FEDERAL MINISTRY OF HEALTH

National AIDS, Viral Hepatitis and STIs Control Programme (NASCP)

2021 ANNUAL REPORT

HIV/AIDS HEALTH SECTOR RESPONSE IN NIGERIA

PREFACE

The National HIV/AIDS, Viral Hepatitis and STIs Control Programme (NASCP), Federal Ministry of Health (FMoH) produces yearly report on the health sector response to HIV in Nigeria. The primary purpose of the report is to update all stakeholders on the progress in health sector related interventions to HIV. It also serves as a reference document for programme planning, policy and decision making.

Previously, the annual report focused mainly on the three core thematic areas: HIV Testing Services (HTS), Prevention of Mother to Child Transmission (PMTCT) and Antiretroviral therapy (ART). The scope of the current edition has been expanded to include; Pre-Exposure Prophylaxis (PrEP), sexually transmitted infections (STIs) and Hepatitis programmes. Additionally, a chapter on leadership and governance was added to provide details on the architecture of the health sector response, policy direction and stakeholders' support.

There are five chapters in the report in this order: Introduction; Leadership and Governance, HIV prevention; HIV treatment; and HIV Estimates and Projections. The report presents data for 2021 and trend analyses.

I therefore, present this document as the 2021 annual report on the health sector response to HIV/AIDS which contributes to the pool of information on the control of the epidemic in Nigeria and around the world. It is believed that all stakeholders will find this document very useful to their work.

Dr. Akudo Ikpeazu
National Coordinator

ACKNOWLEDGEMENT

The National AIDS, Viral Hepatitis and STIs Control Programme of the Federal Ministry of Health wishes to acknowledge with gratitude the various stakeholders who participated in the 2021 annual report writing workshop for their invaluable contribution which included careful review of necessary documents, data analysis and interpretation of the generated statistics. The support of the National Agency for the Control of AIDS (NACA) in the entire process of data collection and reporting is well appreciated.

Our sincere appreciation also goes to the UN Agencies (WHO and UNAIDS) for their immense contribution especially with ensuring that the estimates and projections are available for the report writing.

We want to specifically thank Clinton Health Access Initiative (CHAI) for providing the required support for the report writing workshop which was well attended by key implementing partners of whom we are very grateful for their participations and contributions. Among them in no particular order are Palladium Data.FI, SFH, IHVN, AHF, FHI, APIN, CCFN, CIHP, JHPIEGO, PHIS3 and others. The participation and contribution of the representative of Enugu State Ministry of Health is well appreciated.

The excellent coordination effort of the Strategic Information Component of the National AIDS, Viral Hepatitis and STIs Control Programme under the Federal Ministry of Health alongside their State counterparts as well as all Implementing partners in data management of the health sector response is for sure admirable.

Finally, I sincerely thank the Honorable Minister of Health and the entire Ministry leadership for leading the HIV response in Nigeria.

Dr. Adebobola Bashorun
Head, Strategic Information

LIST OF ACRONYMS

AHD	Advanced HIV Disease
AHF	AIDS Healthcare Foundation
AIDS	Acquired Immune Deficiency Syndrome
ANC	Ante-Natal Care
ART	Anti-Retroviral Therapy
ARV	Anti-retroviral
CBS	Case Based Surveillance
CCFN	Catholic Caritas Foundation of Nigeria
CDC	Centers for Disease Control and Prevention
CHAI	Clinton Health Access Initiatives
CIHP	Center for Integrated Health Program
CLM	Community Led Monitoring
CTRR	Counselled, Tested and Received Result
CTX	Cotrimoxazole
DHIS2	District Health Information System Version 2
DSD	Differentiated Service Delivery
EID	Early Infant Diagnosis
EMR	Electronic Medical Records
eMTCT	Elimination of Mother to Child Transmission of HIV/AIDS
FCT	Federal Capital Territory
FMoH	Federal Ministry of Health
GAM	Global AIDS Monitoring
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HCWs	Health Care Workers
HEI	HIV Exposed Infant
HIV	Human Immunodeficiency Virus
HMIS	National Health Management Information System
HTS	HIV Testing Services
INH	Isoniazid
IPs	Implementing Partners
IPT	Isoniazid Preventive Therapy
JHPIEGO	Johns Hopkins Program for International Education In Gynecology & Obstetrics
LGA	Local Government Area
M&E	Monitoring and Evaluation
MSFs	Monthly Summary Forms
MTCT	Mother to Child Transmission of HIV/AIDS
NACA	National Agency for the Control of AIDS
NASCP	National HIV/AIDS, STIs and Hepatitis Control Programme

NEPWHAN	Network of People Living with HIV in Nigeria
NDR	National Data Repository
NSF	National Strategic Framework
NVP	Nevirapine
OIs	Opportunistic Infections
PCR	Polymerase Chain Reaction
PEP	Post Exposure Prophylaxis
PEPFAR	United States President's Emergency Plan for AIDS Relief
PLHIV	People Living with HIV/AIDS
PME	Programme Monitoring and Evaluation
PMM	Patient Monitoring and Management
PMTCT	Prevention of Mother to Child Transmission of HIV
PNS	Partner Notification Service
PrEP	Pre-Exposure Prophylaxis
RM&E	Research Monitoring and Evaluation
RTKs	Rapid Test Kits
SACA	State Agency for the Control of AIDS
SASCP	State HIV/AIDS, STIs and Hepatitis Control Programme
SFH	Society for Family Health
SMoH	State Ministry of Health
STIs	Sexually Transmitted Infections
TB	Tuberculosis
TLD	Tenofovir-Lamivudine-Dolutegravir
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV & AIDS
USG	United States Government
USAID	United States Agency for International Development
WHO	World Health Organization

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INTRODUCTION

SECTION 1 - INTRODUCTION

1.1 Background

The world continued to respond to the dual pandemics of HIV and COVID in 2021. While the global HIV estimates for 2021 are being awaited, the 2020 estimates showed that an estimated 37.7 million people (36.0 million adults and 1.7 million children) were living with HIV globally and 10.2 million of these were not on treatment. Globally, an estimated 1.5 million individuals (1.3 million adults and 160,000 children) were newly infected with HIV in 2020, marking a 31% decline in new HIV infections since 2010. There were also an estimated 680,000 AIDS related deaths within the period[1]. As at the end of 2020, approximately 84% of people living with HIV globally knew their HIV status, 28.2 million people living with HIV (87%) of those who knew their status were accessing antiretroviral therapy (ART), while 90% of those on treatment were virally suppressed[2].

1.2 Overview of HIV in Nigeria

Nigeria is the most populous country in Africa with an estimated population of over 200 million. The median age of the population is 18.5 years, making it one of the largest populations of youth in the world. Approximately 44% of the population are children between 0-14 years. The average life expectancy in Nigeria is 54.5 years (53.7 years for men and 55.4 years for women). Nigeria is divided into six geopolitical zones, comprising of 36 states plus Federal Capital Territory (FCT). It operates a three-tier decentralized structure – Federal, state and local government. In the year 2021, an estimated 1.9 million people are living with HIV in Nigeria, making it the 4th largest HIV burden country globally. There were an estimated 88,591 new infections among which 28,710 were children (0-14 years) while 8,453 were adolescents (10-19 years).

The impact of the on-going COVID-19 pandemic and challenges of insecurity are compounding the socio-economic development issues of Nigeria as only 4.34% of the 2022 budget is allocated for health. The Nigeria HIV program has been largely donor-driven. Despite these challenges, Nigeria achieved the 90-90-90 UNAIDS goal by 2021 and is on track towards achieving the UNAIDS 95-95-95 goal. Currently, over 1.7 million PLHIV are on treatment. By the end of year 2021, Nigeria had achieved 97- 97-89 of the global 95- 95-95 UNAIDS target for HIV. However, further analysis indicates that achievements among other key and priority population including pregnant women, children, adolescents and young women are still inadequate.

[1] 2021 UNAIDS Global AIDS update –Confronting Inequalities
[2] https://www.hiv.gov/hiv-basics/overview/data-and-trends/global-statistics

1.3 Health Sector HIV/AIDS M&E and Surveillance Systems in Nigeria

1.3.1 Monitoring and Evaluation (M&E)

The health sector HIV/AIDS M&E system utilizes both hardcopy and electronic systems for data management. These are grouped into Patient Monitoring and Management (PMM) and Programme Monitoring and Evaluation (PME) tools. The PMM systems consists of forms for clients' assessments, drug prescription and adverse reaction monitoring, lab services and so on. The PME tools consists of the registers and worksheets used across all thematic areas. Currently, the Electronic Medical Records (EMR) are deployed for ART programme monitoring across most health facilities and One Stop Shops providing ART services. Plans are underway to integrate other thematic areas into the EMR system. At the end of each month, all facilities are expected to summarize all HIV related services by thematic areas using the national Monthly Summary Forms (MSFs). Data sources for these summaries are usually from the service registers and the EMR maintained at the health facility level. Hard copies of the completed MSFs are expected to be sent to SASCP for collation, validation and onward submission to NASCP.

Over the years, there has been challenges with timely submission, comprehensive collation and validation of states' HIV/AIDS data. The Federal Ministry of Health adopted District Health Information System Version 2 (DHIS2) as the National Health Management Information System (NHMIS), and has since deployed it across the Federal, State, LGA and facility levels. Since its adoption, the HIV/AIDS programme has struggled with reporting the data through the platform. This has been attributable to the current design of data collection and reporting on the DHIS platform which is very capital intensive. NASCP is working with DHPRS to fashion a more cost-effective way of reporting HIV/AIDS data through the DHIS and also to update the DHIS with the newly revised HIV/AIDS Monthly summary forms.

In order to ensure availability of HIV/AIDS data for programme planning, policy making, and cushion the gap in reporting, NASCP developed an interim excel based template for data collation from the facilities through the state and to the National. The State AIDS/STIs Control programme works with the implementing partners and the LGA team to populate the template every quarter to send to NASCP for validation, collation, analysis and reporting.

Additionally, NASCP with the support of the PEPFAR through the US Centre for Disease Control (CDC) also hosted the National Data Repository (NDR) which houses de-identified client level data for M&E and HIV surveillance activities, programme monitoring and captures patient level data for clients on ART. NDR is an electronic Health Information Exchange system that warehouses data from the EMRs implemented across the HIV/AIDS service delivery points in Nigeria.

Going forward, NASCP is working with all relevant stakeholders to expand the National Data repository (NDR) to be able to comprehensively cover reports of every aspect of HIV/AIDS health response with an extended ability to push data seamlessly into the National DHIS 2. Plans are

underway to provide an interphase between NDR and DHIS for the ART data while data on other programme areas not captured on NDR will be entered directly into the DHIS.

1.3.2 HIV/AIDS Surveillance Systems

Surveillance is the ongoing, systematic collection, analysis, interpretation, and dissemination of data for appropriate public health action. The presence of surveillance systems ensures the institutions of timely interventions to control and prevent the disease under surveillance. The HIV surveillance system is established to provide information on the burden of HIV which then guide preventive and treatment programs. Additionally, it identifies and monitors trends of HIV over time and serves as basis for epidemiological research. There are 3 major surveillance systems in place in Nigeria (Recency, Mortality and Case-based surveillance). The surveillance modules have also been built into the NDR platform.

1.4 Composition of the Health Sector response in Nigeria

The country's response is the result of an interplay of government structures and systems at national and sub-national levels, donors and partners which include the multi-lateral agencies, bilateral agencies and implementing partners. The civil society and the patient community play vital role in the health sector response to HIV/AIDS.

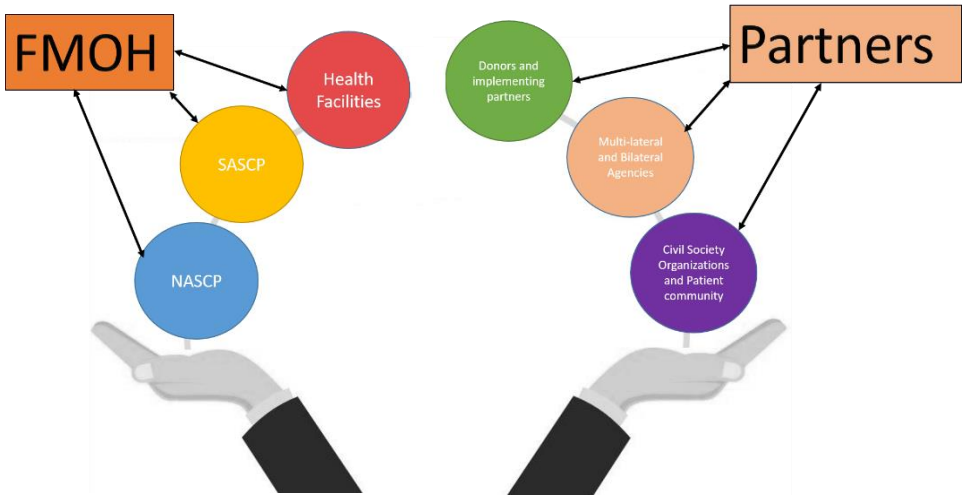


Figure 1.1: Composition of the Health Sector response in Nigeria

SECTION 2:

LEADERSHIP AND GOVERNANCE

SECTION 2 - LEADERSHIP AND GOVERNANCE

2.1 Governance structure

The health sector response to HIV/AIDS programme in Nigeria has many players supporting in ensuring the reduction in burden of the disease. The Federal Ministry of Health seats at the apex coordinating all the players involved in the health sector response including government agencies, multi-lateral and bilateral agencies and other development partners including international and local implementing partners. Also worth noting is the contribution of organizations at the grass roots which include the community-based organizations and the civil societies. For greater gain of both the financial and technical support available in country, the Federal Ministry of Health through NASCP aligns its implementation using the architecture presented in Figure 2.1.1 below[3]. In the state, the State Ministry of Health through the State HIV and STIs Control programme (SASCP) coordinate the health sector response to HIV, Hepatitis and other STIs while working with all stakeholders including SACA which is the umbrella agency coordinating the multi-sectoral response just as its counterpart at the National which is NACA.

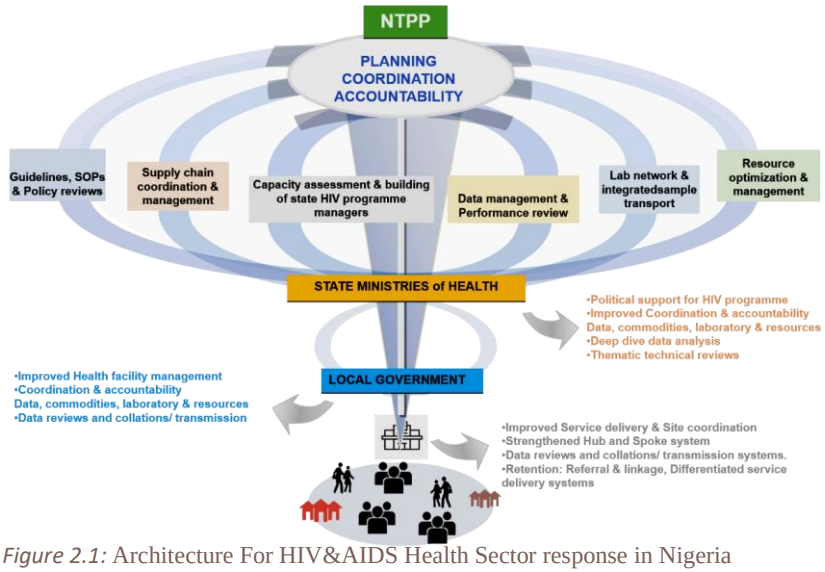


Figure 2.1: Architecture For HIV&AIDS Health Sector response in Nigeria

[3] NATIONAL TREATMENT AND PMTCT PROGRAMME (NTPP). The journey to self-reliance. 2-year operational plan 2020- 2021 by the Federal Ministry of Health (FMoH) Nigeria

2.2 The Policy Direction

Following the report of the first case of HIV in Nigeria, in 1986, the Federal Ministry of Health (FMoH) established the National AIDS, Viral hepatitis and STIs Control Programme (NASCP) under the Department of Primary Health (DPH) in 1988. NASCP, in line with her mandate, coordinates the formulation and effective implementation of government policies, guidelines and standard operating procedures (SOPs) for the treatment, care and support of those people already infected by the virus as well as biomedical prevention of new HIV infections in the country.

As Nigeria aligns with the global community in pursuit of the global target of achieving epidemic control and ending AIDS by 2030, the Federal Ministry of Health through NASCP provides policy direction to all players in the HIV health sector response in line with international standards and practices. Accordingly, Nigeria has adopted the UNAIDS Global AIDS strategy (2021- 2026) and is in the process of domesticating this strategy. NASCP has also developed the National Strategic Plan for elimination of Viral hepatitis in Nigeria for 2022-2026.

2.2.1 National Treatment and PMTCT Program (NTPP)

The re-established National Treatment and PMTCT Program (NTPP) which is a demonstration of the commitment of the Government of Nigeria towards the shared dream of achieving a sustainable and coordinated national HIV health sector response, has facilitated the alignment of resources and support for HIV response in Nigeria to build synergies and complementarity across partners to create efficiencies through reducing duplication and high transactional costs associated with programming.

The joint alignment for HIV resources in Nigeria has resulted in the following;

- Harmonization of the national treatment and PMTCT efforts within the country
- Scale up of Differentiated Service Delivery (DSD) models
- Optimization of PMTCT through strengthened RMNCAH integration, low performance root cause analysis, mapping of all ANC service delivery sites in-country and development of strategic frame work for e-MTCT for each State in Nigeria.
- Successful transition to more effective ART regimens across the country
- Strengthened Coordination at all levels
- More effective collaborations and partnerships
- Expansion of National Data Repository
- Implementation of Surge approach to HIV control at targeted locations
- Review of the HIV Health sector response implementation architecture

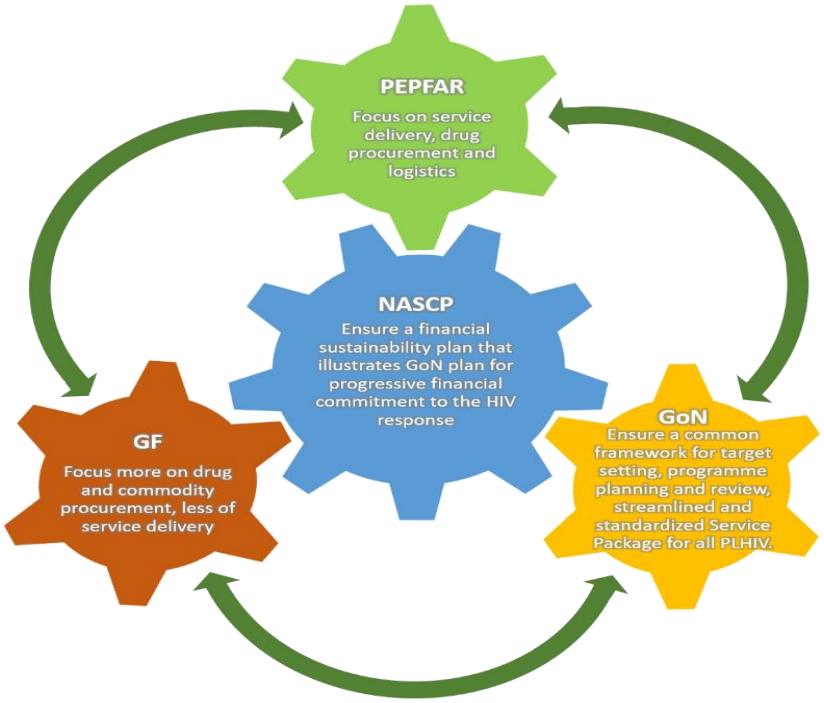


Figure 2.2: Implementation Architecture for the HIV Health Sector Response

2.2.2 Recent strategic interventions

With the support of the Center for Disease (CDC), NASCP has commenced a National Clinical Mentorship Programme across 19 States in Nigeria to ensure continuous supportive supervision, on-the job coaching and transfer of skills from expert clinicians to facilty-level clinicians in HIV health sector response.

NASCP with the support of the UN Basket Fund, also provides support to the Network of People Living with HIV in Nigeria (NEPWHAN) through capacity building for effective Community Led Monitoring (CLM) and ensuring that the findings from the CLM are properly disseminated among the relevant stakeholders for improved programme implementation and programme outcome.

2.3 Technical and Financial Support

The HIV health sector response in Nigeria is funded by the Government of Nigeria with support from key donor agencies such as PEPFAR, Global Fund and multi-lateral agencies which include the UN agencies and other implementing partners.

2.3.1 Government Commitment

The HIV and AIDS Health sector response is supported by Government of Nigeria through the FMoH and NACA. The country receives technical and financial support from UN Agencies (WHO, UNICEF and UNAIDS), Donors (PEPFAR, Global Fund, CHAI, AHF) and implementing partners. The government supports the programme with policy formulation, human resources, capacity building, supervision from the federal level down to the local government level and coordination.

The national HIV response is majorly funded by the Government of Nigeria, PEPFAR, Global Fund and other bilatera / multilateral organizations. In addition to fund provided by the Federal Government of Nigeria (FGN) through FMoH for HIV response, the Government also appropriates funds for multi-sectorial response to HIV through the National Agency for the Control of AIDS (NACA). At various states, the State Governments through the State Ministries of Health and other related MDAs has funds appropriated for HIV health sector response in their states.

2.3.2 Technical and Financial Support by PEPFAR

In Nigeria, PEPFAR has invested over $6 billion in the national HIV/AIDS response which has led to initiation and retention of over 1.7 million adults and children on HIV treatment in 2021. Post alignment, PEPFAR supports HIV programme implementation and service delivery in 34 states plus the Federal Capital Territory. It also supports HIV commodities procurement and supply chain management, KP programming, laboratory services, HIV data management etcetera.

2.3.3 Global Fund

In line with the current implementation architecture, The Global Fund supports HIV programme implementation and service delivery among the general and key populations in 2 states namely; Anambra and Ebonyi states through FHI360 as the principal recipient, while it also supports only Key Population (KP) and HIV programming in other 11 states.

NASCP is a sub-recipient of the Global Fund grant under the principal recipient NACA for a period of 3 years (2021 – 2023). This accounts for 7% of the HIV portfolio of the PR. This grant has supported NASCP to strengthen, capacity building at National and sub-national level, improved programme and partners coordination at all levels, data validation, Monitoring and Evaluation (M&E), and monitoring quality of care management.

2.3.4 United Nations System Contributions to HIV Program Implementation

In Nigeria, the UN provides support to the national HIV response mainly through technical assistance to strengthen country systems and mechanisms for advancing human rights and gender equality towards a sustainable national HIV response. The United Nations System's support to Nigeria is encapsulated by the United Nations Sustainable Development Partnership Framework (UNSDPF) for Nigeria (2018-2022). The UNSDPF is a 5-year strategic programmatic framework of the United Nations' collaboration with Nigeria and serves as an implementation arrangement guide by the UN system and the Government of Nigeria, contributing to the achievement of Nigeria's development goals[4,5].

2.3.5 HIV Implementing Partners

Various Implementing Partners (IPs) have been supporting the FMoH towards achieving universal access to comprehensive HIV prevention, treatment, care and support services across the various levels of healthcare in Nigeria. They also provide capacity buildings, support operational researches, and technical supports for evidence-based policy review and development. The implementing partners provide support to the HIV responses at different levels as shown in the table 1 below. These levels include; above facility level support, facility level support and community level support. Above Facility Level supports include; laboratory & supply chain planning, ARV commodity supply chain, support policy development and capacity building of MoH. The Facility level supports include: HTS Services, ART initiation, ART monitoring, continuum of care, viral load testing & suppression and capacity building for health care workers (HCWs) while the community level supports include; demand creation, case identification, community testing, index testing and tracking of LTFU.

[4] United Nations Sustainable Development Partnership Framework
[5] UNAIDS Joint Program Monitoring and Reporting. Nigeria Country Report 2020-2021

Table 2.1*: Levels of Support for Partners and Implementing Partners*[6,7,8,9]

Names of Partners & Implementing Partners	Community Level	Facility Level	Above Facility Level
AIDS Healthcare Foundation (AHF)	✓	✓	✓
AIDS Prevention Initiative in Nigeria (APIN)	✓	✓	✓
Achieving Health Nigeria Initiative (AHNI)	✓	✓	✓
Breakthrough Action Nigeria (BA-N)	✓	✗	✓
Catholic Caritas Foundation of Nigeria (CCFN)	✓	✓	✓
Catholic Relief Services (CRS)	✗	✓	✓
Center for Initiative and Development (CFID)	✗	✓	✓
Center for Integrated Health Program (CIHP)	✓	✓	✗
Clinton Health Access Initiative (CHAI)	✗	✗	✓
Elizabeth Glaser Pediatric AIDS Foundation (EGPAF)	✓	✓	✓
Family Health International (FHI360)	✓	✓	✓
Heartland Alliance	✓	✓	✗
Johns Hopkins Program for International Education In Gynecology and Obstetrics (JHPIEGO)	✓	✓	✓
Paediatric AIDS Treatment Africa (PATA)	✗	✓	✗
Public Health Information Surveillance Solutions & Systems (PHIS3)	✗	✗	✓
Society for Family Health (SFH)	✓	✓	✓
The Institute of Human Virology (IHVN)	✓	✓	✓
ViiV Breakthrough Partnership	✓	✓	✓

[6] https://www.unodc.org/nigeria/en/hiv-and-AIDS.html
[7] https://www.AIDShealth.org/global/nigeria accessed 22rd May, 2022.
[8] https://sfhnigeria.org/intervention-areas/hiv-and-AIDS-prevention-and-treatment
9 https://www.clintonhealthaccess.org/our-programs/hiv-AIDS/

SECTION 3:

HIV PREVENTION

SECTION 3 – HIV PREVENTION

3.1 Background

In 2021, an estimated 88,000 new infections were reported in Nigeria, ranking among the highest in the world, with 28,000 new infections resulting from mother to child transmission. If the goal of HIV eradication by 2030 is to be met, HIV prevention must be actively pursued to reduce the incidence of HIV infection in the country. The following program areas: HTS, PMTCT, GBV, and PrEP are critical to the success of the global HIV response in preventing new infections.

WHO recommends that HIV testing should be available to all populations and in all services delivery points such as sexually transmitted infection (STI), hepatitis, tuberculosis (TB), and anti-natal care (ANC) clinics as an efficient and effective means to identify people living with HIV. Adults, adolescents, and children with signs and symptoms or medical conditions that could indicate HIV infection, including TB and STIs, HIV-exposed children and symptomatic infants and children, and all pregnant women should be offered HIV testing in low HIV burden settings.

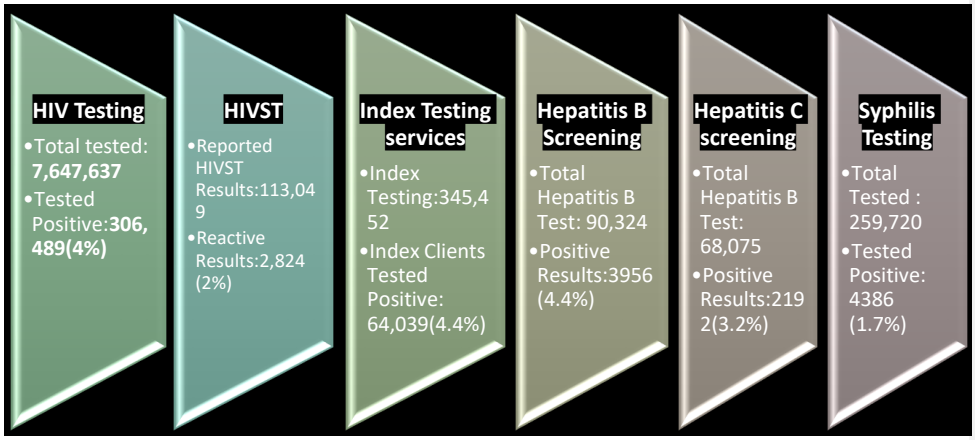


Figure 3.1: Key Performance Indicators for Case Finding

3.2 HIV Testing Services

HIV testing services (HTS) is the entry point to HIV treatment, prevention and care. It comprises of activities that ensure voluntary and confidential counselling, testing and disclosure of HIV test results to individuals and clinical screening for tuberculosis and STIs. The activities include pre-test information and post-test counselling; testing using the national algorithm. The two modalities incorporated in HTS are the provider-initiated and the client-initiated approach. The provider-initiated approach utilizes the "opt-in and opt-out" model which provides client with the option of accepting or declining HTS services.

The National HTS guideline recommends that HTS should be provided as a client-centered approach, taking into consideration the five core principles known as (5Cs): consent, confidentiality, counselling, correct test results and connection with prevention, care and treatment services. To achieve epidemic control, other strategies in HTS such as: recency testing, HIV self-testing, index testing, differentiated service delivery and risk stratification checklist were introduced in order to optimize the uptake of HTS. These strategies have greatly increased HTS uptake especially reaching the hard-to-reach areas especially within the community. This strategy is evident in the country' achievement of the 90% target of the UNAIDS global target by 2020, as well as the subsequent improvement to 98% in 2021.

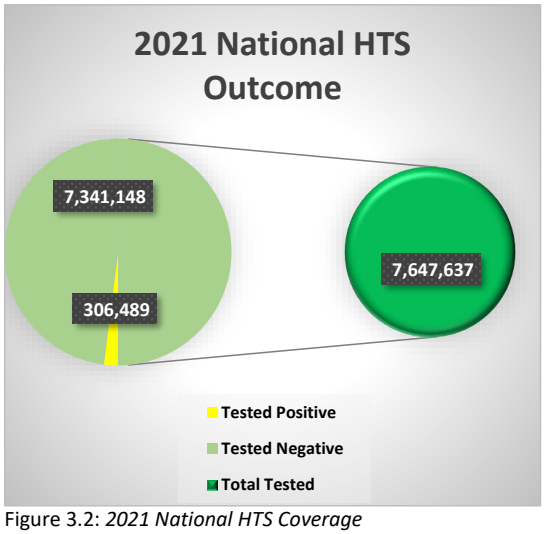


Figure 3.2: *2021 National HTS Coverage*

Over 7.6 million persons were tested for HIV in 2021 and about 306,000 were found to be HIV positive (figure 3.2). Though the number tested is slightly lower in 2021 when compared to 2020, the total positive yield was similar which is great improvement from the yields in 2017 to 2019 (figure 3.3). The HIV positivity rate progressively increase in the 5-year trend analysis and was highest in 2021 (4%). The increase in HIV positive yield in Nigeria could be attributed to targeted HIV testing which were optimized since year 2020. Also, the increasing positivity rate further corroborated the use stratification tool to generate more positives.

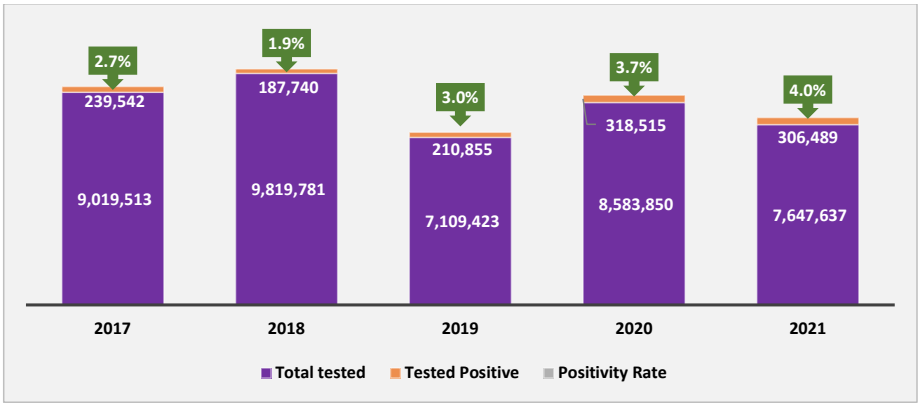


Figure 3.3: Trend in HIV Testing Services

3.2.1 FIRST 95: Knowledge of HIV Status

The UNAIDS Global target for the first 95 is to ensure that 95% of estimated HIV population know their status. This section highlights the performance of the country both at state and national levels.

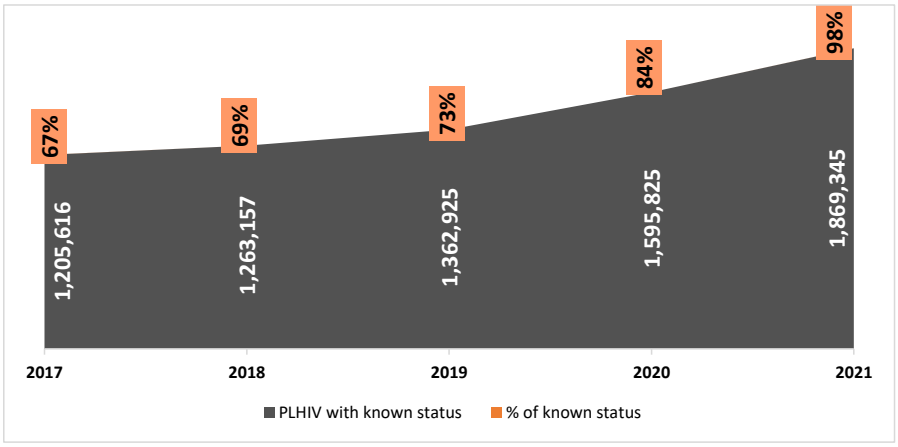


Figure 3.4: Trend in PLHIV Known Status

The National trend among estimated PLHIV that knows their status showed a gradual improvement over the last five years (figure 3.4). Though percentage increment between 2020 and 2021 compared to the previous years declined, the country's achievement already exceeded the 95% target by the end of 2030. This success can be attributed to innovations and strategies such as targeted testing, index testing and the surge program introduced in HIV testing in recent time.

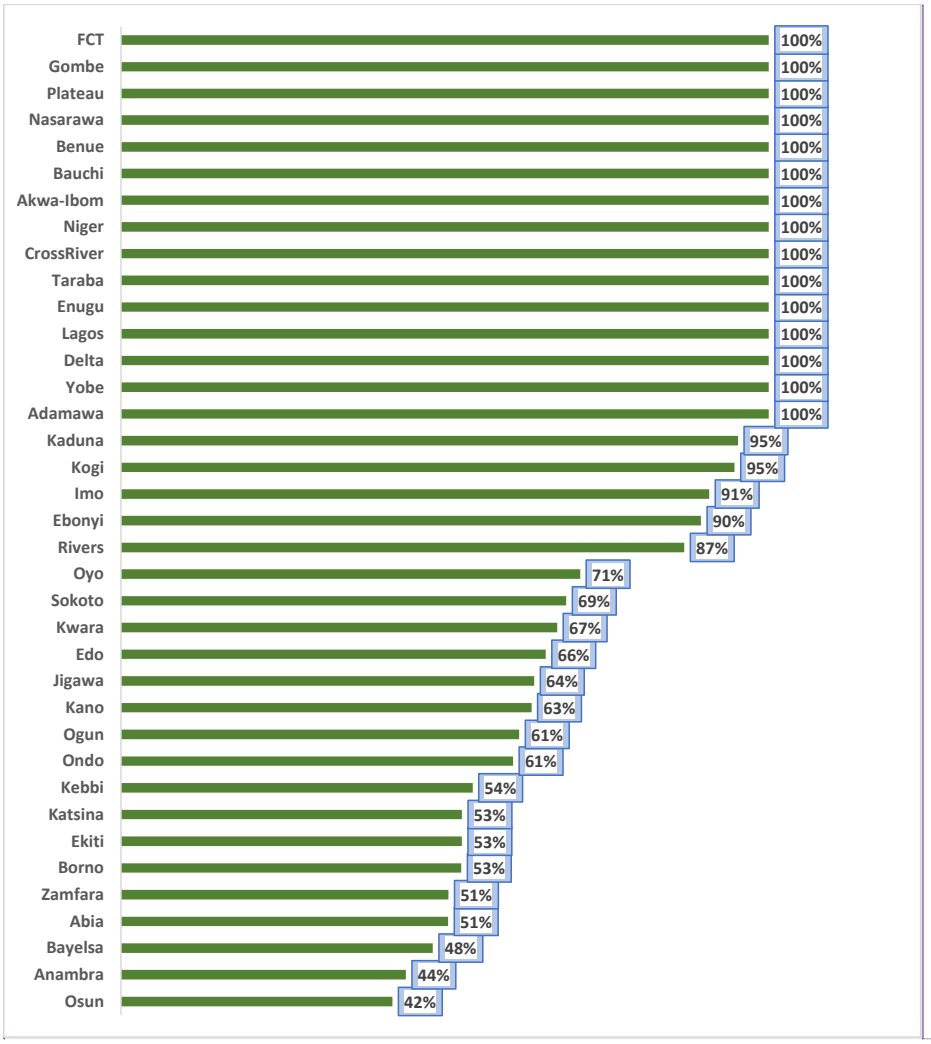


Figure 3.5: *PLHIV Known Status by State* in 2021

Commented [1]: When we have oversaturation, lets try to address some concerns based on migration and place of residence vs service delivery locations.

Figure 3.5 on the knowledge of HIV status among PLHIV by state showed that about half of the states have already met the 95% global target, while the remaining half are hovering between 47% and 91%. Although the National performance looks good, more efforts need to be made towards ensuring that all states achieve the 95% target.

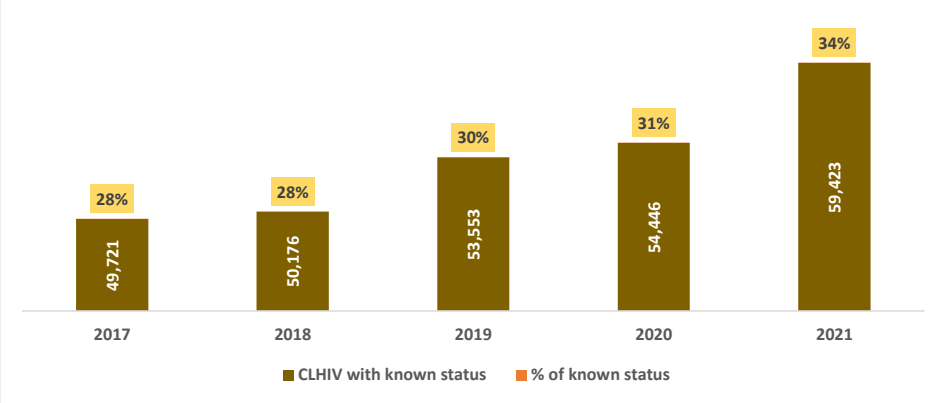


Figure 3.6: Trend in CLHIV Known Status

The number of children living with HIV (CLHIV)[10] who know their status has progressively increased in the last five years. However, there is still a huge gap in the knowledge of HIV status in this population as the recent rate is still below 50% (figure 3.6).

Further analysis as presented in figure 3.7 revealed that none of the state has met the first 95 target among children. This reiterates the need for strategic intervention for case finding of CLHIV. It is important for the country to developed focused interventions for this group as well as deploy innovative strategies to reach them.

[10] CLHIV are persons living with HIV who are aged 0-14 years.

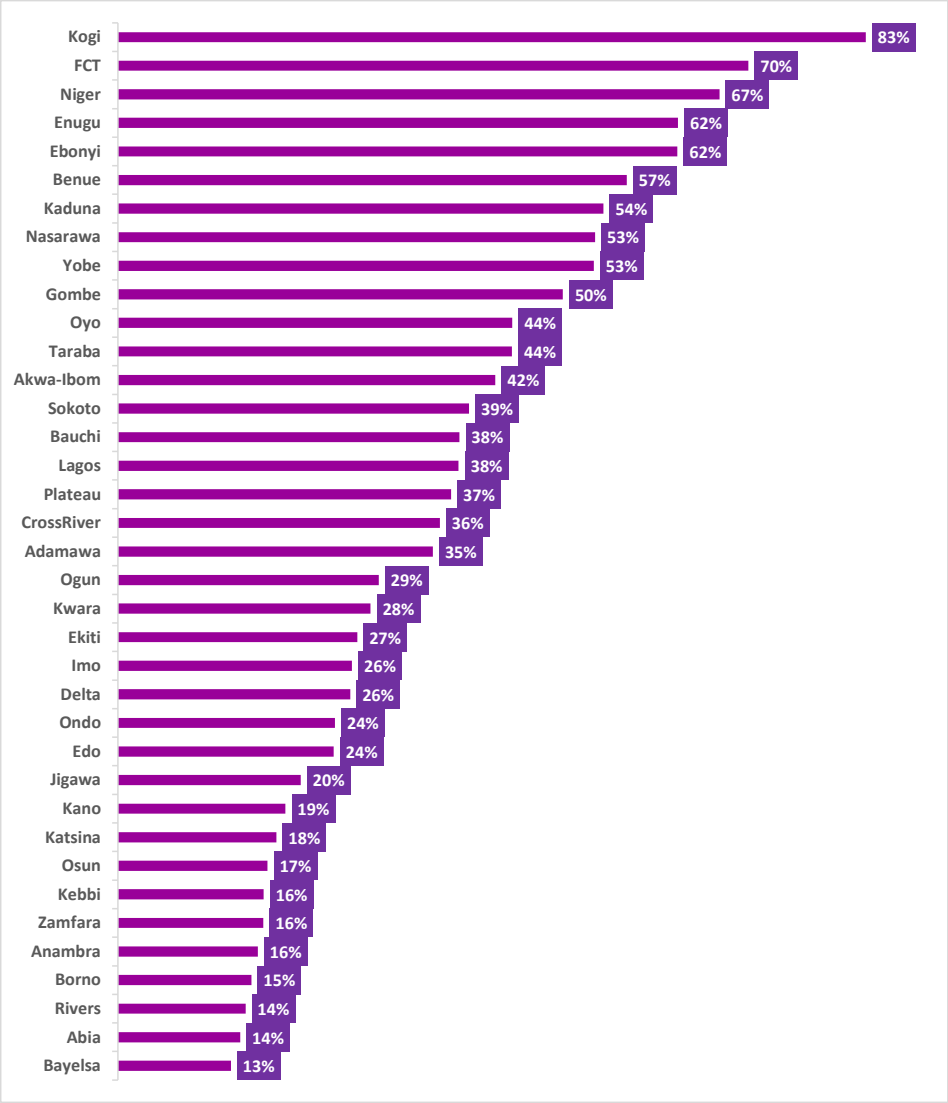
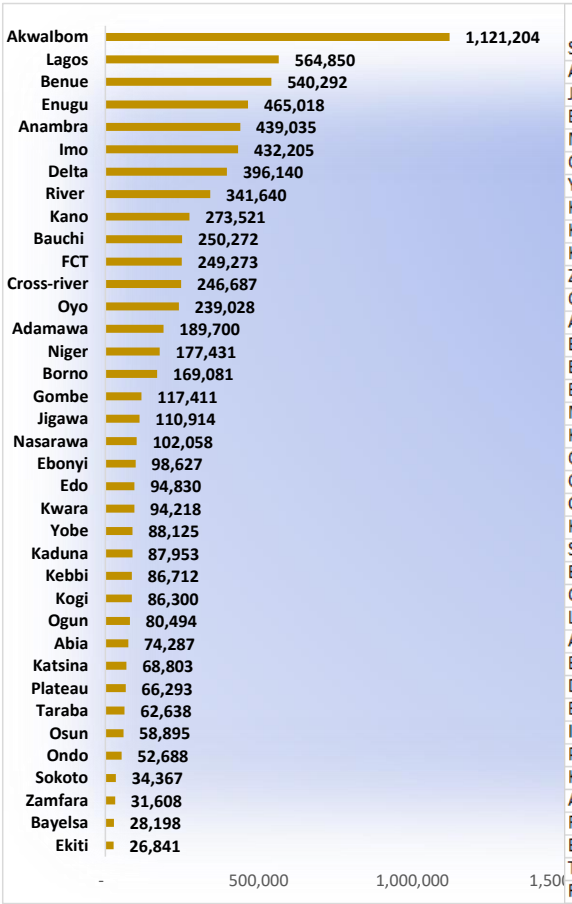


Figure 3.7: CLHIV Known Status by State in 2021

3.2.2 HIV Testing Volumes and Yields

This section outlines in-depth analysis of HIV testing volume as well as the yield by different disaggregation. Figure 3.8 shows the HIV testing by states with Akwa-Ibom reporting the highest (1,121,204) and Ekiti with the lowest (26,841) tests done in 2021. Most states with low yield attributed the situation to unavailability of HIV test kits. The HIV positivity rate showed that Rivers had the highest positivity rate (8.8%) while Anambra had the lowest positivity rate (1.2%). Seven states (AkwaIbom, Benue, Rivers, Lagos, Enugu, Imo, Delta) and FCT contributed about 70% of the total positives identified. This finding may be attributed to the intensified case finding due to surge program ongoing in these states.



State	Positivity Rate
Anambra	1.2%
Jigawa	1.2%
Ebonyi	1.2%
Niger	1.7%
Oyo	2.0%
Yobe	2.1%
Kano	2.2%
Kwara	2.2%
Kebbi	2.3%
Zamfara	2.4%
Osun	2.6%
Adamawa	2.6%
Borno	2.6%
Bauchi	2.7%
Edo	3.0%
Nasarawa	3.1%
Kogi	3.3%
Ondo	3.4%
Cross-river	3.5%
Gombe	3.5%
Katsina	3.7%
Sokoto	3.8%
Bayelsa	3.9%
Ogun	4.3%
Lagos	4.3%
Akwalbom	4.9%
Ekiti	4.9%
Delta	5.0%
Enugu	5.2%
Imo	5.2%
Plateau	5.2%
Kaduna	5.2%
Abia	5.4%
FCT	5.5%
Benue	5.8%
Taraba	6.9%
Rivers	8.8%

State	% Positive Contribution
Akwalbom	18.0%
Benue	10.2%
Rivers	8.1%
Lagos	7.9%
Enugu	7.8%
Imo	7.3%
Delta	6.4%
FCT	4.5%
Cross-river	2.4%
Bauchi	2.2%
Kano	1.9%
Anambra	1.7%
Oyo	1.5%
Kaduna	1.5%
Borno	1.5%
Gombe	1.3%
Abia	1.3%
Adamawa	1.1%
Ogun	1.1%
Plateau	1.1%
Nasarawa	1.0%
Niger	1.0%
Taraba	0.9%
Kogi	0.9%
Edo	0.9%
Katsina	0.8%
Kwara	0.7%
Kebbi	0.7%
Yobe	0.6%
Ondo	0.6%
Osun	0.5%
Jigawa	0.4%
Ekiti	0.4%
Sokoto	0.4%
Ebonyi	0.4%
Bayelsa	0.4%
Zamfara	0.2%

Figure 3.8: 2021 Total HIV Testing *and Positivity* by States

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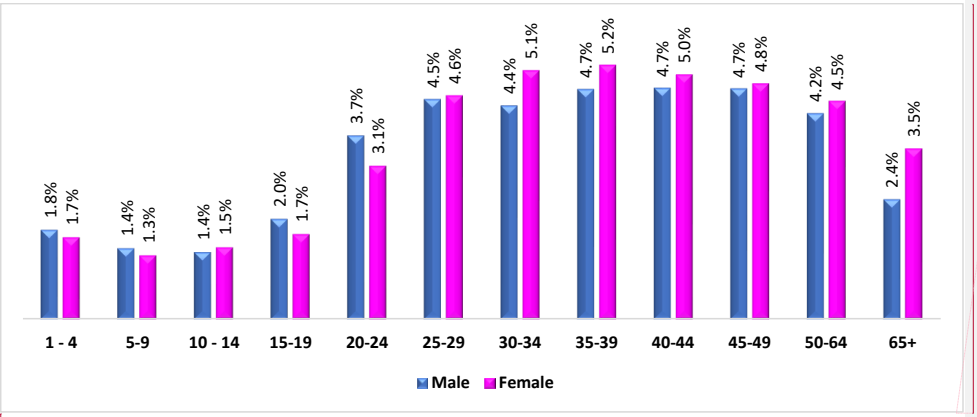


Figure 3.9: HIV Positivity Rate by Age and Sex in 2021

The HIV positivity rate disaggregated by age and sex as depicted in figure 3.9 shows that the highest positivity rate among female aged 35-39 years (5.2%), and male between aged 35-49 (4.7%). The lowest positivity rate was reported among the female age group 5-9 years (1.3%). The HIV positivity rate of young persons and people of reproductive age bracket were between the range of 3.1% to 5.0%. This shows that the drivers of the epidemic are still mostly within this age group.

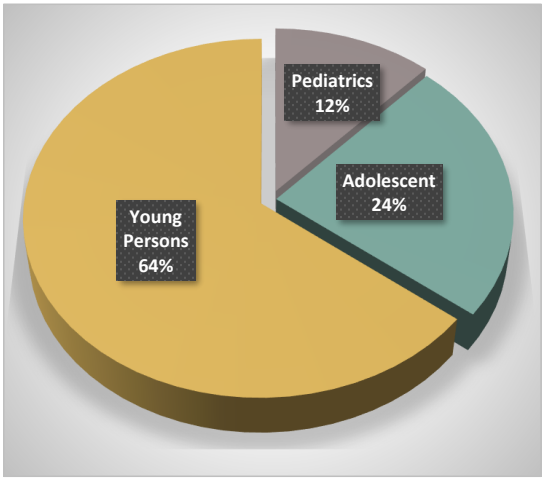


Figure 3.10 depicts percentage HIV positive yield contributed among pediatrics(1-9yrs), adolescents (10-19yrs), and young persons(20-24yrs). The age bracket 1-24 years contributed 18% of the total positives identified (306,489). Of this 18%, the young persons (20-24years) contributed the most at 64% when the 3 groups are compared.

Targeted testing and better strategies need to be employed in order to reach this age group, ensuring that they are linked to care and most importantly retained in care.

Figure 3.10: HIV Positive contribution by Children and AYP in 2021

3.2.3 HIV Testing Strategies

Nigeria adopted many innovative HIV testing strategies to ensure that all PLHIV are identified, linked to care, initiated and retained on ART. Some of the strategies include index testing, couples testing, HIV self-testing, recency testing, sexual network testing and others.

3.2.3.1 HIV Index Testing

In this strategy an index positive client is counselled and possible contacts elicited for HIV testing. Contacts include sexual partners and biological children of the index. In year 2021, index testing contributed 21% of the total HIV positives identified indicating the advantage of the index testing strategy. It was an improvement from the 17% reported in 2019.

Figure 3.11 portrays the trend in index testing positivity rate from 2017-2021. In the year 2017, positivity rate in index testing was 15.9% of the total index clients tested. However, a decrease in the positivity rate was observed in 2018. In 2019 and 2020, positivity rates increased to 17.2% and 22% respectively, and decreased to 19% in 2021. This is a strategy that has improved positivity yield over the years, and should not decline, as shown in year 2021, More efforts need to be put in place to further improve the use of the index testing strategy and subsequently generate better yield.

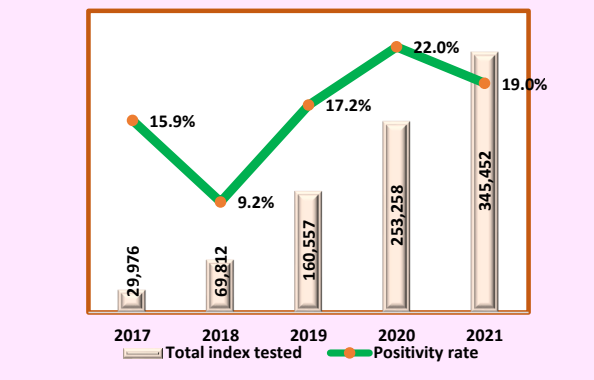


Figure 3.11: Trend in Index testing Positivity Rate

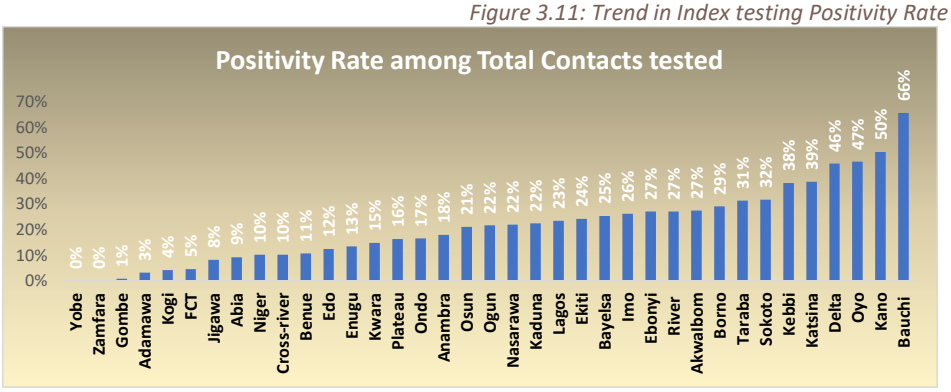


Figure 3.12: Index Positivity Rate among by State

Figure 3.12 shows that Bauchi state reported the highest index positivity rate contribution (43%) followed by Kano State (33%). However, there was no report of index testing from Yobe and Zamfara Apparently more needs to be done in terms of leveraging on index testing at state level and more training is strongly recommended, as most of the states gave feedback that HCWs seemed to be finding it quite difficult to convince HIV positive clients to enlist their sexual partners for testing.

3.2.3.2 Couple Testing

Couple testing has been in practice for quite some time. It is a practice whereby couple or intending couple gets their HIV counselling, testing and results together.

Figure 3.13 shows trend in couple HIV testing in the last five years. Despite the reduction in the number of couples tested, more discordant couples are being identified than in previous years. About 12% of the total couples tested were reported to be sero-discordant in 2021.

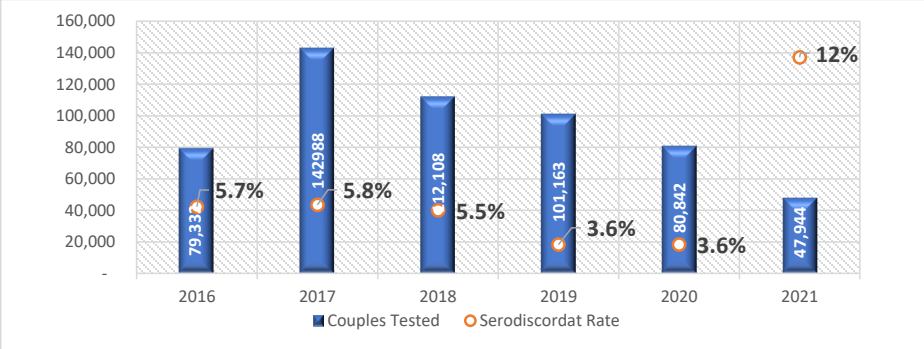


Figure 3.13: Trend in Couples Testing

3.2.3.3 HIV Self Testing

The country adopted the HIV Self testing (HIVST) strategy in 2019 through the development of the National HIVST guidelines and the evaluation of HIVST kits. HIVST is a process in which a person collects his or her own specimen (oral fluid or blood), performs a test and interprets the result, often in a private setting either alone or with someone he or she trusts. HIVST has proven to be highly acceptable among various groups of users in diverse settings, particularly key populations, general population, pregnant women and their male partners. The country expects that HIVST will facilitate achievement of the UNAIDS global target of 95-95-95 by 2030. It will also enable reaching first-time testers and enhance demand creation among those with undiagnosed HIV and high-risk individuals who require frequent retesting.

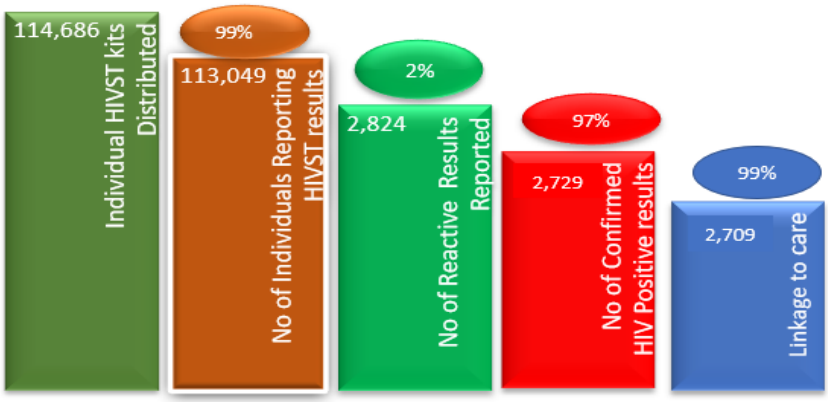


Figure 3.14: HIVST Cascade

The analysis in figure 3.14 above on HIVST services above represent data reported from 12 states (Anambra, Cross-river, Delta, Ebonyi, Enugu, FCT, Imo, Lagos, Nasarawa, River) in 2021. The facilities from where data were generated were supported by JHPIEGO and CCFN through the IPs in the state. The chart shows that 99% of persons who collected the HIVST kits reported their results. This success according to programmers were mostly attributed to the follow up by service providers to clients. Two percent (2%) of the reported tests were reactive and 97% of the reactive results were confirmed to be truly positive. This brings to the fore the importance of using the HIVST in achieving the 1st 95 targets. Scale up to other states should therefore be prioritized for better outcomes.

3.2.3.4 Recency Testing

HIV recency test is a laboratory-based test that detects whether an HIV infection is recent (less than six months) or not. The incorporation of HIV recency testing in national HIV case reporting systems will help to assess how HIV is being transmitted, describe behaviors that are facilitating HIV transmission and optimize HIV-related data collection and information on risk factors. By determining recent infections among people newly diagnosed as living with HIV, Nigeria can identify the geographic areas and subpopulations where HIV transmission is happening. They can then effectively interrupt HIV transmission by building evidence-informed policies, guiding resources to the right place and measuring the impact of HIV prevention programmes. HIV recency is currently being reported on the NDR.

3.2.4 Linkage to Treatment

The gold standard for HIV testing is to ensure all PLHIV identified are promptly linked to care. Linkage to care is a vital initial step in HIV treatment; this has helped to improve the quality of life of PLHIV over the years. The linkage to care in year 2021 were over 100% across all the quarters. There was an overall linkage rate of 123% for the year under review. NASCP will be working with the implementing partners to understand the factors leading to over-linkage of clients to HIV care.

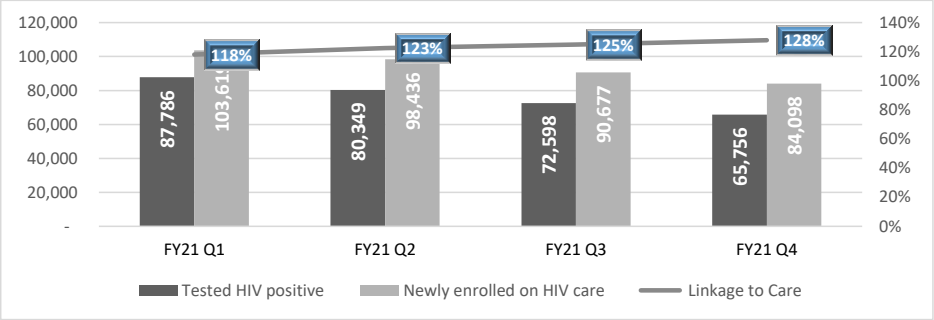


Figure 3.15a: 2021 trend in Linkage to care

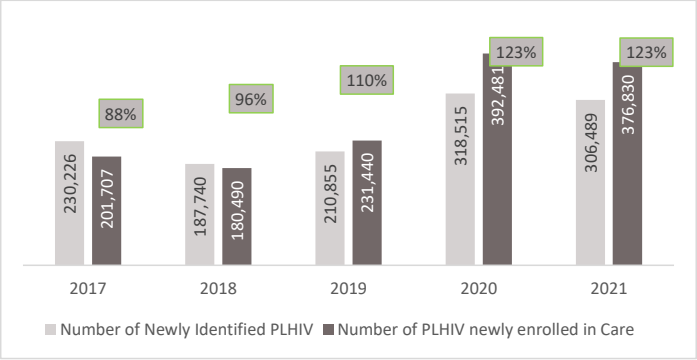


Figure 3.15b: 5-year trend in Linkage to care

The linkage rate for identified PLHIV has continued to increase over the years. This reflects an effective referral system and prompt enrolment into care however, linkage rate from 2019 to 2021 were above 100% as shown in figure 3.15b. Hence, there is need for HTS and enrollment data audit to validate the number of HIV positive clients who are enrolled into care at site level, the scale-up of electronic capture and automation of data reporting using DHIS.

3.3 Hepatitis

Every 30 seconds, a person dies of hepatitis-related disease, amounting to an average of 3,600 deaths every day. Also, Hepatitis B and C, which are the most common of the five strains, are responsible for an estimated 1.1 million deaths and 3 million new infections each year, according to the World Health Organization. The annual aggregate of the new infections now presents the world with the total figure of more than 325 million people living with hepatitis infections globally. Of this global figure, more than 90 million people are living with hepatitis in Africa, representing 26 per cent of the global total.

In Africa, Nigeria has one of the highest prevalence rates of viral hepatitis with a national average prevalence of 8.1% for HBV (10.3% in men and 5.8% in women) and 1.1% for HCV (1.3% in men and 1.0% in women). Co-infection rates with HIV/HBV and HIV/HCV are 8.9% and 1.1 percent, respectively, among persons living with HIV (PLHIV) aged 15 to 49 years (NAIIS, 2018). An estimated nine in ten Nigerians who live with chronic HBV and HCV are not aware of their infection status and are missing from the global public health statistics due to lack of resources, awareness, and political will for addressing the burden of HBV in Nigeria (WHA, 2018). Knowledge of viral hepatitis, as well as appropriate interventions such as diagnosis, affordable treatment, timely vaccination, and preventative services, will help to reduce the risk of serious disease complications and the spread of the virus, and will contribute to the elimination of viral hepatitis as a public health threat by 2030.

3.3.1 Hepatitis Subtypes

Hepatitis A (HAV) has been linked to contaminated water, poor sanitation, and poor personal hygiene. It is mostly transmitted through faecal-oral transmission, which occurs when an uninfected, unvaccinated individual consumes food or water contaminated with an infected person's faeces. Symptomatic development is uncommon, with most instances resulting in full recovery and long-term immunity against HAV infections. A few cases, however, can be severe and life-threatening. HAV infection can be prevented with the use of safe and effective vaccinations.

Hepatitis B (HBV) is a virus that can be passed from mother to child, through intercourse, and by contact with blood and other bodily fluids. Over 90% of adults who become infected clear it up on their own without treatment, while over 90% of neonates born to hepatitis B e antigen [HBeAg]-positive mothers and 20%-60% of children under the age of five acquire CHB after an acute infection. In general, 20 to 30 percent of people with CHB will develop cirrhosis, with a 2 to 7% annual risk of having either end-stage liver disease (ESLD) or HCC (WHO, 2015). Although there is no known virologic cure for HBV infection, antiviral medication has been found to minimize the risk of transmission and the development of liver problems.

Hepatitis C (HCV) is a bloodborne virus that is most commonly transmitted through the reuse or inadequate sterilization of medical equipment, especially syringes and needles in healthcare settings, the transfusion of unscreened blood and blood products and injecting drug use through the sharing of injection equipment. HCV can be passed from an infected mother to her baby and via sexual practices that lead to exposure to blood. The incubation period for hepatitis C ranges from 2 weeks to 6 months. Following initial infection, approximately 80% of people do not exhibit any symptoms. Fever, exhaustion, decreased appetite, nausea, vomiting, abdominal discomfort, dark urine, pale faeces, joint pain, and jaundice (yellowing of skin and the whites of the eyes) are common symptoms in those who are acutely sick. There is no effective vaccine against hepatitis C therefore, prevention depends on reducing the risk of exposure to the virus in health care settings and in higher risk populations.

Hepatitis D (HDV) requires HBV for its replication and multiplication. HDV/HBV super-infection is considered the most severe form of chronic viral hepatitis due to very rapid progression to cirrhosis, HCC, and death but those that survives clears the infections. Hepatitis B vaccine offers protection against HDV.

Hepatitis E (HEV)) is characterized by a mild fever, decreased appetite, nausea, and vomiting that last a few days. Abdominal pain, itching (without skin lesions), skin rash, or joint pain may also occur in certain people. They may also have jaundice, with dark urine and pale faeces, as well as a slightly enlarged, painful liver (hepatomegaly) and, in rare cases, acute liver failure.

3.3.2 Hepatitis B and C Testing coverage

In 2021, hepatitis service statistics as presented in figure 3.16 shows the uptake of HBV and HCV screening among HTS clients and their outcomes at the facilities. As shown, 90,324 and 68,705 clients were screened for HBV and HCV respectively. The result also shows that 4.4% tested positive for HBV while 3.2% tested positive for HCV.

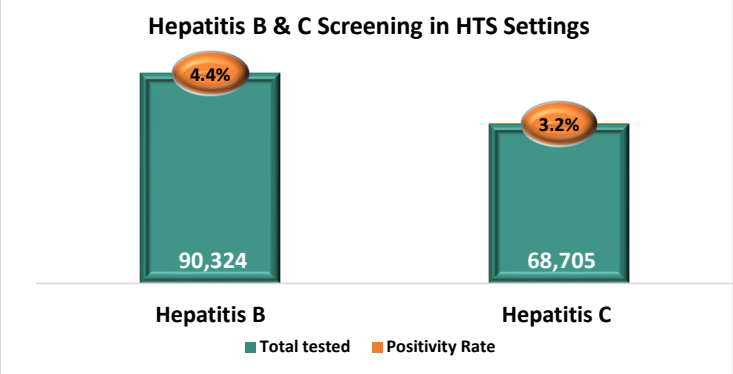


Figure 3.16: Hepatitis B and C Screening and Outcome

Figure 3.17 depicts the total number of clients screened and the positivity rate of HBV in the last 5 years. The chart above shows a decline in the positivity rate of HBV from 12% in 2019 to 4% in 2021. Use of targeted testing may be helpful in improving screening outcome.

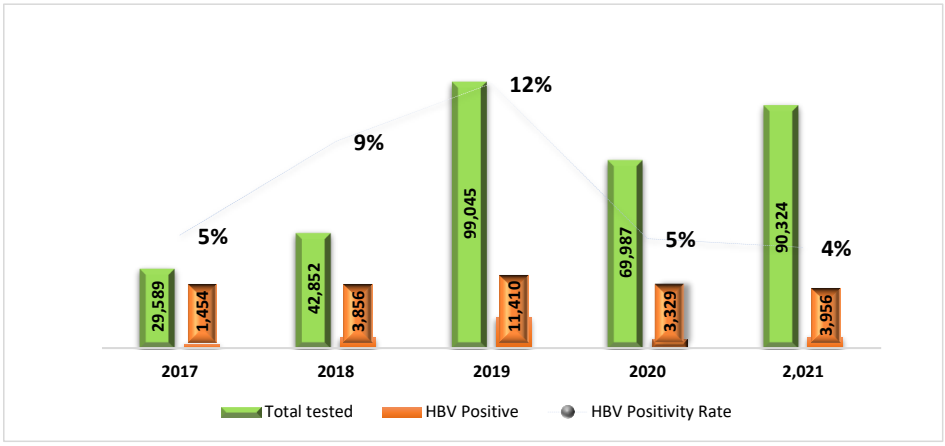


Figure 3.17: Trend in HBV Screening and Outcome

Figure 3.18 depicts an increase in the uptake of HCV screening among HTS clients. The trend analysis shows a decrease in positivity rate from 21% in 2019 to 3% in 2021.

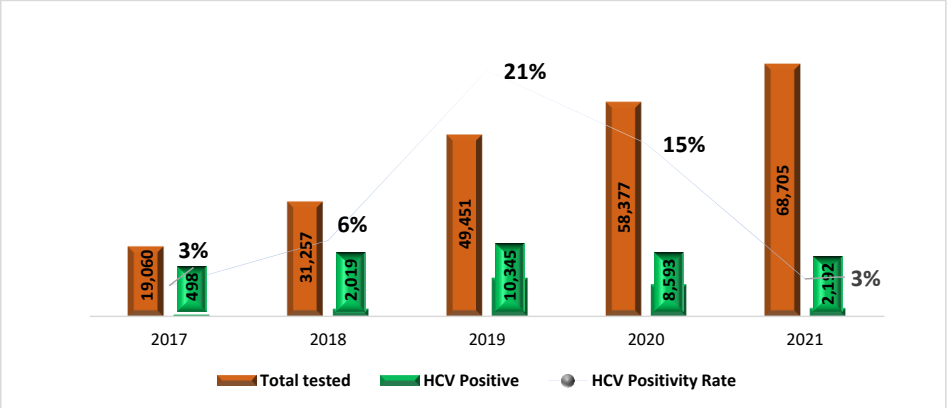


Figure 3.18: Trend in HBV Screening and Outcome

Figure 3.19 below depicts the number clients screened for hepatitis B in HTS settings. The number of tests reported by states is quite low considering the 8.1% prevalence of HBV in country which amount to an estimated 16million persons living with Hepatitis B. Only 30 states submitted report of HBV screening. The screening of clients for Hepatitis B both among general population and PLHIV is of utmost importance and should be prioritize, if the country wants to meet up with the global target of elimination by 2030.

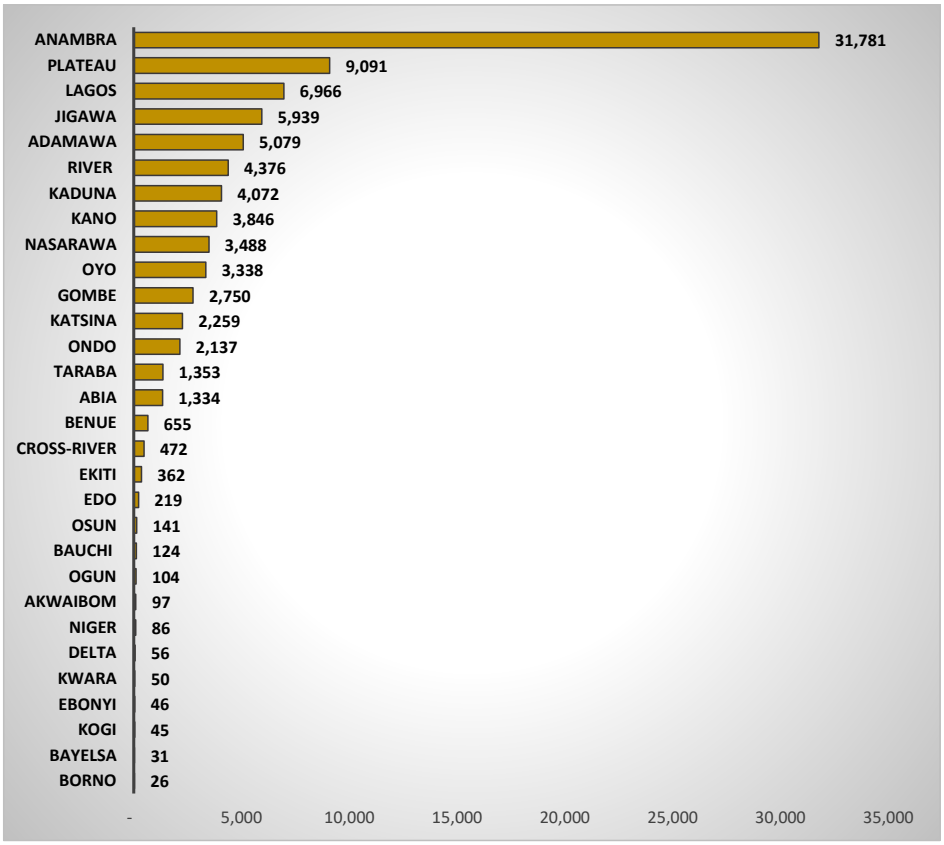


Figure 3.19: Number of HBV Screening by State

Table 3.1: HCV Screening outcome by States

States	Total Tested for HCV	HCV Positive	Positivity rate	Contribution to Total Positives
Abia	840	133	15.8%	6.1%
Adamawa	1,048	50	4.8%	2.3%
Akwalbom	267	267	100.0%	12.2%
Anambra	24,439	20	0.1%	0.9%
Bauchi	112	3	2.7%	0.1%
Bayelsa	19	9	47.4%	0.4%
Benue	318	7	2.2%	0.3%
Borno	-	0	0.0%	0.0%
Cross-river	277	0	0.0%	0.0%
Delta	-	0	0.0%	0.0%
Ebonyi	12	0	0.0%	0.0%
Edo	218	0	0.0%	0.0%
Ekiti	152	6	3.9%	0.3%
Enugu	-	0	0.0%	0.0%
FCT	-	0	0.0%	0.0%
Gombe	1,242	827	66.6%	37.7%
Imo	-	0	0.0%	0.0%
Jigawa	5,092	49	1.0%	2.2%
Kaduna	3,561	260	7.3%	11.9%
Kano	2,611	0	0.0%	0.0%
Katsina	1,092	1	0.1%	0.0%
Kebbi	-	0	0.0%	0.0%
Kogi	33	0	0.0%	0.0%
Kwara	42	0	0.0%	0.0%
Lagos	4,250	37	0.9%	1.7%
Nasarawa	2,863	219	7.6%	10.0%
Niger	95	23	24.2%	1.0%
Ogun	93	0	0.0%	0.0%
Ondo	814	36	4.4%	1.6%
Osun	242	22	9.1%	1.0%
Oyo	3,710	4	0.1%	0.2%
Plateau	9,091	0	0.0%	0.0%
River	3,126	167	5.3%	7.6%
Sokoto	-	0	0.0%	0.0%
Taraba	1,035	52	5.0%	2.4%
Yobe	-	0	0.0%	0.0%
Zamfara	-	0	0.0%	0.0%

Table 3.1 describes HCV testing coverage across the country in 2021. A total of 68,705 clients were tested for HCV of which 2,192 had positive screening outcomes. Anambra, Plateau and Jigawa states had the highest number of persons screened. Akwa Ibom, Gombe and Bayelsa had positivity rates >30%, Abia and Ogun had positivity rates >10% while others had positivity rates <10%.

3.4 Syphilis

Syphilis is a gram-negative, highly mobile bacterium that is sexually transmitted, with untreated instances in pregnancy resulting in transplacental transmission.[11] It is nearly always transmitted through sexual contact, while congenital syphilis can be transmitted from mother to child in gestation. Syphilis can produce significant consequences if left untreated, including damage to the heart, brain, eyes, and bones.[12]

In many countries, infection rates have climbed after the turn of the millennium, typically in combination with Human Immunodeficiency Virus (HIV) infection, after dropping considerably since the widespread availability of penicillin in the 1940s. This increase has been linked in part to risky sexual practices among men who have sex with men (MSM), an increase in multiple serial concurrent sexual partners, commercial sex, and a decreased interest in condom use.[13]

Every year, around 340 million cases of treatable new STIs emerge worldwide. Syphilis is responsible for an estimated 12 million of these occurrences, with 2 million of these occurring in pregnant women.[14] It remains a major cause of reproductive morbidity and poor pregnancy outcomes in developing countries. It can lead to negative pregnancy outcomes in up to 80% of instances, including stillbirth and spontaneous abortion (40%) and perinatal death (20%), as well as dangerous neonatal infections and low-birth-weight newborns (20%).[15]

Several models have been proposed to estimate adverse pregnancy outcomes in women infected with syphilis, with resulting estimates ranging from 50% to 80%.[16] Transmission occurs more commonly in the last two trimesters, but the spirochete can cross the placenta at any time during pregnancy [17]. Congenital syphilis-related foetal death and morbidity can be avoided if the infected mother is detected and treated by the middle of the second trimester. Because of the serious difficulties of syphilis during pregnancy, WHO recommends universal prenatal screening at the first antenatal visit, as early as possible in pregnancy, with a repeat in the third trimester if resources allow, to detect infection acquired during pregnancy.

[11] Onwuezobe et al., 2010: Eccleston et al., 2008
[12] Olokoba and colleagues, 2009
[13] Olowe, 2014
[14] Singh and Romanowski, 1999
[15] Shazia et al., 2012
[16] Saloojee et al., 2004
[17] Berman, 2004

3.4.1 Syphilis Service Statistics

In 2021, about 1.7% of the 259,720 HTS clients screened for syphilis had positive outcome (figure 3.20). The screening among HTS clients covered both HIV negative and positive clients. Among the antenatal attendees, 0.2% of the 628,122 PW screened for syphilis had positive results. The detailed syphilis cascade among PW is presented in figure 2.21. It shows that only 24% of pregnant women presenting at ANC were screened for syphilis, of this number 0.4% had positive result, of which about 80% of them were treated for syphilis.

The gap in syphilis screening is mostly attributed to the cost of screening. More efforts need to be made especially making syphilis screening free and also in the education of pregnant women on the risk of syphilis to their health and that of their babies if they are not aware of their syphilis status at pregnancy.

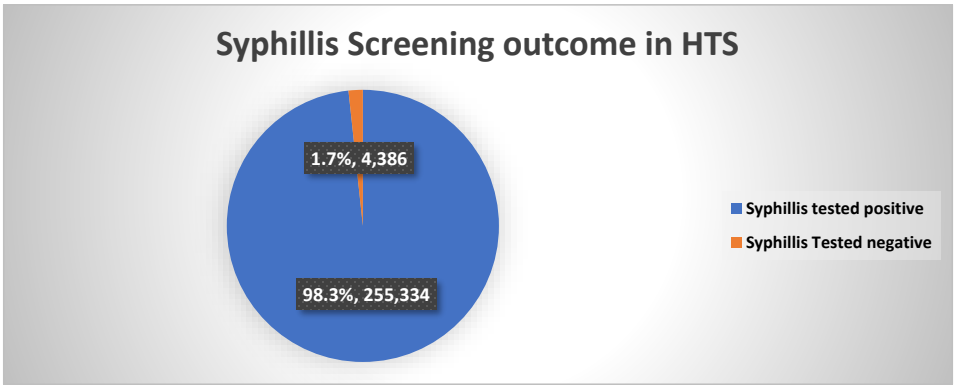


Figure 3.20: Syphilis positivity rate among HTS Clients in 2021

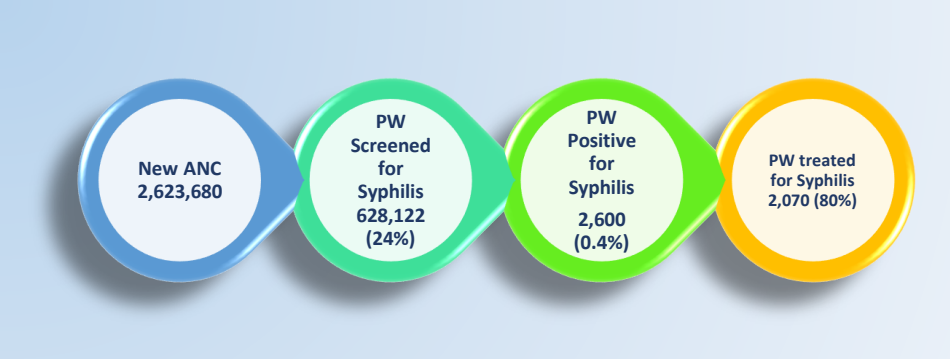


Figure 3.21: ANC Syphilis cascade

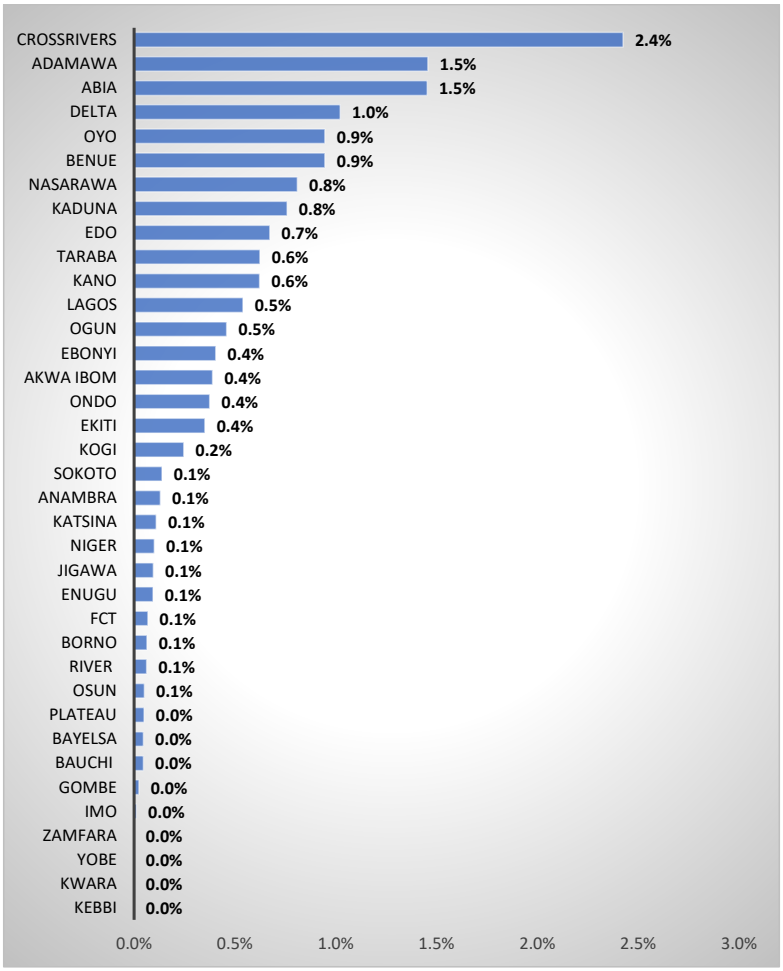


Figure 3.22: Syphilis Positivity Rate by States among Pregnant Women

Furthermore, figure 3.22 above shows the syphilis positivity rate among pregnant women. Cross-river state reported the highest syphilis positivity rate (7.4%). Majority of the states reported less than 1% with some reporting 0%. Yobe and Zamfara states did not conduct any syphilis test in 2021.

To help close the gap in syphilis testing especially among PW. states will need to also advocate for support and inclusion of syphilis test as part of the free package for ANC services provided by many states' government across the country.

3.5 Prevention Mother to Child Transmission (PMTCT)

Prevention of mother-to-child transmission (PMTCT) of HIV refers to the package of care/services given to an HIV-positive mother during pregnancy, labor, delivery, and breastfeeding in order to prevent transmission of HIV to her child. PMTCT is of both global and national priority as it impacts the number of new infections among children. Infamously, Nigeria is the lead contributor globally to MTCT. PMTCT services are delivered on 4 pillars:

Pillar 1	Primary prevention of HIV infection in women of reproductive age (WRA) & their partners
Pillar 2	Prevention of unintended pregnancy among HIV-positive women
Pillar 3	Prevention of HIV transmission from HIV positive mothers to their infants
Pillar 4	Provision of appropriate treatment, care, and support to HIV Positive mothers, their infants & families

Vertical transmission of HIV from a mother to a child still remains a leading transmission route of HIV globally and indeed in Nigeria. HIV can be transmitted from an infected mother to her child during pregnancy, delivery, and breastfeeding. Nigeria has an estimated MTCT rate of 16.4% and 26.6% at 6 weeks and 18 months of birth respectively (Nigeria Spectrum Estimates, 2022). Some barriers identified as limiting the attainment of elimination of mother to child transmission include poor access to antenatal services during pregnancy and breastfeeding; not remaining in treatment and care throughout pregnancy and breastfeeding; acquisition of HIV during pregnancy; and non-viral suppression during pregnancy or breastfeeding.

Other risk factors associated with mother to child transmission (MTCT) of HIV are highlighted in the table 3.2 below:

Table 3.2: Risk Factors for MTCT

Pregnancy	Labour and Delivery	Breastfeeding
• High maternal viral load • Infection • STIs • Malnutrition • Haemorrhage	• High maternal viral load • Prolonged rupture of membranes • Chorioamnionitis • Prolonged labour • Invasive delivery procedures • Instrumental delivery • Episiotomy & genital lacerations • First infant in multiple birth • Preterm birth • Fetal genetic characteristics	• High maternal viral load • Duration • Early mixed feeding • Breast fissures, infections • Poor maternal nutrition • Oral disease in infant

3.5.1 National PMTCT Program Target[18]

By the end of 2025,

- 90% of population have knowledge of mother to child transmission of HIV
- 90% of population have knowledge of prevention of mother to child transmission of HIV
- 100% of ANC facilities offering PMTCT services
- 90% of pregnant women tested for HIV
- 90% of positive women placed on treatment
- 90% of HEI placed on ART within 72 hours
- 90% of HEI given CTX at 2 months
- 90% of HEI with PCR Result received within 2 months
- Triple HIV expenditure on PMTCT

3.5.2 PMTCT Cascade

The PMTCT cascade is a series of key stepwise activities that constitute a critical pathway for a successful PMTCT. It consists of all the steps a HIV-positive pregnant woman will undergo in order to receive the required treatment/care for themselves and the newborn. It begins with all pregnant women and ends with the detection of a final HIV status for HIV-exposed infants (HEIs). PMTCT cascade could be sub-divided itno sub-cascades such as ANC, Maternal and EID Cascades.

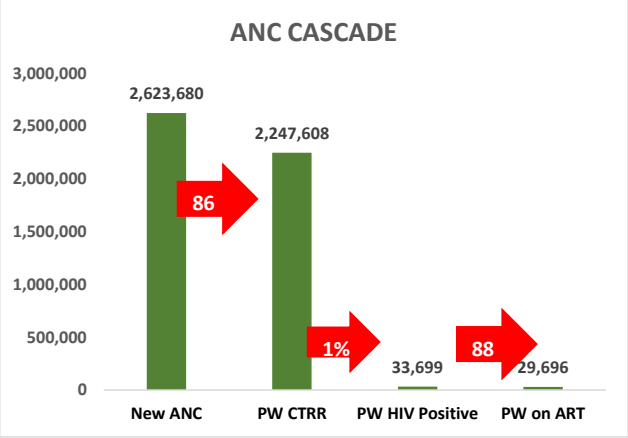


Figure 3.23: 2021 ANC Cascade

Figure 3.23 depicts the antenatal cascade, there was 2,623,680 new clients on ANC of which 86% were counselled. Tested and received their results (CTRR). A percent of those CTRR were confirmed HIV positive and 88% of them were put on Treatment. There is a need to close the gap, ensuring that all ANC clients are counselled and tested for HIV, and they receive their results.

[18] NSF 2021-2025

Figure 3.24: Maternal Cascade in 2021

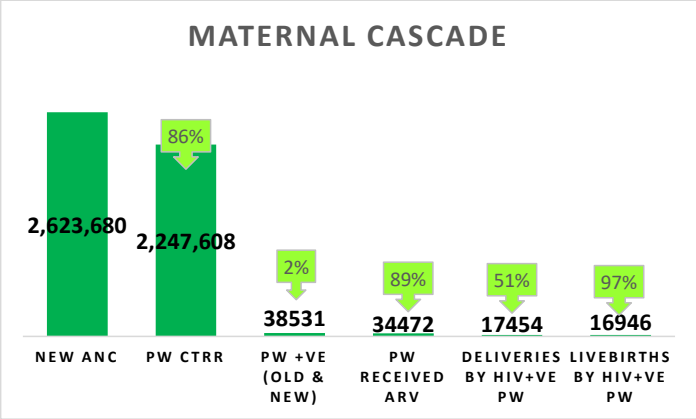


Figure 3.24 shows the maternal cascade of all the pregnant women who attended ANC in designated PMTCT sites. Among 2,623,680 new ANC attendees, 86% were counselled, tested, and received result (CTRR). 38,531 (2%) of the pregnant women CTRR were HIV positive (both previously known and newly identified HIV positive) of which 89% received ARVs leaving a gap of 11%. Of the 34,472, HIV-positive pregnant women,51% delivered and had 16,946 live births.

The 14% gap in the uptake of HIV testing among pregnant women as shown above could be attributed to stock out of HIV test kits or "opt-out" at the facility level. This is a missed opportunity to ascertain the HIV status of these pregnant women. There is a possibility that some of these women that were not tested for HIV may have HIV infection, thereby predisposing the unborn baby to HIV infection. In addition, there is a significant gap of 11% in the ARV uptake among HIV-positive pregnant women as 4,059 out of 38,531 HIV-positive pregnant women did not receive ARV.

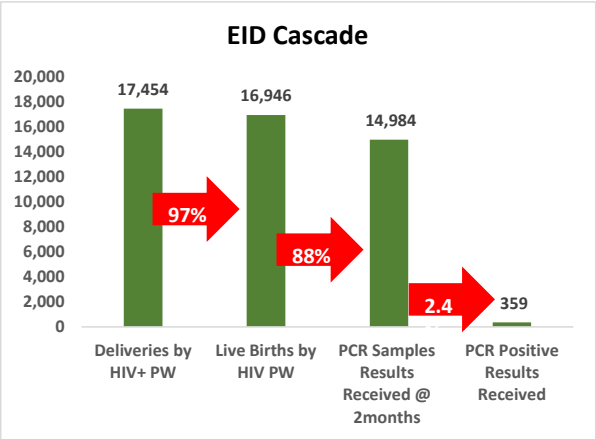


Figure 3.25: EID Cascade

The 2021 PMTCT programmatic data revealed that there were 97% live births of the 17,454 deliveries by HIV+ pregnant women. 88% of the infants had their PCR sample results received within 2 months of delivery. Of this number, 2.4% (359) received a positive PCR result. **Further analysis revealed that 5% of children whose mother had PMTCT and were screened for HIV using rapid test at 18months were HIV**

positive as PMTCT final outcome. This indicates that a lot of efforts still needs to be in place to prevent mother to child transmission of HIV during the breast-feeding period.

3.5.3 HTS Coverage among Pregnant Women

HIV testing coverage among pregnant women who had ANC visit at PMTCT sites is presented in Table 3.3. A total of 2,356,596 pregnant women were tested for HIV in 2021 and 8,397 (0.4%) were positive. A high positivity rate (1.6%) was observed among women tested in post-partum as compared to other PMTCT entry points. This indicates significant missed opportunities for PMTCT and increased risk of MTCT. Hence, efforts should be made towards ensuring that pregnant women attend ANC regularly. This will help in identifying HIV-positive pregnant women and provide PMTCT services to them before delivery.

Table 3.3: 2021 PW HIV Testing and Outcome

	Total	ANC	L&D	Post partum
Pregnant Women CTRR in PMTCT Settings	2,356,596	2, 221, 820	127,182	7,194
No Tested Positive	8,397	7,792	470	117
Positivity Rate	0.4%	0.4%	0.4%	1.6%

For HIV testing at ANC a five-year comparison presented in figure 3.26 below shows that there is a downward trend among pregnant women presenting at ANC and also the proportion tested for HIV. With the new efforts in place to bridge the gap in the PMTCT coverage, knowledge of status is the entry point to ensuring the country must ensure all pregnant women newly identified at ANC get screened for their HIV status.

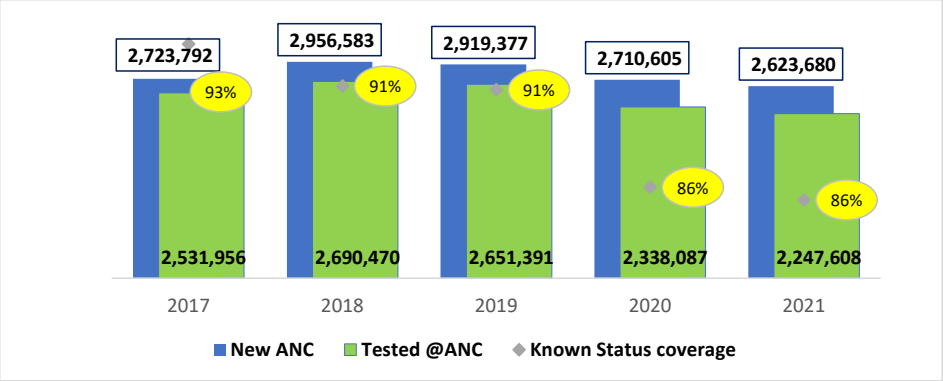


Figure 3.26: Trend of HIV knowledge of status among pregnant women in PMTCT settings

Further analysis as presented in Figure 3.27 below showed that Rivers state had the highest positivity rate at 2.05% for women who were newly tested for HIV while Yobe state had the lowest at 0.01%. The positivity rate for all pregnant women (new and previously known positives) was also highest in Rivers state (6.8%) and least in Kano, Kastina and Jigawa states (0.3%). There is a need for more precise location intervention as data suggest that Southern Nigeria is key to eliminating vertical transmission of the virus.

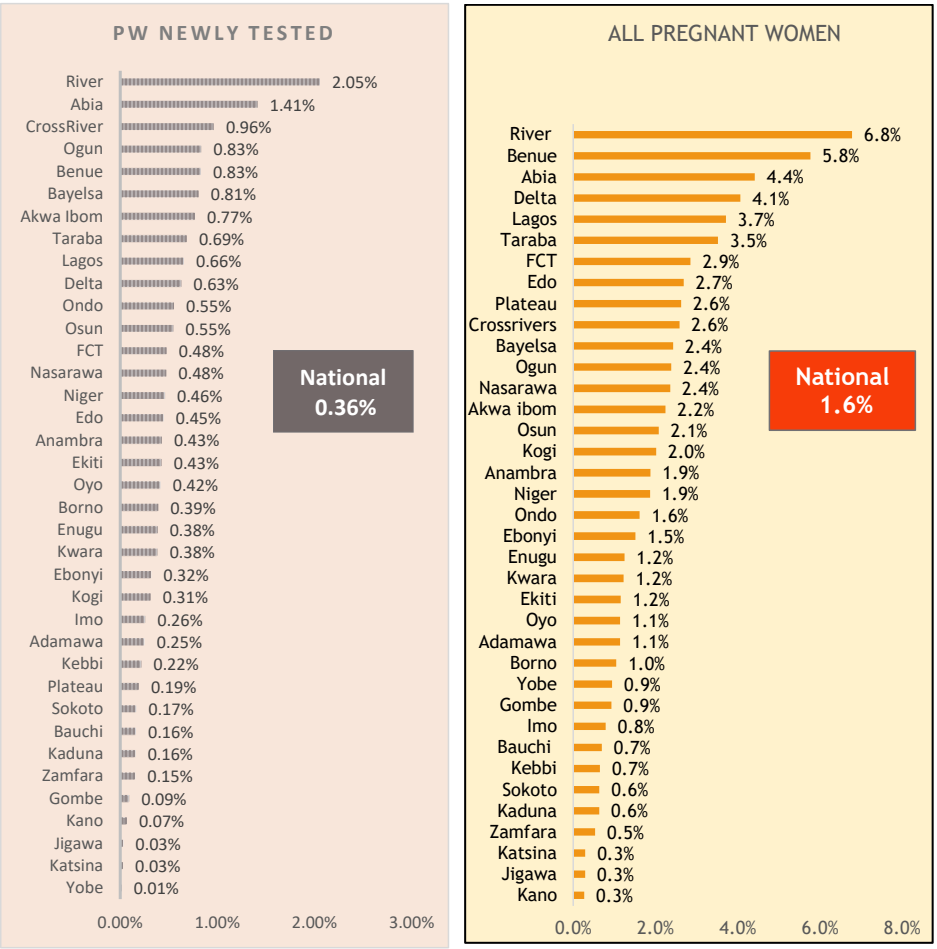
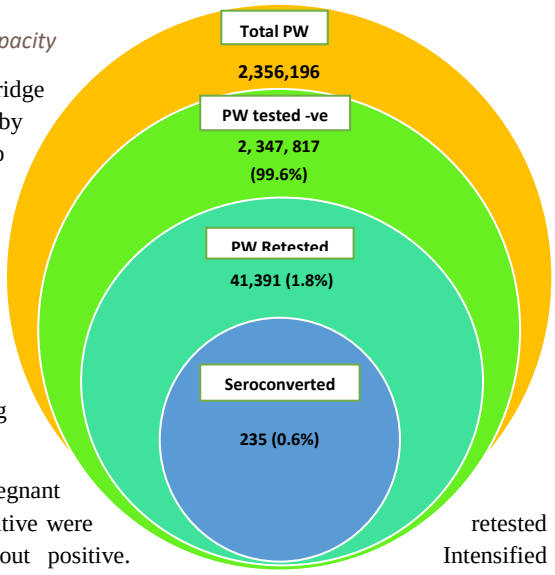


Figure 3.27: HIV Positivity Rate Among Pregnant Women

Figure 3.28: 2021 Maternal Retesting Capacity



Maternal retesting has the potential to bridge the gap in PMTCT coverage thereby reducing MTCT rate. It is critical to ensure that a woman (either pregnant or breastfeeding) is promptly retested if HIV status is unknown or previously negative, to reduce the risk of HIV infection posed to the child. Implementing maternal retesting in the third trimester and at post-partum can avert new infections among infants during delivery and breastfeeding period.

Figure 3.28shows that 1.8% of the pregnant women who previously tested HIV negative were retested and 0.6% of those retested turned out positive. Intensified efforts towards scale-up of maternal retesting might result in identifying more pregnant women with HIV seroconversion. This is a key finding which requires adequate attention and periodic retesting in the PMTCT cascade until the final cessation of breastfeeding.

3.5.4 PMTCT ARV Coverage

Over the years, the use of ART has evolved from using ARVs for treating infections to its use in preventing transmission of the virus, one of such is the use of ARVs for PMTCT.

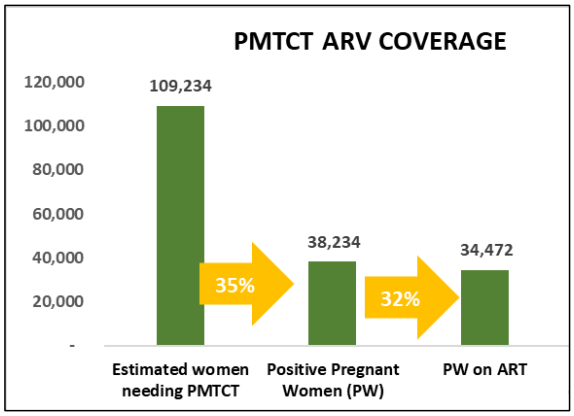


Figure 3.29: ARV coverage among HIV positive pregnant women

Figure 3.29 shows the ARV coverage among HIV-positive pregnant women in 2021. Out of 109,232 pregnant women that were estimated to be needing PMTCT services across the country, 35% were identified as HIV positive. A total of 34,472 were placed on treatment which puts the National PMTCT ARV coverage at 32%.

Proper tracking and follow-up should be done so as to ensure identified pregnant women are placed and retained on ART.

Trend analysis PMTCT coverage between 2017 –2021 (figure 3.30) shows that, there has been a consistent increase in the coverage of PMTCT ARV among HIV-positive pregnant women with a sharp decline in 2021 as well as the absolute number of HIV positive pregnant women on ARVs. Also noted was the spike in the estimated PMTCT need which is recommended for further evaluation.

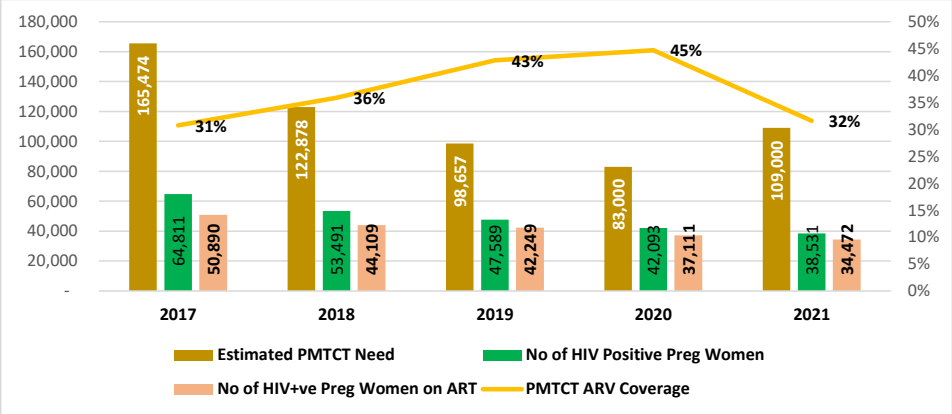


Figure 3.30: Trend of PMTCT ARV Coverage

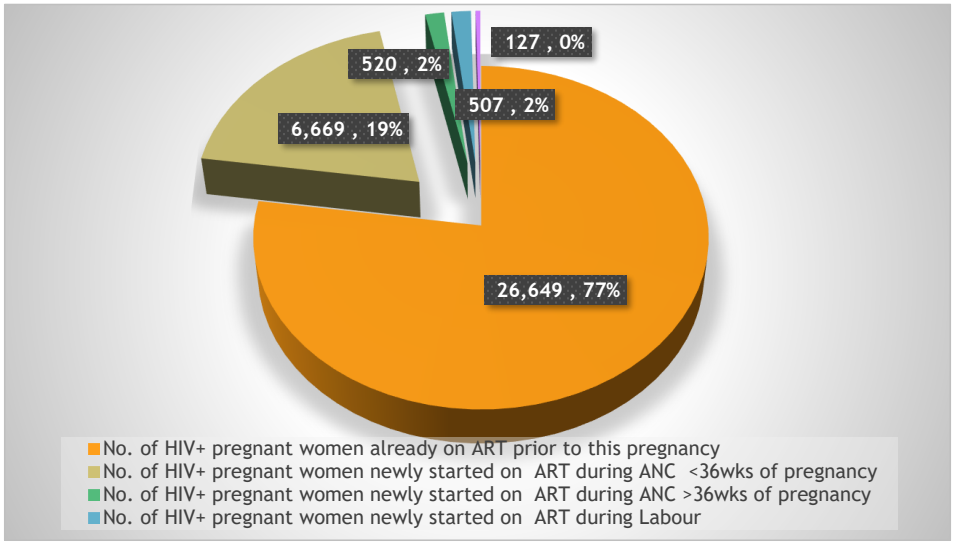


Figure 3.31: ART Coverage for PW by Time of Entry

The above figure 3.31 shows the proportion of pregnant women on ART by the time of entry into the PMTCT programme. Seventy-seven (77%) of PW were already on ART prior to the current pregnancy while 23% were newly started on ART both at ANC and during labour. The proportion of HIV+ PW that started ART during postpartum care was very small. The evidence above has shown that the bulk of HIV+ PW being reached are those who already know their status before becoming pregnant. More concerted efforts need to be put in place to find the missing cases.

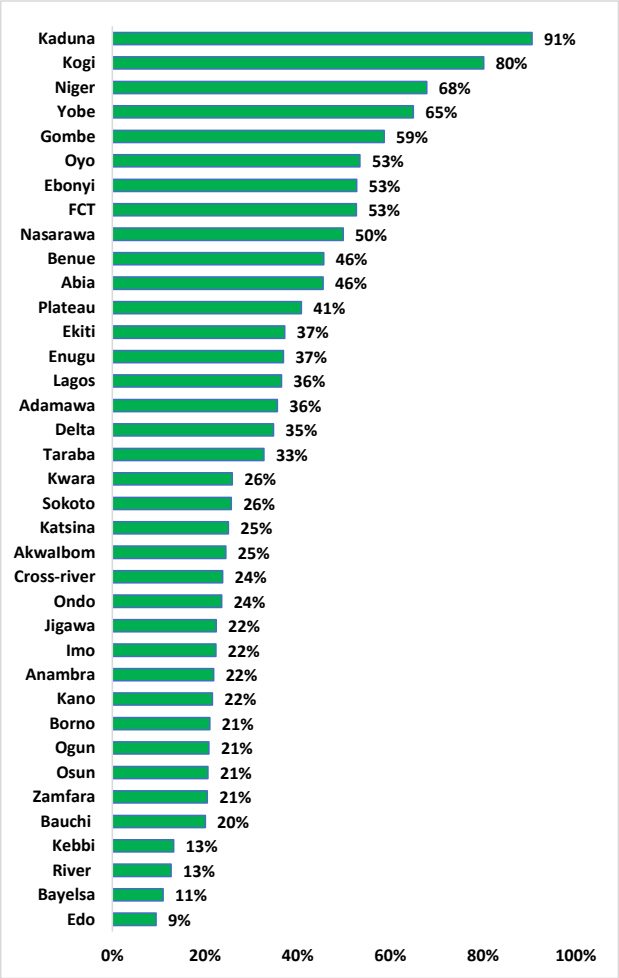


Figure 3.32: PMTCT ARV Coverage among HIV+ PW by states

Figure 3.32 shows that two states in the South-South geopolitical zone have the lowest coverage (Edo and Bayelsa States at 9% and 11% respectively). Also, it shows Kaduna State in the North-West and Niger from the North Central geo-political zones as having the highest coverages at 91% and 80% respectively. Efforts should be intensified through improve coverage of the programme by identifying and retaining in care HIV pregnant women across all states and geo-political zones to eliminate vertical transmission among children.

3.6 Pre-exposure prophylaxis (PrEP)

Pre-exposure prophylaxis (PrEP) is the pre-emptive use of antiretrovirals (ARV) to reduce the probability of HIV-negative individuals acquiring HIV infection, especially in persons who are deemed at substantial risk of acquiring HIV or who request PrEP, even for reasons they do not wish to disclose. Some individuals in monogamous relationships may be at substantial risk due to their partners' risk behaviours, about which the person seeking PrEP may not have any actual details; special consideration may be warranted in these cases. PrEP is not effective in preventing pregnancy or sexually transmitted infections (STIs) other than HIV. Existing safety data also support the use of daily oral PrEP by pregnant and breastfeeding women (PBFW), who are at substantial risk of HIV infection.

It is recommended that oral PrEP be offered as an additional HIV prevention option for HIV-negative persons who are considered at substantial risk of acquiring HIV infection, as a part of a combination of other available HIV prevention methods (including condom and lubricant use, harm reduction for PWID, or other options as they become available). Oral PrEP should be used during periods of substantial risk of HIV acquisition. This is likely to vary greatly by individual, and at varying times of life for different lengths of time, according to risk. Oral PrEP can be stopped at any time during periods of low or no risk, or per a client's request and also should be discontinued if the individual acquires HIV infection.

3.6.1 Status of oral PrEP in Nigeria

The Government of Nigeria (GoN), in collaboration with partners, is supporting the implementation of oral PrEP programmes. Across implementation programmes, oral PrEP is primarily offered in one-stop shops for KPs alongside STI, tuberculosis, and other HIV services. It is also being offered in selected healthcare facilities for general populations, with referrals from index testing, prevention of mother-to-child transmission (PMTCT), and family planning services. The oral PrEP programme is implemented across Nigeria's 36 states and the Federal Capital Territory (FCT). Though oral PrEP service provision is mainly targeted at KPs as stipulated in the National Guidelines for HIV Prevention, Treatment and Care, other high-risk individuals such as HIV-negative individuals in serodiscordant sexual relationship and high-risk AYP are also eligible.

3.6.2 PrEP Service Statistics

Efforts are in place to integrate systems for PrEP data collection through NASCP reporting channels. Data presented below was generated through the IPs who are currently providing PrEP services in Nigeria. The period for the data is from 2017 to March 2022 (figure 3.33 below). The total number of individuals who had ever started PrEP at any point during the period was 377,912. General population (male & female) had the highest contribution to PrEP initiation data.

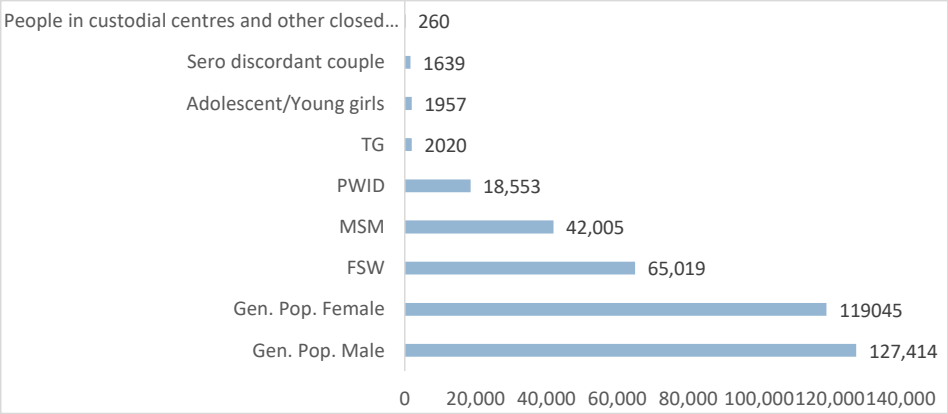


Figure 3.33: Individuals who were eligible and started PrEP by population type (2017 – March 2022)

3.7 Gender Base Violence

Any kind of violence against an individual based on biological sex, gender identity or expression, or perceived conformity to socially established norms of what it means to be a man or woman, boy or girl, is classified as gender-based violence. Sexual assault, intimate partner violence, child sexual abuse, physical and psychological abuse, threats, coercion, arbitrary restriction of liberty, and economic deprivation are all examples of gender-based violence. GBV is based on power imbalances between men and women, including social, economic, and political disparities. The use and abuse of physical, emotional, or financial power and control are common characteristics.

Globally, 1 in 3 women worldwide has been beaten, coerced into sex, or otherwise abused in her lifetime; 1 in 3 girls worldwide report that their first sex was forced or coerced. According to the NDHS 2013, 28% of women age 15-49 have experienced physical violence at least once since age 15, and 11% experienced physical violence within the 12 months prior to the survey. 7% of women age 15-49 report having experienced sexual violence at least once in their lifetime. 25% of ever-married women age 15-49 report ever having experienced emotional, physical, or sexual violence from their spouse. 45% of women who experienced violence never sought help or never told anyone about the violence. 25% of Nigerian women and girls have been subjected to female genital mutilation.

GBV survivors have a right to protection, respect, and justice. Human rights include the freedom from violence and the right to health. GBV has substantial (and frequently fatal) health repercussions for people.

SECTION 4:

HIV TREATMENT

SECTION 4 – HIV TREATMENT

4.1 Background

The National AIDS, Viral Hepatitis and STI Control program (NASCP) in collaboration with its Partners has implemented strategies to increase access to quality HIV care and support services over the years for all PLHIV across the country. This has led to a notable increase in the number of PLHIV placed on treatment from 1.49 million in 2020 to 1.79 million in 2021 as well as increased viral load (VL) suppression rate among PLHIV. The country is committed towards achieving the 95-95-95 target as well as working towards ending AIDS by 2030. As at the end of 2021, 97% of estimated PLHIV had been identified, of which 97% were placed on ART, and about 89% of those placed on ART achieved viral suppression.

Nigeria in its quest to reposition for effective and quality HIV service delivery revised its National Guideline for HIV Prevention, Treatment and care to promote universal access to comprehensive HIV services for all PLHIV. The review of the National Guideline led to introduction of some current innovative techniques in HIV diagnosis and management. The revised guideline recommends dolutegravir-based (DTG-based) regimen as the preferred first line ART for children weighing 3-20kg and the country commenced the use of pediatric 10mg DTG (pDTG) in 2021.

The existing facility and community based Differentiated Service Delivery (DSD) models were harmonized to meet the needs of specific populations and utilize client-centered strategies for quality service delivery. The aim is to prioritize access and linkage to care, rapid ART initiation and retention in order to achieve viral suppression.

In addition, a package of care was developed for management of PLHIV with Advanced HIV Disease (AHD) to reduce morbidity and mortality in this population. The interventions covered in the package include screening, diagnosis, treatment and prophylaxis for opportunistic infections associated with AHD, rapid initiation on ART, and intensified adherence counselling.

4.2 Access to ART Services

The Federal Ministry of Health with support from its partners has scaled up ART services in the 36 states plus FCT. These sites comprise of primary, secondary, and tertiary facilities and are strategically located to ensure easy access to ART services for PLHIV.

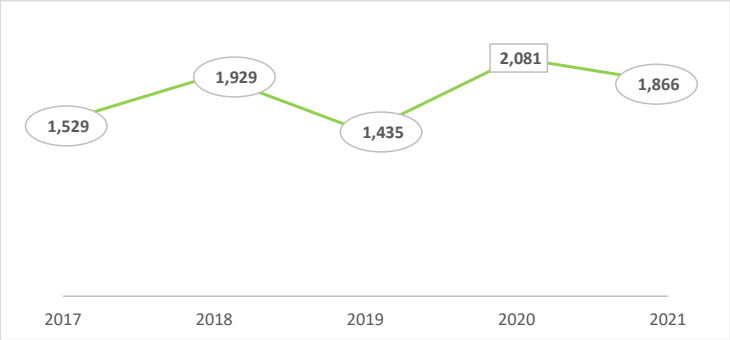


Figure 4.1: Trend in the number of ART sites

Figure 4.1 shows the number of ART sites from 2017 to 2021. The trend shows the highest number of ART sites reported in 2020. The alignment of ART sites in the national program, which led to the removal of inactive facilities from the list of ART sites contributed to the reduction in the number of sites observed from 2020 to 2021.

4.3 HIV Treatment Cascade

The HIV treatment cascade was adopted to monitor the number of people living with HIV, who know their HIV positive status, who are on ART, and are virally suppressed. The country has made remarkable progress across the HIV continuum of care. This is evident in the country's performance towards attaining the 95-95-95 target as presented in figure 4.2 below. In the treatment cascade, 98% of the estimated PLHIV know their status, 93% are on ART with a viral suppression rate of 83%.

The HIV treatment cascade utilizes a fixed denominator (the estimated number of PLHIV) for first and second 95 while 2020 Global AIDS Monitoring (GAM) recommends that countries with viral load testing coverage of 50% or over, should report third as the number suppressed among those tested, multiplied by the total number of people on treatment.

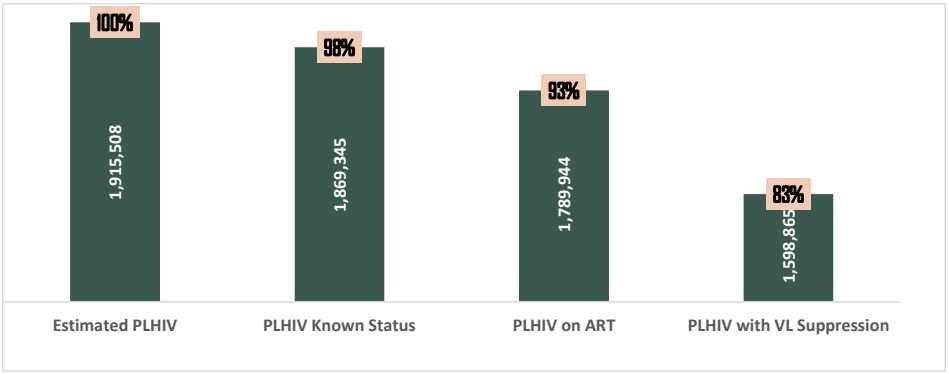


Figure 4.2: HIV Treatment Cascade

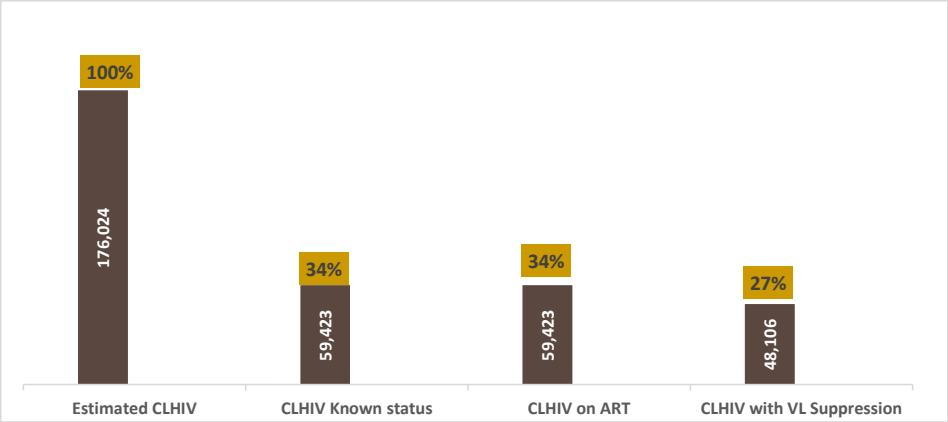


Figure 4.3: HIV Treatment Cascade among Children Living with HIV

Figure 4.3 shows treatment cascade among children living with HIV (CLHIV). Only 34% of the estimated CLHIV know their status of which 34% are placed on ART with 27% suppression rate. There are gaps in the treatment cascade for children as seen in the chart despite all the concerted efforts targeted at pediatric case identification and care.

4.4 UNAIDS 95-95-95 Cascade

Figure 4.4: 95-95-95 Cascade

Figure 4.4 shows the country's progress towards the global 95:95:95 targets. Overall, the country has made tremendous progress towards achieving the 95:95:95 targets however, there is still a gap in the achievement of the third 95. As at the end of 2021, the first and second 95 targets had been achieved, as 98% of estimated PLHIV know their status and 96% of those who knew their status are on ART.

Figure 4.5: 95-95-95 Cascade for CLHIV

The figure above highlights the 95:95:95 cascade for CLHIV. The country has achieved the second 95 however; there are still gaps in the attainment of the first and third 95. To bridge this huge gap, there is urgent need to strengthen HIV case finding and treatment adherence among pediatrics.

4.5 ART Initiation of Newly Identified Positive

The 2020 National Guideline for HIV Prevention, Treatment and Care recommends that ART be initiated for all newly identified HIV positive persons regardless of the WHO clinical stage or CD4 cell count. Prompt ART initiation is associated with reduced morbidity and mortality.

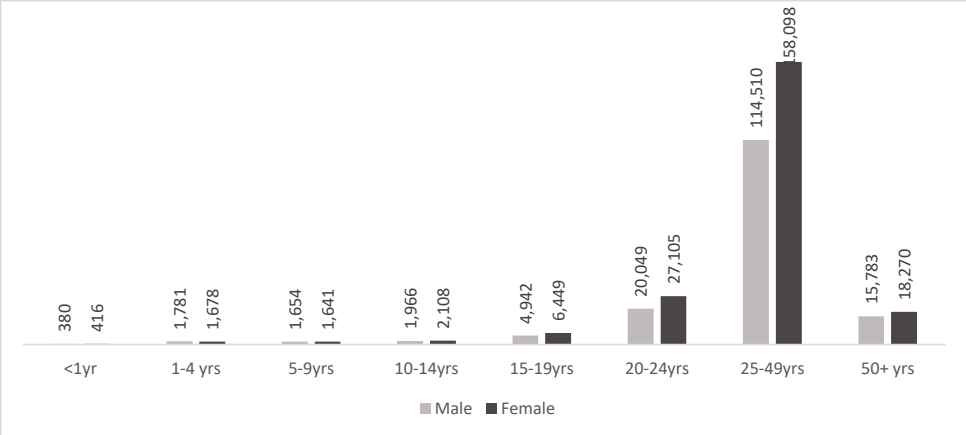


Figure 4.6: Newly initiated on ART by age and sex

Figure 4.6 shows the disaggregation of clients newly initiated on ART by age and sex. A total of 161,065 males and 215,765 females were initiated on ART in 2021. There are more females than males initiated on ART which has been the trend over the last four years (see table 4.1).

Table 4.1 further shows the yearly trend of number of clients initiated on ART disaggregated by age and sex.

Table 4.1: Trend in the number of PLHIV newly started on ART

Newly started on ART						
Age		**2017**	**2018**	**2019**	**2020**	**2021**
0 – 4 years	**Male**	2,309	2,238	2,617	2,413	2,161
	Female	2,652	2,144	2,533	2,239	2,094
5 – 9 years	**Male**	I,646	1,418	1,597	1,659	1,654
	Female	1,668	1,437	1,598	1,597	1,641
Adolescent (10 - 19)	**Male**	2,995	2,409	3,631	5,905	6,908
	Female	5,840	5,315	8,004	10,883	8,557
Adult (20 and above)	**Male**	55,046	50,269	73,051	143,049	150,342
	Female	113,585	100,720	135,548	217,082	203,473
0 – 14 years	**Male**	5,485	4,697	5,515	5,498	5,781
	Female	5,962	4,866	5,722	5,514	5,843
>15 years	**Male**	56,510	51,637	75,381	147,528	155,284
	Female	117,783	104,750	141,961	226,287	209,922

4.6 ART Uptake and Retention

Over the years, the country has continued to implement strategies that ensure availability of and accessibility to ARVs for all PLHIV, which has resulted in progressive increase in ART uptake. In the last five years, about 68% increase in the number of PLHIV on ART was reported.

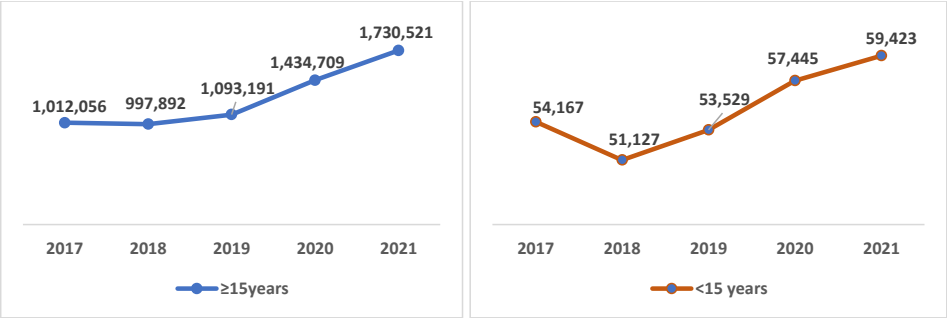


Figure 4.7: Trend in number of PLHIV current on ART

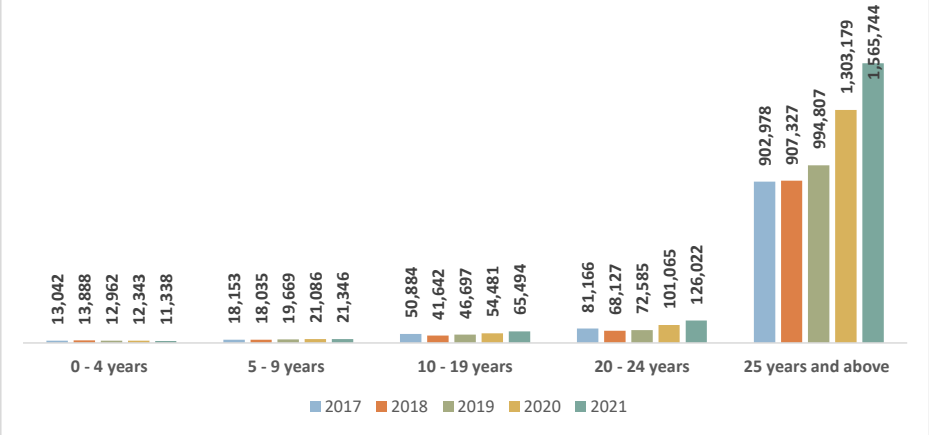


Figure 4.8: Trend in number of PLHIV current on ART disaggregated by age

Figures 4.7 and 4.8 show a 5-year trend of PLHIV on ART in the National programme. The total number of persons on ART at the end of 2021 was 1,789,944; a 20% increase on 2020. This could be attributed to the intensified implementation of innovative strategies for case identification, linkage and retention in care on the National HIV Treatment program. However, the increase observed among CLHIV on treatment (3%) was markedly lower than that of adult (21%), reiterating the need to strengthen pediatric ART interventions.

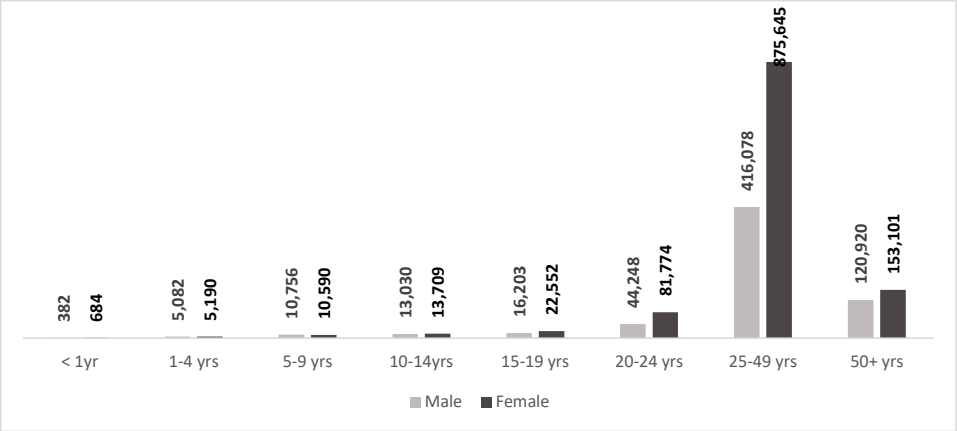


Figure 4.9: PLHIV currently on ART disaggregated by age and sex for 2021

The above figure shows that the age group 25-49 years accounted for the highest number of PLHIV currently on treatment. The number of males on treatment continues to be lower than females; this has been a recurrent trend over the years.

Majority (97.8%) of PLHIV on ART were on first line regimen as shown in table 4.2 below. There was an upsurge in the number of PLHIV on third line regimen, from 150 in 2020 to 317 in 2021; a 111% increase. This could be due to intensified support to the national third line program that ensures availability of commodities at the designated third line sites in country.

***Table** 4.2*: **Current on ART disaggregated by Regimen**

Current on ART disaggregated by Age, Sex and Regimen				
Age group	<15	<15	≥15	≥15
Sex	Male	Female	Male	Female
1st line	28,095	28,673	585,747	1,108,433
2nd line	1,151	1,449	11,586	24,493
3rd line	4	51	116	146

4.7 Viral Load (VL) Testing Coverage and Suppression

Viral load test remains the gold standard for monitoring response to treatment and early identification of treatment failure, as treatment adherence is vital to keeping HIV suppressed. Sustained viral load suppression is an optimal response to ART; the viral load remains below the detection threshold usually at less than 20 copies of HIV RNA/ml. It is recommended that all PLHIV on treatment receive at least one viral load test per year. Viral load testing coverage has continued to increase over the years due to the effort and investment to strengthen the laboratory service in the national programme.

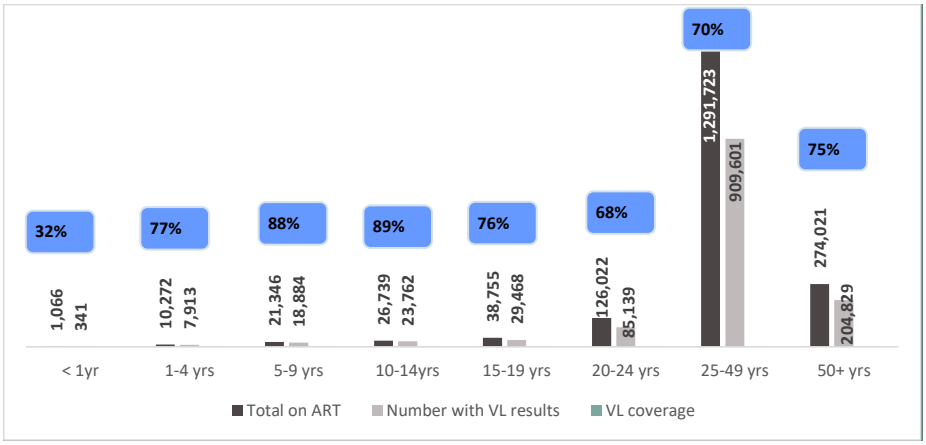


Figure 4.10: VL Testing Coverage by Age

As shown in Figure 4.10, viral load testing coverage was highest in children 10-14 years (89%) and least in children <1year (32%), though children <6 months are not tested for viral load. There is a need to ensure targeted efforts are put in place to continue to improve access to VL testing to all persons on treatment.

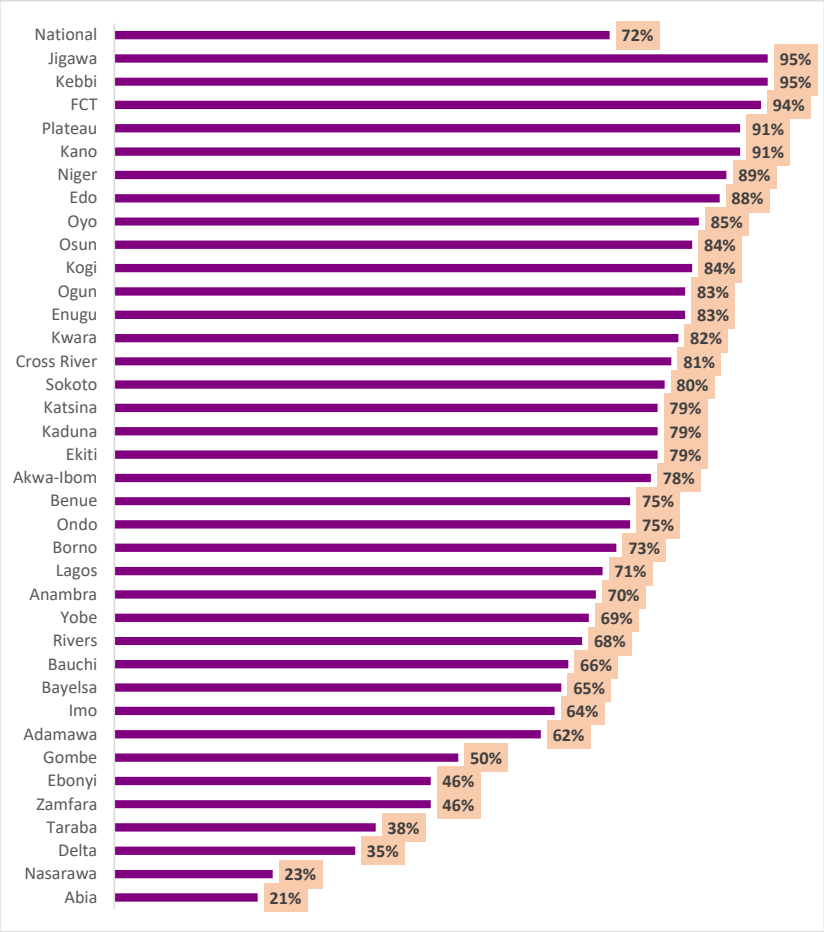


Figure 4.11: Viral Load Testing Coverage by state

Figure 4.11 shows viral load testing coverage across the 36 states + FCT. The highest coverage was observed in Jigawa and Kebbi states (95%) while Abia and Nasarawa states had the lowest. Fourteen (14) states had VL testing coverage less than the national rate of 72%. Overall, the VL testing coverage increased from 69% in 2020 to 72% in 2021.

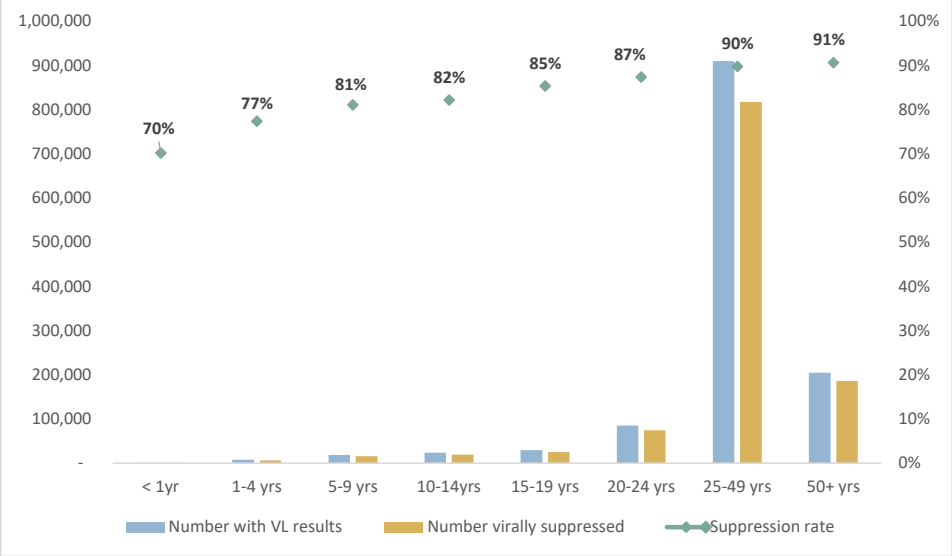


Figure 4.12: VL Suppression Rate by Age

Figure 4.12 shows the VL suppression rate across the different age groups. The VL suppression rate progressively increased along age groups. There was a marked increase in the suppression rate across the pediatric age groups compared to the rates in 2020 (<1year 49%,1-4years 55%, 5-9 years 71%, 10-14 years 77%). This could be due to the introduction of pediatric dolutegravir as preferred first line regimen for CLHIV, which commenced in the second half of 2021. The suppression rate among the pediatric population is still lower than that of adult. Other age groups also showed measurable increase with 50 years and above having the highest suppression rate at 91%.

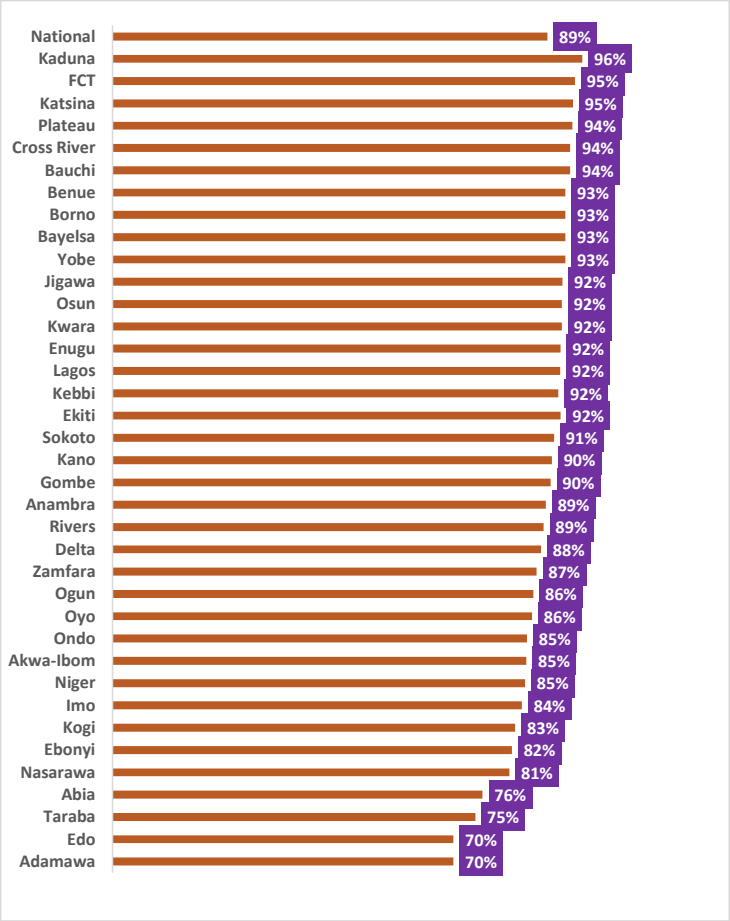


Figure 4.13: Viral Load Suppression rate by state

Figure 4.13 shows the viral load suppression rate across all states. The overall suppression rate for the country was 89%; a 3% increase over the rate for 2020. The highest suppression rate was observed in Kaduna state (96%) while Adamawa and Edo states had the lowest rate (70%). The programme should continue implementing initiatives to improve treatment adherence and quality of care to further enhance viral suppression among PLHIV.

4.8 State level ART Coverage

Figure 4.14 shows ART coverage by state. The national ART coverage was 93%, however there were regional variances in coverage. The coverage was highest among states in the North-Central zone and lowest among states in the Northwest and Southwest geopolitical zones. Fourteen states have reached saturation with ART coverage however Abia (24%), Bayelsa (31%), Osun (32%), Borno (35%), and Zamfara (38%) have coverage <40%. There is a need to intensify efforts to improve ART coverage in the underperforming states.

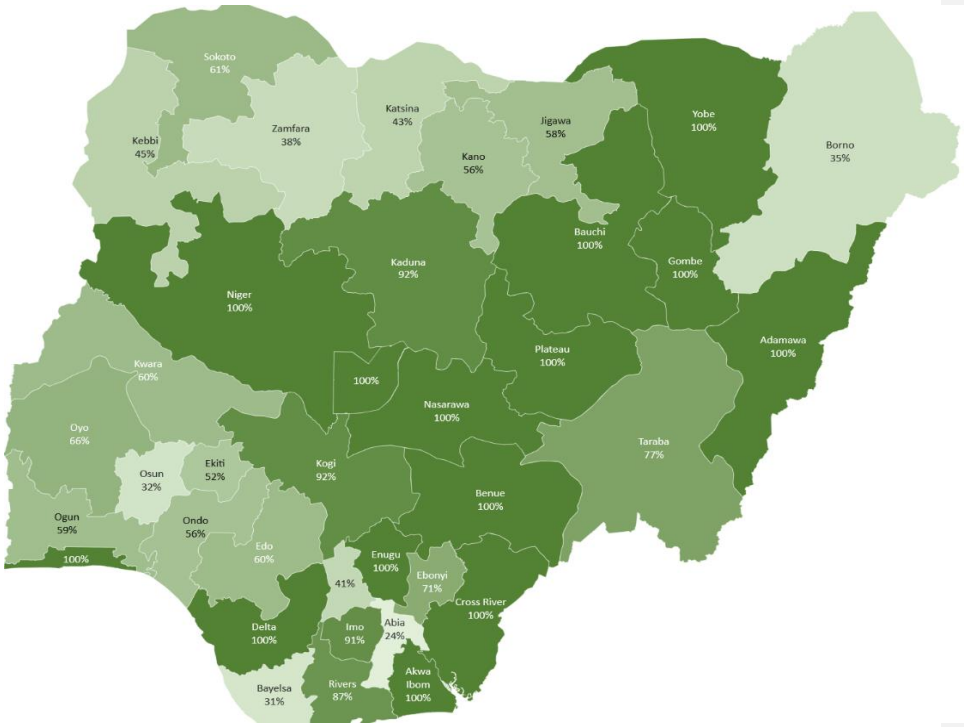


Figure 4.14: Overall ART coverage by state

The national ART coverage among children (34%) is markedly low and this has been the trend over the years. The ART coverage among CLHIV in 10 states (Borno, Rivers, Anambra, Abia, Bayelsa, Osun, Kebbi, Zamfara, Kano and Katsina) as shown in Figure 4.15 is less than 20%. This further underscore the need for the country to review the status of the pediatric HIV program, define the issues and proffer solutions as this population has been left behind.

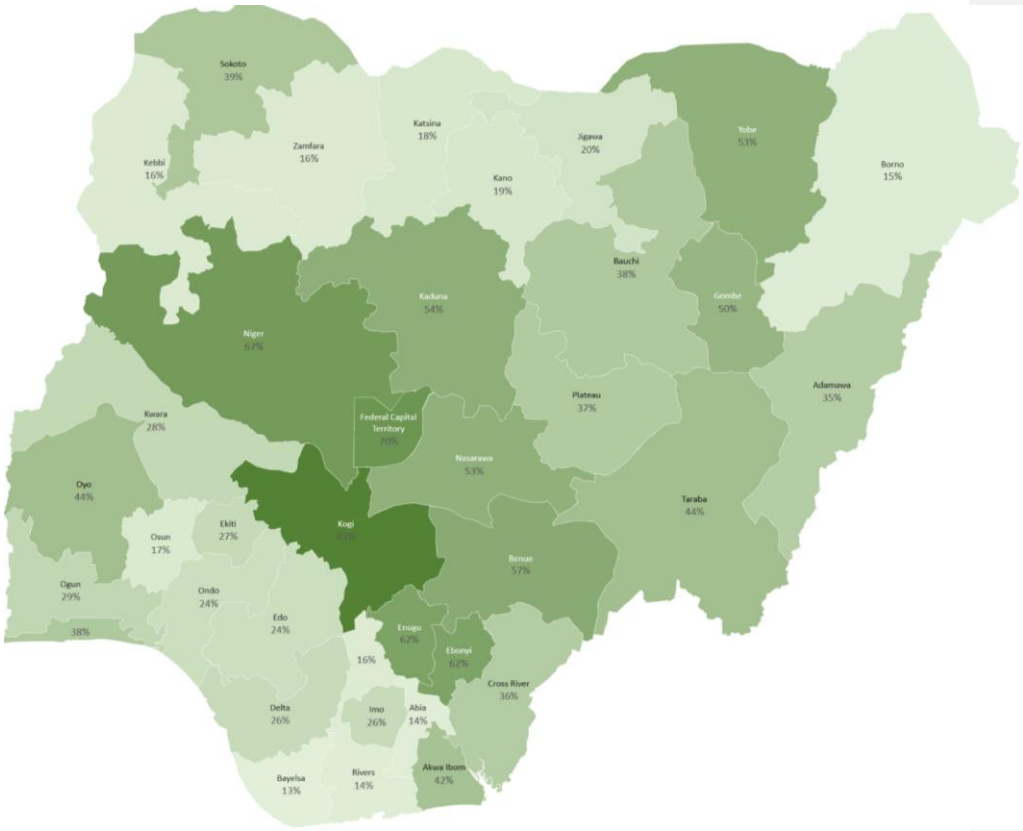


Figure 4.15: ART coverage among CLHIV by State

The ART coverage amongst adolescent living with HIV (ALHIV) is shown in figure 4.16. The national ART coverage for adolescents is 54%, though better than that of children, is still lower than the ART coverage of older age groups. The country has developed a comprehensive adolescent package of care that will be rolled out in 2022. This is expected to improve the coverage among ALHIV in subsequent years. Innovative approaches that target the adolescent population need to be implemented across the country.

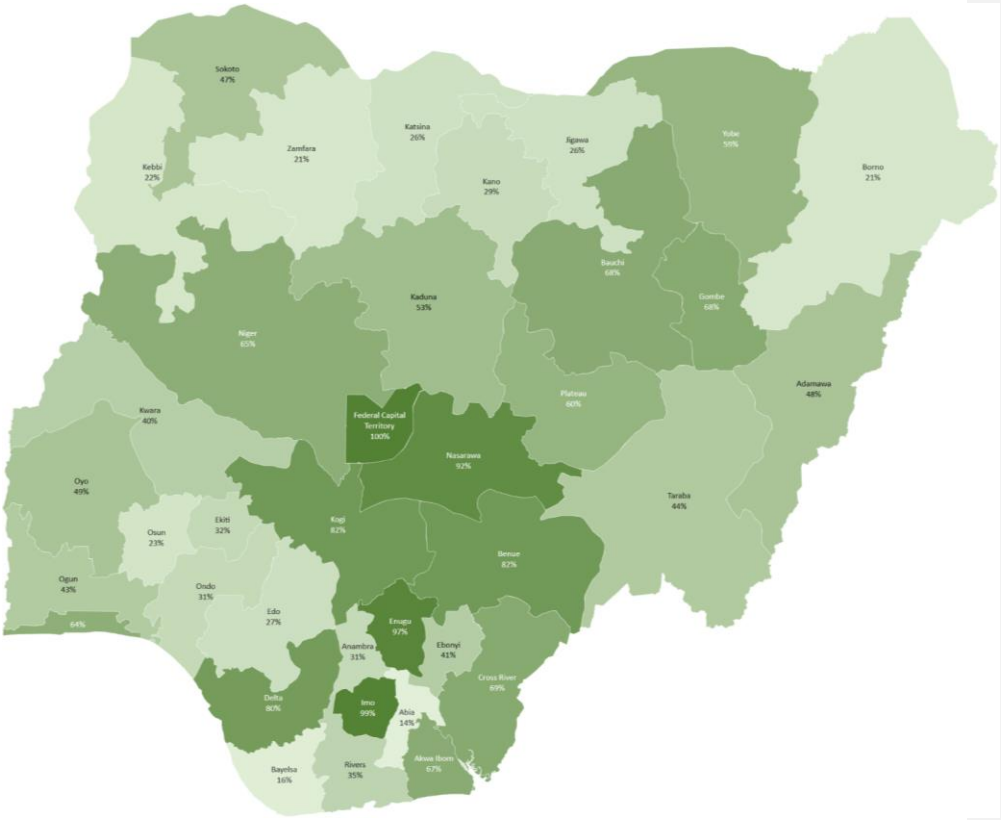


Figure 4.16: ART coverage among Adolescent Living with HIV (ALHIV) by state

Figure 4.17 shows the ART coverage amongst adults (persons age 15 years and above) by state. The national ART coverage among adult is 99% and the distribution mirrors the general ART coverage. There are still some states that are below 50% ART coverage for this age group.

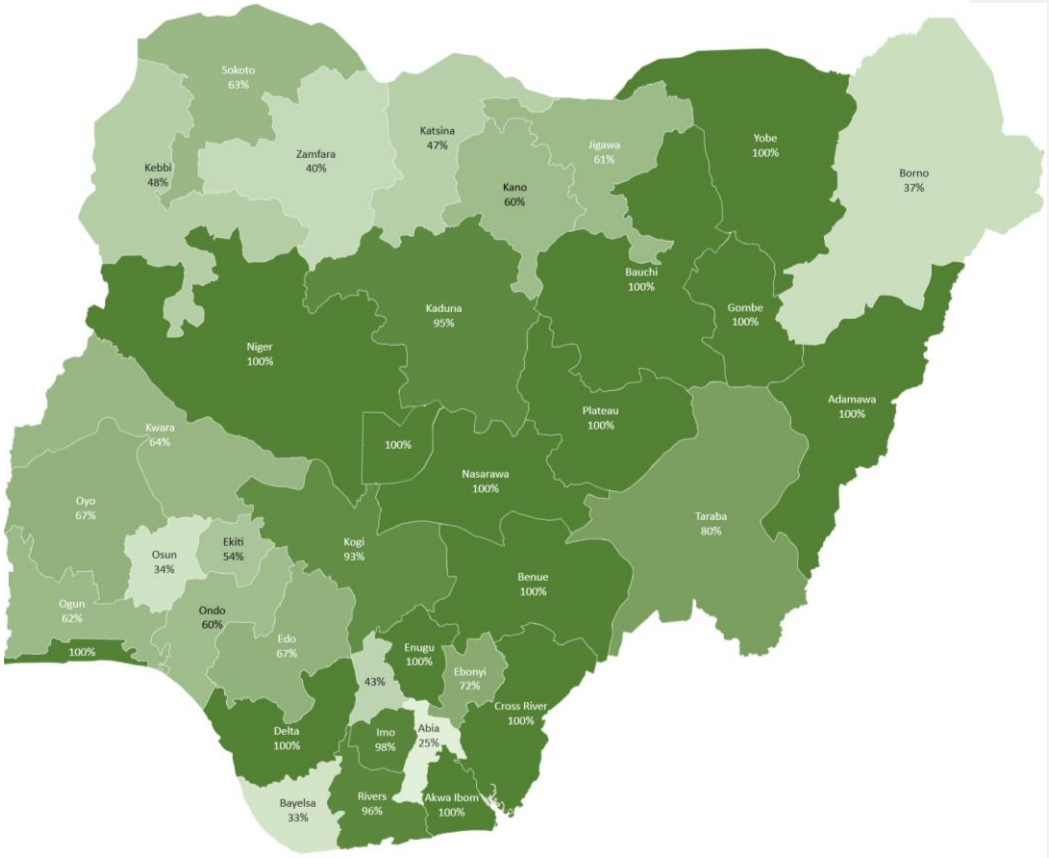


Figure 4.17: ART coverage among PLHIV ≥15 by State

4.9 ART Unmet Need

Nationally, the country has a good treatment coverage with about 7% unmet need. However, at sub-national level, the unmet needs varied widely. Abia, Bayelsa, Osun, Borno, and Zamfara states have the highest unmet needs ranging from 62% to 76% (figure 4.18). The rapid scale-up of the ART programme (post NAIIS) in states with previously reported high unmet need such as, Akwa Ibom, Enugu, Lagos and Delta states had led to significant increase in the treatment coverage. This proves the need to further intensify HIV case identification and linkage to care in states with high

unmet need. There is need to implement state-specific strategies focused at improving treatment coverage. The unmet need among CLHIV was 66% nationally. Even more worrisome is the fact that about 50% of the states had higher unmet need than the national. Bayelsa state had the highest unmet needs. Adequate mechanisms need to be put in place to reverse this trend and close the gap among children.

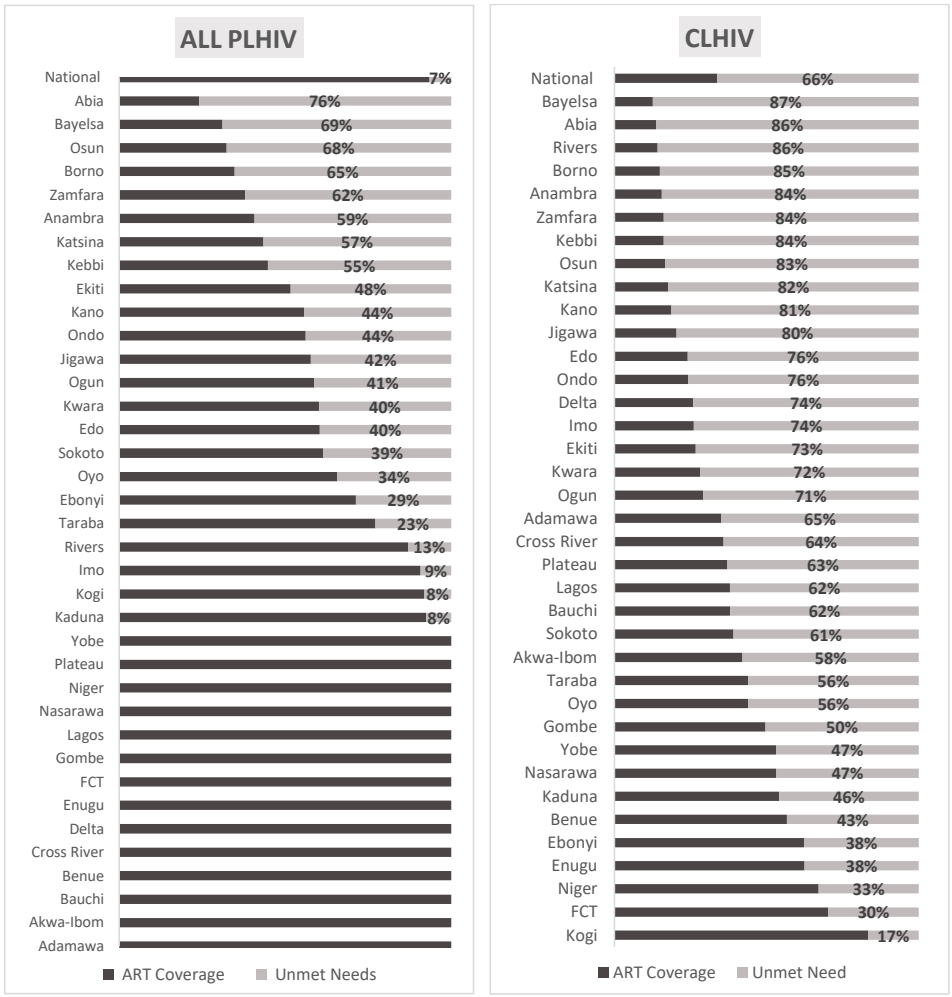


Figure 4.18: Percentage ART Unmet Need by State

4.10 Advanced HIV Disease

Advanced HIV Disease (AHD) is associated with a higher risk of morbidity and mortality. Emerging evidence on AHD necessitated the development of a package of care for AHD on the national program. The AHD package of care is designed to promptly identify and appropriately manage patients with AHD.

Interventions covered in the package include CD4 testing at baseline, screening, diagnosis, treatment, and prophylaxis of OIs (particularly TB and Cryptococcal Meningitis), rapid ART initiation and intensified adherence support. The implementation of the AHD package of care utilized a phased approach, the first phase of the rollout commenced in Q4 2021 in 28 selected sites across 4 States (Akwa-Ibom, Anambra, Lagos, and Rivers). The AHD package of care is being scaled up to all ART sites across the country.

CD4 Testing

The introduction of the AHD package of care on the national program has led to a renewed focus on CD4 testing. The CD4 tests are particularly recommended to identify AHD in PLHIV newly enrolled, lost-to-follow-up returning to care or persons failing on treatment.

The coverage of CD4 tests among the PLHIV newly started on was low across all ART sites. CD4 results were documented for 7% (28,050 of 376,830) who were identified in 2021. The country introduced and is currently scaling up use of point of care CD4 tests and this is expected to improve access to CD4 testing. About 25% (7,068 of 28,050) of those with documented CD4 results had CD4+ cell count <200cells/mm^3. This infers that a high proportion of PLHIV still present to care with AHD and the implementation AHD package of care will help improve the treatment outcomes among this cohort.

Data from the 28 AHD focused sites (Q1-Q4 2021) showed marked difference from the overall national data (figure 4.19). About 83% of the newly enrolled clients had CD4 test while 42% had CD4 <200 cells/mm^3. This is in line with the global estimates of AHD prevalence in Low- and Middle-Income Countries (LMICs).

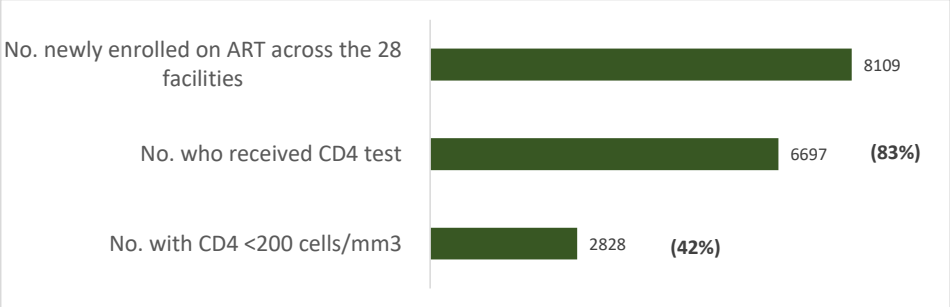


Figure 4.19: CD4 Testing Cascade for New Patients

CrAg Testing

The AHD package of care recommends Cryptococcal antigen (CrAg) screening for persons with AHD. 2,575 serum CrAg tests were conducted with a positivity rate of 3% as shown in figure 4.20. Only 36% of the serum CrAg positive clients received confirmatory CSF CrAg test, of these, 27% were positive for CSF CrAg. The gap in the confirmatory CSF CrAg test was attributed to patient refusal, high out of pocket cost of lumbar puncture, inadequate skill of clinicians to carry out lumbar puncture. Therefore, as the country scales up AHD services, emphasis should be given to capacity building of clinicians on lumbar puncture, subsidizing cost of CSF CrAg diagnosis, and sensitizing AHD clients.

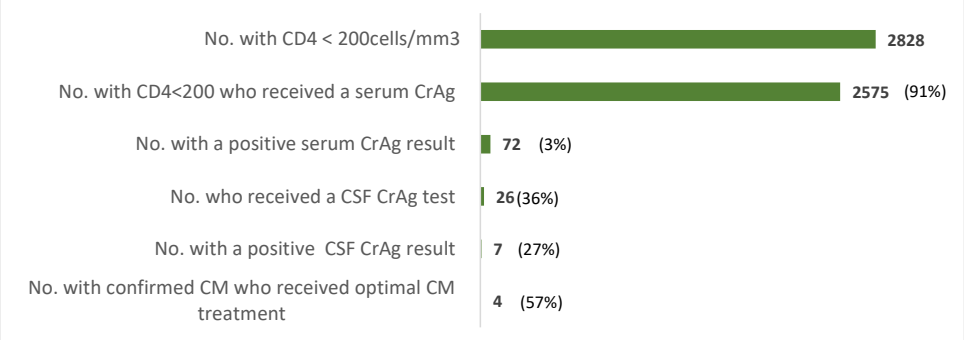


Figure 4.10: AHD Cryptococcal Meningitis cascade

TB Screening in AHD

Tuberculosis screening using the TB LF-LAM was recommended for all persons with AHD. A total of 2,317 tests were conducted in 2021 with a positivity rate of 35%. About 60% of those who turned positive with TB LF-LAM commenced TB treatment.

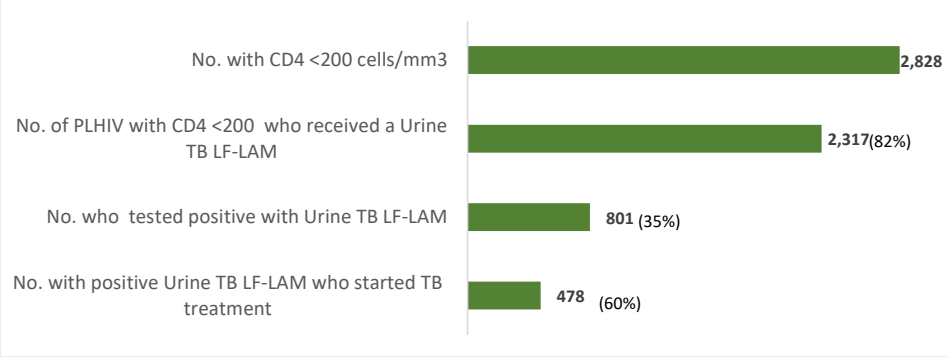


Figure 4.21: AHD TB Cascade

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4.11 HIV/TB Cascade

To reduce the burden of TB and HIV among the population at risk or affected by both diseases, TB/HIV collaborative activities were recommended by the World Health Organization (WHO) in both TB and HIV settings, with proper coordination by the FMoH and key stakeholders. It was recommended that all PLHIV should be screened clinically at every clinical visit as a means of intensifying TB case finding among PLHIV.

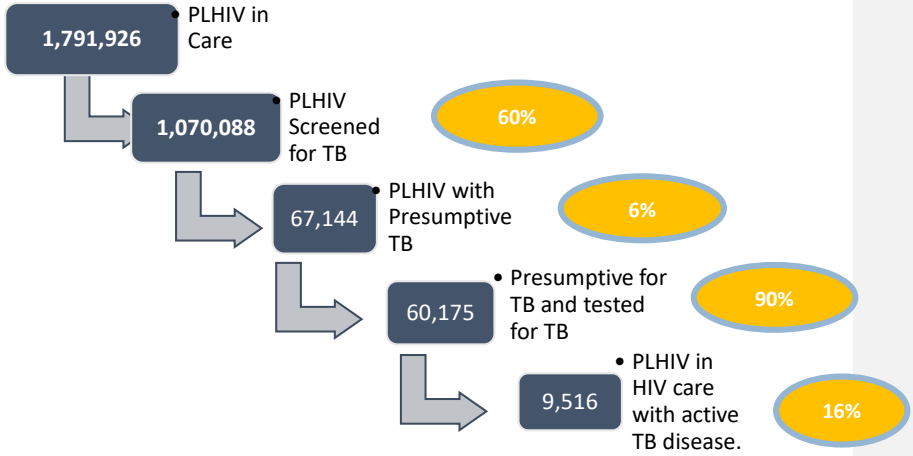


Figure 4.22: HIV/TB cascade

In 2021, about 60% of PLHIV in care were clinically screened for TB for at least once with 6.3% found to have presumptive TB within the year. Among those with presumptive TB, about 90% were tested for TB and 16% were diagnosed with active TB disease. The proportion of TB presumptive cases were similar across the quarters which culminate into the overall annual presumptive case of 6.3%. Overall, TB screening among the PLHIV in care was sub-optimal across the four quarters. There is need to intensify case finding among PLHIV through TB screening at all clinical visits and at the community.

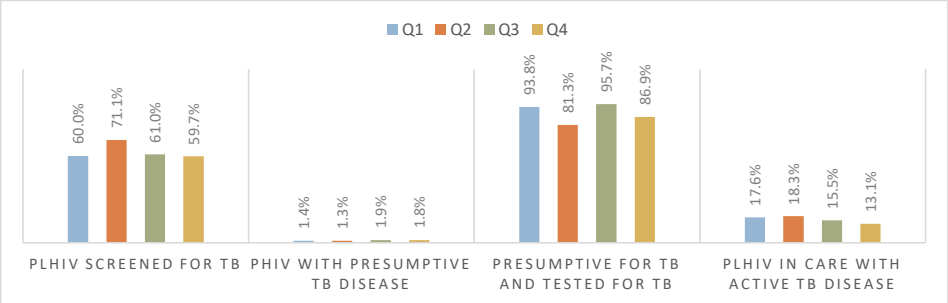


Figure 4. 13: HIV/TB cascade by Quarter

4.11.1 Tuberculosis Preventive Therapy (TPT) Coverage

TPT is the treatment offered to individuals who are considered to be at risk of developing active TB disease. The National Treatment Guideline recommends TPT as a one-off therapy to be provided to PLHIV with latent TB infection. About 62% of the PLHIV newly enrolled into care were started on INH prophylaxis in 2021 (figure 4.24). The uptake of INH among the newly enrolled PLHIV gradually decreases from the 3rd to the 4th quarter. Increased sensitization among clinicians and patient community on the importance for TPT will help to enhance TPT coverage in the country.

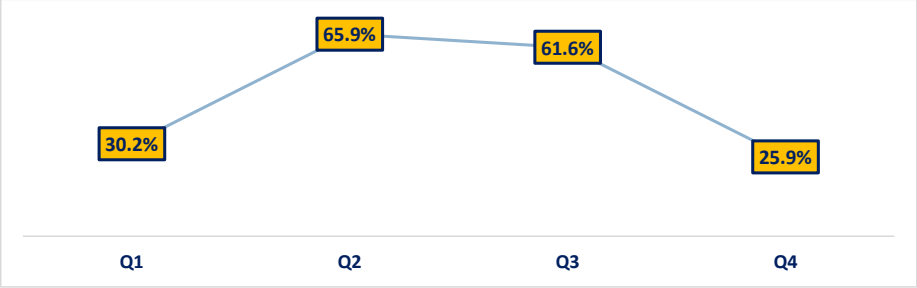
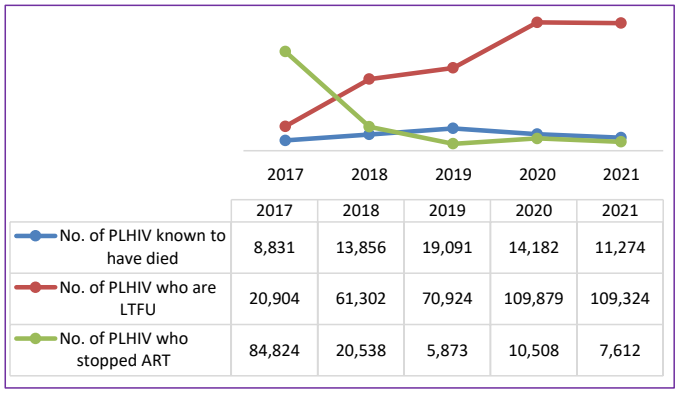


Figure 4.24: TPT Uptake among the Newly Enrolled PLHIV by Quarter

4.12 Attrition

There has been a persistent increase in attrition on the program since 2017 with clients lost to follow up accounting for majority of the reported attrition. In 2021, a total of 128,210 were reported to have drop off the program, 85% of this were clients lost to follow up. The country needs to scale-up the biometric data capture for all PLHIV on treatment and strengthen tracking mechanisms for LTFU. There has been a gradual decline in the number of reported AIDS related deaths; this could be attributed to ART optimization in the national program.



	2017	2018	2019	2020	2021
No. of PLHIV known to have died	8,831	13,856	19,091	14,182	11,274
No. of PLHIV who are LTFU	20,904	61,302	70,924	109,879	109,324
No. of PLHIV who stopped ART	84,824	20,538	5,873	10,508	7,612

Figure 4.25: Trend in attrition

Figure 4.26 shows waterfall analysis of continuity in care among PLHIV on treatment from 2020 to 2021. It explains that if there was no attrition (through stopped treatment, death, LTFU), the expected PLHIV on ART would be 1,933,756. It is pertinent for the program to put measures in place to mitigate attrition particularly through LTFU.

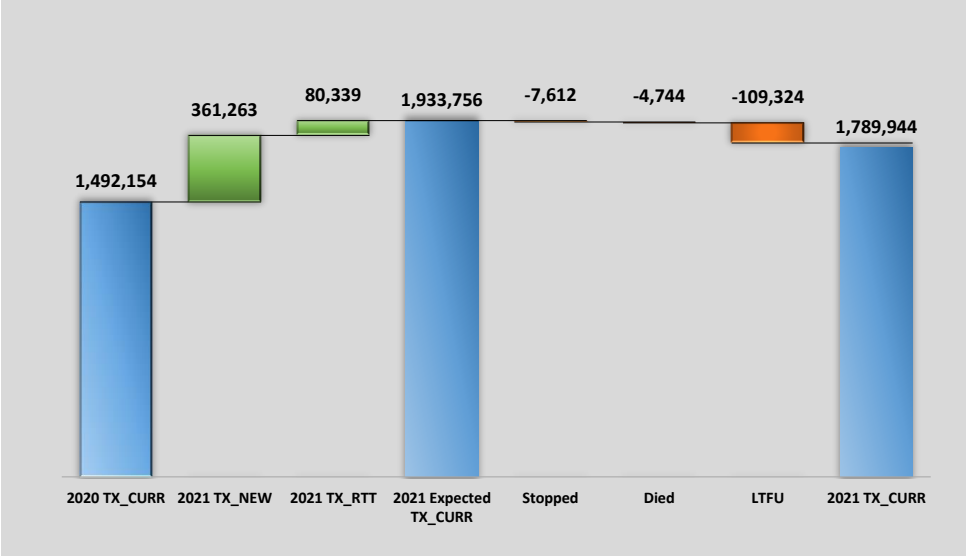


Figure 4. 16: Continuity in Care

SECTION 4:

HIV ESTIMATES AND PROJECTIONS

SECTION 5 - HIV ESTIMATES AND PROJECTIONS

5.1 Introduction

The National HIV/AIDS estimates and projections are generated annually through a collaboration of various stakeholders. NASCP leads the national estimates team in collaboration with NACA with technical support of UNAIDS. Other members of the team include US CDC, US DOD, USAID and the Global Fund through FHI 360 and other partners. The process involves reviewing population figures, updating PMTCT and ART (Adult and children) program data, recalculating targets where required, reviewing surveillance and survey data in the files and then fitting the curves using the Spectrum software. The Spectrum software is a collection of several software models used by policy makers to support program planning and decision making. It was developed by Avenir health and is informed by the UNAIDS reference group on Estimates, modelling and projections.

In 2013, Nigeria commenced subnational HIV estimates and projections for all its 36 states and the Federal Capital Territory (FCT) using the Spectrum software. The 2021 Nigeria Spectrum estimations and projections is the ninth iteration of subnational estimations. This chapter describes the process of generating the 2021 estimates, presents the findings, as well as discusses the policy implications of observed estimates and trends. The national and state files were updated with the final national validated data in March 2022 and submitted to UNAIDS for review after which final ratification was sought from the Government of Nigeria.

The data used as input in the Spectrum software were gotten from the following sources:

a) Demographic data from the UN population Division and the National population Commission (NPC): These sources provide population data which form the base of the model.

b) Nigeria Demographic and Health Survey (DHS) - (1989, 1995, 2001, 2006, 2011, 2013, 2018). This survey provides demographic data such as fertility rates and breastfeeding practices with which the model calculates expected births and disease transmission probabilities respectively.

c) HIV sentinel surveillance system i.e., Antenatal HIV Surveillance System among pregnant

women. This survey is used to project the trends of HIV prevalence among pregnant women in the module.

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

   i. The number of adults and children receiving ART
   ii. The number of adults newly placed on ART
   iii. The number of pregnant women who received ART for PMTCT by type of regimen

e) The Nigeria AIDS Indicator and Impact Survey (NAIIS, 2018): This survey provides data on HIV prevalence in the general population (adults and children) as well as among pregnant women.

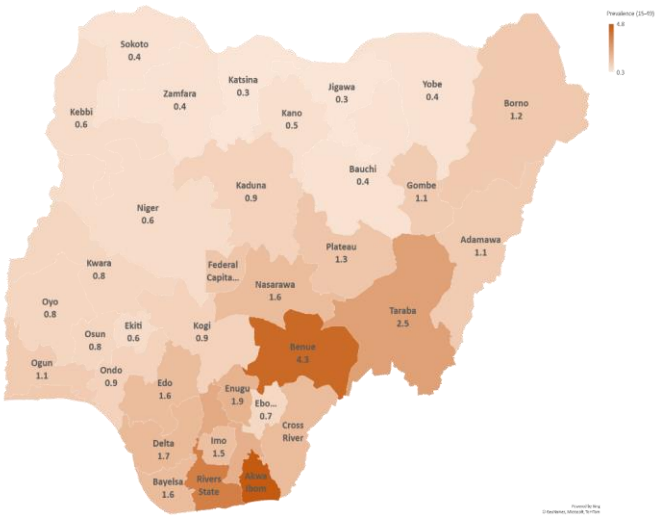


Figure 5.1 shows the 2018 NAIIS prevalence by state used as input into the specific spectrum files. The national HIV prevalence among adults aged 15-64 years is 1.4% and 1.3% among adults aged 15-49 years. The highest HIV prevalence was seen in Akwa Ibom (4.8%) while the lowest was found in Jigawa (0.3%) and Katsina (0.3%) states.

Figure 5.1 Map of HIV prevalence estimates among 15-49 population from NAIIS, 2018

5.2 Uses of the Spectrum Estimates

Spectrum outputs include a range of HIV indicators used by HIV program managers and policy makers. Key outputs include; the population living with HIV, new HIV infections, AIDS related deaths, need for ART and PMTCT, and the impact of ART and PMTCT programs among others. Some of the uses include:

- To understand the trajectory of the HIV epidemic
- To monitor and improve the HIV response
- To inform targets for national strategic frameworks and donor agreements

Over time, program managers and policy makers increasingly require HIV indicators at the subnational level to address the heterogeneity of the HIV epidemic. This is especially so in Nigeria due to significant sub national variations in the population dynamics and consequently in the HIV epidemic. Depleting HIV program resources and competing priorities further underscore the need to prioritize resource allocation to maximize impact of the programs. As countries progress towards the achievement of the global 95-95-95 targets, subnational monitoring of the epidemic is even more critical to measure progress towards the achievement of these targets in sub locations and among sub populations to ensure no one is left behind in the response.

5.3 Spectrum Models

The DemProj (Demographic Projections) model projects the population for the country or region by age and sex, based on assumptions about fertility, mortality, and migration. DemProj is a base model for all projections created in Spectrum as the calculations in other modules are based on the population projection it generates.

The AIDS Impact Model (AIM) is the Spectrum model widely used for producing HIV estimates both for national and sub-national epidemics. It projects the consequences of the HIV epidemic based on the input demographic, program, survey and surveillance data. The HIV estimates and projections produced yearly could vary across years when they are compared. These variations are due updates in the model, changes in available data and new researches.

The Naomi Model is used to generate robust district (LGA) level estimates for key outcomes of interest: Prevalence / PLHIV, ART coverage & unmet meet and new infections. These are stratified by sex and 5-year age groups. It was first introduced for UNAIDS estimates process in Dec 2019.

The Shiny 90 model was developed to measure progress towards the UNAIDS 90:90:90 target. As HIV testing is the gateway to diagnosis of HIV, the model uses HIV testing data to ascertain HIV testing uptake patterns. The estimates are improved using a combination of HIV testing data from surveys and annual HIV testing data.

5.4 Spectrum Outputs

5.4.1 HIV Population

The 5- year trend of estimated PLHIV is shown in figure 5.2. Generally, there was a 6% increase in the PLHIV population estimates between 2017 and 2021. The PLHIV population is dependent on the interplay between the change in total population, new infections as well as AIDS related deaths. About 1.9 million (1.5-2.5 million) people were estimated to be living with HIV in Nigeria in 2021 and 91% of these were adults above 15 years. Among the adult PLHIV, 63% were women.

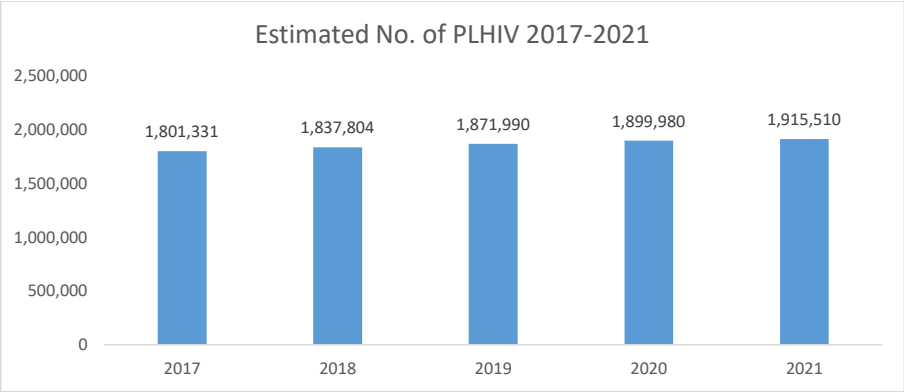


Figure 5.2: Number of People Living With HIV, All Ages

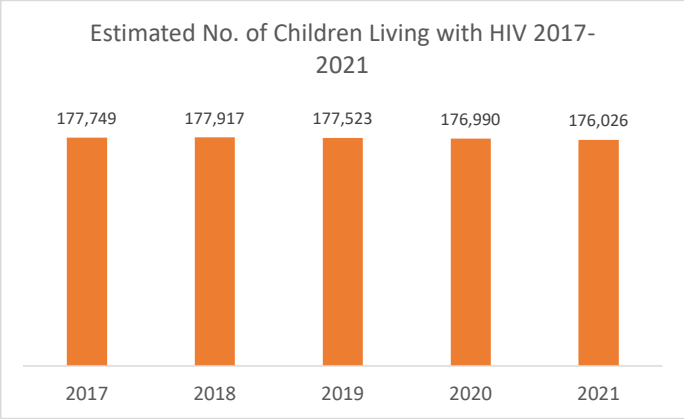


Fig 5.3 shows the estimated number of children living with HIV in Nigeria in the last five years. The number was stable within this period with an estimated 176,000 (122,000-247,000) children aged 0-14 years living with HIV in Nigeria in 2021. This accounts for about 9% of the total number of PLHIV in Nigeria.

Figure 5.3: Estimated Number of Children (0-14 YEARS) Living With HIV

Fig 5.4 below shows the trend in the estimated number of adolescents and young people (AYP) living with HIV in the last five years. A similar trend was observed between the two populations with declines between 2019 and 2021. Adolescents and young people constitute about 6% and 11% of PLHIV respectively.

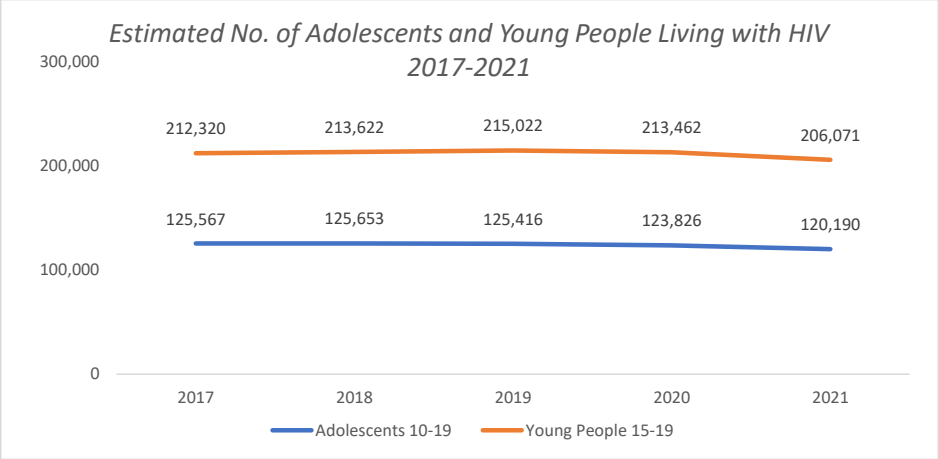


Figure 5.4: Estimated No. of Adolescents and Young People Living with HIV 2017-2021

The estimated PMTCT need has remained stable over recent years despite increasing population and corresponding increase in expected pregnancies (figure 5.5). This may be indicative of the reducing HIV positivity among pregnant women.

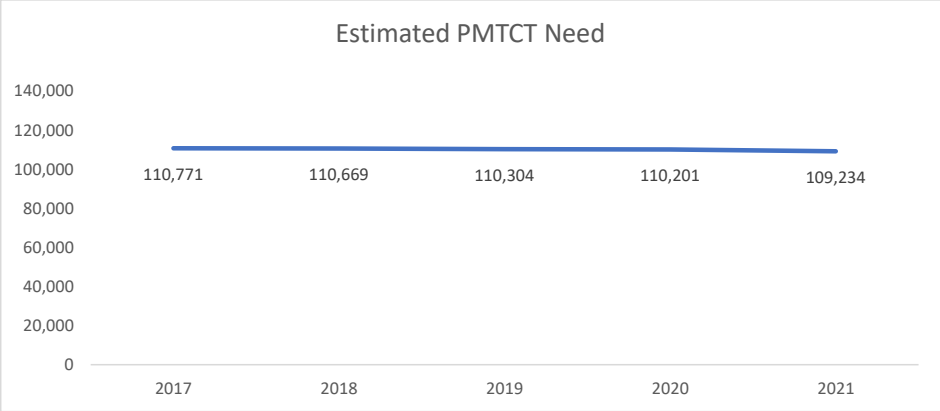


Figure 5.5: PMTCT Need 2017-2021

Table 5.1: Estimated Number of People living with HIV by State, 2021

States	All PLHIV
Rivers	206,630
Akwalbom	178,364
Benue	168,471
Lagos	113,379
Anambra	90,814
Kano	70,241
Kaduna	68,158
Delta	63,937
Abia	62,899
Imo	61,132
Nasarawa	58,092
FCT	55,744
Enugu	55,612
CrossRiver	53,795
Ogun	45,313
Oyo	45,156
Borno	45,054
Edo	44,053
Taraba	42,879
Adamawa	34,506
Plateau	33,719
Katsina	31,975
Osun	28,948
Kogi	27,055
Ondo	26,827
Kebbi	23,352
Niger	22,758
Bayelsa	22,188
Gombe	21,522
Bauchi	19,561
Kwara	17,169
Jigawa	16,056
Sokoto	14,428
Zamfara	14199
Ebonyi	12399
Ekiti	11570
Yobe	7553

States	Pregnant Women living with HIV
Benue	13,882
Rivers	12,356
Akwalbom	9,085
Lagos	5,982
Anambra	4,976
Delta	4,632
Edo	4,364
Imo	4,143
FCT	3,461
Kano	3,422
Nasarawa	3,183
CrossRiver	3,134
Abia	2,599
Ogun	2,530
Enugu	2,190
Borno	2,182
Taraba	2,130
Adamawa	2,119
Plateau	2,107
Kaduna	2,055
Oyo	2,021
Katsina	1,605
Osun	1,584
Ondo	1,535
Gombe	1,340
Bauchi	1,322
Bayelsa	1,261
Niger	1,214
Kogi	1,092
Kwara	1,046
Kebbi	1,011
Jigawa	808
Zamfara	692
Ebonyi	681
Sokoto	600
Ekiti	594
Yobe	294

States	CLHIV 0-14 years
Rivers	22,263
Benue	19,678
Akwalbom	13,945
Lagos	9,825
Anambra	7,637
Kano	7,464
Delta	7,040
Edo	6,749
Imo	5,953
Nasarawa	4,919
CrossRiver	4,861
Borno	4,483
Ogun	4,232
Kaduna	4,046
Abia	3,817
Adamawa	3,755
Plateau	3,685
Katsina	3,628
Taraba	3,286
Oyo	3,250
Enugu	3,123
Ondo	2,753
FCT	2,685
Bauchi	2,527
Osun	2,470
Kebbi	2,402
Gombe	2,277
Bayelsa	1,963
Niger	1,926
Kwara	1,751
Kogi	1,734
Jigawa	1,468
Zamfara	1,289
Ekiti	896
Sokoto	851
Ebonyi	765
Yobe	628

States	15 – 24 Years
Rivers	29,702
Akwalbom	19,978
Benue	14,969
Anambra	10,558
Lagos	9,928
Abia	8,367
Kano	7,950
Imo	7,706
Delta	7,695
Kaduna	6,055
Nasarawa	6,007
Edo	5,818
Enugu	5,577
Borno	5,052
CrossRiver	4,936
Oyo	4,535
Osun	3,864
Katsina	3,831
Taraba	3,414
Ondo	3,207
Adamawa	3,205
Ogun	3,203
Plateau	2,858
FCT	2,806
Bayelsa	2,692
Kebbi	2,606
Kogi	2,467
Niger	2,249
Kwara	2,042
Gombe	1,941
Bauchi	1,886
Jigawa	1,807
Ebonyi	1,746
Zamfara	1,691
Sokoto	1,525
Ekiti	1,486
Yobe	712

The state level disaggregation of PLHIV in Nigeria is shown in Table 5.1 below. The total PLHIV burden is highest in Rivers (207,000) and lowest in Yobe state (8,000). Rivers, Akwa-Ibom, Benue, Lagos, Anambra, Kano, Kaduna and Delta states account for over half of the national HIV burden. The patterns of HIV burden distribution in children and young persons across the states were similar with slight variations to that of all PLHIV population. HIV burden among pregnant women slightly differ in state ranking as Benue had the highest burden while retaining Yobe as the least burden state.

5.4.2 New Infections

The Number of new HIV infections assumed a downward trend from 2019 (figure 5.6). This represents a 30% reduction from 2010. This may be as a result of the recent concerted efforts in HIV prevention especially among key populations and other vulnerable population following the pillars of the Global HIV Prevention Coalition (GPC). This decline was however not fast enough to meet the 2020 GPC targets of 75% reduction between 2010 and 2020. Hence efforts need to be intensified to meet the 2030 target of ending AIDS. New infections among adult females constituted over 60% of the adult new infections.

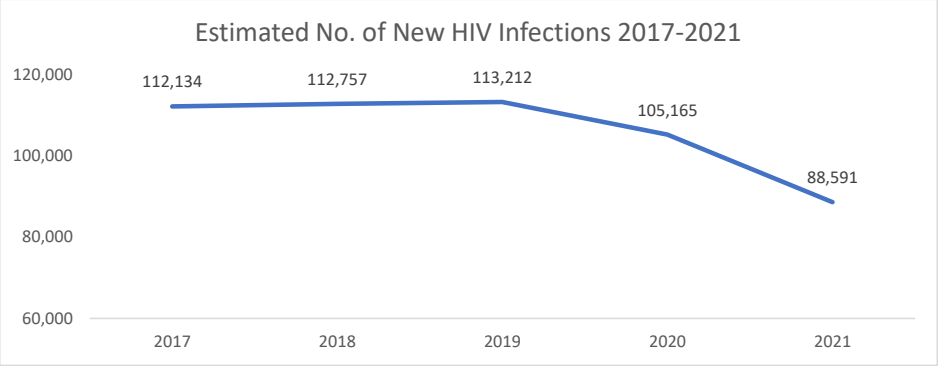


Figure 5.6: Estimated Number of New HIV Infections 2017-2021

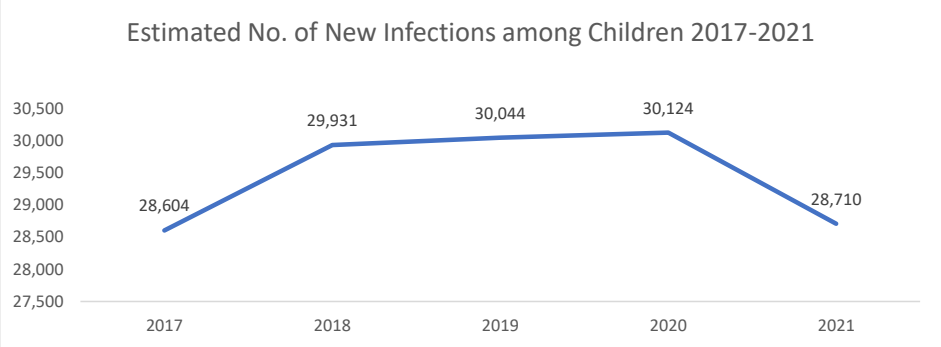


Figure 5.7: Estimated Number of New Infections among Children 2017-2021

New infections are generally on the decline among both adolescents and young people (figure 5.8). This aligns with the efforts that have been put into programming for this group following the results of the NAIIS survey. Efforts are continuing and the gains are expected to be sustained.

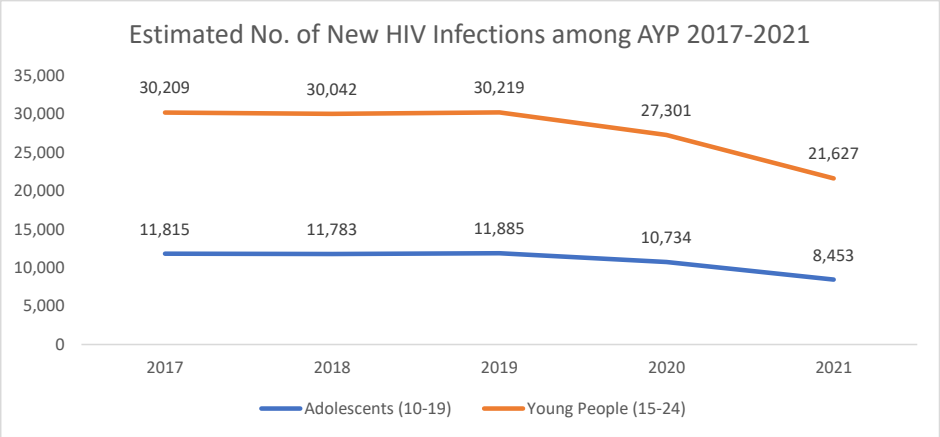


Figure 5.8 Estimated Number of New Infections among Adolescents and Young People (AYP)

New infections were significantly higher among female compared to their male counterparts in all age categories of adolescents, young people and adults (figure 5.9). The epidemic continues to be preponderant among females.

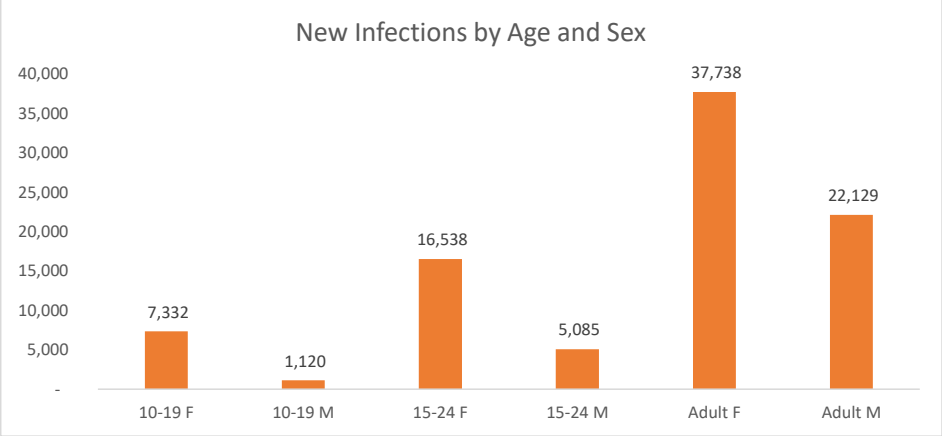


Figure 5.9: New Infections by Age and Sex

Figure 5.10 shows the estimated new HIV infection in 2021 by states. The highest number of new infections was recorded in Rivers state while the least was seen in Yobe. Rivers, Anambra, Benue, Abia, Akwa-Ibom and Imo state account for almost half of all new infections. These states continue to contribute significantly to the national new HIV infections.

This high number of new infections and high HIV burden as well as high unmet need formed the basis of selection of the 'surge' states in the country in 2019. Ongoing efforts in these surge states will be sustained.

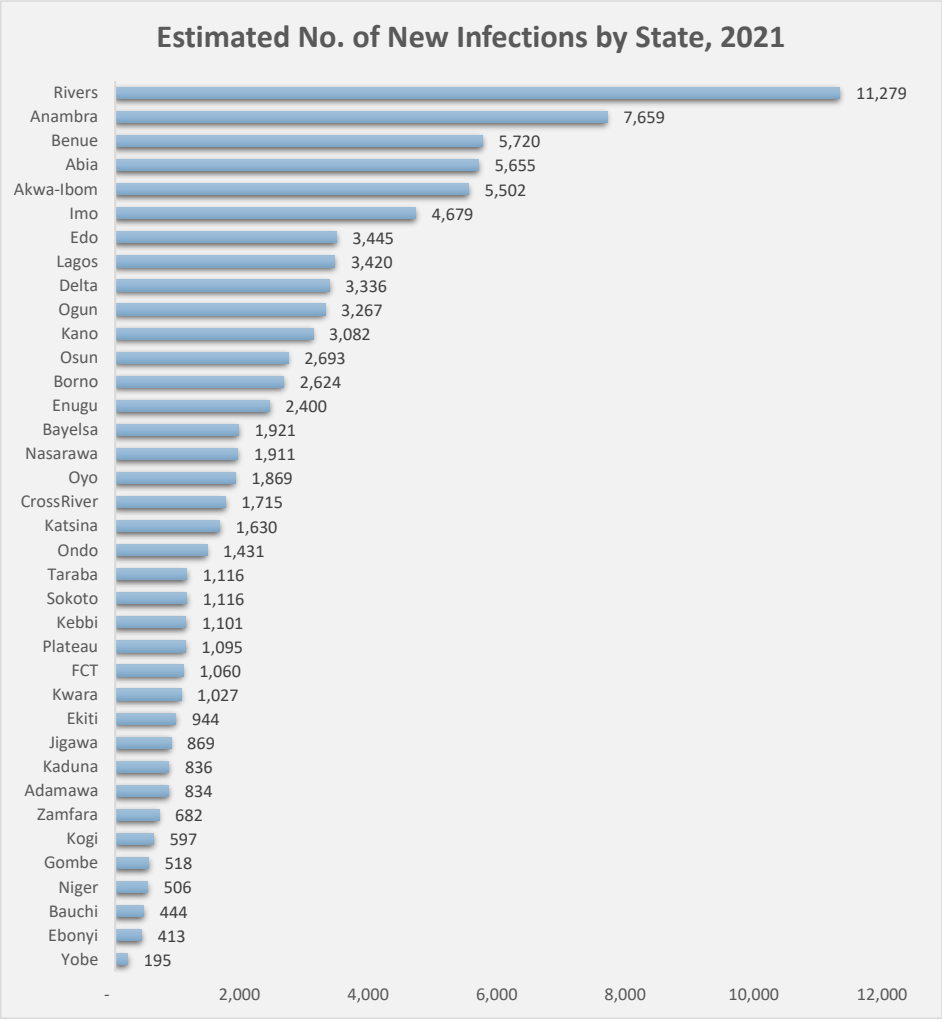


Figure 5.10: Estimated Number of New Infections by State

The MTCT rate has been increasing over the past few years with a slight decline in 2021. This increase is attributable to the declining number of pregnant women receiving ART for prevention of Mother to Child Infections.

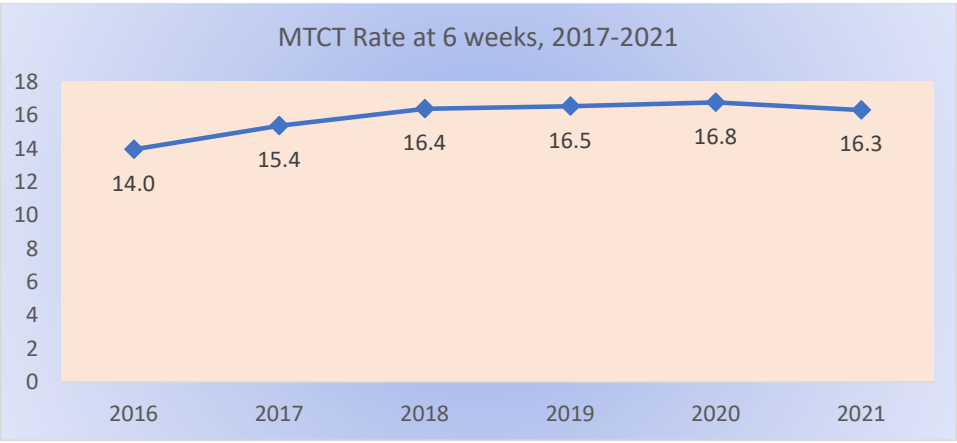


Fig 5.11: MTCT Rate at 6 Weeks, 2017-2021

5.4.3 AIDS Deaths

The estimated deaths due to HIV have been on downward trend and it is attributable to the increasing ART coverage. The sharp decline between 2020 and 2021 is also evident as there was a rapid increase in ART coverage between 2020 and 2021.

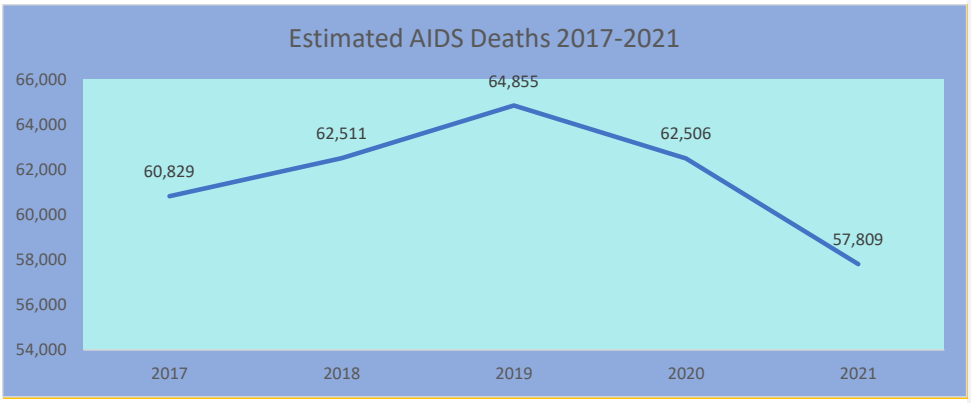


Fig 5.11 Estimated AIDS Deaths 2017-2021

The estimated number of deaths by states are presented in figure 5.12 below. States with higher HIV burden also had higher number of deaths. River state had the highest number of estimated deaths due to HIV while Yobe had the least.

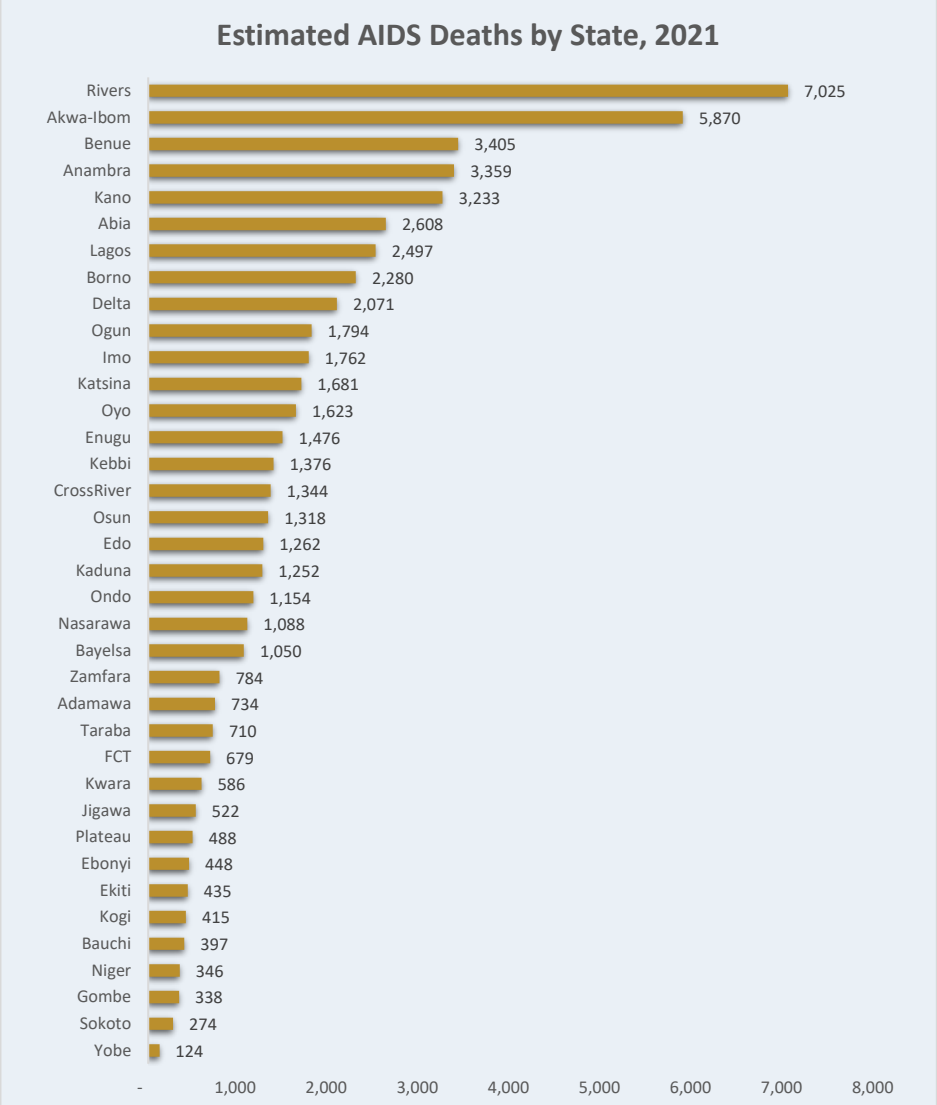


Fig 5.12: Estimated AIDS Deaths by State

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