,0%
50+ Years	144	101	70,1%	10	6,9%
Grand Total	2 840	1 143	40,2%	156	5,5%

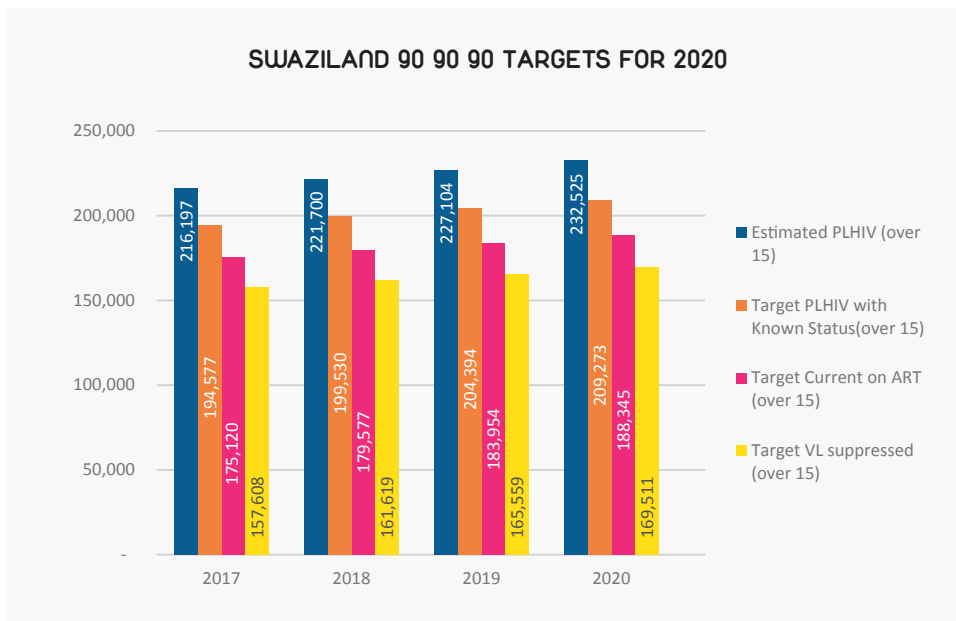
Females					
Age-Group	Number Tested	Number Received Results	% Received Results	Number HIV+	% Positive
< 1 Years	895	100	11,2%	15	1,7%
1-4 Years	844	316	37,4%	12	1,4%
5-9 Years	33	15	45,5%	2	6,1%
10-14 Years	38	20	52,6%	2	5,3%
15-19 Years	762	388	50,9%	68	8,9%
20-24 Years	1 561	812	52,0%	208	13,3%
25-49 Years	2 237	1 087	48,6%	393	17,6%
50+ Years	297	210	70,7%	11	3,7%
Grand Total	6 667	2 948	44,2%	711	10,7%

Thinking Ahead? Reaching 90-90-90 by 2020



Pediatrics and HIV





Swaziland 90-90-90 targets by regions, 2015

