

2018



FEDERAL MINISTRY OF HEALTH, NIGERIA



NATIONAL AIDS & STIs CONTROL PROGRAMME

HIV Health Sector Annual Report

PREFACE

Nigeria remains committed to meeting the vision to halt and reverse the HIV and AIDS epidemic in the country and promote the achievements of HIV/AIDS prevention, treatment, care and support in line with global commitments. As part of the current efforts by the government to achieve the UNAIDS 90-90-90 target, various initiatives and strategies were developed towards achieving these targets.

In line with the resolution of the 2004 UN General Assembly Special Session on HIV/AIDS (UNGASS), member states are expected to provide annual reports that will show data on the scale-up of selected interventions and progress towards achieving Universal Access. The Federal Ministry of Health in collaboration with NACA, UN Agencies, USG, AHF, CHAI, Global Fund, and Implementing Partners produce annual reports on the progress achieved in the health sector response to HIV & AIDS. This report showcases progress made on the National Strategic Plan (NSP) targets, strategies, program achievements, trends and gaps. It highlights the performance in the national response, the collective efforts of stakeholders and also provides strategic evidence for improved performance for the HIV program.

The 2018 report provides a reflection of the effort, commitment and persistence of all stakeholders in the HIV response. It contains information on the following areas: HIV Testing Services (HTS), Prevention of Mother to Child Transmission (PMTCT) of HIV, and Anti-Retroviral Therapy (ART). It is the fourth in the series of annual reports produced. This report will help to inform future planning and implementation of HIV/AIDS program towards a nation free of new HIV infections and AIDS-related deaths.

ACKNOWLEDGEMENT

The painstaking but vital task of preparing the 2018 annual report could not have been fulfilled without the unified resources and efforts of some outstanding groups and individuals. The National AIDS and STIs Control Programme of Federal Ministry of Health (FMoH) appreciates the contribution of all who worked tirelessly and dedicated their time and resources towards the development of the 2018 Annual Report on HIV & AIDS Health Sector Response in Nigeria.

We would like to recognize the partners who provided financial and technical support towards ensuring that the country validated the 2018 HIV Health Sector Response data and for the writing of this report. These include NACA, UNAIDS, World Health Organization, United States Government, Global Fund, Clinton Health Access Initiative (CHAI), AIDS Healthcare Foundation (AHF), and Implementing Partners. Also, our sincere gratitude goes to the national data validation steering committee for their dedicated contributions towards the success of the 2018 health sector validation.

In conclusion, the FMoH acknowledges the State Ministries of Health, State Agencies for the Control of AIDS, Implementing Partners and other organizations for their immense input in the entire process.

Nigeria will continue to work towards meeting her set targets of halting and reversing the HIV/AIDS epidemic in the country.

LIST OF

ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
AFENET	African Field Epidemiology Network
AHF	AIDS Healthcare Foundation
ANC	Ante-Natal Care
ART	Anti-Retroviral Therapy
ARV	Anti-retroviral
CDC	Centers for Disease Control and Prevention
CTRR	Counselled, Tested and Received Result
CTX	Cotrimoxazole
DNA	Deoxyribonucleic Acid
EID	Early Infant Diagnosis
eMTCT	Elimination of Mother to Child Transmission of HIV/AIDS
FCT	Federal Capital Territory
FGN	Federal Government of Nigeria
FMoH	Federal Ministry of Health
GAM	Global AIDS Monitoring
HCWs	Health Care Workers
HEI	HIV Exposed Infant
HTS	HIV Testing Services
HISP	Heath Information System Project
HIV	Human Immunodeficiency Virus
SHMIS	State Health Management Information System
IDP	Internally Displaced Persons
INH	Isoniazid
IPs	Implementing Partners
IPT	Isoniazid Preventive Therapy
LGA	Local Government Area
MTCT	Mother to Child Transmission of HIV/AIDS
M&E	Monitoring and Evaluation
NACA	National Agency for the Control of AIDS
NASCP	National AIDS & STIs Control Programme

NHMIS	National Health Management Information System
SKM-TWG	National Strategic Knowledge Management Technical Working Group
NSF	National Strategic Framework
NSP	National Strategic Plan
NVP	Nevirapine
OIs	Opportunistic Infections
PCR	Polymerase Chain Reaction
PEPFAR	United States President's Emergency Plan for AIDS Relief
PLHIV	People Living with HIV/AIDS
PMTCT	Prevention of Mother to Child Transmission of HIV
PNS	Partner Notification Service
RTKs	Rapid Test Kits
SACA	State Agency for the Control of AIDS
SASCP	State AIDS/STIs Control Programme
STIs	Sexually Transmitted Infections
RM&E	Research Monitoring and Evaluation
SMoH	State Ministry of Health
TB	Tuberculosis
TBAs	Traditional Birth Attendants
TFR	Total Fertility Rate
UN	United Nations
USAID	United States Agency for International Development
USG	United States Government
UNAIDS	Joint United Nations Programme on HIV & AIDS
UNGASS	United Nations General Assembly Special Session
UNICEF	United Nation Children's Fund
VDRL	Venereal Disease Research Laboratory
WB	World Bank
WHO	World Health Organization

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Section One

Introduction

1.0 Background

In 2018, Nigeria with a projected population of 197 million is the most populous country in Africa (World Bank)¹. With a prevalence of 1.4% ² and an estimated 1.9 million people living with HIV/AIDS (PLHIV) in 2018, it has the fourth highest burden of the disease in the world and highest burden in West and Central Africa³. The estimated number of children (0 – 14 years) living with HIV is 140,000 while that of HIV positive pregnant women is 100,000.

Nigeria is among the three countries in West and Central Africa that account for about 60% of new HIV infections, 54% of AIDS related deaths and 41% of new childhood infection in 2018 (UNAIDS 2019).

To achieve the national and global targets, the implementation of the recently adopted strategies such as the Differentiated Care Model, Partner Notification Service (PNS) and the Test and Treat strategies were intensified in 2017. Furthermore, Nigeria as one of the UNAIDS fast-track countries has aligned the revised National Strategic Framework (NSF) 2019-2021 with the agreed global targets.

This report shows the annual performance regarding the implementation of service delivery and set targets in the HIV/AIDS health care system. It also looked at the trends in the key performance indicators of the NSF for HIV/AIDs in Nigeria. It is important to note that the national estimates were significantly revised this year. As compared to earlier surveys in Nigeria, The NAIIS showed a lower HIV prevalence of 1.4% and this was used to recalibrate the HIV estimates and projections.

The review of the health sector annual performance is expected to showcase achievements, lessons learned, challenges and aid programming and decision making towards achieving the global HIV targets.

1.1 Methodology

1. Data Validation Process

The data validation process is a three-stage process held bi-annually during the first and second quarters of the year. The first stage is at the state level, the second stage at the zonal level while the third stage is at the national level (collation, verification, consolidation and report writing). The health sector data validation process is overseen by the National Health Sector data validation core team and steering committee. validation process is overseen by the National Health Sector data validation core team and steering committee.

¹World Bank. The World Bank in Nigeria. <https://www.worldbank.org/en/country/nigeria/overview>. Accessed August 28th, 2019.
²UNAIDS. Expanded data collection and analysis provides better understanding of HIV epidemic in Nigeria [Internet]. 2019 [cited 2019 Jul 3]. https://www.unaids.org/en/resources/presscentre/pressreleaseandstatementarchive/2019/march/20190314_nigeria

The national health sector data validation core team includes staff from National AIDS and STI Control Program (NASCP) and the National Agency for the Control of AIDS (NACA). It is the responsibility of this team to ensure the successful conduct of this process and to produce consolidated national health sector validated data disaggregated by sub-national units (states) as well as other relevant elements of disaggregation. The process is concluded with the development and distribution of the annual health sector report.

The steering committee comprises of major stakeholders from Government of Nigeria (GoN), donors, UN Agencies and implementing partners and they are responsible for coordination, oversight, administrative and technical guidance as well as decision-making on all major aspects of the data validation process. The 2018 first semester data validation took place in August 2018 while the second semester validation meeting was held in March 2019 in designated zones.

2. State level data validation

The state-level data validation was conducted on a quarterly basis by the State AIDS/STIs Control Programme (SASCP) in collaboration with the State Agency for the Control of AIDS (SACA), State Health Management Information System (SHMIS) and all the Implementing Partners (IPs) in the states to harmonize and validate health sector data. This process involved identification of the gaps and the use of nationally agreed validation rules to harmonize and validate the reported data. The output of this meeting was the consolidated state-level data disaggregated by facility. This data was further reviewed at the zonal level validation meeting. Data quality issues identified at this meeting were addressed by the national core team and state teams.

3. Zonal data validation meeting

The 2018 zonal health sector data validation was organized by the national core team. Two zonal validation meetings were held in August 2018 and March 2019 respectively and involved all state M&E officers, national M&E officers, IPs and UN Agencies. The National core team provided support by ensuring that the state level validated data are cross-checked and revalidated in order to ensure quality data. The key output of the meetings was the validated data from all the 36 states in Nigeria and FCT.

4. National Data Validation Process

This is the final stage of the validation process coordinated by the national validation core team. It included state data collation, verification, harmonization, consolidation, feedback with the states/key stakeholders and reporting. The 2018 validated data was then presented to the National Steering committee and members of the National Strategic Knowledge Management Technical Working Group for ratification following which the completion of the 2018 Global AIDS Monitoring (GAM) report was done and the final annual report developed.

Section Two

HIV Testing Services

2.1 Background

HIV testing services (HTS) comprise of activities that ensure voluntary and confidential counselling, testing and disclosure of HIV test results to individuals and clinical screening for tuberculosis and STIs. The activities include pre-test information and post-test counselling; testing using the national algorithm, and linkage to HIV prevention, care and treatment. HTS serves as a point of entry to HIV care, and treatment. The National HTS guideline³ recommends that HTS be delivered using a client centered approach guided by five core principles known as the 5Cs: consent, confidentiality, counselling, correct test results and connection with prevention care and treatment services

These services take place across the country in health facilities and through community outreaches. The number of service delivery points providing HTS services have increased over the years. In 2018, there were 8,373 health facilities that provided HTS services and tested 9,832,045 persons for HIV. This section shows the HTS performance in 2018 and the trend of activities over the last five years.

Nigeria adopted some strategies in its HTS guidelines to facilitate the achievement of the national 1st 90 target which is in line with the UNAIDS 90-90-90 targets. The strategies include: index case testing and self-testing. In addition, the revised tools ensure that the previously known positives are excluded from the new positives identified thus minimizing the likelihood of double counting.

The 2019 Global AIDS report from UNAIDS⁴ shows that in 2018, 67% of people living with HIV/AIDS in Nigeria know their status (1st 90 target). This shows that there is still a 23% gap to attain the UNAIDS 1st 90 target by 2020. Achieving the 1st 90 target is key to attaining the second and third UNAIDS 90-90-90 targets by 2020.

2.2 Performance of HIV Testing Programs

As shown in Figure 1.1, the number of HTS sites gradually increased from 2014 to 2016, however, there was a decline in the number of sites offering HTS between 2016 and 2017. This may be attributed to dwindling funds, security challenges in some of the locations where these facilities are situated, and the refocus on priority LGAs within the national HTS program. An increase of 7.5% was observed in the number of sites offering HTS in 2018. Some of this increase has been attributed to the scale up of sites by some state government. However, this scale up did not result in a commensurate increase in the number of persons tested in those states (Annex 2). Nevertheless, the increase in the total of testing facilities demonstrates the commitment of the government in scaling up services and increase access to HIV testing among Nigerians. It also indicates the number of available trained providers who can provide these services thus, ensuring

³The National HTS Guide line

⁴UNAIDS Data 2019

that clients receive the correct diagnosis and reduce incidence of misclassification of either positive or negative which have wide reaching implications both for the individual, their partners and the national program.

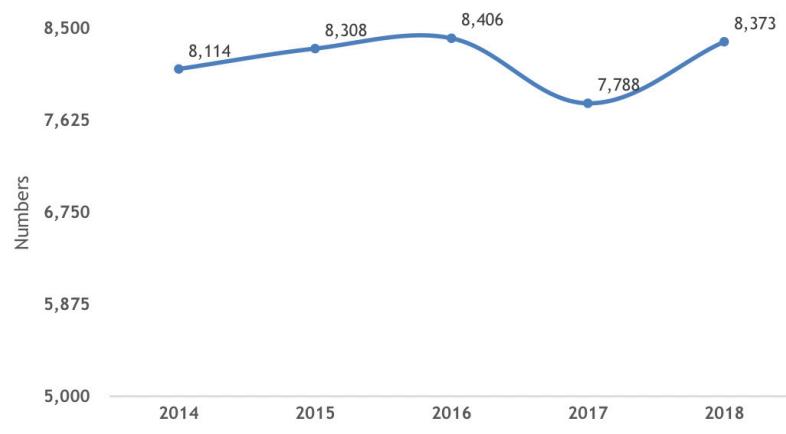


Figure 1.1: Number of HIV testing sites in Nigeria

2.2.1 HIV Testing by State, 2018

A total number of nine million, eight hundred and thirty-two thousand and forty-nine (9,832,049) persons were tested for HIV and received results in all the 36 states plus FCT in 2018 and this was achieved across 8,373 sites

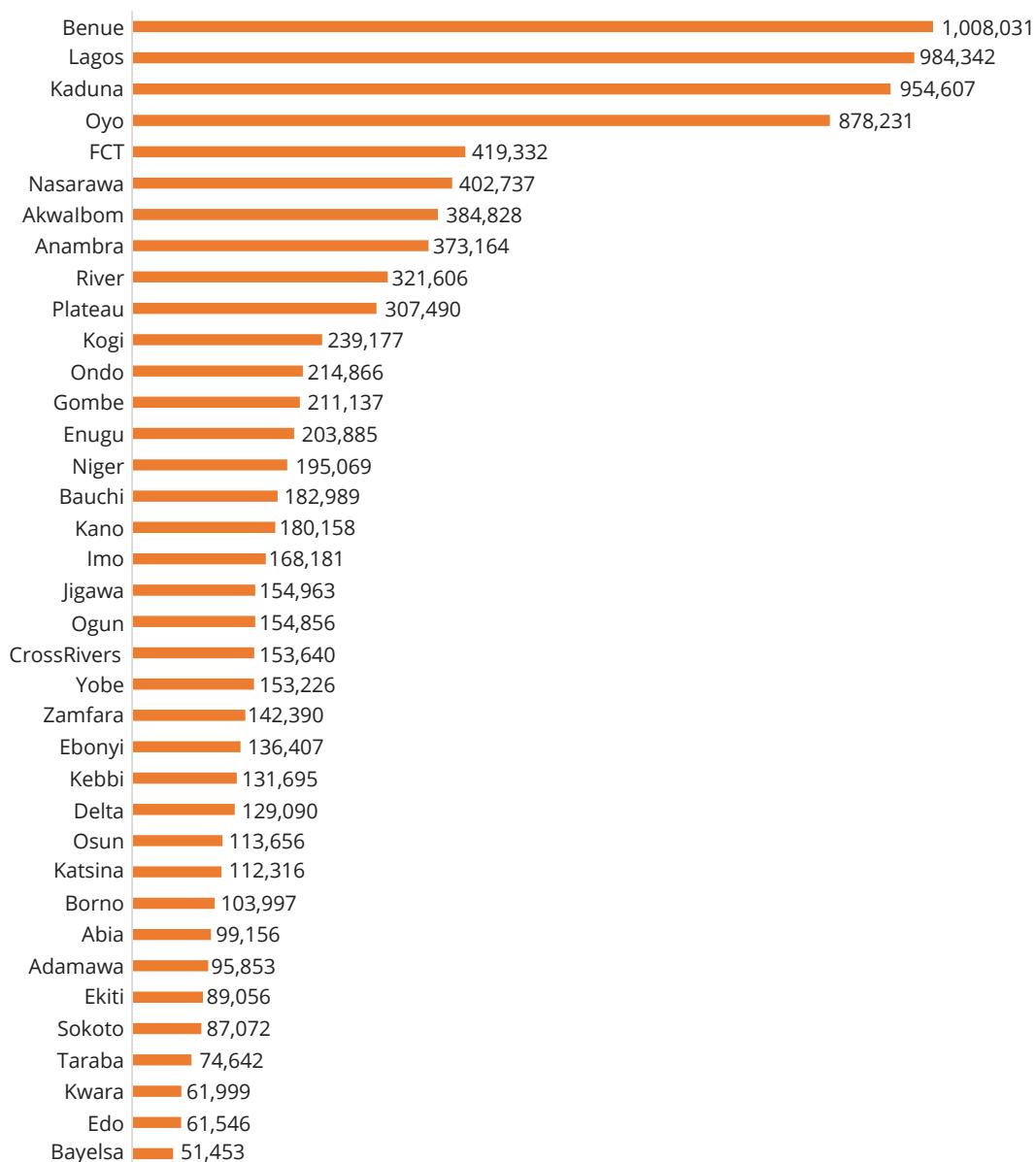


Figure 2.1: Total Tested and Received Results by State

Figure 2.1 shows the total number of individuals who were counselled, tested and received their results in all the states in 2018. Benue state had the highest number of individuals provided with HTS while Bayelsa had the lowest number. In comparison to the 2017 figure (9,019,513), there was a 9% increase in the total number of people who were counselled, tested, and received their results in 2018 (9,832,045). Data on retesting shows that 1.3% (128,267) of the total tested were among individuals who had previously tested for HIV in the same year.

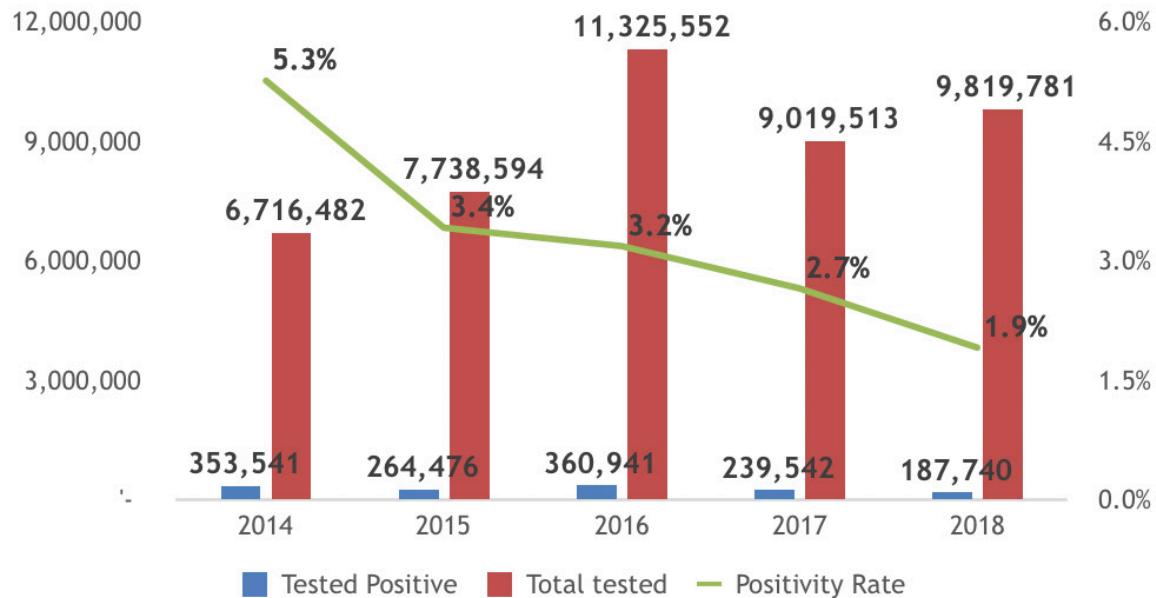


Figure 2.2: Trend in Number of Persons Who Tested & Received results

The country has continued to make gains in the fight against HIV/AIDS, especially in the area of testing through increased coverage and adoption of various strategies for increasing testing uptake and identification of positives among the population. Figure 2:2 compares the number of people tested and who received their result and the proportion of those HIV positive over the last five years. Despite an increase in the number of persons tested in 2018 compared to 2017, there was a decrease in the number of identified positive persons reported. This shows that the country needs to improve on its strategy of targeted testing in order to meet the First 90.

2.2.2 HIV Positivity by Age and Sex

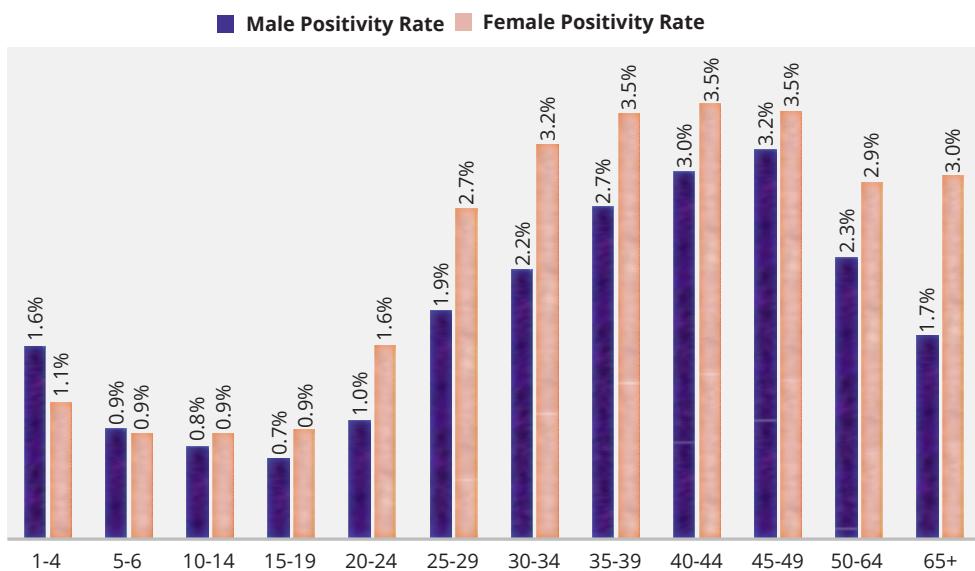


Figure 2.3: HIV Positivity by Age and Sex

Figure 2.3 shows HIV positivity disaggregated by age and sex. Across all adult (>15 years) age groups, HIV positivity was higher among females than males. This finding is similar to that reported from the national HIV survey (NAIIS 2018). Among females, the highest HIV positivity was among those aged 35-49 years (3.5%) while the least was those aged 5-19 years (0.9%). Again, this finding was similar to that observed in the NAIIS with women aged 35-49 years having the highest positivity nationally. For males, highest HIV positivity was among those aged 45-49 years (3.2%) while the least was among those aged 15-19 years (0.7%). This pattern also aligns with that from the NAIIS. Over the years, females have shown to have higher positivity rate compared to men and calls for increased efforts to deliver evidence-based interventions to mitigate the burden among them. Furthermore, the higher positivity among females compared to males was observed in 17 of 36 states plus Federal Capital Territory (FCT) while in 6 states prevalence was higher among males than females. As Nigeria continues it drives to reduce the burden of HIV, it demands that strongest evidence of the most efficacious prevention interventions: early treatment of partners (96% efficacy among heterosexual couples), condoms (70 – 80% efficacy) and oral preexposure prophylaxis (46% efficacy) must be made available to the Nigerian population.⁴

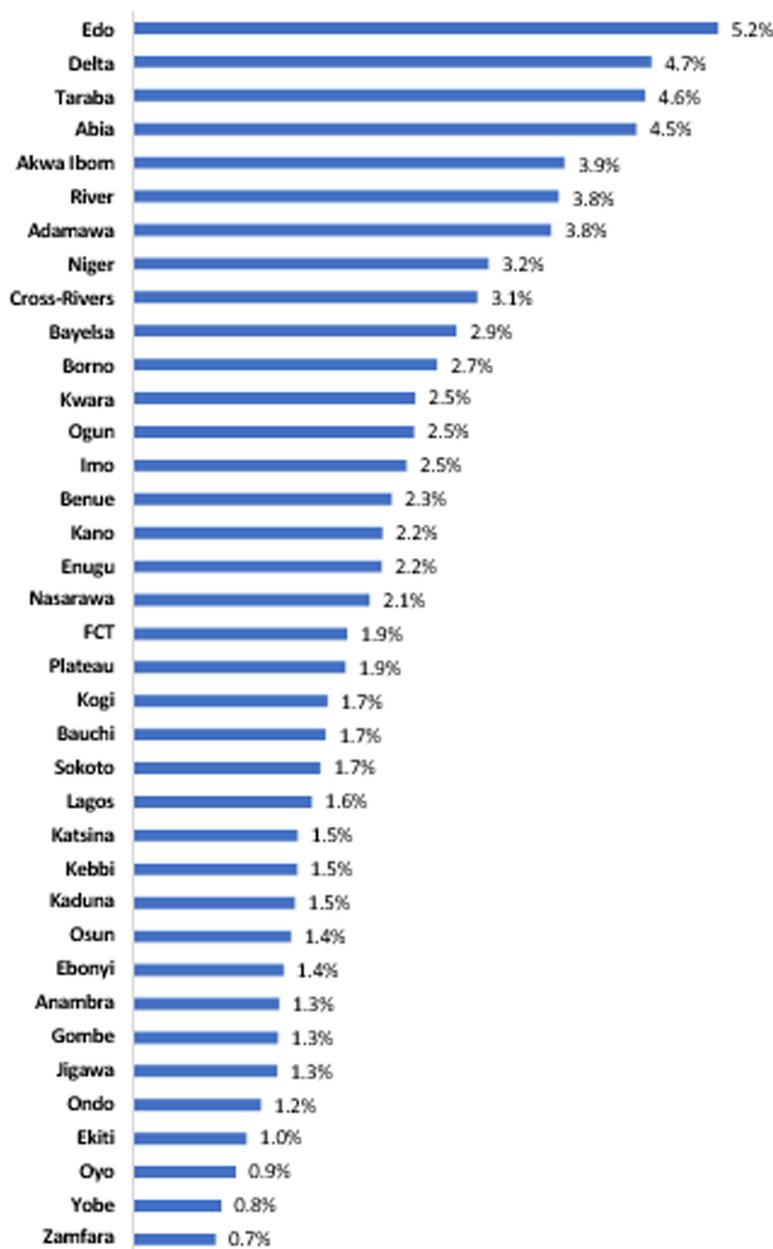


Figure 2.4: HIV Positivity by State

Figure 2.5 depicts HIV positivity among persons who tested and received results across the 36 states including FCT. Edo state had the highest positivity rate at 5.2% while Zamfara state had the lowest at 0.7%. The HIV positivity rate in the states aligned with the pattern of HIV prevalence rates reported in the National HIV/AIDS Indicator and Impact Survey (NAIIS) that was conducted in 2018.

Among the top ten states with highest HIV positivity, six of them are in the south-south region of Nigeria.

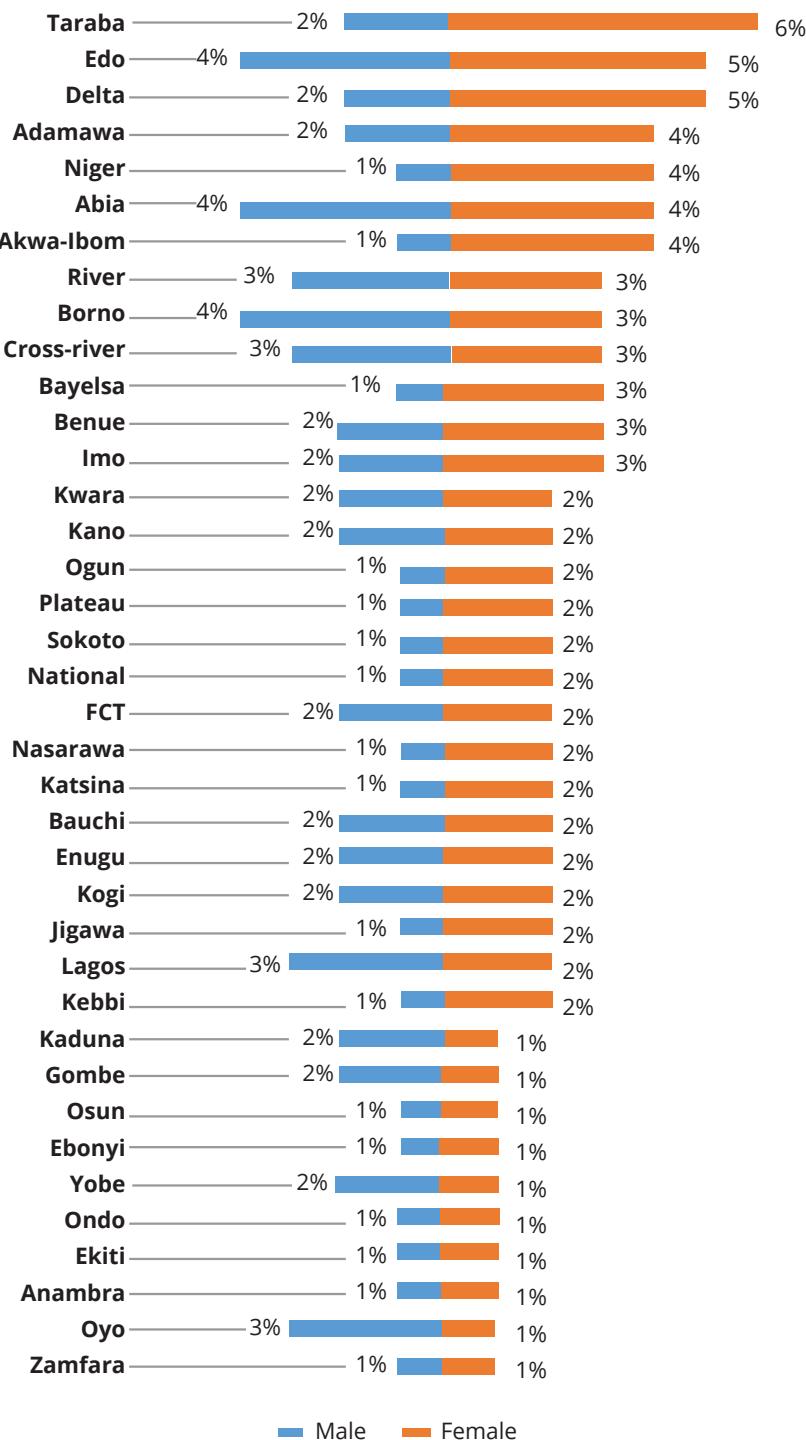


Figure 2.5: HIV Positivity by State and Sex

Figure 2.5 shows state level HIV positivity disaggregated by gender for all states in Nigeria. Among females the highest positivity of 6% was reported in Taraba while the highest positivity of 4% among the male group was reported across three states: Borno, Edo and Abia.

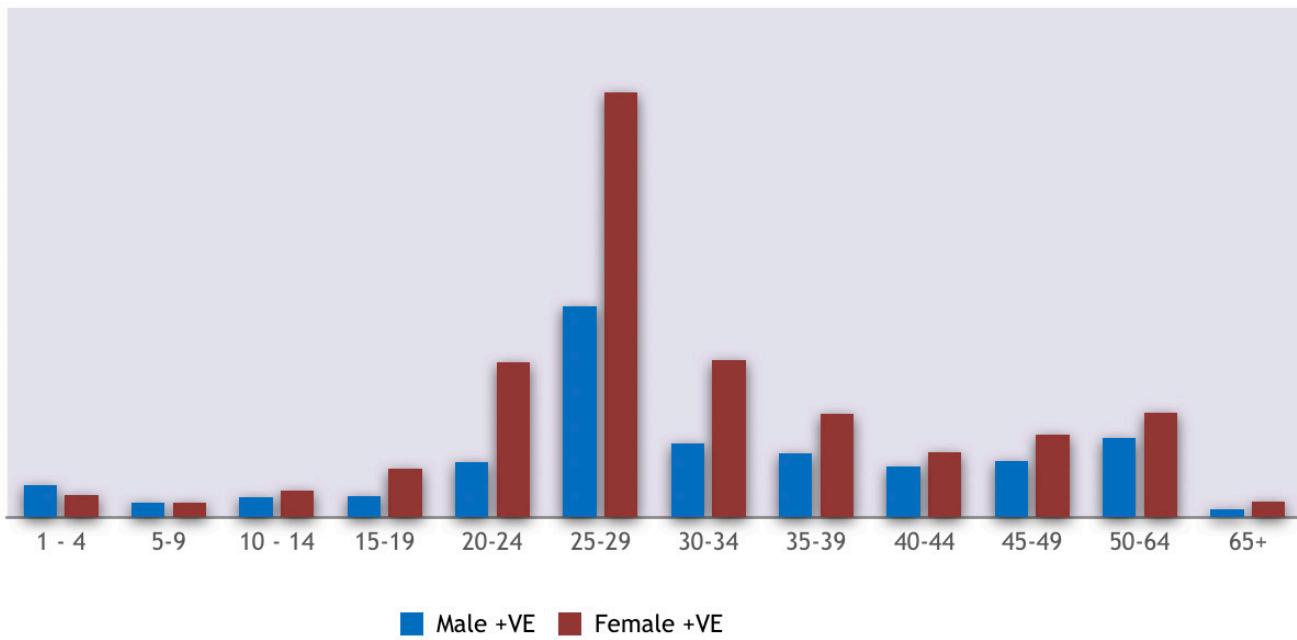
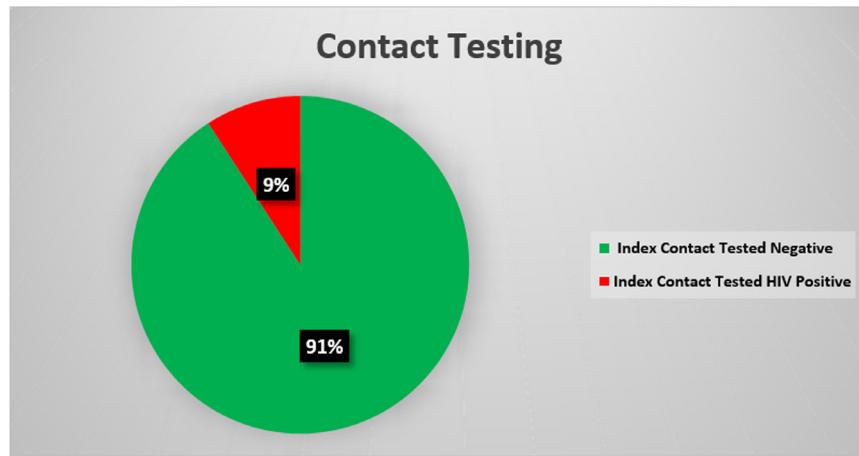
**Figure 2.6: Newly Tested Positives by Age and Sex**

Figure 2.6 depicts the contribution of each age group and their sex to the total new positives (187,740) that was reported in 2018. Females positivity yield was consistently higher across all the age groups as compared with the male except for age group 1-9 whose number of positives was slightly higher than the female.

2.2.4 Index Contact Testing Among the Identified Positive Clients

**Figure 2.7: Index Contact Testing**

To intensify HIV case-findings, index contact testing was introduced in 2017. Out of 187,740 positives identified in 2018, 68,912 (37%) contacts of index clients were reached for testing. Of the 68,912 contacts, 6,396 (9%) were HIV positive (Fig 2.7). Though the proportion of index clients tested increased in 2018 compared to 13% in 2017, only 3.4% of the new positives identified emerged from index case testing (Fig 2.8). Elicitation and proactive tracking of exposed index contact is a viable and efficient strategy to identify new HIV positive clients and thus must be promoted. However, given the low proportion of partners of index clients who were successfully reached, there is a need to conduct operations research to identify the most effective methods to reach and test partners of index clients.

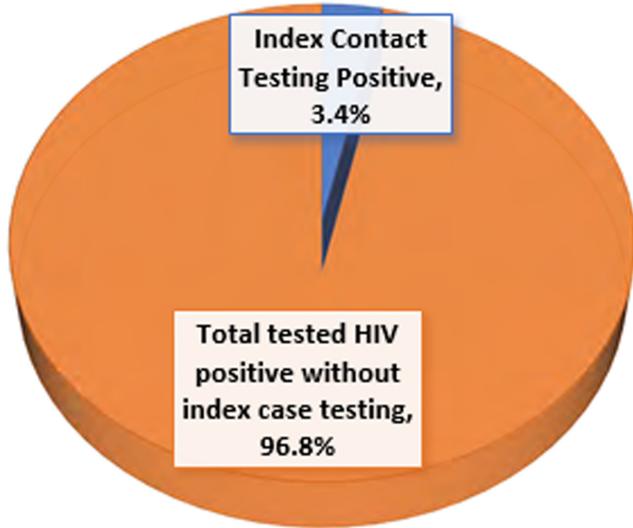


Figure 2. 8: Contributions of Index Case Testing to the General HTS Positives

2.2.5 Couples Testing

Figure 2.9 depicts an annual trend of sero-discordance among couples tested since 2014. The number of couples tested and identified in 2017 (142,988) shows a marked increase of 80% when compared to the number tested in 2016 (79,332). However, there was 27% drop in the couples tested in 2018 and thus suggests that strategies to increase couple testing must be developed to enable the appropriate interventions to be deployed; i.e. treatment for concordant HIV positive couples and; pre-exposure prophylaxis and condom use for discordant couples. A review of the HIV positivity from couple testing showed similar results in 2016 and 2017 (6%) with a slight decrease in 2018 (5%).

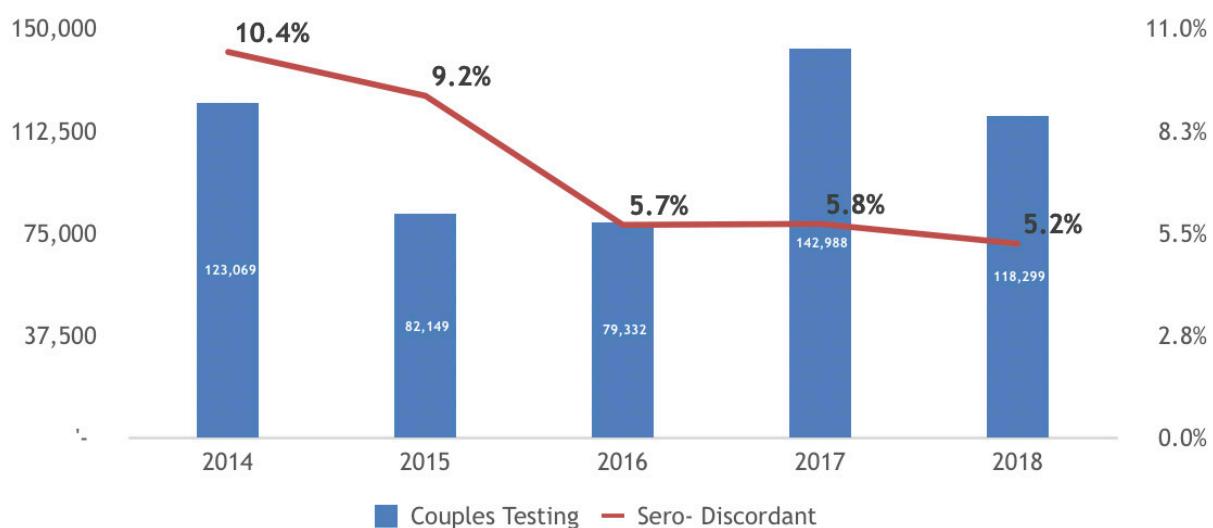


Figure 2.9: Sero-discordance Among Couples Tested

The consistent decline in HIV positivity between 2014 and 2018 may be attributable to the decline among the general population from 3% to 1.4%. It may also be attributable to increased effectiveness of the national program both in coverage and quality of services for the general population and sero-discordant couples.

2.3 Viral Hepatitis B and C Monitoring in HTS Settings

The Nigerian government in 2013; through the Federal Ministry of Health established the National Viral Hepatitis Control Programme within the National AIDS and STI Control Programme (NASCP). Since then a National Technical Working Group (TWG) has been inaugurated in 2013, and national strategic documents viz; national policy (2015), national strategic plan (2016-2020), National treatment guidelines (2016), training materials and national viral hepatitis facility directory (2018) were developed. A population-based sentinel survey conducted by the Federal Ministry of Health in 2012 estimated the prevalence of viral hepatitis B and C to be 11.0% and 2.2% respectively. The recently concluded National AIDS Indicator and Impact Assessment (NAIIS 2018), a population-based survey on HIV recently revealed the prevalence of hepatitis B and C to be 8.1% and 1.1% respectively. During the last tool review process, some data elements were introduced into the HTS, ART and PMTCT tools to monitor testing and diagnosis of Hepatitis at HTS sites. In 2018, only 84% (30 states plus FCT) and 73% (26 states plus FCT) of the 36 states plus FCT reported on the HTS clients tested for HBV and HCV respectively.

2.3.1 Hepatitis B Testing and Positivity Yield in HTS Settings

Fig 2.10 depicts positivity rate of hepatitis B disaggregated by state. Overall, hepatitis B testing was highest in Kaduna while Zamfara, Kebbi, Delta, Bauchi, Enugu and Imo did not report any test in 2018. Hepatitis B positivity (84%) was found to be highest in Yobe state, however only 58 tests were reported.

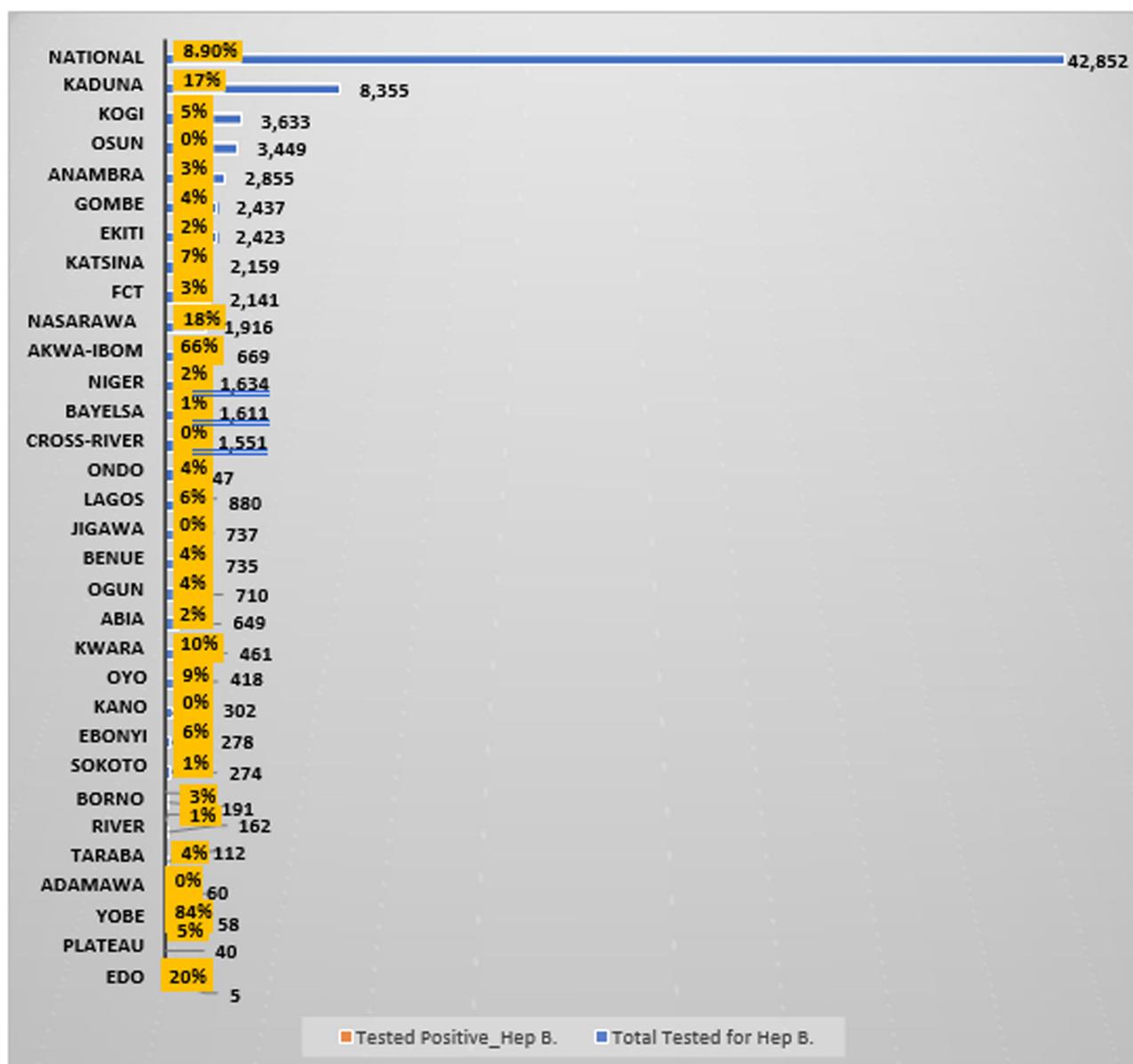


Figure 2.10: Hepatitis B Positivity Rate by State

Positivity was found to be high compared to national prevalence of 8.1% in the following states: Akwa Ibom (66%), Edo (20%), Nasarawa (18%), Kaduna (17%) and Kwara (10%). The National positivity rate of 8.9% also aligns with the NAIIS report of hepatitis B prevalence of 8.1%. However, compared to HTS, hepatitis testing was much lower and this calls for concerted efforts and increased funding to increase the availability and affordability of this service to clients. Currently, hepatitis B test is offered at-cost to clients and calls for government and donors to support some subsidy mechanisms to ensure that the tests are affordable to clients.

2.3.2 Hepatitis C Testing and Positivity Yield in HTS Settings

Fig 2.11 shows the number of clients tested and positivity rate of hepatitis C. A total of 10 states did not report any conduct of hepatitis C test in HTS settings. The positivity yield was found to be higher than reported in NAIIS prevalence report on Hepatitis C (1.1%).

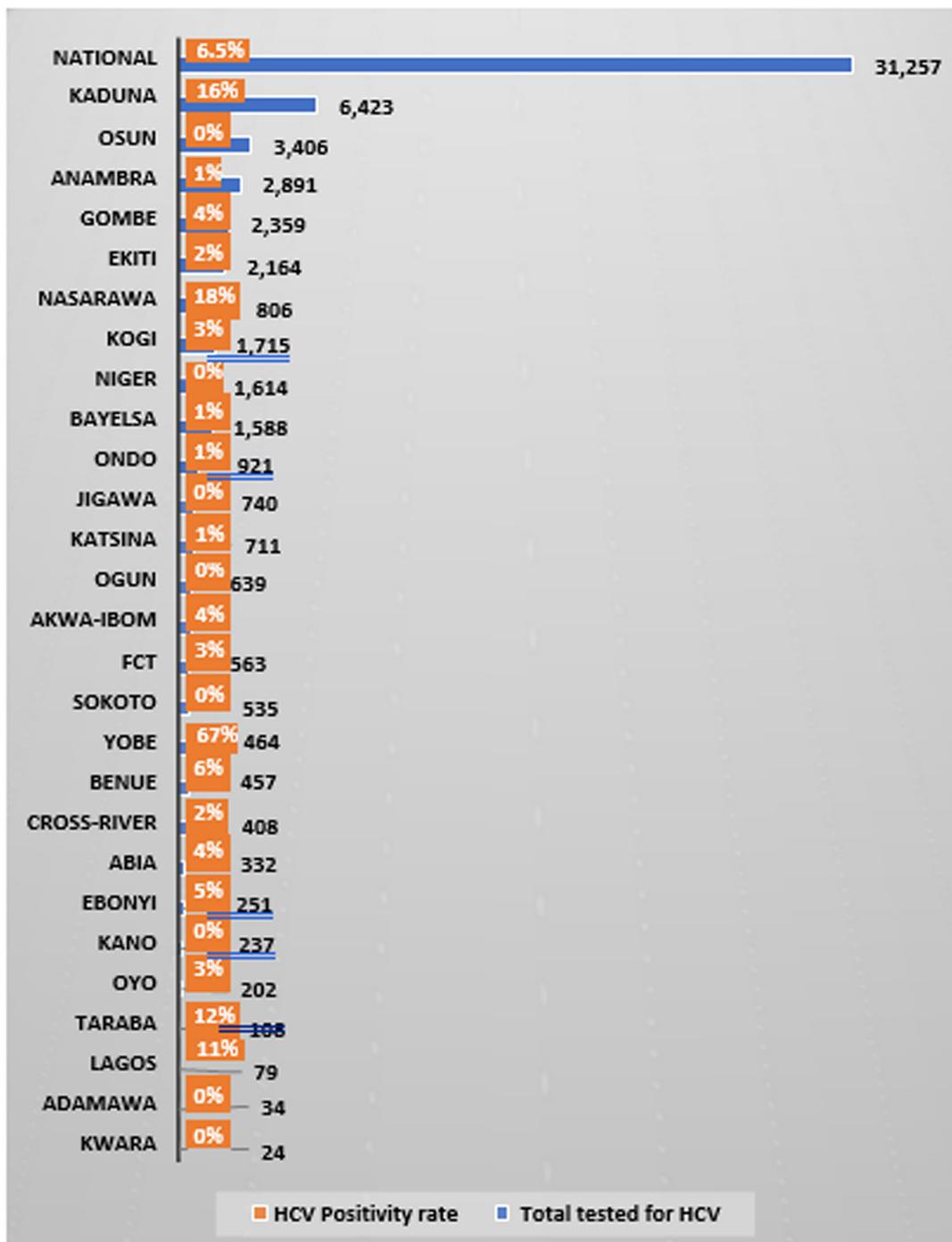


Figure 2.11: Hepatitis C Test Positivity Rate by States

Among states that reported hepatitis C test, Bayelsa, Ondo, Anambra and Katsina reported a prevalence of 1% while Yobe state reported the highest positivity of 67%. Kaduna reported the largest number of clients tested (6,423) with a positivity of 16%. Considering the NAIIS prevalence of 8.1% and 1.1% of Hepatitis B and C respectively, it is recommended that all stakeholders at states and national level intensify efforts to support the Hepatitis program with funds and strategic interventions to scale up the health sector response to Hepatitis B and C.

2.4 Tuberculosis Screening in HIV Service Delivery Points

Clinical screening for tuberculosis among HTS clients was recommended by the WHO as part of the TB/HIV collaboration strategies to intensify TB case finding in HIV settings and to aid improved client outcomes.

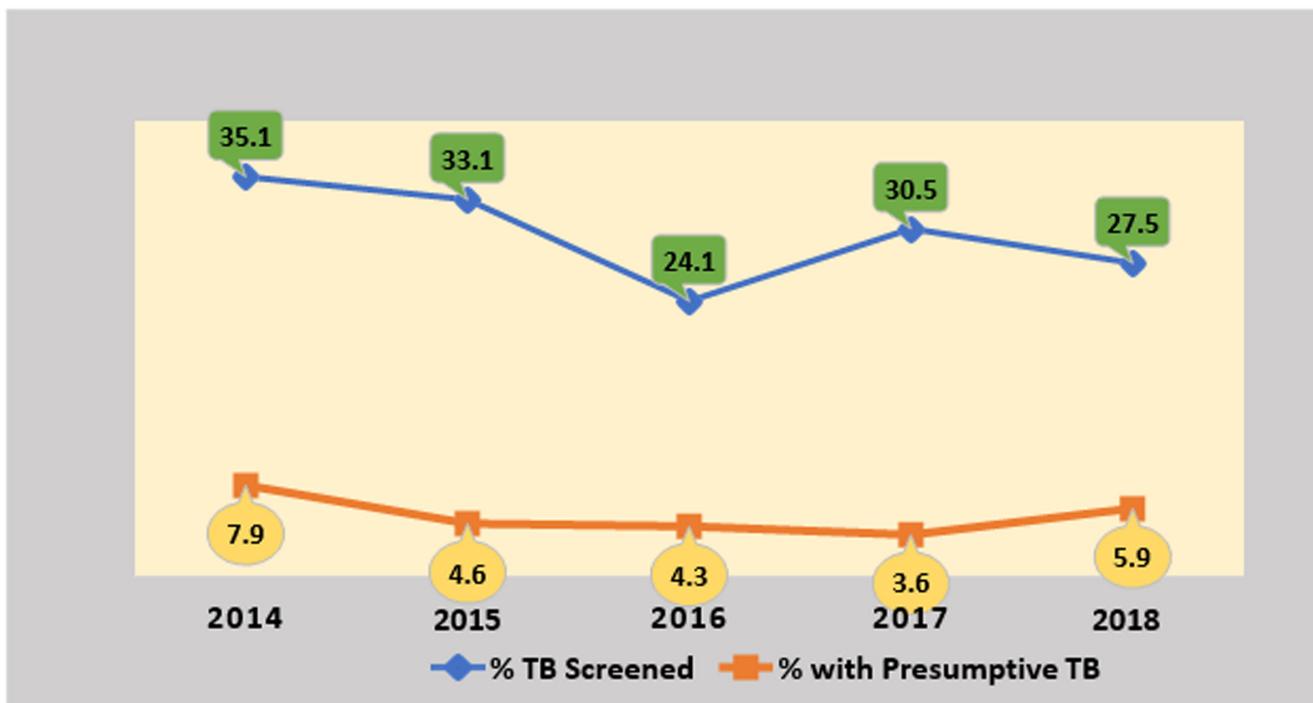


Figure 2.12: Clinical TB Screening with Presumptive TB Results in HTS Setting

Figure 2.12 shows the trend for TB screening and presumptive TB cases among clients tested for HIV in HTS settings between 2014 and 2018. A crest and trough trend in the proportion of individuals screened for TB within HTS settings was observed between 2014 and 2018. However, a consistent decline was observed in the proportion of persons diagnosed as presumptive TB till 2017, with a slight increase in 2018. It is highly recommended that counsellors routinely conduct clinical TB screening and mechanisms should be put in place to monitor and report the process. This will improve TB screening uptake in the HTS settings.

2.5 Linkage to Care

Figure 2.14 shows the linkage to care between 2014 and 2018. In 2016, only 64% of HIV positives individuals identified were enrolled in care as compared to 94% in 2017. There was however a slight drop in the number of persons enrolled in care in 2018 to 90%.

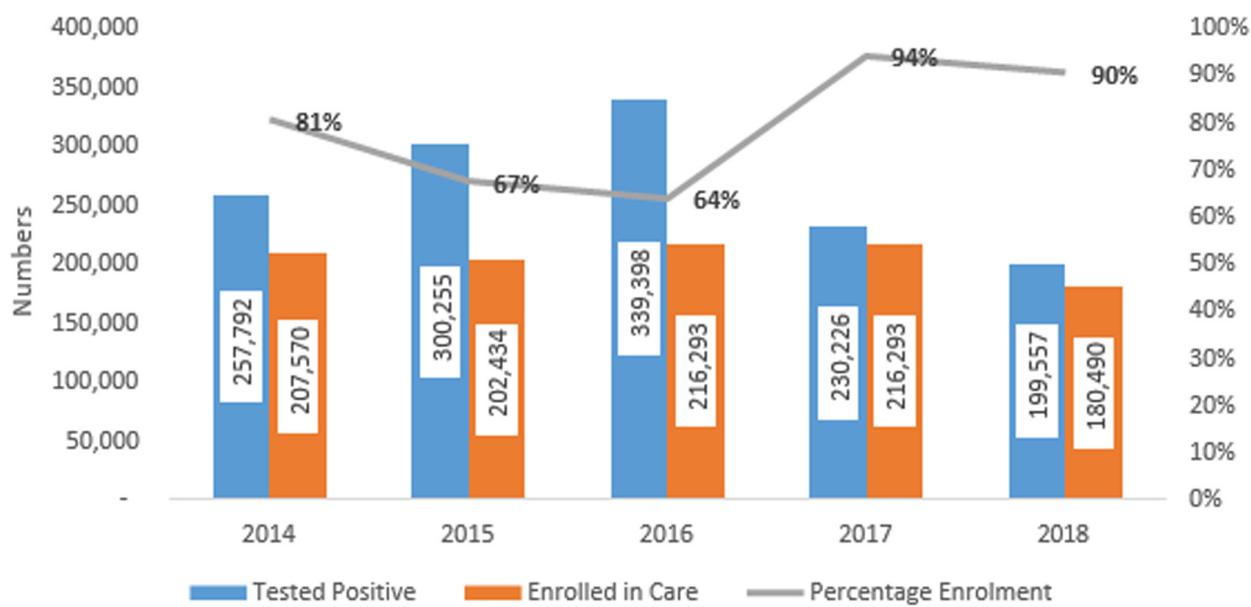


Figure 2.14: HIV Care Enrolment Gap

The sustained high proportion of newly diagnosed clients enrolled into care may be attributable to the "test and start" policy of the HIV program which aims to initiate all clients on treatment irrespective of CD4 count. Efforts must be made to sustain and improve on the proportion of newly diagnosed positive clients who are successfully linked and enrolled into care.

Table 2.1: Syphilis Testing and Positivity Rates in HTS sites

STATE	HTS Clients Tested for Syphilis	Negative Results	Positive Results	Positivity Rate
Sokoto	281	280	1	0.4%
Taraba	46	46	-	0.0%
Yobe	384	382	2	0.5%
Zamfara	-	-	-	-
Kebbi	-	-	-	-
Kano	3,431	3,353	78	2.3%
Kogi	7,253	6,082	1,171	16.1%
Katsina	1,382	1,380	2	0.1%
Borno	691	587	104	15.1%
Benue	1,126	1,108	18	1.6%
Bauchi	58	57	1	1.7%
Adamawa	35,085	33,464	1,621	4.6%
Jigawa	699	699	-	0.0%
Nasarawa	621	498	123	19.8%
Kwara	38	38	-	0.0%
Niger	1,538	1,463	75	4.9%
Plateau	383	376	7	1.8%
Gombe	2,521	2,448	73	2.9%
FCT	3,749	3,737	12	0.3%

Kaduna	6,540	6,257	283	4.3%
Ekiti	1,094	1,064	30	2.7%
Ebonyi	262	244	18	6.9%
Ondo	1,144	1,121	23	2.0%
Enugu	93	93	-	-
Ogun	1,013	988	25	2.5%
Cross-rivers	4,461	2,707	1,754	39.3%
Imo	-	-	-	-
Oyo	939	927	12	1.3%
Akwa-Ibom	1,204	1,179	25	2.1%
Edo	9	9	-	0.0%
Abia	1,575	1,501	74	4.7%
Osun	15,003	15,003	-	0.0%
Delta	-	-	-	-
Anambra	9,862	9,564	298	3.0%
Lagos	39,553	39,500	53	0.1%
Bayelsa	1,154	1,132	22	1.9%
River	1,724	964	760	44.1%
National Total	144,916	138,251	6,665	4.60%

The table above (Table 2.1) highlights syphilis testing at HTS points and the positivity rate by state. Overall, 1.5% (144,916) of total population tested (9,832,045) for HIV in 2018 conducted syphilis testing. This may be because syphilis testing is not free at the facilities. These findings attest to the need to scale-up syphilis rapid testing at HTS points.

The table above (Table 2.1) highlights syphilis testing at HTS points and the positivity rate by state. Overall, 1.5% (144,916) of total population tested (9,832,045) for HIV in 2018 conducted syphilis testing. This may be because syphilis testing is not free at the facilities. These findings attest to the need to scale-up syphilis rapid testing at HTS points.

Challenges encountered in HTS include the following:

- Inadequate supply and stock out of RTKs at Health facilities especially non-IP supported health facilities in the states.
- Gaps in linking positive clients to care and treatment.
- High rate of staff attrition, intra and inter transfer of facility staff.
- Dwindling funding for HIV/AIDS programs.
- Lack of funds for Hepatitis program
- Poor ownership of the program at State level.

Recommendations

- There should be consistent and adequate supply of RTKs to health facilities.
- Referral system within Health facilities, from the community and other facilities should be strengthened to increase linkage to care
- Increased government commitment and budgetary allocation to the HIV program.
- Training and mentoring of health care workers should be carried out routinely.

Section Three

3.0 Prevention of Mother to Child Transmission

3.1 Background

Mother-to-Child transmission of HIV (MTCT) is the spread of HIV from an infected woman to the child during pregnancy, childbirth (labour and delivery) or breastfeeding. Mother to Child transmission is the most common route for transmission of pediatric HIV and is dependent on factors which include high maternal viral load, infection of placenta, antepartum hemorrhage, prolonged labour, invasive delivery procedures, prolonged rupture of membrane, pre-term birth and breastfeeding. Prevention of mother to child transmission (PMTCT) of HIV refers to interventions aimed at preventing the transmission of HIV from an infected mother to her child during pregnancy, labour, delivery and breastfeeding.

MTCT can be reduced with the strengthening of provider-initiated HIV counselling and testing, accessibility and adherence to antiretrovirals (ARVs), improved ANC uptake, use of mentor mothers to accompany pregnant women to the facilities for PMTCT services, provision of sexual and reproductive health services.

The 2016 National Guideline for HIV Prevention Treatment and Care recommends life-long ART for all HIV positive pregnant and breastfeeding women regardless of WHO Clinical Stage and CD4+ cell count⁵. This guideline is being implemented across 6,301 PMTCT sites in the country⁶. For the standalone PMTCT sites, these women on ART are to be transferred to a comprehensive ART site once they complete PMTCT programme for continued treatment and monitoring. This has led to increased access to improved HIV services for pregnant women across the country. The coverage for PMTCT as at 2017 was 33% and strategies that were implemented in 2018 include; integration of reproductive maternal, newborn and child (RMNCH) programmes into PMTCT programme, engagement of community resource persons among others. However, there is need to sustain the existing strategies and come up with innovations to increase PMTCT coverage towards achieving the global PMTCT target.

⁵National Guidelines for HIV Prevention, Treatment and Care, 2016.

⁶2018 National HIV/AIDS Validated Data. 2018 Nigeria Estimates.

In 2018, 1.7 million children were estimated to be living with HIV globally and Nigeria accounted for 140,000⁷. This is about 8.2% of the global burden of paediatric HIV which is directly linked to mother to child transmission of HIV. About 100,000 pregnant women were estimated to be living with HIV in 2018, of which 44% (44,109) of them received ARVs for PMTCT. The high burden of Mother-to- Child Transmission of HIV in Nigeria has been attributed to high rates of heterosexual transmission, high prevalence of HIV in women of reproductive age, high total fertility rate, low ANC and PMTCT coverage and prolonged breastfeeding (>1yr) for HIV positive women⁸.

The advancement of PMTCT programme in Nigeria is key to eliminating new HIV infections among children. Thus, the Government of Nigeria has adopted a comprehensive approach for the implementation of PMTCT. This includes:

- Primary prevention of HIV infection among women of child-bearing age.
- Preventing unintended pregnancies among women living with HIV.
- Preventing vertical transmission of HIV from infected mother to her infant.
- Providing care, treatment and support for mothers with HIV and their children.

3.2 National PMTCT Program Target.

By the end of 2019,

- 80% of adolescents and young people have access to prevention interventions.
- 36% of all HIV positive women have access to contraceptive.
- 75% of all pregnant women receive quality HIV testing and counselling and receive their results.
- 75% of all HIV positive pregnant women and breastfeeding mothers receive ARVs.
- 70% of all HIV exposed infants receive ARV prophylaxis.
- 50% of all HIV exposed infants have early infant diagnosis services.
- 50% of all HIV exposed infants receive CTX prophylaxis.

This section thus provides a detailed analysis of the year 2018 Health sector response in the PMTCT Program as well as current efforts toward the elimination of Mother to Child Transmission of HIV (eMTCT).

3.3 Trend of ANC Coverage

Antenatal Care (ANC) is a routine service delivery aimed at ensuring a safe outcome for mother and child at the end of a pregnancy.

⁷National Guideline for HIV Prevention, Care and Treatment 2016

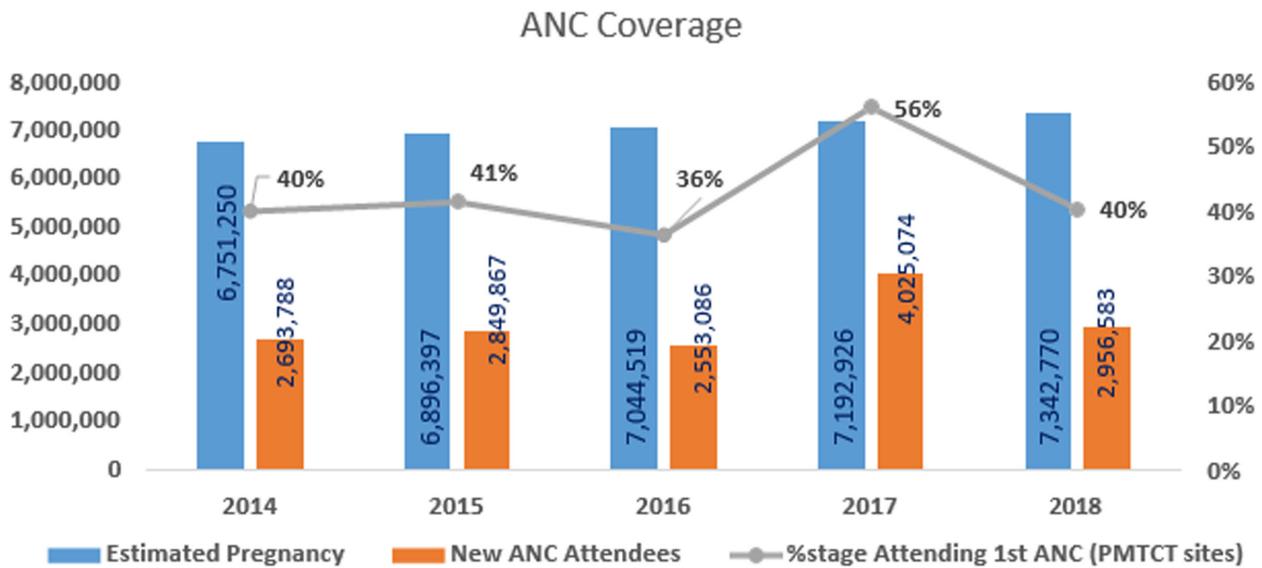
**Figure 3.1: Trend of ANC Coverage**

Figure 3.1 shows a trend of ANC coverage in PMTCT sites from 2014 to 2018. It was observed that there was a significant drop in the proportion of pregnant women who had ANC visit between 2017 and 2018. This underutilization of ANC services could be attributed to cost of ANC services, poor health seeking behavior and inadequate awareness on the gains of ANC.

3.4 ANC Coverage by State

Table 3.1 shows the 2018 coverage for ANC across the 36+ 1 states in Nigeria. It was observed that 12 states had ANC coverage above the national average of 40% while Edo, Rivers and Kebbi States had the least ANC coverage. The 2018 ANC coverage showed unusual distribution, where more states in the North had higher coverage compared to Southern states. Therefore, there is need to get more insight into the ANC programming across the Southern States.

State	Estimated Pregnancy	New ANC Attendees	% Attending 1st ANC (PMTCT sites)
BAUCHI	***	330,239	***
KADUNA	***	326,700	***
YOBE	100,905	100,197	99.3
NASARAWA	95,299	87,254	91.6
OYO	276,409	173,715	62.8
BENUE	225,196	126,598	56.2
GOMBE	120,220	66,551	55.4
ZAMFARA	153,086	76,180	49.8
ADAMAWA	149,662	69,351	46.3
KANO	556,660	234,111	42.1
EBONYI	103,929	43,010	41.4
NIGER	192,496	76,924	40.0
KOGI	137,292	54,200	39.5
FCT	252,391	99,620	39.5
JIGAWA	216,092	79,871	37.0
PLATEAU	159,441	58,432	36.6
CROSS RIVERS	152,101	55,082	36.2
ANAMBRA	210,773	74,639	35.4
ENUGU	125,481	41,257	32.9
BORNO	228,195	72,567	31.8
ABIA	107,438	30,777	28.6
OSUN	157,502	44,792	28.4
IMO	193,629	53,113	27.4
KATSINA	336,195	83,793	24.9
ONDO	177,884	41,593	23.4
DELTA	235,431	54,199	23.0
OGUN	198,485	44,902	22.6
LAGOS	527,287	115,828	22.0
TARABA	104,667	22,405	21.4
EKITI	95,247	19,397	20.4
AKWA IBOM	162,150	31,887	19.7
KWARA	106,379	20,695	19.5
BAYELSA	71,678	13,644	19.0
SOKOTO	157,503	28,624	18.2
KEBBI	158,426	21,895	13.8
RIVER	278,036	36,708	13.2
EDO	269,642	23,757	8.8

Table 3.1: 2018 ANC Coverage Across the States

***subject to validation

3.5 PMTCT Testing Coverage and Outcome

Table 3.2 shows testing among pregnant women at PMTCT sites. There were an estimated 7.3 million pregnancies for 2018 using the Spectrum software. Of these, 2,846,592 were tested and received results for HIV at PMTCT sites in the country and 1.9% were positive. A high positivity rate (6.4%) was observed among women tested in post-partum as compared to other PMTCT entry points. This indicates significant missed opportunities for PMTCT and increased risk of MTCT. Hence, efforts should be made to improve ANC attendance among pregnant women to ensure that HIV positive pregnant women are identified and receive PMTCT services before delivery.

2018 PMTCT Testing Coverage and Outcome				
Indicator	Total Tested	Tested in ANC	Tested in Labour & delivery	Tested in Post- partum
Total No of Pregnant women tested in PMTCT settings	2,846,592	2,659,853	166,538	20,201
Tested Positive	53,226	45,770	6,164	1,292
Positivity Rate	1.9%	1.7%	3.7%	6.4%

Table 3.2: 2018 PMTCT testing and outcomes by testing point

Figure 3.2 shows HIV testing among pregnant women in Nigeria between 2014 and 2018. There was a steady decrease in positivity rate between 2014 to 2016. A slight increase was observed in 2017(2.4%) followed by a decline in 2018 to 1.9%. This 2018 HIV positivity rate aligns with the NAIIS HIV prevalence among women aged 15 – 49 years.

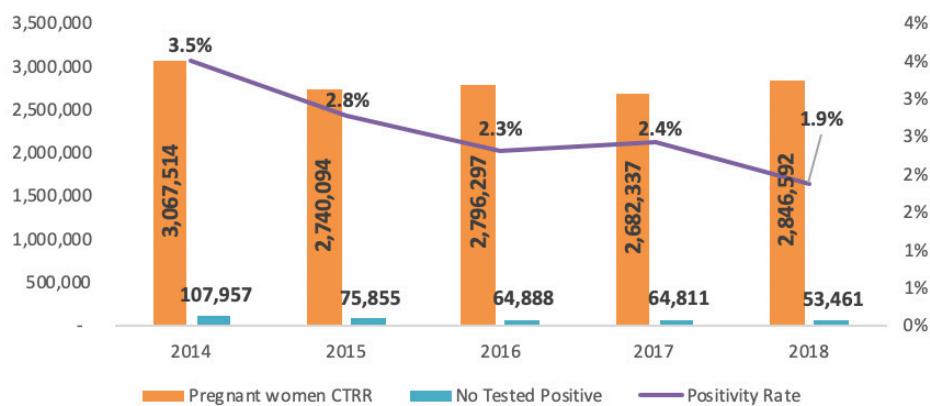


Figure 3.2: Trend of HIV Testing Among Pregnant Women (2014-2018)

3.5.1 2018 HIV Positivity Rate Among Pregnant Women by State

The table below shows the positivity rate across the 36 states plus FCT. The highest positivity was observed in Benue (7.4%) followed by Akwa-Ibom (6.6%) while the least was observed in Zamfara (0.2%). This trend in positivity is also in line with the findings from the 2018 NAIIS.

Table 3.3: Positivity Rate Across 36 states plus FCT

State	Total number of Pregnant women CTRR	Total tested Positive	Positivity Rate
BENUE	118,450	8,758	7.4%
AKWA IBOM	31,212	2,061	6.6%
EDO	23,685	1,344	5.7%
ABIA	32,195	1,657	5.1%
TARABA	23,035	1,022	4.4%
DELTA	54,722	2,386	4.4%
RIVER	36,460	1,489	4.1%
NASARAWA	85,739	2,876	3.4%
ENUGU	40,248	1,201	3.0%
BAYELSA	14,168	398	2.8%
FCT	99,991	2,564	2.6%
KOGI	57,519	1,469	2.6%
CROSS RIVERS	57,257	1,442	2.5%
PLATEAU	55,386	1,319	2.4%
IMO	53,029	1,195	2.3%
LAGOS	109,827	2,296	2.1%
OGUN	47,552	961	2.0%
ANAMBRA	73,375	1,366	1.9%
ONDO	42,040	721	1.7%
KWARA	19,366	318	1.6%
EBONYI	41,334	665	1.6%
ADAMAWA	73,401	1,075	1.5%
NIGER	74,449	933	1.3%
KADUNA	319,204	3,853	1.2%
BORNO	67,408	732	1.1%
EKITI	18,379	172	0.9%
OSUN	38,881	355	0.9%
GOMBE	74,429	658	0.9%
SOKOTO	30,907	263	0.9%
OYO	191,585	1,625	0.8%
KATSINA	87,051	536	0.6%
KEBBI	28,069	168	0.6%
YOBÉ	96,267	555	0.6%
KANO	226,769	1,063	0.5%
JIGAWA	93,720	378	0.4%
BAUCHI	201,501	660	0.3%
ZAMFARA	84,538	202	0.2%

3.6 PMTCT ARV Coverage

Figure 3.3 shows the ARV coverage among HIV positive pregnant women in 2018. Out of an estimated 100,112 pregnant women that were estimated to be needing PMTCT services in 2018 (Spectrum data), 53% (53,461) were successfully identified and 44,109 were placed on treatment. This puts the national PMTCT ARV coverage at 44%. It also shows that, of the 53,461 pregnant women that tested positive at service delivery points, 83% were placed on treatment for PMTCT.

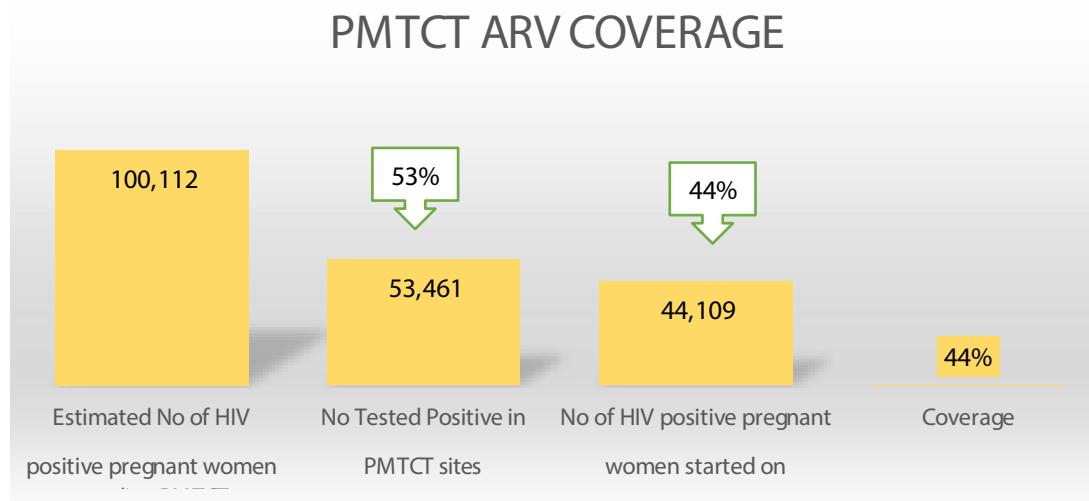


Figure 3.3: PMTCT ARV Coverage

3.7 Maternal Cascade for PMTCT

Figure 3.4 above shows the maternal cascade of all the pregnant women who attended ANC in designated PMTCT sites. Out of 2,956,583 that were new ANC attendees, 96% of them were counselled tested and received result.

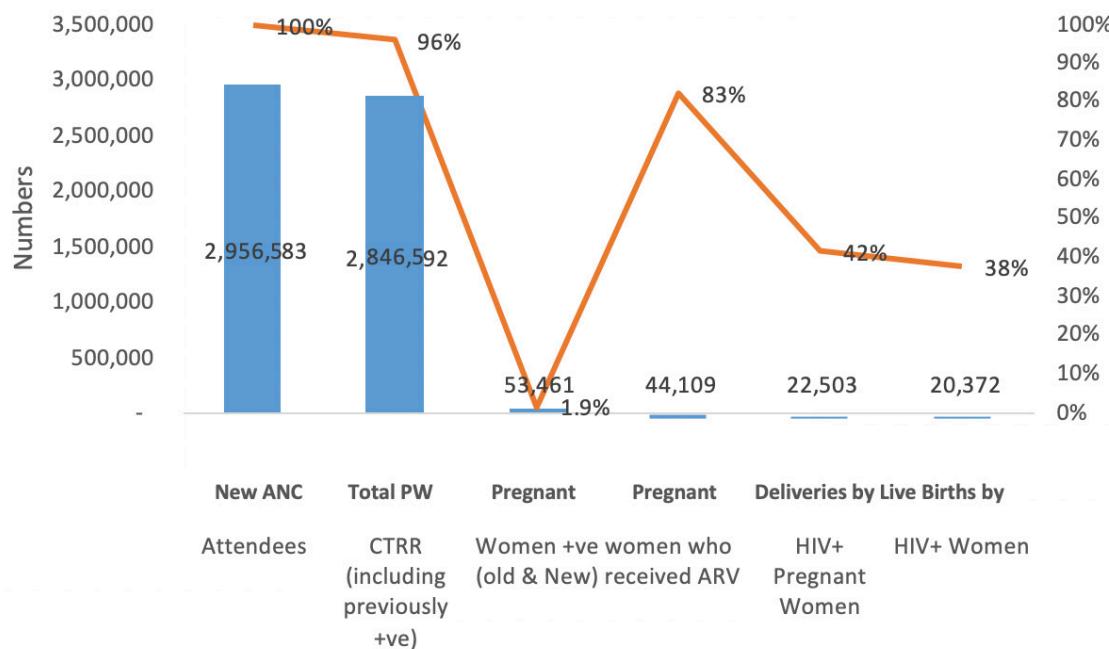


Figure 3.4: Maternal Cascade for HIV Positive Pregnant Women

The number of pregnant women who tested HIV positive was 53,461 of which 83% received ARVs. Less than half (42%) of the pregnant women delivered in the health facilities while only 38% had live birth deliveries. The low level of facility-based delivery especially among HIV positive women is alarming and calls for concerted efforts and the implementation of evidence-based interventions if Nigeria must attain elimination of mother to child transmission. There is also an urgent need to strengthen linkages and referrals between health facilities in Nigeria as well as intensify efforts in ensuring that positive pregnant women are retained in PMTCT care to reduce the risk of MTCT.

3.7 HIV Exposed Infant Cascade

The 2018 PMTCT programmatic data revealed that about 44% of estimated pregnant women in need of PMTCT received ARVs in 2018 and less than 30% of the estimated HIV+ pregnant women delivered in the healthcare facility. This implies that a significant proportion of HIV Exposed Infants (HEIs) may not have received quality care during labor and delivery period which can increase the risk of MTCT. However, out of 44,109 HIV positive pregnant women placed on ARV, 51% had a facility- based delivery.

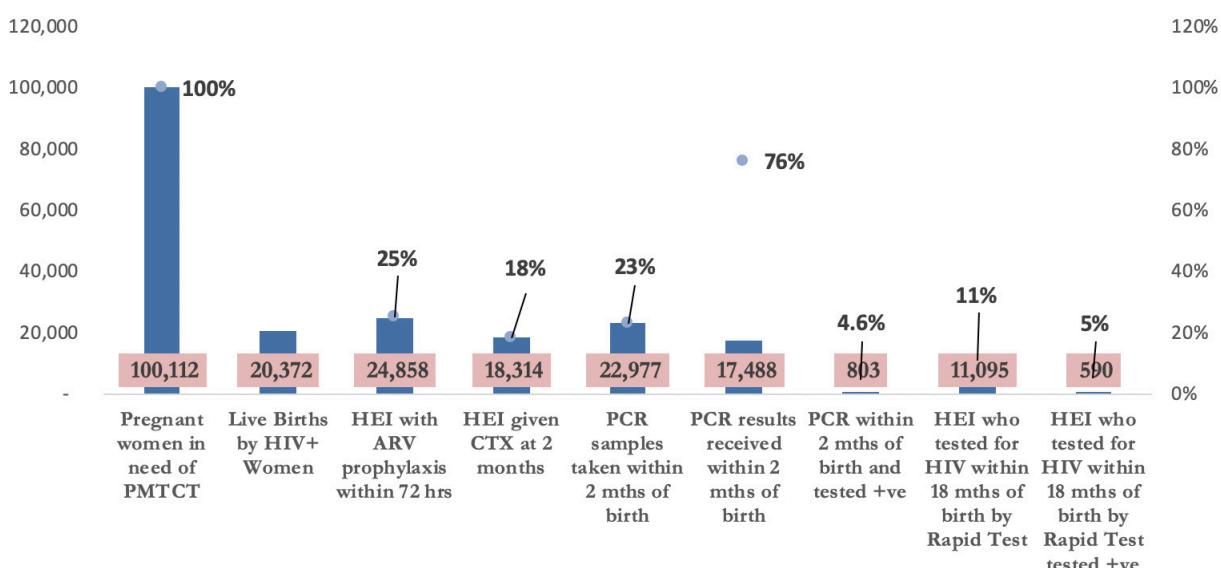


Figure 3.5: HIV Exposed Infant Cascade

It was also observed that only 25% of estimated HEI had ARV prophylaxis. Furthermore, 22,977 samples (23%) of the estimated HEI were tested for DNA PCR within 2 months of birth and 4.6% were positive to HIV.

In view of the above findings, there is a need to continuously promote the benefits of ANC with targeted interventions for HIV positive pregnant to ensure that they are retained in treatment throughout the duration of pregnancy as well as facilitating facility-based delivery to optimize health outcomes for their infants.

3.8 Syphilis Testing

The figure below shows syphilis testing coverage, positivity and treatment coverage among the new ANC attendees from 2014 to 2018. It is expected that syphilis test should be offered to all new ANC attendees as part of the recommended routine

laboratory tests for pregnant women in Nigeria. Uptake of syphilis test has consistently remained low over the years with the highest reported coverage observed in 2018 (16%). Syphilis treatment has been inconsistent over the years as shown in the chart. However, of the 2,317 that tested positive in 2018, 73% received treatment. Generally, uptake of syphilis services is low and is offered for a fee at health facilities in Nigeria. Hence, there is need to subsidize the cost of syphilis services for pregnant women accessing ANC services.

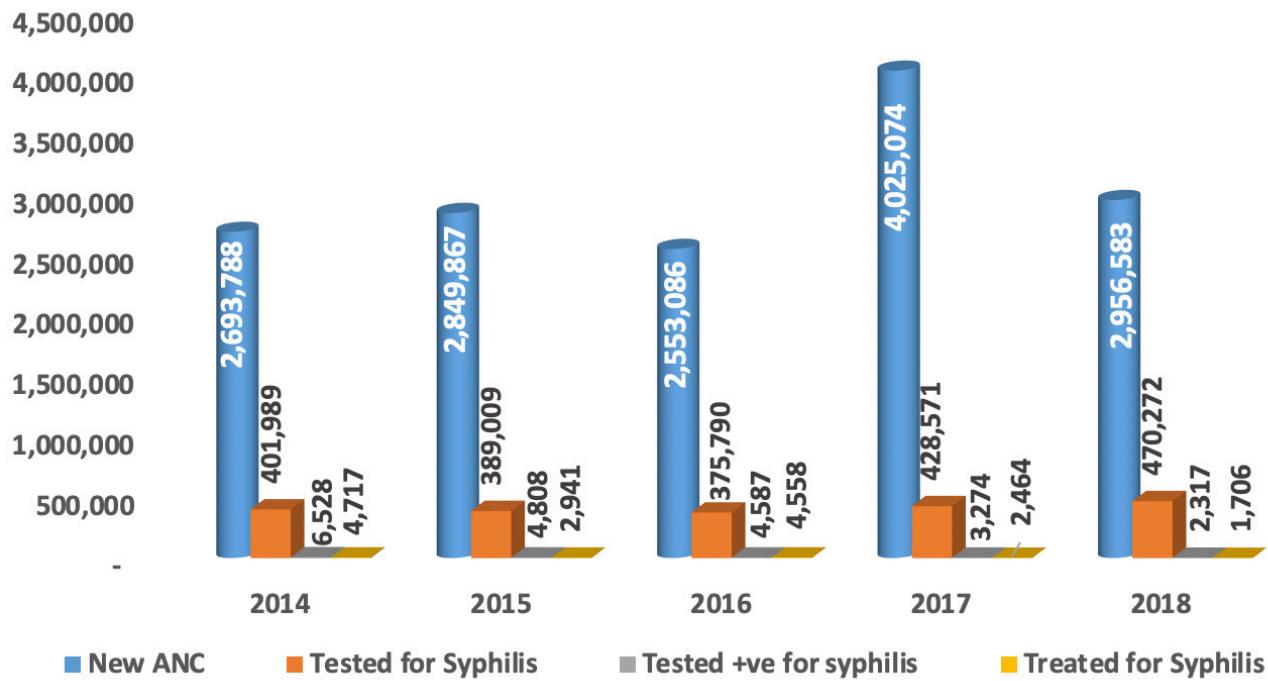


Figure 3.6: Syphilis Cascade

Challenges

Some of the major challenges observed in the PMTCT Programme during the year includes;

- Syphilis testing not routinely done during ANC in some health facilities across states.
- Poor linkage of HIV positive pregnant women to PMTCT programme.
- Low ANC service uptake due to user fees/out of pocket payment in healthcare facilities.
- Prolonged turnaround time of PCR test due to persistent challenge with DBS logistics and consumables.

Recommendations

- Strengthen the implementation of Provider Initiated Testing and Counselling (PITC) among all pregnant women attending ANC in the country.
- Strengthen follow up mechanism to ensure that all positive pregnant women who received PMTCT services deliver in the health facilities.
- Integration of Public Private Partnership to increase access to PMTCT services
- Implement policies that will ensure that there is a subsidy for every woman attending ANC.
- Scale up and strengthen Quality Improvement programs for PMTCT services across the country.
- Ensure regular provision of Test kits for HIV testing and ARV prophylaxis for HEIs across the states.
- Strengthen Integrated Supportive Supervision by State Ministry of Health (SMOHs) across PMTCT sites.
- Optimize viral load testing among eligible HIV+ pregnant women.
- More efforts are needed to strengthen syphilis intervention for the country.
- Capacity building for Monitoring and Evaluation Officers on PMTCT tools and indicators.

Section Four

4.0 Antiretroviral Treatment Programme

4.1 Background

The National Antiretroviral Therapy (ART) programme has continued to provide the much-needed treatment support to PLHIV in the country from inception in 2001 to date. The effective collaboration between FMoH and key stakeholders has yielded good results in the scaling up of ART services, thus increasing access to treatment. In addition, the implementation of "Test and Treat" policy and "Differentiated Care Model" strategies are key actions towards an improved treatment outcome. As at December 2018, the number of PLHIV on treatment was 1,049,019⁹.

The ART programme has witnessed recent changes that cut across ART service provision in the country. These include technical experts review that confirms the superiority of Dolutegravir over non-nucleoside reverse transcriptase inhibitors in terms of efficacy, tolerability, genetic barrier, convenience and cost. As a result of this, it has been recommended to be used for children above six years and adults. Other recent changes that improved the quality of care for PLHIV on ART and the quality of reported data is the establishment of EMR at almost all the HIV comprehensive sites and the on-boarding of the EMR into the National Data Repository (NDR). In order to prevent double counting of PLHIV on ART, the NDR has been designed with biometrics to prevent the duplication of PLHIV that self-transferred to another facility.

The country has attained the 2nd 90, while still trying to attain the 3rd 90 of the Global HIV/AIDS 90- 90-90 targets. About 93.2% of diagnosed PLHIV were on ART as at the end of December 2018. Viral load testing is the gold standard in monitoring PLHIV on ART, however, at a coverage of 56.2% in 2018, more needs to be done to ensure every PLHIV receives viral load testing at the appropriate time. Of the population tested, 68.1% were virally suppressed. Nevertheless, several measures are put in place to improve the efficiency and coverage of viral load testing at Polymerase Chain Reaction (PCR) laboratories which include the Integrated Sample Referral Network and the upgrade of some PCR laboratories to mega laboratories. These are aimed at optimizing the transportation of samples to PCR laboratories as well as to reduce the turnaround time of viral load testing. In addition to these, continuous patients' education is necessary to increase awareness on the importance of viral load monitoring.

In view of the above, there is a need for concerted effort by all tiers of government and key stakeholders to maintain the gains achieved so far while intensifying efforts towards enhancing viral load testing for monitoring of PLHIV on treatment.

Number of PLHIV Newly Started on ART



Figure 4. 1: Children (0-14yrs)



Figure 4 2: Adults (15yrs and above)

4.1.1 Treatment Initiation

Figures 4.1 and 4.2 shows an increase in the number of PLHIV newly started on ART from 2014- 2016 with a decrease in 2017 and 2018 for both males and females. Overall, more females than males were initiated on treatment across all years of review.

4.2 PLHIV Currently on ART

As at 2018, a total of 1,049,019 were currently on ART. Sixty-nine percent (723,063) of PLHIV on ART were females while 31% (325,956) were males. Of the PLHIV on ART, 1,014,855 were on first line regimen.

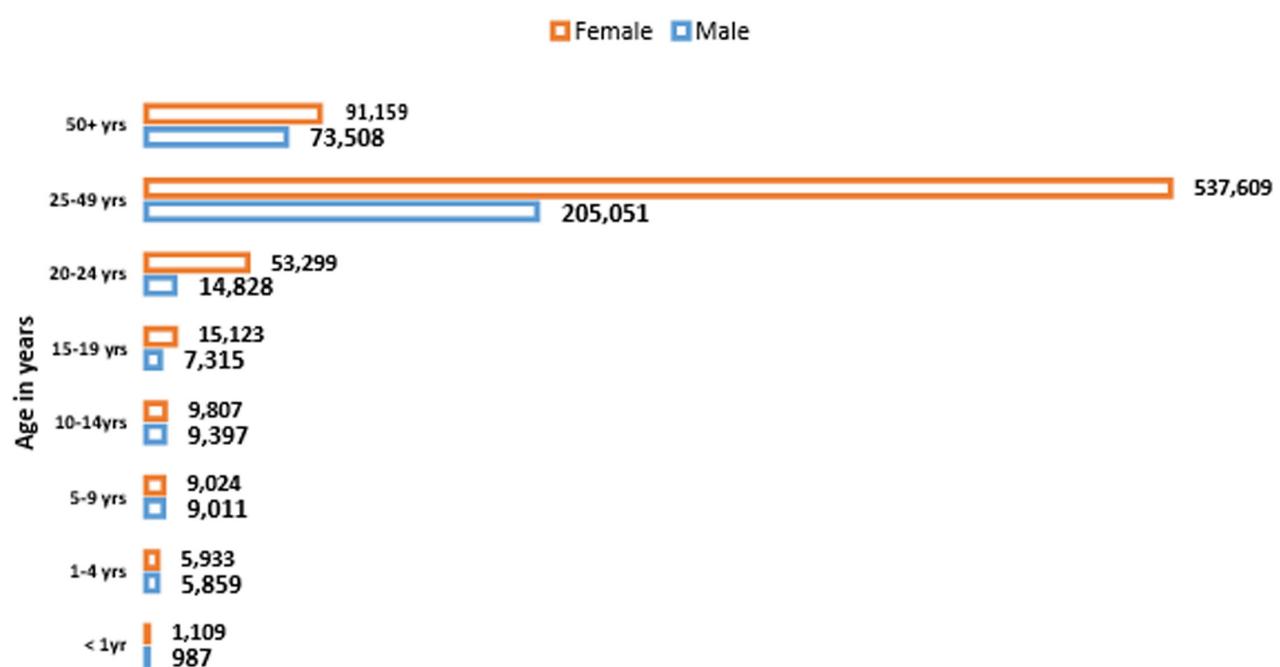


Figure 4. 3: Number of PLHIV Currently on Treatment Disaggregated by Age and Sex

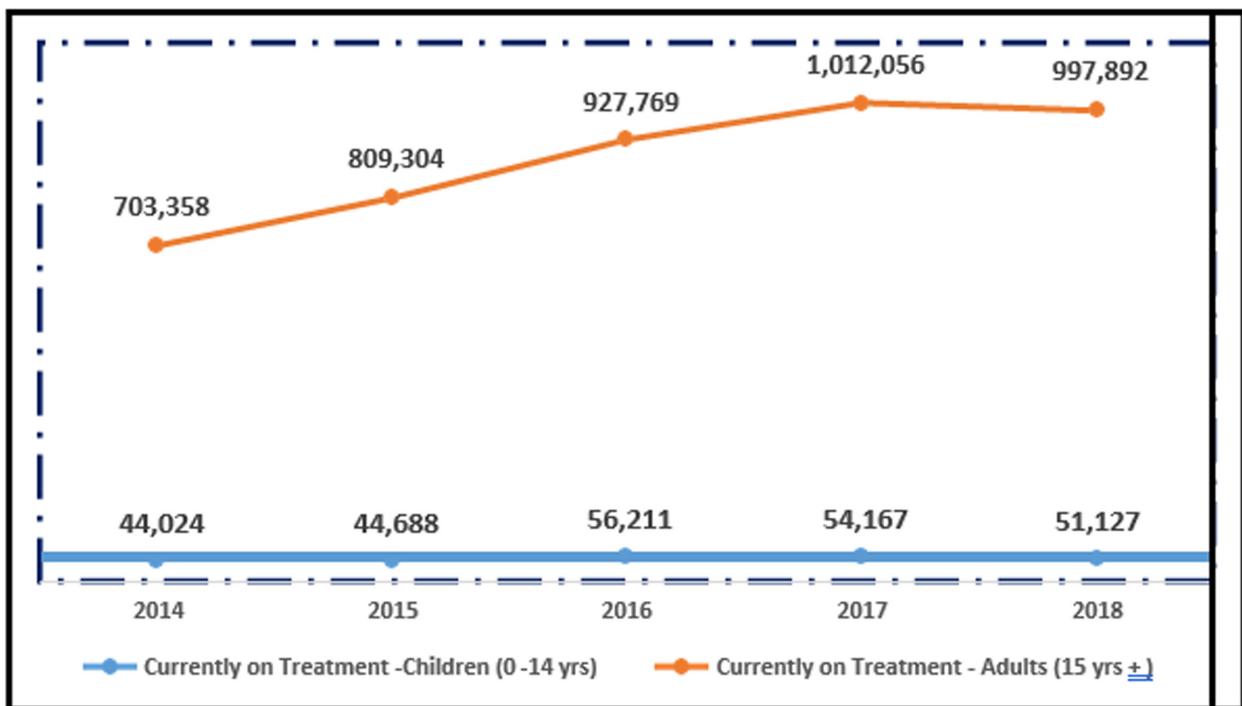
A disaggregation by age of the total number of clients on treatment (Fig 4.3) shows that adults within the age group of 25-49 years contributed 70% of the total number of PLHIV currently on ART. By gender, more females than males were initiated on treatment across all age groups and thus highlights the higher burden of disease among females in Nigeria.

Table 4. 1: Currently on treatment disaggregated by age and regimen

AGE	Treatment line			
	Sex	1st Line	2nd Line	3rd line
Children 0-14 years	Male	24,342	908	1
	Female	24,983	889	0
Adults 15years +	Male	289,824	10,864	17
	Female	675,706	21,464	21
Total		1,014,855	34,125	39

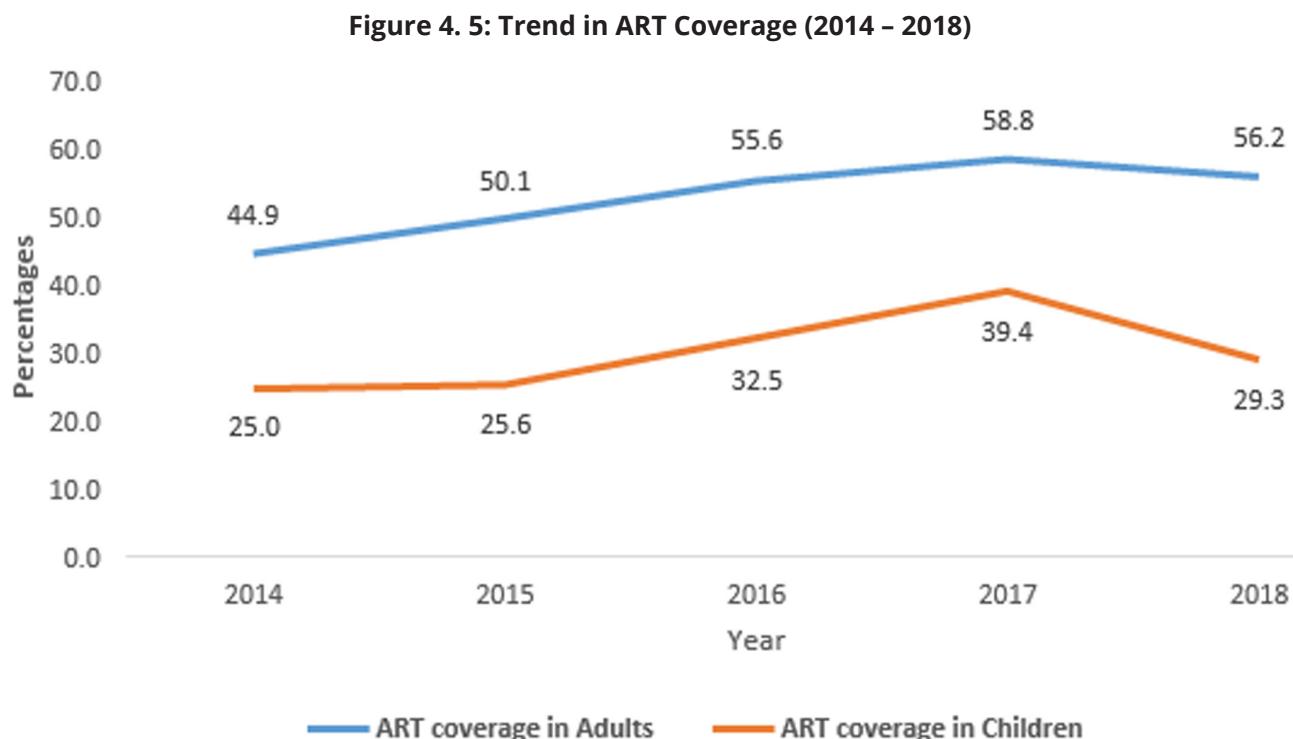
Table 4.1 shows the number of PLHIV across all the regimen lines. About 96.74%, 3.32%, and 0.004% of PLHIV currently on treatment are on 1st, 2nd and 3rd line regimens respectively. Of the total number on 3rd line, 97.4% (38) were adults.

Figure 4. 4: Trend in Current on Treatment disaggregated by Age (2014 – 2018)



As shown in Fig. 4.4, the total number of adults currently on ART progressively increased from 2014 to 2017. However, there was a decrease in 2018 which could be attributed to Retention and Audit Determination Tool (RADET) process that was conducted in 2018. RADET is a tool used to audit patients on ART and it confirms the actual number of PLHIV on treatment based on the last drug refill by the client. Another factor that could have contributed to this is the interoperability issues encountered at the facilities during migration of data between different EMRs.

For pediatric PLHIV on ART, there was an increase in the total number currently on treatment between 2014 (44,024) and 2016 (56,211), with a 4% decrease in 2017 and a further decrease by 9% in 2018. The decrease in pediatric ART requires further investigation to determine if pediatric clients have migrated to adult population or they are truly lost-to-follow-up.



4.3 Coverage of ART

Figure 4.5 shows that the ART coverage among PLHIV progressively increased from 2014 to 2017 followed by a decline in 2018. Among adults, the coverage increased from 44.9% in 2014 to 58.8% in 2017 followed by a 2.8% decline in 2018. Coverage among children peaked in 2017 (39.4%) and decreased to 35.7% in 2018.

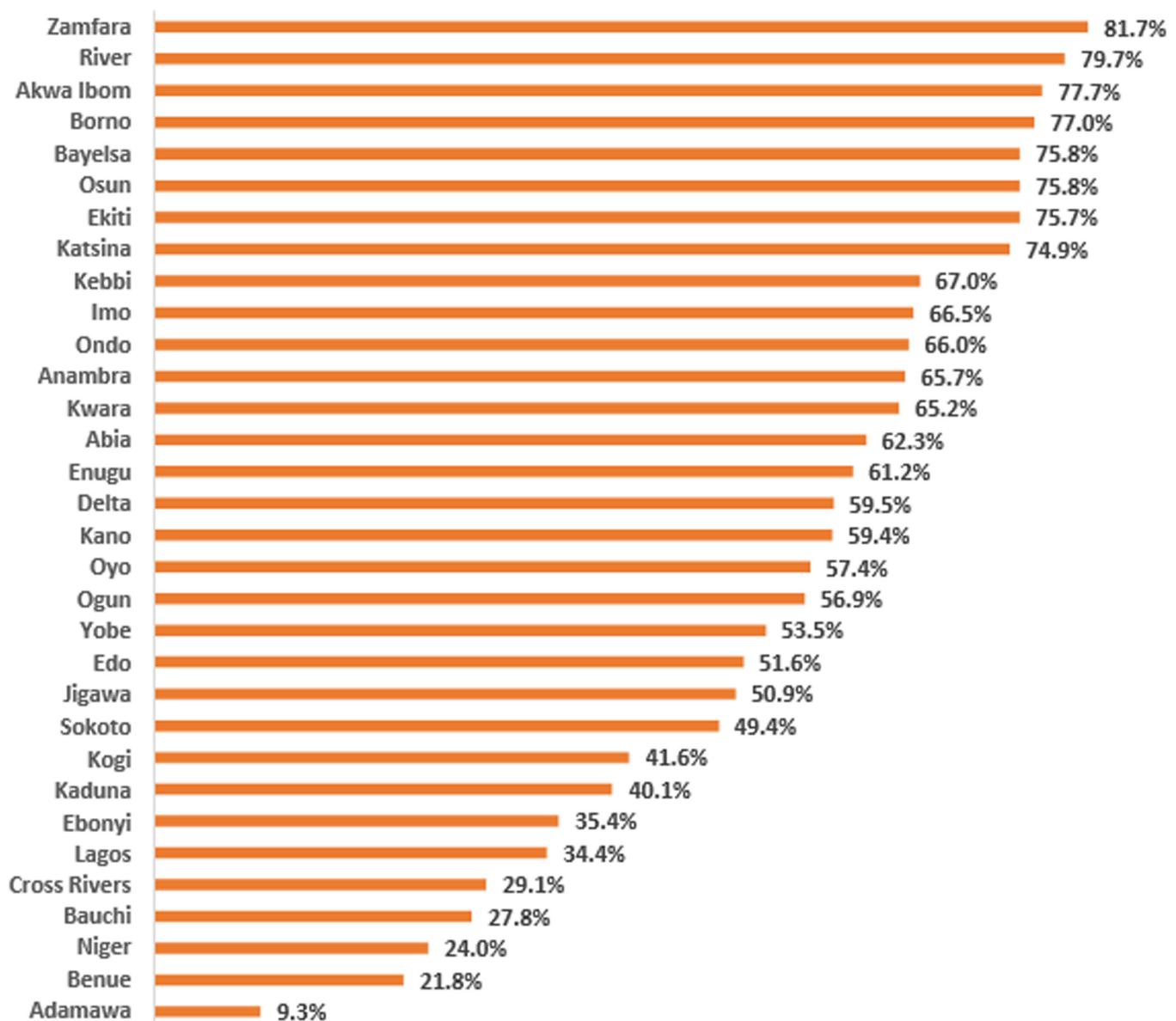
The decline of ART coverage in 2018 is in line with the observed reduction in the number of PLHIV on ART as compared to 2017. Age shift from children to adults could be one of the reasons accounting for the decline in coverage among paediatric age group. However, there is a need to intensify case finding among this age group by strengthening strategies like index case testing among positive mothers, Provider Initiated Testing and Counselling (PITC) at various service delivery points and PMTCT-Maternal and Newborn Child Health (MNCH) integration.

Table 4. 2: State ART profile

Pediatric ART Achievement by State				Adults ART Achievement by State			
States	HIV Population	Current on ART	ART Coverage (%)	States	HIV Population	Current on ART	ART Coverage (%)
FCT	665	2,003	***	Nasarawa	28,823	53,788	***
Taraba	2,934	2,732	93.1	Plateau	23,291	39,989	***
Adamawa	2,362	1,644	69.6	FCT	38,313	59,006	***
Benue	15,207	9,620	63.3	Taraba	37,996	53,039	***
Ebonyi	778	491	63.1	Gombe	17,651	22,973	***
Nasarawa	4,503	2,744	60.9	Niger	15,595	19,456	***
Gombe	1,728	984	56.9	Adamawa	33,434	32,957	98.6
Kogi	2,758	1,444	52.4	Benue	154,970	135,261	87.3
Bauchi	1,747	847	48.5	Lagos	90,162	74,306	82.4
Cross Rivers	2,703	1,280	47.4	Bauchi	20,630	16,573	80.3
Oyo	3,071	1,348	43.9	Cross Rivers	34,980	27,367	78.2
Jigawa	689	290	42.1	Kaduna	60,821	42,484	69.9
Abia	2,539	1,003	39.5	Ebonyi	11,266	7,791	69.2
Plateau	3,999	1,457	36.4	Kogi	32,436	20,732	63.9
Sokoto	770	261	33.9	Edo	34,794	21,002	60.4
Enugu	3,550	1,158	32.6	Yobe	10,742	6,158	57.3
Ogun	3,015	937	31.1	Sokoto	10,983	6,070	55.3
Kaduna	6,734	2,028	30.1	Jigawa	14,626	7,567	51.7
Osun	1,382	403	29.2	Ogun	36,781	17,494	47.6
Ondo	2,338	623	26.6	Delta	51,956	24,033	46.3
Delta	5,432	1,419	26.1	Oyo	44,735	20,305	45.4
Kwara	1,595	404	25.3	Kano	74,604	33,196	44.5
Lagos	14,287	3,616	25.3	Enugu	52,876	22,127	41.8
Kano	5,037	1,217	24.2	Abia	42,725	16,999	39.8
Edo	5,458	1,122	20.6	Anambra	72,768	28,896	39.7
Yobe	1,603	321	20.0	IMO	44,094	17,439	39.5
Katsina	2,408	480	19.9	Kwara	16,977	6,615	39.0
Niger	5,729	1,105	19.3	Kebbi	16,709	6,479	38.8
Anambra	7,684	1,315	17.1	Ondo	23,767	9,037	38.0
IMO	5,086	766	15.1	Ekiti	9,489	3,437	36.2
Kebbi	1,900	286	15.1	Bayelsa	18,077	5,452	30.2
Bayelsa	2,792	282	10.1	Borno	40,546	11,545	28.5
Akwa Ibom	20,079	1,912	9.5	Katsina	34,128	9,303	27.3
Borno	6,066	548	9.0	Akwa Ibom	154,726	41,509	26.8
Zamfara	2,480	197	7.9	Osun	26,592	6,712	25.2
River	20,952	1,592	7.6	River	149,383	37,259	24.9
Ekiti	2,718	183	6.7	Zamfara	15,976	3,628	22.7

Footnote: *** State data under validation

Figure 4. 6: ART Unmet Need by State.



***Few states' estimate data are under validation.

The ART coverage and unmet need among the estimated PLHIV by state are shown in Table 4.2 and Figure 4.6 above. Zamfara state had the highest unmet need (81.7%) while Adamawa state had the lowest (9.3%). Two-third of the states had less than 50% of estimated PLHIV in their states currently on ART. The national unmet need was 44.8% with only nine states (Adamawa, Benue, Niger, Bauchi, Cross River, Lagos, Ebonyi, Kaduna and Kogi) performing better than the national average. These gaps call for scale up of evidence-based strategies that have higher yields of positivity such as partner notification services and couple testing. In addition, linkage to treatment for newly identified HIV positive clients must be strengthened.

National HIV Care and Treatment Cascade

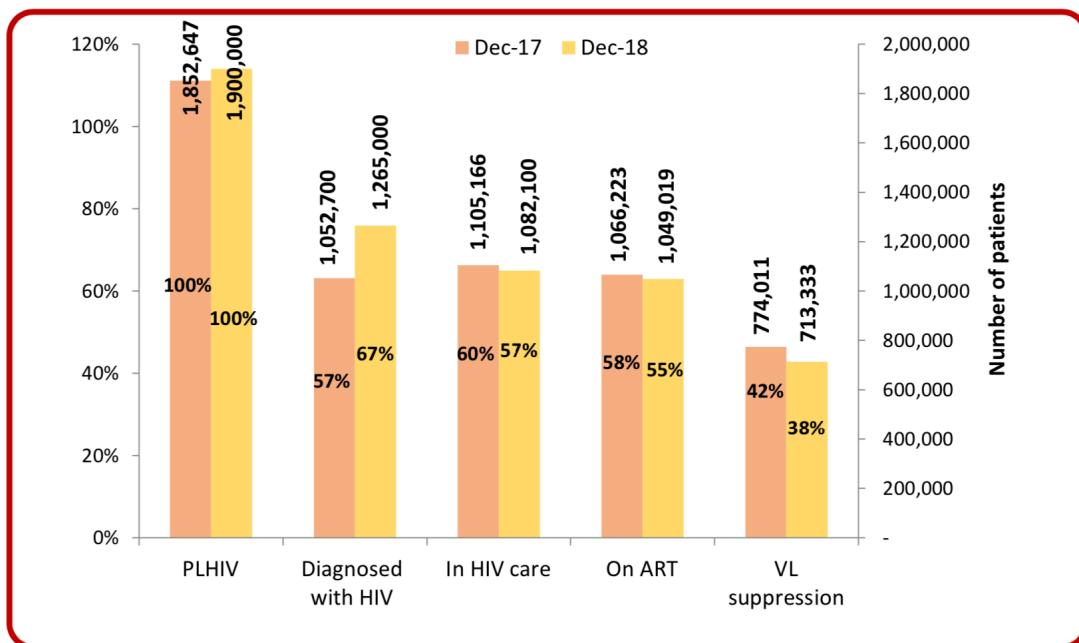


Figure 4. 7: HIV Care and Treatment Cascade (2017/2018 Analysis)

4.4 HIV Treatment Cascade

Figure 4.7 shows 2017 and 2018 HIV Testing and Treatment Cascade using a fixed denominator of estimated PLHIV. A comparison of the two years shows a 2% increase in diagnosed PLHIV between 2017 and 2018, however, there is need to intensify efforts in identifying more PLHIV as only 68% of estimated PLHIV have been diagnosed. Overall, patients on ART and those with suppressed viral load decreased from 2017 to 2018. The decrease of 3% in the number of clients on ART and 8% in clients virally suppressed are warning signs of rebound epidemic and must be addressed systematically. The implications of losing clients on treatment are high as they become a nidus for potential transmission of HIV especially if they are poorly adherent and are among those who are not virally suppressed. Efforts must be made to track and restart such clients on treatment. Furthermore, with the advent of decentralized care, client's treatment plans must be individualized to ensure that they are offered a plan that will enhance and promote retention and adherence to treatment for those who have been initiated on treatment and also for those who yet to initiate treatment.

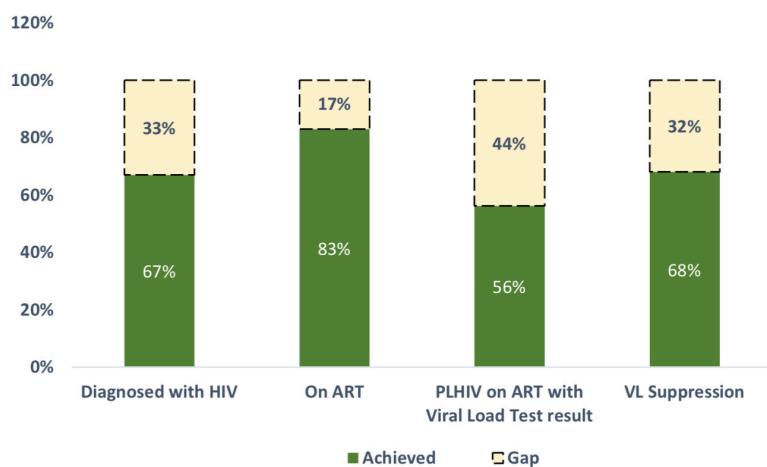


Figure 4. 8: 90-90-90 Cascade Analysis

The FMOH with support of key stakeholders has continued her progress towards achieving the global 90-90-90 target through the roll-out of innovative strategies. The programme has achieved the 2nd 90, however gaps still exist on the 1st and 3rd 90. Thus, efforts should be made to re-strategize and strengthen the HIV testing services for identification of more PLHIV as there remains a 23% gap to the achievement of the 1st 90 target (90% of the estimated PLHIV). The national treatment program must be innovative and apply all ethical means to ensure that all clients on treatment receive at least one viral load test in 2019 program year to ensure that the virologic status of clients are known and the appropriate treatment intervention is applied for those who are virally unsuppressed.

Table 4. 3: State Treatment Cascade 2018

State	Estimate PLHIV	% PLHIV with Known Status	% PLHIV on ART	% PLHIV with VL Test Result	% of PLHIV with VLS
Nasarawa	***	***	***	40.4%	***
Plateau	***	***	***	70.1%	***
FCT	***	***	***	77.6%	***
Taraba	***	***	***	7.4%	***
Gombe	***	***	***	45.2%	***
Niger	21,860	83.8%	94.1%	26.6%	55.0%
Adamawa	38,159	83.9%	90.7%	33.5%	77.0%
Benue	173,792	89.4%	83.4%	45.5%	70.5%
Bauchi	24,125	66.8%	72.2%	42.7%	77.3%
Cross River	40,385	74.6%	70.9%	71.7%	73.7%
Kaduna	68,103	78.6%	65.4%	70.1%	70.0%
Lagos	119,986	65.8%	64.9%	68.0%	82.7%
Ebonyi	12,822	73.6%	64.6%	58.0%	73.9%
Kogi	37,952	62.7%	58.4%	59.6%	71.5%
Sokoto	***	***	50.6%	52.4%	69.4%
Jigawa	16,005	57.6%	49.1%	71.5%	68.9%
Edo	45,710	54.2%	48.4%	68.2%	67.7%
Yobe	13,948	49.7%	46.5%	45.6%	77.3%
Ogun	42,128	46.7%	43.8%	50.3%	77.5%
Oyo	50,876	52.6%	42.6%	61.2%	76.8%
Kano	84,678	49.2%	40.6%	37.4%	74.6%
Delta	62,819	53.7%	40.5%	91.7%	28.9%
Enugu	59,976	65.0%	38.8%	49.4%	67.7%
Abia	47,198	53.4%	38.1%	3.2%	42.0%
Anambra	86,729	57.5%	34.8%	64.1%	73.2%
Kwara	20,288	46.2%	34.6%	35.7%	64.1%
Ondo	28,443	52.7%	34.0%	76.8%	56.7%
Imo	54,266	52.3%	33.5%	64.3%	44.2%
Kebbi	20,509	51.5%	33.0%	36.5%	43.0%
Ekiti	13,209	45.5%	27.4%	54.1%	69.3%
Katsina	38,944	38.0%	25.1%	41.3%	67.7%
Bayelsa	22,882	41.5%	25.1%	68.7%	78.4%
Osun	29,356	35.6%	24.2%	58.1%	67.0%
Akwa-Ibom	188,412	38.4%	23.0%	61.3%	68.5%
Borno	52,677	42.6%	23.0%	73.9%	77.1%
Rivers	180,882	45.2%	21.5%	65.5%	74.9%
Zamfara	20,936	29.2%	18.3%	37.8%	64.9%

*** State estimate still under validation.

Table 4.3 shows the treatment cascade disaggregated by states. None of the states have been able to identify 90% of their estimated PLHIV. Twelve states (Zamfara, Rivers, Borno, Akwa-Ibom, Osun, Bayelsa, Katsina, Ekiti, Kwara, Kano, Ogun and Yobe) have identified less than 50% PLHIV. Ten states have over 50% of identified PLHIV on treatment, Niger state had the highest ART coverage (94.1%) while Zamfara had the lowest (18.3%). Delta state and FCT had the highest viral load testing coverage while viral Suppression rate is highest in Lagos state and the FCT. Viral load testing was lowest in Abia (3.2%) and Taraba states (7.4%). The Government of Nigeria needs to strengthen the viral load continuum from the point of demand creation to when the results are received and used for patient's management. Patient education on the importance of viral load testing on their survival will

further increase demand for viral load testing. Similarly, providers must be equipped to demand for viral test for their clients and are key to ensuring that all clients on treatment receive at least one viral load test per year. Also, other aspects of viral load continuum such as sample collection, transport, availability of reagents/ commodities, result processing and turnaround time should be further strengthened to improve viral load coverage and viral suppression among the PLHIV.

4.5 RETENTION IN CARE

Retention refers to continuous engagement from diagnosis to treatment, care and support (WHO).

4.5.1 Retention at 1year among PLHIV on treatment between 2013-2017

An HIV Service Cascade Assessment and Survival Analysis study was conducted to establish the rate of retention and attrition including Lost to Follow Up (LTFU) on patients initiated on treatment between 2013 and 2017. This retrospective study also provided information on patient outcomes and survival of PLHIV initiated on treatment. Of the 24,327 clients' folders abstracted, retention was 76% at 1 year.

Table 4.4: Retention at 1year Disaggregated by State

State	% (n)	95% CI	Total
Delta	94.1 (731)	92.2 - 95.5	777
Anambra	93.1 (691)	91.1 - 94.7	742
Jigawa	91.0 (583)	88.5 - 92.9	641
Rivers	90.5 (199)	85.6 - 93.7	220
Imo	90.3 (634)	87.9 - 92.2	702
Adamawa	89.9 (593)	87.3 - 91.9	660
Ondo	89.5 (613)	87.0 - 91.6	685
Osun	89.4 (655)	86.9 - 91.4	733
Cross River	87.0 (516)	84.1 - 89.5	593
Ekiti	84.8 (595)	81.9 - 87.2	702
Benue	84.7 (612)	81.8 - 87.1	723
Nasarawa	84.1 (583)	81.2 - 86.7	693
Ogun	83.6 (574)	80.6 - 86.1	687
Akwa Ibom	83.1 (578)	80.1 - 85.7	696
Taraba	83.1 (423)	79.6 - 86.1	509
Lagos	82.4 (596)	79.5 - 85.0	723
Kogi	81.8 (566)	78.7 - 84.5	692
Sokoto	81.3 (584)	78.3 - 84.0	718
Kwara	80.8 (565)	77.7 - 83.6	699
Plateau	80.3 (594)	77.2 - 83.0	740
Bayelsa	79.7 (558)	76.6 - 82.5	700
Zamfara	79.0 (579)	75.9 - 81.8	733
FCT	76.8 (492)	73.3 - 79.9	641
Katsina	76.2 (457)	72.6 - 79.4	600
Kebbi	72.0 (504)	68.1 - 74.8	704
Niger	71.6 (523)	68.3 - 74.8	730
Bauchi	70.6 (443)	67.0 - 74.1	627
Enugu	70.6 (416)	66.8 - 74.2	589
Kaduna	70.4 (520)	67.0 - 73.6	739
Ebonyi	65.2 (384)	61.3 - 68.9	589
Kano	62.9 (326)	58.7 - 67.0	518
Yobe	62.6 (423)	58.9 - 66.2	676
Abia	59.5 (356)	55.5 - 63.4	598
Oyo	42.0 (282)	38.3 - 45.7	672
Edo	35.4 (155)	31.0 - 40.0	438
Borno	33.2 (239)	29.8 - 36.7	721
Gombe	30.8 (178)	27.2 - 34.7	578
Total	75.77 (18,320)	75.2 – 76.3	24,327

Table 4.4 shows the 1year retention across the states. Delta state (94%) had the highest retention, Anambra, Jigawa, Rivers and Imo states also had retention > 90%. Retention was lowest in Gombe state (31%), while Borno, Edo and Oyo states had 1year retention below 50%.

4.5.2 Survival Analysis at one-year

Table 4. 5: Probability of Being Retained on Treatment by Year of Starting Treatment

ART Start Year	3 months	6 months	9 months	12 months
2013	0.88	0.83	0.80	0.78
2014	0.88	0.83	0.79	0.76
2015	0.86	0.82	0.78	0.75
2016	0.85	0.78	0.74	0.70
2017	0.75	0.62	0.54	0.50

The probability of being alive (only known deaths considered as dead) was 0.997, 0.996 at 3 months, at 6 months, 0.996 at 9 months and 0.996 at 12 months.

4.5.3 Retention over Five Years (2013-2017)

Retention at five year indicated that there is steady drop from 76%, 71%, 69%, 65% and 58% at 1, 2,3,4 and 5 years respectively. Retention in care were seen to me higher among females than males through the period under review. Adolescent and young adults (15-24 years) had the lowest retention rates.

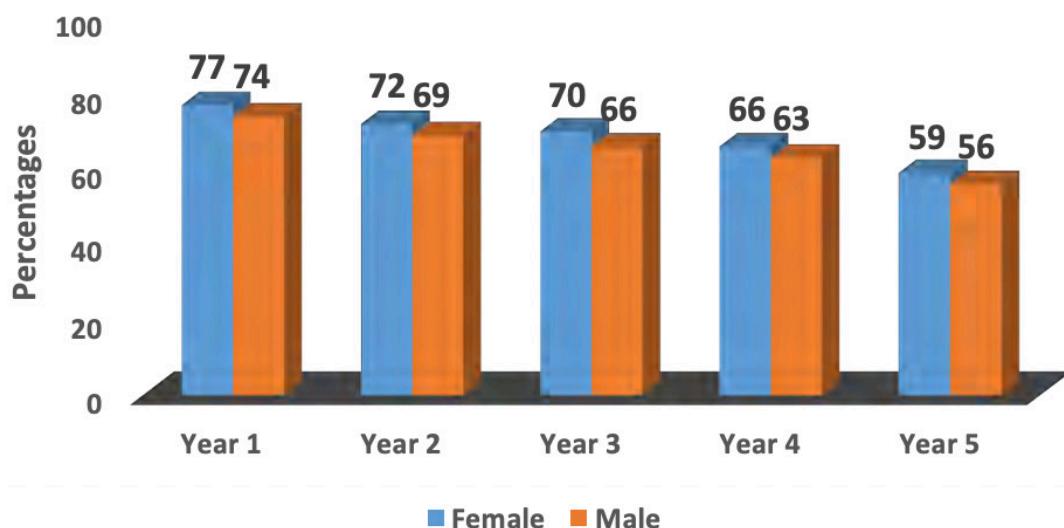


Figure 4.9: Retention Over Five Years (2013-2017)

4.5.4 Patient Attrition

Figure 4.9 below shows the causes of attrition of patients on ART. Loss-to-follow up (LTFU) cases contributed to highest attrition category observed for each year under review. At 1-year, attrition due to LTFU was 82%, 83%, 85%, 86% and 83% in 2013, 2014, 2015, 2016 and 2017 respectively.

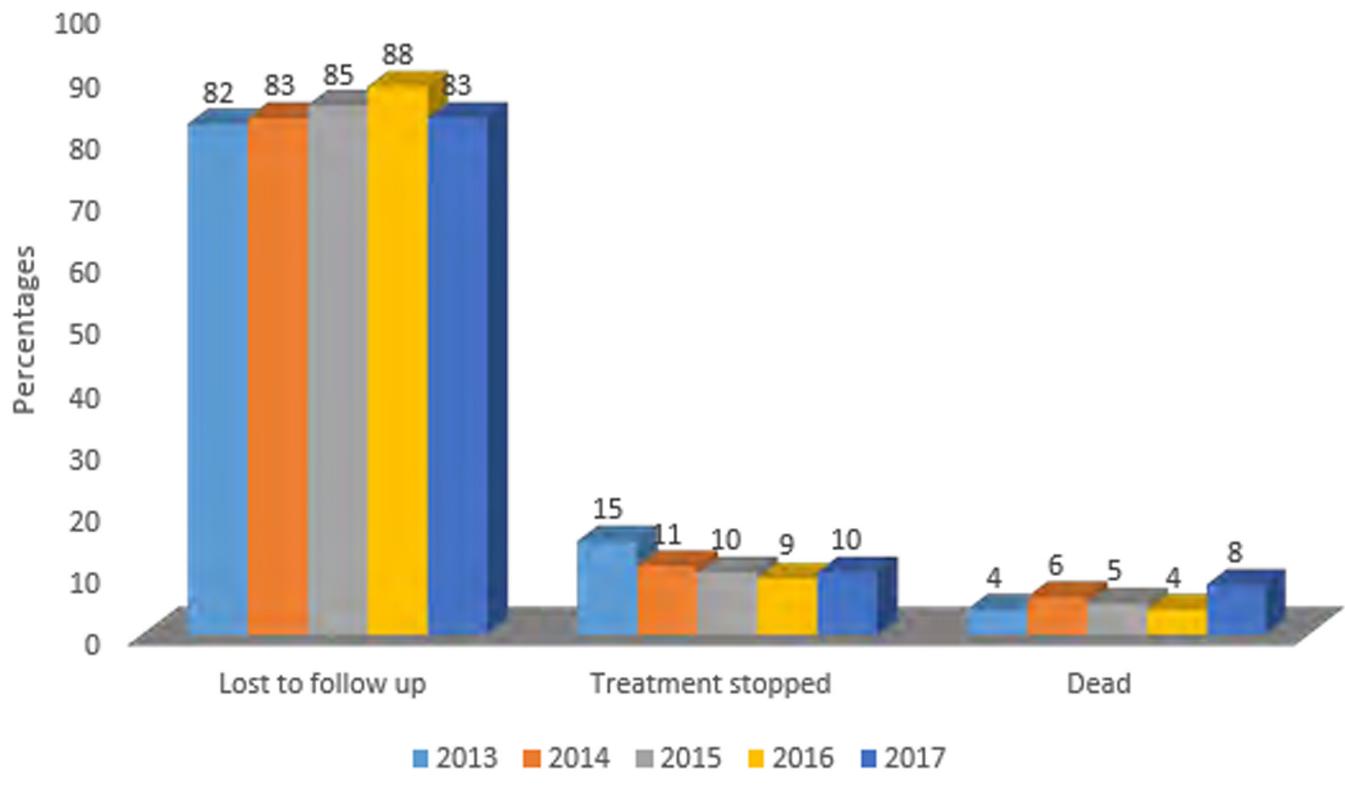


Figure 4. 10: Attrition at 1-year by Cohort

TB/HIV Integration

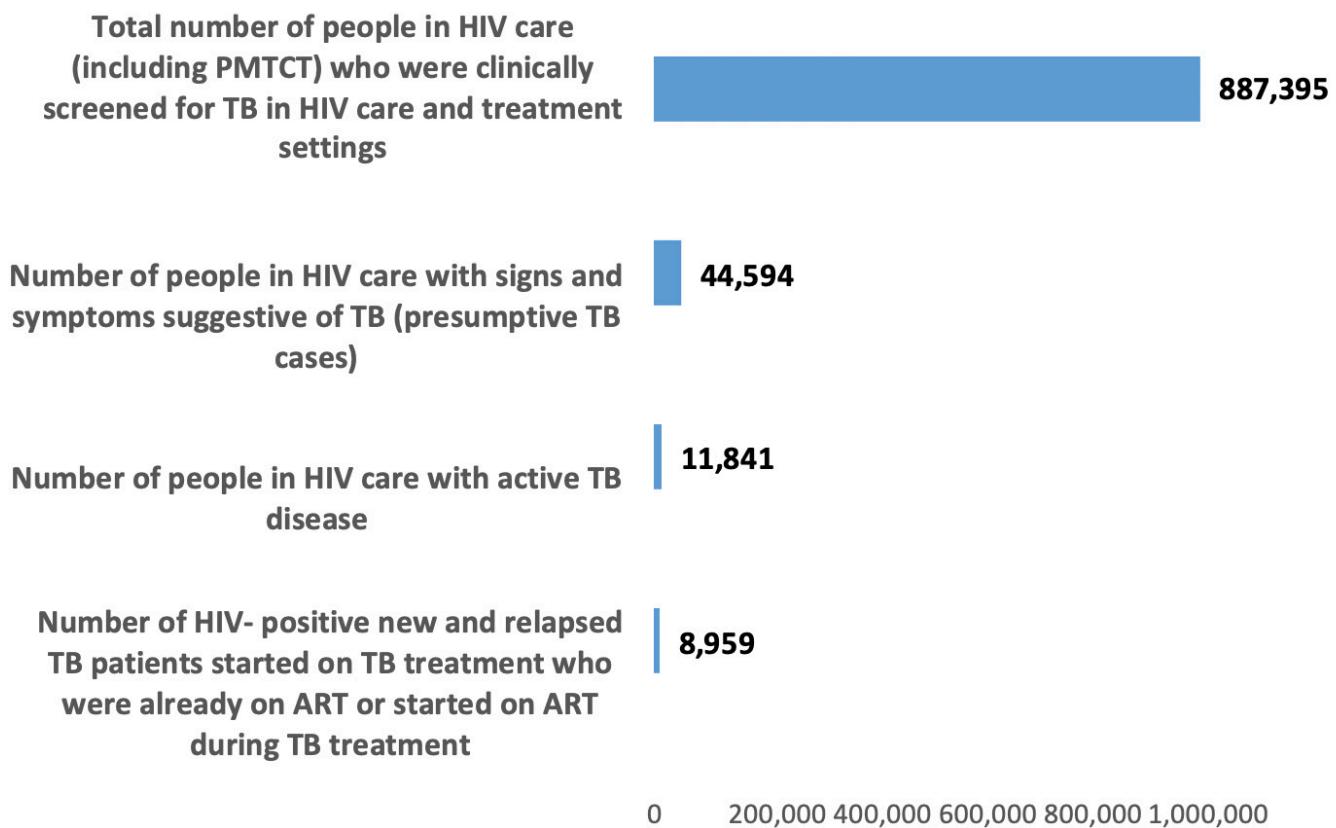


Figure 4.11: TB/HIV Cascade

4.6 Tuberculosis among PLHA

A total of 82% (887,395) of PLHIV in care (1,082,100) were clinically screened for TB in 2018. Of these, 5% (44,594) were found to be presumptive TB cases. Twenty seven percent of the presumptive cases were confirmed with active TB infection and 76% of these confirmed cases were commenced on TB treatment. Given the high morbidity and mortality of TB among PLHIV, strategies must be deployed to ensure that all confirmed cases are commenced on TB treatment. The gap in TB treatment observed in 2018, may be due to some HIV sites and Directly Observed Therapy Short course (DOTs) centers that are not co-located and thus creating an additional logistical burden for clients to navigate between different facilities for treatment of TB and HIV. Clients who access such facilities must be offered differentiated model of care to optimize treatment outcomes.

Table 4.6: Other ART & TB Indicators

Indicators	Years					
	2012	2013	2014	2015	2016	2017
Currently on Treatment	< 1yr	31,556	47,313	44,024	44,688	56,211
	1-4 yrs					
	5-9 yrs					
	10-14yrs					
	15-19 yrs					
	20-24 yrs					
	25-49 yrs					
	50+ yrs					
	Total Number on ART	491,021	639,397	747,382	853,992	983,980
Percentage of estimated HIV positive incident TB cases that received treatment for TB and HIV	9.2%	9.2%	12.2%	20.8%	27.6%	23.2%
Number of persons enrolled for HIV care who were placed on INH prophylaxis	2,257	7,973	22,899	40,885	62,781	91,873
Number of persons enrolled for HIV care who initiated CTX prophylaxis - (Children 0 -14 years)	10,171	33,946	24,909	28,284	38,770	70,565
Number of persons enrolled for HIV care who initiated CTX prophylaxis - (Adults > 15 years)	99,018	179,263	269,588	257,631	277,627	601,201
Number of persons on ART who are lost to follow	25,886	8,073	63,589	75,651	72,156	84,824
Total number of facilities providing ART services	516	820	1,057	1,078	1,292	1,529

The total number of PLHIVs on ART increased from 983,980 in 2016 to 1,066,223 in 2017. Adult ART increased by 8.3% from 2016 to 2017. The 25 – 49 years age band had the highest number of adult PLHIVs on ART. Paediatric ART revealed an aggregate of 54,167 children on ART. Children within the age groups of 5 – 9 and 10 – 14 years had the highest number of children on ART (18,153 and 22,972) respectively.

The percentage of estimated HIV positive incident TB cases that received treatment for TB and HIV has been on the increase from 2012 to 2016 but declined by 4.4% in 2017.

The number of persons enrolled for HIV care who initiated CTX prophylaxis showed an appreciable increase in both children and adults from 2015 to 2017.

Challenges

Low uptake of viral load testing among PLHIV on ART

- ART Coverage in children has been persistently lower than that of adults.
- Long turnaround time for viral load result
- Low uptake of IPT
- Low confirmation of presumptive TB cases
-

Recommendations

Advocate and engage key stakeholders on the optimization of Test and Treat

- policy at the defaulting facilities.
- Optimize Integrated Sample Referral Network systems to enhance viral load testing.
- Increase patient awareness on the importance of viral load testing.
- Mop up the Pre-ART pool.
- Intensify Pediatrics Case finding.
- Strengthening TB/HIV collaboration.
- Demand creation to ensure Isoniazid Preventive Therapy (IPT) uptake at the facility.

Section Five

5.0 Nigeria Estimates and Projection

5.1 Background

The Government of Nigeria with the support of UNAIDS has been using estimations and projections to provide information on HIV/AIDS indicators that cannot be obtained from other sources. The estimation and projections method uses demographic, program, surveillance and survey data as key inputs. UNAIDS has been supporting countries to do these estimations using the Spectrum software developed by Avenir health. Spectrum is a suite of several software models used by policy makers to support program planning and decision making. The AIDS Impact Model (AIM) is the Spectrum model widely used for producing HIV estimates both for national and sub-national epidemics. Spectrum outputs include a range of HIV indicators that can be used by program managers and policy makers involved in HIV programming. These outputs include the population living with HIV, new HIV infections, AIDS related deaths, need for ART and PMTCT, and the impact of ART and PMTCT programs.

Increasingly, program managers and policy makers require HIV indicators at the sub-national level because of differences in the population dynamics, depleting resources and competing priorities within subnational regions. Subnational monitoring of the epidemic is also required to measure progress in subnational HIV prevention activities. Globally, there have been efforts to move towards characterizing HIV epidemics at sub-national levels. UNAIDS introduced the location population approach in 2013 and has been working with countries to produce their sub-national HIV estimates to address the heterogeneity in sub national epidemics in many countries. This approach serves to identify locations that have the greatest need for services and consequently direct resources and attention to these areas.

In 2013, Nigeria commenced subnational HIV estimates and projections for all its 36 states and the Federal Capital Territory (FCT) using the Spectrum software. The 2018 Nigeria Spectrum estimations and projections is the fifth iteration of subnational estimations. This chapter describes the process of generating estimates, presents the findings, as well as discusses the policy implications of observed estimates and trends. To inform planning at the lowest level of administration in Nigeria, Local Government Area (LGA) level estimates are also required. In 2019, a new module was added to the Spectrum software for computation of LGA level estimates. This module uses the HIV positivity rates from the national PMTCT program as a proxy for prevalence as well as the population of each LGA to estimate the HIV burden. The Nigeria estimates team used this module to attempt LGA level estimation. The outputs from this effort will also be presented in this report.

5.2 Methodology

The process of developing the 2019 estimates commenced in February 2019. The Nigeria estimates team comprising staff from the National AIDS and STI control Program (NASCP) within the Federal Ministry of Health, the National Agency for the Control of AIDS (NACA), the US Centre for Disease Control (US C.D.C), the Joint United Nations Program on HIV/AIDS and some Implementing partners attended a regional workshop which was organized by UNAIDS from 4th to 7th February 2019 in Johannesburg South Africa. The development of the Spectrum files typically involves reviewing population figures, updating PMTCT and ART (Adult and children) program data, recalculating targets where required, reviewing surveillance and survey data in the files and then fitting the curves using the Estimates and Projection Package (EPP) part of the software.

Updates to the 2019 Spectrum Software and Estimation Process

- Review of state populations to align with population figures used in the 2018 NAIIS survey
- Replacement of the NARHS prevalence data with the NAIIS prevalence data
- Use of the new 'Knowledge of Status' tab.
- Use of the 'Shiny 90' app to estimate 1st 90.
- Use of the new 'Viral Suppression' tab to input viral load data.
- Inclusion of 'Treatment Cascade' in the ART results.
- Introduction of the 'District Estimates Tool'.

A draft set of national and state files were developed at this workshop using draft validated data pending final validation of the national data. These files were then updated with the final national validated data in May 2019 and submitted to UNAIDS for review. The outputs of the reviewed files were sent to the Director General of NACA for assent and concurrence in May after which the outputs were used in the UNAIDS 2019 Global AIDS report.

5.3 Data Sources for HIV Estimates and Projections

A number of data sources are used as input in the Spectrum software. These include:

- a.) Demographic data from the UN population Division and the National population Commission (NPC): These sources provide population data which form the base of the model.
- b.) Nigeria Demographic and Health Survey (DHS) - (1989, 1995, 2001, 2006, 2011, 2013). These surveys have been consistently conducted and provide data on trends over the years. This survey provides demographic data such as breastfeeding practices with which the model calculates disease transmission probabilities. The 2018 edition has just been concluded and the final data is awaited.
- c.) HIV sentinel surveillance system i.e. Antenatal HIV Surveillance System among pregnant women. This surveillance started in 1991 and there have been ten (10) rounds so far. This survey provides prevalence among pregnant women which is used to project the trends of HIV prevalence in the module. The survey is however beset with some limitations such as limited number and distribution of sites as well

as over sampling of urban sites. The last survey in 2014 was conducted in 160 sites in all 36 states and Federal capital of the country.

d.) Routine Program M&E: The Spectrum model uses program data on ART (adult and children) and PMTCT to provide numerators for computing coverages and targets. The key indicators required are:

- a. The number of adults and children receiving ART
- b. The number of adults newly placed on ART
- c. The number of children receiving cotrimoxazole
- d. The number of pregnant women who received ART for PMTCT by type of regimen

The ART and PMTCT program data are collected at facility level. The data are then aggregated at local government, state and national levels to compute the national figures for these indicators.

e.) The National AIDS and Reproductive Health Survey (NARHS): This survey provides data on HIV prevalence in the general population. There have been 3 rounds of the survey in Nigeria: 2003, 2007 and 2012. Successive rounds saw improvements from earlier editions. The 2007 and 2012 editions incorporated HIV Counselling and testing while the 2012 edition in addition included indicators from other disease areas related to HIV and was more robust with over 30,000 respondents. In place of the NARHS, the Nigeria AIDS Indicator and Impact Survey (NAIIS) with over 200,000 respondents from over 88,000 households, provided important HIV markers with a higher level of precision and the preliminary results were used in this 2019 round of estimates thereby re-calibrating the model.

Figure 5. 1: Map of HIV prevalence estimates among 15-49 population from NAIIS

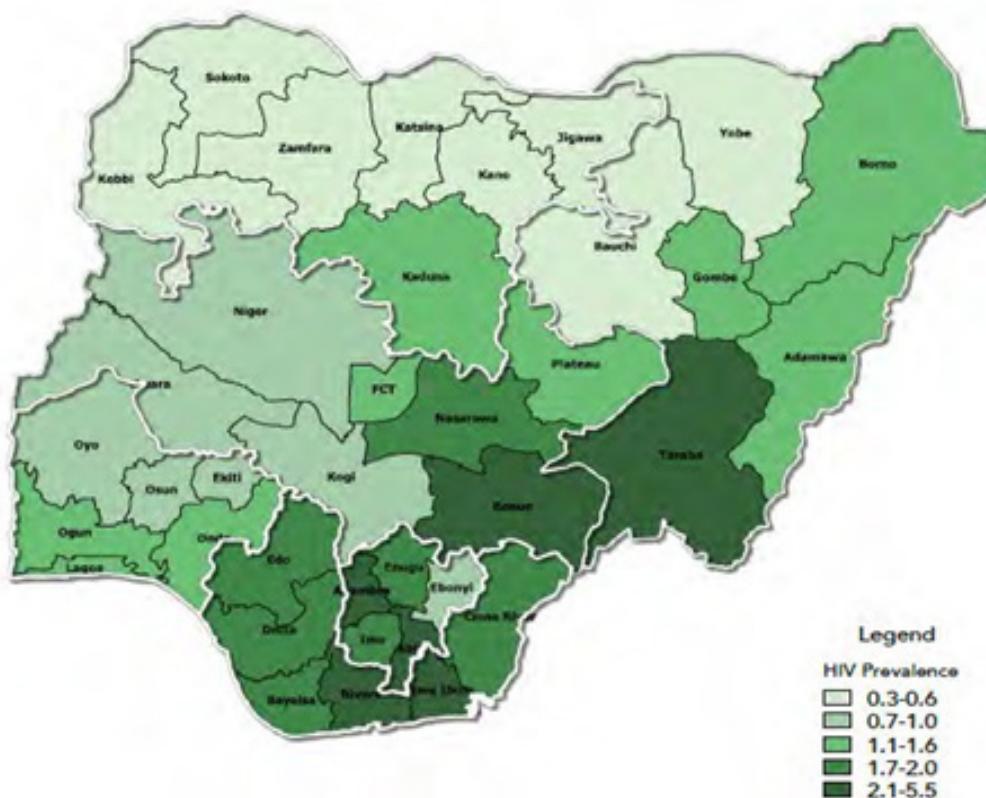


Table 5. 1: HIV Prevalence by State from 2018 Nigeria HIV/AIDS and Indicator and Impact Survey (NAIIS)

State	Prevalence (%)
Akwa Ibom	5.6
Benue	4.9
Rivers	3.8
Taraba	2.7
Anambra	2.4
Enugu	2.1
Abia	2.1
Delta	1.9
Nasarawa	1.9
Edo	1.8
Bayelsa	1.8
Cross River	1.7
Imo	1.6
Plateau	1.5
FCT	1.5
Lagos	1.3
Borno	1.3
Adamawa	1.3
Ogun	1.2
Gombe	1.2
Kaduna	1.0
Kogi	1.0
Kwara	1.0
Ondo	0.9
Osun	0.9
Oyo	0.9
Ebonyi	0.8
Niger	0.7
Ekiti	0.7
Kebbi	0.6
Kano	0.5
Zamfara	0.5
Yobe	0.4
Bauchi	0.4
Sokoto	0.4
Jigawa	0.3
Katsina	0.3

The 2018 National AIDS Indicator and Impact Survey showed that the highest prevalence of 5.6% was recorded in Akwa Ibom state while the lowest was recorded in Jigawa and Katsina states (0.3%).

5.3 OUTPUTS

5.3.1 NUMBER OF PEOPLE LIVING WITH HIV, ALL AGES

Figure 5.2 shows the estimated number of people living with HIV from 2014 to 2018. In 2018, 1.9 million (1.4 million-2.6 million) people were estimated to be living with HIV in Nigeria. About 92% of these are adults above 15 years. Among the adult PLHIV, about 55% are women. Generally, there is a progressive increase in the PLHIV population estimates. The PLHIV population is dependent on the interplay between the change in total population, new infections as well as AIDS related deaths. There was an 11% increase between 2014 and 2018.

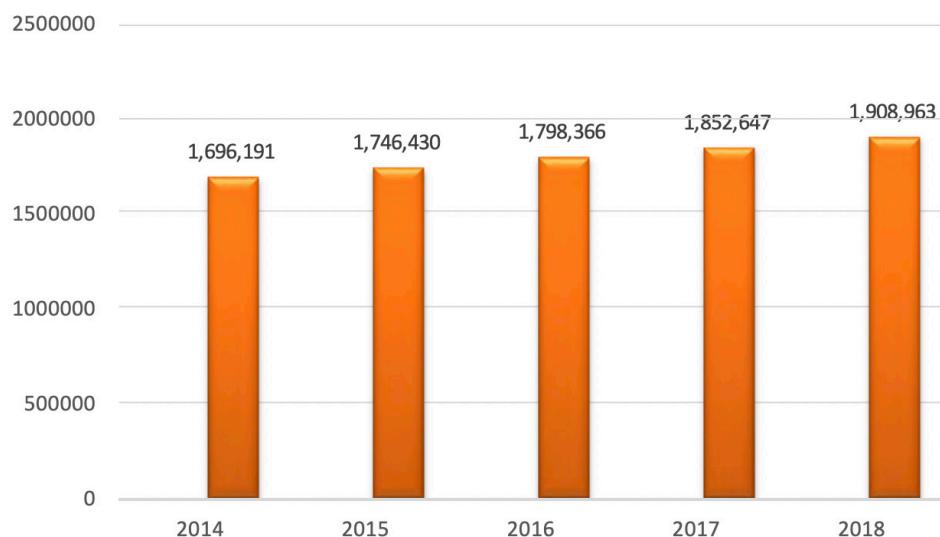


Figure 5.2: Number of people living with HIV

5.3.2 Number of Children (0-14 Years) Living With HIV

Fig 5.3 shows the number of children living with HIV in Nigeria. As of 2018, an estimated 140,000 (91,000-220,000) children (0-14 years) are living with HIV in Nigeria. This accounts for about 8% of the total number of People Living with HIV in Nigeria.

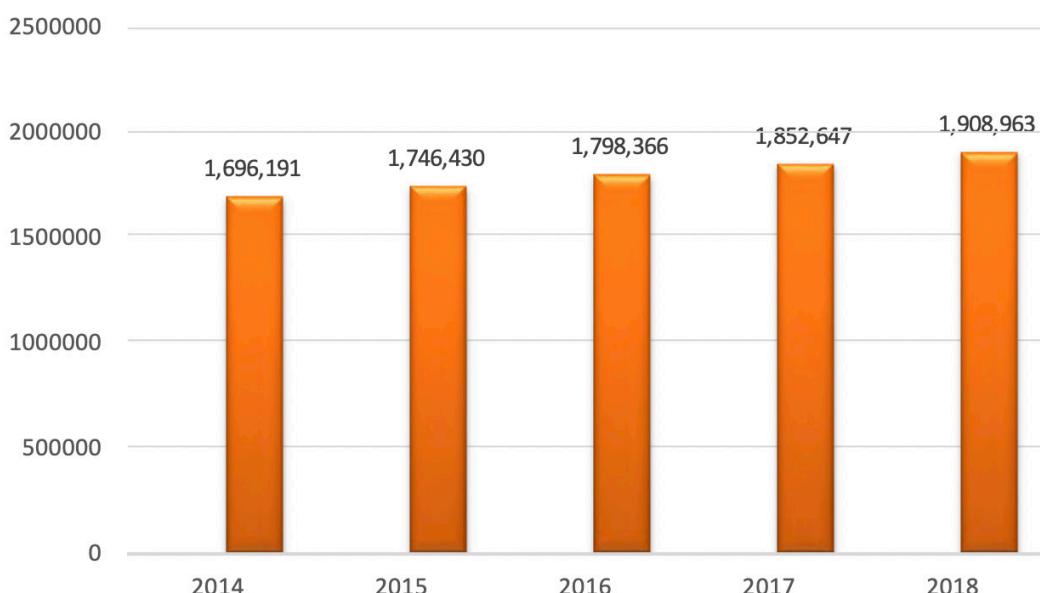


Figure 5.3: Number of Children (0-14years) Living with HIV

Figs 5.4 and 5.5 shows the estimated number of adolescents and young persons living with HIV in Nigeria. In 2018, adolescents made up about 8% of the total PLHIV population while young people 15-24 years accounted for about 13% of the PLHIV population. The trends are similar to that of the adult PLHIV population with progressive increase from 2014 to 2018. However, the increase between 2014 and 2018 was higher among the 15-24 years (7.0%) compared to those aged 10-19 years (4.8%).

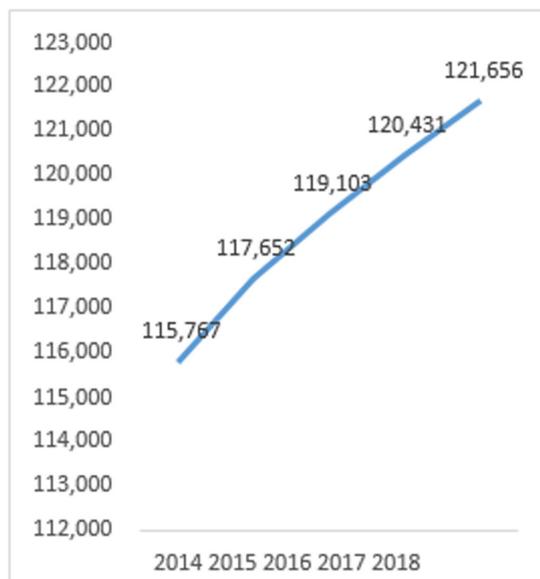


Figure 5.4: Adolescents (10-19 years) Living with HIV

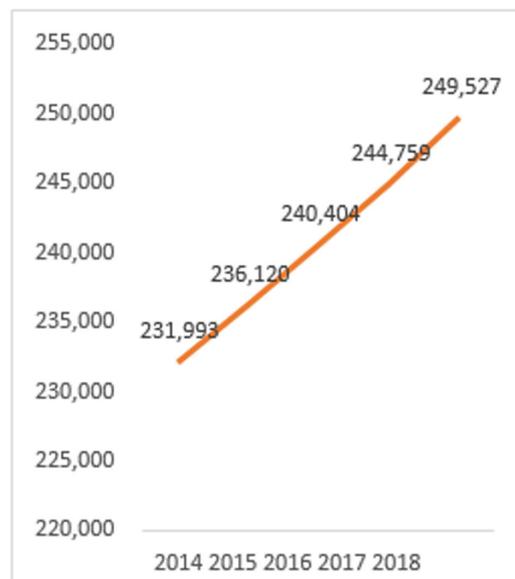


Figure 5.5: Young People (15-24 Years) Living with HIV

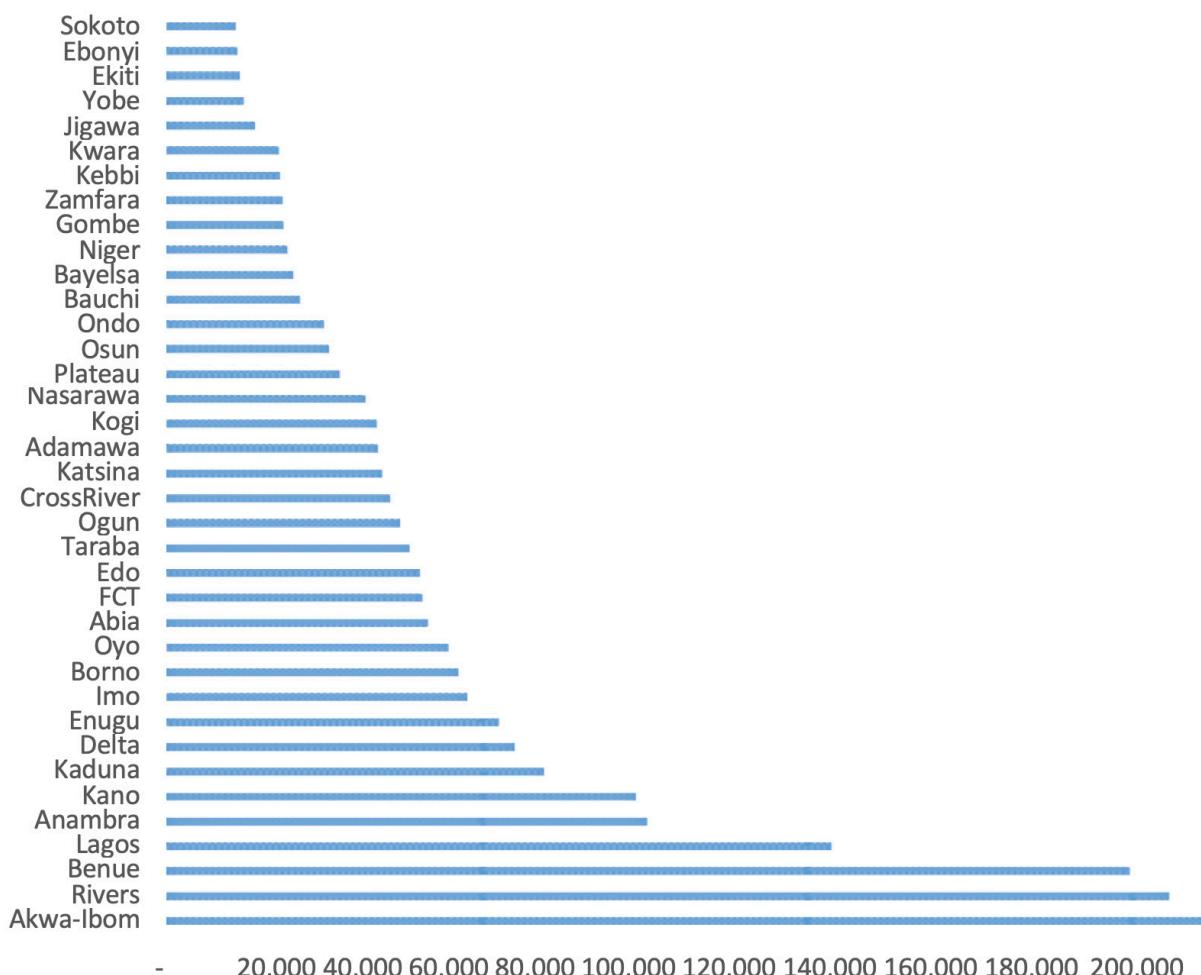


Figure 5.6: HIV Population by State

5.3.3 Burden of HIV

Fig 5.6 shows state level disaggregation of PLHIV in Nigeria. State level number of PLHIV is a function of state HIV prevalence and the state population. Based on this, the estimated number of PLHIV was highest in Akwa Ibom (estimated 188,400) and lowest in Sokoto state (estimated 12,500).

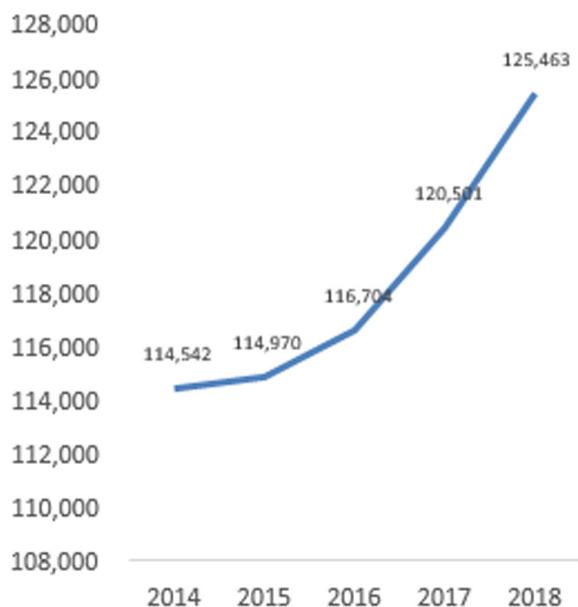


Figure 5.7: New HIV Infections in Nigeria

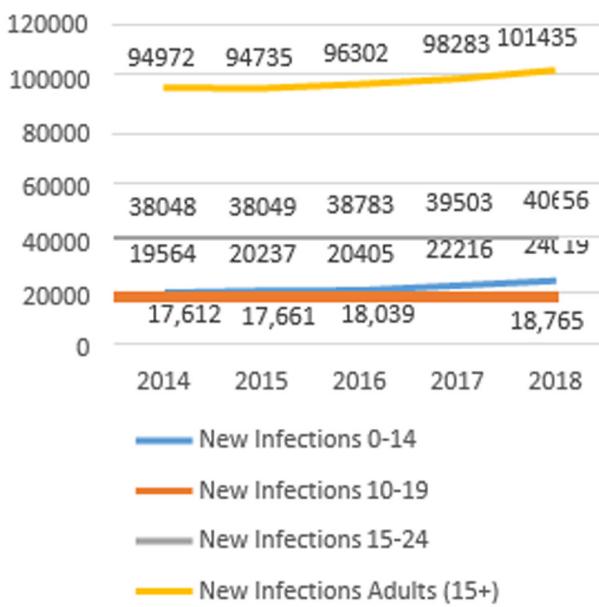


Figure 5.8: New HIV Infections by Age

Figs 5.7 shows the estimated number of new HIV infections in Nigeria, while Fig 5.8 shows the estimated number of new HIV infections disaggregated by age. Overall, the number of new infections shows a sustained increase between 2014 and 2018 with an estimated total of 10,921. The lowest margin of increase (428) was estimated between 2014 and 2015 while the largest increase (4,962) was observed between 2017 and 2018.

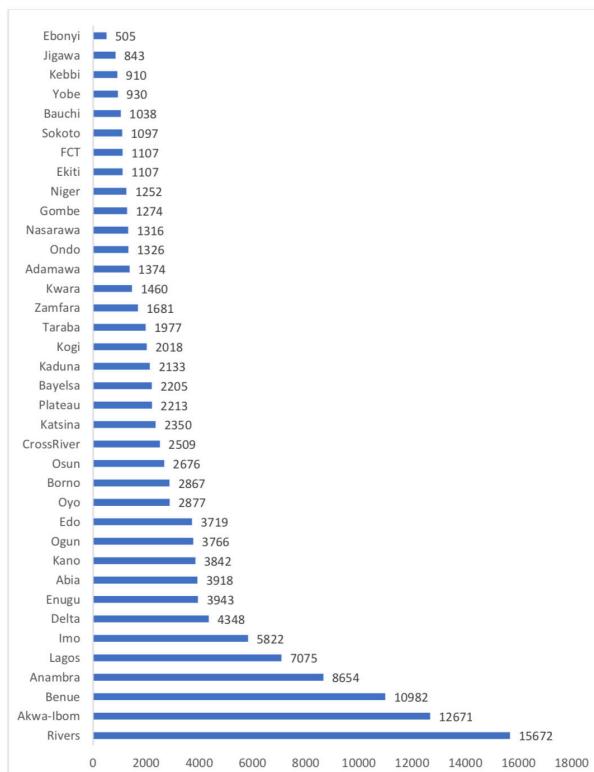


Figure 5.9: New HIV Infections by State

Fig 5.9 shows the number of new HIV infections disaggregated by state. The largest number of new HIV infections (15,672) was estimated to be in Rivers state and this was followed by 12,671 in Akwa Ibom state. The lowest number of new HIV infections was estimated to occur in Ebonyi state, and this was followed by Jigawa state (843).

5.3.4 AIDS-Related Deaths

Another critical measure of a successful HIV program is the number of AIDS-related deaths. Fig 5.10 shows the estimated number of annual AIDS related deaths in Nigeria while Fig 5.11 shows estimated AIDS related deaths disaggregated by age. After progressive years of decline, AIDS related deaths have assumed an upward trend since 2017. This may be attributable to the drop in the number of patients newly started on ART and PMTCT in 2017 and the drop in the number currently on ART recorded in 2018 which may have been due to data audit issues. Over a quarter (26%) of the deaths are among children 0-14 years.

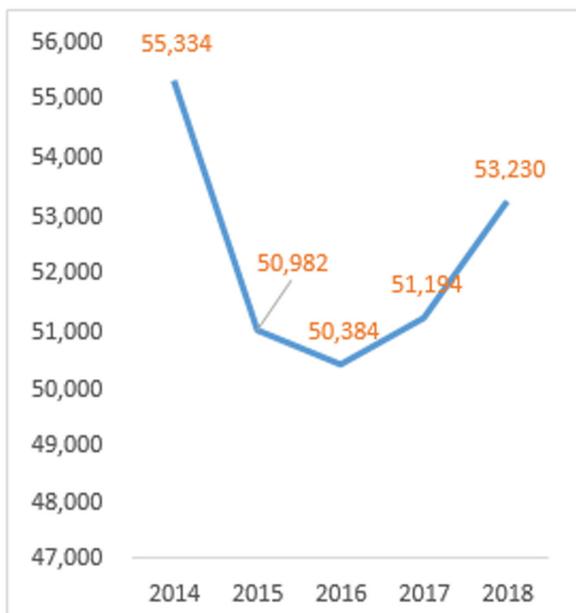


Figure 5.10: Estimated annual AIDS deaths in Nigeria

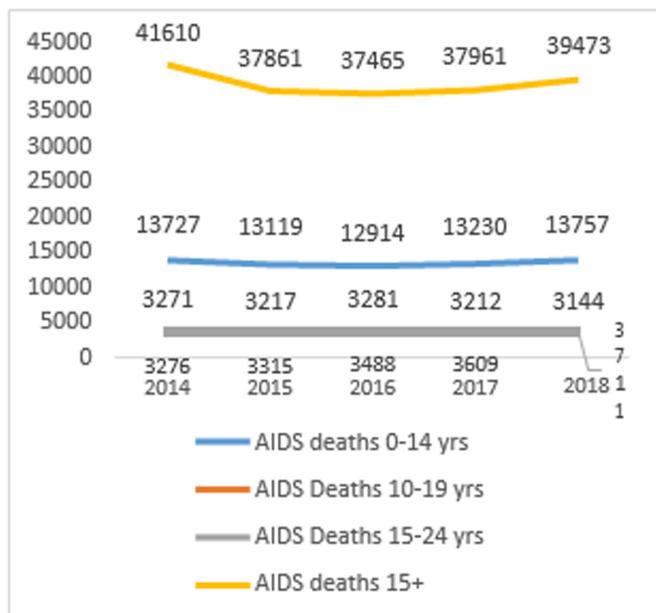


Figure 5.11: AIDS related deaths by Age

Table 5.3 AIDS Related Deaths by State

	2014	2015	2016	2017	2018
Abia	1295	1021	899	943	1124
Adamawa	678	729	758	636	557
Akwa- Ibom	5032	5900	6931	7037	7177
Anambra	1981	1599	1597	1914	2205
Bauchi	566	487	393	367	432
Bayelsa	866	921	873	897	900
Benue	3475	2925	2567	2423	2514
Borno	1675	1373	1348	1452	1676
CrossRiver	808	634	624	610	681
Delta	1978	1723	1775	1804	1882
Ebonyi	350	238	217	278	312
Edo	1121	1165	1239	1327	1346
Ekiti	427	426	438	462	492
Enugu	1059	912	906	1100	1438
FCT	502	570	557	559	553
Gombe	550	390	312	253	258
Imo	1286	1027	986	1226	1367
Jigawa	874	790	765	718	617
Kaduna	772	794	848	973	1148
Kano	4974	4385	4130	3970	3772
Katsina	2240	1908	1832	1787	1826
Kebbi	396	439	520	595	654
Kogi	1374	1271	1211	1171	1108
Kwara	924	888	890	891	906
Lagos	2794	2756	2864	2966	3010
Nasarawa	959	684	678	632	518
Niger	459	338	273	266	265
Ogun	1026	990	1068	1108	1089
Ondo	1743	1656	1620	1571	1482
Osun	1021	1028	1026	1120	1172
Oyo	1514	1509	1550	1587	1598
Plateau	454	438	497	595	657
Rivers	7739	6938	6303	6106	6535
Sokoto	179	194	175	165	170
Taraba	636	630	588	563	564
Yobe	506	558	495	424	383
Zamfara	1101	748	631	698	842

Table 5.3 shows AIDS related death disaggregated by state. The highest number of AIDS related deaths in 2018 was estimated to have occurred in Akwa Ibom while the lowest was estimated to have occurred in Sokoto state.

5.4 PMTCT

Fig 5.12 shows the number of HIV positive pregnant women who'll require prophylaxis for prevention of mother-to-child transmission. The estimate shows a steady increase between 2014 and 2018 of the number of HIV positive pregnant women. Lowest estimates were reported in 2014 (95,286) while the largest estimates were reported in 2018 (100,112). Similarly, the MTCT rate (Fig 5.13) was lowest (21%) in 2014 (Fig 5.13) and highest in 2018 (24%).

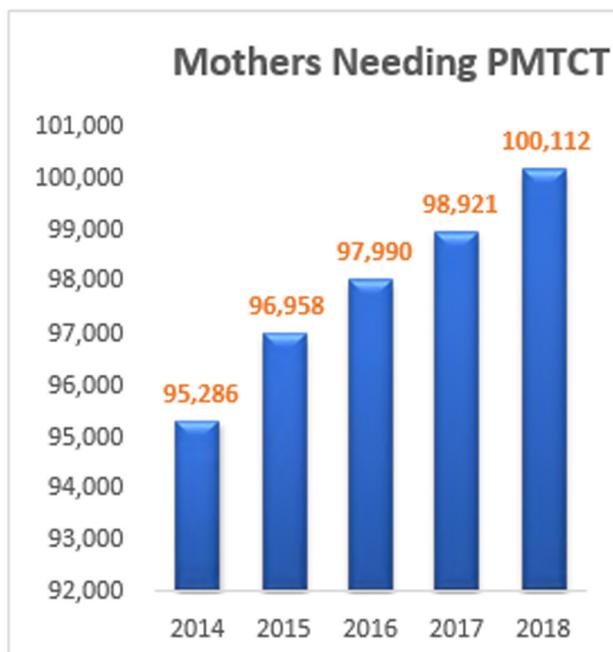


Figure 5.12: HIV Positive Mothers
Needing PMTCT

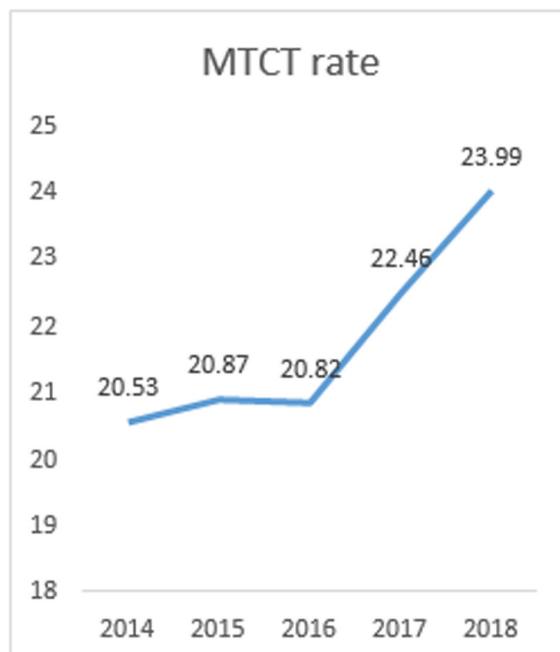


Figure 5.13: MTCT Rate

6.0 Synopsis of Data

The 2018 HIV health sector report provides a summary of achievements across various thematic areas in the national HIV program. Some positive changes noted include the increase in the number of HIV testing sites, an increase in the number of people tested and high yield from HIV testing strategies such as index testing. These findings show some effectiveness and efficiency within the national program and should be scaled up.

HIV Testing

The increase in HIV testing sites and the commensurate increase in the total number of clients tested highlights the commitments of the government and its partners in achieving the 1st 90 of the UNAIDS 90:90:90 goal and this progress must be sustained in 2019 if the national program must attain its objectives. Increased access to HTS must remain the focus of the national program. While some states increased the number of HTS sites available, others showed decreases between 2017 and 2018. For example, in Taraba, number of HTS sites decreased from 123 to 86 between 2017 and 2018. In Benue, HTS sites decreased from 612 to 498 between 2017 and 2018. While these states have experienced conflicts in recent years which may account for these decreases, further assessments are recommended to ascertain the reasons behind the decrease in HTS sites in these states.

The programmatic data shows some similarity with survey data. For example, HIV positivity was highest among those aged 35 – 39 years both from program and survey reports. Overall, the HIV positivity of 2% is similar to that reported from the NAIIS survey among those aged 15 – 64 years and this suggests that the national program has applied effective testing strategies to reach new HIV positive clients. Of note, is HIV prevalence data from index testing which showed a HIV positivity yield of 9%. However, only 35% of partners of index clients were successfully contacted and thus additional effort and evidence-based strategies must be implemented to improve on successful contact rate for index testing to ensure that clients who are HIV positive know their status. Couples testing, which may be classified as within index testing also needs to be scaled up as the HIV positivity from this strategy was 5%. In addition, given the stigma and risk of marital or relationship discord following sero-discordance, testing strategies must continuously be innovative to ensure that the appropriate partner is contacted and tested within this strategy.

A review of the number of new HIV clients showed that those aged 25 – 29 years contributed the largest proportion with males and females contributing 11% and 23% respectively. This finding calls for targeted programs to reach this age group given their strategic position as a large population sub- group and the next productive workforce for Nigeria. The large number of HIV positive clients within this age bracket calls for research to ascertain the drivers within this sub-population.

Tuberculosis especially among PLHIV remains a significant cause of morbidity and mortality. Between 2014 and 2018, less than 50% of PLHIV were clinically screened for TB and this suggests sub-optimal clinical care for PLHIV accessing services in Nigeria. Of note is the decrease in proportion of clients screened between 2017 (31%) and 2018 (28%). TB screening must be instituted, and government and donors must hold their partners accountable using performance improvement plans if the national program must be successful in TB screening of PLHIV.

Prevention of Mother-to-Child Transmission

The national PMTCT program continues to experience challenges and this requires concerted effort and evidence-based interventions to improve the performance and eventual outcomes of HIV exposed infants. Based on the estimated number of pregnant women in 2018, only 40% attended ANC. This is lower than that reported from the national demographic and health survey (2018) in which 67% of women received antenatal care from a skilled provider at least once for their last birth. However, it is worthy of note that 96% of pregnant women who attended ANC received HTS and this suggests that the major gap is ensuring the women reach the health facility. Innovative strategies are required to continue to promote the importance of ANC and subsequently increase the number of pregnant women who receive care from a skilled provider. Effort should also be made to devise innovative mechanisms for collecting data from the private sector as a significant number of pregnant women receive services from such facilities, but most of that data is not reported to the relevant health authorities.

HIV positivity was highest among women who presented at labor (4%) and post-partum (6%) compared to those seen at ANC (2%). This reiterates the gap identified in ANC and reemphasizes the importance of ensuring women have access to ANC to improve health outcomes for their infants. In 2018, 83% of identified HIV positive pregnant women received ARV prophylaxis. This is comparable to findings from a national survey that showed 83% of HIV positive women self-reported using ARVs during their last pregnancy

(NAIIS 2018).

Facility-based delivery among HIV positive women was 42%. Furthermore, only 25% of estimated HEI received ARV prophylaxis and only 23% received DNA PCR test. This suggests a huge gap in HEI receiving appropriate prophylaxis. Programs must be innovative and non-stigmatizing to increase the proportion of HIV positive women who deliver in facilities and who avail their infants the opportunity to receive ARVs and DNA PCR test. In addition, linkages and referrals between public

and private facilities must be strengthened to allow the tracking of mother-infant pair who may choose to receive ANC services at public facilities but deliver in private facilities or at home. Bridging this gap will allow a holistic estimation of the PMTCT cascade and ascertain the gaps in services.

Antiretroviral Treatment Program

The revised 2016 WHO treatment guideline promotes the initiation of treatment irrespective of CD4 count and Nigeria adopted the "Test and Start" strategy in 2017. The sustained efforts in HTS has increased the number of new HIV clients identified in the national program, however there was a slight drop in the total number of clients on treatment in 2018 compared to 2017 despite the scale up of treatment sites in Nigeria. The paediatric ART program shows more gaps compared to the adult ART program with 29 states having less than 50% of estimated number of paediatric HIV clients on treatment. Similarly, for adult ART program, 19 states showed huge gap with less than 50% of estimated clients on treatment being on treatment. Furthermore, by gender, males have less ART coverage than females both for paediatric (65% vs. 80%) and adult clients (73% vs. 87%). These gaps require urgent interventions if the national program aims to sustain the decline in HIV prevalence as early adherent treatment leads to viral suppression and thus limits HIV transmission.

The treatment coverage gaps identified in each state, allows for targeted interventions especially for states with the largest treatment gaps. Given the high level of internal migration within Nigeria, the treatment program must remain robust and comprehensive to ensure that clients who move between states continue to have uninterrupted access to their treatment. The loss of 14,164 (1%) clients on treatment between 2017 and 2018 may seem insignificant, however, given the high rates of transmission among clients with high viral load, these clients may constitute a critical mass to propagate HIV transmission if treatment adherence remains poor or interrupted. Thus, the national program must deploy innovative referral strategies to ensure that clients are easily and appropriately accounted for irrespective of where to choose to receive their treatment. Innovations such as the use biometrics are recommended to ensure full accountability for all clients on treatment in Nigeria.

Viral load test remains the gold standard in assessing response to treatment among PLHA. The 2018 report showed that only 56% of clients on treatment have ever received a viral load test. Viral load assay remains a challenge for the national program and this must be addressed using innovative approaches. Sample transfer remains a barrier to increased coverage in addition to weak demand by clients. The use of DBS has been evaluated and results show high concordance with plasma. The use of dried blood spot (DBS) samples must be promoted and the viral tests in Nigeria should be supported to begin the use of DBS in viral load testing. There should be capacity building for lab personal in sample collection using DBS and also the capacity of lab scientist must be built to enable them process viral load using DBS. Instituting DBS will overcome all logistical challenges with blood sample preparation, processing, storage and cold chain required in the transportation of samples.

Viral suppression remains the desired clinical outcome for clients on ARVs. The 2018 report showed that only 76% of clients on ARVs who had received a viral load test were virally suppressed. The third 90, of the UNAIDS 90:90:90 goal aims to ensure that 90% of clients on treatment are virally suppressed. Being virally suppressed reduces the risk of transmission and thus reduces HIV incidence. Furthermore, this proportion of clients virally suppressed must be interpreted with caution as it represents only those with a viral load test. This suggests that there exists a possibility that viral suppression may be over reported with the real national viral suppression lower than 76% as evidenced from the NAIIS survey which reported the highest zonal prevalence of 66%.

Conclusion

In conclusion, this report showed some achievements and gaps within the national HIV program for the year 2018. While there was an increase in the number of HTS sites which increased access, the treatment program did not respond adequately with treatment coverage gaps higher among paediatrics than adults. The implementation of innovative HTS strategies such as index testing shows promise and must be scaled up as the yield is much higher than other methods. PMTCT coverage remains poor and requires urgent interventions to increase the proportion of HEI who receive ARV prophylaxis and DNA PCR test as well as reduce new infections among children. Lastly, treatment coverage must be improved as well as scale up of viral load coverage.

Table 5.51 Tested and Received Results among Children and Adolescents

Test Result	Total Tested	Tested Positive												
Sex	Male	Female												
Age	1 - 4	1 - 4	1 - 4	1 - 4	5-9	5-9	5-9	5-9	10 - 14	10 - 14	10 - 14	10 - 14	15-19	15-19
Sokoto	1,344	8	1,242	21	1,047	8	1,192	3	1,498	2	1,962	6	2,845	8
Taraba	636	10	634	19	638	10	647	5	2,635	68	2,553	61	4,275	73
Yobe	578	32	745	16	502	32	541	7	1,522	9	2,312	11	3,718	21
Zamfara	2,970	4	2,211	15	863	4	610	8	6,831	6	6,092	11	5,871	9
Kebbi	2,930	12	2,427	15	1,201	12	1,452	11	2,467	25	3,274	32	4,378	29
Kano	6,389	47	5,504	60	3,874	47	4,253	34	5,055	36	5,270	41	7,239	47
Kogi	4,123	41	3,991	46	4,170	41	4,576	51	10,323	50	10,963	61	10,614	37
Katsina	1,121	17	881	14	811	17	674	10	900	9	1,571	13	3,148	8
Borno	1,288	32	1,359	51	1,112	32	1,326	42	1,209	21	1,893	28	2,290	21
Benue	18,169	222	18,293	299	22,225	222	23,518	272	35,924	236	40,285	983	51,120	334
Bauchi	1,177	22	1,368	41	667	22	701	23	1,916	29	4,421	26	7,366	61
Adamawa	2,279	31	2,276	77	943	31	928	36	2,215	48	2,804	38	3,496	58
Jigawa	1,228	5	731	7	680	5	723	22	1,604	16	2,377	37	5,426	26
Nasarawa	16,975	107	18,771	84	12,991	107	13,347	53	15,230	375	32,367	121	14,589	123
Kwara	1,104	19	939	19	865	19	928	23	1,836	35	2,108	25	2,218	30
Niger	4,421	57	4,113	76	3,922	57	4,328	48	4,862	64	6,141	68	7,442	76
Plateau	2,599	27	2,397	44	4,839	27	5,497	37	8,973	32	9,796	35	14,645	41
Gombe	3,723	9	3,834	28	2,282	9	2,706	18	4,210	13	5,744	42	9,992	29
FCT	10,639	48	9,222	75	6,582	48	6,718	28	9,657	59	10,892	48	10,298	45
Kaduna	24,581	99	21,685	171	24,205	99	23,291	118	40,723	140	45,193	241	52,748	163
Ekiti	1,061	11	915	13	883	11	804	11	1,655	9	1,772	9	2,519	8
Ebonyi	6,584	27	6,240	25	5,836	27	5,582	14	6,645	19	6,619	18	4,643	14
Ondo	4,719	25	4,889	46	3,345	25	3,318	19	5,419	29	6,235	24	6,693	14
Enugu	4,219	29	3,678	48	3,286	29	3,059	38	5,154	45	5,810	45	5,129	72
Ogun	2,153	37	2,009	49	1,678	37	1,700	33	6,265	59	6,045	48	4,722	13
Cross-rivers	3,094	36	2,826	45	2,240	36	2,136	35	3,193	28	3,545	19	4,539	32
Imo	3,649	26	3,389	32	2,298	26	2,235	17	4,871	34	4,833	38	4,516	54
Oyo	33,644	64	31,433	271	30,540	64	30,847	77	36,111	106	38,209	94	28,289	71
Akwa-Ibom	9,563	113	9,212	129	3,935	113	3,869	99	5,133	91	6,336	121	6,668	105

	Total	222,701	1,594	208,057	2,307	179,164	1,594	182,516	1,552	276,199	2,082	323,484	2,752	338,427	2,215	341,172	2,215	4,960
Edo	1,832	27	1,503	47	1,385	27	1,556	37	1,601	46	1,487	37	1,903	63	1,912	72		
Abia	1,424	17	1,203	43	778	17	709	39	2,180	67	2,248	53	3,196	62	3,256	122		
Osun	1,766	20	1,761	22	1,662	20	1,684	16	5,018	12	5,235	14	3,088	8	3,098	18		
Delta	3,681	48	3,201	69	1,943	48	1,908	36	1,800	35	2,153	51	2,852	71	2,865	84		
Anambra	6,394	35	5,679	41	3,926	35	4,103	41	9,777	47	10,139	39	8,188	61	8,238	111		
Lagos	23,149	125	21,056	126	17,082	125	17,263	106	17,504	101	19,529	119	19,539	183	19,545	189		
Bayelsa	1,759	16	1,460	21	1,041	16	976	19	1,198	10	1,379	13	1,450	20	1,463	33		
River	5,736	89	4,981	102	2,887	89	2,812	66	3,085	71	3,893	82	6,775	125	6,864	214		

Table 5.52 Tested and Received Results among young Adults

State	Total Tested	Tested Positive	Total Tested	Tested Positive	Total Tested	Tested Positive	Total Tested	Tested Positive
	Male		Female		Male		Female	
Age	15-24	15-24	15-24	15-24	25+	25+	25+	25+
Sokoto	11,490	46	8,475	117	35,132	530	23,690	714
Taraba	12,204	248	14,327	571	22,015	974	18,353	1,444
Yobe	17,018	87	27,056	227	77,195	375	25,757	444
Zamfara	20,692	45	29,860	155	43,109	370	29,152	433
Kebbi	17,139	105	25,943	245	42,415	551	32,447	704
Kano	20,220	152	32,081	466	49,040	1,290	48,472	1,836
Kogi	25,990	109	36,397	428	61,005	1,178	77,639	2,149
Katsina	14,545	65	19,609	251	47,816	528	24,388	730
Borno	8,913	102	14,702	298	41,890	887	30,305	1,322
Benue	120,209	1,189	175,518	3,460	264,188	5,947	289,702	10,440
Bauchi	26,438	182	45,807	436	57,043	986	43,451	1,383
Adamawa	10,729	164	23,983	559	23,033	933	26,663	1,631
Jigawa	21,155	129	29,789	241	65,873	656	30,803	882
Nasarawa	34,192	378	65,933	905	79,307	1,929	113,624	3,980
Kwara	5,879	98	10,622	169	14,303	384	23,415	783
Niger	23,474	240	31,173	768	64,717	1,885	47,918	2,915
Plateau	36,789	171	46,391	488	91,401	1,632	98,808	3,337
Gombe	32,893	156	45,124	430	67,908	922	42,713	1,101
FCT	32,320	225	64,871	817	110,907	2,303	157,524	4,405
Kaduna	122,568	704	189,963	1,933	208,631	3,626	253,767	6,649
Ekiti	7,473	27	12,832	67	25,608	273	36,053	479
Ebonyi	11,314	55	20,438	175	27,747	543	39,402	937
Ondo	17,833	63	33,393	206	46,502	678	89,213	1,332
Enugu	13,637	166	25,247	361	53,894	1,451	85,901	2,320
Ogun	10,897	64	22,077	262	31,751	1,116	70,281	2,198
Cross-rivers	13,423	115	24,252	454	43,281	1,442	55,650	2,523
Imo	15,542	211	23,900	340	50,555	1,382	56,909	2,012
Oyo	68,623	239	124,701	466	157,130	2,001	326,993	4,527
Akwa-Ibom	18,661	374	46,632	1,361	107,416	4,478	174,072	7,922
Edo	5,287	154	9,233	269	16,127	841	21,535	1,721
Abia	9,533	232	16,507	480	23,891	1,120	40,683	2,383
Osun	7,701	32	16,206	89	22,496	407	50,127	982
Delta	8,186	206	13,296	422	39,119	1,787	53,803	3,264
Anambra	20,701	197	67,018	414	74,662	1,601	170,765	2,424
Lagos	57,484	716	111,858	959	254,727	4,697	444,691	8,733
Bayelsa	4,540	57	7,787	146	13,236	441	18,077	753
River	20,427	420	46,166	1,208	83,455	3,752	148,164	6,381
Total	926,119	7,923	1,559,167	20,643	2,538,524	55,896	3,320,910	98,173

Table 5.5.3 HIV Population by State

	2014	2015	2016	2017	2018
Abia	38,708	40,623	42,686	44,821	47,198
Adamawa	36,284	36,948	37,363	37,713	38,159
Akwa-Ibom	166,278	171,989	177,210	182,491	188,412
Anambra	65,849	70,485	75,603	81,020	86,729
Bauchi	22,758	22,996	23,339	23,773	24,125
Bayelsa	18,921	19,779	20,737	21,770	22,882
Benue	149,625	155,076	160,644	166,943	173,792
Borno	48,977	49,916	50,921	51,889	52,677
Cross-River	34,839	36,170	37,482	38,951	40,385
Delta	55,374	57,288	59,087	60,860	62,819
Ebonyi	12,329	12,436	12,599	12,738	12,822
Edo	41,056	42,190	43,436	44,601	45,710
Ekiti	11,292	11,759	12,228	12,717	13,209
Enugu	51,773	53,725	55,836	58,010	59,976
FCT	35,573	38,269	40,777	43,497	46,200
Gombe	18,889	19,310	19,727	20,334	21,107
Imo	40,396	43,318	46,672	50,328	54,266
Jigawa	16,247	16,132	15,999	15,958	16,005
Kaduna	65,494	66,408	67,203	67,817	68,103
Kano	88,940	87,837	86,421	85,481	84,678
Katsina	39,382	39,223	39,154	39,060	38,944
Kebbi	19,832	20,092	20,291	20,435	20,509
Kogi	36,211	36,717	37,154	37,573	37,952
Kwara	19,293	19,445	19,666	19,960	20,288
Lagos	106,005	109,637	113,480	116,909	119,986
Nasarawa	34,112	34,646	35,161	35,525	35,926
Niger	19,637	19,943	20,429	21,088	21,860
Ogun	33,884	35,747	37,768	39,874	42,128
Ondo	30,770	30,110	29,492	28,934	28,443
Osun	25,050	26,037	27,104	28,218	29,356
Oyo	47,589	48,412	49,303	50,090	50,876
Plateau	26,594	27,600	28,760	29,961	31,288
Rivers	156,081	162,063	168,361	174,711	180,882
Sokoto	10,013	10,466	11,029	11,713	12,523
Taraba	40,779	41,589	42,282	42,961	43,864
Yobe	12,764	12,983	13,244	13,556	13,948
Zamfara	18,593	19,066	19,718	20,367	20,936

Table 5.5.4 New Infections by State

	2014	2015	2016	2017	2018
Abia	3380	3294	3338	3474	3918
Adamawa	1809	1742	1530	1350	1374
Akwa-Ibom	10835	11274	11748	11884	12671
Anambra	6791	6829	7352	8016	8654
Bauchi	1005	960	975	1046	1038
Bayelsa	1839	1949	2008	2115	2205
Benue	10544	9809	9622	10268	10982
Borno	2584	2688	2739	2814	2867
CrossRiver	2319	2308	2295	2453	2509
Delta	4172	4094	4049	4068	4348
Ebonyi	478	447	483	522	505
Edo	3281	3399	3615	3685	3719
Ekiti	963	1000	1019	1068	1107
Enugu	3379	3328	3503	3785	3943
FCT	1188	1108	929	1065	1107
Gombe	1162	1028	953	1090	1274
Imo	4234	4360	4782	5361	5822
Jigawa	822	858	813	856	843
Kaduna	2333	2362	2313	2271	2133
Kano	4206	4179	3606	3904	3842
Katsina	2438	2387	2400	2334	2350
Kebbi	846	873	896	918	910
Kogi	2311	2285	2165	2115	2018
Kwara	1240	1256	1329	1407	1460
Lagos	7030	7279	7630	7355	7075
Nasarawa	1533	1587	1572	1384	1316
Niger	883	837	957	1130	1252
Ogun	3118	3209	3465	3613	3766
Ondo	1363	1342	1343	1350	1326
Osun	2235	2340	2431	2585	2676
Oyo	2798	2791	2911	2858	2877
Plateau	1574	1646	1867	2017	2213
Rivers	14769	15084	15027	15150	15672
Sokoto	682	745	841	958	1097
Taraba	2086	1907	1762	1739	1977
Yobe	898	922	904	886	930
Zamfara	1409	1467	1535	1608	1681

Table 5.5 5 Final MTCT rate by State

State	Final Mother to Child Transmission Rate
Abia	26.58
Adamawa	17.91
Akwa-Ibom	29.18
Anambra	28.96
Bauchi	22.66
Bayelsa	30.57
Benue	13.28
Borno	27.53
Cross-River	21.02
Delta	24.12
Ebonyi	10.9
Edo	27.16
Ekiti	31.22
Enugu	24.91
FCT	11.59
Gombe	20.85
Imo	27.7
Jigawa	14.26
Kaduna	10.79
Kano	24.51
Katsina	25.02
Kebbi	27.31
Kogi	17.39
Kwara	28.36
Lagos	24.86
Nasarawa	10.44
Niger	13.85
Ogun	27.09
Ondo	25.45
Osun	30.91
Oyo	19.78
Plateau	19.91
Rivers	33.4
Sokoto	24.6
Taraba	21.44
Yobe	21.29
Zamfara	32.32

Table 5.7 List of Contributors

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