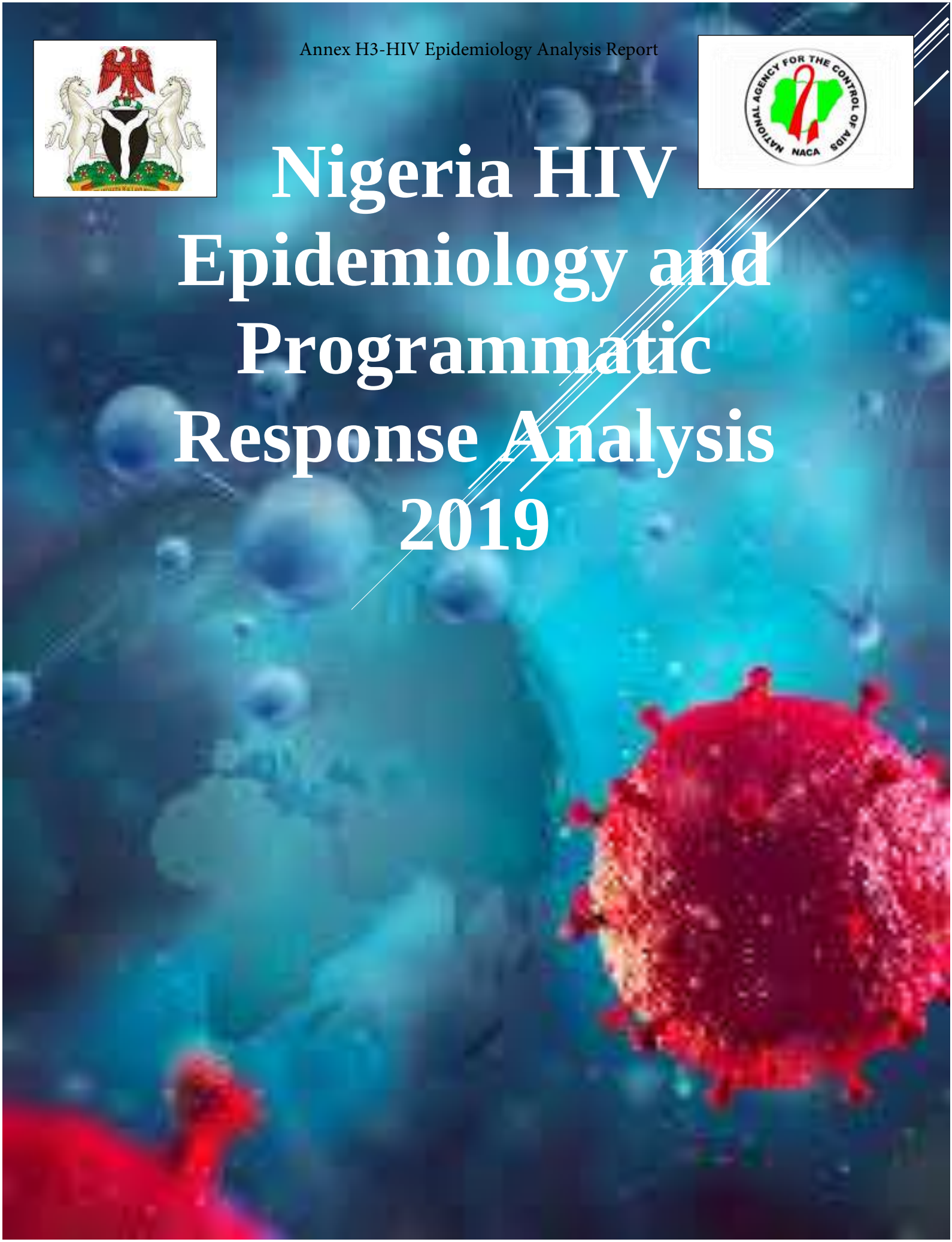
Nigeria HIV Epidemiology and Programmatic Response Analysis 2019



ACRONYMS AND ABBREVIATIONS

AHF	-	AIDS Healthcare Foundation
AIDS	-	Acquired Immune Deficiency Syndrome
ANC	-	Antenatal Clinic
ART	-	Antiretroviral Therapy
ARV	-	Antiretroviral Drug
BHCPF	-	Basic Health Care Provision Fund
BMPHS	-	Basic Minimum Package of Health Services
COP	-	Country Operation Plan
CTX/INH/B6	-	Cotrimoxazole Therapy /Isoniazid Prevention Therapy/B6
EID	-	Early Infant Diagnosis
eMTCT	-	Elimination of Mother to Child Transmission
FLHE	-	Family Life HIV & AIDS Education
FSW	-	Female Sex Workers
GFATM	-	Global Fund to Fight AIDS, Tuberculosis and Malaria
GoN	-	Government of Nigeria
HBV	-	Hepatitis B
HCT	-	HIV Counselling and Testing
HEI	-	HIV Exposed Infants
HTS	-	HIV Testing Services
HCV	-	Hepatitis C
HIV	-	Human Immunodeficiency Virus
HMIS	-	Management Information Systems
IBBSS	-	Integrated Biological and Behavioural Surveillance Survey
ICF	-	Intensified Case Finding
IPV	-	Intimate Partner Violence
KP	-	Key Population
LTFU	-	Lost to Follow-up
MMS	-	Multi-Month Scripting
MNCH	-	Maternal New-born and Child Health
MPPI	-	Minimum Prevention Package Intervention
MSM	-	Men who have Sex with Men
MTB/RIF	-	Mycobacterium Tuberculosis /Rifampicin
NACA	-	National Agency for the Control of AIDS
NAIIS	-	Nigeria HIV/AIDS Indicator and Impact Survey
NARHS	-	National HIV and AIDS and Reproductive Health Survey
NCDs	-	Non-Communicable Diseases
NEC	-	National Economic Council
NHAct	-	National Health Act

NSF	-	National Strategic Framework
NSHDP	-	National Strategic Health Development Plan
NSP	-	Needle and Syringe Programmes
NTBLCP	-	National Tuberculosis and Leprosy Control Programme
NTPP	-	National Treatment and PMTCT Programme
OST	-	Opioid Substitution Therapy
OVC	-	Orphans and Vulnerable Children
PCR	-	Polymeric Chain Reaction
PEPFAR	-	United States President's Emergency Plan for AIDS Relief
PITC	-	Provider Initiated Testing and Counselling
PLHIV	-	People Living with HIV
PMTCT	-	Prevention from Mother to Child Transmission
PrEP	-	Pre-Exposure Prophylaxis
PWID	-	People Who Inject Drugs
RNSF	-	The Revised National Strategic Framework
SBCC	-	Social and Behavioural Change Communication
SRH	-	Sexual and Reproductive Health
STIs	-	Sexually Transmitted Infections
TB	-	Tuberculosis
TLD	-	Tenofovir, Lamivudine and Dolutegravir
TPT	-	TB Preventive Treatment
UHC	-	Universal Health Coverage
UN	-	United Nations
VL	-	Viral Load
WHO	-	World Health Organisation

EXECUTIVE SUMMARY

Nigeria has made progress in the fight against HIV/AIDS in the last ten years. This progress has been as a result of leadership from the Government of Nigeria in mitigating the impact of HIV, and better and stronger collaboration among key stakeholders such as Government of Nigeria, United Nations System, PEPFAR and Global Funds at national and sub-national levels.

As at 2019, Nigeria has a total of 1,803,831 living with HIV and 107,112 new infections. From 2017, the percentage increase in people living with HIV and new infections were 5.7% and 2.0% respectively.

Also, in 2019 a total of 1,146,643 were on antiretroviral therapy with a treatment coverage of 63.6% and 42,203 pregnant women were on treatment prophylaxis for prevention of mother to child transmission of HIV (PMTCT) with a coverage of 44.4%. The number of AIDS-related deaths was 44,698 in 2019 which is 10.6% increase from 2017.

In 2018, Nigeria AIDS Indicator and Impact Survey (NAIIS) was conducted. This was a population-based survey with a sample size of over 200,000 participants. The national HIV prevalence among participants aged 15-49 years was 1.3%, and 1.4% among participants aged 15-49 years. There was state variability between 0.3% and 4.8% in this survey among participants aged 15-49 years. Nigeria is yet to conduct a recent survey among the key populations. The 2014 Integrated Biological and Behavioural Surveillance Survey estimated HIV prevalence among Men who have Sex with Men, Female Sex Workers and People Who Inject Drugs to be 22.9%, 14.4% and 3.4% respectively.

This Nigeria HIV Epidemiology and Programmatic Response Analysis Report was developed to characterize the epidemics at national and sub-national levels; understand HIV prevalence by age, sex and location; identify and understand the key drivers of the epidemic, assess gaps in HIV programming; and make recommendations for future investment priorities.

There is a need for more focused investments in critical areas such as treatment, PMTCT and prevention of new infections among key populations, and adolescents and youth group.

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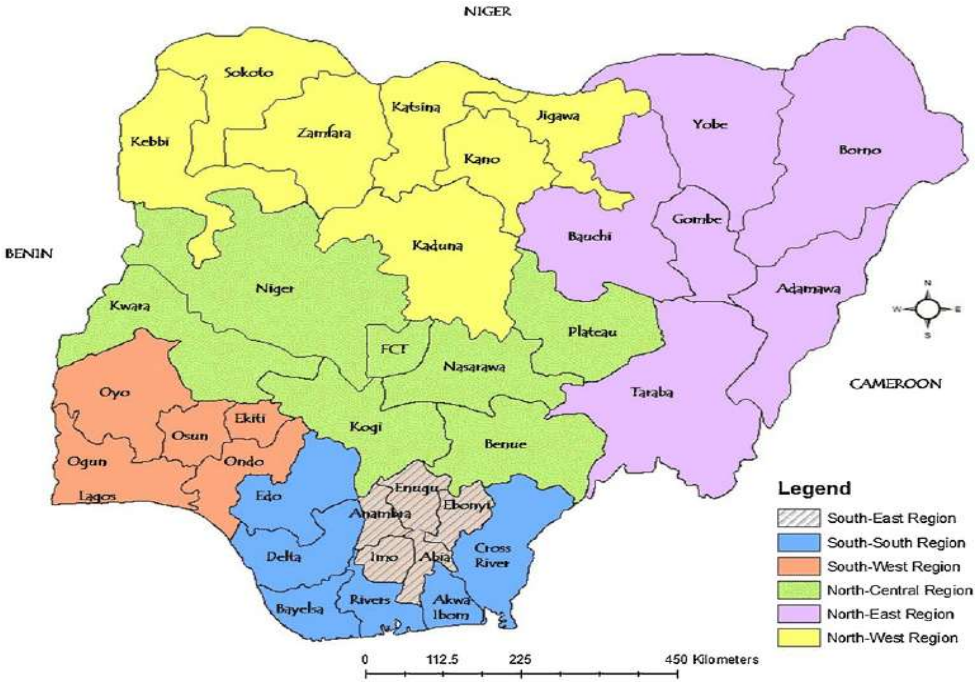
CHAPTER ONE: BACKGROUND

1.0 Country Context

1.1.1 The Nigerian Geography

The country's geopolitical and administrative structure recognizes 36 states and a Federal Capital Territory (FCT). The states are further divided into 774 Local Government Areas (LGAs). The states are grouped into six geopolitical zones namely: North East (NE), North West (NW), North Central (NC), South West (SW), South East (SE) and South-South (SS) as shown in Figure 1.1 below. Each geopolitical zone is distinct in character with its own unique size, composition of population, culture, ecology, economic opportunities and historical background. Nigeria operates a presidential system with three tiers of government (Federal, State and Local). Health is on the concurrent list of the three governments with the Federal Government providing the leadership and coordination.

Figure 1.0 Map of Nigeria showing its States and Zones



1.1.2 The Nigerian Population

Nigeria with a population of 206 million (NPopC, 2019) is the seven most populous country in the world and the most populous country in Africa. About a quarter (23%) of the Nigerian population are women of reproductive age (15-49 years) with a total fertility rate of 5.3 children per woman (4.5 in urban areas and 5.9 in rural areas) (NDHS, 2018). About 31.8% of Nigerian population are young people aged 10-24 years. Close to 94 million of the nation's population are under 15 years, while 9.5 million are aged 60 years and above. With the nation's annual population growth at 2.6% annually (World Bank, 2019), the country is faced with a population explosion

problem in the next few decades with potential threat to development including access to health services.

1.1.3 Cultural Diversity in Nigeria

Nigeria is an ethnically and culturally diverse country, with over 250 identifiable ethnic groups speaking over 500 languages (CIA, 2019). Despite the growing influence of globalization, traditional socio-cultural norms and practices are still prominent in many Nigerian communities. The tension between traditional values and modernization is apparent in many areas, particularly with regards to gender and human rights issues, the development and behaviour of young people, the health beliefs and health-seeking behaviour at community and household levels. Some of these cultural norms and practices in Nigeria have positive values and implications for HIV control such as the strong kinship and family network system, the emphasis on chastity and avoidance of pre-marital sex, and male circumcision. On the other hand, practices such as widowhood rites, denial of access of women to inheritance, female genital mutilation (FGM), support for multiple sexual partners for males, and mariage of girlchild to much older men in some communities, may increase vulnerability to HIV.

1.1.4 The Nigerian Development Agenda

The health sector is critical to the social and economic development of any country. Hence, the Nigerian government has taken steps to improve its quality of healthcare. The Health Sector Reform Program (HSRP) was implemented from 2004-2007, to address strategic areas relating to the national health system, resource utilization, burden of disease, community involvement and the government's responsibility (NSHDP, 2009). This led to the development of a number of national health policies, strengthening of disease programmes and the improvement of care in tertiary health facilities. Subsequently, the first National Strategic Health Development Plan (NSHDP) for 2009-2015, was launched in 2009 to outline a framework for achieving the Millennium Development Goals (MDGs) and Vision 2020 goal for the health sector (NSHDP, 2009). An updated NSHDP II for 2018-2022 was launched in 2019, concurrently with the rollout of Basic Healthcare Provision Fund (BHCPF), to lay out concrete steps for achieving Universal Health Coverage (UHC) and Sustainable Development Goals (SDGs). Ultimately, the goal of the Federal Government is to revitalise the Nigerian health system, to ensure that quality healthcare services are accessible to the Nigerian populace.

1.1.5 Key Health, Education and Human Development Indicators in Nigeria

Under-five mortality rate was 132 deaths per 1,000 live births (NDHS, 2018) compared to the global under-five mortality rate of 39 deaths per 1,000 live births (World Bank, 2018). Nigeria has a lower life expectancy of 54 years compared to the global average of 72 years. However, this is an improvement over the 46 years' life expectancy figure of 1990 (47 years for females and 45 years for males). Overall, 36% of females and 27% of males in Nigeria have no education (NDHS, 2018). Nigeria's Human Development Index (HDI) for 2018 was 0.534, placing the country at 158

out of the 189 countries covered by the United Nations Development Programme's Human Development Report (UNDP, 2019). This indicates the nation falls among countries with low human development category. With a HDI value of 0.467 in 2005, the country has recorded a 14.3% progressive increase over the years till 2018. However, Nigeria's HDI is lower than the average of 0.541 for sub-Saharan Africa. Female HDI is 0.492 in contrast to 0.567 for males, giving a Gender Development Index (GDI) of 0.868. Figure 1.3 provides a trend in Nigeria's HDI component indices in comparison to sub-Saharan Africa and the World.

Figure 1.2: Human Development Index trends for Nigeria 2005-2018

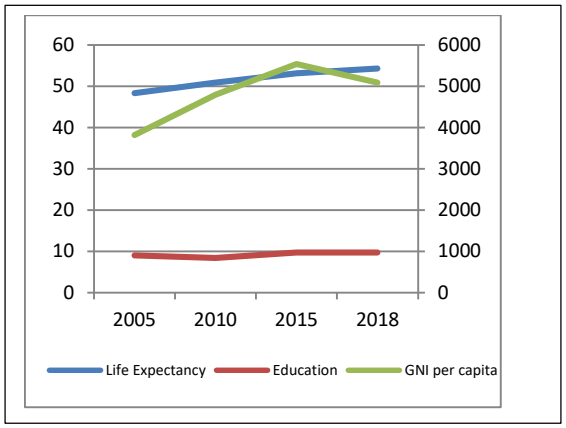
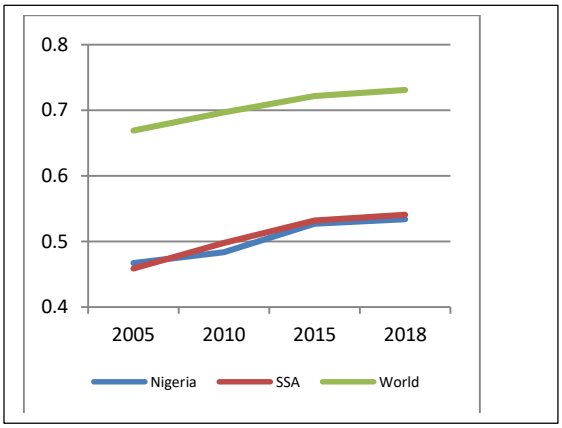


Figure 1.3: Comparison of Human Development Index trends; Nigeria, SSA



Nigeria has the largest economy in sub-Saharan Africa and relies heavily on oil as its major export and government revenue. About 90% of the country's export is from oil and 70% of her consolidated budgetary revenues comes from sale of crude oil (BudgIt, 2020). The Gross Domestic Product (GDP) of Nigeria in 2018 was $397 billion, an increase of 1.9% from the previous year (World Bank, 2018). However, GDP per capital has declined to $2,028 in 2018 from the $3,222 peak in 2014. Despite significant national economic growth that spanned decades and the large revenue from oil, poverty level and unemployment have remained high with youth enemployment estimated at 36.5% in 2018. The absolute poverty incidence is 62.6%, and about 70% of the population live below poverty line (CIA, 2019). Social and infrastructural development has also been poor including health services contributing to behaviour promoting HIV epidemic. The economic situation has remarkable implications for the HIV and AIDS response as poverty increases the vulnerability to HIV and impacts negatively on the ability of people living with HIV to appropriately seek for or adhere optimally to treatment. Furthermore, universal health coverage remains a challenge in the country with only 5.1% of the population (Augusto&Co, 2018) insured for health. Majority of the poor and vulnerable population have no access to health insurance.

1.1.6 Conflict and Insecurity

There has been growing insecurity across different regions of the country; the insurgence of Islamic State West Africa Province (otherwise known as Boko Haram) in the North East, nomadic Fulani herders and farmers clashes in the north central and isolated parts of the regions, communal clashes and kidnapping across the country. The humanitarian crises in Northeast Nigeria has led to the displacement of almost 2 million people, 80% of whom are women and children (DTM, 2019). Such crises setting is prone to an increase in the incidence of sexual gender based violence which predisposes the displaced women and girls to new HIV infections, compounded by the absence of quality prevention, treatment and care services. In addition, there is potential increase of HIV-risky sexual behaviour as young girls and boys may engage in sex for survival.

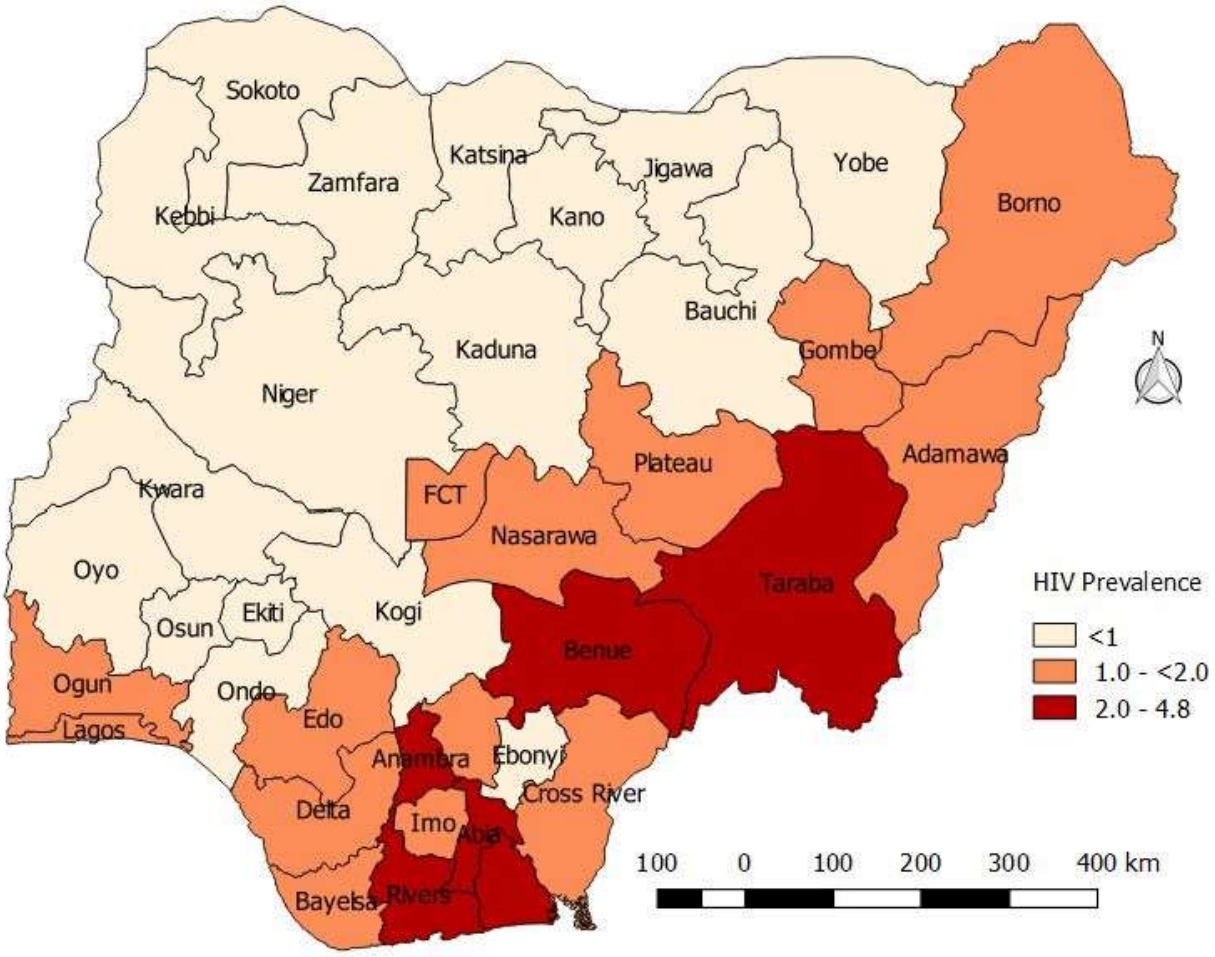
1.2 Overview of the HIV Epidemic and National Response

In 2018, a population based survey – Nigeria HIV/AIDS Indicator and Impact Survey (NAIIS, 2018) was conducted to estimate HIV prevalence and related health indicators at national and sub-national levels. HIV prevalence from this survey was 1.3% among 15–49 years which was an improvement from the last population-based survey National HIV/AIDS Reproductive Health and Survey 2012 with HIV prevalence of 3.4%. Nigeria currently ranks fourth in the world with regards to HIV burden. While there has been a remarkable gain in rolling back the epidemic, the total number of people living with and affected by the epidemic remains high.

The history of HIV/AIDS in Nigeria dates back to 1986 when AIDS was first diagnosed (Nasidi & Harry, 2006). Since then HIV/AIDS has impacted millions, resulting in high mortality and morbidity rates. Thus, the country has employed several surveys to monitor HIV epidemic. These include the National HIV Sero-Prevalence Sentinel Survey (NHSSS) among pregnant women attending antenatal care, National HIV/AIDS and Reproductive Health Survey (NARHS), Integrated Behavioural and Biological Surveillance Survey (IBBSS) for key populations, and NAIIS.

Also, the National HIV/AIDS Epidemiology, Response and Impact Assessment (NHEIA) was first conducted in 2014, with a follow-up in 2017. The assessment provides a deeper understanding of HIV epidemiology, as well as programme needs in the general population and among the key populations. Findings from this analysis are expected to guide National Policy and Programming for HIV/AIDS interventions in Nigeria, in addition to identifying gaps that will serve as basis for developing future programmes, and soliciting donors support and funding.

Figure 1.4 HIV prevalence among adults aged 15-49 years by state, NAIIS 2018



1.3 Objectives

- To understand HIV prevalence by age, sex and location
- To characterize the epidemics at national and sub-national levels by incidence, morbidity, mortality and service coverage
- To identify and understand the key drivers of the epidemic (knowledge, practices/attitude), sexual or behavioural issues
- To understand effective and ineffective programmatic strategies, and scale up opportunities
- To make recommendations for future investment priorities

CHAPTER TWO: METHODOLOGY

This section highlights the methodological approach used in the development of this Nigeria HIV Epidemiology and Programmatic Response Analysis Report. This involved stakeholder mapping to identify the key organizations and agencies in the prevention and control of HIV. There were stakeholders' meetings under the leadership of National Agency for the Control of AIDS and HIV/AIDS Division of the Federal Ministry of Health. This section thus describes the scope, procedure and report writing processes.

2.1Scope of Work

The scope of work includes the description of the burden of the disease (incidence and prevalence) at the general and key populations where available from 2017 to 2019 at all levels. It examined the programmatic component of the HIV/AIDS interventions in Nigeria and impacts of adopted strategies on morbidity and mortality. Analysis covered behavioural patterns, trends in disease burden, and modelling to estimate lives saved and infections prevented. The process started with the inauguration of relevant teams involving Government, UN system, Donor Agencies and Implementing Partners. It commenced with a workshop for seven days for national and sub-national analyses. Findings from the workshop culminated in a national validation meeting which was useful evidence for the Global Funds grant proposal write-up.

2.2Procedure

The analysis and synthesis were conducted between January and March 2020. The following key steps were followed.

2.2.1 Constitution of a national HIV epidemic analysis team

Following the inauguration of National Steering Committee for the development of HIV/AIDS, Tuberculosis, Malaria and Resilient System Strengthening for Health Funding Request for 2021 – 2023 implementation period by the Honourable Minister of Health, Dr. Osagie Ehanire on 19th December 2019, the HIV/AIDS Strategy Group met on the 20th December 2019 under the leadership of Director-General NACA and National Coordinator NASCP to form synthesis teams (Epidemiology and Programmatic, and Funding Landscape Gap Analysis). The national HIV epidemic-response synthesis team consists of relevant technical experts from NACA, NASCP, DHPRS, PEPFAR, USAID, CDC, WHO, UNAIDS, UNICEF and Implementing Partners such as FHI360, SFH, CHAI, UMB, NEPWHAN etc. Country Coordinating Mechanism (CCM) Nigeria, through the Resources Mobilisation Committee provided oversight for the entire process while UNAIDS engaged a Consultant to facilitate the process of developing this report.

2.2.2 Data Mapping

Desk review of existing reports from surveys, programmes and researches was undertaken. Published literatures on HIV epidemic in Nigeria were also obtained through bibliographic searches of scientific literature using comprehensive search engines such as PubMed and Google

Scholar. Indicators were carefully selected based on expected outputs and outcomes for key interventions in HIV/AIDS and TB/HIV coinfection. Data for the indicators were sourced from identified relevant programmes, surveys and reports involving general and key affected populations. Programme data from 2017 – 2019 were used for trend analysis. Surveys such as National HIV/AIDS Reproductive Health Survey (NARHS) 2012, Nigeria Demographic and Health Survey (NDHS) 2008, 2013 and 2018, Integrated Biological and Behavioural Surveillance Survey (IBBSS) 2007, 2010 and 2014, and Nigeria AIDS Indicator and Impact Survey (NAIIS) 2018 were used. Also, special studies such as National AIDS Spending Assessment (NASA) 2019 report were used.

2.2.3 Quality Check and Validation

Concerted efforts were made to ensure that quality data were used for HIV/AIDS epidemiology analysis through validation for completeness, reliability and consistency. This process also assessed data limitations and made realistic recommendations towards improving availability and quality of our routine data. Triangulation of multiple data sources was carried out to strengthen consistency and validity of estimates for some indicators that were used.

2.2.4 Data Generation

Microsoft (MS) Excel-based templates for abstracting the required data were developed and shared with all relevant stakeholders responsible to data generation. The stakeholders then reported their programmatic data into the appropriate templates and submitted them to the secretariat for analysis. The period covered primarily for the analysis was 2017-2019. Prior to the workshop, there was meeting of Epi Analysis and Synthesis core group members for three days consecutively. After which there was a seven-day intensive residential workshop for epidemiological and programmatic response analysis and synthesis. Data for Epi-analysis were sourced from the submitted filled templates from stakeholders during the workshop.

2.2.5 Data Analysis

Descriptive data analyses at the national and subnational levels were mainly undertaken with the use of means, percentage, totals and 95% confidence intervals represented in tables, graphs and maps. The MS-Excel was used to generate descriptive statistics, charts and tables, and QGIS was used to generate maps. Also, bivariate analyses using correlation and chi square test to ascertain relationships were undertaken. Spectrum model was used to estimate for certain indicators and denominators that were not available through programme and survey data. Projections of future values till 2025 for key HIV indicators based on current scenarios were undertaken, and exported from Spectrum to MS-Excel for analysis.

2.2.6 Epidemic Analysis and Synthesis

The Epidemic Analysis and synthesis involved National and State specific analyses of the HIV epidemiological data – HIV prevalence and incidence, HIV burden (number of people living with

HIV), AIDS mortality for each of the 36 states and FCT using programme, survey and spectrum modelled data. Epidemic analysis also covered analysis of trends and patterns for HIV related knowledge, attitude and behaviour among the general population and key populations, disaggregated by age, sex and location where available.

2.2.7 Response Analysis and Synthesis

The Response Analysis and Synthesis involved analysis of programme data for services provided, total needs as well as unmet need for services. The workshop involved analysis of data on coverage of programmatic interventions (prevention, diagnosis, treatment) and identified potentials for scale-up with regards to states where necessary. The analysis also explored how programme financing was carried out for the national and state levels. Modelling was used to generate HIV response intervention projections per state for the periods of 2017-2019 and 2020-2023.

2.2.8 Impact Analysis

Impact Analysis involved the assessment of the extent to which programmatic efforts have had an impact on trends in disease burden. Key areas of positive impact and areas needing further strengthening were identified. Spectrum modelling was used to estimate HIV incidence, the number of lives saved and infections averted. The modelling used three different scenarios (maintenance of status quo, scaling up support to meet targets on national plans, and scaling up support to meet universal access targets).

2.3 Report Writing

The process of developing the Epidemiology Analysis report was stakeholder-driven, participatory and gender inclusive, involving key participants from the different implementing partners/stakeholders who were divided into five groups that worked in the following areas:

- Group 1: Prevalence by population, location, age, sex and key population; and HIV testing in Nigeria.
- Group 2: HIV burden, morbidity, mortality and new infections in the general population
- Group 3: Knowledge attitudes and risky behaviour – knowledge of HIV/AIDS; risk perception in the general and key populations; AYP and PrEP services
- Group 4: National PMTCT and ART services, and TB/HIV infection: PMTCT coverage, ANC coverage, ART and PMTCT cascade analyses, ART coverage, trend in coverages, EID services and linkage to care.
- Group 5: Modelling and Estimation. Provided data that formed the basis for the conclusions of the epi-analysis workshop. The group supported other groups by providing the aggregated 2019 programme data by states as well as the estimates and projections, trend analysis and coverages used for the epi-analysis.

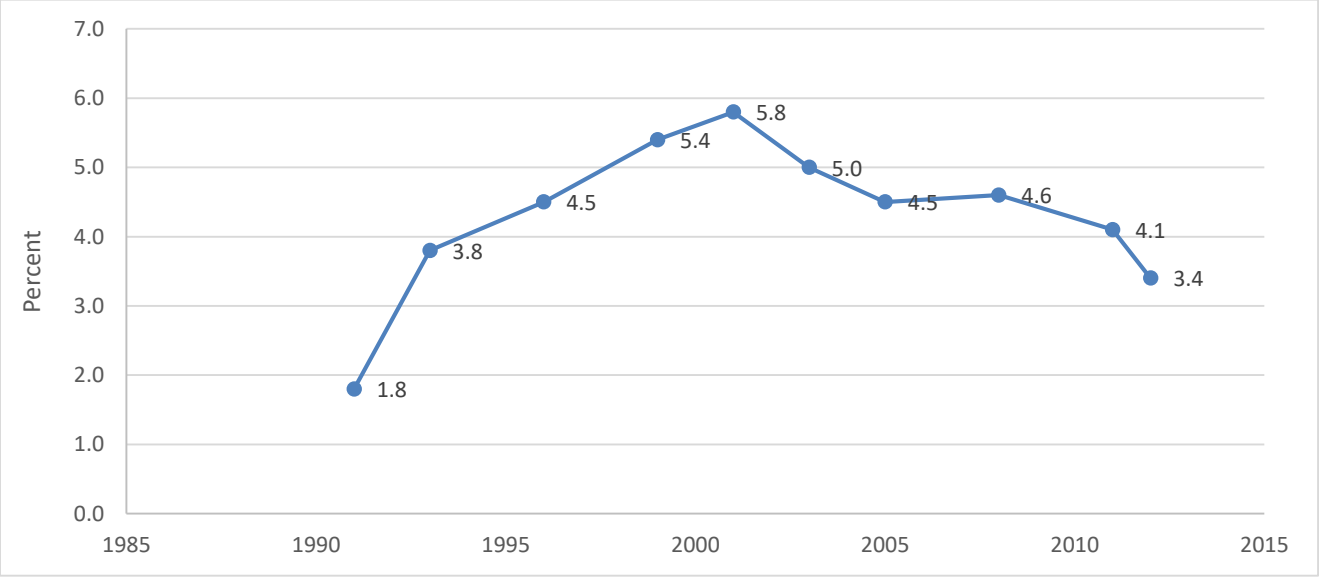
The group work outputs were compiled for the report writing.

CHAPTER THREE: HIV EPIDEMIOLOGY

3.1HIV Prevalence and New Infections

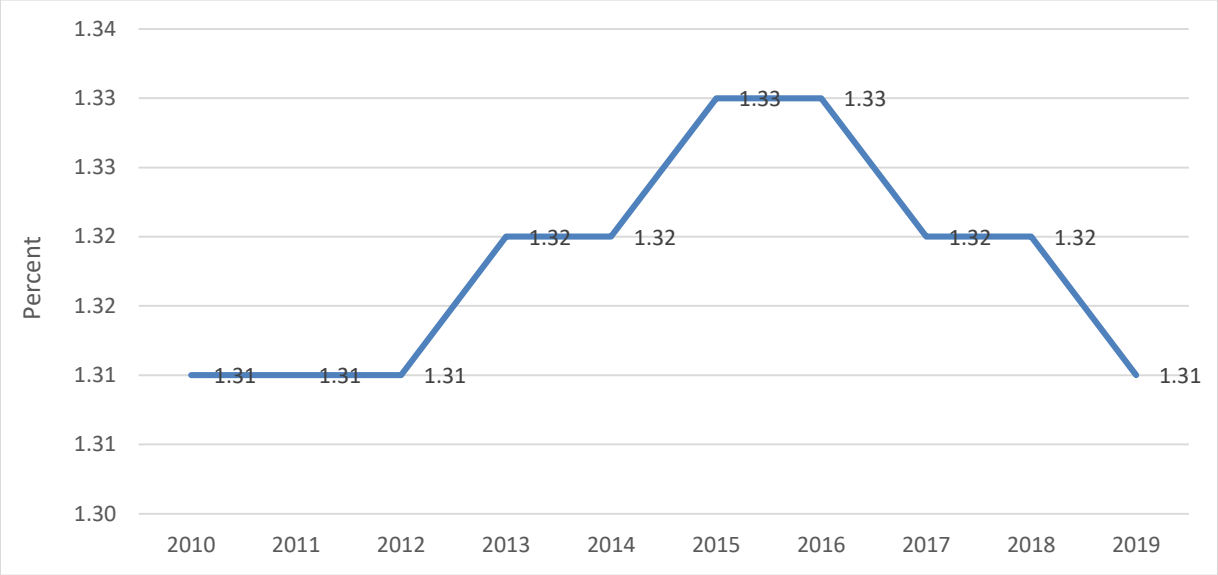
Nigeria has a generalized HIV epidemic with the highest HIV burden in West and Central African sub-region. The country has an estimated 1.8 million people living with HIV (PLHIV) (2019 Spectrum estimate) and an estimated 107,112 new HIV infections which is about 38% of new infections in West and Central African region. Nigeria accounts for about 41% of vertically transmitted HIV infections in children in the region in 2018 (UNAIDS, 2019). The result of the 2018 National AIDS Impact Indicator Survey (NAIIS) showed that the national HIV prevalence was 1.3% in the general population with remarkable between state variability (NAIIS 2018). The 2014 Integrated Biological and Behavioural Surveillance Survey (IBBSS) conducted among the key populations to estimate HIV prevalence showed men that have sex with men (MSM) had the highest prevalence of 22.9% followed by female sex workers (FSW) 14.4% and people who inject drugs (PWID) 3.4%.

Figure 3.1 HIV Prevalence from 1991 to 2012 (Survey Data)



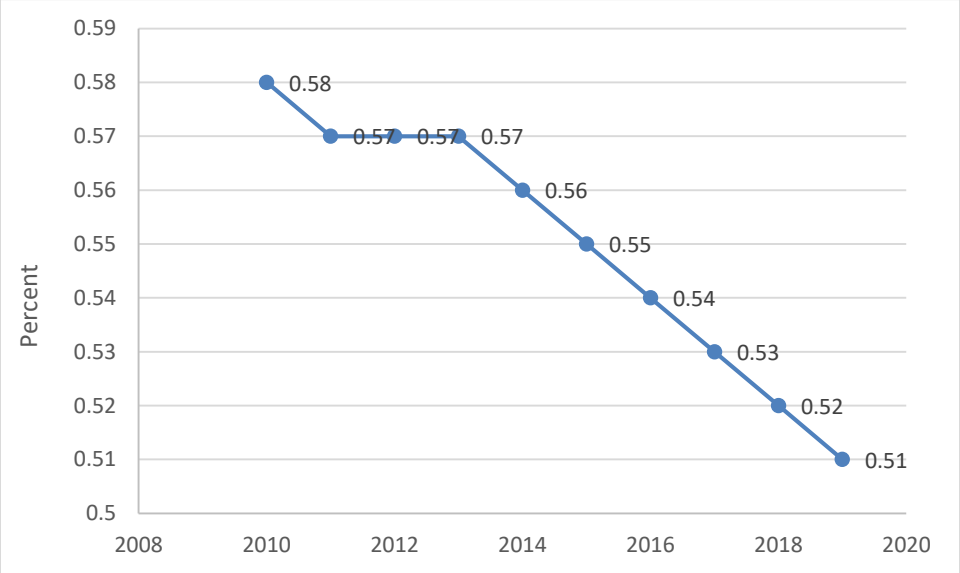
HIV prevalence in Nigeria peaked in 2001 by 5.8% and was 3.4% in 2012 after the conduct of National HIV/AIDS Reproductive Health Survey. In 2018, NAIIS was conducted with a larger sample size of over 200,000 and domain of estimation was at the state level to produce sub-national estimates.

Figure 3.2 HIV Prevalence Recalibration from Spectrum for 15-49 years



After NAIIS that produced HIV prevalence of 1.3%, there was a recalibration of Nigeria's HIV prevalence using spectrum model. Thus, the prevalence fluctuated between 1.31% and 1.33% over a period of 10 years.

Figure 3.3 HIV Prevalence Recalibration from Spectrum for 15-24 years



Similarly, after NAIIS, HIV prevalence among youths was recalibrated using spectrum model. This gave HIV prevalence that ranged from 0.51% to 0.58%.

3.1.1 HIV prevalence by sex and age

Figure 3.4: National HIV Prevalence, Disaggregated by Five-Year Age Bound and Sex (NAIIS 2018)

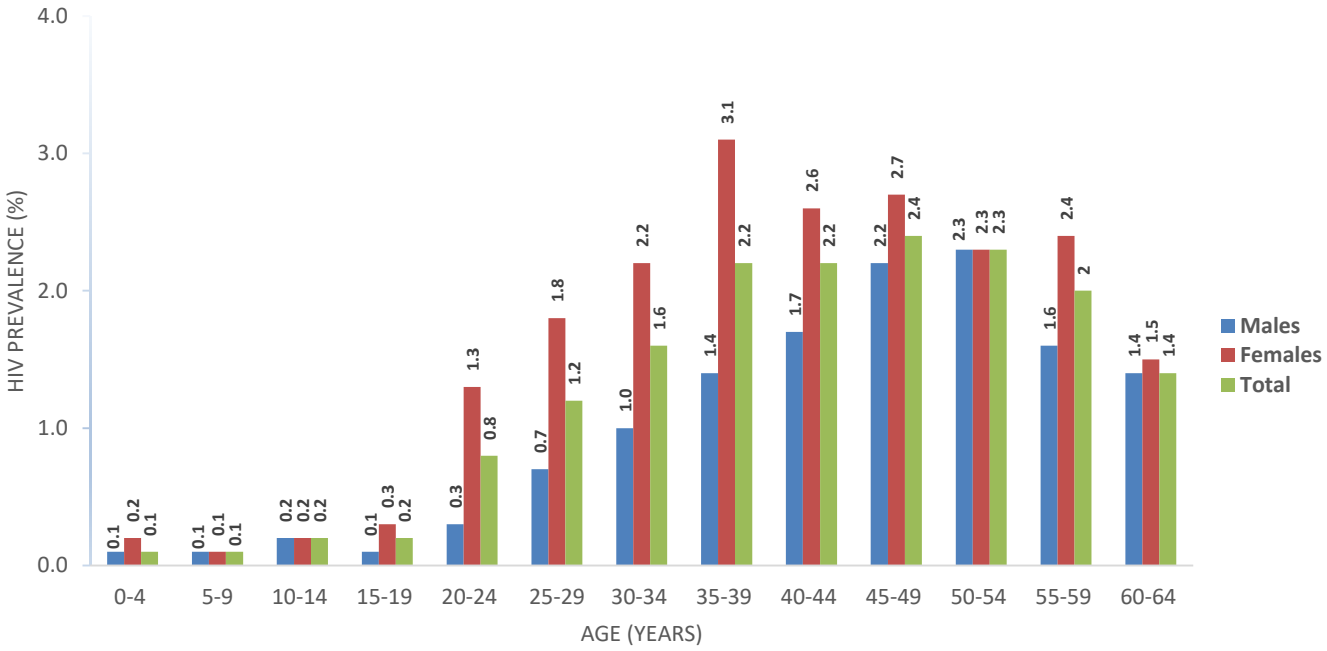
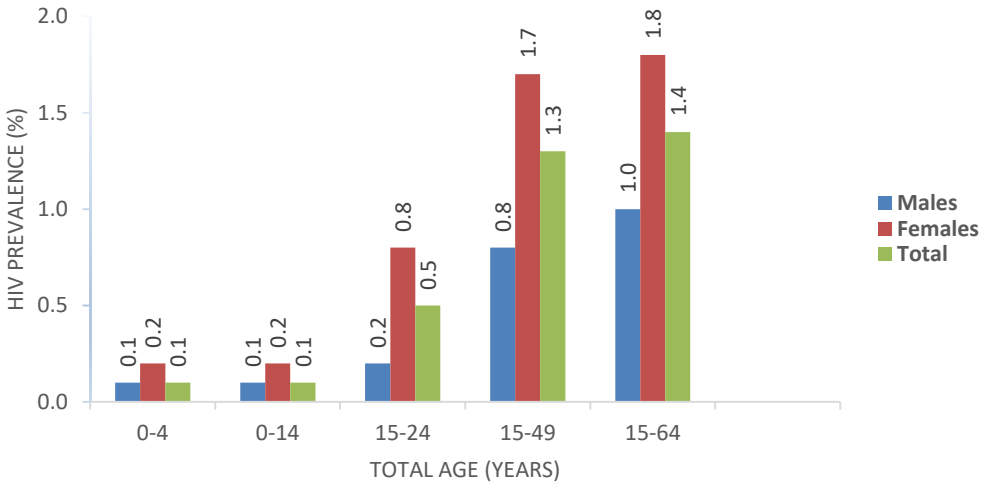


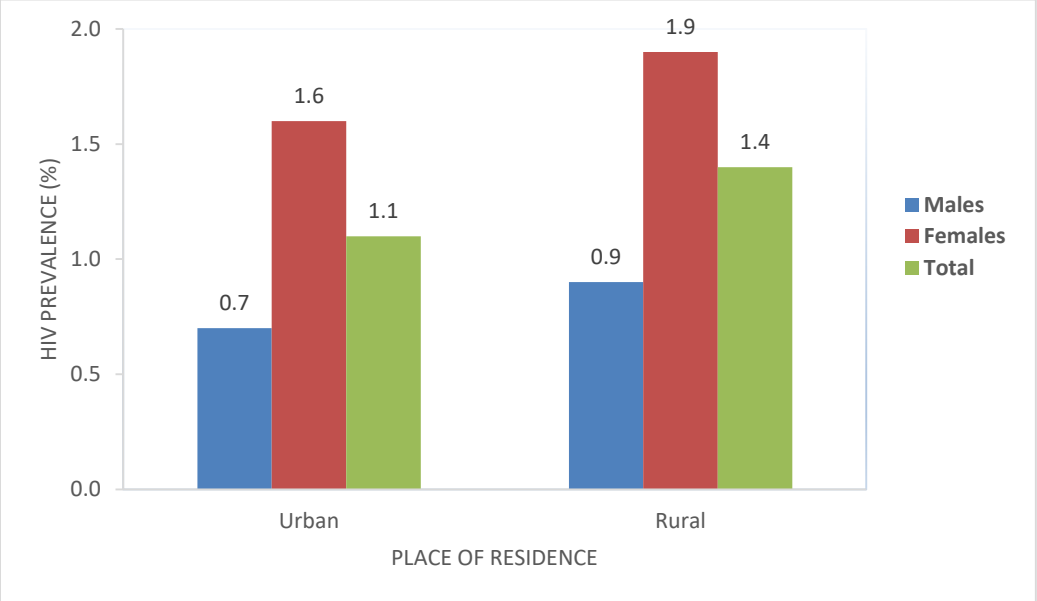
Figure 3.4 shows that the prevalence is highest among females aged 35-39 years (3.1%) and among males aged 50-54 years (2.3%). HIV prevalence among the adolescents and young people is highest among female aged 20-24 years (1.3%) with females having about four times higher prevalence than males. HIV prevalence among females aged 15-19 years is three times higher than males in the same age group.

Figure 3.5: National HIV Prevalence, Disaggregated by Age and Sex (NAIIS 2018)



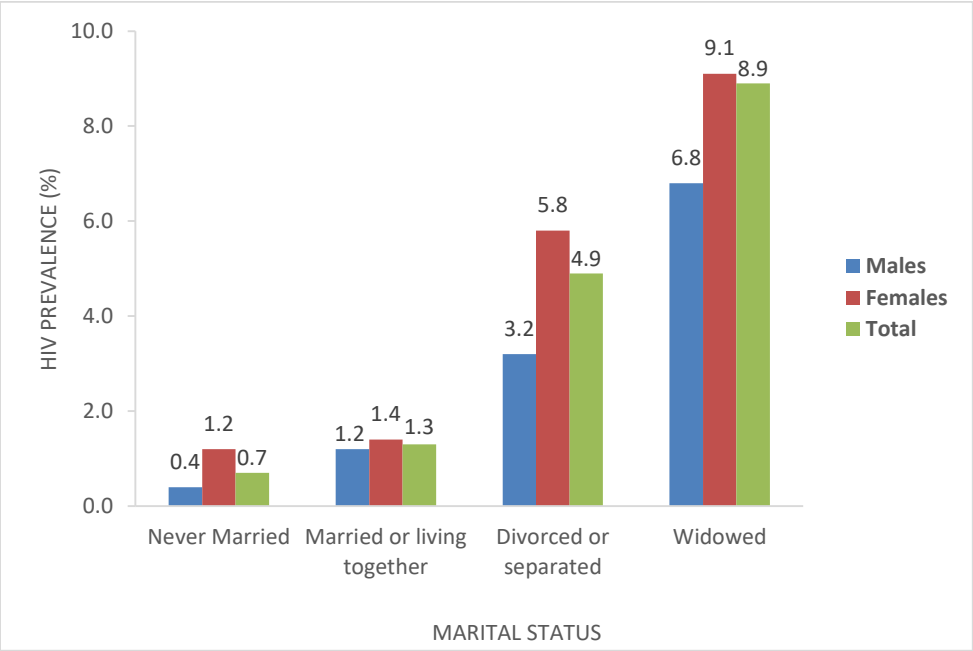
HIV prevalence among children 0-14 years was 0.1% and youths aged 15-24 years was 0.5%.

Figure 3.6: National HIV Prevalence Disaggregated by Place of Residence and Sex (NAIIS 2018)



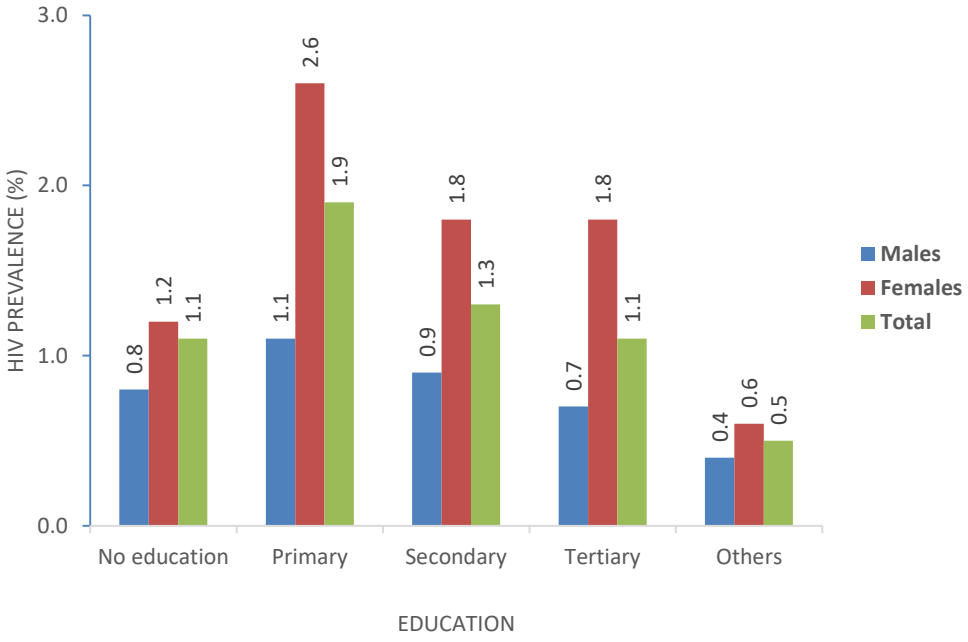
HIV prevalence was higher in rural area than the urban area, and among rural women than urban women.

Figure 3.7: National HIV Prevalence Disaggregated by Marital Status and Sex (NAIIS 2018)



The graph above shows that widows have the highest burden of HIV when stratified by marital status.

Figure 3.8: National HIV Prevalence Disaggregated by Education and Sex (NAIIS 2018)



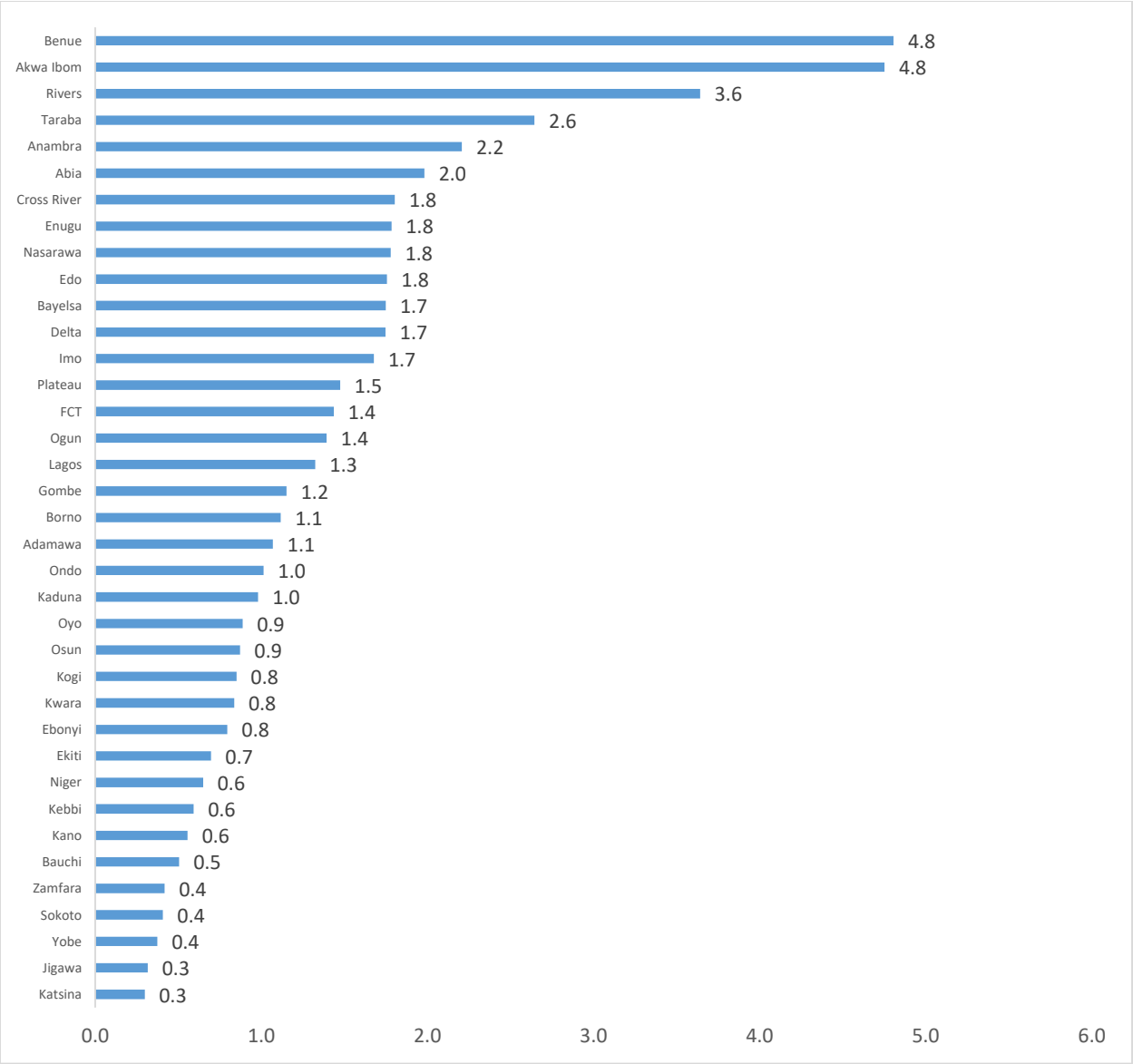
Primary school pupils have the highest prevalence of HIV when stratified by educational status.

Figure 3.9: National HIV Prevalence Disaggregated by Socio-economic Status and Sex (NAIIS 2018)

The graph above shows that middle class people have the highest prevalence of HIV.

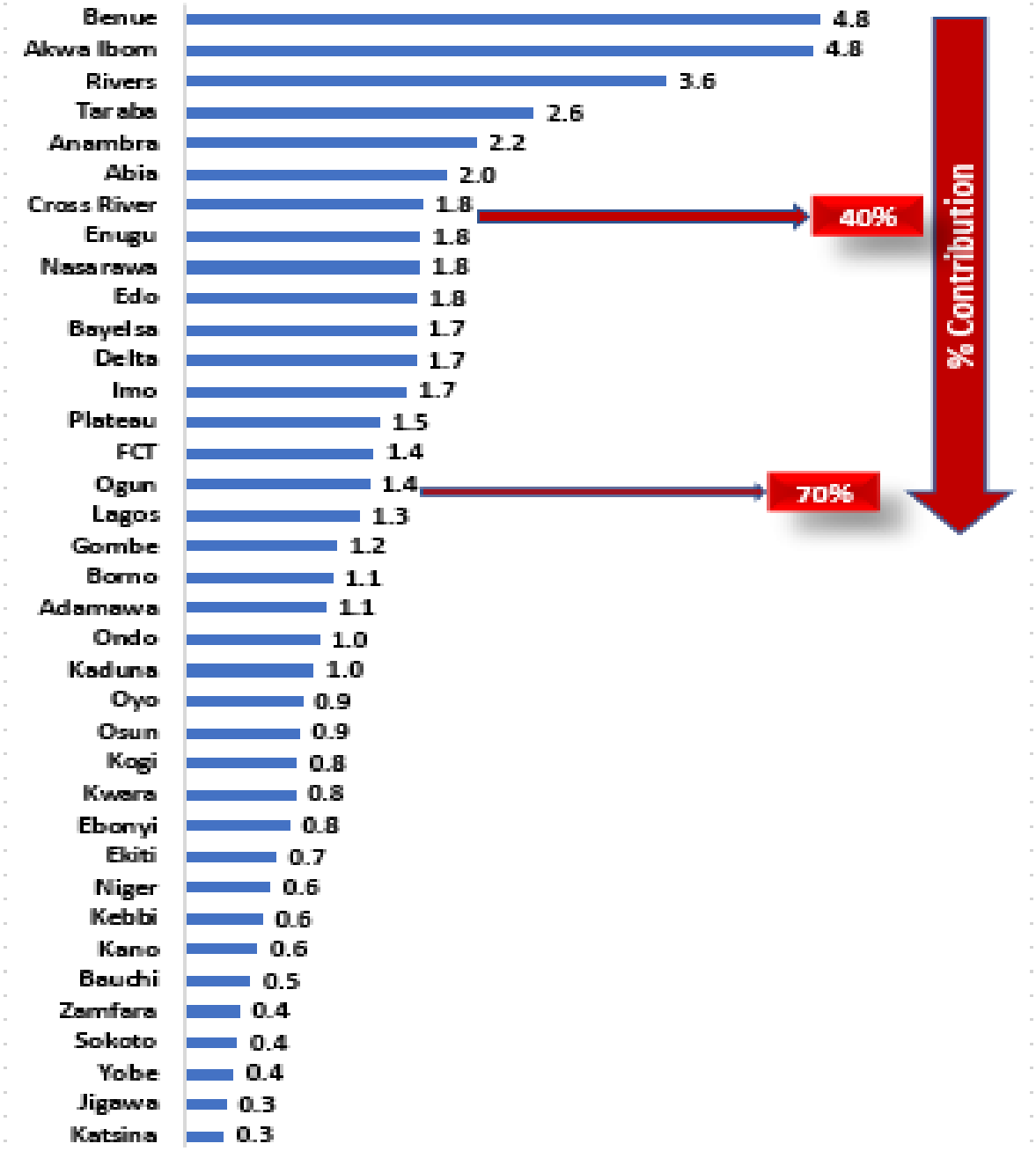
3.1.2 HIV prevalence by Geographic location

Figure 3.10: Sub-National HIV Prevalence



Source: NAIIS 2018

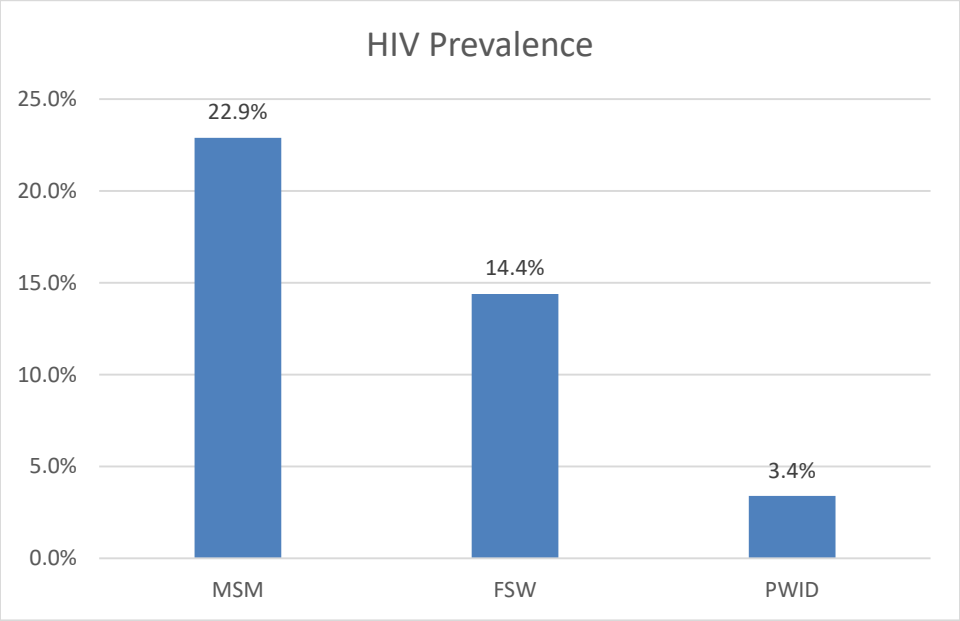
Figure 3.11: State Contributions to HIV Burden Using Prevalence



Source: NAIIS 2018

Fig 3.11 shows that among adults aged 15-49 years, HIV prevalence varied by state ranging from 0.3% in Katsina and Jigawa States (North West Zone) to 4.8% in Akwa Ibom (South-South Zone) and 4.8 in Benue State (North Central Zone). Furthermore, 16 states have prevalence higher than the national prevalence and are responsible for about 70% of the HIV national burden while the first seven states were responsible for about 40% of national burden.

Figure 3.12 HIV Prevalence among the Key Populations (IBBSS 2014)



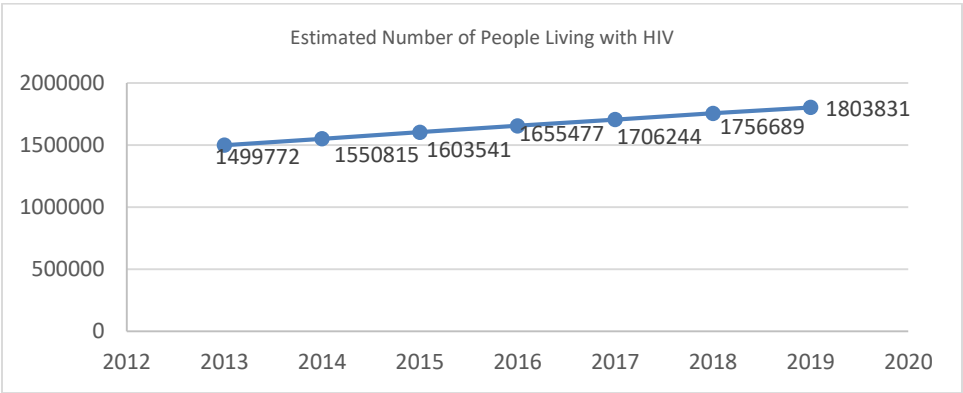
MSM have the highest HIV prevalence followed by FSW and PWID. HIV prevalence of 14.4% among the FSW is a combination of both brothel-based and non-brothel based.

3.2 HIV Burden

3.2.1 General population

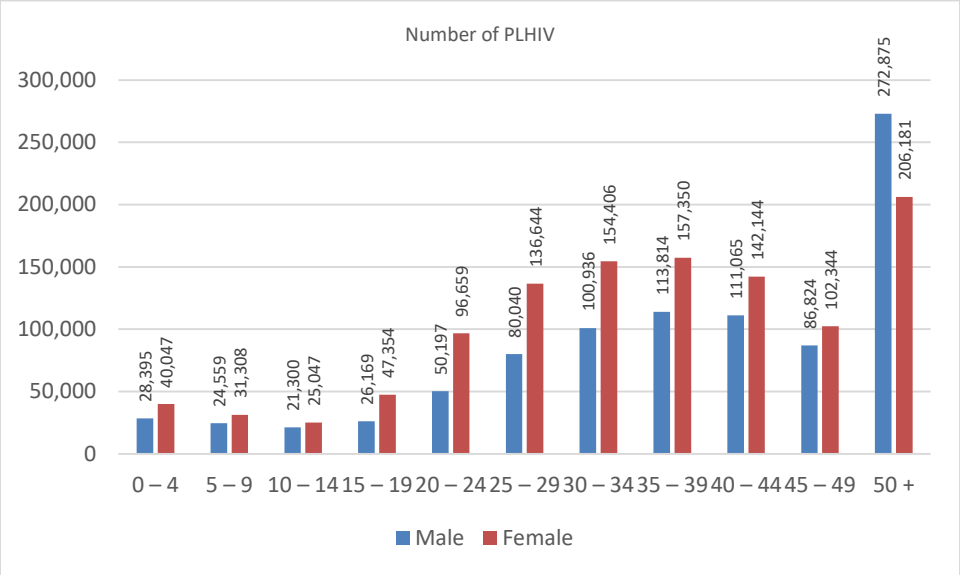
Nigeria has the highest HIV burden in West and Central African region with an estimated 1.8 million PLHIV in 2019 ranking fourth in the world among countries. The number of people living with HIV (PLHIV) in Nigeria was 1,803,831 (as at 2019). The number of people living with HIV in 2018 was 1,756,689 and in 2017 was 1,706,244. This was about 5.7% increase from 2017.

Figure 3.13 Estimated Number of People Living with HIV (Spectrum Analysis, 2019)



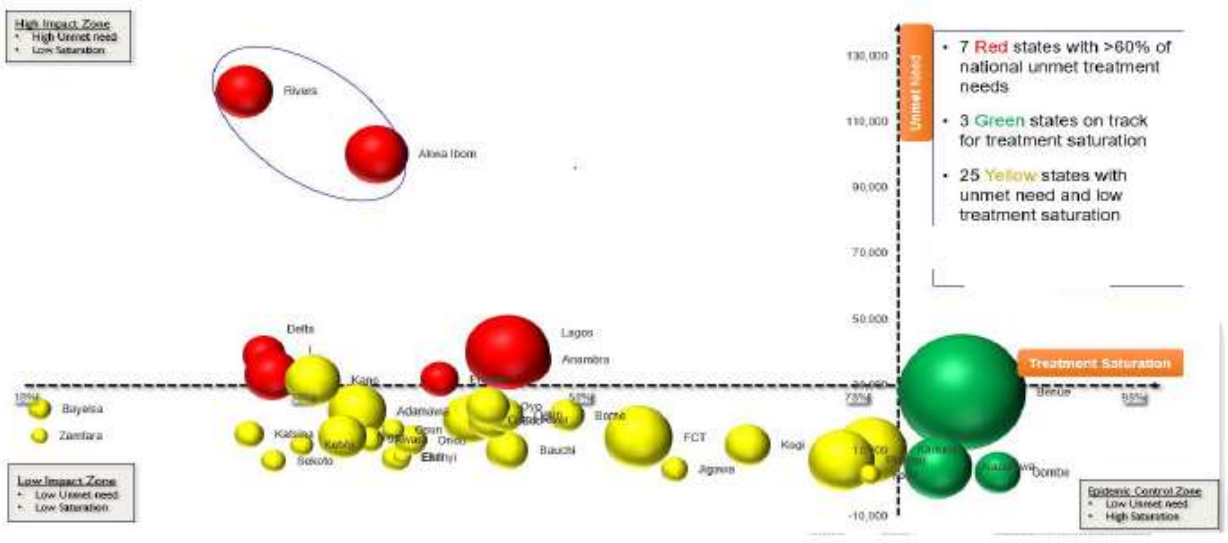
There is a slight monotonic increase in PLHIV from 2013 to 2019.

Figure 3.14 Estimated Number of People Living with HIV by Age Groups (Spectrum Analysis, 2019)



3.2.2 Geographic Distribution of HIV Burden by State

Figure 3.15: HIV Epidemic Status by State

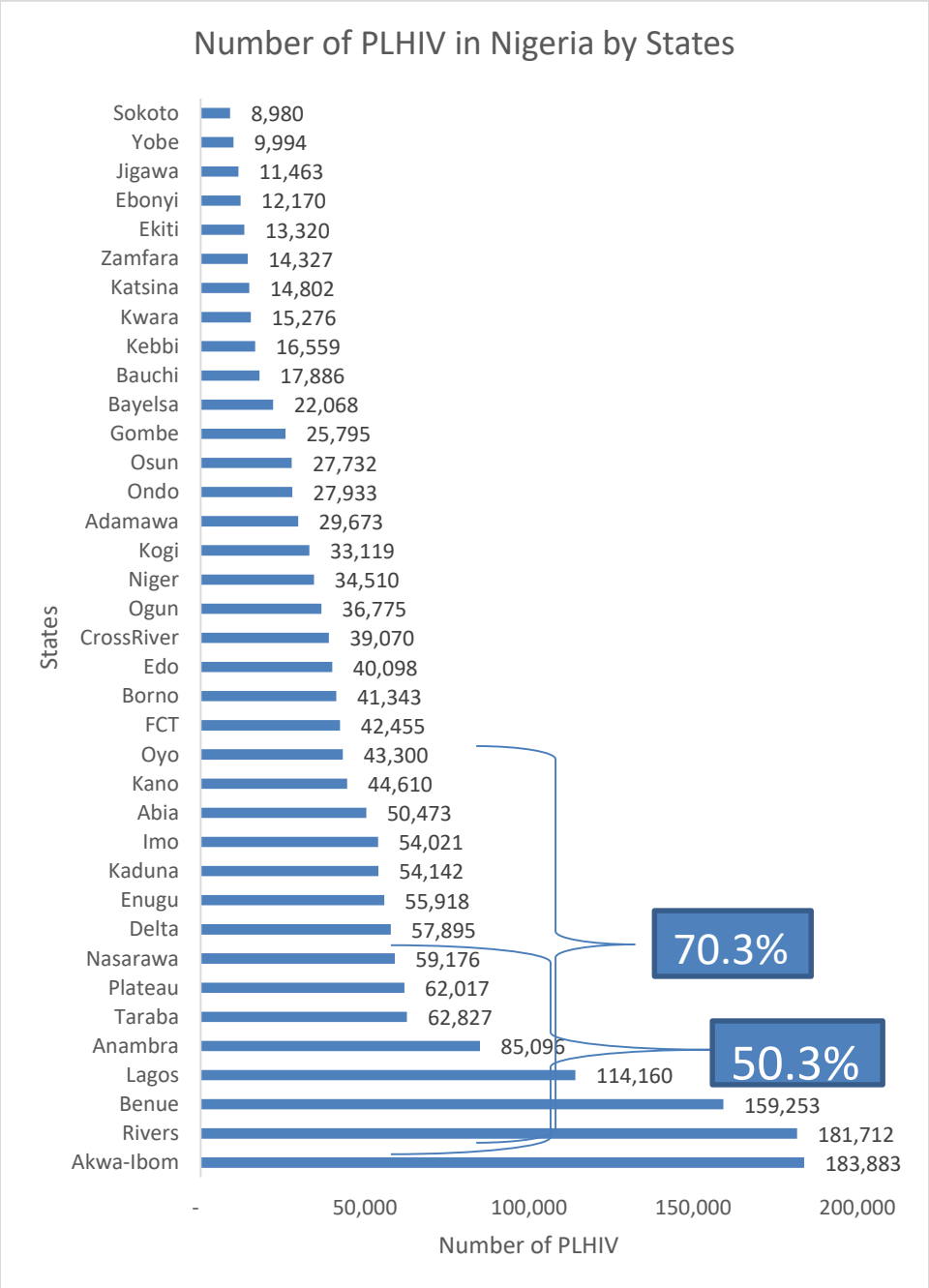


Source: PEPFAR

Dynamics of HIV epidemic vary by States in Nigeria as this will require specific strategies to address them. Five states (Rivers, Akwa Ibom, Anambra, Enugu, and Delta) in Nigeria have high prevalence, high burden, and high new infections with high unmet treatment needs. Lagos and Imo

States have high burden, high new infections, and high unmet treatment needs. Benue State has high prevalence, high burden, and high new infections with low unmet treatment need. Furthermore, Abia and Taraba States have high prevalence while Kano State has high unmet treatment need.

Figure 3.16 shows number of PLHIV across States in Nigeria (Spectrum 2019 Estimate)



Analysis of the estimated number of PLHIV (all ages) by states presented in figure 3.16 above shows that eight states alone contribute a combined 50% of the estimated number of PLHIV in the

country. These states are Akwa Ibom, Rivers, Benue, Lagos, Anambra, Taraba, Plateau and Nasarawa states respectively. A total of 15 states (including the top 8 states): Delta, Enugu, Kaduna, Imo, Abia, Kano and Oyo states account for 70% of the estimated total PLHIV in the country.

Figure 3.17 Number of children living with HIV

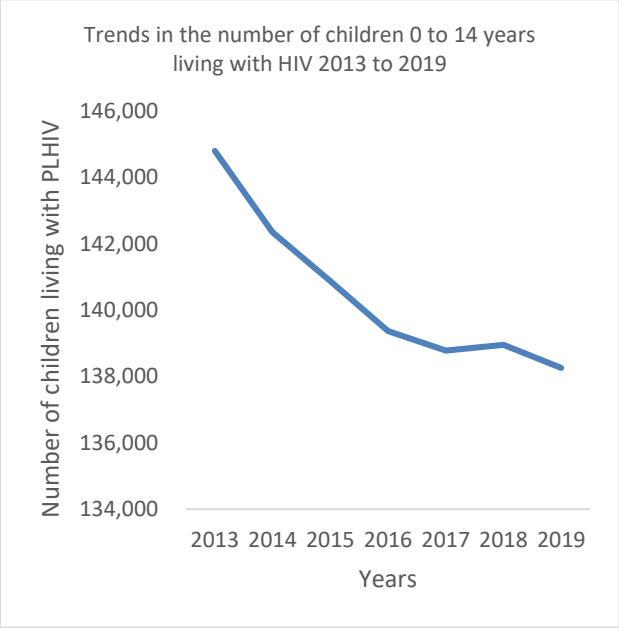
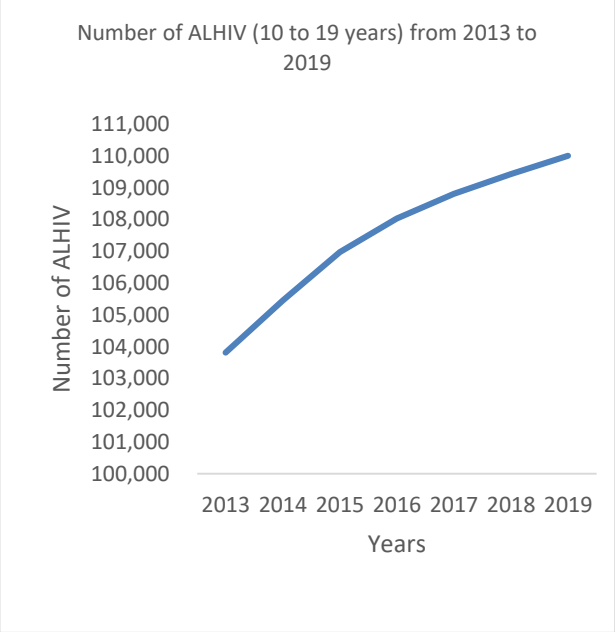


Figure 3.18 Number of adolescents living with HIV



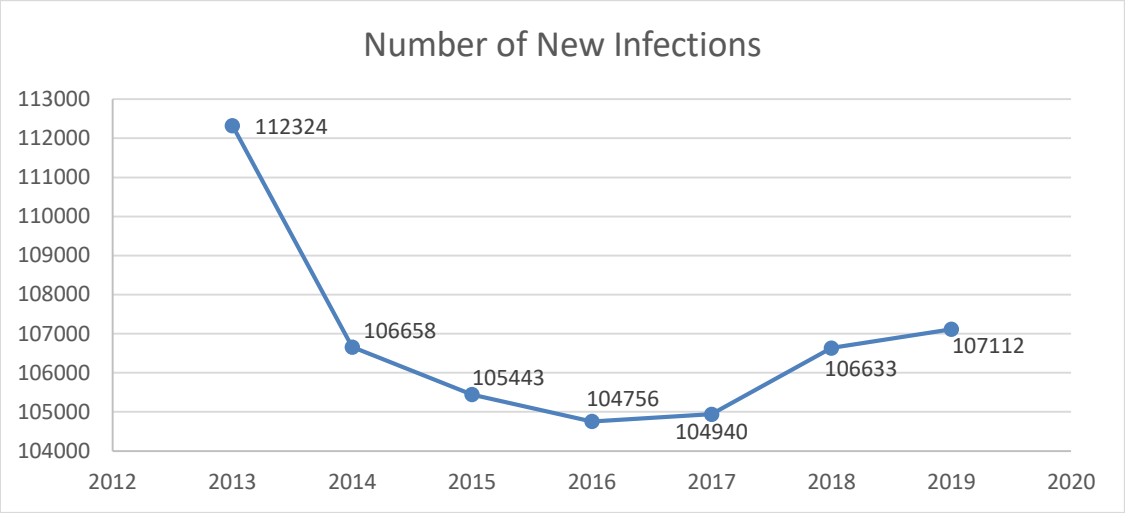
The number of children living with HIV has been on the decline from 2013 unlike the number of adolescents living with HIV that has been on the increase from 2013 to 2019.

3.3 New HIV infections

3.3.1 Estimated total new HIV infections

Nigeria is one of the countries accounting for new infections in the West and Central African sub-region.

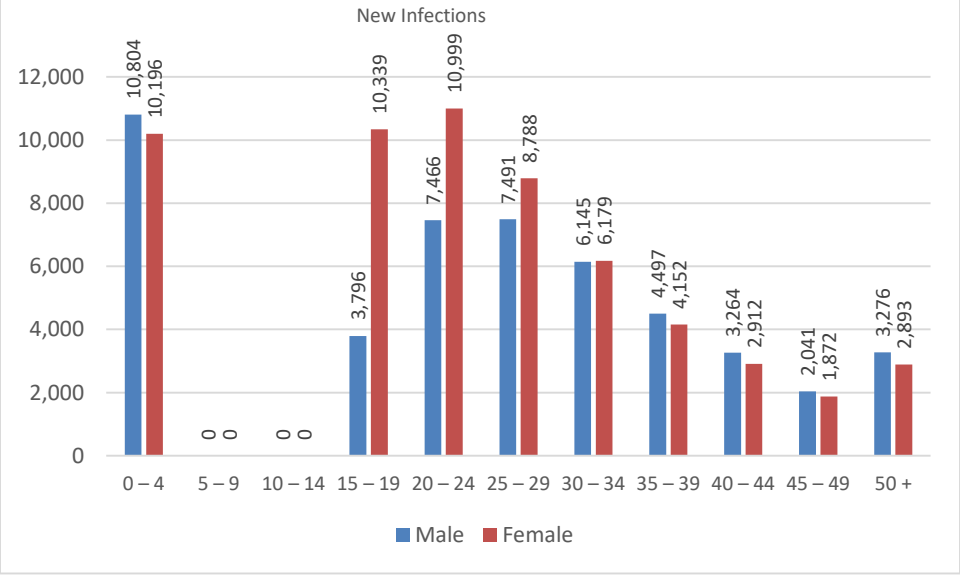
Figure 3.19 Number of New Infections from 2013 to 2019



From 2016 to 2019, the percentage increase in the number of HIV new infection was 2.2%.

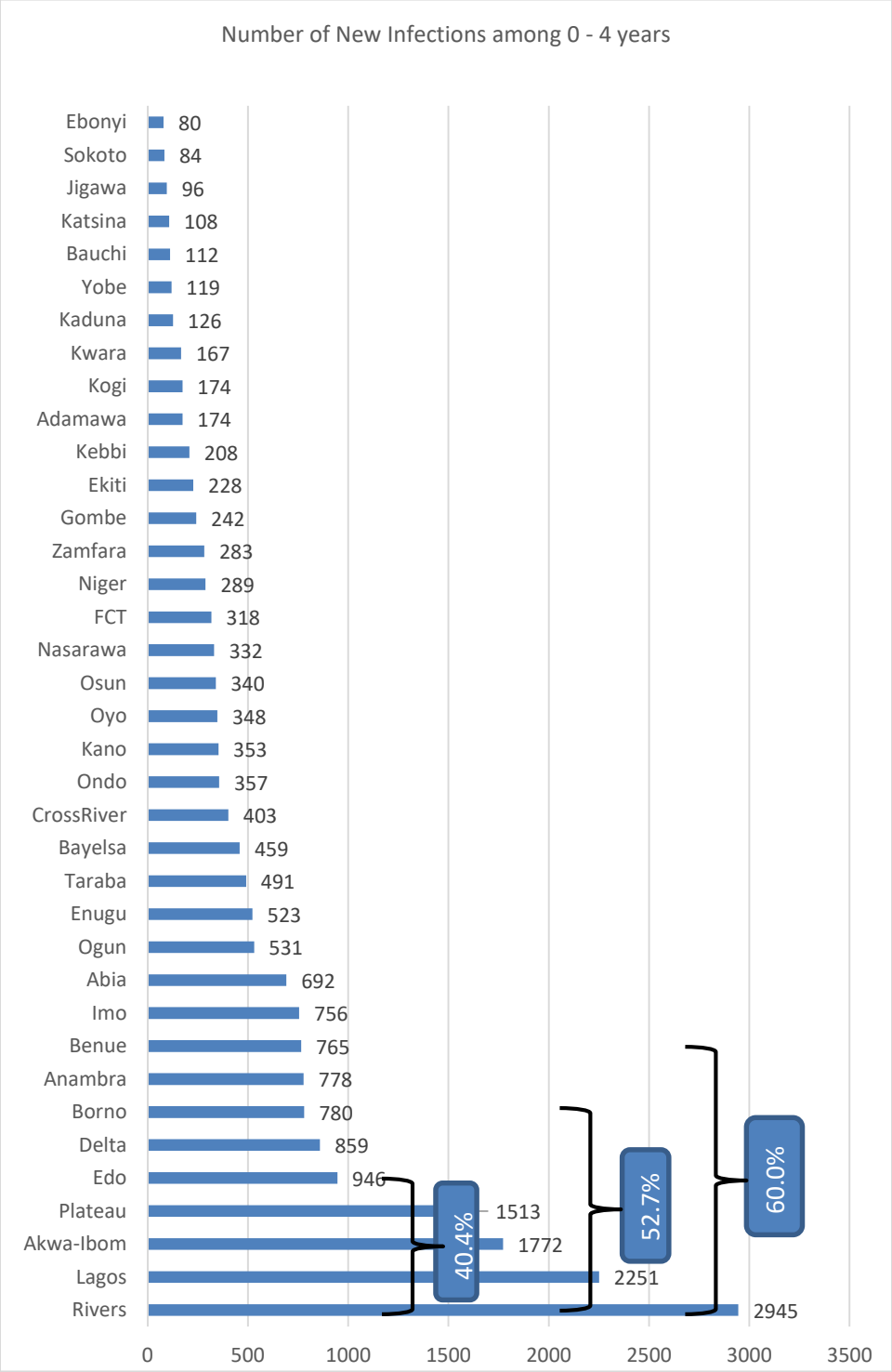
3.3.2 Age and sex disaggregation for new HIV infections

Figure 3.20 Number of New Infections Disaggregated by Age in 2019



Majority of new infections occur in age groups 0-4 years, 15-19 years and 20-24 years. Prioritizing targeted and comprehensive prevention packages in the new grant among adolescents and young people is of strategic importance towards future epidemiologic control.

Figure 3.21 Stratification of New Infections by States among 0 – 4 years in 2019



New infections among 0 – 4 years is a function of effectiveness of PMTCT program. Importantly, nine states (Rivers, Lagos, Akwa Ibom, Plateau, Edo, Delta, Borno, Anambra and Benue)

contribute about 60% of national new infections among this age group. Thus, concentrating PMTCT programs in these states is of national importance.

Figure 3.22 Showing trend of New Infections among Children Infections among (0 to 4 Years) in 2019 in Nigeria

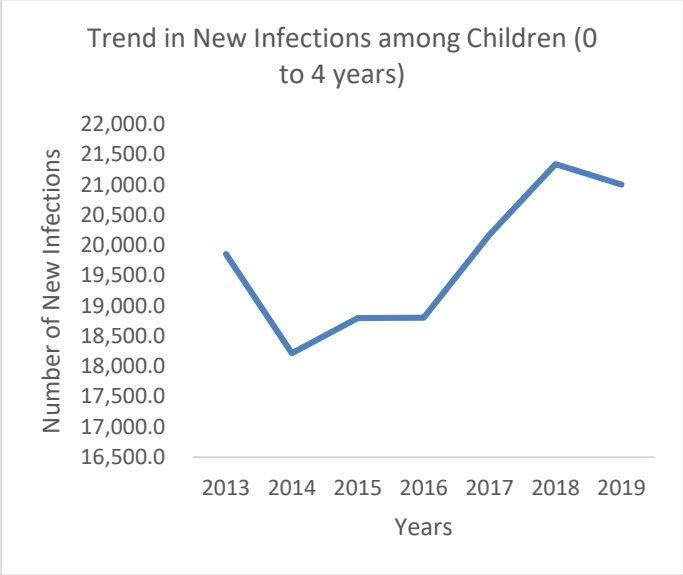
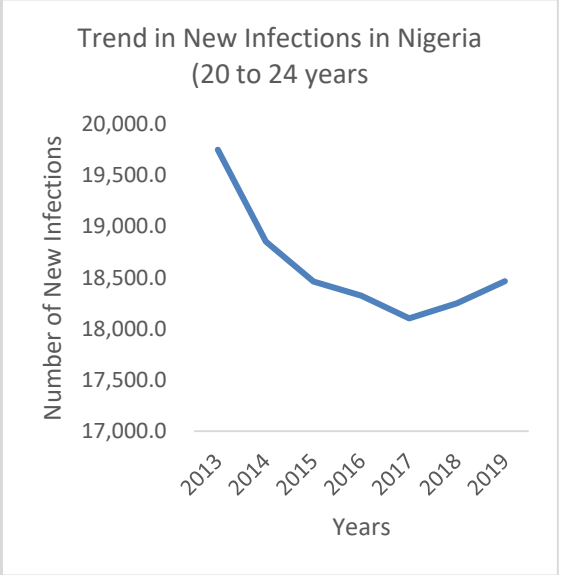
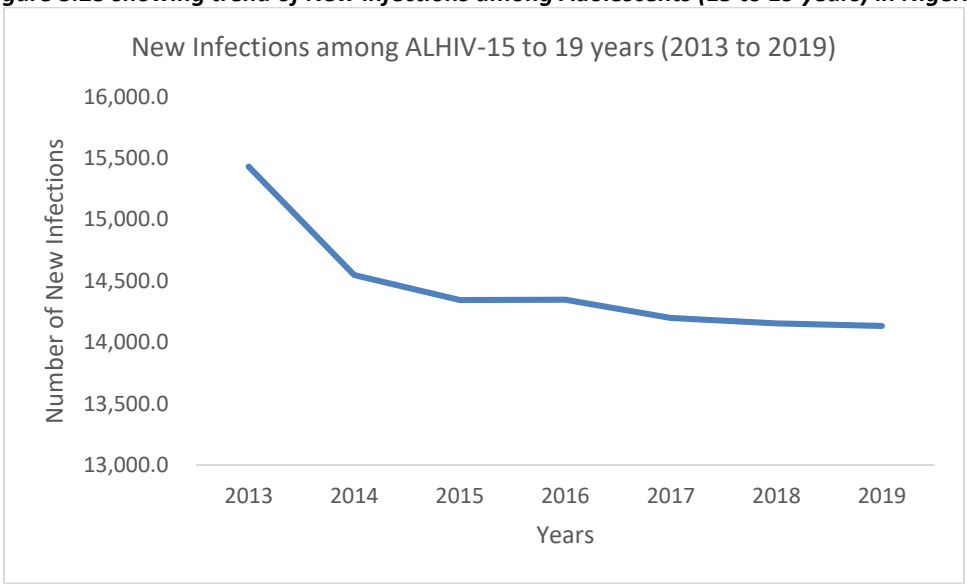


Figure 3.23 showing Trend of New Young Adults (20 to 24 years) in 2019 in Nigeria



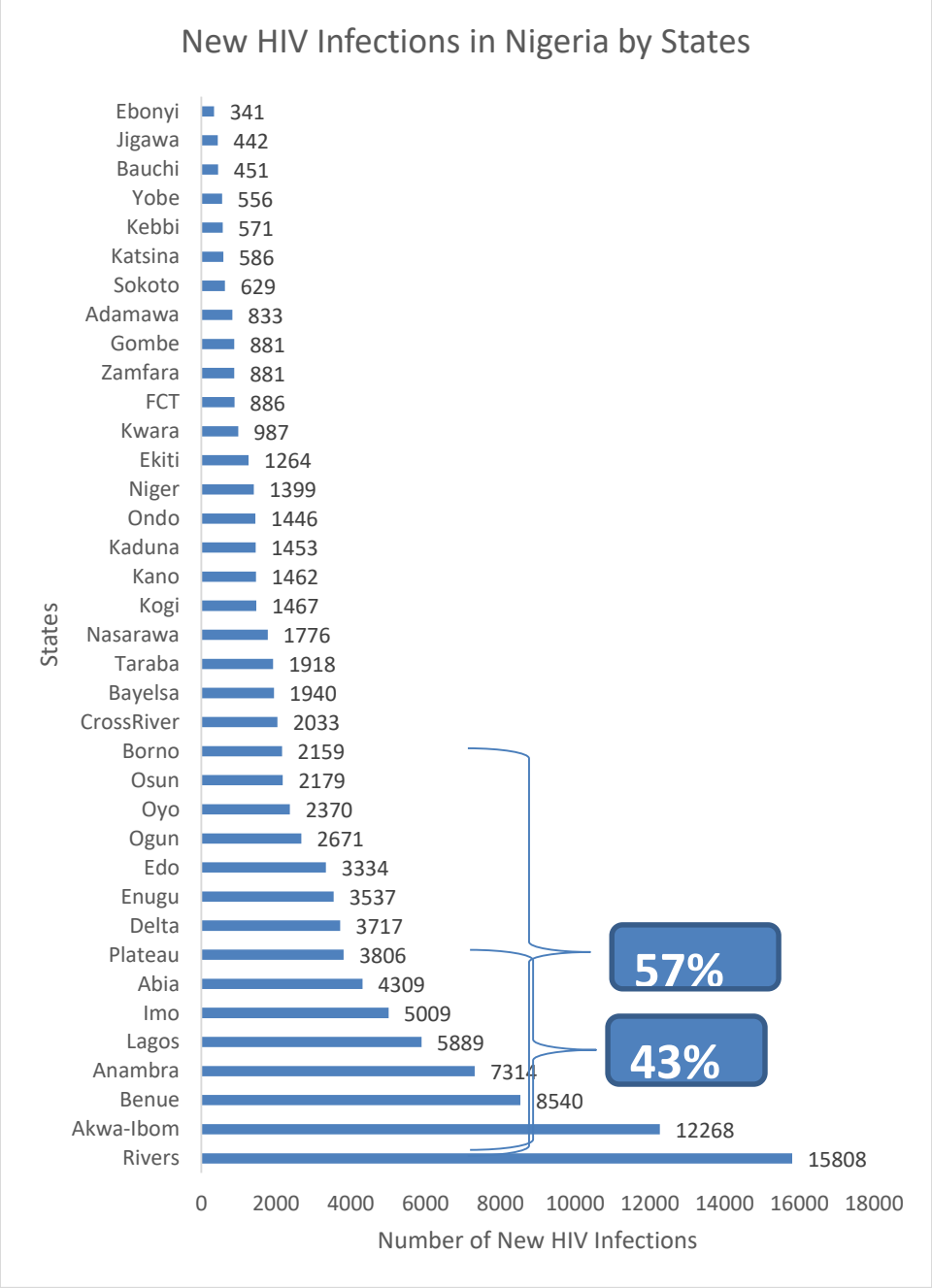
Figures 3.22 and 3.23 show trend in new infections among children and youths over a period of seven years.

Figure 3.23 showing trend of New infections among Adolescents (15 to 19 years) in Nigeria



There is a decline in new infections among the adolescents aged 15-19 years from 2013 to 2019.

Figure 3.24 State Distribution of New HIV Infections in 2019 (All ages)



From the 2019 spectrum model, Rivers state has the highest number of new infections 15,808 and Ebonyi has the least with 341.

Tables 3.1 to 3.5 below have number of new infections stratified by age groups with states that are top 10 in yellow color.

Table 3.1 New Infections 0-4 years

States	0-4/1000	0-4 (number)
Rivers	3.460	2945
Lagos	1.010	2251
Akwa-Ibom	2.480	1772
Plateau	1.170	1513
Edo	0.887	946
Delta	0.861	859
Borno	0.808	780
Anambra	0.872	778
Benue	0.804	765
Imo	0.898	756
Abia	1.500	692
Ogun	0.618	531
Enugu	0.973	523
Taraba	0.758	491
Bayelsa	1.530	459
CrossRiver	0.628	403
Ondo	0.463	357
Kano	0.143	353
Oyo	0.289	348
Osun	0.495	340
Nasarawa	0.343	332
FCT	0.872	318
Niger	0.224	289
Zamfara	0.424	283
Gombe	0.377	242
Ekiti	0.560	228
Kebbi	0.300	208
Kogi	0.290	174
Adamawa	0.273	174
Kwara	0.370	167
Kaduna	0.105	126
Yobe	0.169	119
Bauchi	0.097	112
Katsina	0.076	108
Jigawa	0.104	96
Sokoto	0.122	84
Ebonyi	0.183	80

Table 3.2 New Infections 15-19 years

States	15-19/1000	15-19 (number)
Lagos	1.170	1817
Rivers	1.590	1324
Benue	2.090	1279
Plateau	1.530	1258
Anambra	1.530	927
Akwa-Ibom	1.730	918
Borno	1.100	679
Oyo	0.636	572
Delta	0.840	505
Abia	1.340	483
Imo	0.705	419
Kaduna	0.415	418
Enugu	0.780	340
Edo	0.629	310
Osun	0.531	271
Bayelsa	1.180	266
Ogun	0.388	217
Kogi	0.398	188
Kebbi	0.382	181
FCT	0.523	172
Sokoto	0.300	161
CrossRiver	0.408	157
Nasarawa	0.238	148
Taraba	0.366	145
Kano	0.077	116
Niger	0.117	109
Ondo	0.220	109
Adamawa	0.245	109
Zamfara	0.222	109
Ekiti	0.305	93
Yobe	0.164	74
Kwara	0.248	73
Katsina	0.055	50
Gombe	0.121	45
Jigawa	0.054	33
Bauchi	0.047	32
Ebonyi	0.099	26

Table 3.3 New Infections 20 – 24 years

States	20-24/1000	20-24 (number)
Rivers	3.93	2934
Akwa-Ibom	4.47	2120
Benue	3.38	1752
Anambra	2.61	1388
Imo	1.84	930
Abia	2.43	771
Delta	1.42	705
Enugu	1.62	648
Plateau	0.916	634
Edo	1.67	620
Lagos	0.399	542
Oyo	0.62	478
Ogun	1.01	474
CrossRiver	1.06	349
Bayelsa	1.77	335
Nasarawa	0.6194	319
Borno	0.60329	319
Taraba	0.9535	317
Osun	0.668	293
Kaduna	0.2894	250
Kano	0.2018	249
Niger	0.30461	244
Ondo	0.57306	239
Ekiti	0.7916	215
Zamfara	0.3776	158
Adamawa	0.379	148
Sokoto	0.26057	124
FCT	0.40417	122
Kogi	0.2952	119
Kwara	0.44264	110
Katsina	0.144998	107
Gombe	0.32768	102
Kebbi	0.20704	84
Jigawa	0.1416	74
Bauchi	0.1207	74
Yobe	0.169	62
Ebonyi	0.2583	58

Tables 3.4 New Infections among 25-29 years

States	25-29/1000	25-29 (number)
Rivers	4.470	2894
Akwa-Ibom	5.010	2135
Benue	3.460	1502
Anambra	2.770	1272
Imo	2.060	875
Abia	2.560	710
Enugu	1.710	613
Delta	1.390	574
Edo	1.890	517
Ogun	1.130	442
Lagos	0.296	345
CrossRiver	1.190	337
Oyo	0.500	325
Nasarawa	0.691	300
Taraba	1.070	297
Bayelsa	1.760	281
Osun	0.715	265
Plateau	0.408	239
Kano	0.226	232
Niger	0.342	229
Ondo	0.641	225
Ekiti	0.889	213
Kaduna	0.242	178
Borno	0.376	168
Adamawa	0.376	127
Kwara	0.570	120
Gombe	0.426	110
Katsina	0.163	100
Kogi	0.276	95
Zamfara	0.252	89
Sokoto	0.202	82
FCT	0.274	77
Bauchi	0.140	74
Jigawa	0.159	71
Yobe	0.218	66
Ebonyi	0.290	55
Kebbi	0.127	44

Table 3.5 New Infections 35 – 39 years

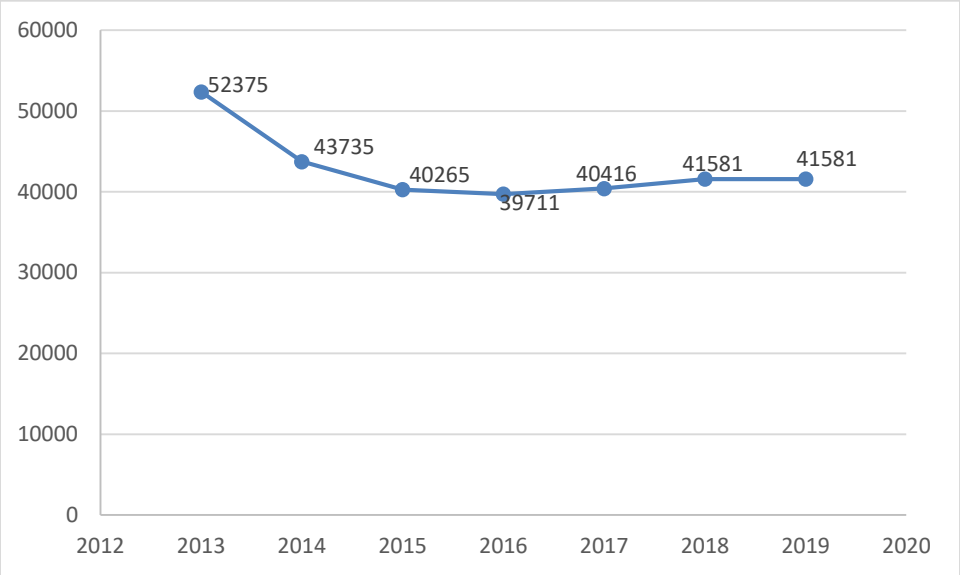
States	35-39/1000	35-39 (number)
Akwa-Ibom	3.820	1283
Rivers	3.170	1260
Benue	2.450	754
Anambra	2.020	706
Imo	1.550	499
Abia	1.830	391
Enugu	1.200	341
Delta	0.864	255
Ogun	0.857	247
Edo	1.400	237
Osun	0.709	202
Lagos	0.220	194
CrossRiver	0.909	192
Nasarawa	0.528	169
Taraba	0.814	162
Kogi	0.586	148
Oyo	0.300	148
Bayelsa	1.230	145
Niger	0.257	131
Ondo	0.487	126
Ekiti	0.674	125
Kano	0.172	125
Kwara	0.767	121
Kaduna	0.187	101
Gombe	0.435	80
Adamawa	0.252	65
Yobe	0.299	64
Katsina	0.123	54
Borno	0.150	50
Jigawa	0.121	41
Bauchi	0.105	40
Sokoto	0.122	40
Plateau	0.088	39
FCT	0.128	35
Zamfara	0.130	35
Ebonyi	0.219	30
Kebbi	0.048	13

3.4Annual AIDS deaths

3.4.1 Estimated total annual AIDS deaths

One of the impact indicators in HIV programming is AIDS-related mortality.

Figure 3.25 Trend in Total Annual AIDS Deaths

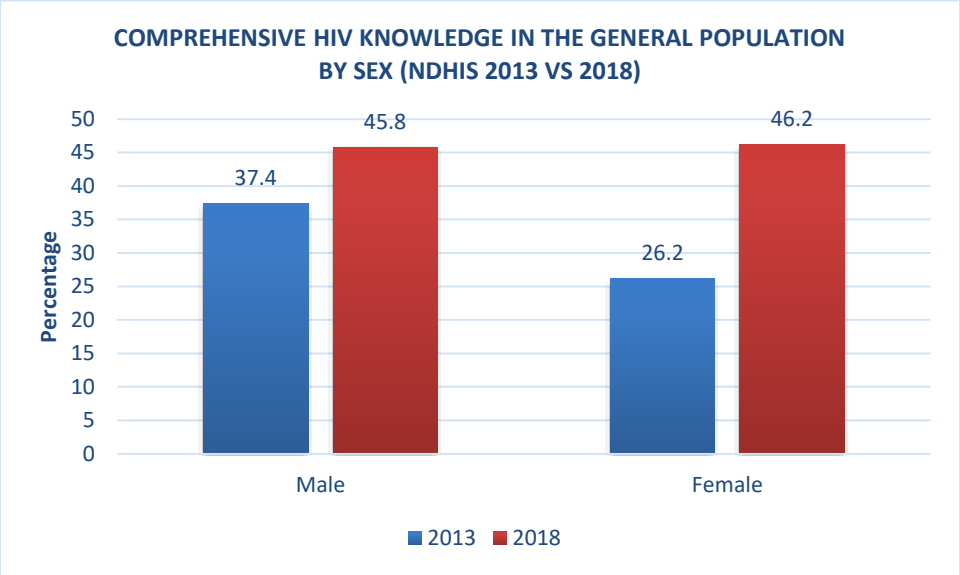


There is a decrease in AIDS deaths from 2013 to 2016 by 24.2% and it increased slightly from 2016 to 2019 by 4.7%.

3.4.2 Knowledge of HIV/AIDS in General Population

Nigeria uses the following indicators to assess the comprehensive knowledge of HIV based on the UNAIDS standard. These indicators include: “Knowing that a healthy-looking person can have HIV, staying faithful with one uninfected partner and using condoms consistently can protect against HIV; as well as rejecting the major misconceptions that HIV can be transmitted through mosquito bites and sharing of meals with an infected partner”.

Fig 3.26: Comprehensive knowledge of HIV/AIDS in the general population.



Comprehensive knowledge of HIV/AIDS increased only from 30% in 2008 to 46% in 2018 (NDHS 2018). Though still low, an increase in comprehensive knowledge about HIV transmission in the general population occurred in the last five years (from 32% in 2013 to 46% in 2018). Comprehensive knowledge in women increased from 26% in 2013 to 46.2% in 2018; while in men it increased from 37% in 2013 (NDHS 2013) to 45.8% 2018.

Over a third (38.5%) of young persons (15-24 years), 43% of females and 34% of males had comprehensive knowledge about HIV transmission (NDHS, 2018). Comprehensive knowledge in young women increased appreciably from 24.2% in 2013 to 42.6% in 2018. Urban-rural comparison from the NDHS 2018 shows that knowledge of HIV/AIDS is higher in the urban young women and men (51% and 42% respectively) compared to rural young women and men in (36% and 28% respectively). Comprehensive knowledge increases with increasing education and wealth. For example, women with no education (61%) are less likely to know of the prevention methods than those with more than a secondary education (85%). Similarly, 81% of women in the highest wealth quintile know of both methods, as compared with only 57% of women in the lowest quintile.

Comprehensive knowledge is higher in key populations (51.7%) compared to the general population (46.2% among women and 45.3% among men).

Figure 3.27: Percentage of Key Populations who correctly identified ways of preventing HIV (IBBSS 2007, 2010, 2014)

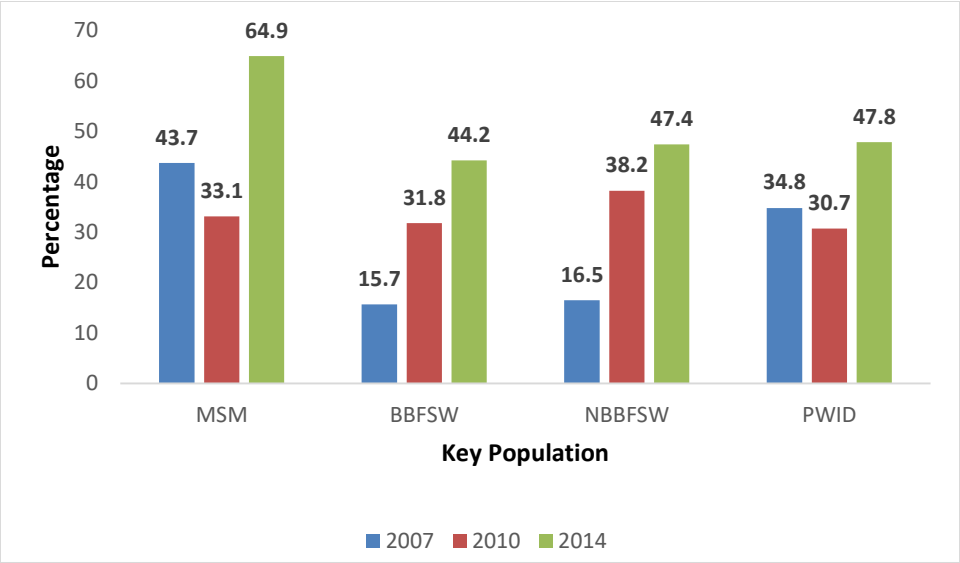
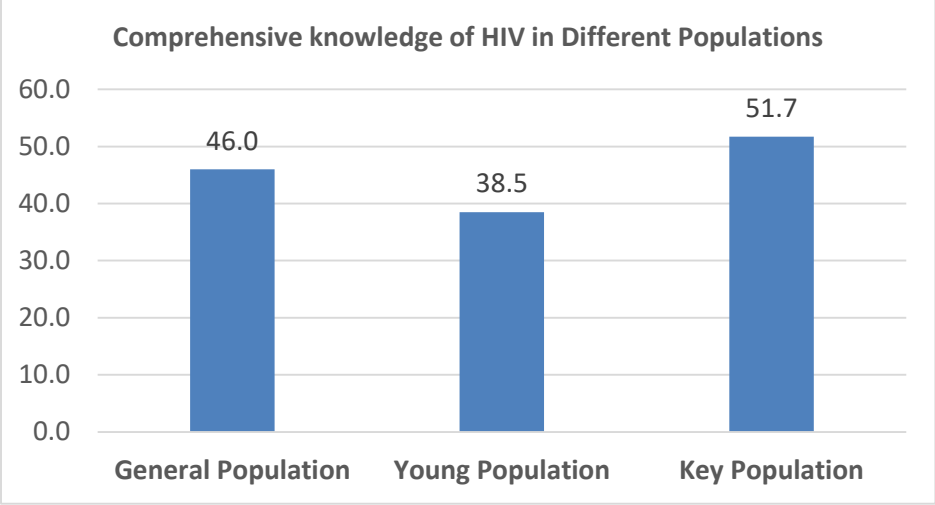


Fig 3.27 above shows that within KPs, MSM have the highest HIV prevention knowledge (64.9%), followed by IDU 47.8% and NBBFSW 47.4% and BBFSW 44.2% (IBBSS, 2014).

The 2018 Drug Use Survey showed that among drug users, more men (88%) than women (82%) have knowledge about HIV/AIDS and modes of transmission (UNODC, 2018).

Figure 3.28: Percentage of Comprehensive Knowledge of HIV in Different Populations



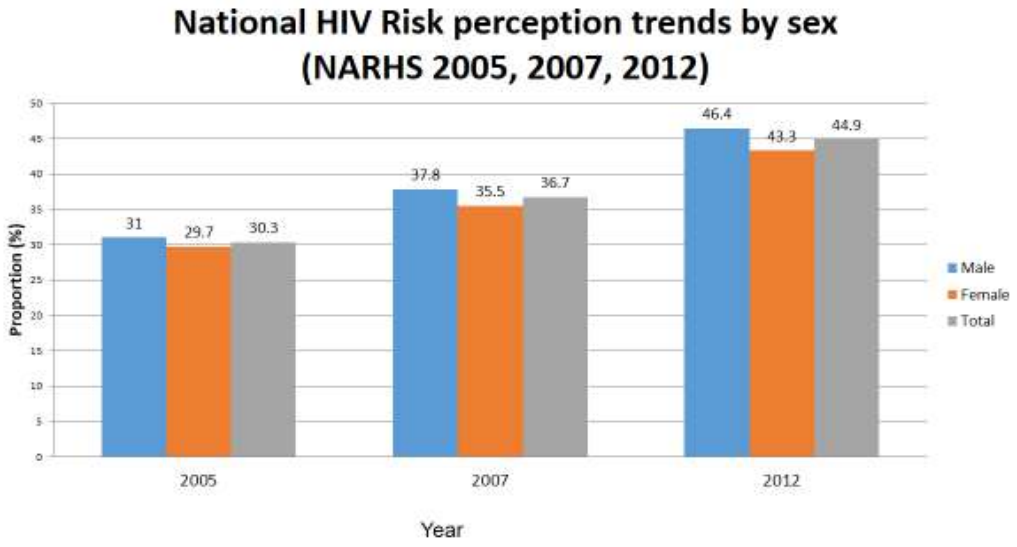
Comprehensive knowledge among young people is the lowest compared to that of the general and key populations.

Key Findings:

- Comprehensive knowledge is still low in the general population in Nigeria at 46%. Even lower among young people 38.5%. Appreciable (14%) increase in the last 5 years, more so in women than in men. It would be important to identify what contributed to this change.
- The case of Benue is phenomenal with a 69.5% increase in knowledge of prevention in women. Could this be as a result of the PMTCT programme?
- Comprehensive knowledge in rural areas remains considerably lower than in urban areas.
- It is also higher with education and wealth

3.4.3 Risk Perception in the General Population

Figure 3.29: Trends in HIV Risk Perception by sex in the general population in Nigeria



HIV risk perception is shown in figure 3.29 for males and females. The risk perception of HIV in the general population has been on a gradual increase from 30% in 2005 to 45% in 2012 (NARHS, 2012). However, the percentage is below average and has consistently been slightly higher among males than females in each of the three rounds of the NARHS so far conducted in the country. The 2005 NARHS result showed risk perception was 31% among men, 29.7% in women; gradually increased to 37.8% in men and 35.5% in women in 2007; and to 46.4% in men, 43.3% in women in 2012. Risk perception in young people aged 15-19 improved from 33.7% in 2007 to 37.7% in 2012.

Figure 3.30: HIV Risk Perception in all age groups in Nigeria (NARHS 2012)

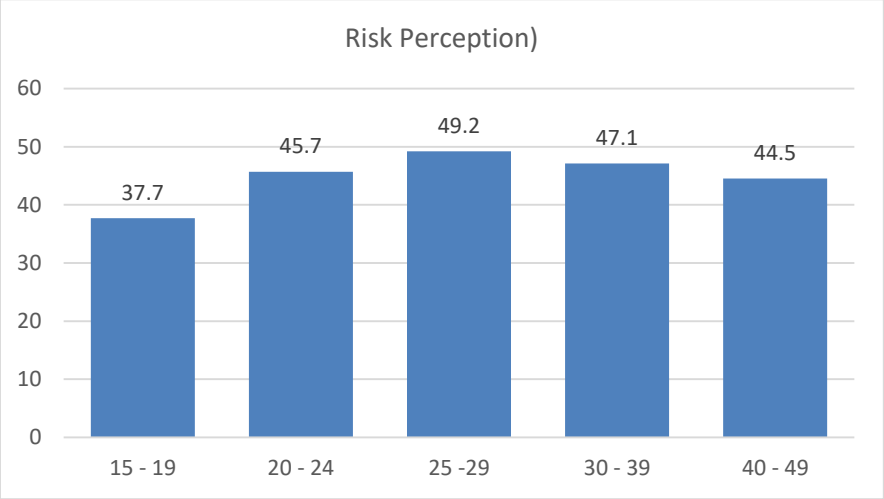


Figure 3.30 shows the variation in risk perception by age. In 2012, risk perception was lowest in the 15-19 age group at 37.7% compared to 45.7% in the age group 20-24 (NARHS, 2012).

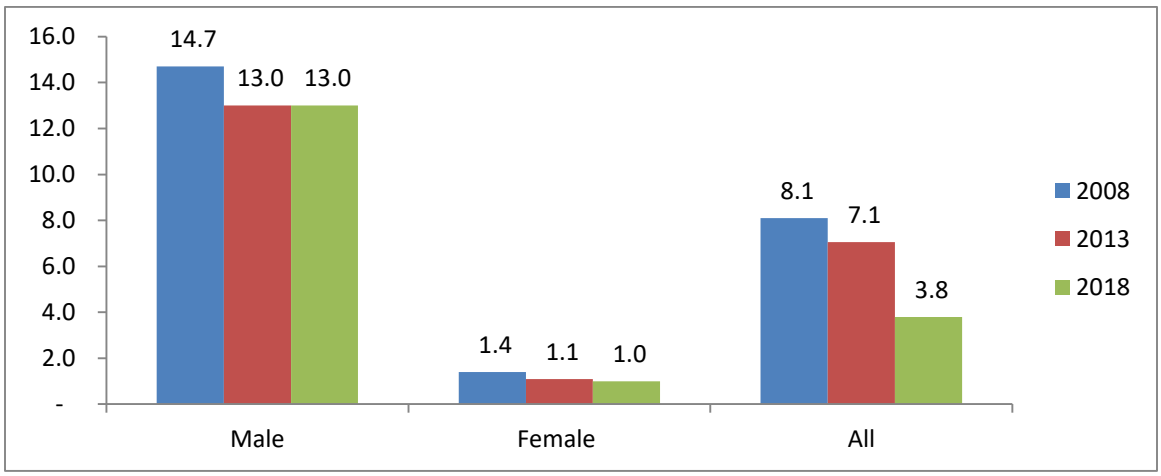
KEY FINDINGS:

- Risk perception in general population has generally been low between 2005 to 2012, slightly higher among males
- Risk perception is lower in young people compared to the general population

3.4.4 Sex with Multiple partners

Results from the NDHS 2008, 2013 and 2018 showed that more men than women are involved in multiple sexual partnerships. This is the case among young people aged 15-24 as well as older populations

Figure 3.31: Multiple sexual partnerships NDHS 2008 and NDHS 2013



The percentage of men and women who had sex with two or more partners in the last 12 months preceding the survey had dropped slightly in the ten-year period since 2008. Results from the NDHS showed that among males, it had dropped slightly from 14.7% in 2008 to 13.0% in 2018 while among females it had dropped from 1.4% in 2008 to 1.0% in 2018. Overall, it dropped from 8% in 2008 to 4.0% in 2013 as shown in figure 3.31. In 2018, among young people aged 15-24, 4.0% of young men engaged in multiple sexual partnership compared to 1.0% of young females.

3.4.5 Condom Use

Correct and consistent use of condom is one of the most effective means for reducing HIV transmission. In the general population, only 36% of adult females reported using a condom during the last sexual intercourse with a person who is neither their husbands nor living-in partner while 65% of adult male reported using a condom during the last sexual intercourse with a person who is neither their wives nor living-in partner in the 12 months preceding the survey. Thirty-eight percent of young women and 62% of young men used condom during their last sex with a non-marital, non-cohabiting partner (NDHS, 2018). The percentage of young women 15-24 years who reported using a condom during their last sexual intercourse with a non-marital, non-cohabiting partner increased with higher education, from 29% among those with no education to 48% among those with more than secondary education. Among men, the percentage who reported using a condom during their last sexual intercourse with such a partner increased from 63% among those with secondary education to 73% among those with more than secondary education (NDHS, 2018).

The percentage of women who know that using condoms and limiting sexual intercourse to one uninfected partner can reduce the risk of HIV varies by age, from 62% among those age 15-19 to 74% among those age 30-39 years. The same pattern is observed among men (60% and 79%, respectively). NDHS 2018

Sexually active female aged (15-24) years reported low condom use at 45% compared to male youths at 63% (NARHS 2012).

Fig 3.32 Trend of Condom use in high risk sex

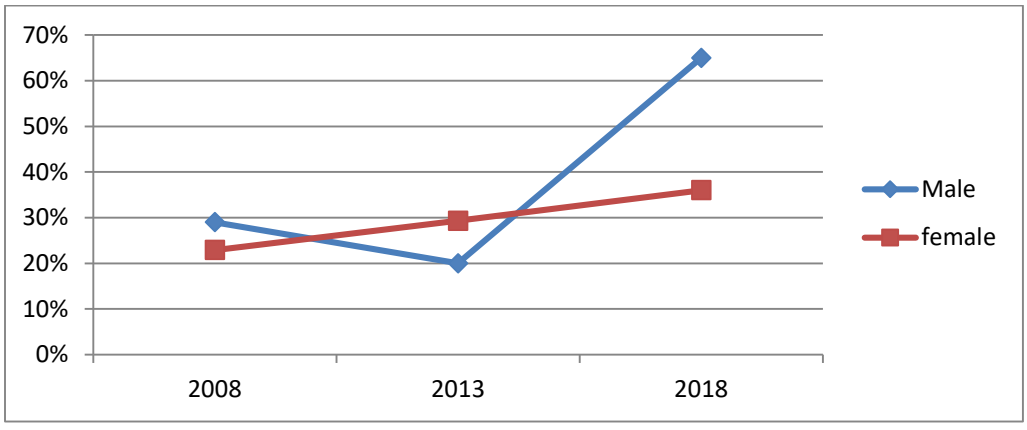


Figure 3.32 shows condom use in high risk sex initially dropped and more recently increased among males (29% in 2008 to 20% in 2013 and 65% in 2018) but has gradually increased minimally among females (22.9% in 2008 to 29.3% in 2013, 36% in 2018). Thus, condom use in high risk sex is higher among men than women. Demand and uptake of condom use especially among women need to be promoted.

SFH Quantification and forecasting for condoms and lubricants for 2018, 2019, and 2020

	Period		Jan 2018 to June 2019		July 2019 to December 2020	
S/N	Commodity	Unit of Measurement	Quantity Forecasted	Quantity Procured	Quantity Forecasted	
1	Male Condoms	Pieces	28,092,406	20,188,800	113,467,708	Procurement of 48,016,545 has been initiated
2	Female Condoms	Pieces	1,717,549	1,719,000	0	
3	Lubricants	Pieces	9,224,846	7,362,000	9,349,297	Procurement yet to be initiated

Table above shows SFH quantification and forecasting for male/female condoms and lubricants for 2018, 2019 and 2020 distributed in ten states. Though much more male condoms are procured compared to female condoms, between Jan 2018 and July 2019 about 72% of male condoms forecasted were procured as against over 100% procurement of female condoms forecasted.

Gap

There is six to seven million gap between current condom use and total need to achieve full coverage. There is a high constraint on data availability between supply and usage of distributed condom. (Condom landscape Nigeria 2017)

Generally, there is inadequate data on male and female condom use (including lubricants) for the various populations and groups as a result of non-completion and non-adherence to national tools for condom logistic management information system.

3.4.6 Age at first Sex

In the general population, females initiate sexual activity at a younger age than males. The median age at first sex among females aged 25-49 years had virtually remain unchanged in the ten years between 2008 and 2018; 17.7years and 17.5 years respectively. Among males aged 25-49 years, the median age increased in the same period from 20.7years in 2008 to 22.2 years in 2018 (NDHS,

2018). Among young people aged 15-24 years, 15.1% of females and 4.1% of males had sexual intercourse before age 15 years (MICS, 2016-17).

Figure 3.33 Proportion of 25-49 who have had sex at age 15 by sex: NDHS 2008, 2013 and 2018

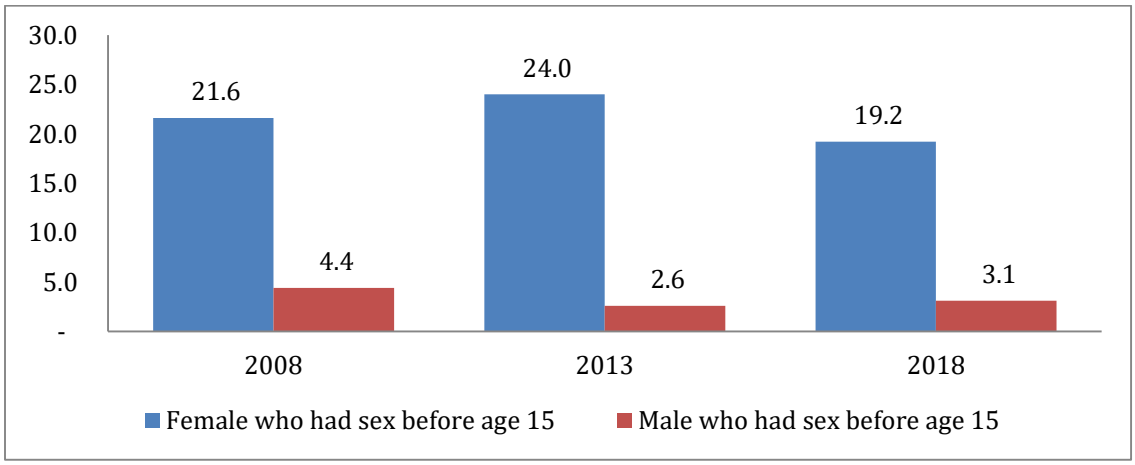


Figure 3.34 Proportion of young people aged 15-24 years who have had sex at age 15 by sex: NDHS 2013 and 2018

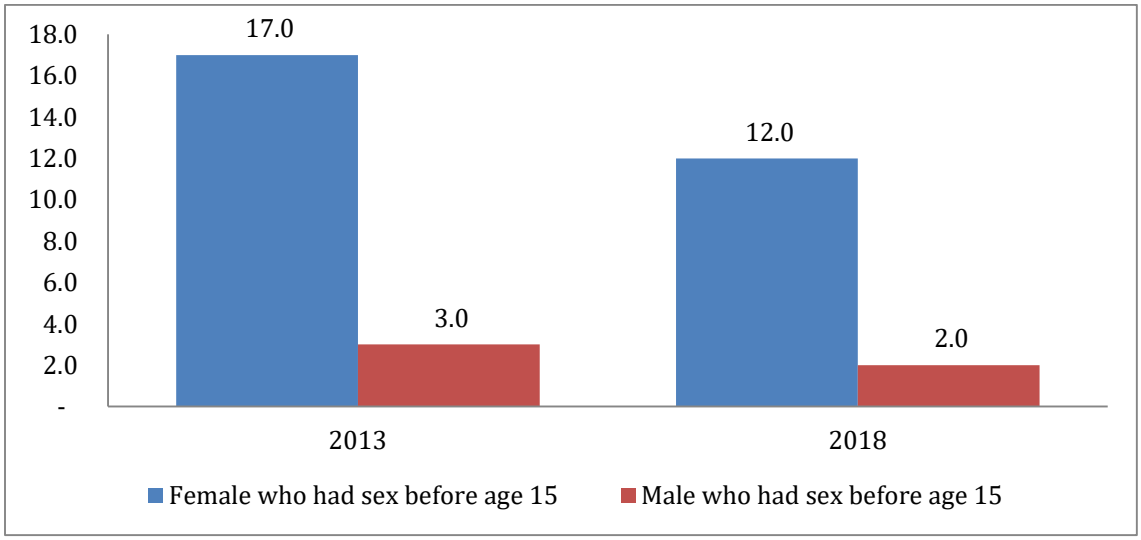
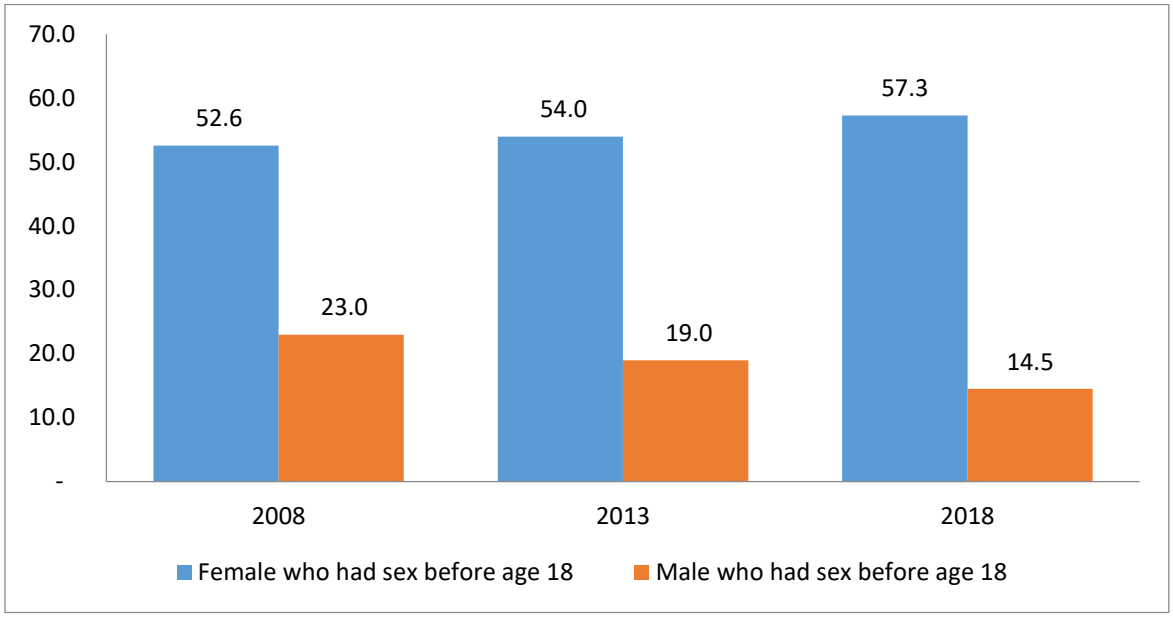


Figure 3.33 shows the changes in the proportion of 25-49 years who had had sex by the age of 15 years over the last 10 years; a decrease is seen among females 21.6% in 2008 and 19.2% in 2018 and also among males from 4.4% to 3.1%. Among young people aged 15-24 years there is a larger decrease in those who have had sex before age 15 among women (from 17% in 2013 to 12% in 2018) than among men (from 3% to 2%). About 15.1% of females and 4.1% of males had sexual intercourse before age 15 years (MICS, 2016-17).

Figure 3.35: Proportion of 25-49 who have had sex at age 18 by sex: NDHS 2008, 2013



The pattern was reversed when considering those who have initiated sexual activity by age 18 as shown in figure 3.35. Over the 10-year period, there was an increase among female (52.6% in 2008 to 57.3% in 2018) and a decrease among males (23% in 2008 to 14.5% in 2018).

CHAPTER FOUR: HIV AMONG KEY POPULATION GROUPS IN NIGERIA

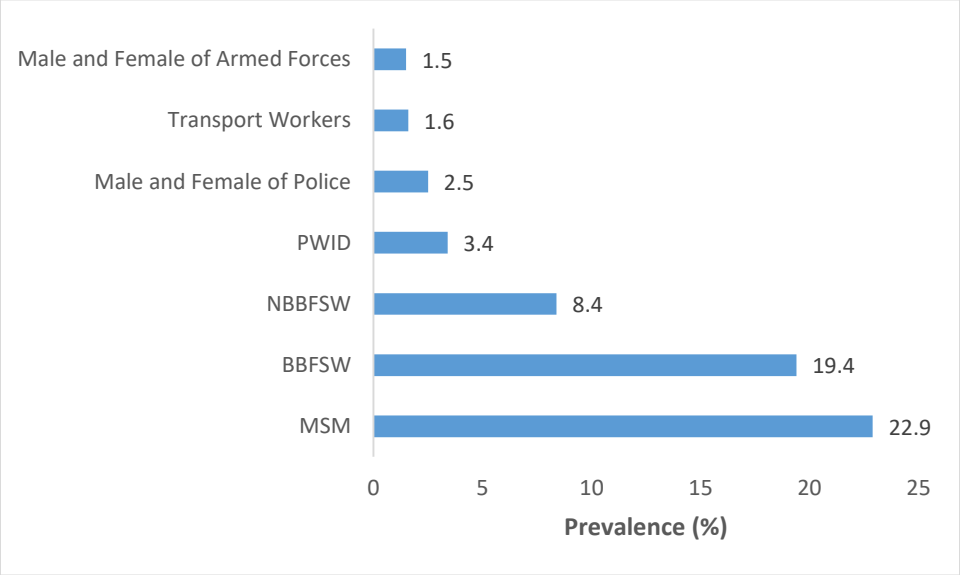
4.1 HIV prevalence among key populations

Key populations (KPs) are groups who, due to specific higher-risk behaviours, gender identity or environment-induced risk practices, are at increased risk of HIV irrespective of the epidemic type or local context. These groups are Female Sex Workers, Men who have Sex with Men (MSM), Transgender Persons, Persons Who Inject Drugs (PWID) and People in Prisons and close settings. Globally, key populations face much higher risk of contracting HIV. UNAIDS estimates show that key populations and their sexual partners account for more than half of new HIV infections globally and more than three-fifths of new HIV infections in Western and Central Africa (UNAIDS, 2019).

Key populations are often extremely difficult to reach for critical testing, treatment, and care and support services. Globally, proportion of key populations accessing safe, effective and quality HIV and AIDS services are low. This may be due to stigma and discrimination, and shameful practices including gender-based violence. Other significant barriers include police harassment, societal discrimination and insufficient community-based capacity. Underreporting is also common within key populations due policy/legislation barriers at national and subnational levels including poor social protection policies and human right violations preventing access to HIV prevention, treatment, and care.

A mode-of-transmission study indicates that almost two-fifths of new HIV infections in Nigeria were attributable to key populations (MOT 2009).

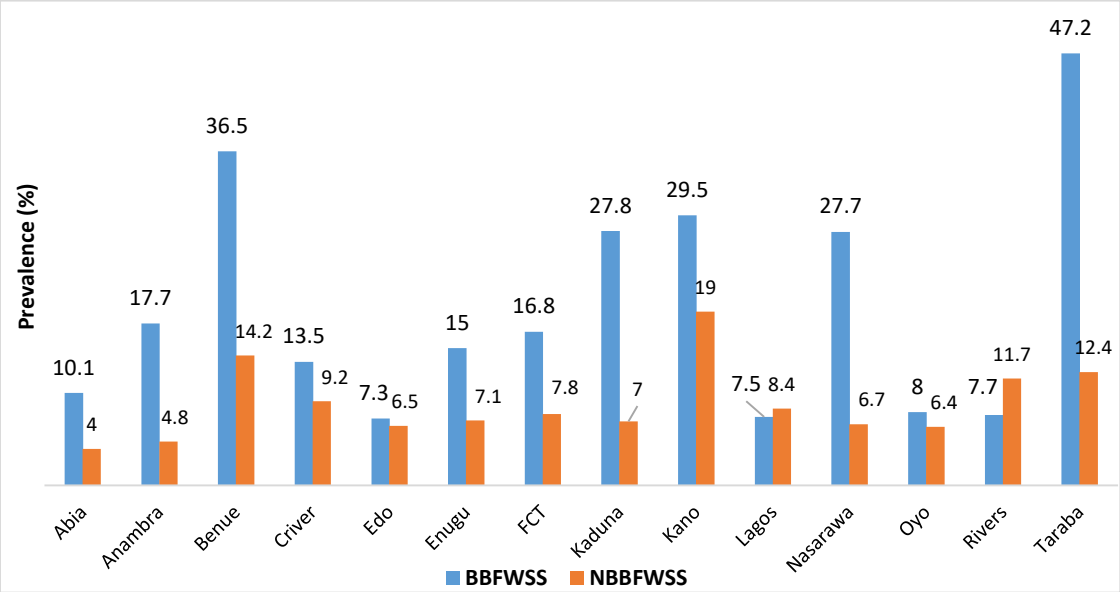
Figure 4.1: HIV Prevalence among Key Populations, IBBSS 2014



The overall HIV prevalence among the KP groups was 9.5%. MSM has the highest HIV prevalence of 22.9% as shown above. This was followed by that of FSW. HIV prevalence among brothel-based female sex workers (BBFSW) and non-brothel based female sex workers (NBBFSW) was

14.4%. Although recent survey data on HIV prevalence among key populations are not available but when KP HIV prevalence from IBBSS 2014 is compared to the most recent NAIIS with national HIV prevalence of 1.3%, targeted HIV interventions are needed to reduce HIV risks among these groups.

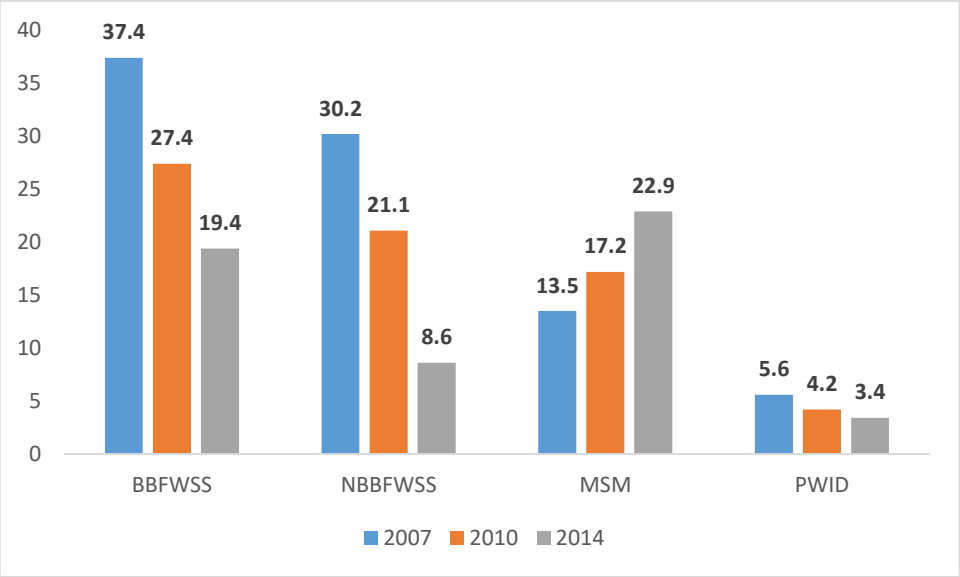
Figure 4.2: HIV Prevalence among Brothel and Non-Brothel-Based FSW by states



4.2 Trends in HIV Prevalence among Key Populations

Trend analysis of HIV prevalence among key populations in Nigeria shows that even though HIV prevalence was an all-time highest among BBFWSS (37.2% in 2007) there has been a consistent decline among all key populations. Among brothel-based FSWs, HIV prevalence has declined more than half from 37.2% in 2007 (IBBSS 2007) to 19.4% in 2014 (IBBSS 2014). Similarly, there was a decline among non-brothel based FSW where HIV prevalence dropped nearly fourfold from 30.2% in 2007 to 8.6% in 2014. Among PWID the HIV prevalence also dropped from 5.6% in 2007 to 3.4% in 2014.

Figure 4.3: Trend in HIV Prevalence among Key Populations



The reverse is however the case with MSM among whom the HIV prevalence has consistently been on the rise as shown above. HIV prevalence among MSM has increased about 70% from 13.5% in 2007 to 22.9% in 2014. The increasing prevalence among MSM may be due to inadequate HIV programming among them and difficulty in reaching them with prevention and treatment interventions.

4.2.1 Key Population Size Estimations

To improve HIV programming efficiency and targeting for key populations, two epidemic appraisals were conducted in 2013 and 2015 to map out locations and estimate the size of key populations. The first HIV epidemic appraisal of 2013 was conducted in 27 states and that of 2015 was conducted in seven states. A KP size estimation was also conducted in 2017 in 17 states as shown in Figure and table below.

Figure 4.4: Key Population Sizes by States

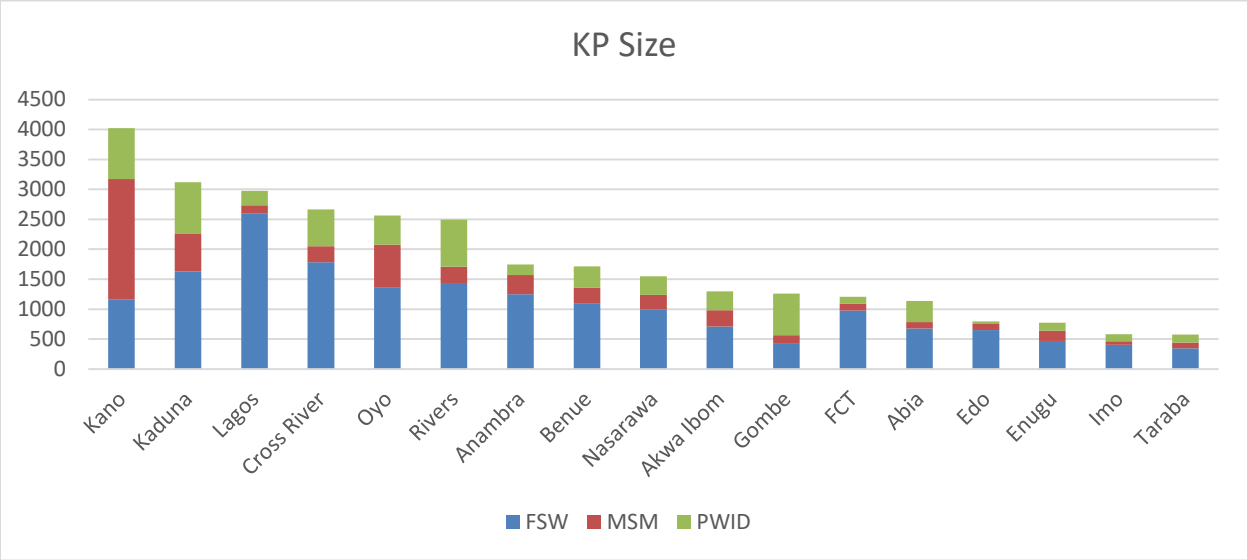


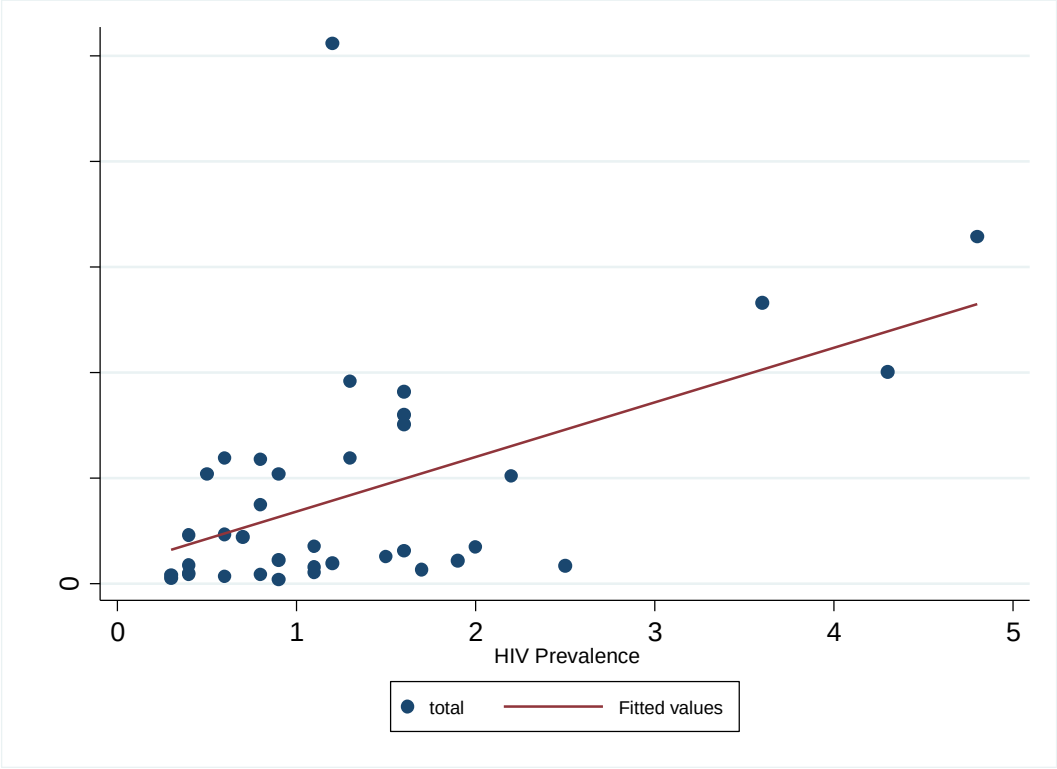
Table 4.1 KP Size Estimates by States

State	Source	MSM	FSW	PWID	TG	PI	Total	HIV Prevalence in General Population
Abia	GF 2019	2,282	8,869	4,398	23	1,623	17,195	2.0
Adamawa	WB 2013	362	2,657	2,648	4	2,052	7,723	1.1
Akwa Ibom	PEPFAR 2019	69,595	69,942	22,195	696	1,852	164,280	4.8
Anambra	GF 2019	4,333	40,894	4,012	43	1,616	50,898	2.2
Bauchi	WB 2013	130	1,991	250	1	1,976	4,348	0.4
Bayelsa	Regional Avg.	26,773	34,187	18,130	268	585	79,943	1.6
Benue	PEPFAR 2019	12,423	59,792	26,758	124	1,331	100,428	4.3
Borno	Regional Avg.	897	3,435	3,722	9	1,476	9,539	1.2
Cross River	PEPFAR 2019	5,869	67,528	16,345	59	1,186	90,987	1.6
Delta	WB 2013	119	3,185	79	1	3,236	6,620	1.7
Ebonyi	Regional Avg.	2,403	15,136	3,304	24	1,105	21,972	0.7
Edo	GF 2019	1,377	10,592	727	14	2,753	15,463	1.6
Ekiti	WB 2013	55	2,603	78	1	444	3,181	0.6
Enugu	GF 2019	2,032	5,089	1,395	20	2,350	10,886	1.9
Gombe	GF 2019	2,200	5,657	8,268	22	1,462	17,609	1.1
Imo	GF 2019	963	5,690	3,409	10	2,627	12,699	1.5
Jigawa	WB 2013	31	757	368	0	1,137	2,293	0.3
Kaduna	GF 2019	10,117	27,770	11,343	101	2,624	51,955	0.9
Kano	GF 2019	24,119	14,372	8,880	241	4,183	51,795	0.5
Katsina	WB 2013	196	1,508	244	2	2,067	4,017	0.3
Kebbi	Regional Avg.	6,143	6,064	7,489	2,318	1,440	23,454	0.6
Kogi	WB 2013	53	942	45	1	663	1,704	0.9

Kwara	Regional Avg.	5,876	40,507	11,525	59	884	58,851	0.8
Lagos	PEPFAR 2019	11,767	184,021	52,389	118	7,396	255,691	1.2
Nasarawa	PEPFAR 2019	5,151	60,786	7,772	52	1,690	75,451	1.6
Niger	Regional Avg.	5,876	40,507	11,525	59	1,336	59,303	0.6
Ogun	WB 2013	589	1,397	56	6	2,965	5,013	1.1
Ondo	WB 2013	102	9,677	-	1	1,284	11,064	0.9
Osun	WB 2013	21	3,353	102	0	861	4,337	0.8
Oyo	GF 2019	4,889	12,929	17,882	49	1,476	37,225	0.8
Plateau	Regional Avg.	5,876	40,507	11,525	59	1,499	59,466	1.3
Rivers	PEPFAR 2019	56,906	19,688	51,305	569	4,424	132,892	3.6
Sokoto	WB 2013	225	3,567	182	2	904	4,880	0.4
Taraba	GF 2019	849	5,069	1,342	9	1,207	8,476	2.5
Yobe	Regional Avg.	897	3,435	3,722	9	591	8,654	0.4
Zamfara	Regional Avg.	6,143	6,064	7,489	2,318	998	23,012	0.4
FCT	PEPFAR 2019	35,158	53,627	5,162	352	1,383	95,682	1.3
Total		312,796	873,793	326,064	7,641	68,686	1,588,980	

Table 4.1 above shows KP size estimates by states. KP size estimations were done by World Bank in 2013, by Global Fund and PEPFAR in 2019. For the states, where KP size estimation has not been done, regional averages were imputed.

Figure 4.5 HIV Prevalence in General Population and KP Sizes at the state level

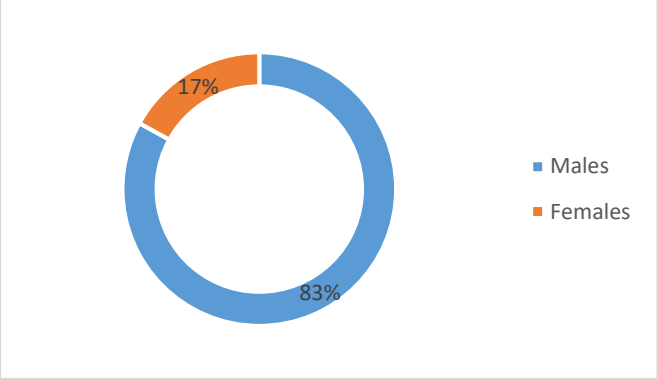


Hypothesis could be drawn from figure 4.5 that there is a positive linear relationship between KP size and HIV prevalence. The higher the state KP size, the higher the state prevalence in the general population. Thus, prioritizing KP interventions in states with high prevalence is important in the new Global Fund grant.

4.2.2 People Who Inject Drugs (PWID)

In Nigeria, the estimated number of PWID in 2017 was 80,000 and about one-fifth of PWID were women

Figure 4.6 : Proportion of people who inject drugs, disaggregated by sex



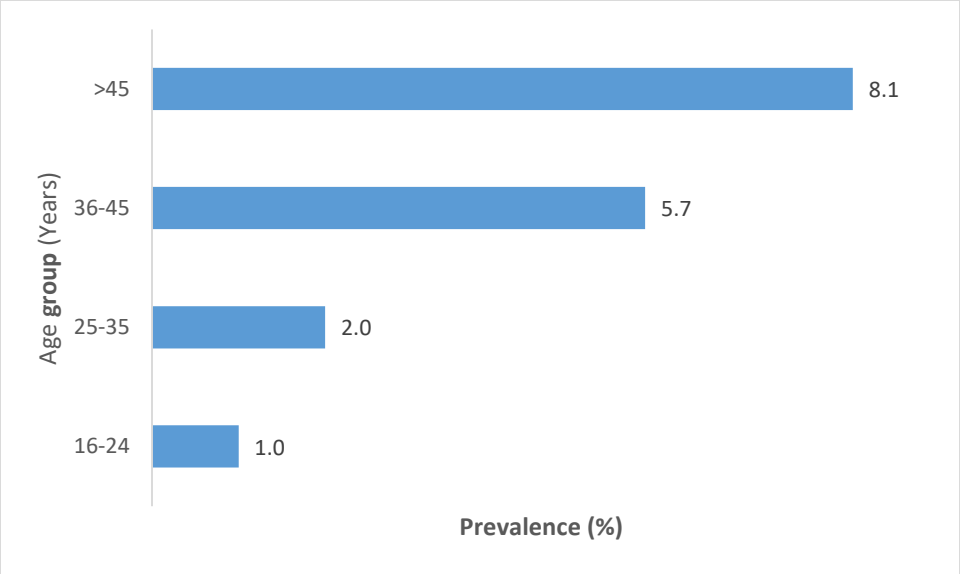
Source: UNODC. Drug Use in Nigeria. 2018

The national drug use survey conducted by UNODC in 2018 showed that 9.1% of men and 9.8% of women who inject drugs reported they were living with HIV in Nigeria (UNODC, 2018).

4.2.3 People in Prisons/Close Settings

In Nigeria, an estimated three per cent of people in prison inject drugs. Two-thirds of people who inject drugs in prison-initiated drug use injection in prison. Injecting drug use in prison was higher (2.6%) than that reported in the general population (0.1%). Overall, HIV prevalence among people in prison (2.8%) was about twice of the national HIV prevalence (1.3%). Sex-disaggregated data showed that females had higher prevalence (6.9%) compared to males (2.7%).

Figure 4.7: HIV Prevalence among People in Prison, Disaggregated by Age



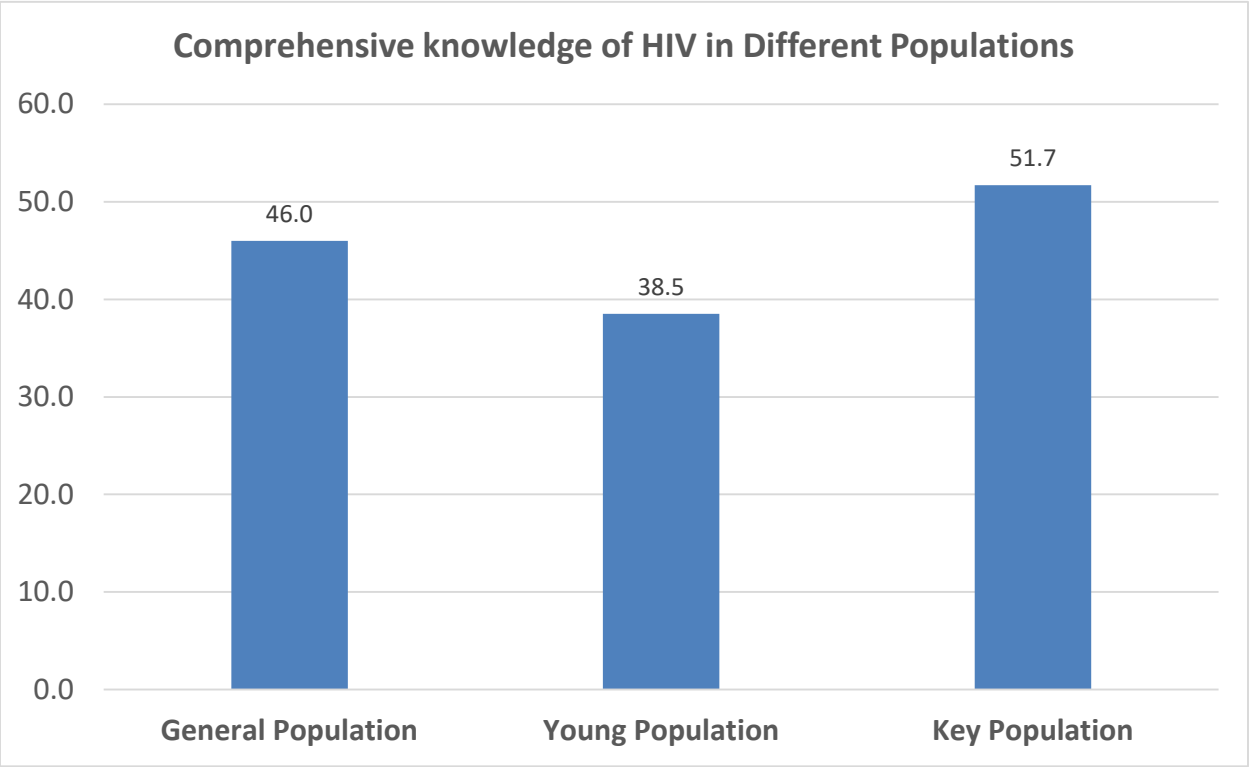
Source: Analysis of UNODC Prison Survey Data, 2019

The highest HIV prevalence was reported among people aged 45 years and above (8.1%) as shown in Figure 4.7. The national prison survey conducted in 2018 showed that only half of the participants confirmed the availability of HIV testing services in prison, two-thirds confirmed availability of antiretroviral treatment services, and less than 1% confirmed that condom and condom compatible lubricants were available in prisons.

4.3 Comprehensive knowledge among Key Populations

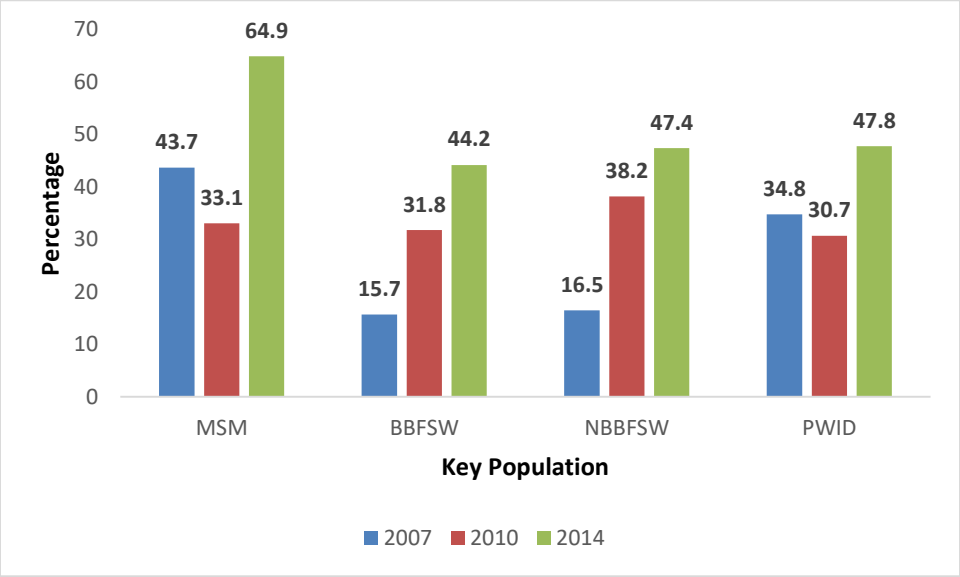
Comprehensive knowledge is higher in KPs (51.7%) compared to the general population (46.0%). Within KPs, MSM have the highest comprehensive knowledge (64.9%), followed by IDU 47.8% and NBBFSW 47.4% and BBFSW 44.2%.

Figure 4.8 Comprehensive Knowledge



Interestingly, comprehensive knowledge was highest in key populations compared to the general population and youths aged 15-24 years. It was least among youths.

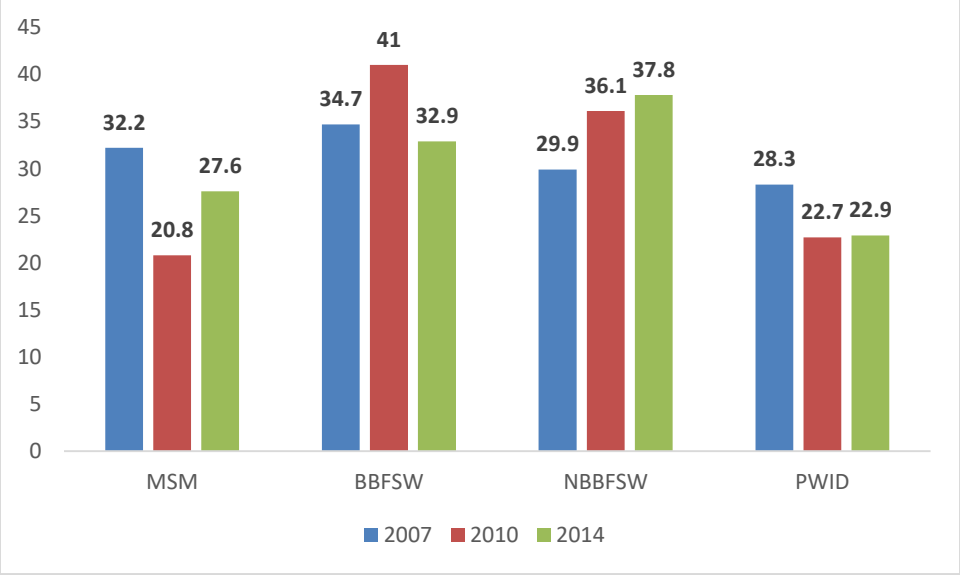
Figure 4.9: Percentage of Key Populations who correctly identified ways of preventing HIV (IBBSS 2007, 2010, 2014)



Knowledge increased from 2007 to 2014 among the three main KP groups (MSM, FSW and PWID).

4.3.1 HIV Risk Perception among Key Populations

Figure 4.10: Percentage KP Risk perception of HIV (IBBSS 2007, 2010 and 2014)



HIV risk perception is lower in key populations (27%) compared to the general population (46.4% in males and 43.3% in females) even though there has been some improvement among some of

the key population subgroups. NBBFSW have the highest risk perception 37.8%, while PWID have the lowest at 22.9% (IBBSS, 2014). HIV risk perception among MSM improved from 20.8% in 2010 to 27.6% in 2014, whereas in NBBFSW, it increased from 36.1% in 2010 to 37.8% in 2014 and in PWID from 22.7% in 2010 to 22.9% in 2014. However, HIV risk perception among BBFSW dropped from 41% in 2010 to 32.9% in 2014 and reduced from 32.2% in 2007 to 27.6% in 2014 among MSM.

Figure 4.11: Risk Perception among Key Populations by Age Groups (IBBSS, 2014)

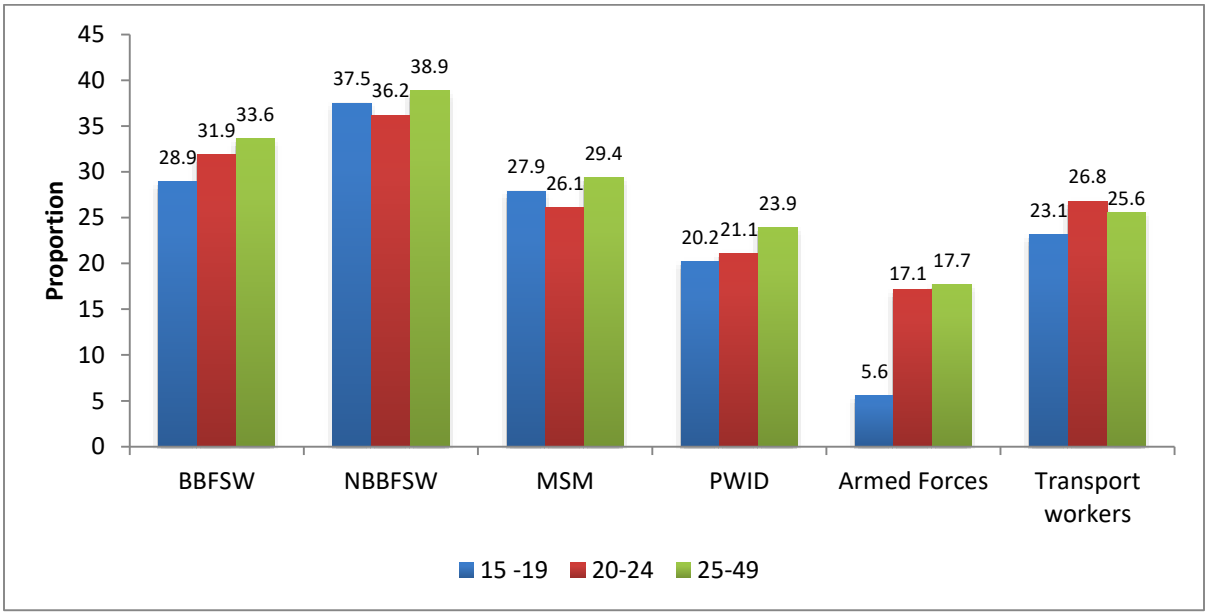
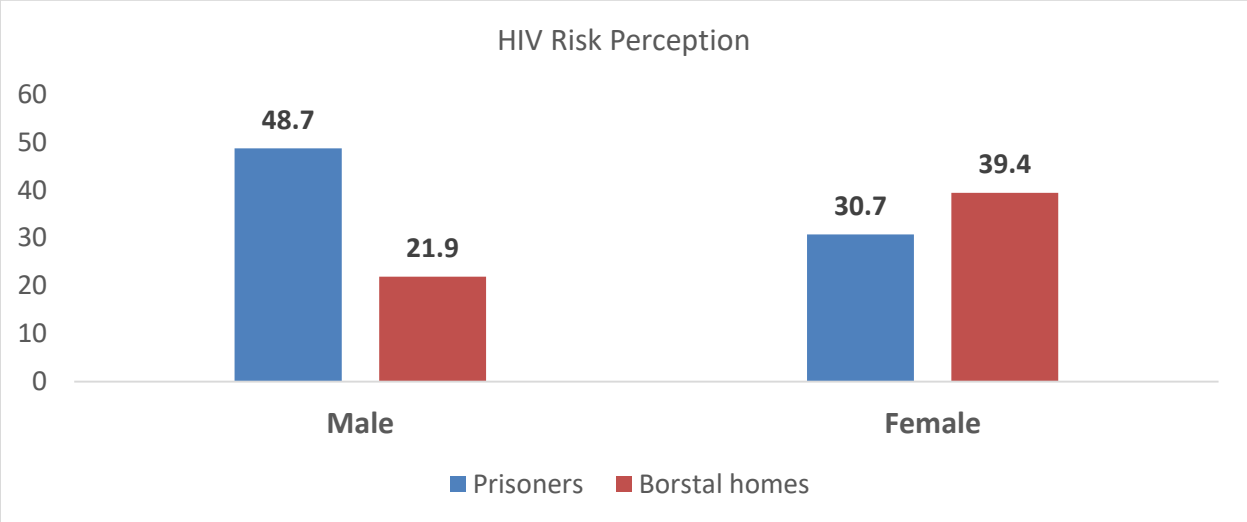


Figure above shows that adult population has highest risk perceptions compared to the adolescents and young people.

Figure 4.12: Risk Perceptions among Prisoners

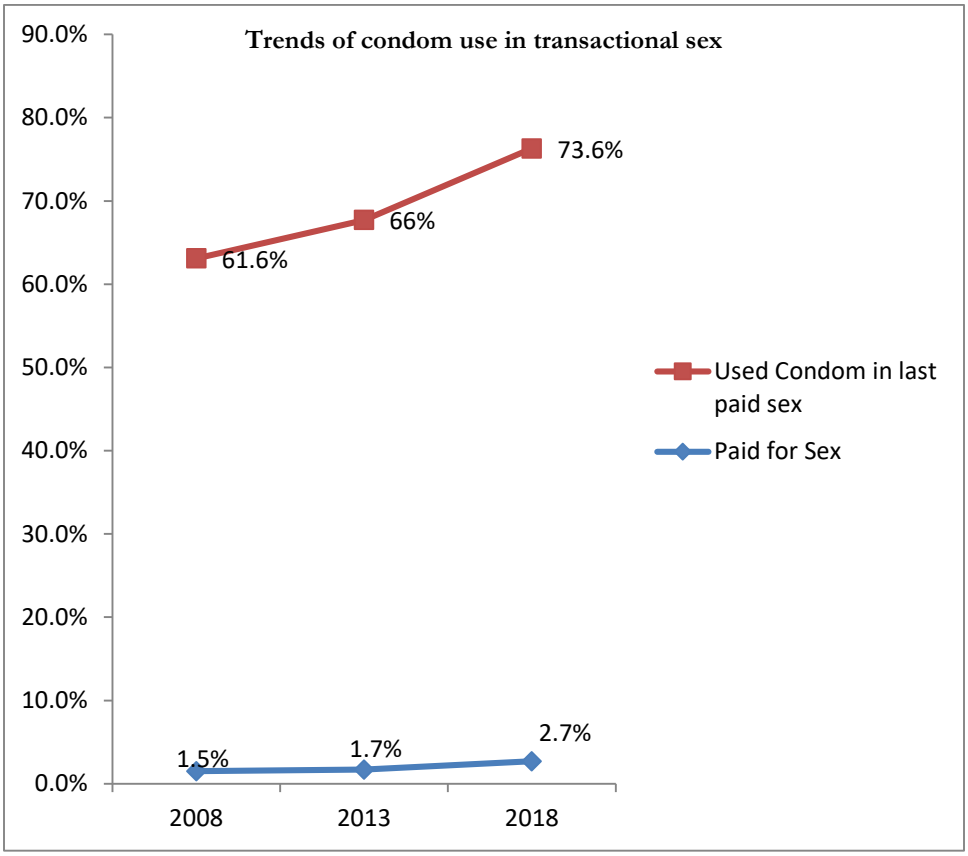


Among people in closed settings, risk reception was 30.7% among female prisoners and 48.7% among male prisoners (UNODC, 2019), while in borstal homes where young people are incarcerated; risk perception was 39.4% among females and 21.9% among males (UNODC, 2019).

4.3.2 Condom Use in Transactional Sex

Condom has been proven to the effective in limiting transmission and acquisition of HIV.

Figure 4.13: Trends of condom use in transactional sex: NDHS 2008, 2013, 2018



The percentage of men who reported ever paying for sex did not change much between 2008 and 2018. Although it slightly increased from 2013 to 2018. However, condom use during last paid sexual intercourse increased from 66% to 74%. (NDHS 2018)

Programmatic Response

NACA with support from USAID/AIDS-Free aligned to the Total Market Approach (TMA) in 2017 as prescribed by the global HIV prevention coalition and national condom Strategy (NCS) 2017- 2021. Capacities of national stakeholders and partners were developed on the TMA. A national condom and lubricant quantification was done in 2018 for HIV and STIs, and a dashboard was developed to monitor supply and distribution of as well as access to free, social marketed and commercial condoms. A national condom communication/demand creation strategy was developed in 2018 to provide modalities for generating and sustaining demand and use of male

and female condoms. Additionally, a study was conducted on "willingness to pay for condoms". This was to ascertain the readiness and ability to use condoms in the event of 'no free condoms" by KPs (NACA/JSI 2019). Then IEC materials like online posters, short videos, cue cards and flyers were developed and disseminated to ensure KPs are widely and conveniently reached in the languages they understand. There is a plan to review the national condom quantification by NACA and FMoH.

Prevention intervention and demand creation programs like the #iSabiHIV campaign, AYP/HIV Challenge 2018 and Society for Family Health (SFH) Action research are gains of the national condom program. In 2018 and 2019 NACA with support from UNICEF rolled out a national prevention campaign for young people (#iSabiHIV campaign) which had condom messaging and distribution as one of the key pillars.

Gaps

- Lack of female condom data for quantification (forecasting, procurement and distribution) and programming. Lack of programming to increase access to condoms for young people in a large scale. Inadequate quality and standard control for condoms by unauthorized importers and marketers.
- Barriers to uptake of female condoms in Nigeria include non-availability due to frequent stock-outs; high cost; the limited variety of brands; lack of awareness, and inadequate capacity/skills of women and girls in using it.

Recommendations

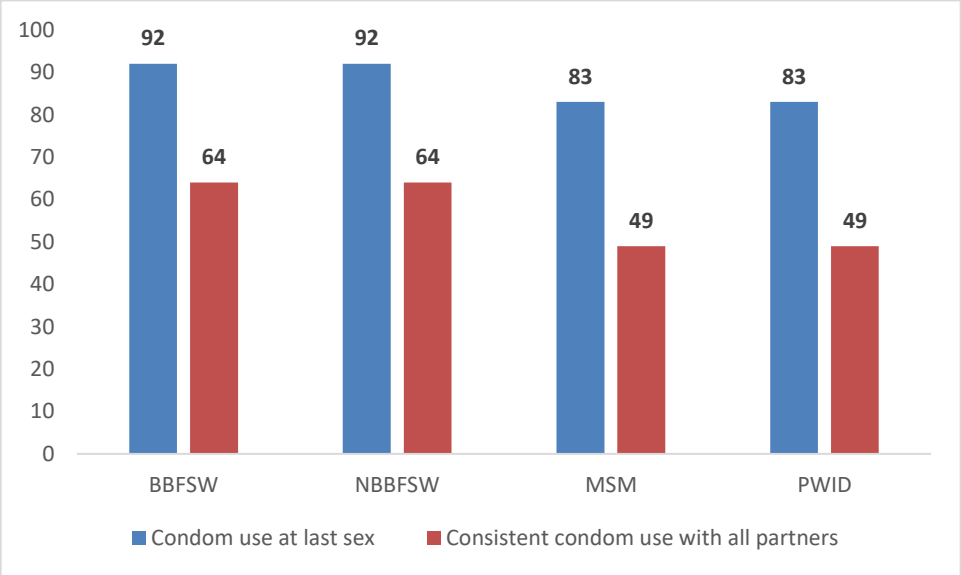
- Roll out of the 2018 national condom communication/demand creation strategy at all levels
- NACA/FMOH to institutionalise the TMA approach for sustainability of forecasting, quantification, procurement and distribution.
- Diversification of female condom brands is needed to improve women and girl's preferences; improve initial uptake and sustain continued use as well as save the national family planning program cost.
- Recommend immediate investment in female condom programming. This will yield cost savings in the long-term; help in meeting Nigeria's obligations and commitment to implementing the plan on the UN Commission on Life Saving Commodities for Women and Children and ensure achievement of national sexual and reproductive health and HIV prevention policy goals.
- GON to review its female condom procurement policy and expand it to include the procurement of WHO pre-qualified cupid condoms
- FMOH to roll out condom counselling tools to increase uptake of female condoms especially in young females

4.3.3 Condom Use in Key populations

Condom use among the key population is of paramount public health importance due to the risky sexual behaviours.

Figure 3.18 showed condom use among key population results from the most recent IBBSS in 2014. The findings showed that condom use at last sex act was highest among females who sell sex BBFSW (92%) and NBBFSW (92%). But consistent condom use with all clients was 64% for BBFSW and 64% for NBBFSW. Among MSM and PWID respectively condom use at last sex act was 83% for MSM and 83% for PWID respectively while consistent condom use with all clients was 49% for MSM and 49% for PWID. The report showed that though condom use at last sex act is high, consistent condom use with clients is comparatively low.

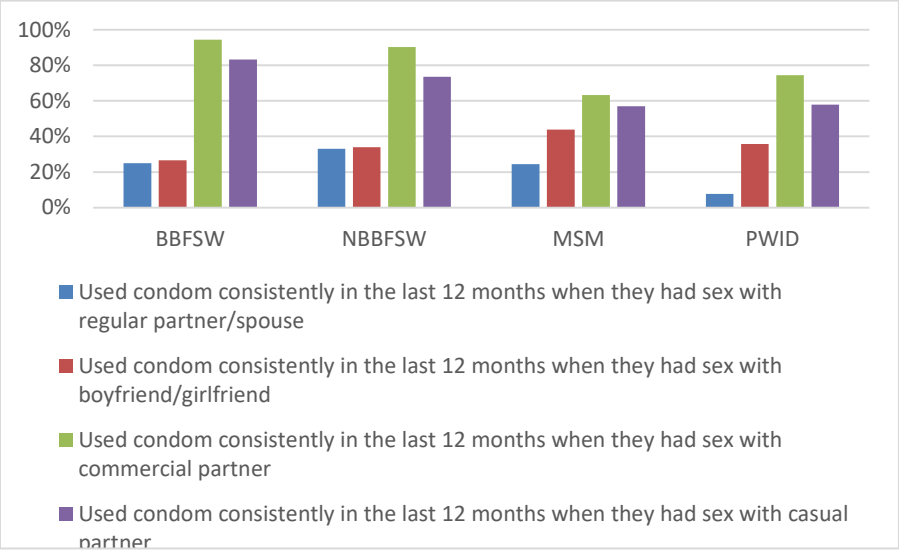
Figure 4.14: Proportion of various Key Populations that reported consistent condom use with all partners, IBBSS 2014



Condom use at last sex and consistent condom use with all partners were highest among FSW compared to MSW and PWID.

Majority of KP (91%) would pay for condoms if free condoms are withdrawn. The willingness to pay is higher among FSW compared to the MSM group. In addition, willingness to pay reduces with increase in the price of condoms. KPs would continue to use condoms by purchasing condoms at nearby stores. About 1.9% will seek free condom at another location, while 2 percent would stop having sex.

Figure 4.15: Consistent condom use among key populations by type of sexual partner, IBBSS 2014



An analysis of consistent use of condom among KPs by type of sexual partner showed that consistent condom use was lower when key population groups have sex with regular partner/spouse and boyfriend/girlfriend than when they have sex with commercial partner and with casual partner. Sex with regular partner/spouse or with boyfriend/girlfriend was considered "low risk sex" while sex with commercial partner or with casual partner was considered "high risk sex".

4.4Prevention of New HIV Infections among Key Populations

4.4.1 HIV Prevention Strategy for Key Population

1. One Stop Shops (OSS) were established to provide complete package of HIV prevention, treatment and care to key populations. OSS provides opportunity to reduce stigmatization and discrimination
2. The Minimum Prevention Package Intervention (MPPI) is an opportunity to provide a combination of different prevention interventions to various populations (key, general and vulnerable). These interventions are being provided in such a way that the dose, intensity and strategy are meant to lead to behavioural change.

4.4.2 Programmatic Response to HIV Prevention among Key Population

- National Situation and Needs Assessment of HIV and AIDS, Drug Use and Related Health Services in Nigerian Prisons (UNODC, 2019) was implemented to generate data/evidence.
- Situation and Needs Assessment of HIV and AIDS, Drug Use and Related Health Services in Borstal Institutions in Nigeria (UNODC, 2019) was implemented to generate data/evidence.
- Technical Guide for Countries to Set Targets for Universal Access to HIV Prevention, Treatment and Care for Injecting Drug Users (WHO, UNODC, UNAIDS 2013)

- Nigeria's National Drug Control Master Plan (NDCMP) 2015 to 2019 (UNODC Drug use survey, 2018)
- UNODC supported (equipment, capacity building of Master Trainers and health workers, refurbishment in 2019) with 11 model treatment centres and 8 CSOs supported community-based drug treatment centres.
- National Guidelines for the Implementation of HIV Prevention Programmes for Key Populations (FSW, MSM and PWID).
- Organisations such as Heartland Alliance and Society for Family Health have different programmes addressing prevention and treatment needs of key populations
- Advocacy toolkit for HIV Prevention Programming for People Who Inject Drugs is in place.
- IEC Materials developed for KP by USAID in different languages. Printed and disseminated
- One-stop-shop model for the delivery of HIV prevention and treatment services for KP is being implemented in some states with support from USAID and GF.
- Harm reduction for PWID is being strengthened with the implementation of needle and syringe programme. Provision of naloxone is being piloted by SFH with support from the GF. An assessment is planned to guide the opioid substitution therapy. A Harm Reduction TWG has been established with representation key stakeholders across sectors to guide the development of a harm reduction strategy for Nigeria.

Programmatic Gaps

- Programmatic responses were not at scale
- Sustainability of program may be a challenge
- Non-implementation of a comprehensive package of HIV prevention, treatment and care intervention in prisons and other closed settings in Nigeria
- Current data from IBBSS is out of date to guide HIV programming among KPs
- The MPPI has not been evaluated for efficiency, effectiveness and impact. This is necessary step towards the review of the package.
- Inadequate tools (guidelines and assessment tools) for appropriate targeting of HIV prevention interventions to maximise impact.
- Difficulty in accessing KP routine data on prevention and treatment programmes

Recommendations

- Strategic partnerships for scale-up and sustainability of response
- There is urgent need to IBBSS 2020 to generate current evidence for programing among KPs with special focus on adolescent and young key populations.
- MPPI needs to be evaluated immediately
- Development of tools (guidelines and assessment tools) for appropriate targeting of HIV prevention interventions.
- There is a need to invest in effective and efficient routine data collection method and database to improve KP prevention and treatment programmes

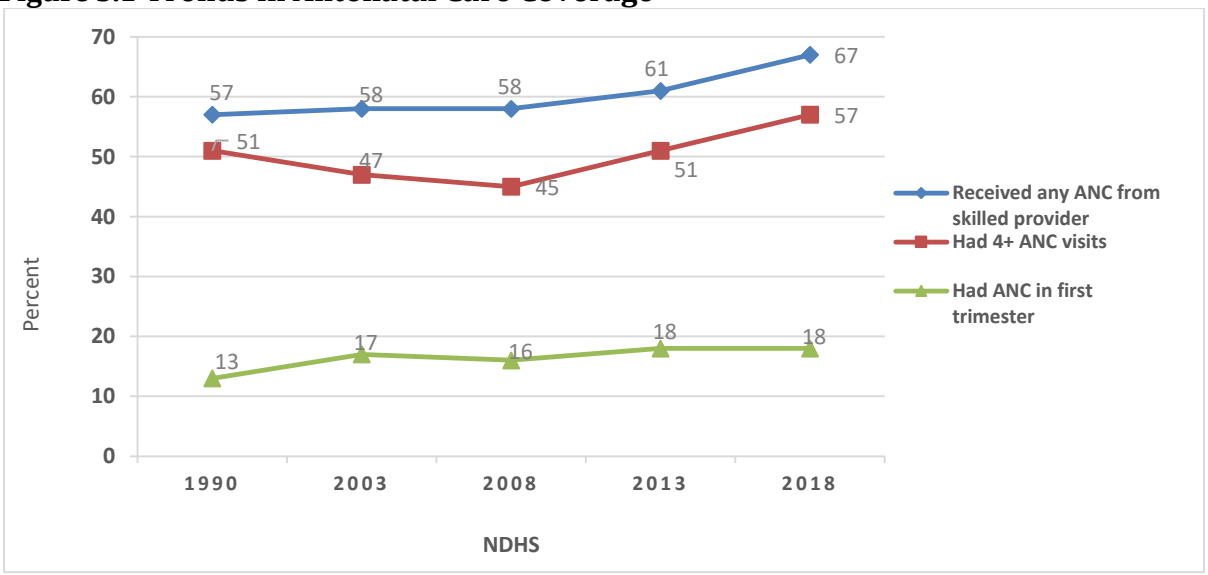
CHAPTER FIVE: HIV, PREGNANT WOMEN AND CHILDREN IN NIGERIA

5.1 Introduction

Globally, Mother-to Child Transmission (MTCT) accounts for 90% of HIV infections in children(Adetokunboh & Oluwasanu, 2016). It is the main source of HIV infection in children during pregnancy, labour and breast feeding, and accounts for about 20% of all new infections. Nigeria had an estimated 21,002 new HIV infections in 2019 and 21,340 in 2018 among children aged 0-14 years. The 2018 new infections accounted for about 15% and 41% of the global and regional infections respectively. Thus, Nigeria has the highest number of new HIV infections among children in West and Central Africa region.

Prevention of Mother-to-Child Transmission (PMTCT) of HIV services in Nigeria is of national priority. PMTCT has experienced gradual scale-up in public and private health facilities at all levels with spread across the country bringing the number of sites providing PMTCT services to over 6000 by the end of 2018. However, the number of facilities providing PMTCT in the last three years has been on the decline from 6363 in 2017, 6301 in 2018 and 5564 in 2019. This may be due to some implementing partners closing down facilities that were not yielding the required results despite allocated resources. The cumulative number of women who have benefitted from lifesaving antiretroviral drugs for PMTCT were 13,000 in 2006 to 421,195 in 2019.

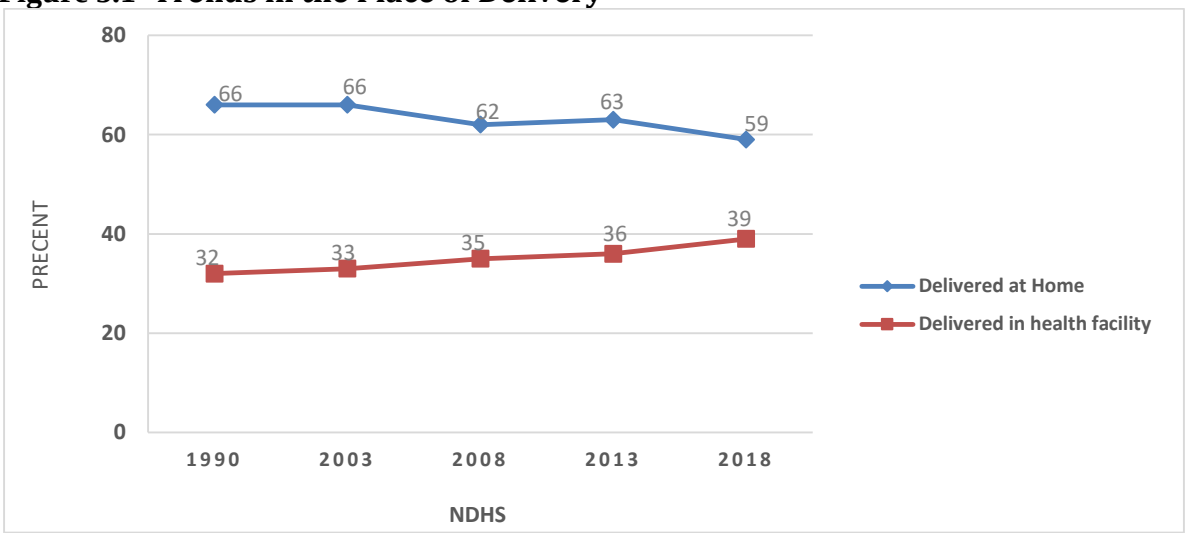
Figure 5.1 Trends in Antenatal Care Coverage



There are four pronged approach in implementing PMTCT services namely: primary prevention of HIV infection among women of reproductive age; prevention of unwanted pregnancies among HIV-positive women; prevention of HIV transmission from HIV-positive mothers to their children; and provision of care and treatment for HIV-infected mothers and their children. One of the ways of improving the third prong is to increase antenatal care (ANC) attendance. This will ensure that pregnant women undertake ANC and are tested for

HIV. Hence, ANC is a vital entry point to PMTCT. In Figure 5.1 above, NDHS 2018 shows that only 18% of pregnant women had ANC at first trimester, 57% had four or more ANC visits and 67% received ANC from skilled birth providers. With an ANC coverage of 67%, that means about 33% of pregnant women are not utilising ANC service in Nigeria. These are missed opportunities for the provision of PMTCT services during pregnancy. Although percentage increase in ANC coverage from 2013 to 2018 was only about 10% and for pregnant women that received four or more ANC visits was about 12% from 2013 to 2018, interventions to increase demand for our ANC services are crucial to improving maternal and child health.

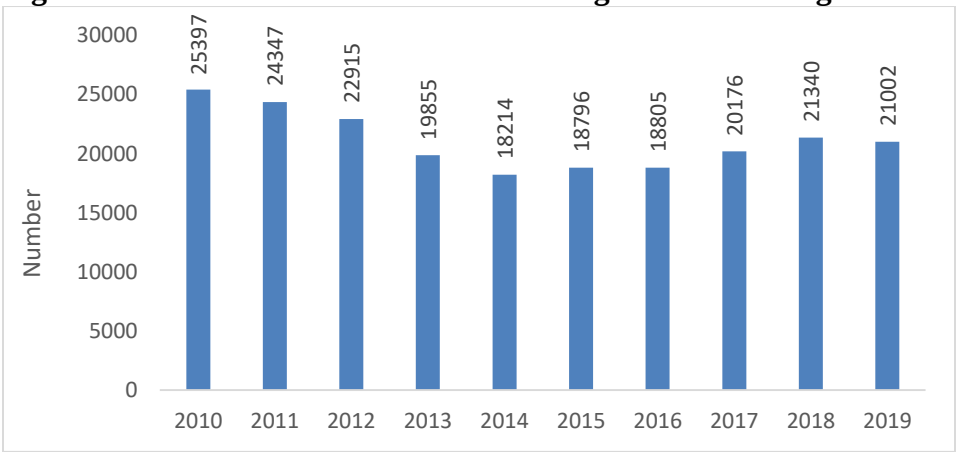
Figure 5.1 Trends in the Place of Delivery



Another critical period of HIV transmission is labour. Sadly, the current health facility delivery of 39% is still very low. More pregnant women deliver at home (59%) compared to health facility (39%) from NDHS 2018.

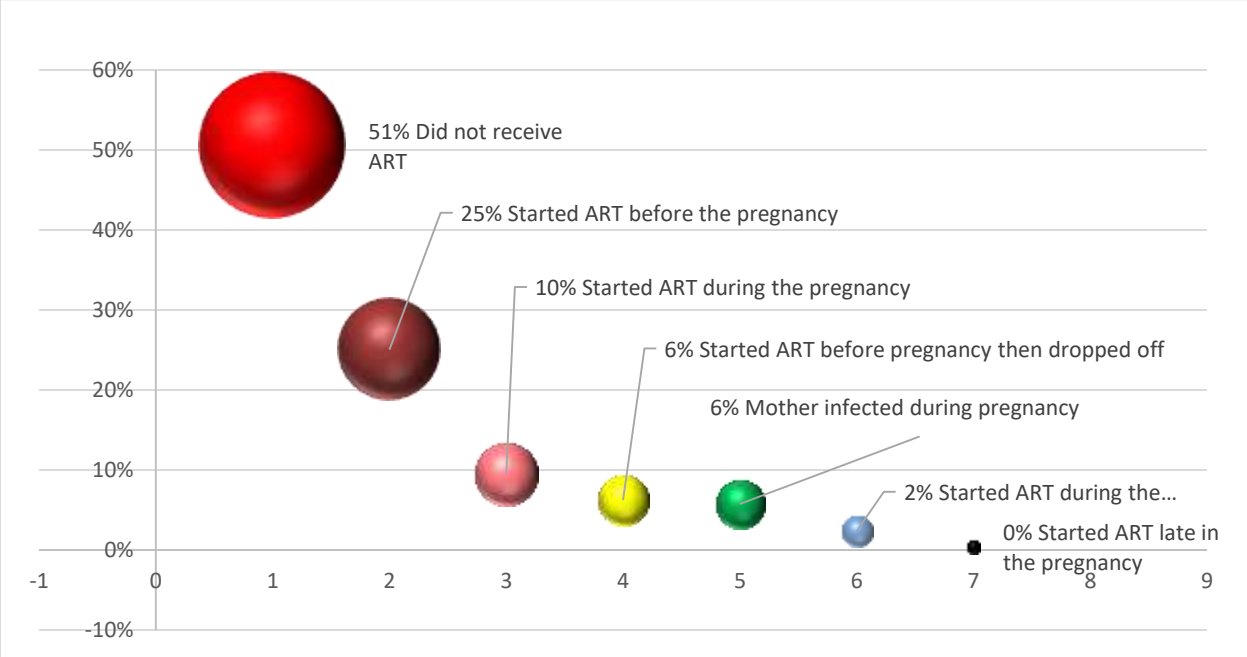
5.2 Sources of New Infections among Children

Figure 5.3 Number of New Infections among Children in Nigeria from 2010 to 2019



From 2010 to 2019, there was about 17.3% decrease in new infections among children in Nigeria with the lowest in 2014. Currently, about 21,000 new infections occurred among children in 2019 of which mother to child transmission was the main route of transmission.

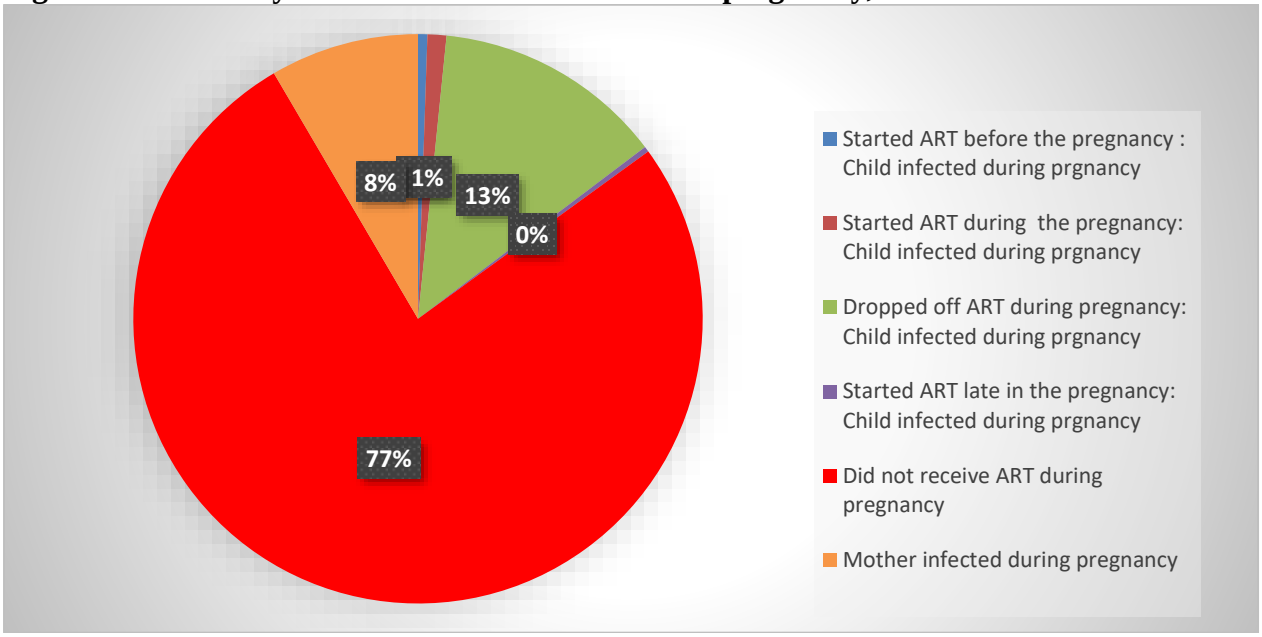
Figure 5.4 Proportion of MTCT by source among pregnant women 2019



Source: UNAIDS Nigeria 2019

Figure 5.4 above shows the importance of ART as a driver of new infections among children. Generally, 51% of new infections among children occurred as a result of pregnant women not receiving ART while 25% occurred among mothers that started ART before pregnancy but not during pregnancy.

Figure 5.5 MTCT by source: New child infections in pregnancy, 2019

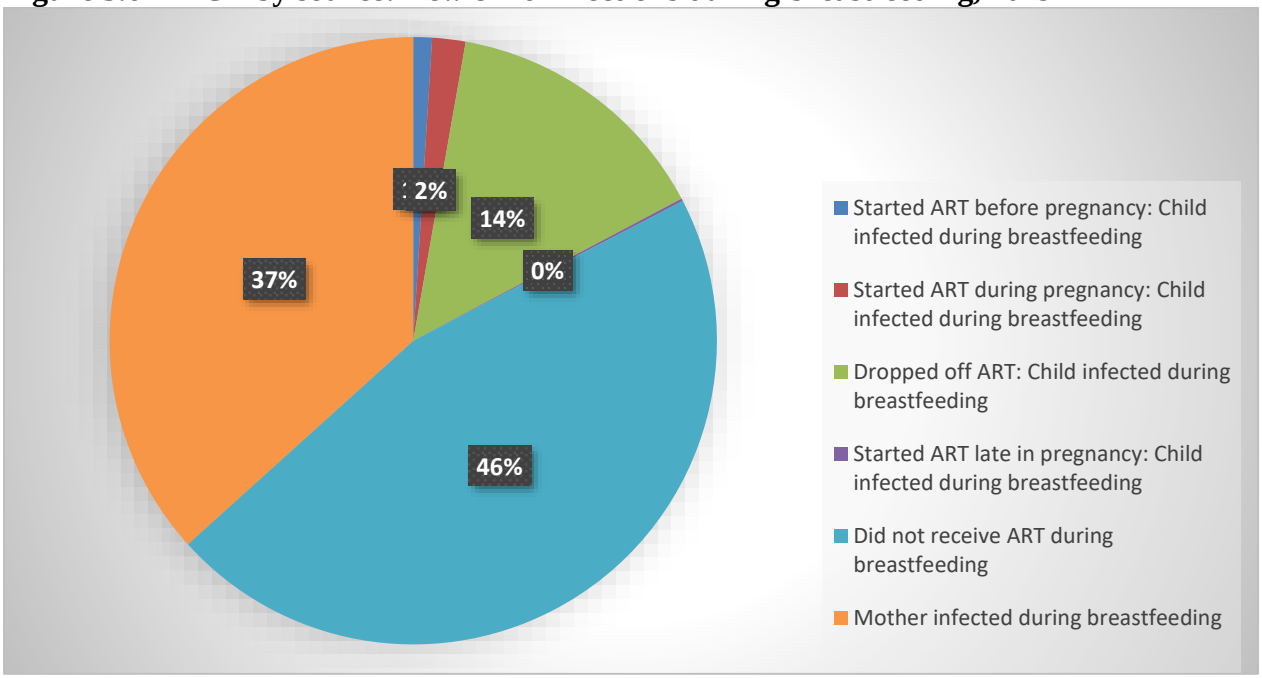


Source: UNAIDS Nigeria 2019

MTCT during Pregnancy

About 12,600 (60%) paediatric infections occurred during pregnancy of which 77% were due to inability of pregnant women to be identified and placed on treatment during pregnancy. About 13% of these infections were from mothers who were stopped ART during pregnancy. Also, 8% of the new infections during pregnancy were from mothers who were infected or seroconverted during pregnancy.

Figure 5.6 MTCT by source: New child infections during breastfeeding, 2019



Source: UNAIDS Nigeria 2019

MTCT during breastfeeding

About 8,400 (40%) new paediatric infections occurred during breastfeeding. Also, 46% of these new infections were due to mothers not receiving ART during breastfeeding. About a third (37%) of these new infections occurred from mothers who were newly infected with HIV during breastfeeding. Additionally, lack of ART among mothers during breastfeeding and newly infected mothers during breastfeeding contribute to a total of 83% of new infections among children.

5.3 Prevention of Mother to child Transmission (PMTCT)

5.3.1 The PMTCT Strategy for Nigeria

The 2016 National Guidelines for HIV Prevention, Treatment and Care recommends lifelong ART for all HIV positive pregnant and breastfeeding women regardless of WHO Clinical Stage and CD4 cell count. These Guidelines are being implemented across the PMTCT sites in the country. For the standalone PMTCT sites, these women on ART are to be transferred to a comprehensive ART site once they complete PMTCT programme for their continued treatment and monitoring. This has led to increased access to improved HIV services for pregnant women across the country.

The strategies that are currently being implemented include integration of reproductive maternal, newborn and child (RMNCH) interventions into PMTCT programme, engagement of community resource persons or community leaders, community outreach programmes to increase ANC attendance etc. Despite these key strategies, there has not been appreciable increase in PMTCT coverage. There is a need to understand barriers or challenges to PMTCT coverage through programme evaluation, operations research and implementation science. This is critical to innovation and targeted scale-up of strategies to improve PMTCT coverage.

The comprehensive package of PMTCT interventions includes HIV testing services (HTS), cervical cancer screening, use of lifelong antiretroviral therapy (ART) for women, care of HIV-exposed infants including early infant diagnosis and linkage to treatment (EID/T), use of antiretroviral (ARV) and cotrimoxazole prophylaxis for mother-infant pairs, and family planning services. It has also incorporated screening and management of tuberculosis.

5.3.2 PMTCT Targets, Coverage and Treatment Cascade

National PMTCT Program Target

By the end of 2025,

- 90% of the population have knowledge of mother-to-child transmission of HIV by 2025
- 90% of the population have knowledge of prevention of mother-to-child transmission of HIV by 2025
- 100% of ANC facilities offering PMTCT by 2025
- 90-90-90 for PMTCT by 2025

Figure 5.7 National PMTCT Coverage from 2010 to 2019

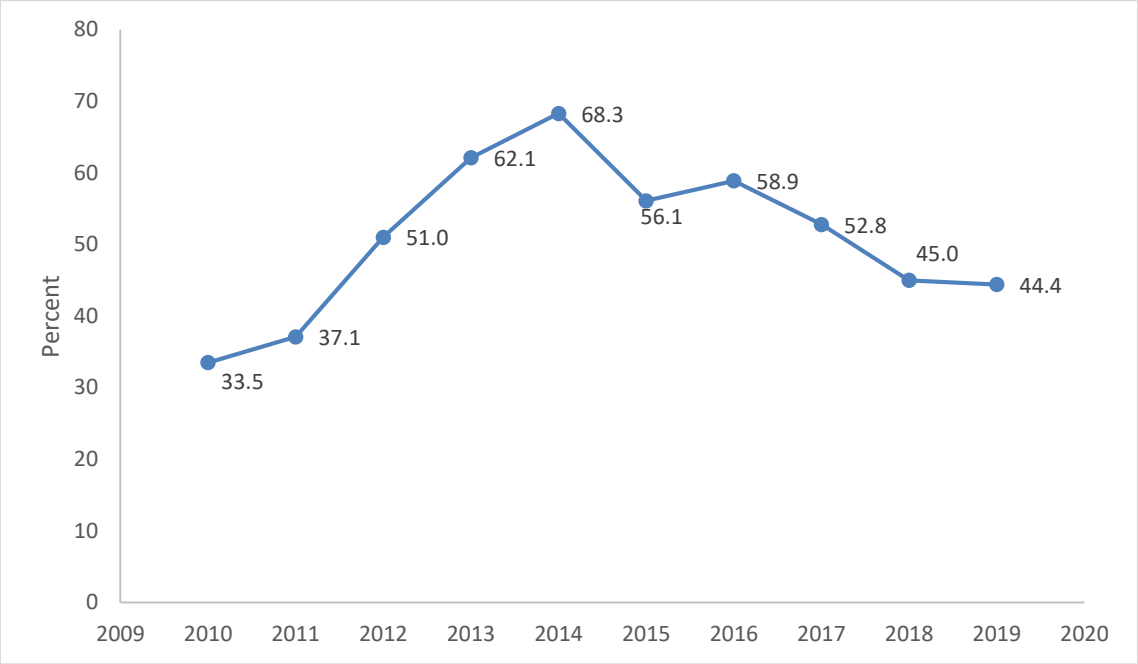
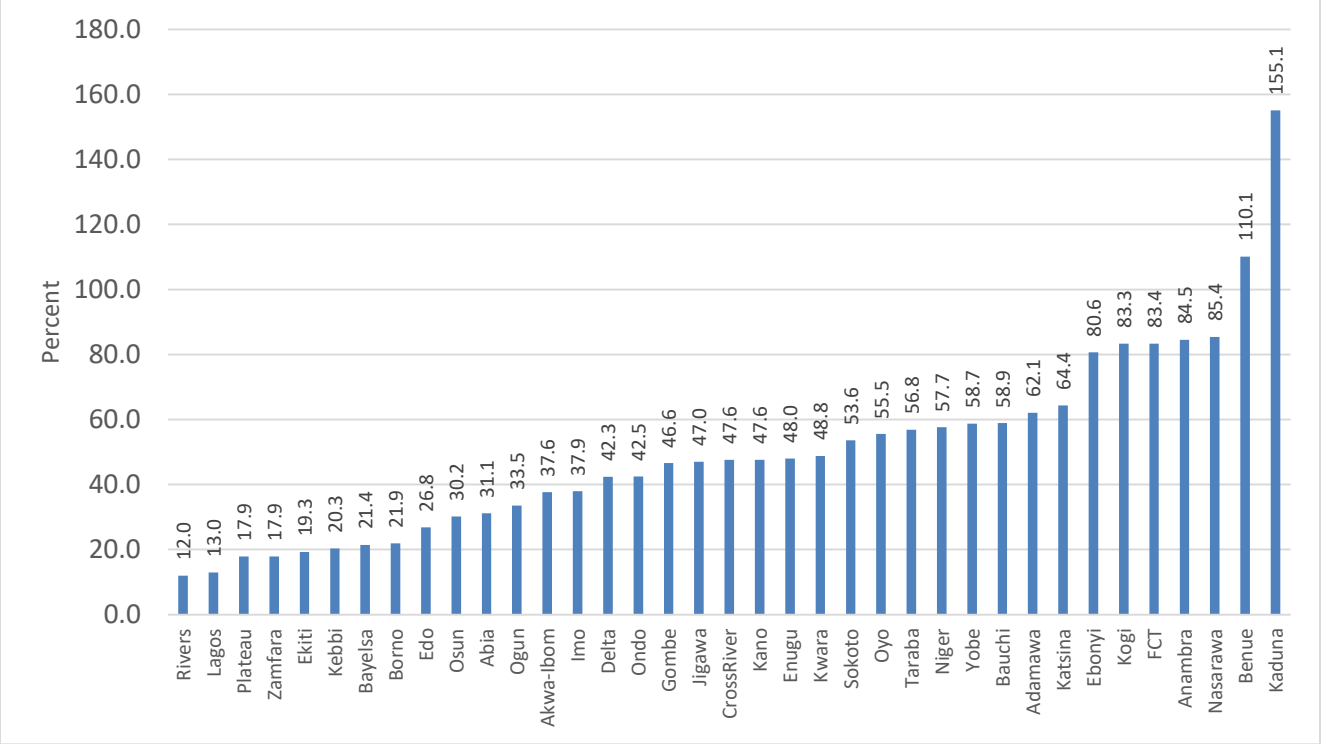
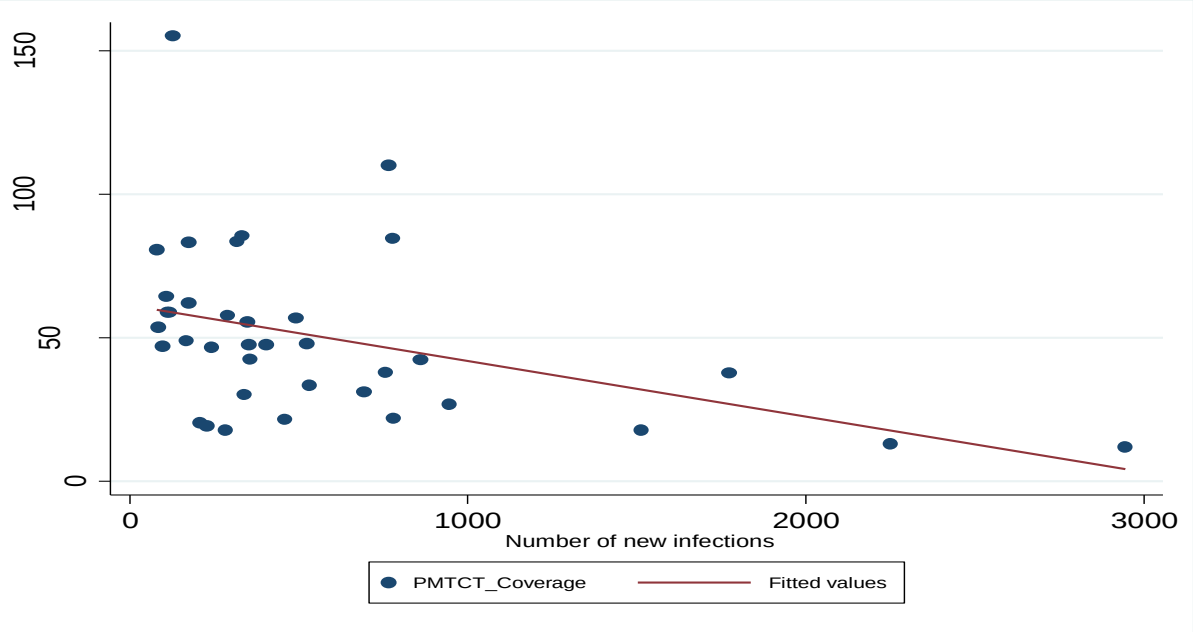


Figure 5.8: PMTCT Coverage in 2019 by States



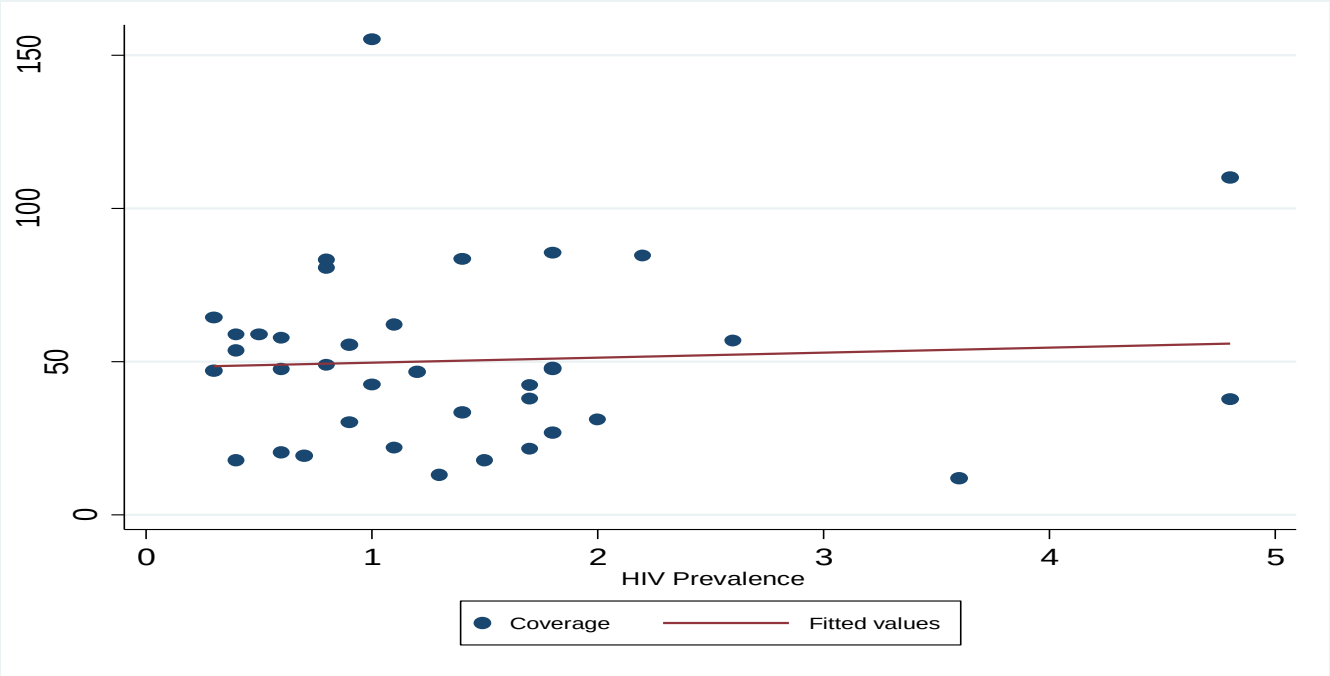
Kaduna has the highest coverage of 155.1% followed by Benue 110.1% while Rivers State has the least coverage of 12.0%. The over coverages in Kaduna and Benue may be due to pregnant women from other states accessing PMTCT services in these states or the reference populations used for spectrum modelling was lower compared to actual populations.

Figure 5.9: Relationship between PMTCT Coverage and New Infections among 0 – 4 years



As the PMTCT coverage increases, the number of new infections among children 0 – 4 years in States decreases with a Pearson correlation coefficient of -0.411 and a p-value of 0.012. Thus, increasing PMTCT coverage is critical to elimination of mother to child transmission of HIV as there is a statistical significant relationship between PMTCT coverage and under-five new infections.

Figure 5.10: Relationship between PMTCT Coverage and HIV Prevalence by States

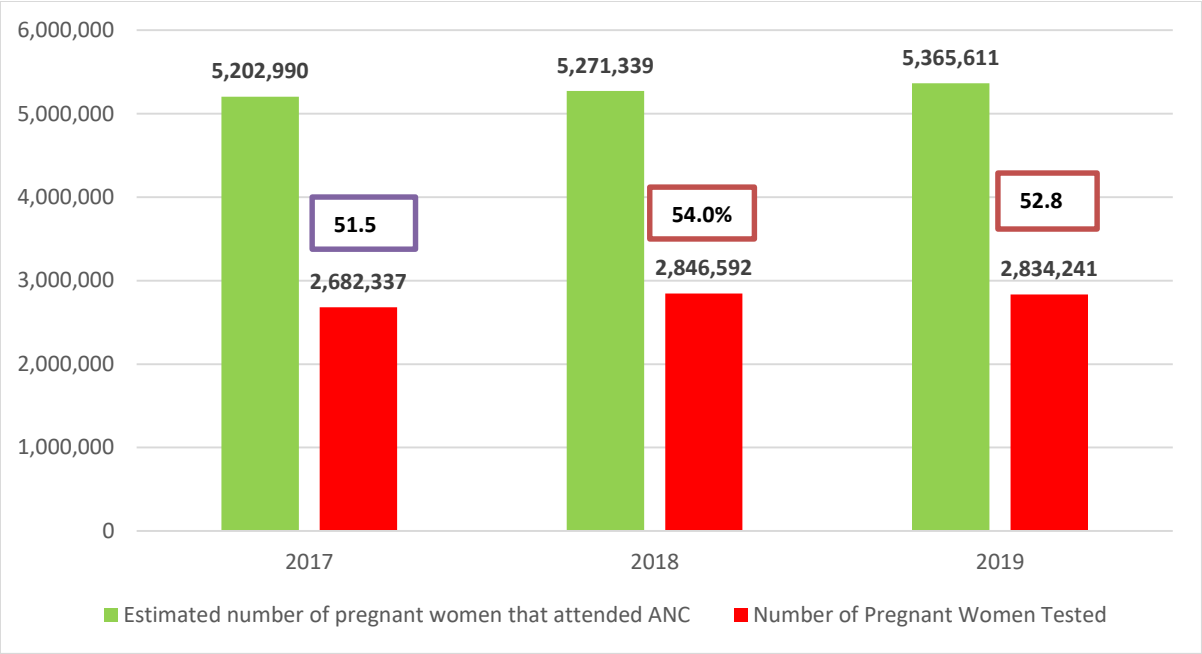


The Pearson correlation coefficient is 0.06 with a p-value of 0.727. There is no linear relationship between PMTCT coverage and HIV prevalence.

5.3.3 PMTCT Cascade

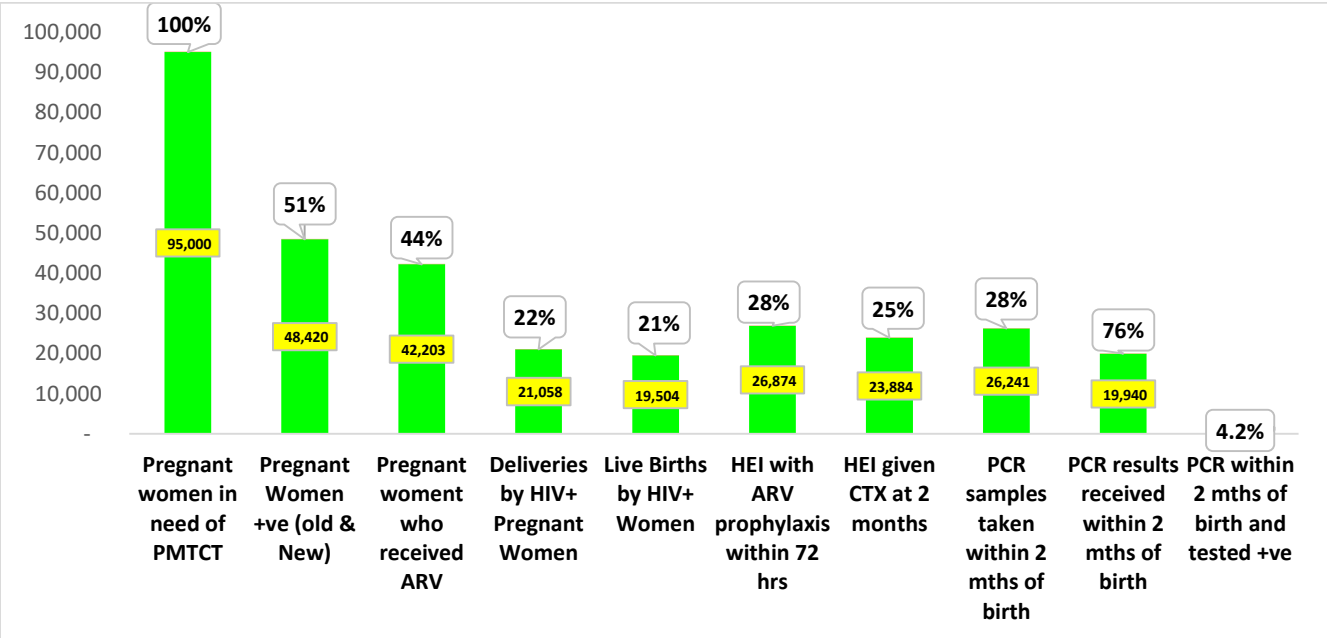
The PMTCT cascade represents a complex system of sequential, interdependent steps that pregnant HIV-infected women pass through to receive appropriate care and treatment for themselves and their newborns. The sequential steps include antenatal care attendance, HIV counselling and testing, prophylactic antiretroviral medicines, safe delivery, safe infant feeding, infant ARV and initiation of opportunistic infections (OI) prophylaxis, infant follow-up including HIV testing, and family planning. The PMTCT cascade provides an effective tool to visualize prevention efforts in MTCT and to identify opportunities for closing cascade gaps. The NDHS 2018 report showed that 67% received ANC from skilled provider. The first point of attrition in the Nigerian PMTCT cascade is pregnant women attending ANC. Using this figure of 67% as an adjustment factor, the estimated ANC number for 2017-2019 are (5,202,990), (5,271,339) and (5,344,552) respectively. This is expected to provide the baseline figure for population-based ANC coverage and PMTCT Testing coverage.

Figure 5.11: Comparing Estimated Number of Pregnancy and Number of Pregnant Women Tested Using 67% ANC Coverage from NDHS 2018



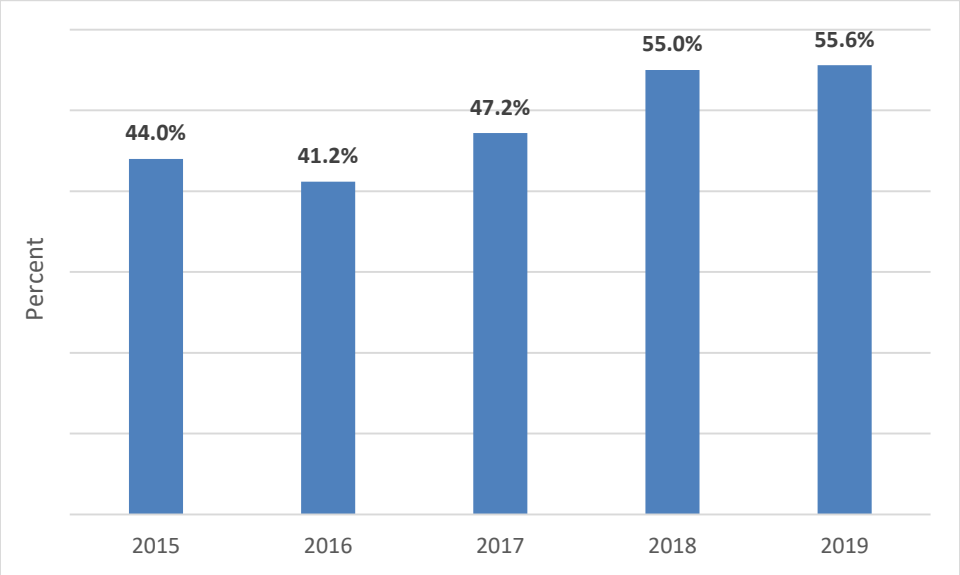
There is still a huge gap between estimated number of pregnant women and number of pregnant women tested for HIV in health facilities.

Figure 5.12: PMTCT Cascade 2019



Of about 95,000 pregnant women needing PMTCT in 2019, only 44.4% received ARV, of which 22% of HIV positive pregnant women delivered in health facility. Sadly, only 4.2% of the children had PCR test done within two weeks of birth for HIV.

Figure 5.13: PMTCT Unmet Needs



PMTCT unmet needs in 2019 was above 50% which is a threat to elimination of mother to child transmission of HIV.

5.3.4 Availability of PMTCT services in Nigeria

Availability of services to pregnant women is critical to prevention of mother to child transmission of HIV. Between 2017 and 2019, there was a gradual decline in the number of health facilities providing PMTCT services in-country. During this period, 799 health facilities were no providing PMTCT services. The number of pregnant women who received HIV testing services decreased by 12,351 from 2018 to 2019. Overall, coverage of PMTCT services has declined and gap in unmet need among pregnant women is wide.

Table 5.1: Analysis of PMTCT Services in Nigeria from 2017 – 2019

PMTCT Indicators	2017	2018	2019
Number of facilities providing PMTCT services	6,363	6,301	5,564
Number in need of PMTCT services	94,288	94,694	94,957
Number of women tested for HIV	2,682,337	2,846,592	2,834,241
Number of women newly tested positive	24,107	17,205	13830
Number of previously known HIV positive pregnant women	40,434	36,021	36,619
Number of women that received PMTCT ARV prophylaxis	49,778	42,653	42,203
Number of positive pregnant women identified (old+New+Sero conversion)	64,811	53,461	54,051
Percentage coverage of PMTCT (Spectrum)	52.8	45.0	44.4

PMTCT unmet need among pregnant women (Number)	44,510	52,041	52,754
Number of HIV exposed newborns that received ARV prophylaxis (before 72hrs)	28,277	24,858	26,874
Number of HIV exposed newborns that had EID before 2 months of birth	19,927	22,977	19,940

Sources: The Annual Health Sector Report and 2019 Spectrum file

5.3.5 HIV Exposed Infants and EID coverage

Figure 5.14: Nigeria MTCT Rates from 2010 – 2019

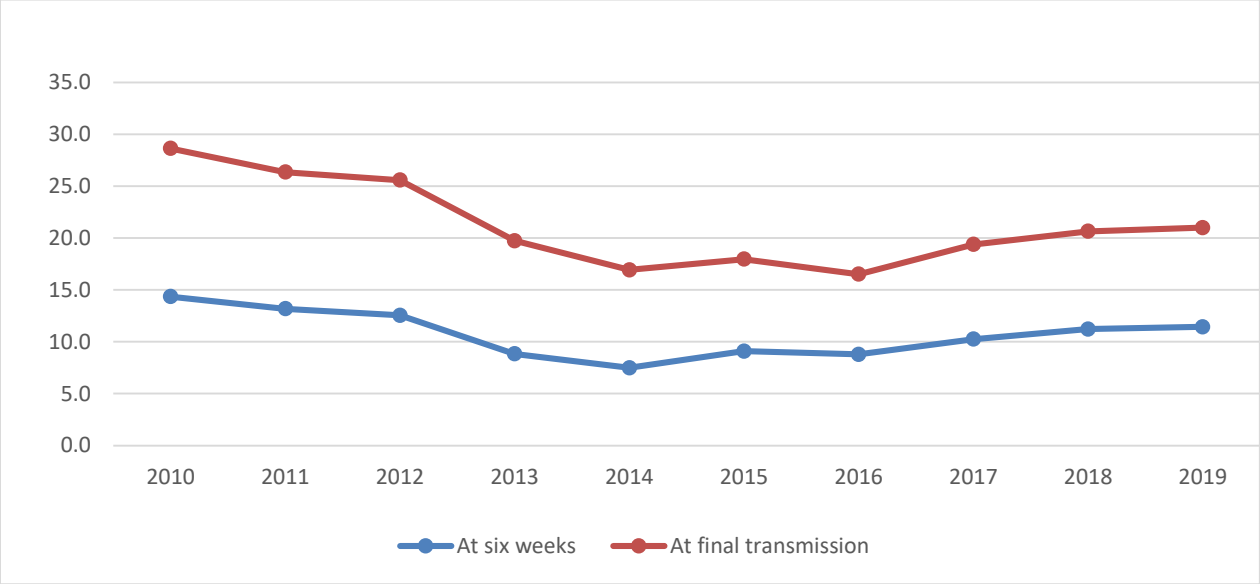


Figure 5.14 shows the trend in MTCT rates at six weeks and at final transmission in the country from 2010 to 2019. The MTCT rate at final transmission progressively declined from 28.6% in 2010 to 21% in 2019. Despite this decline, 21% is not acceptable for a country with huge population size like Nigeria. This implies that PMTCT strategies need to be improved and gains made in recent years sustained in order to achieve eMTCT. Compared to the final transmission rate, MTCT rate at six weeks followed the same trend over the same period but half the rate at final transmission. This implies that one in every two transmissions from mother to child occurred after 6 weeks of life and suggesting the need for improved mother support and education as well as other high impact strategies to reduce postnatal transmission.

Gaps

- Nigeria has low PMTCT coverage
- Gap in collection of data on linkage to care for HIV positive babies from the EID intervention
- Gaps in tracking HIV transmission during breastfeeding period

Recommendations

- There is a need for innovative approaches in increasing coverage. Nigeria needs to conduct a number of implementation science research at national and sub-national levels to understand barriers to implementation and recommend ways to overcome these barriers.
- More than before, integrated services with maternal and child health, and family planning programmes need to be strengthened to improve ANC attendance and institutional delivery
- Community level PMTCT interventions are necessary towards finding HIV positive pregnant women
- Nigeria needs to strengthen routine data collection to improve PMTCT data reporting.
- Seroconversion during pregnancy or breastfeeding should be addressed with repeat testing in the third trimester as well as in the postnatal period.
- Innovative strategies are needed to improve EID coverage.
- Adherence to ART should be strengthened during breastfeeding.

CHAPTER SIX: GENDER, HUMAN RIGHTS AND HIV IN NIGERIA

Gender and Human Rights Situation in Nigeria

6.1.1 Legal and Policy Engagement

The Sustainable Development Goal (SDG) 3, target 3.3 has a mandate to end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases by 2030. To achieve this mandate, it is important that no one is left behind. Despite recent improvements in coverage of HIV services in many parts of the country, evidence continue to show that certain groups are being left behind and may have poor access to health-related services because of social, legal, cultural and policy constraints. These groups include: Sex Workers, Men who have Sex with Men, People Who Inject Drugs, persons with disabilities and indigent women. While HIV prevalence in Nigeria is 1.3% among persons of reproductive ages 15-49 years, the prevalence among female doubles that of male counterparts with 1.7% for females and 0.8% for males. HIV prevalence among the key populations is even higher than national average.

6.1.2 Core Human Rights

Core human rights principles as discussed below play key roles as social, economic, and environmental determinants of health and access to health and other social services. Hence, they are expected to be applied for effective and robust response to HIV and other related health conditions:

- ***Interdependence and Interrelatedness:*** Human rights are interdependent and interrelated. Each one contributes to the realization of a person's human dignity through the satisfaction of his or her developmental, physical, psychological and spiritual needs. The fulfilment of one's right often depends, wholly or in part, upon the fulfilment of others. For example, fulfilment of the right to health may depend, in certain circumstances, on fulfilment of the right to development, to education or to information.
- ***Equality and Non-discrimination:*** All individuals are equal as human beings and by virtue of the inherent dignity of each human person. No one, therefore, should suffer discrimination based on race, colour, ethnicity, gender, age, language, sexual orientation, religion, political or other opinion, national, social or geographical origin, disability, property, birth or other status as established by human rights standards.
- ***Participation and Inclusion:*** All people have the right to participate in and access information relating to the decision-making processes that affect their lives and well-being. Rights-based approaches require a high degree of participation by communities, key and vulnerable populations, civil society, minorities, women, young people, persons with disabilities etc.
- ***Accountability and Rule of Law:*** States and other duty-bearers are answerable for the observance of human rights. In this regard, they must comply with the legal norms and standards enshrined in international human rights instruments. Where they fail to do so, aggrieved rights-holders are entitled to institute proceedings for appropriate redress before

a competent court or other adjudicator in accordance with the rules and procedures provided by law. Individuals, the media, civil society and the international community play important roles in holding governments accountable for their obligation to uphold human rights.

6.1.3 Access to Justice

Access to justice is a basic principle of the rule of law. In the absence of access to justice, people are unable to have their voice heard, exercise their rights, challenge discrimination or hold decision-makers accountable. Lack of access to justice perpetuates violations of rights of individual. Access to justice involves normative legal protection, legal awareness, legal aid and counsel, adjudication, enforcement, and civil society oversight. Access to justice supports sustainable peace by affording the population a more attractive alternative to violence in resolving personal and political disputes. It covers rights of the court as a fundamental human right such as freedom of speech. Access to justice is based upon the basic principle that people should be able to rely on the correct application of law.

It is therefore important to have popularization of the positive laws such the HIV and Anti-Discrimination Act (2014), The Violence against Persons Prohibition (VAPP) Act (2015), Administration of Criminal Justice Act (ACJA) (2015).

Structural Barriers

- ***Cultural barriers and Norms:*** The National Strategic Framework identify certain cultural practices that increase HIV vulnerability among the general population in Nigeria. These include female genital mutilation (FGM), denial of women's access to inheritance, widowhood rites, encouragement of multiple sexual partners for males, and marriage of young girls to much older men. In addition to these, stigma remains a key barrier to the HIV response in Nigeria, with 51.8% (52.5% in females and 49.5% in males) reporting that they would not buy vegetables from a shopkeeper living with HIV, in 2018 (NDHS 2018). As such reducing stigma and discrimination has been identified as being a key action point for the country in the West and Central Africa catch-up plan.
- ***Legal barriers*****:** In early 2015, President Jonathan signed a new anti-discrimination bill into law which secured the rights of people living with HIV, protecting HIV-positive employees from unfair dismissal and from mandatory HIV testing. However, in 2016 UNAIDS reported that 21% of people living with HIV had been denied access to health services and reproductive health services due to their status. To identify and address issues surrounding legal barriers, the 2014 Legal Environment Assessment for HIV/AIDS Response in Nigeria led by National Agency for the Control of AIDS (https://naca.gov.ng/legal-environment-assessment-on-hiv-aids-in-nigeria-2015/) revealed among other things, that the lack of respect for the fundamental human rights is a key factor for the disproportionate prevalence of HIV among key and vulnerable populations. This assessment necessitated the development of a National Plan of Action (https://hivlawcommission.org/wp-content/uploads/2017/07/undp-rba-hhd-2016-nigeria-removing-legal-and-human-right-barriers-to-hiv-and-aids.pdf).The Plan of Action guides coordinated efforts to remove legal

and human rights barriers to HIV services in Nigeria, especially among key and vulnerable populations thereby fast-tracking the achievement of the 90-90-90 targets and ending AIDS by 2030.

- ***Infrastructural barriers:*** Inadequate number of health facilities that delivers HIV services (testing sites, PMTCT sites, and treatment sites) presents problems for the Nigerian population. Another area is in blood transmission to ensure availability, accessibility and safety of blood. Although rates are low, blood transfusion and unsafe medical injection have the potential to contribute to new cases of HIV. By 2021, NACA aims to ensure that 100% of blood transfusions and blood products are safe.

  Key and vulnerable populations (K&VPs) may not be able to access some of these services because of attitudinal and structural barriers including stigma and discrimination against K&VPs especially by health care workers which negatively could impact on their health.

6.1.4 Gender Inequalities and Inequities (KP, Women and Girls)

In Nigeria, it is estimated that about 58% of the people living with HIV are women. Part of the reason why so many more women and girls are affected by HIV is the deep roots that gender inequality has in Nigerian society, culture and law.

In the most recent rankings, Nigeria was placed 122nd out of 144 for the size of its 'gender gap', meaning that it is has one of the most unequal balances of power between men and women in the world. Gender power imbalances mean that women often face barriers in dictating their own sexual partner selection, use of contraception, number and spacing of children, and their own healthcare, all of which may put them at greater risk of HIV.

Barriers to land ownership disadvantages women. Although women have land rights, their rights are weaker than men's. This is not only economically disempowering but puts pressure on women to give birth to boys, leading to a high fertility rate of 5.3 children per woman. Women who have girls first, are likely to have more children, not use contraceptives, have short periods between pregnancies, and be subjected to polygamy. All of these increase a woman's vulnerability to HIV.

Women who are married or living with their partners have HIV prevalence of 1.4%, and widows have HIV prevalence of 9.1% which is the highest of any group based on relationship between HIV and marital status. This can be further worsen by lack of economic opportunities and high rates of sexual exploitation.

Although Nigeria has several strategies on gender equality and HIV, less than 1% of spending on HIV goes towards them. In 2015, the National Agency for the Control of AIDS developed a set of Guidelines to help make gender part of the mainstream HIV response, aiming to raise awareness among health practitioners on issues around gender inequality and how to address these issues in their HIV programming. Reducing violence and coercion, and increasing legal protection for women and girls, are particular areas of focus for reducing HIV risk among women and girls.

In the Global Fund 2017-2022 Strategy, one of the four core objectives are to promote and protect human rights and gender equality. Reports in-country have shown that lack of respect for human rights as well as particular HIV related stigma and discrimination have serious implications for HIV spread and impact on individuals and communities. Promoting human rights and gender equality is essential and effective response to the control of the epidemic in the country.

Key and vulnerable populations often experience human rights violations, and this is prohibited by international human rights law and principle of public health, the National Health Act and the Constitution of Federal Republic of Nigeria (1999) as amended. The human rights violations of key and vulnerable populations can be reduced through the enactment of protective legislations, robust enforcement of protective policies, training of service providers (health care professionals, teachers, police, judiciary) on non-discrimination in the context of HIV, educating people about relevant rights and laws, promoting contact between those discriminated against and those discriminating, and providing access to comprehensive HIV services for key and vulnerable populations.

6.2 Stigma and Discrimination

Widespread stigma and discrimination in a population can adversely affect both people's willingness to be tested and their adherence to antiretroviral therapy (ART). Thus, reduction of stigma and discrimination in a population is an important indicator of the success of programmes targeting HIV/AIDS prevention and control.

Stigma and discrimination can limit access to HIV/AIDS prevention, treatment and care by those who need such services. The percentage of persons who demonstrated favourable attitude towards PLHIV has dropped slightly from 12.8% in 2008 to 12.4% in 2013 (NDHS 2008, 2013). Discriminatory attitudes towards PLHIV were 59.4% and 58.1% for female and male aged 15-49 years respectively. In urban area, discriminatory attitudes towards PLHIV were 57.4% and 57.1% among female and male respectively, while in rural area it was 61.2% and 59.1% among females and males respectively (NDHS 2018). Favourable attitude towards PLHIV was higher in urban areas (14%) than rural areas (11%) (NDHS, 2013).

Key Summary:

- HIV stigma is prevalent and is an ongoing part of daily life for people living with HIV, young people, and key populations
- Inadequate programmes for stigma and discrimination issues at national and sub-national levels
- No national indicators for HIV stigma and discrimination to measure the impact of S&D
- Weak enforcement and implementation of the HIV Anti-Discrimination Act (2014)
- Lack of data on AYP and persons with disability living with HIV

6.3 Gender-Based Violence (GBV)

Studies have demonstrated strong links between gender-based violence (GBV) and HIV infection with violence as a risk factor for HIV as well as a consequence of being HIV positive (Andersson N, 2008) (Anna M. Leddy, 2019). About 35.6% of women across the world have experienced either non-partner sexual violence or physical or sexual violence by an intimate partner or both (WHO, 2017). Gender-based violence and gender inequality are important risk factors of women's HIV risk. In Nigeria, women and girls abducted by the insurgency groups are forced to marry and endure physical and psychological abuse, forced labour, and rape in captivity. More than 500 Nigerian women and girls have been abducted since 2009. Forced sex may increase the risk of HIV transmission among women due to lacerations. Women dreading or experiencing violence, are less likely to negotiate for safe sex, go for HIV testing, share their HIV status and access treatment. Women (45%) who ever experience physical or sexual violence did not seek help from any source or tell anyone about the violence. Current gender roles also compromise men's health by encouraging them to equate risky sexual behaviours and violence with being manly. The country developed a plan of action to address GBV and HIV (2015- 2017) based on the findings of the Gender Assessment of the National HIV/AIDS (2013) and the mapping of laws, services and intervention on GBV and HIV. There is the need to review the action plan and identify critical steps and approaches to address the intersections between GBV and HIV.

6.3.1 Gender Transformative Project Approach

Several efforts have been made to tackle gender and HIV/AIDS related issues in Nigeria. These include: Scaling up of PMTCT; Accelerated PMTCT programmes at PHC and community levels; and giving attention to KPs, women, young people, vulnerable children (VC); mainstreaming gender issues; women empowerment and male involvement in all efforts of the national HIV response; and mobilization of strategic partnership with FBOs, women focused NGOs, traditional rulers, public and private organizations through the office of First Lady and wives of Governors and LGA Chairmen.

Integration of reproductive health and HIV services including comprehensive programmes that address gender inequality in a holistic way and cross-examine the socialization of boys and girls at home and school; involvement of male and female gender focused networks including women and girls with disabilities who have been marginalized; ongoing institutionalization of Gender Management System, which will enable a gender responsive functional system at national and sub-national levels; and gender responsive budgeting in HIV/AIDS programming.

6.4 Livelihoods

The intersection of poverty, gender-based violence and HIV is of public health importance. Conflicts and insurgency are affecting several States in Nigeria with the North-East zone as the epicenter. According to United Nations Commissioner for Refugees (UNHCR) 2018 report, Nigeria has 1,918,508 Internally Displaced Persons (IDP) as at August 31, 2018. Experience in gender mainstreaming in the national HIV response shows that poverty, gender-based violence and other forms of discrimination and inequality increase vulnerability to HIV especially among women and girls. This is further exacerbated by skirmishes, conflicts and insurgency experienced

in some states in the country. Poverty is further escalated due to conflicts, as livelihoods are lost followed by unintended consequences such as sexual violence, rape, forced marriages, unwanted pregnancies and HIV infection. Evidence suggests that economic empowerment as a social protection strategy can improve the response and coping strategies of people infected with and affected by HIV and AIDS. Economic empowerment opportunities could also reduce financial dependence which predisposes indigent persons particularly women and young persons to gender based violence, sexually risky behaviours and HIV infection and non-adherence to treatment among HIV positive persons.

The economic empowerment strategy is equally important in achieving the Sustainable Development Goals of leaving no one behind. Evidence exists that economic empowerment interventions for indigent and vulnerable populations are potent tools for breaking the inter-generational cycle of poverty, particularly for disadvantaged women and young persons. Enabling economic empowerment and providing sustainable livelihoods for this population will reduce the rate of new HIV infections and bring us closer to achieving HIV epidemic control by 2030 (NACA, 2018).

A number of strategies have been put in place to link up and provide economic empowerment and livelihood intervention to indigent PLHIV, key and vulnerable populations including persons with disabilities in Nigeria. Such interventions have been implemented in Benue, Kaduna, Nassarawa, Kano, Lagos, Oyo States and FCT. There are efforts put in place to also ensure they benefit from the Federal Government Social protection programmes.

6.5 Strengthening of Community Systems

The need for community involvement in issues affecting them as well as documented gaps in the public health system has necessitated a greater role for community actors in the health and development of the citizens. The roles of community actors in addressing some of the health challenges that contribute to the burden of the three diseases especially in AIDS, TB and malaria prevention, TB active case finding, supporting community adherence to treatment, fighting stigma and discrimination, creating enabling environment for service uptake irrespective of gender and other social determinants as well as making appropriate referrals cannot be overemphasized.
Community systems are community-led structures and mechanisms used by community members and community-based organizations and groups to interact, coordinate and deliver their responses to the challenges and needs affecting their communities. In the context of health, community systems strengthening (CSS) is an approach that promotes the development and sustainability of communities and community organizations and actors, and enables them to contribute to the long-term sustainability of health and other interventions at community level. The goal is to develop the role of key populations and communities, and community organizations, networks and other actors, in the design, delivery, monitoring and evaluation of services and activities aimed at improving health outcomes.

CSS is a way to improve access to and utilization of formal health services but it is also, crucially, aimed at increased community engagement (meaningful and effective involvement of actors as

well as recipients) in health and social care, advocacy, health promotion and health literacy, health monitoring, home-based and community based care and wider responses to ensure an enabling and supportive environment for such interventions. This includes direct responses by community actors and also their engagement in responses of other actors such as public health systems, local and national governments, private companies and health providers, and cross-sectorial actors such as education, social protection and welfare systems. Improved health is the result of an array of policies, services, and other activities, which are developed and implemented by a wide range of actors. These actors include government or public health systems (made up of public health facilities, regulatory and governance bodies, and state-employed health care professionals), as well as community groups, community-based organizations and networks, non-governmental organizations, faith-based organizations and private sector organizations – both formal and informal. Together, these actors constitute the complex overall system that serves to protect and promote health and human rights.

The community system strengthening is premised on the theories and experiences that shift from individual-level analyses of health practices to aspects that embrace social and environmental opportunities needed to improve health, social and development outcomes. The model proposes that an individual's behaviour and attitude are developed by their interaction with the social environment, especially interpersonal, organizational and community elements. The conceptual model is premised on the notion that good health outcomes are dependent on the product of forces in an environment. Such community-based interventions are expected to foster the accomplishment of appropriate health outcomes by employing processes and strategies that systematically mobilize social resources such as community leaders, social networks, mass communication programmes, and education of small groups. Expectedly, outcomes of such interventions produce social, policy and environmental changes.

In terms of intervention, the community system strengthening framework for the country is in a draft form. There is the need to finalize and deploy it as means of addressing structural and human rights barriers in HIV response and other related diseases such as TB, malaria, and viral hepatitis.

6.6 Implementing a Gender and Human Rights-based approach to HIV

Status of Implementation

- The human rights principles are incorporated into training packages in the national HIV/AIDS response.
- There exist a National Guideline and capacity building manual for gender in the national HIV/AIDS response
- The national HIV response is ensuring human rights responsiveness of all its programmes and intervention by ensuring the human right principles are adhered to as prescribed by the HIV/AIDS National Strategic Framework (2017-2021) and that no one is left behind in expanding the response to achieve the target of ending AIDS by 2030.
- The establishment of Gender and Human Rights State Response Team (GHR-SRT)

in five States and FCT

- Availability of the popular version of the HIV/AIDS Anti-Discrimination Act (2014) with translation into Nigerian languages
- Training of paralegal persons among key and vulnerable populations
- Capacity building for judicial institutions and human rights administrators on HIV, key and vulnerable populations
- Engagement and capacity building to the members of the parliament at federal and state levels
- Support for alternative dispute resolution and litigation such as Coalition of Lawyers on Human Rights (COLAHR) and Lawyers supporting drug related issues
- Publishing of compendium of cases on abuse and human rights violations
- Dedicated funding for KPs organizations for advocacy, capacity building for their members and peer support group interventions including "know your rights" training and education for their peers. NACA worked closely with UNDP Regional Service Centre and Country Office to facilitate this activity as part of the implementation of the GF/UNDP Regional Project to remove legal and human rights barriers to HIV and TB services

Current Gaps

- The Gender Human rights and Care Support Division in NACA embarked on advocacy visits to 12 States in May & June 2019, discovered that some states do not have state HIV policy and workplace policy.
- An in-depth assessment of the law showed that there is the need to review it since some sections of the law reinforced gender inequalities, stigma and discrimination.
- Barriers identified on the domestication and implementation of the Act were the insufficient advocacy to lawmakers, religious/traditional leaders and other critical stakeholders on the importance of the Act and the high level of lack of awareness of the existence of the Act by majority of the Human Rights Administrators in the States.
- Limited multi-sectoral partnership to respond to Gender and Human Rights at state and community levels
- Poor legal and human rights response for vulnerable populations including persons with disabilities, adolescents and young people in their diversity (AYPLHIV, YKPs)
- Poor mechanisms for reporting and addressing human rights violations
- Poor legal and social support for girls and women impacting HIV response
- Lack of data and interventions on hidden populations living with HIV such as older persons and persons with disabilities who are being left behind (Global AIDS Report – UNAIDS 2018)
- Inadequate funding of GHR at all levels
- Poor access and support from trained law enforcement agencies
- Increasing number of KP arrests
- Undefined mechanism to report and manage violations
- Poor dissemination of tools for community legal literacy

- Poor data capture of human right violations of PLHIV, KP and adolescents and young people in their diversity (AYPLHIV, YKPs)
- Limited action on law reforms and poor report on law implementation
- Limited health institutional reforms on stigma and discrimination

Recommendations/Implications of the gaps identified

- Reduction of age of access to service to 14 years
- Improve and include data capture of human right violations of PLHIV including those with disabilities, KP and adolescents and young people in their diversity (AYPLHIV, YKPs)
- Strengthen legal and human rights response for vulnerable populations including adolescents and young people in their diversity (AYPLHIV, YKPs)
- Review and domesticate Anti-Discrimination Act (2014) in states that have not domesticated
- Integrate gender and human rights issues into existing policies
- There is need for National policy on harm reduction
- Integrate GHR into training curricula of legal, medical and paramedics
- Full implementation of the GHR action plan. Conduct mid-term review to identify challenges and barriers to full implementation.
- Integrate mental health, TB and psychosocial support to MHPSS response as outlines in the new HIV/AIDS Community Care and Support Guidelines
- Harmonization of strategies among partners and enforcement of the use of the national guidelines and plans of action to address gender and human rights barriers in the national HIV/AIDS response
- Improved coordination of existing partner strategies
- Intensive popularization of the Act including the translation into simpler versions and language(s); establishment of Gender, Human Rights State Response Team in all States (GHR-SRT) to popularize the positive laws and improve access to justice for those whose rights are violated; High level of advocacy to State relevant stakeholders; and review of some States Acts passed to reflect current developments on Gender and Human Rights programming.
- Integrate opportunities in gender and human rights interventions in HIV response with the TB response based on the report of Legal Environment Assessment of TB and Gender Assessment of TB
- Integrate interventions for older persons and persons with disabilities in all HIV interventions

Reducing Stigma and Discrimination in the HIV Settings

- High level advocacy to policy makers, decision makers and relevant stakeholders.
- Media campaign to reduce stigma and discrimination.
- A total of 17 states and FCT have enacted the 2014 Anti-Discrimination Law
- National stigma reduction strategy 2016 in place (https://naca.gov.ng/national-hivaids-stigma-reduction-strategy-2)

- Popularization of the HIV/AIDS Anti-Discrimination Act (2014) in all states for domestication https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_398045.pdf
- Stigma and discrimination included in the National Strategic Framework and is a cross cutting issue in the national AIDS response (https://naca.gov.ng/wp-content/uploads/2019/03/NATIONAL-HIV-AND-AIDS-STRATEGIC-FRAMEWORK-1.pdf)
- Meaningful engagement of people living with HIV in the development of laws, policies and guidelines
- Capacity building and training of health care providers
- Additional resource (https://www.hindawi.com/journals/art/2017/5812650/erla)

Gaps in the Response to Stigma and Discrimination Reduction Efforts

- Lack of stigma and discrimination data disaggregated by age and sex on adolescent and young people
- Inadequate funding to address the Stigma and Discrimination issues
- Lack of HIV-related stigma and discrimination indicators as part of the national AIDS response and M&E systems to monitor and evaluate progress
- Age discrimination in participation on decision making process and access to services.

Recommendations/Implications of the gaps identified

- Need for a consistent, valid and objective measure of stigma at different levels of the HIV response.
- Conduct a robust assessment to assess knowledge and experience on HIV stigma and discrimination among AYPLHIV and other KP sub populations including persons with disabilities.
- To intensify advocacy, awareness, and enforcement of the anti-HIV discrimination law.
- To develop systems for evaluating the impact of stigma and discrimination reduction programmes at national and subnational levels.
- To fund community component with focus on mitigating stigma and discrimination for people living and affected with HIV, key population, adolescent and young people
- There is the need to institute response system at the State and Community levels for reporting and providing access to justice for stigma and discrimination cases
- Need for support to review stigma and discrimination laws at state level and support capacity building for use of the law while supporting the remaining states to domesticate the law

CHAPTER SEVEN: ROAD TO 90-90-90 TARGET

HIV prevention does not only depend on abstinence, being faithful and use of condom but also in ensuring that all Nigerians are tested to know their status and commence antiretroviral therapy for all HIV positive individuals. The knowledge of HIV status is paramount to ending the HIV epidemic.

The term HIV Testing Services (HTS) is used to embrace the full range of services that should be provided together with HIV testing-counselling (pre-test counselling and post-test counselling); linkage to appropriate HIV prevention, treatment and care services and other clinical and support services; and coordination with laboratory services to support quality assurance and the delivery of correct results (https://naca.gov.ng/hts-trainers-manual/HTS-Training-Manual).

HTS serves as a point of entry to HIV care, and treatment. The National HTS guideline 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.

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 HTS 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 UNAIDS 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 targets by 2020. Achieving the 1st 90 target is key to attaining the second and third UNAIDS 90-90-90 targets by 2025.

7.1 Achieving the 1st 90 – Primary Prevention

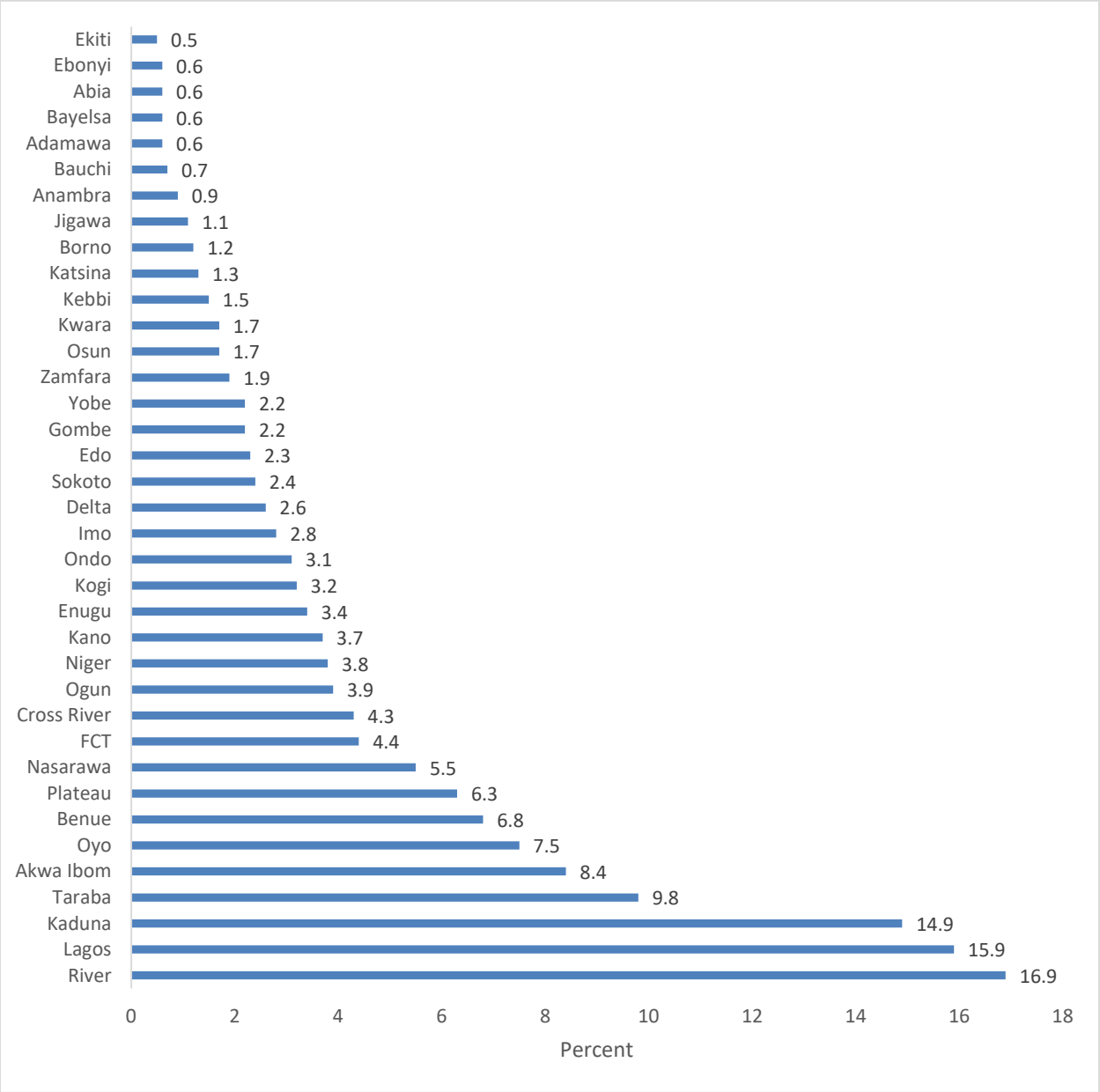
7.1.1 The Status of HIV Testing in Nigeria

Table 7.1 Status of HIV Testing from 2017 to 2019

HIV Testing Services (HTS) Indicators	2017	2018	2019
Number of people tested for HIV	9,019,513	9,819,718	7,109,723
Number of Facilities providing HTS	7,788	8,373	5979
Number tested HIV positive	239,542	187,740	226,964
Total Number of Index contact Tested for HIV	29,976	69,812	160,557
Total Number of Index contact Tested HIV Positive	4,774	6,396	27,592

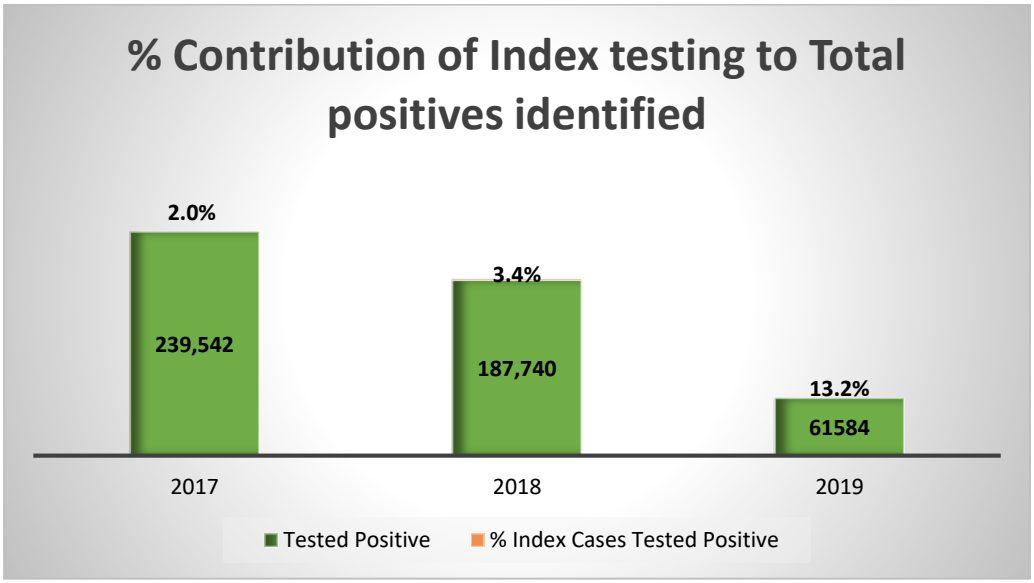
The target for HIV testing in Nigeria for 2019 was 11,261,452. The number of individuals tested was 7,109,723. Testing coverage was 48.2%. Average national positivity rate was 3.2%. If epidemiological control is to be achieved, at least 90% need to be tested. Strategies to improve the demand for HIV testing are needed in ending the epidemics.

Figure 7.1: HIV Testing Positivity Rate by States



Rivers state has the highest HIV positivity rate of 16.9% while Ekiti has the least positivity rate of 0.5%. A total of 15 states have HIV positivity rate greater than 3.2%.

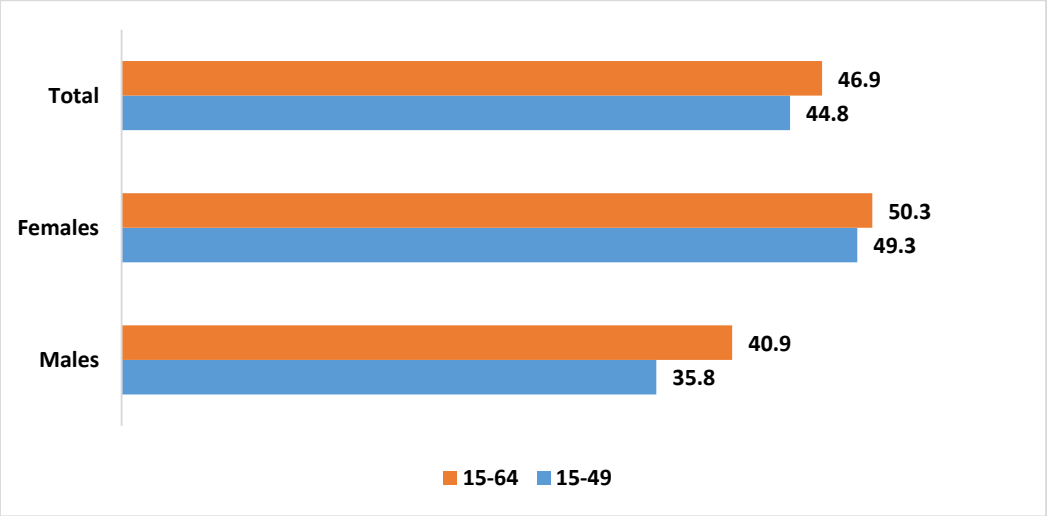
Figure 7.2: HIV Testing Strategy for Nigeria: Index Case Strategy



The index testing strategy as shown above reflects an upward trend in its contribution to the identification of new cases since its inception in 2017 into the HTS programme. If properly explored, it will definitely add some gains to achieving the 1st 90 target without necessarily testing the whole population to fill the gap.

The need to strategize for targeted testing cannot be overemphasized. Despite the several service points of testing in the various facilities across the country, the large deficit in the testing coverage has been majorly attributed to lack of test kits within the various facilities for this purpose. There is an urgent need not just to plan for the procurement of RTKs for the HIV programme but also to explore and integrate other means of testing such as the self-testing technology into the routine HTS. Other opportunities of reaching the vulnerable groups such as the in-school and school leavers, those within the IDP camps may help in closing testing gaps.

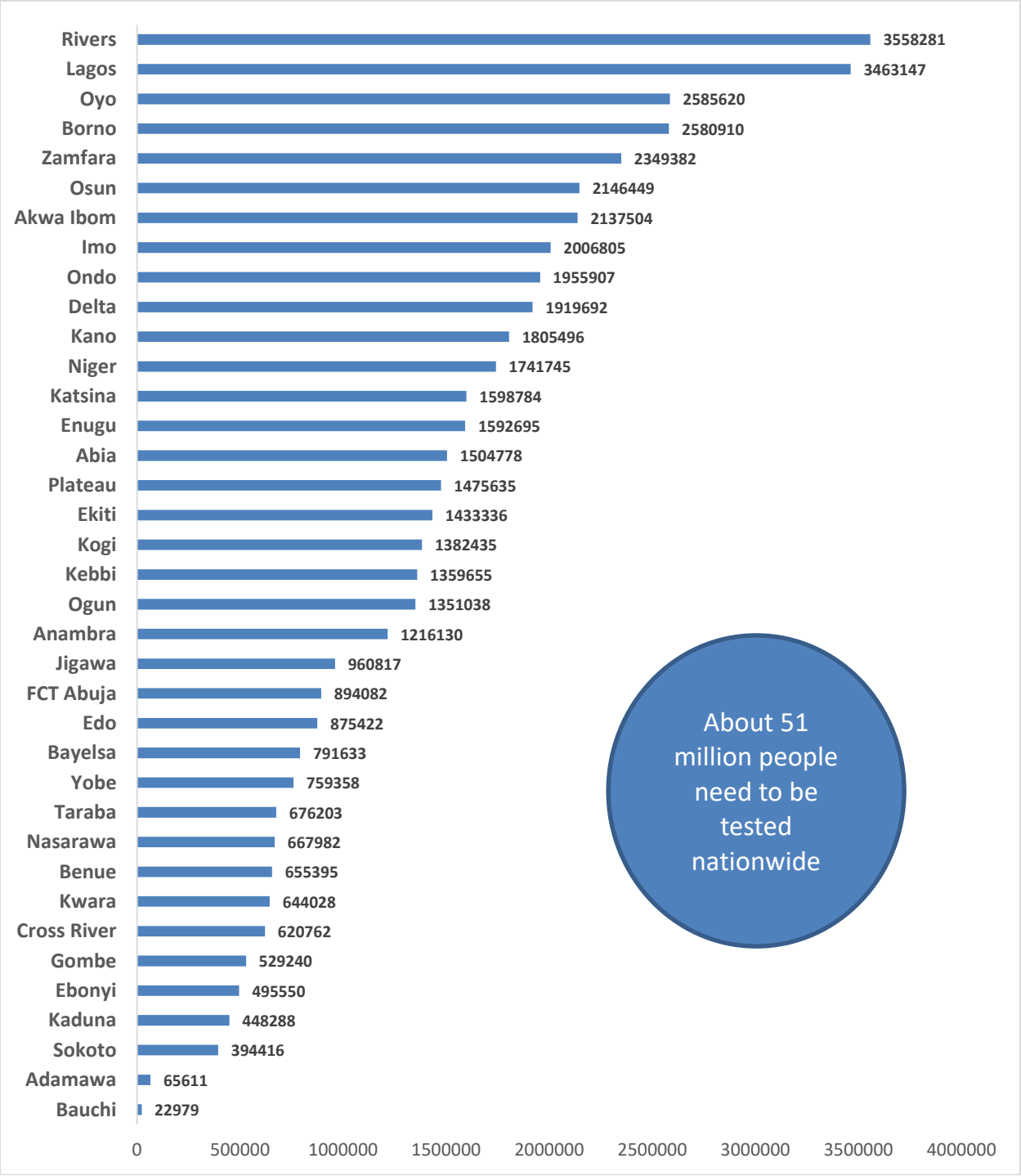
Figure 7.3: Percentage of PLHIV who know their HIV Status (1st 90)



Source: Analysis of NAIIS Data 2018

From NAIIS 2018, a population-based survey, only 46.9% know their status among people aged 15-49 years of which more females know their status (50.3%) compared to males (40.9%).

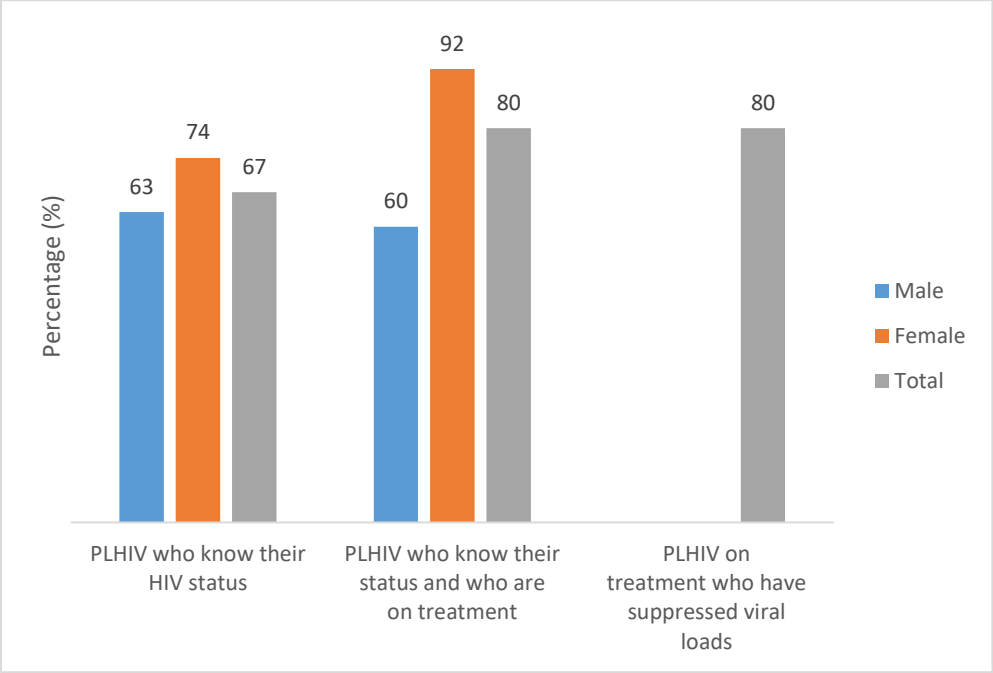
Figure 7.4: HIV Testing Needs by States from 2020 – 2023



In order to achieve epidemiological control by 2023, about 51 million Nigerians would need to be tested for HIV. HIV testing needs are highest in Rivers, Lagos and Oyo, and lowest in Sokoto, Adamawa and Bauchi states.

7.1.2 The Status of the 90-90-90 Targets in Nigeria

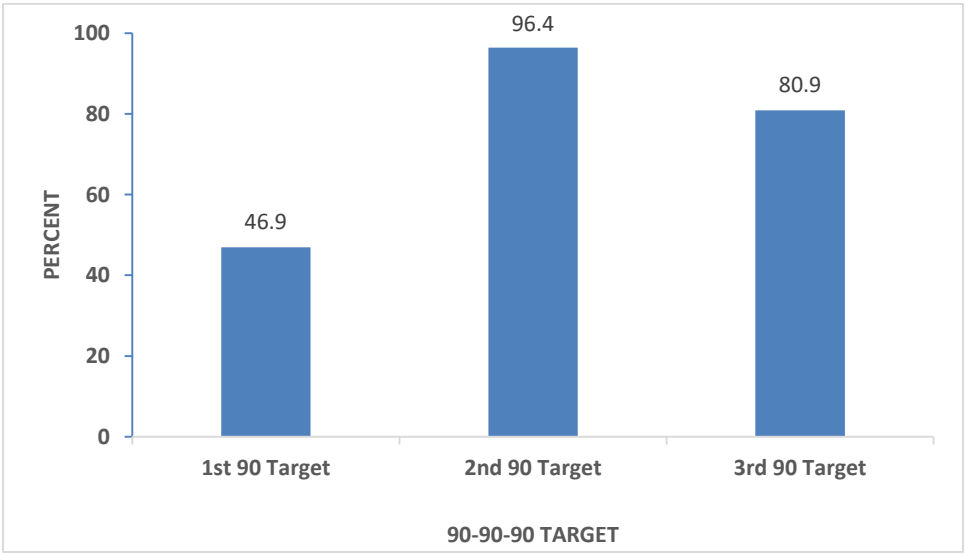
Figure 7.5: National 90-90-90 Achievement from UNAIDS 2019 Report



Source: UNAIDS 2019

Sixty-seven per cent of People Living with HIV know their HIV status, 80% of PLHIV know their status and are on treatment while 80% of PLHIV on treatment have viral load suppression as shown above.

Figure 7.6: **National 90-90-90 from NAIIS 2018**



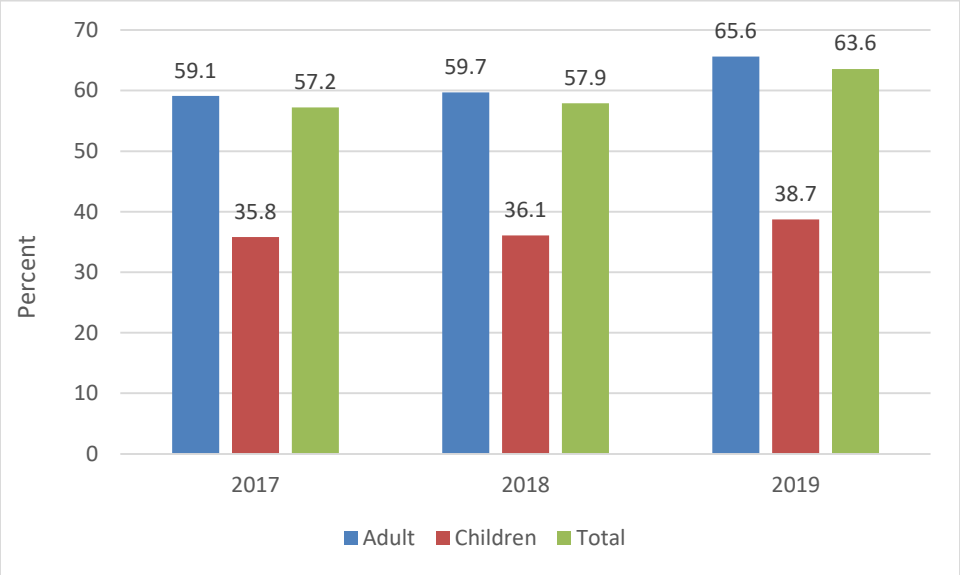
Results from NAIIS 2018 show a different finding at the population level from that of UNAIDS on national 90-90-90 achievement, only about 47% of PLHIV know their status of which 96% are

on treatment, and out of which 81% are virally suppressed. This implies that majority of PLHIV are currently not aware of their status.

7.1.3 The HIV Treatment Coverage

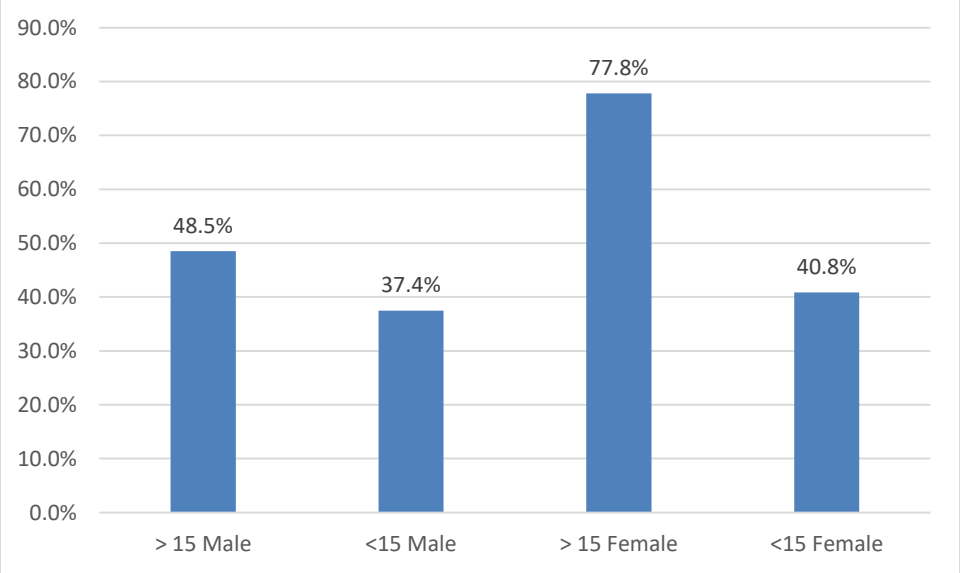
In 2019, Nigeria had an estimated 1,803,831 PLHIV of which 1,093,114 adults and 53,529 children are on treatment. The total number of individuals on treatment is 1,146,643 which is 63.6% treatment coverage.

Figure 7.7: Treatment Coverage among Adults and Children from 2017 to 2019



A trend of 2017 to 2019 shows a gradual increase in our HIV treatment coverage. It was highest in 2019 with a value of 63.6%.

Figure 7.8: 2019 HIV Treatment Disaggregated by Age and Sex



Among children and adults, more females are on treatment than males. Interventions need to be in place to enroll and retain males on treatment.

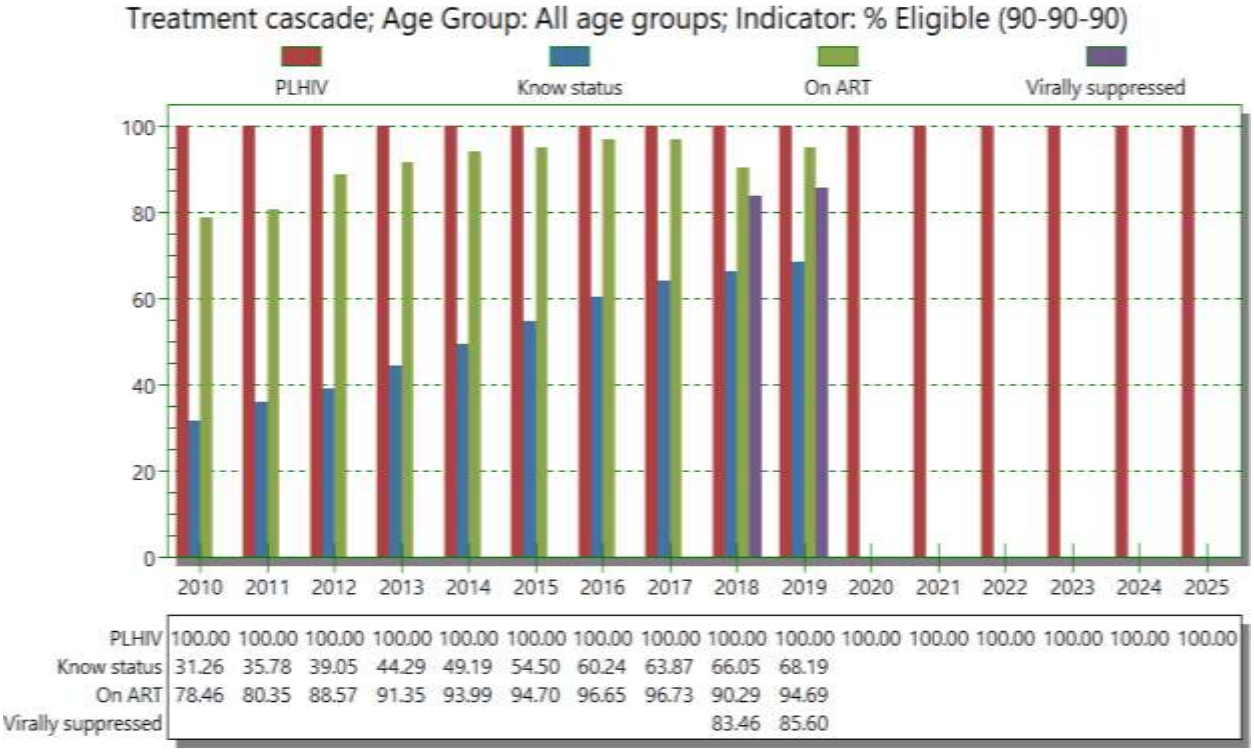
Figure 7.9: Stratified Treatment Coverage by Age Group (FMoH 2019)

State	<1		1-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50+	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Abia			32%	34%	76%	77%	38%	39%	14%	29%	20%	18%	35%	17%	51%	27%	63%	38%	73%	49%	79%	56%	82%	64%
Adamawa	40%	40%	215%	193%	161%	145%	149%	130%	126%	93%	232%	69%	266%	157%	310%	144%	275%	160%	164%	139%	188%	152%	124%	119%
Akwa Ibom	79%	80%	193%	172%	195%	180%	98%	66%	119%	40%	180%	42%	75%	58%	102%	70%	72%	79%	77%	102%	89%	111%	79%	69%
Anambra	70%	71%	64%	65%	59%	65%	39%	65%	34%	52%	47%	35%	59%	40%	68%	48%	75%	56%	79%	64%	82%	70%	83%	75%
Bauchi			86%	80%	111%	111%	87%	84%	106%	73%	198%	66%	190%	111%	213%	94%	181%	95%	115%	87%	116%	91%	116%	101%
Bayelsa	26%	27%	29%	30%	30%	31%	22%	22%	56%	48%	71%	31%	83%	34%	91%	37%	98%	45%	103%	56%	107%	66%	108%	78%
Benue	128%		232%	175%	190%	187%	153%	151%	85%	61%	154%	40%	201%	49%	231%	61%	185%	71%	119%	81%	172%	87%	122%	92%
Borno	21%	21%	22%	20%	23%	24%	23%	22%	11%	8%	30%	15%	54%	23%	71%	36%	82%	55%	90%	74%	94%	86%	89%	95%
Cross River	50%	51%	65%	60%	82%	83%	94%	77%	145%	91%	209%	104%	193%	128%	168%	96%	162%	100%	116%	103%	165%	140%	118%	119%
Delta	0%		56%	53%	58%	60%	72%	94%	42%	53%	51%	39%	85%	43%	142%	53%	155%	85%	216%	184%	103%	89%	107%	153%
Ebonyi	53%	53%	64%	65%	64%	91%	58%	59%	79%	46%	79%	41%	85%	32%	91%	31%	95%	43%	97%	43%	98%	67%	98%	76%
Edo	24%	25%	36%	37%	56%	58%	68%	66%	63%	62%	69%	40%	91%	39%	116%	51%	127%	70%	137%	91%	142%	109%	145%	122%
Ekiti	29%	31%	34%	35%	45%	46%	36%	42%	24%	23%	25%	16%	39%	15%	52%	22%	64%	30%	74%	47%			82%	55%
Enugu	16%	17%	59%	51%	121%	122%	82%	88%	37%	59%	37%	31%	58%	27%	82%	34%	98%	53%	125%	87%	107%	76%	110%	86%
FCT	51%	51%	204%	192%	127%	119%	112%	126%	95%	99%	150%	104%	276%	108%	309%	121%	223%	131%	247%	225%	111%	111%	110%	164%
Gombe	0%		81%	70%	93%	94%	53%	55%	102%	81%	251%	88%	259%	117%	215%	154%	140%	149%	149%	233%	108%	100%	108%	101%
Imo	4%	4%	26%	25%	72%	74%	46%	52%	32%	39%	31%	26%	45%	30%	63%	39%	74%	50%	93%	70%	92%	73%	97%	104%
Jigawa	96%	100%	95%	87%	73%	74%	80%	82%	130%	57%	200%	50%	149%	94%	166%	76%	149%	96%	115%	97%	118%	99%	121%	99%
Kaduna			96%	96%	104%	105%	96%	96%	75%	32%	131%	16%	228%	33%	299%	59%	240%	75%	117%	85%	127%	103%	103%	152%
Kano	94%	95%	74%	75%	84%	86%	75%	79%	58%	47%	109%	45%	132%	86%	143%	65%	121%	76%	109%	74%	114%	88%	117%	100%
Katsina	100%	97%	77%	78%	119%	119%	62%	72%	91%	55%	106%	54%	124%	54%	121%	65%	128%	81%	133%	100%			136%	120%
Kebbi	49%	46%	32%	31%	56%	58%	39%	41%	33%	49%	87%	48%	90%	61%	106%	75%	117%	95%	125%	112%	128%	123%	127%	129%
Kogi	0%		93%	80%	76%	77%	71%	73%	59%	48%	90%	60%	100%	195%	115%	208%	114%	109%	168%	120%	101%		103%	48%
Kwara	30%	30%	61%	56%	78%	78%	57%	60%	32%	39%	42%	49%	75%	100%	98%	46%	98%	38%	91%	31%	94%	37%	113%	53%
Lagos	13%	13%	36%	33%	37%	38%	42%	42%	31%	49%	63%	58%	81%	88%	100%	85%	106%	96%	125%	129%	98%	99%	234%	106%
Nasarawa	80%	81%	162%	132%	81%	82%	72%	73%	101%	106%	144%	102%	215%	105%	222%	107%	165%	109%	167%	143%	110%	110%	110%	110%
Niger	64%	60%	168%	153%	129%	119%	79%	86%	75%	76%	78%	66%	187%	77%	190%	71%	163%	81%	114%	90%	119%	96%	162%	122%
Ogun	35%	36%	86%	87%	74%	75%	71%	71%	43%	45%	47%	29%	67%	33%	87%	41%	103%	55%	133%	89%			129%	101%
Ondo	27%	28%	37%	38%	56%	57%	39%	38%	31%	25%	32%	22%	53%	17%	79%	23%	83%	31%	113%	85%			76%	59%
Osun	61%	62%	65%	66%	63%	65%	56%	57%	32%	35%	36%	27%	48%	30%	60%	34%	73%	41%	93%	49%			101%	68%
Oyo	25%	27%	67%	65%	94%	96%	72%	78%	51%	23%	79%	21%	96%	28%	107%	42%	115%	56%	182%	84%	117%	71%	123%	211%
Plateau	59%	59%	35%	35%	57%	58%	36%	37%	80%	95%	101%	99%	106%	104%	107%	106%	107%	106%	201%	257%	107%	106%	446%	380%
Rivers	17%	17%	112%	107%	98%	89%	111%	104%	44%	53%	109%	93%	94%	85%	121%	61%	78%	101%	88%	102%	76%	122%	63%	75%
Sokoto			65%	62%	119%	119%	145%	171%	32%	23%	77%	54%	108%	89%	147%	105%	146%	113%	112%	117%	117%	140%	111%	263%
Taraba	126%	127%	90%	92%	101%	102%	70%	71%	156%	116%	153%	107%	161%	102%	165%	111%	167%	125%	168%	138%	168%	147%	169%	155%
Yobe					106%	109%	57%	58%	73%	112%	118%	155%	92%	291%	117%	136%	128%	100%	124%	130%	127%	147%	128%	159%
Zamfara	28%	28%	27%	28%	33%	34%	22%	18%	47%	55%	52%	109%	66%	154%	82%	161%	96%	137%	108%	90%	115%	78%	121%	93%

Legend
<70%
71%-79%
80%-89%
>90%

Males in the age groups 10-14 years, 15-19 years and 20-24 years have worst ART coverage compared to females in the same age groups. It was worst with males in age group 20-24 years. Generally, males have worse treatment coverage compared to females in Nigeria. Borno state has one of the worst treatment coverages which may be due to insurgency in North East Nigeria. Some other states with bad treatment coverages include Abia, Anambra and Ebonyi.

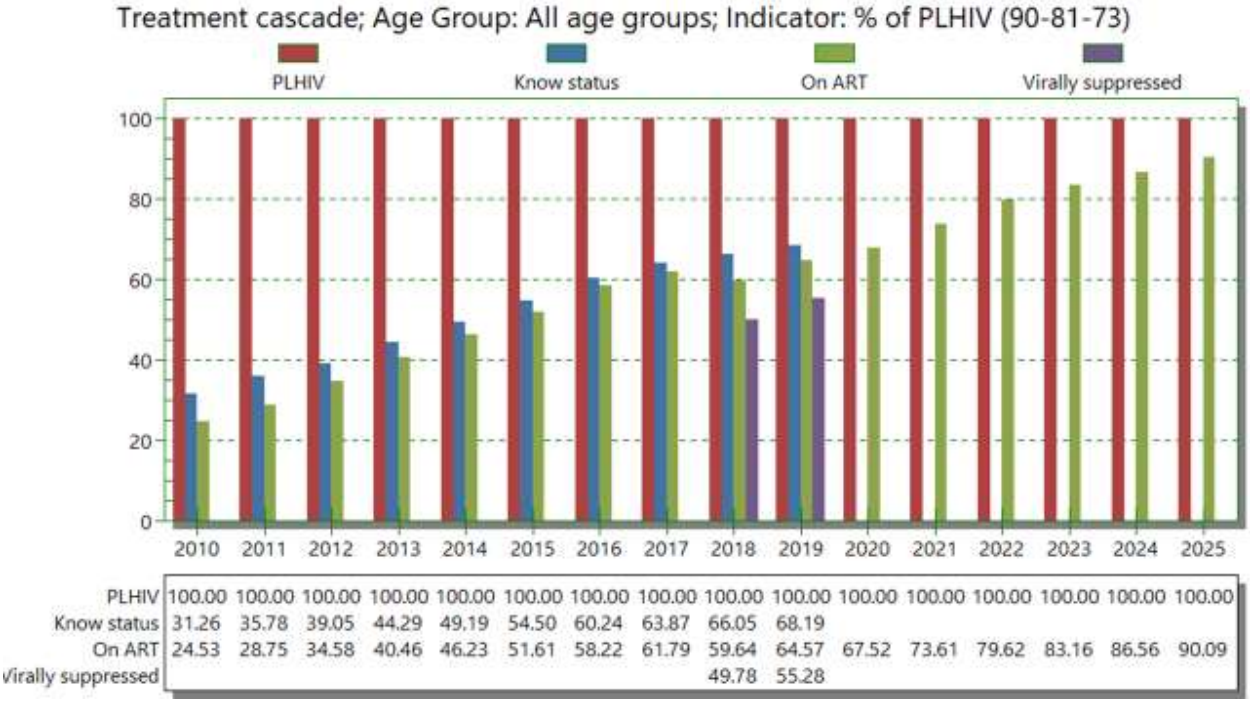
Figure 7.10: HIV Treatment Cascade (2010 – 2019) using 90-90-90



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
PLHIV	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Know status	31.26	35.78	39.05	44.29	49.19	54.50	60.24	63.87	66.05	68.19						
On ART	78.46	80.35	88.57	91.35	93.99	94.70	96.65	96.73	90.29	94.69						
Virally suppressed									83.46	85.60						

From the most recent 2019 spectrum model estimates, the 90-90-90 target towards epidemiologic control, where the number of PLHIV is the reference or denominator, those that know their status are 68.2%, on ART is 94.7% and 85.6% being virally suppressed.

Figure 7.11: HIV Treatment Cascade (2010 – 2019) using 90-81-73



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
PLHIV	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Know status	31.26	35.78	39.05	44.29	49.19	54.50	60.24	63.87	66.05	68.19						
On ART	24.53	28.75	34.58	40.46	46.23	51.61	58.22	61.79	59.64	64.57	67.52	73.61	79.62	83.16	86.56	90.09
Virally suppressed									49.78	55.28						

From the most recent 2019 spectrum model estimates, using moving or conditional denominators (90-81-73), those that know their status were 68.2%, on ART was 64.6% with 55.3% being virally suppressed.

Figure 7.12: Adult Treatment Coverage and Incidence in 2019

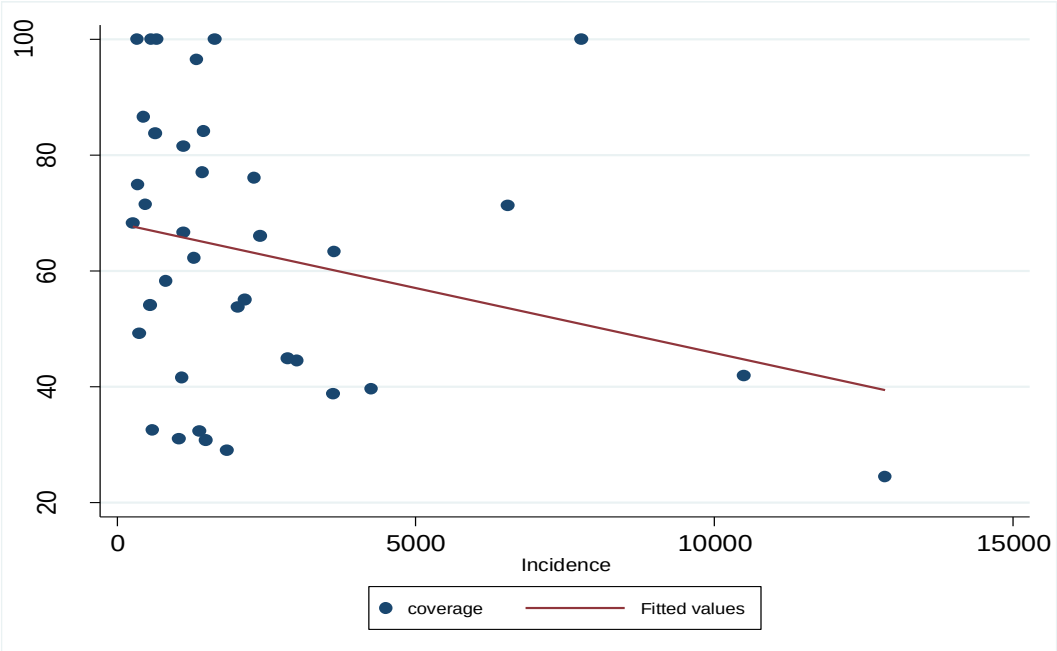
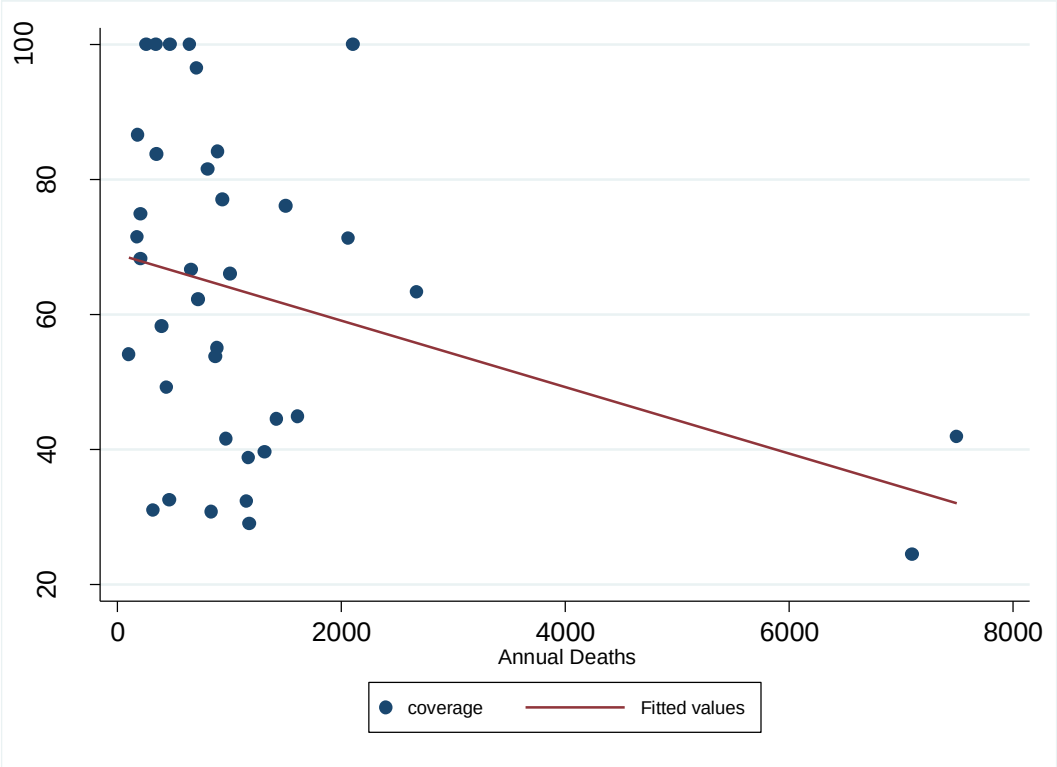


Figure 7.12 shows the relationship between adult treatment coverage and new infections. As the treatment coverage increases, new HIV infections decrease with a Pearson correlation coefficient of -0.267. However, it is not statistically significant with a p-value of 0.110.

Figure 7.13: Adult Treatment Coverage and Annual Deaths in 2019

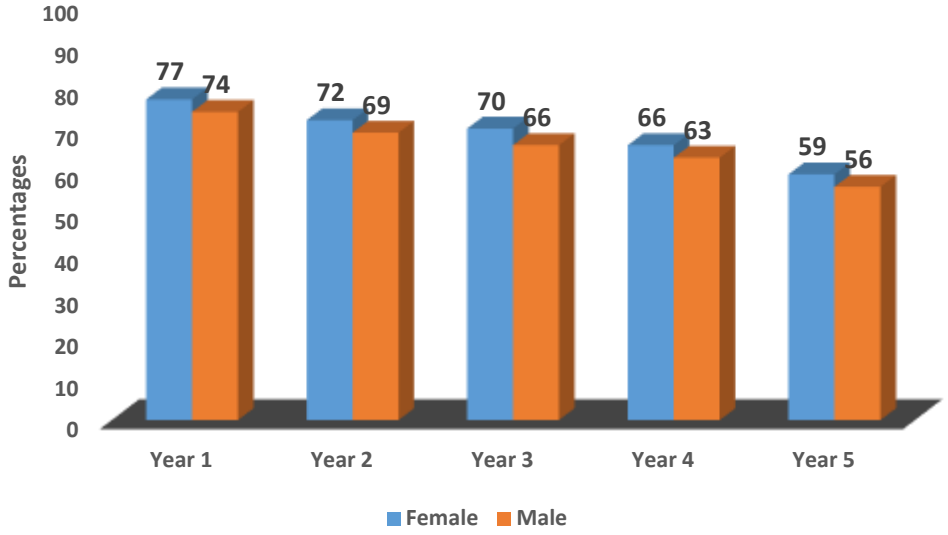


This figure above shows the relationship between adult treatment coverage and annual AIDS deaths. As the treatment coverage increases, annual AIDS deaths decrease with a Pearson correlation coefficient of -0.331 and a p-value of 0.045. This borderline statistical significance implies that increasing treatment coverage could potentially reduce AIDS deaths remarkably.

7.1.4 Retention on Treatment and loss to follow-up

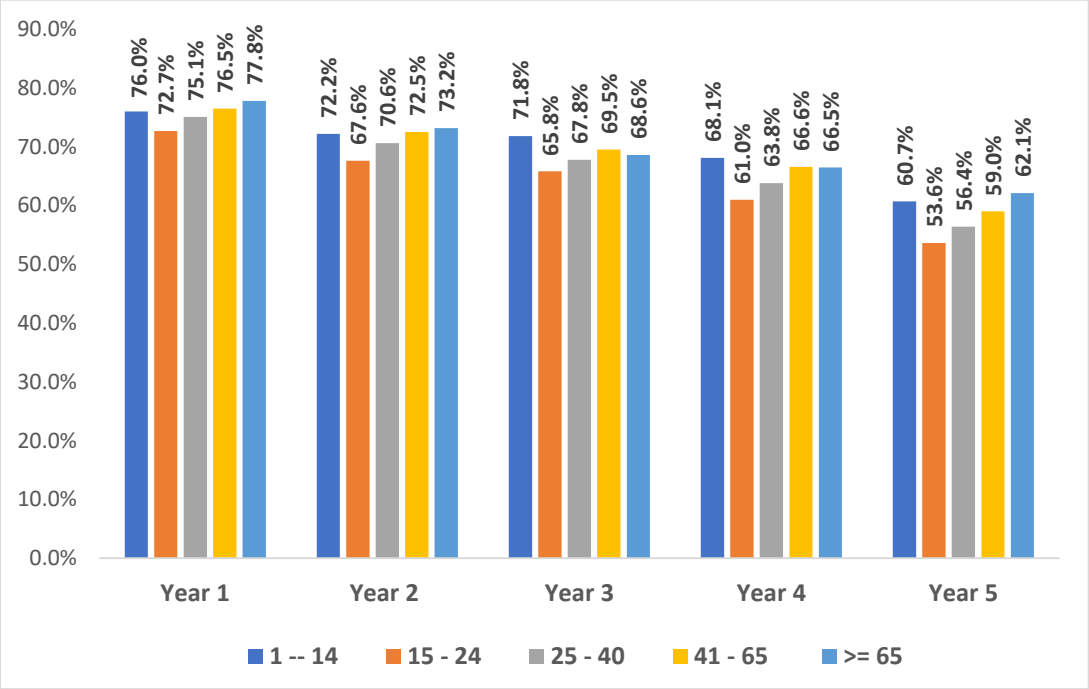
An HIV Service Cascade Assessment and Survival Analysis study (FMoH 2018) was conducted to establish the rate of retention and attrition including Lost to Follow-up (LTFU) on patients initiated on treatment between 2013 and 2017. This retrospective study also provided information on patient outcomes and survival of PLHIV initiated on treatment. Of the 24,327 clients' folders abstracted, retention was 76% at 1 year. However, retention gradually declines over the years in both sexes.

Figure 7.14: Five-year Retention for Males and Females



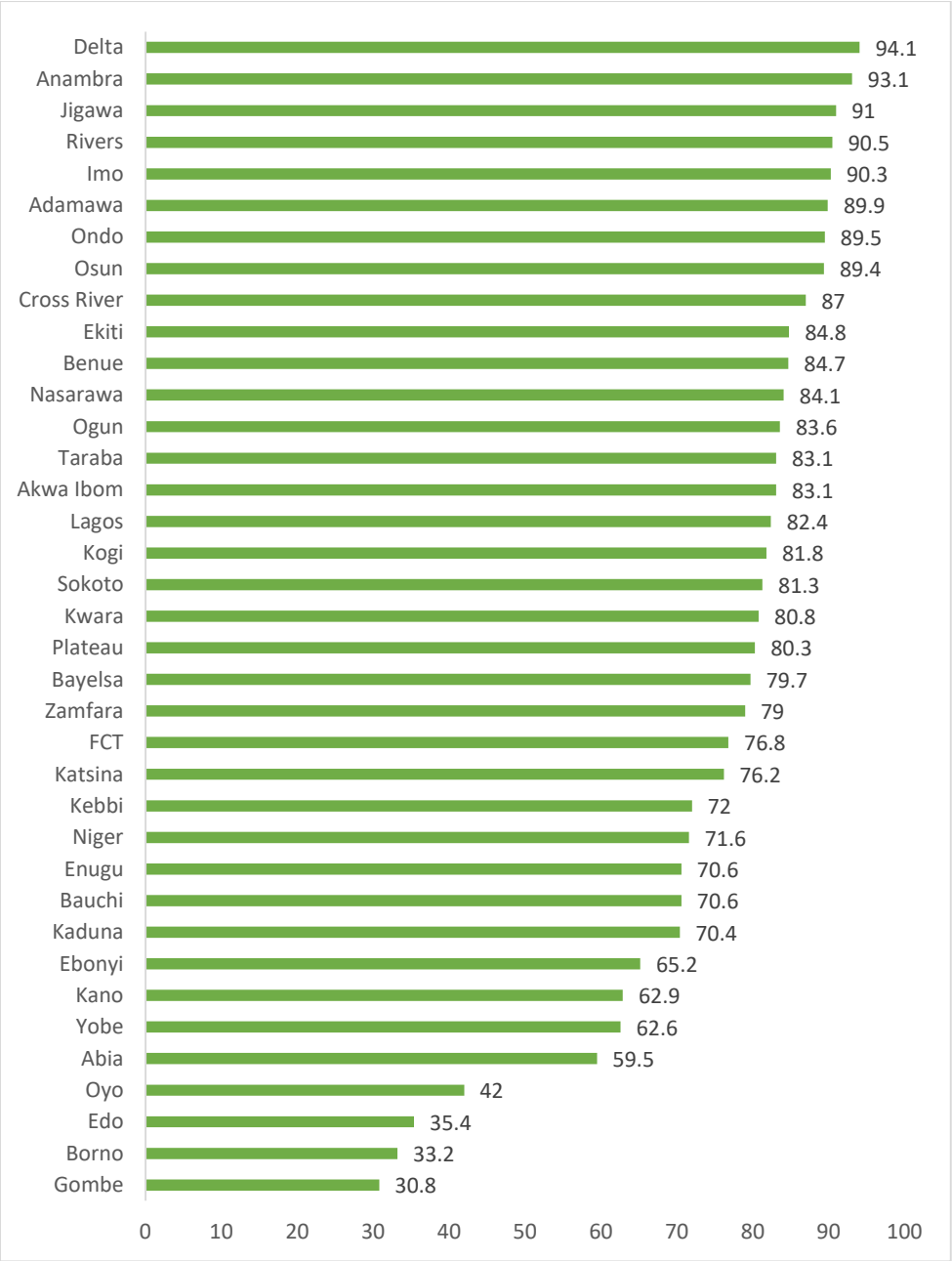
Retention on treatment decreased from 2013 to 2017. Operations researches are needed to generate evidence associated with retention.

Figure 7.15: Retention Over Five-Years Disaggregated by Age



Generally, retention is better among dependent age groups such as 1-14 years and ≥65 years. Operations research and implementation science are needed to assess and strengthen retention on treatment in Nigeria.

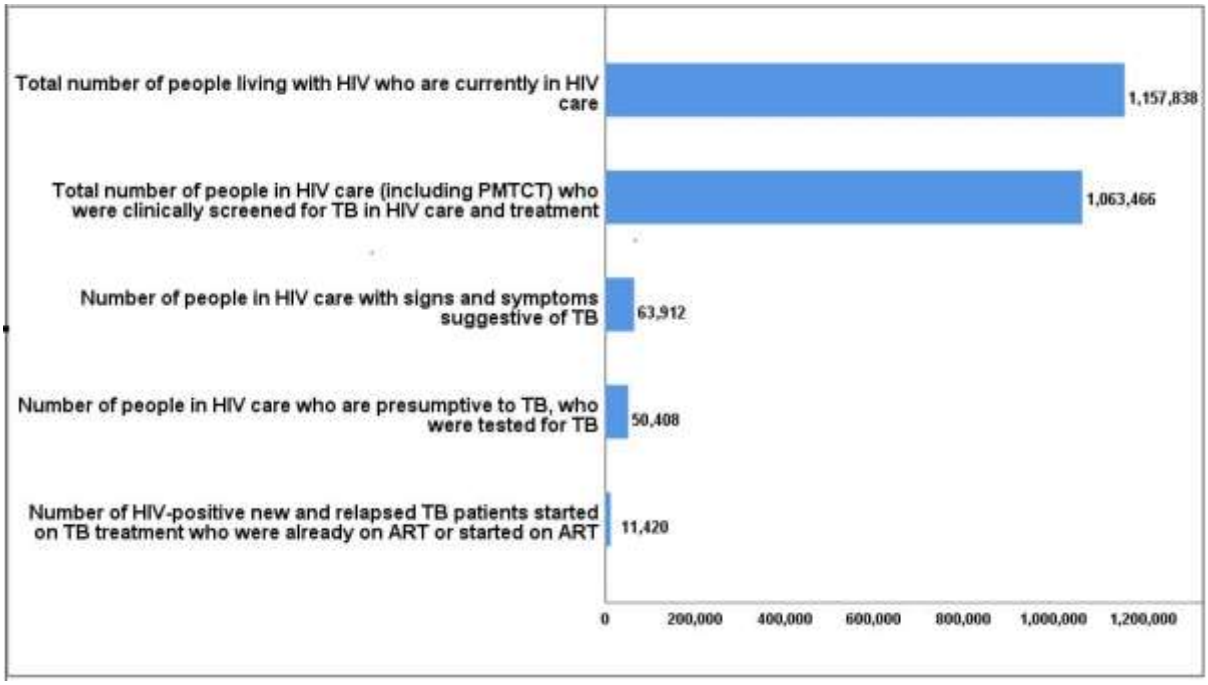
Figure 7.16: Retention at 1-year Disaggregated by States



Delta, Anambra and Jigawa have the best retention from this study where Edo, Borno and Gombe have the least retention.

7.1.5 TB/HIV Indicators

Figure 7.17: TB/HIV



Out of the total number of PLHIV currently in care, about 91.2% were clinically screened for TB.

7.1.6 HIV/Hepatitis

Hepatitis B (HBV) and Hepatitis C (HCV) infections are comorbidities in HIV. With a shared mode of transmission with HIV, co-infection with HBV and/or HCV is one of the most important causes of liver-related deaths in HIV infected individuals. Studies carried out to evaluate the effect of HCV on HIV disease progression have shown that HIV/HCV co-infected patients are more likely to develop cirrhosis related death (HOPS Study and EUWOSIDA Study). Also, the data reported that HCV co-infection was associated with an increased risk of developing AIDS bacterial infection and HIV-related disease.

Findings from NAIIS 2018 showed HBV and HCV co-infection rates were 8.1% and 1.1% respectively. For mono-infections, prevalence was estimated at 8.9% and 1.1% respectively, which is about eight times national HIV prevalence. Risk factors for infection transmission include the lack of robust blood safety and infection control practices in the health system combined with common cultural practices such as scarification, childhood circumcision, sharing of needles (mostly among PWID), local surgical practices, piercings, transfusion of unscreened blood, etc.

CHAPTER EIGHT: COST, IMPACT AND FUTURE SCENARIOS OF THE HIV RESPONSE IN NIGERIA

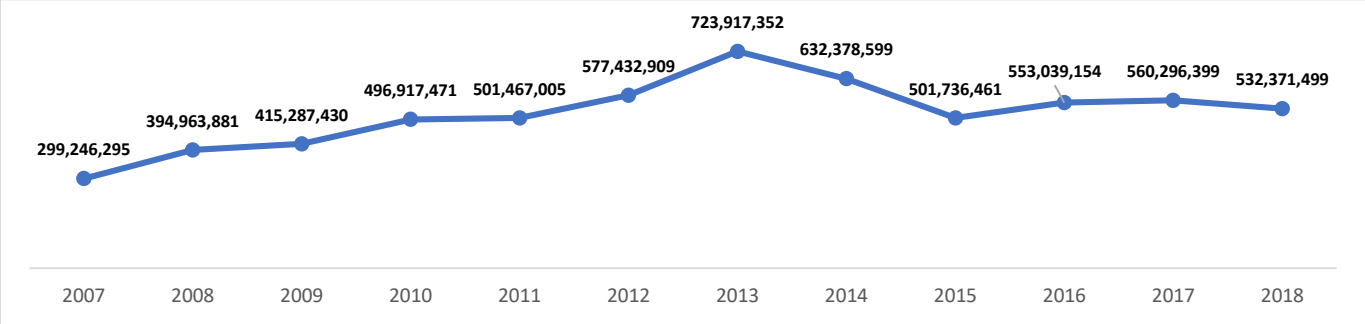
8.1 HIV Financing in Nigeria

The funding of the HIV response in Nigeria has largely drawn from major sources such as the Federal Government of Nigeria (GoN); Multilateral and Bilateral donors, Foundations, and the Private sector. While the national response had been largely funded through external donors, the government contribution to HIV expenditure has also increased over time.

The economic reality in Nigeria and competing priorities have made GoN not to be able to fund health to 15% of annual budget as agreed in 1999 Abuja declaration. In the 2020 annual budget, health expenditure has been captured as 5% of the total annual budget. Essentially, GoN is unable to adequately fund the National HIV Strategic Plan /National Operation Plan. It is for this reason that international donor support is required to help shore up the deficit in HIV funding. Most of the government HIV expenditure occurs mainly at the federal level with few states committed to HIV budget and expenditure.

8.1.1 Trend Analysis of HIV Expenditure

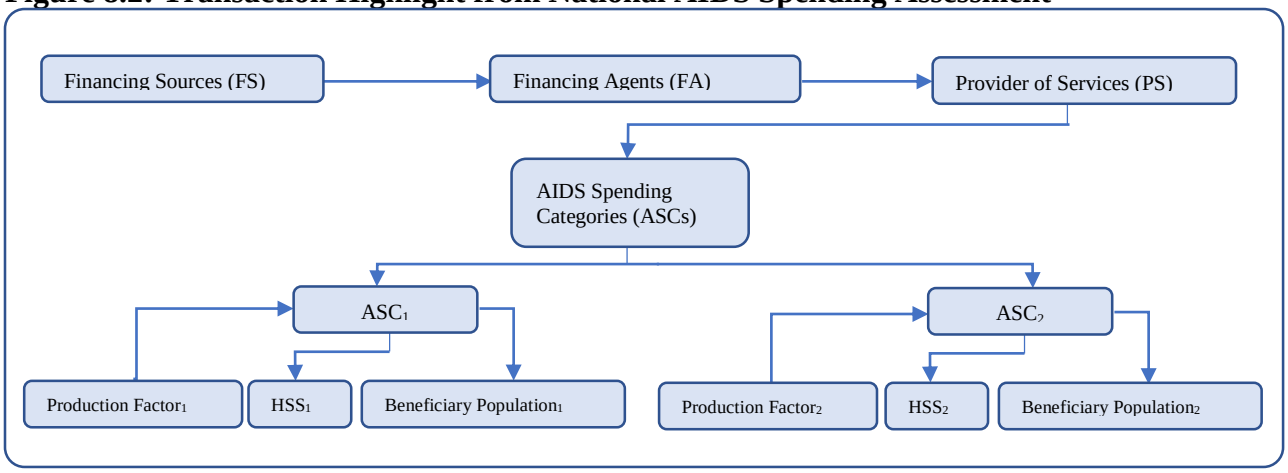
Figure 8.1: Trend of total expenditure on HIV from 2007 - 2018



Total HIV expenditure peaked in 2013 and after which there was a decline.

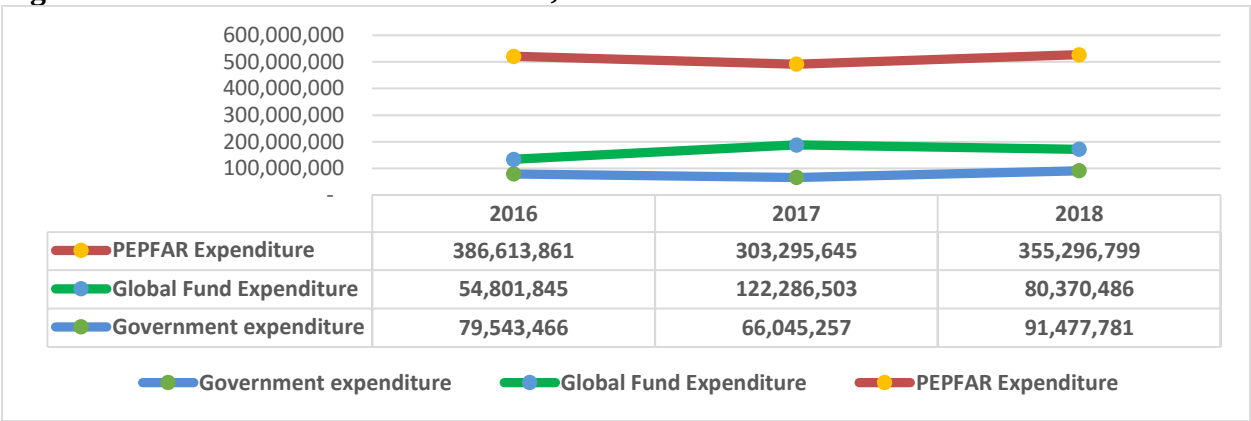
8.1.2 HIV expenditure by funding sources

Figure 8.2: Transaction Highlight from National AIDS Spending Assessment



The HIV expenditure landscape in Nigeria is made of three major components. These financing sources are Government; multilateral and bilateral donors (World Bank, UN Agencies, USAID/PEPFAR, Global Fund); and private sector. Service providers then use these resources in the delivery of HIV goods and services for which the investments/financing had been made.

Figure 8.3: Trends in the USG/PEPFAR, Global Fund and GoN contributions



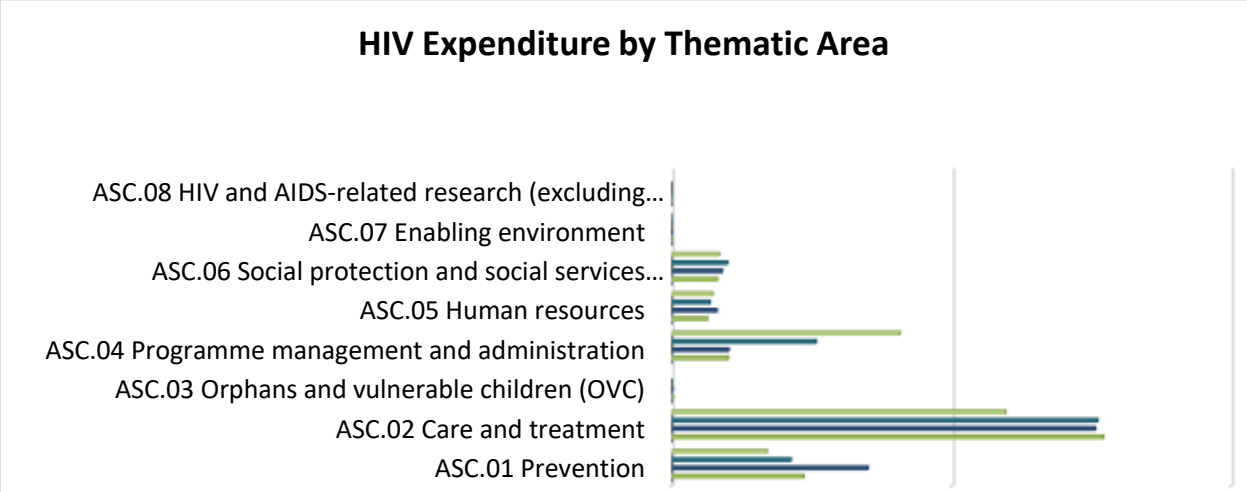
	2016	2017	2018
PEPFAR Expenditure	386,613,861	303,295,645	355,296,799
Global Fund Expenditure	54,801,845	122,286,503	80,370,486
Government expenditure	79,543,466	66,045,257	91,477,781

The National AIDS Spending Assessment (NASA) shows a slight percentage increase in government contribution to HIV/AIDS response from a baseline of 14.6% in 2007 to 17.4% in 2018. However, the percentage contribution is still very low as the international organizations (bilateral and multilateral agencies) are largely responsible for the programmatic decisions on HIV/AIDS intervention accounting for 85.2% in 2015 and to 79.7% in 2018.

8.1.3 HIV expenditure by thematic areas

In Nigeria, the AIDS spending is disaggregated thematically with regards to various HIV/AIDS intervention categories for example Prevention, HTS, Treatment, Care and Support etc. As part of effort to ensure value for money, resources used to provide goods and services are targeted towards intended beneficiary population and in strengthening the health system. The chart below illustrates the trend in HIV/AIDS expenditures by thematic areas for the period 2015 to 2018.

Figure 8.4: HIV Expenditure by Thematic Areas



	ASC.01 Prevention	ASC.02 Care and treatment	ASC.03 Orphans and vulnerable children (OVC)	ASC.04 Programme management and administration	ASC.05 Human resources	ASC.06 Social protection and social services (excluding OVC)	ASC.07 Enabling environment	ASC.08 HIV and AIDS-related research (excluding operations research)
2018	67,809,140.8	238,447,440.		162,828,357.	29,327,352.2	33,939,999.0	19,210.00	
	12.74%	44.79%		30.59%	5.51%	6.38%	0.00%	
2017	85,205,057.3	304,376,381.	146,023.00	103,115,446.	27,535,123.3	39,874,144.0	26,707.00	17,516.00
	15.21%	54.32%	0.03%	18.40%	4.91%	7.12%	0.00%	0.00%
2016	140,023,109.	302,808,349.	618,300.65	40,789,600.9	32,346,807.6	36,235,395.0	189,228.22	28,362.38
	25.32%	54.75%	0.11%	7.38%	5.85%	6.55%	0.03%	0.01%
2015	94,044,819.1	308,609,484.	751,109.26	40,494,611.7	25,289,594.8	32,391,673.0	155,168.15	0
	18.74%	61.51%	0.15%	8.07%	5.04%	6.46%	0.03%	0.00%

Care and treatment at 61.5% and 44.8% in 2015 and 2018 respectively represent the highest HIV/AIDS expenditures in that period. This is followed by Programme Management and Administration with 30.6% and Prevention with 12.7% in 2018. In Nigeria's strive towards universal health coverage for all Nigerians, a goal of elimination of mother-to-child transmission by 2030 was set. However, expenditure for PMTCT has remained abysmally low accounting for 0.24%, 0.03%, 3.57% and 1.23% of total HIV expenditure in 2015, 2016, 2017 and 2018 respectively. Another key observation in NASA is a low spending in OVC and AIDS related research.

8.2 Sustainable Financing of the HIV response in Nigeria

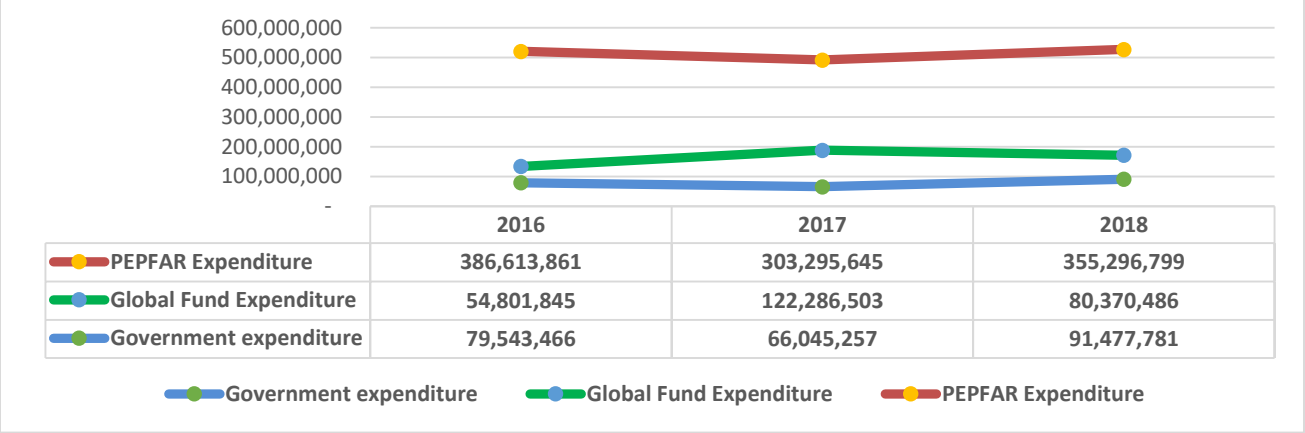
8.2.1 Procurement contributions

Table 8.1 Procurement Contributions from Government of Nigeria

Categories	2017		2018		2019	
	Naira (N)	USD	Naira (N)	USD	Naira (N)	USD
NASCP/ FMOH ARV Drug Procurement	1 Billion	2.8 Million	1.4 Billion	4 Million	1 Billion	2.6 Million
NACA-NCAPS ARV Drug Procurement	1.7 Billion	4.8 Million	2.1 Billion	5.7 Million	3.5 Billion	9.7 Million
Total	2.7 Billion	7.6 Million	3.5 Billion	9.7 Million	4.5 Billion	12.3 Million

Source: 2017, 2018 and 2019 Appropriation Bills, Nigeria

Figure 8.5: Trends in the USG/PEPFAR, Global Fund and GoN contributions



8.2.2 Global Fund contributions to HIV spending in Nigeria

Nigeria is both contributor and beneficiary of the Global Fund to fight AIDS. As at December 2019, Nigeria has contributed USD 28.62 million to the Global Fund since its inception (https://www.theglobalfund.com). From January 2017 to June 2019, direct Global Fund investment in HIV is approximately 300 million USD. This investment by GF has covered the testing of over 20 million Nigerians, and treatment of nearly two hundred thousand PLHIV with a viral suppression rate of 74%.

8.3 Donor Dependency

The Nigeria HIV/AIDS response is still largely donor driven with PEPFAR and Global fund accounting for about 75%.

Figure 8.6: Who is Responsible for Treating Nigerians?

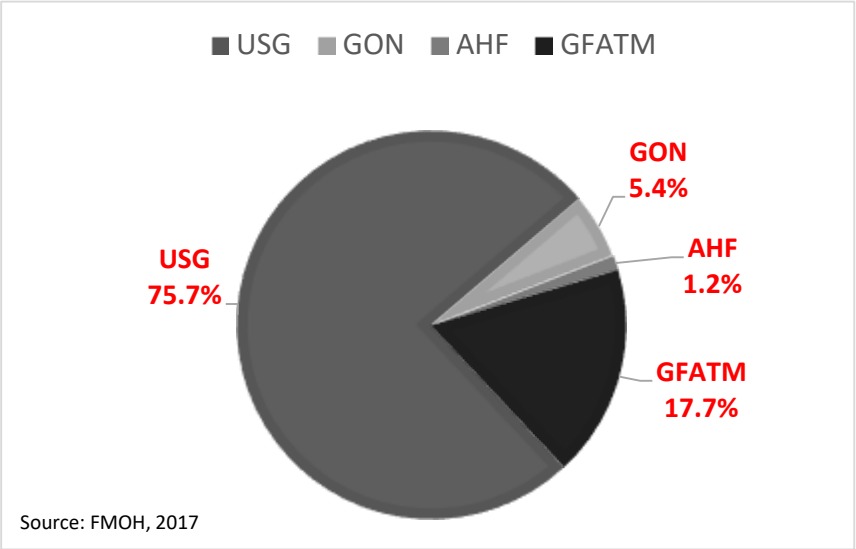
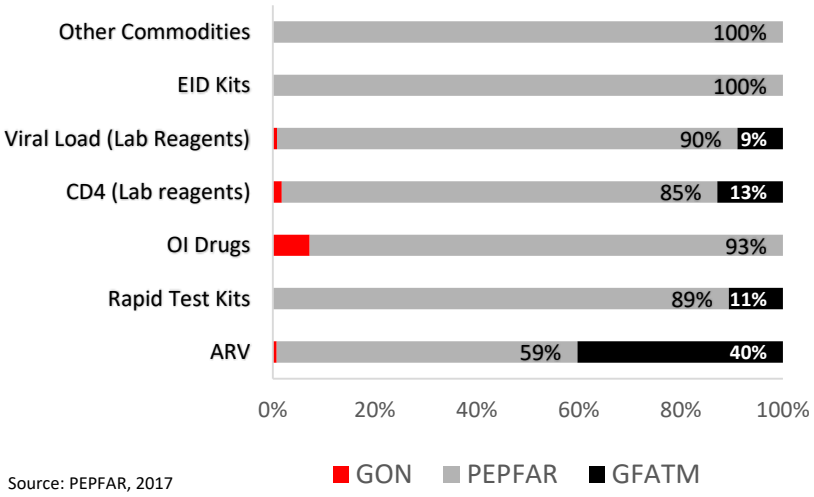
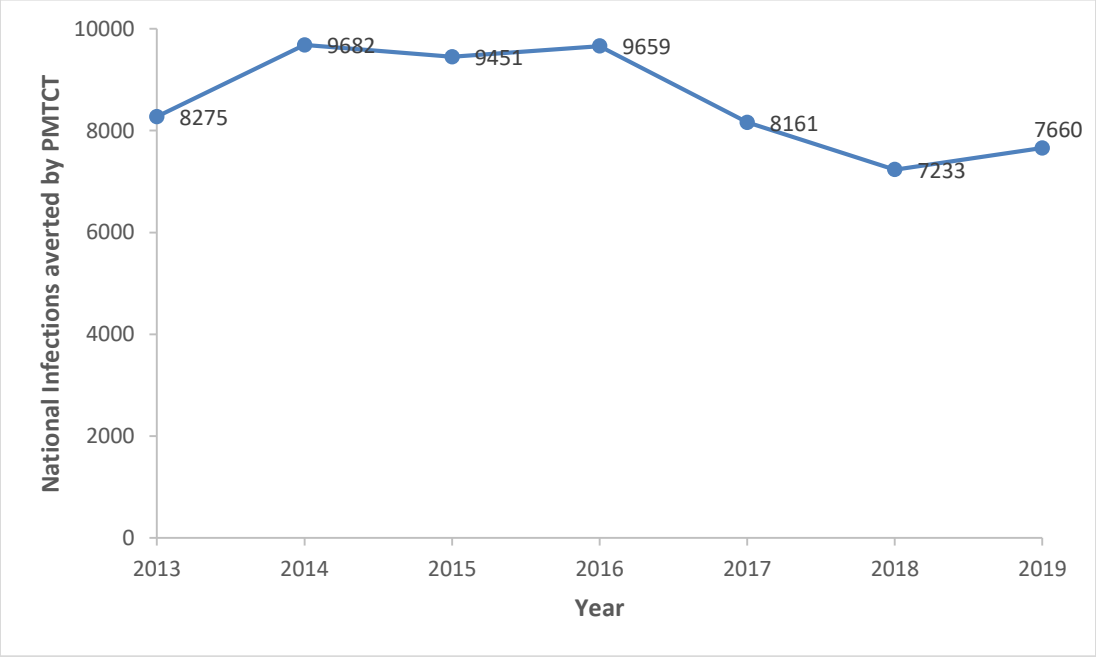


Figure 8.7: Who paid for commodities in Nigeria?



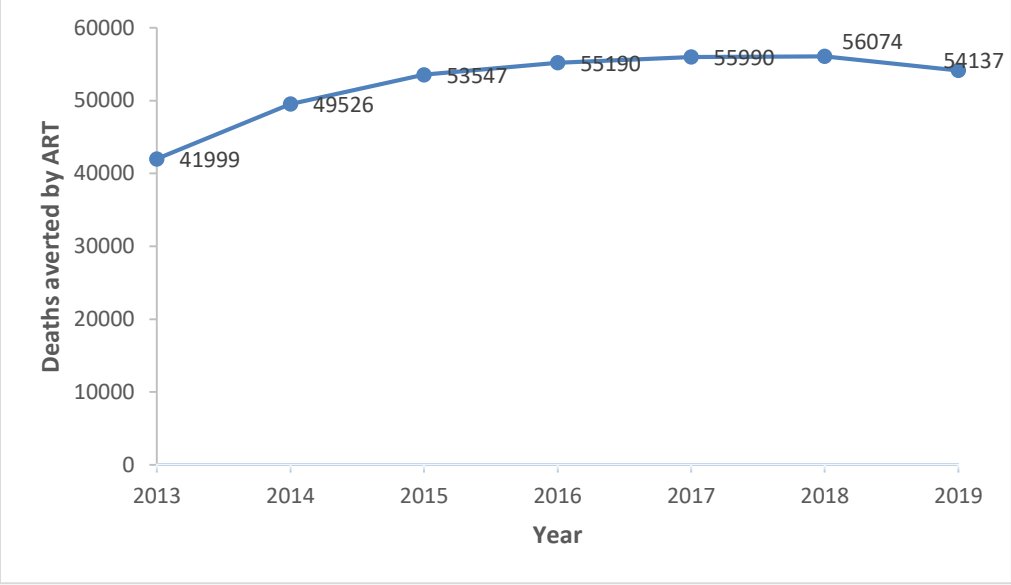
8.4 Modelling Impact of HIV Programming in Nigeria

Figure 8.8 National Infections averted by PMTCT



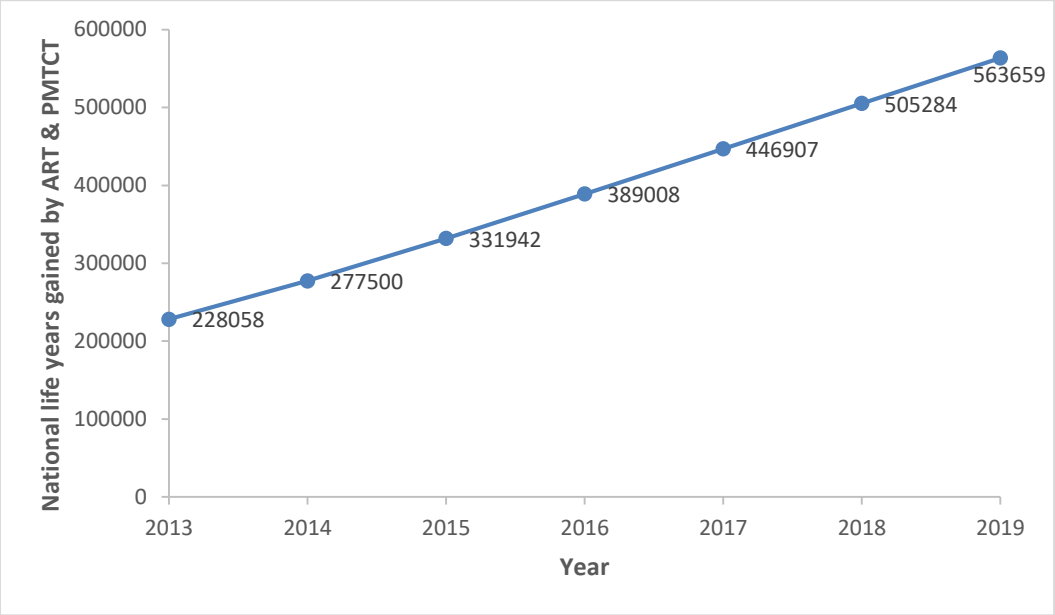
Investment and implementation of PMTCT has averted 7660 new infections nationwide in 2019.

Figure 8.9: National Deaths averted by ART



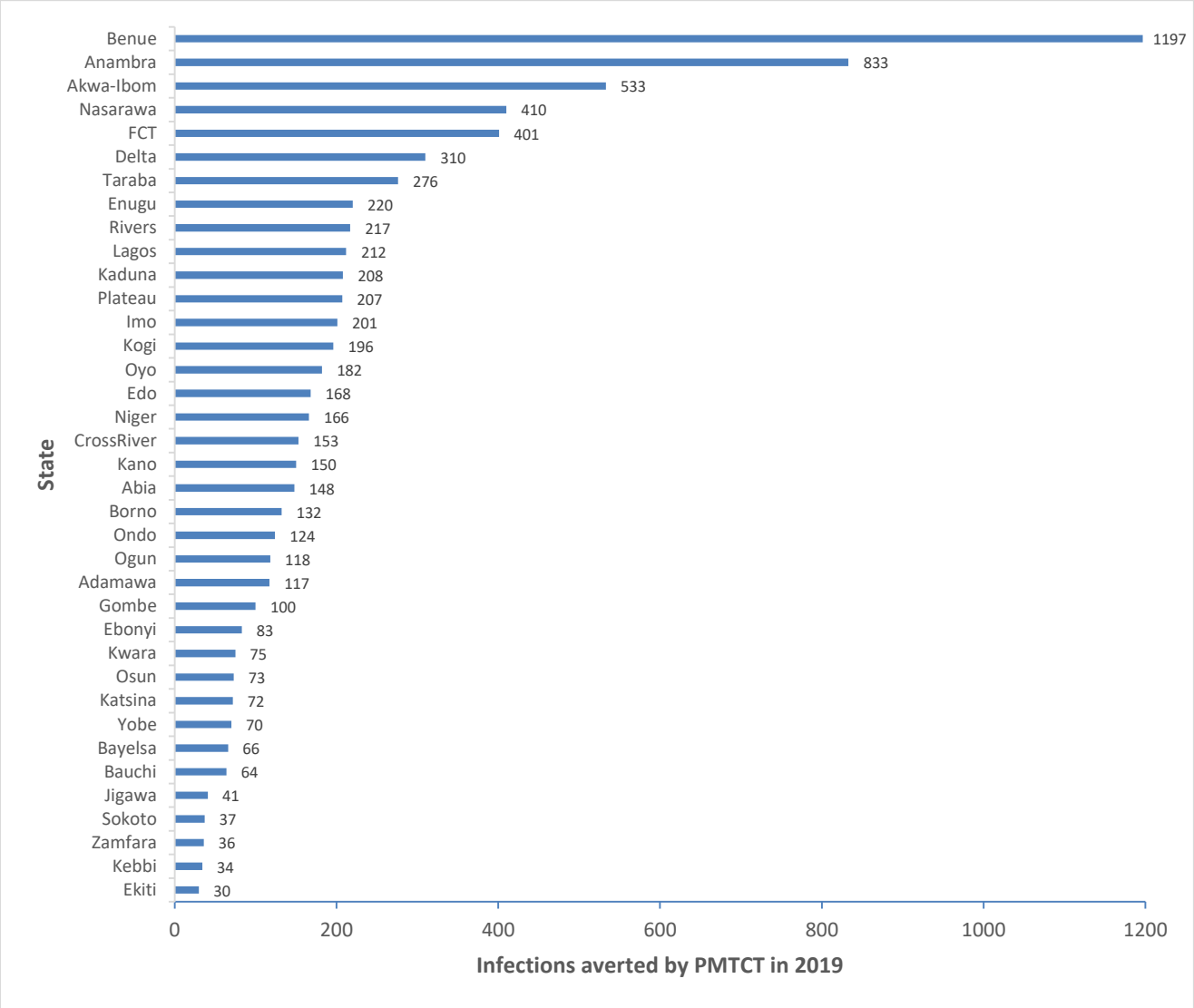
Investment and implementation of ART has averted 54,137 AIDS-related deaths nationwide in 2019.

Figure 8.10: National Life years gained by ART and PMTCT



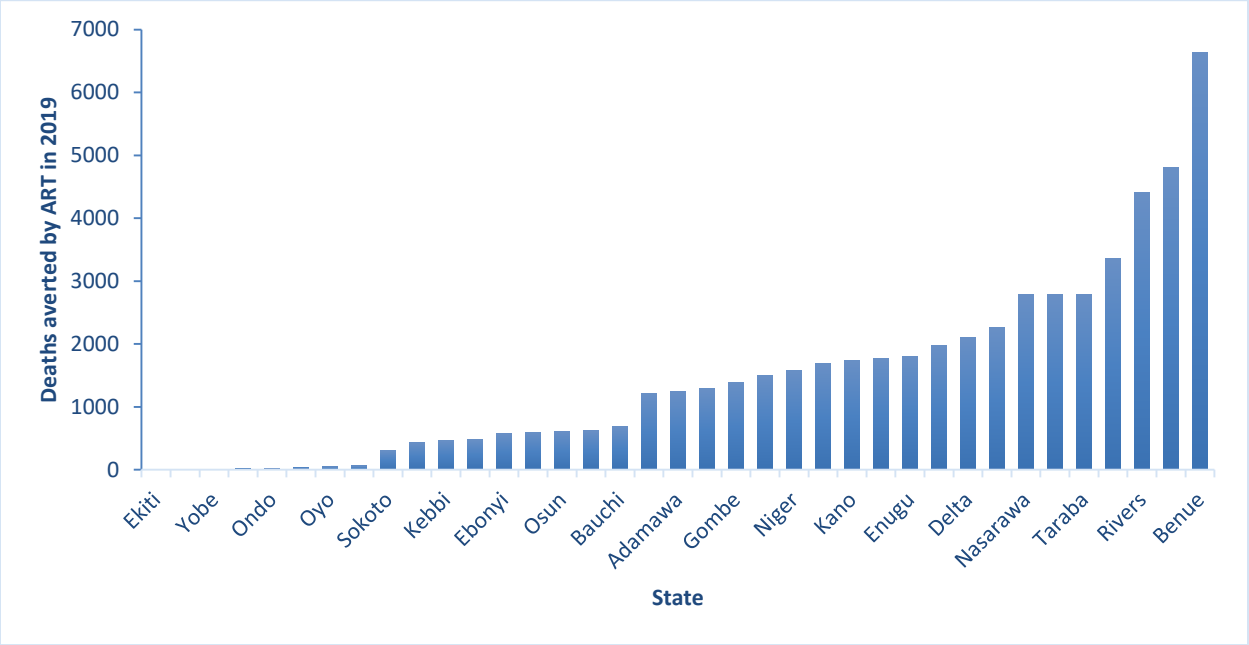
Both ART and PMTCT have contributed to about 563,659 life years gained in Nigeria in 2019.

Figure 8.11: Infections averted by PMTCT in 2019 by States



This shows stratification of infections averted by PMTCT at sub-national level in 2019.

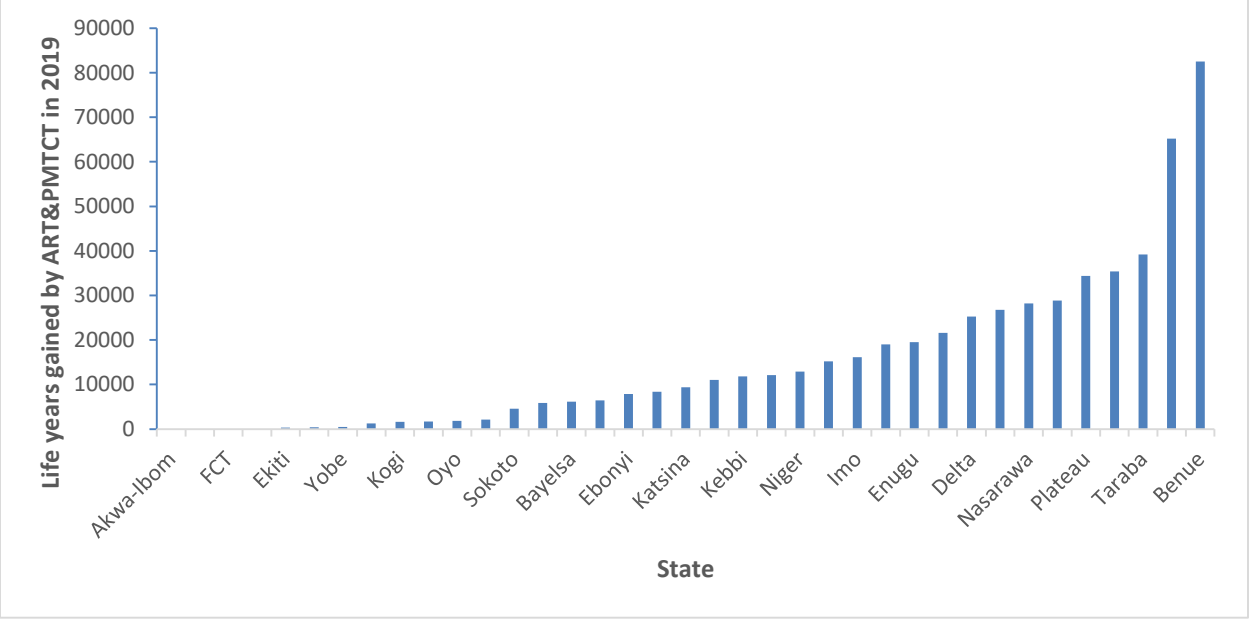
Figure 8.12: Deaths averted by ART in 2019 by States



This shows the number of deaths averted by ART at the sub-national level in 2019. Benue state had the highest number of deaths averted while Ekiti, Yobe and Ondo had the least. ART has been shown to be an outstanding life-saving intervention towards reducing deaths.

8.4.1 Life years gained by ART and PMTCT in 2019 by States

Figure 8.13: Life years gained by ART and PMTCT in 2019 by States



This figure above shows the number of life years gained as a result of both ART and PMTCT programmes. Benue state had the highest life-year gained and Akwa Ibom had the least.

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