2021 Annual **Report**

September 2022

NACP
NATIONAL AIDS CONTROL PROGRAMME

GHANA HEALTH SERVICE
GHS
Your Health · Our Concern

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Your Health · Our Concern

2021 ANNUAL REPORT

September 2022

National AIDS/STI Control Programme, 2021
Ghana Health Service, 2021

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List of **Abbreviations**

ABC	Abacavir
ACE	Adverse Clinical Event
AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral Therapy
ARV	Antiretroviral
AZT	Zidovudine
AZT/3TC	Zidovudine/Lamivudine combination drug
BSS	Behavioural Surveillance Survey
CATS	Community Adolescent Treatment Supporters
CBO	Community Based Organization
CCM	Country Coordinating Mechanism
CDC	Centre for Disease Control and Prevention, Atlanta
CHAG	Christian Health Association of Ghana
DBS	Dried Blood Sample
DMoC	Differentiated Models of Care
DNA	Deoxyribonucleic Acid
DSD	Differentiated Service Delivery
EFV	Efavirenz
EID	Early Infant Diagnosis
EMTCT	Elimination of Mother-to-Child Transmission
GFATM	Global Fund to fight AIDS, TB & Malaria
GHS	Ghana Health Service
GIPA	Greater Involvement of Persons Living with HIV and AIDS
HAART	Highly Active Antiretroviral Therapy
HIV	Human Immunodeficiency Virus
HTC	HIV Testing and Counselling
HIVDR	HIV Drug Resistance
HSS	HIV Sentinel Surveillance
ICD	Institutional Care Division
IDSR	Integrated Diseases Surveillance and Response

IEC	Information, Education and Communication
IMAI	Integrated Management of Adult and Adolescent Illnesses
IMCI	Integrated Management of Childhood Illnesses
JICA	Japan International Co-operation Agency
JUTA	Joint UN Team on AIDS
LPV/r	Lopinavir boosted with Ritonavir
MDA	Ministries Departments and Agencies
MM	Mentor Mother
MOH	Ministry of Health
MoS	Months of Supply
NACP	National AIDS/STI Control Programme
NHARCON	National HIV/AIDS Research Conference
NMIMR	Noguchi Memorial Institute for Medical Research
NVP	Nevirapine
OIs	Opportunistic Infections
PCR	Polymerase Chain Reaction
PEPFAR	President's Emergency Plan For AIDS Relief
PH	Public Health
PI	Protease Inhibitors
PLHIV	Persons Living with HIV
PMTCT	Prevention of Mother-To-Child Transmission
PU	Procurement Unit
SoH	Stock on Hand
STI	Sexually Transmitted Infections
TB	Tuberculosis
TLD	Tenofovir Lamivudine Dolutegravir
TWG	Technical Working Group
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WAHO	West African Health Organisation
WHO	World Health Organization
WHO/AFRO	World Health Organization Africa Regional Office

Executive **Summary**

In 2021, one million nine hundred and seventy-six thousand, one hundred and thirty-four (1,976,134) out of a target of 1,920,158 were tested for HIV, representing 103% target coverage. Approximately 20% were males, 33% were non-pregnant women, and 47% were pregnant women. Of those tested, 50,187 were found positive, giving a testing yield of 2.5%, the lowest in the last five years.

From 1,302,569 expected pregnancies in 2021, 71% (924,584) were tested for HIV and received their results. Ten thousand, two hundred and seventy-six (10,276) out of those tested were newly diagnosed as HIV positive, giving a yield of 1.1%, and 8,802(86%) were initiated on ARVs. Nine thousand and forty-four (9,044) of the 12,868 HIV Exposed Infants identified received Early Infant Diagnosis (EID), giving a 70% nucleic acid testing coverage. Two hundred and thirty-nine (2.6%) of all those tested were positive at six weeks.

Twenty-nine thousand four hundred and five (29,405) adults and children were initiated on ART in 2021. As of December 2021, 245,223 clients were on treatment, a significant increase from 2020. Sixty-eight thousand, eight hundred and twelve (68,812) viral load tests were performed as of December 2021, and 54,321(79%) were virally suppressed.

NACP organized healthcare workers' training in five regions and 131 health facilities on early infant diagnosis, family-based Index testing, ART, differentiated service delivery, TB preventive therapy, and HIV testing. The TB/HIV Collaboration continued, and in 2021, 99,740 PLHIV were screened symptomatically for TB, 24,162 were found eligible for TB preventive therapy, and 79% (19,063) were given TB preventive therapy as prescribed in the country's Guidelines for TB Preventive Therapy.

Under the Cooperative Agreement between the Ghana Health Service and the United States Centres for Disease Control and Prevention (CDC), the Programme continued to strengthen the laboratory and related health information management system in the Ahafo, Western and Western North Regions. The National AIDS/STI Control Programme would sustain collaboration with other Divisions and Programmes to ensure more integrated service delivery.

The Programme appreciates all the support from the Office of Director General-GHS, all Divisions, and Directorates of the GHS, MOH, GAC, CCM, Other Principal Recipients (PRs), Implementing Partners (IPs) and Development Partners (DPs), especially the GFATM, JUTA, CDC PEPFAR, other government & non-governmental stakeholders, service providers and the association of PLHIV. Our focus is to work together until we attain zero new infections, AIDS-related deaths, stigma, and discrimination.

Dr. Stephen Ayisi Addo
Programme Manager

CHAPTER
One

Introduction

The National AIDS/STI Control Programme (NACP) is a unit under the Disease Control and Prevention Department of the Public Health Division of Ghana Health Service (GHS). The Programme started as a National Technical Committee on AIDS, later became the National Advisory Council on HIV and AIDS in 1985 and the National AIDS/STI Control Programme (NACP) in 1987. The Programme has since been the lead agency in the health sector's response to HIV and AIDS in Ghana. The NACP is responsible for implementing the health sector aspects of the National HIV and AIDS Strategic Plan (NSP 2016-2020). Additionally, Programme interventions are guided by the Health Sector Programme of Work and the current Health Sector HIV Strategic Framework (2021-2025).

1.1 Programme Mandate and strategies

The National AIDS/STI Control Programme is empowered to:

- Deliver a package of interventions to reduce HIV transmission.
- Provide care and support services for Persons Living with HIV (PLHIV).
- Deliver Strategic Information on HIV/ AIDS and other STIs.
- Provide essential technical support to all Ministries, Departments, and Agencies (MDAs) in implementing their HIV programmes.

The strategies used to deliver each mandate have been outlined in table 1-1.

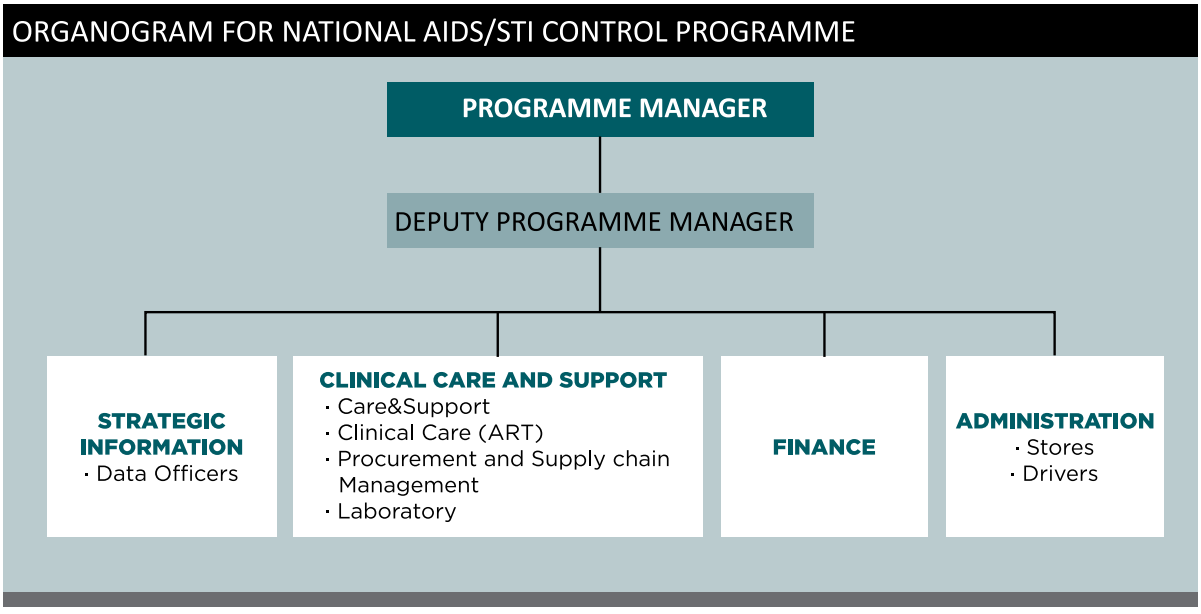
Table 1-1 *- NACP mandates and their respective strategies*

Mandate	Strategies
Deliver a package of interventions to reduce HIV transmission.	• Targeted HIV Testing Services for General & Key Population and index client/family-based testing. • Elimination of Mother-To-Child Transmission (EMTCT) services. • Syndromic management of Sexually Transmitted Infections. • Condom promotion. • Ensuring Safe Blood Transfusion. • HIV Exposure Prevention in the Health Care setting and provision of post and the exposure prophylaxis to vulnerable groups. • Health Promotion and Demand Creation for all HIV services.
Provide treatment, care, and support services for Persons Living with HIV(PLHIV).	• Prevention and Management of Opportunistic Infections. • Provision of Antiretroviral therapy and differentiated service to all diagnosed persons. • Continuous Supportive Counselling to persons living with HIV (PLHIV). • Provision of Home-Based Care to PLHIV. • Working with PLHIV and their associations. • Greater involvement of Persons Living with HIV and AIDS (GIPA).
Deliver Strategic Information on HIV/ AIDS and other STIs.	• The conduct of annual HIV Sentinel Surveillance. • Development of information, education, and communication materials. • Undertake and support individuals, groups, and institutions to Conduct HIV research to inform policy and implementation within the national response, e.g., AIDS Case Surveillance, Behavioural Sentinel Surveillance, DHS.
Provide essential technical support to all Ministries, Departments, and Agencies (MDAs) in the implementation of their HIV programmes	• Dissemination of HIV information via conventional and social media platforms. • Publication of annual reports and periodic bulletins. • Providing technical support to the Ghana AIDS Commission and other stakeholders. • Assisting MDAs in developing and deploying HIV workplace policy and programmes. • Strengthening the institutional capacity of MDAs to provide HIV services.

1.2 Leadership and Governance

At the national level, the Programme Manager is responsible for coordinating and managing the health sector response to HIV and reports to the Director-General of Ghana Health Service through the Director of Public Health. At the sub-national level, the Programme has a decentralized leadership and governance structure, with the national office working closely with the Regional Health Directorates, who also support the districts and facilities in service delivery. Figure 1-1 provides the administrative structure for NACP at the National level.

Figure 1-1 - *Organogram for NACP at the National Level*



1.3 Programme Units and Human Resource

The Programme Manager is supported at the national office by technical officers and administrative staff within the following units:

- Clinical Care and Support
- Strategic Information
- Finance and
- Administration

The staff strength of the Programme at the national office remained at 37 as of December 2021. The 233 data officers across facilities in the 16 regions have migrated to the Government of Ghana payroll, with some deployed to undertake other additional duties based on their additional competencies.

1.4 Technical and Financial Support

To achieve its programmatic targets, the NACP is supported by

- The Resource Mobilisation Unit of the Ministry of Health.
- All Headquarters Divisions of the Ghana Health Service.
- Health facilities under the Christian Health Association of Ghana (CHAG) and other Private and Quasi-Government facilities.
- The National Public Health Reference Lab (PHRL) and the Noguchi Memorial Institute for Medical Research (NMIMR) that provide diagnostic and Technical Support for the Programme.
- Regional and District Health directorates in all 16 administrative regions.
- The National HIV Technical Working Group, Paediatric HIV Task team, and Differentiated Service Delivery Task Team who support the planning, implementation, and monitoring of Programme activities.
- University of Ghana School of Public Health provides Research assistance.

The Government of Ghana's financial commitment to HIV Control in 2020 was complemented by donor support for capacity building and logistic supply from

- The Global Fund
- USAID (PEPFAR, CDC)
- Joint UN Team on AIDS (UNICEF, WHO, UNAIDS)
- WAHO

1.5 Strategic Information (SI)

The NACP collaborates with the Policy, Planning, Monitoring and Evaluation (PPME) Division of the Ghana Health Service and the Ghana AIDS Commission to track all HIV activities. Dedicated officers at the NACP SI Unit help with providing baseline, process, and outcome indicators and set targets and timelines for the country's HIV Programme. The SI Unit utilizes data collected at the facility level using HTC, ART, ANC & maternity registers, PMTCT summaries, and patient files and cards and captured as aggregate data in the District Health Information System (DHIMS 2). In addition to these, the Unit also supports the conduct of surveys and collects qualitative data from Programme activities and implementing partners. It also leads in the generation of manuscripts and abstracts for publication.

1.6 HIV Service Coverage

A total of 6,280 facilities provided Elimination of Mother to Child Transmission (eMTCT) services in 2021, with the Eastern Region having the highest number (941). Out of the 2,224 facilities where samples were taken for Early Infant Diagnosis (EID), the majority (355) were in the Eastern Region, with the least (23) being in the North East region. Six thousand six hundred and six (6,606) facilities offered HIV testing and counselling services to clients as of December 2021, with the majority (956) in the Eastern region. Six hundred and twenty-three (623) facilities offered antiretroviral therapy to clients in 2021, with most of them located in the Central region. Table 1- 2 summarizes the coverage of the various services across the regions.

Table 1 - 2 - Sites providing Services across regions

Region	ANCs providing EMTCT	HIV testing	ART sites	EID
Ahafo	89	105	12	63
Ashanti	695	743	69	291
Bono	171	182	44	117
Bono East	176	195	14	73
Central	639	625	112	190
Eastern	941	956	46	355
Greater Accra	590	698	90	166
North East	130	131	11	23
Northern	446	453	24	65
Oti	198	220	12	44
Savannah	184	183	14	24
Upper East	543	552	28	352
Upper West	464	460	20	87
Volta	393	412	44	130
Western	393	453	74	149
Western North	228	238	9	95
National	**6280**	6606	623	**2224**

Apart from the Upper West, Western North, Savannah, North East, Oti, Bono East, and Ahafo regions, nine regions have machines for viral load and DNA PCR testing.

CHAPTER two

Interventions to Reduce HIV Transmission

To reduce the incidence of HIV in the country in 2021, the Programme undertook the following interventions:

- Advocacy, Communication and Social Mobilisation.
- Addressing HIV-related Stigma and human rights abuses.
- HIV Testing and Counselling Service.
- Elimination of Mother-To-Child Transmission interventions.
- Condom distribution and STI Management.
- Blood safety.
- Pre and Post-exposure prophylaxis.

2.1 Advocacy, Communication, and Social Mobilisation (ACSM)

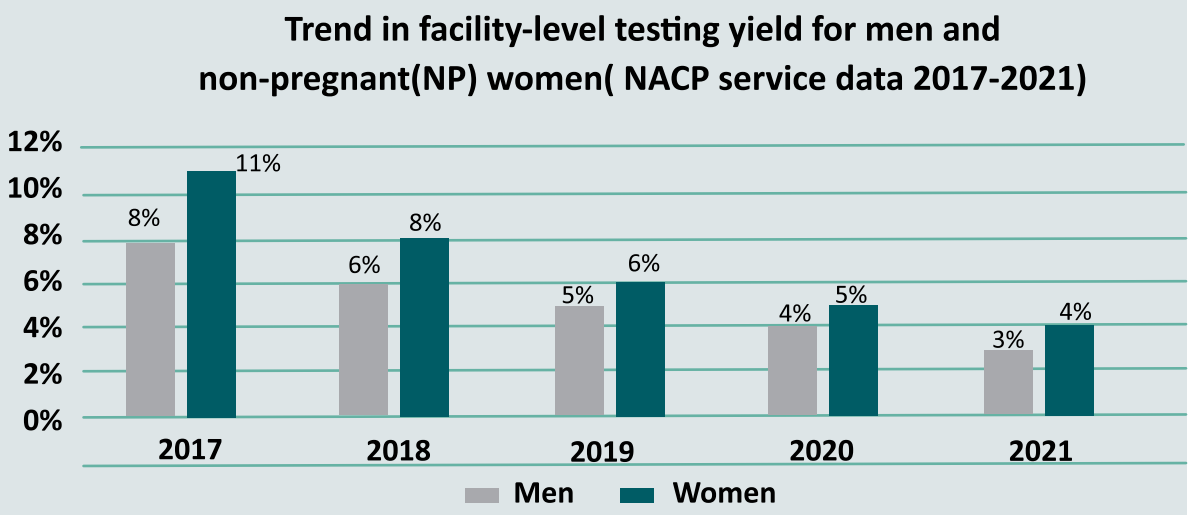
To guide its primary prevention efforts, the Programme continued to implement the ACSM plan with several strategies to increase safer sexual behaviour, demand for HIV prevention, care and treatment interventions, and reduce the incidence of HIV among vulnerable and key populations. Below are some activities undertaken over the year to achieve this.

Media engagements

As part of the ACSM activities, the Programme from the national level sensitized the general public on emerging issues in HIV prevention, testing, and treatment through several media outlets in 2021. Among them were Joy News, Adom FM and Adom TV, Okay FM, Ghana Web, Ghana News Agency, Daily Graphic, and Daily Guide. The platforms were also used to advocate for the rights of persons living with HIV to be protected and promote their acceptance in society. Social Media engagements were also undertaken by the Programme to help reach the youth. Service providers across the regions also educated the populace in their catchment areas through local media houses and social events. The Programme is grateful to all the Media Houses who offered free airtime to help our primary prevention activities. In 2022, there will be more collaborations with other public, private, and faith-based media outlets. Service providers in the regions are also encouraged to continue such media engagements in their local context.

All these contribute to the gradual decline in HIV positive testing yield among men and non-pregnant(NP) women over the last five years, although their yields remain significantly high and call for further urgent action (Figure 2-1).

Figure 2 -1 : *Trend in facility-level testing yield for men and non-pregnant(NP) women(NACP service data 2017-2021)*



Addressing HIV-related Stigma and Human Rights Abuses

Human rights abuses remain a significant challenge to HIV prevention efforts globally. In Ghana, these abuses are particularly rife among the key populations, adolescent girls and young women. To reduce HIV-related stigma, the Programme supported the Christian Health Association of Ghana to build the capacity of peer paralegals to improve access to legal counsel for their peers. To ensure access to services for HIV clients in the face of the COVID -19 pandemic, there was the need to reduce the "double stigma" associated with both conditions and make service delivery sites largely stigma-free. With support from UNICEF and collaboration with the Health Promotion Division of Ghana Health Service, the Programme trained staff from selected facilities on stigma reduction. Posters to encourage clients to access services and serve as prompts for service providers were developed and distributed to all antiretroviral therapy sites. Such anti-stigma campaigns shall continue in 2022 to make ART delivery sites more friendly to clients.

2.2 HIV Testing and Counselling Services (HTS)

HIV testing serves as the entry point to antiretroviral treatment and helps prevent new infections and re-infection in the general population. In 2021, the Programme routinely offered HIV Testing and Counselling (HTC) services to persons who wanted to know their status and learn more about HIV and AIDS to make informed decisions about their sexual and reproductive health.

Index testing

Following the adoption of the UNAIDS "95 95 95" targets towards the elimination of HIV by 2030, there was a need for innovative approaches to achieve these targets. The first step was the attainment of the first "95", which required that 95% of people living with HIV in Ghana knew their status. Ghana's desire to accelerate progress towards achieving this target led to the pilot and subsequent scale-up of the Family-Based Index client testing (FBIT) strategy.

FBIT is a voluntary process where counsellors or health care workers ask index clients to list all of their family members (children, siblings, or sexual partners) who might be exposed to HIV for testing. It was piloted in purposively selected facilities in five regions with support from UNICEF-Ghana. The aim of the intervention was to

- Increase HIV testing yield,
- Improve efficacy in testing
- Diagnose and initiate infected partners and children on treatment early and
- Link negative partners to prevention services

Table 2-1 provides details of HIV tests captured in DHIMS in 2021 and shows that the testing yield among index client contacts is significantly higher than the 2.5% reported for general populations across both genders. The anticipated increase in yield due to scale-up of index testing was not observed due to clients missing index testing appointments because of fear of contracting COVID 19 in health facilities. Interventions are being developed to help address the additional barriers to index testing caused by the COVID 19 pandemic. The Programme also hopes to continue the scale-up across additional facilities, provide supportive supervision for its implementation, and share its experience

Table 2- 1 *HIV testing yield by population (NACP 2021 service data)*

Population	Children of Index clients		Partners of Index client		All index client contacts	
Gender	Male	Female	Male	Female	Male	Female
Tested	3489	3794	7490	12495	10979	16289
Positive	380	397	730	965	1110	1362
Yield	11%	10%	10%	8%	10%	8%

Capacity building for family-based index client testing-DSD

Following a successful pilot of family-based index testing in five regions, the Programme took advantage of several gatherings of service providers to orient them on index testing. As a result, a job aid for index testing has been added to the revised ART Client care booklet used to manage clients since 2020. Data capture tools for index testing have also been developed to capture data disaggregated by age and gender at the facility level. With support from the Global Fund, 131 additional facilities were trained across the country as part of Differentiated Service Delivery to offer index testing to their clients.

HIV Testing Coverage

One million nine hundred and seventy-six thousand, one hundred and thirty-four (1,976,134) out of a target of 1,920,158 were tested for HIV in 2021, representing 103% target coverage, a dip from the 128% achieved in 2020 probable due to the impact of the COVID 19 pandemic. (figure 2-2). The regional coverage of the testing targets is captured in figure 2-3. Most (47%) of those tested were pregnant women, with men tested being the least (figure 2-4). By age, there was an increase in children's contribution to the testing numbers from 3% in the previous years to 8%, with some additional numbers coming from family-based index testing. (figure 2-5).

Figure 2 -2 : *Trend in Coverage of Annual HIV testing targets (2017-2021)21)*

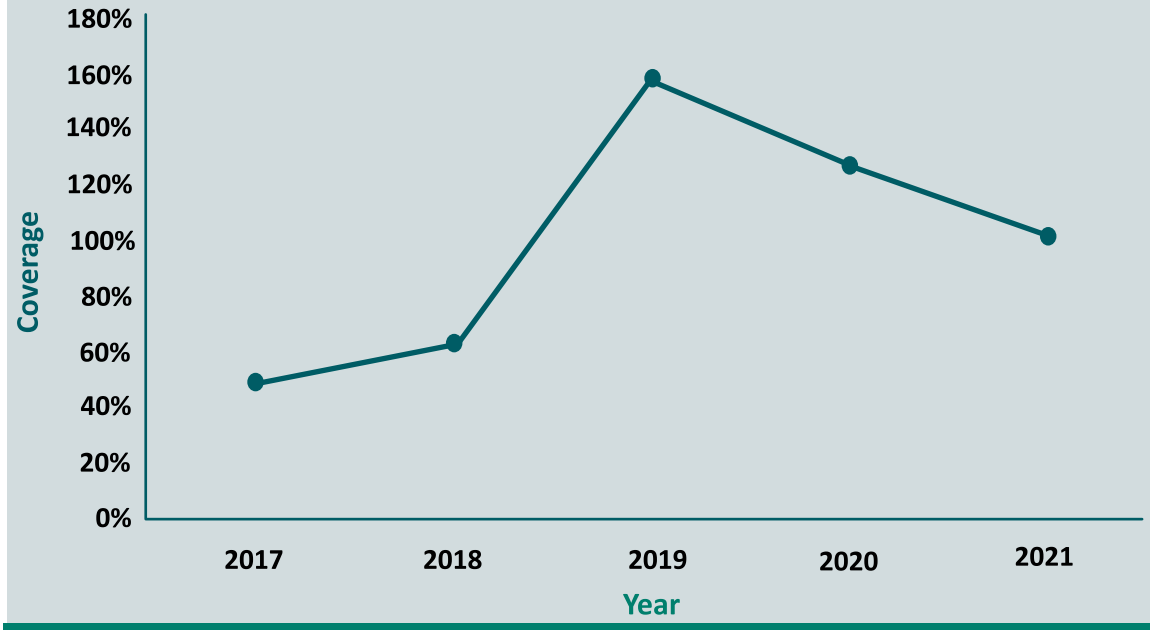


Figure 2 -3 : *HIV testing coverage by region-2021*

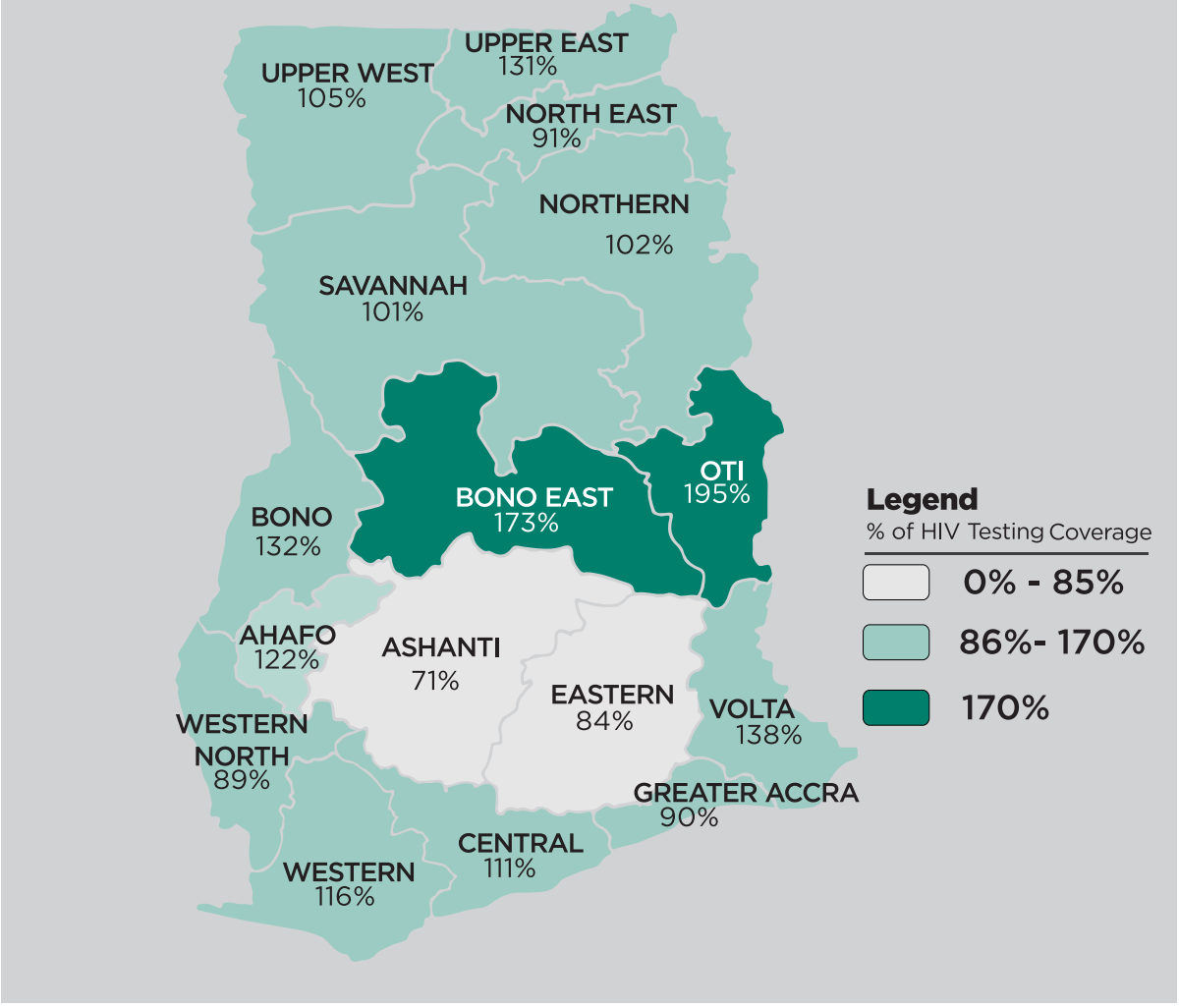


Figure 2 -4 : *Category of persons tested-2021*

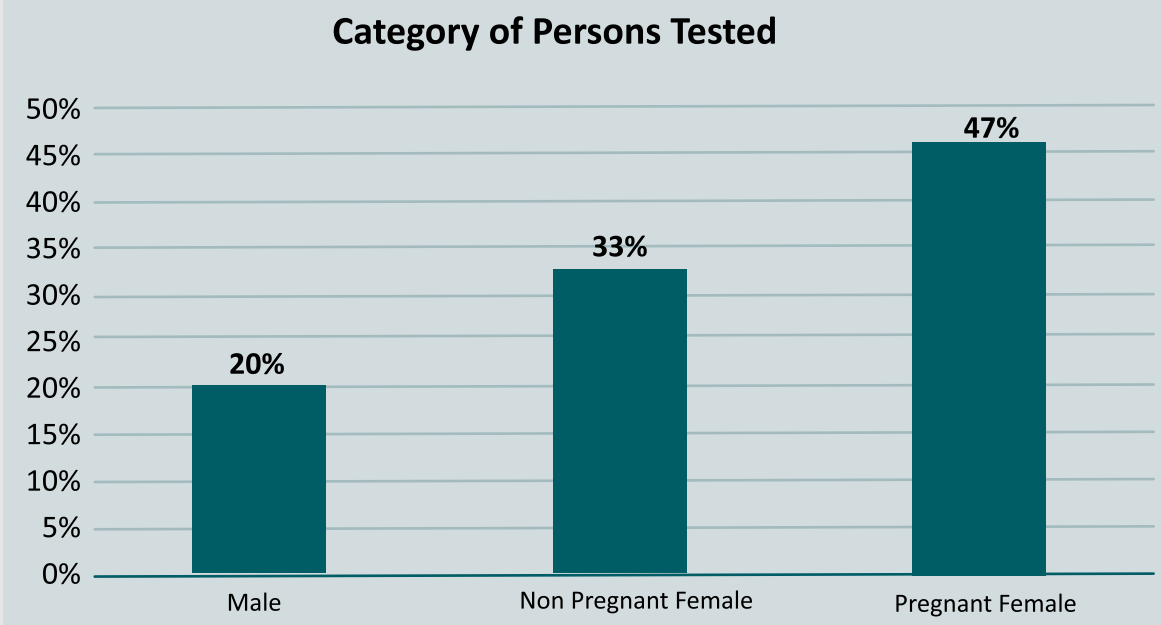
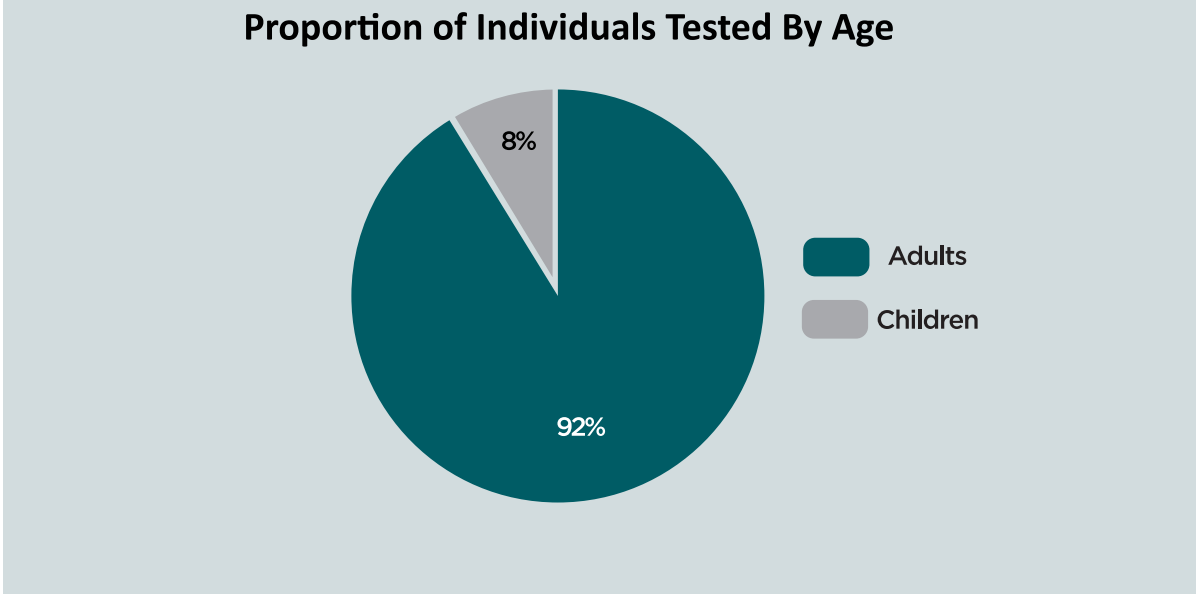


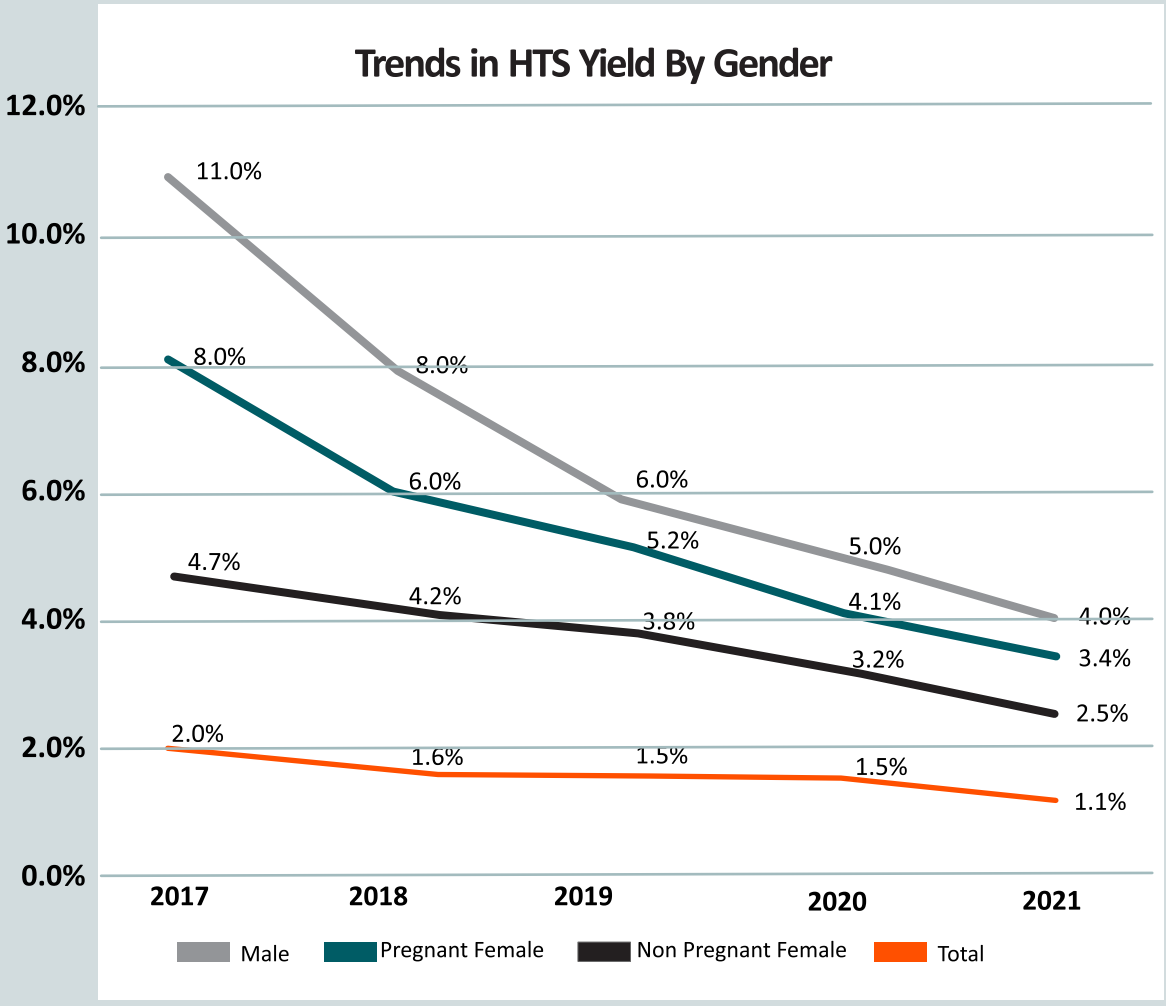
Figure 2 - 5 : ***HIV testing by age-2021***



HIV Testing Yield

Among those tested, 50,187 persons were positive in 2021. The positive numbers translated into a yield of 2.5% from all those tested in the year, the lowest in the last five years (figure 2-6). The yield in non-pregnant females and males has consistently been high but also shows a downward trend (figure 2-6). Out of the 153,055 children tested, 1.4% (2,173) were positive, while 2.6 % (48,014) of the 1,823,079 adults tested were positive. The regional distribution of these figures can be found in tables 11-1 and 11-2 in the appendix.

Figure 2-6 *HIV testing yield by gender-2020*



2.3 Elimination of Mother to Child Transmission

Elimination of Mother-to-Child Transmission (eMTCT) continues to be the flagship programme that integrates Sexual and Reproductive Health (SRH) and HIV services for women and infants. It provides an opportunity to expand male participation in SRH and HIV services. Below is a catalogue of activities undertaken in 2021 to achieve this, in addition to the primary prevention activities highlighted earlier.

Prevention of Unintended Pregnancies in HIV positive women

Ghana's PMTCT guidelines recommend the prevention of unintended pregnancies among women in fertility age living with HIV to have them virally suppressed or at least on treatment before pregnancy. To achieve this, the Programme liaised with the Family Health Division of the Ghana Health Service and provided family planning services as part of ANC at all service delivery points. Women seeking PMTCT services also got family planning services and were catered for or linked to services where necessary during the ante-natal and post-natal periods. HIV-positive non-pregnant women were also referred for family planning services. The Family Health Division has detailed data on the provision of Family Planning at its Reproductive and Child Health Unit (RCH).

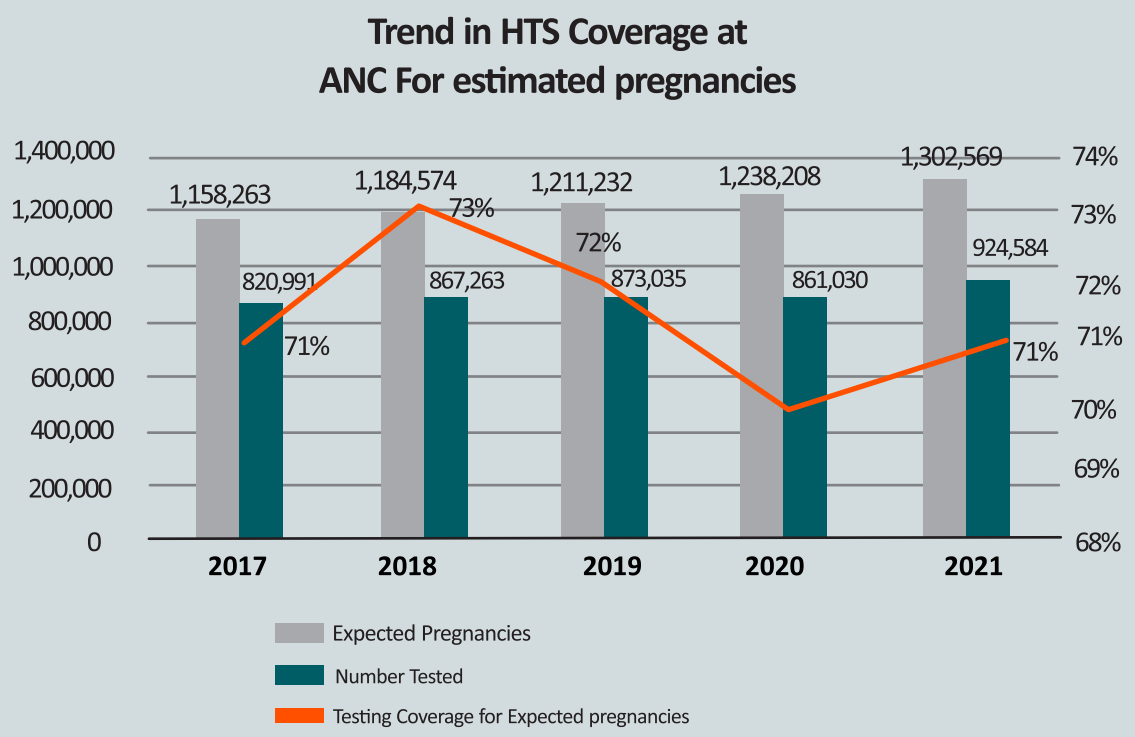
HIV testing at Antenatal Care Units

Early diagnosis and initiation of HIV-positive pregnant women on ARVs are vital in eliminating Mother to Child Transmission (eMTCT). Therefore, the eMTCT guidelines recommend that all pregnant women be tested for HIV at registration and at 34 weeks if the earlier test is negative.

HIV Testing Coverage at ANC

Out of a total of 1,302,569 expected pregnancies in 2021, 71% (924,584) were offered HTS (figure 2-7). Although the COVID 19 outbreak might have contributed to the low coverages in 2020 and 2021, the general downward trend in the testing coverage for expected pregnancies over the last five years needs to be investigated, and the use of Mentor Mothers and other community-based peer support modules strengthened to help improve testing for those who do not assess antenatal care during their pregnancies. However, the testing coverage among ANC registrants has been consistently above 85% since 2017 (figure 2-12).

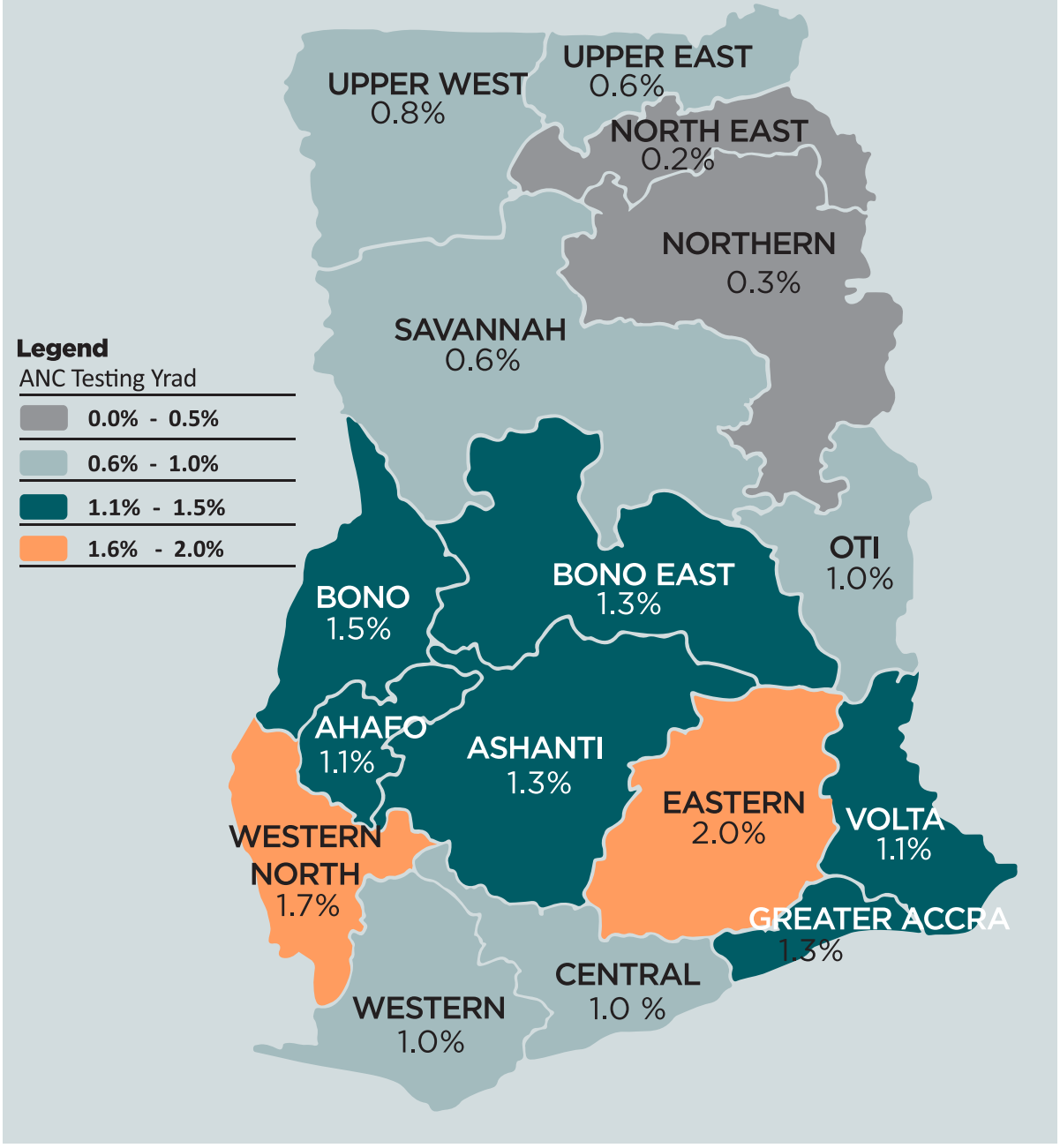
Figure 2-7 *Trend in HTS Coverage for expected pregnancies at ANC: 2017-2021*



HIV Testing Yield at ANC

Of the pregnant women tested, 10,276 were newly identified as HIV positive, giving a yield of 1.1 %. (figure 2-6). Figure 2-8 gives the ANC testing yields across the regions, with the lowest (0.2%) and the highest (2%) being from the North East and Eastern Regions, respectively.

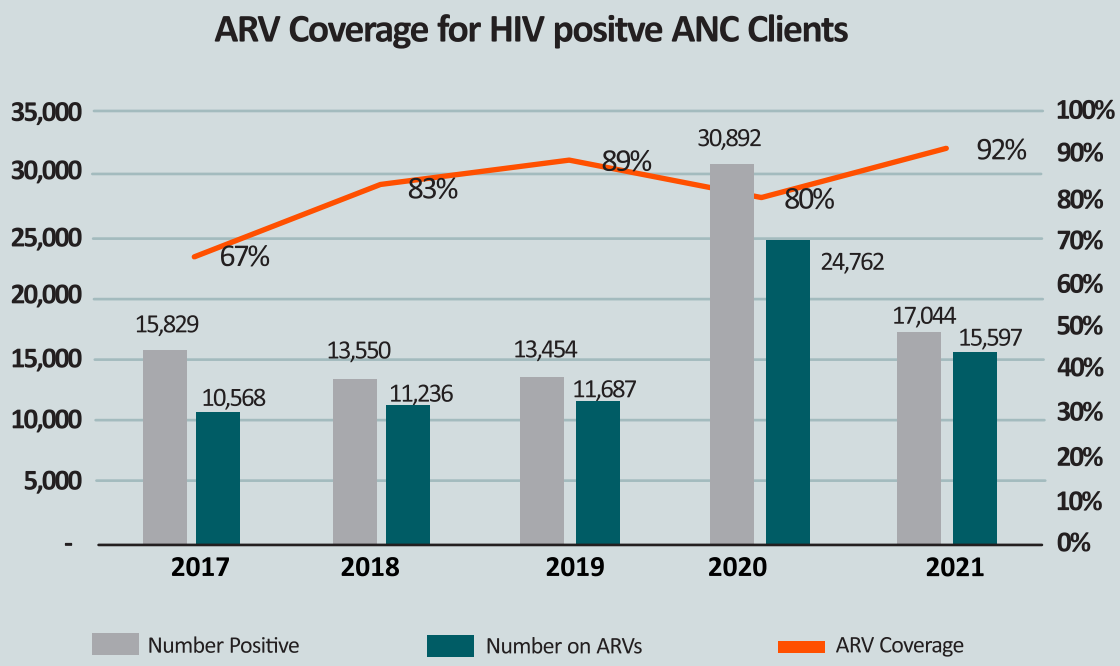
Figure 2-8 *Regional distribution of ANC testing yield-2021*



Provision of ARVs to HIV Positive Pregnant Women

Providing ARVs to HIV-positive pregnant women reduces their viral load and risk of transmitting the infection to their foetus. Ghana adopted the policy of using combination antiretroviral therapy for PMTCT in 2006 and updated its protocol in 2010 to offer lifelong triple ARVs for HIV-positive pregnant women to reduce Mother-to-Child Transmission (MTCT) rates. In addition to the 10,276 newly diagnosed HIV-positive pregnant women, 6,768 clients were already known to be HIV positive at ANC registration. Of the newly diagnosed, 8,802 (86%) were initiated on ARVs, 5,898 (87%) of the known positives were already on treatment, and the remaining were initiated on ARVs. In all, 15,597 out of the 17,044 HIV-positive pregnant women were offered ARVs, giving coverage of 92%, the highest in the last five years (figure 2-9). It is hoped that the scale-up of the Mentor Mothers intervention to additional facilities will help improve the initiation and retention, especially among the newly diagnosed mothers.

Figure 2 - 9 *Trend in ARV Coverage among HIV-positive ANC clients*



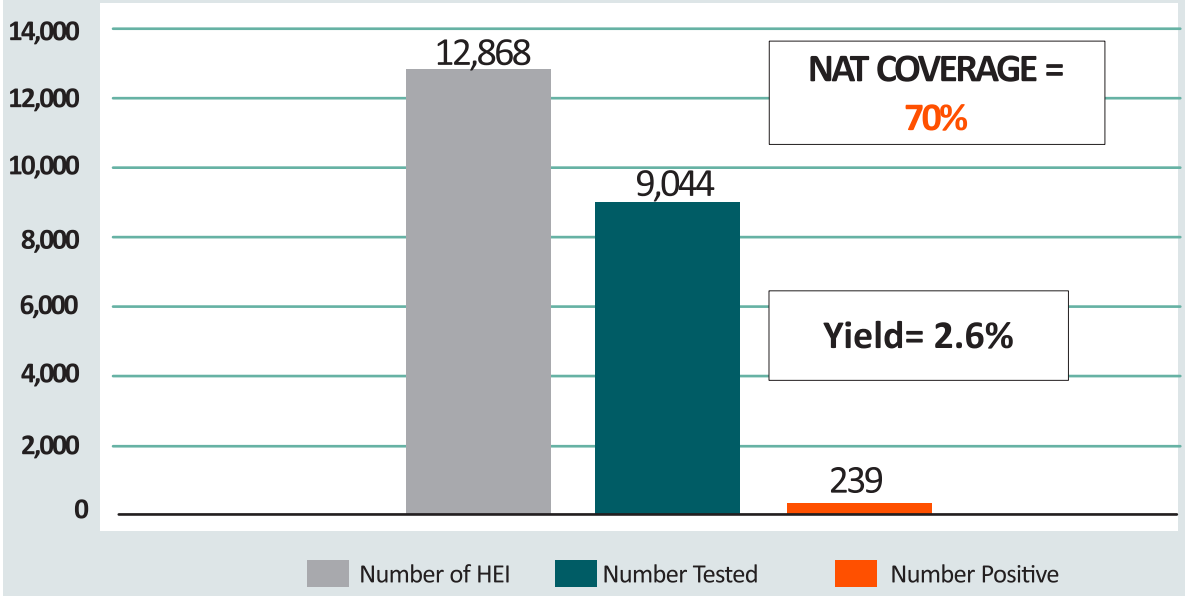
Provision of Care and Support Services for Mothers, their Infants, and Families

Post-natal care, family planning, breastfeeding, and other nutritional support and child welfare services were offered to HIV-positive mothers and their infants at service delivery points for continued care. Due to the rapid course of HIV in infected new-borns, WHO recommends the performance of Nucleic Acid Testing (NAT), using Dried Blood Spot (DBS) samples collected from HIV exposed infants at specified ages below 18 months for early infant diagnosis and provision of ARVs when the infant is found positive.

Nucleic Acid Testing and Yield for Early Infant Diagnosis

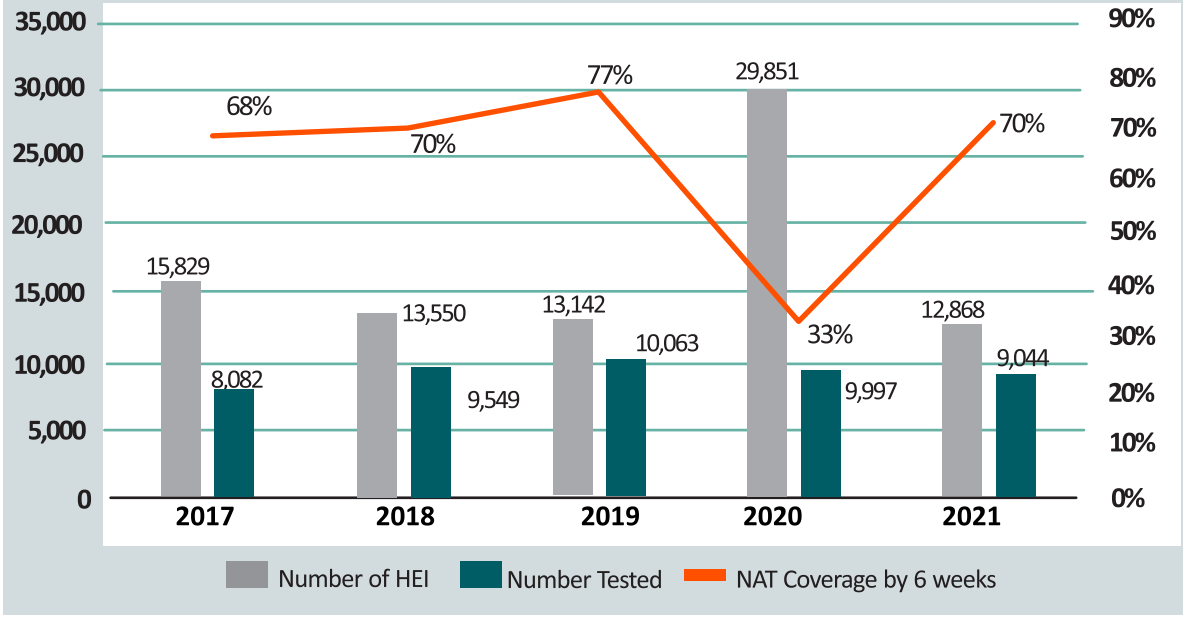
Of the 12,868 HIV-exposed infants delivered in 2021, 70% (9,044) received nucleic acid testing (NAT) for HIV. (figure 2-10). This is a significant improvement from the 33% coverage recorded in 2020 due to equipment breakdowns and the disruptions brought on by the COVID 19 pandemic. The deployment of point of care devices to strategically augment the existing testing platforms and make early infant diagnosis services more accessible also contributed to this performance (figure 2-11).

Figure 2 - 10 *Nucleic acid testing(NAT) cascade and yield-2021*



Two hundred and thirty-nine (239) of the HIV exposed infants tested at six weeks in 2021 were positive, giving a transmission rate of 2.6% at six weeks. The regional breakdown of the tests performed and their yield can be found in table 11-3.

Figure 2 - 11 *Trend in NAT coverage at six weeks 2017-2021*



Capacity building for Early Infant Diagnosis

Without ARVs, HIV infection progresses rapidly among infected new-borns, with up to 50% dying before their second birthday. To diagnose them and intervene early, Ghana's early infant diagnosis algorithm was revised by the Paediatric HIV Task Team to include testing within the first six weeks of life, at nine months and 18 months. To increase demand for testing and increase the testing coverage for HIV exposed infants, staff from selected facilities were trained in Dried Blood Spots (DBS) sample collection, storage, and transport.

HIV positive babies Audits

Despite an increase in the ART coverage for HIV-positive pregnant women, the country is still far from the 5% target needed to eliminate mother-to-child transmission of HIV. To help identify other contextual factors contributing to the transmissions, the Director-General of Ghana Health Service commissioned the HIV-positive babies audit tool to get all HIV-positive children below age five audited. The tool is in five parts and covers the mother's demographic information, prenatal HIV care, antenatal, perinatal, and postnatal care. After the launch in July 2020, 48 cases were audited from the Ashanti, Bono, Central, Greater Accra, Upper East, Volta, and Western Regions. The contributing factors are summarized in table 2-2.

Table 2 - 2 *Factors contributing to HIV transmission among infants*

Maternal Physiologic State	Factors
Prenatal care	**1.** Poor primary HIV prevention
	2. Low coverage of modern contraceptives
	3. Non-adherence to antiretroviral medication
Antenatal	**1.** Late detection of HIV status during pregnancy
	2. Poor ARV adherence support
	3. Poor viral load monitoring
Perinatal	**1.** Antepartum hemorrhage
	2. Unsupervised delivery
	3. Preterm delivery
Post natal	**1.** Poor adherence to ARV prophylaxis regimen and dosage
	2. Prophylaxis stock outs
	3. Poor maternal adherence to ARVs and infant feeding plan
	4. Poor adherence support from service providers
Others	**1.** Unsafe circumcision practices

Mentor Mothers

Though Ghana has witnessed a significant improvement in ARV coverage for HIV-positive pregnant women, the country's mother-to-child transmission rate is generally not seeing a significant downward trend. To address this, the Christian Health Association of Ghana (CHAG) and Rural Watch were engaged to pilot the Mentor Mothers intervention, an evidence-based peer support intervention that has significantly improved PMTCT in several contexts. The Mentor Mothers are HIV-positive women who have completed the PMTCT cascade. They are trained to collaborate voluntarily with health workers to provide psychosocial and peer support to other pregnant or breastfeeding women living with HIV in their communities. The overall goal is for these Mentor Mothers to support HIV-positive mothers and help them attend necessary health services for themselves and their babies. They support their beneficiaries in the clinics, at home, during home visits, during support group sessions, and through Mhealth (calls, SMS, and WhatsApp), and support their partners to know their HIV status and plan their subsequent pregnancies.

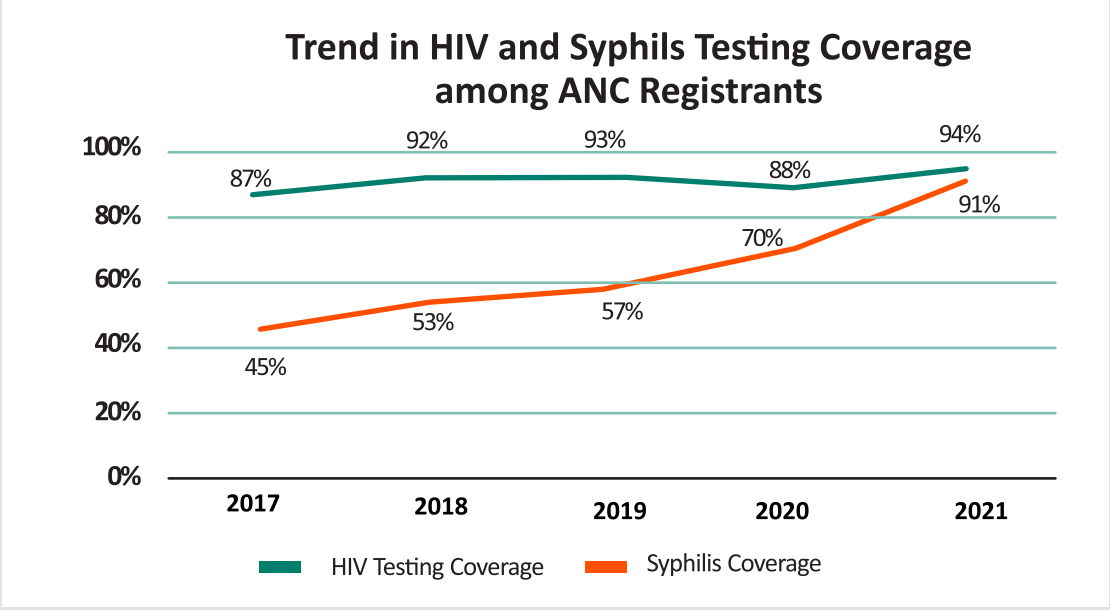
In 2021, the Programme, with funding from UNICEF, worked with Rural Watch to engage six Mentor Mothers in the Central Region. The Global Fund also provided funds to CHAG to engage additional Mentor Mothers who have been deployed to high burden facilities across the country. It is hoped that the counselling, education, and psychosocial support they offer HIV-positive pregnant and breastfeeding mothers will improve their adherence to ARVs and accelerate the country's progress towards eliminating mother-to-child transmission of HIV.

Syphilis testing at ANC

One of WHO's strategies recommended for the elimination of Mother to Child Transmission of HIV and prevention of congenital syphilis is the testing of all pregnant women at their first antenatal care visit for syphilis and management of those found positive. However, the syphilis testing coverage for ANC registrants has been historically low and lagged behind HIV significantly over the last five years (Figure 2-16). The Programme introduced the First response HIV/Syphilis duo kit to help test for both pathogens simultaneously to bridge this gap. In 2020, this led to a 13% jump in syphilis testing coverage compared to the 8% and 4% increments observed in 2018 and 2019, respectively (figure 2-16).

In 2021, there was a 21% jump in syphilis testing coverage, which is now almost equal to the HIV testing coverage.

Figure 2 - 12 *HIV and Syphilis testing coverage among ANC registrants 2017-2021*

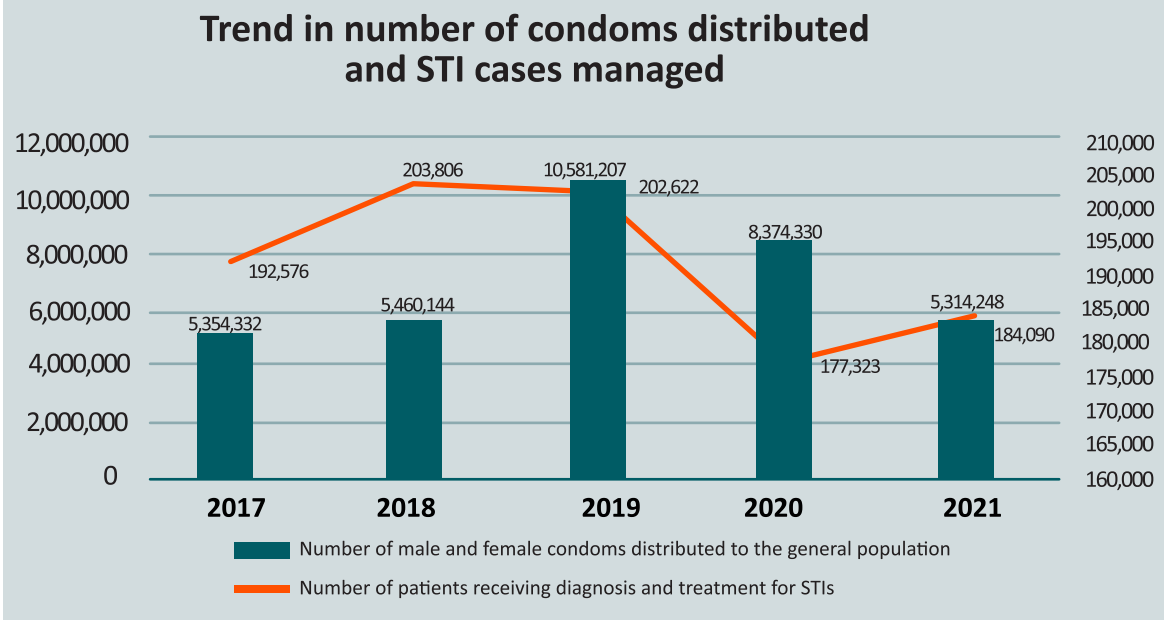


Out of the 894,983 pregnant women tested in 2021 for syphilis, 12,769 were found positive and 15,217 pregnant women and their partners were put on treatment. Table 11-5 in the appendix shows the syphilis testing and treatment trend at ANC in the last five years. It is hoped that the introduction of the first response HIV/Syphilis duo test kits will further improve the testing coverage and get infected mothers treated to minimize mother-to-child transmission.

2.5 Condom Distribution and Sexually Transmitted Infection Management

Sexually Transmitted Infections (STI) increase the risk of HIV transmission, and condoms significantly reduce the transmission of these STIs, including HIV. With the support of the Ministry of Health, USAID and UNFPA, the Programme distributed a total of 5,314,248 condoms to the public through the Family Health Division of the Ghana Health Service in 2021. This was less than what was distributed in 2020 (excluding condoms distributed through private-sector channels such as Private Pharmacies and Chemical shops) and might have contributed to the 3.8% increase in the number of STI cases diagnosed and managed compared to the 2020 figures (figure 2-14). Condom utilization within the Public Health facilities remains very low due to weak distribution and promotion systems. There is, therefore, the need to address these factors and develop interventions to reduce the stigma that limits access to condoms.

Figure 2 - 13 *Trend in condom distribution and number of STI cases diagnosed and treated 2017-2021*



2.6 Blood Safety

To decrease the risk of transmission of HIV through infected blood and blood products, the Programme supplied health facilities with test kits to screen blood. Out of the 135,244 units of blood screened, 1.9% (2,612) were reactive, a marginal decrease from the 2.0% rate in 2020. Table 2-3 shows the regional distribution of the tested units and their reactivity. The Programme is working with the National Blood Service to get all reactive clients linked to care for confirmation and initiation on ARVs if found positive.

Table 2 - 3 *Yield from Regional Blood Screening-2021*

Region	Number of Blood Units Screened	Number Reactive	% Reactive
Ahafo	4,280	141	3.3%
Ashanti	8,441	566	6.7%
Bono	4,756	30	0.6%
Bono East	9,125	88	1.0%
Central	15,906	97	0.6%
Eastern	21,304	521	2.4%
Greater Accra	7,913	187	2.4%
North East	3,097	26	0.8%
Northern	7,384	184	2.5%
Oti	2,192	136	6.2%
Savannah	2,405	54	2.2%
Upper East	13,323	186	1.4%
Upper West	10,749	215	2.0%
Volta	8,621	37	0.4%
Western	11,644	107	0.9%
Western North	4,104	37	0.9%
National	**135,244**	**2,612**	**1.9%**

2.7 Pre-Exposure Prophylaxis(PrEP)

Several trials have demonstrated the effectiveness of using antiretroviral medication for the primary prevention of HIV either before (pre-exposure prophylaxis [PrEP]) or within 48 hours after exposure (post-exposure prophylaxis [PEP]). This need has arisen because most biological and behavioral preventive strategies have failed to decrease HIV acquisition and an effective preventive vaccine is yet to be discovered. In 2015, the World Health Organization (WHO) issued guidance on PrEP use in high HIV incidence settings for people having a substantial risk of HIV acquisition.

To accelerate the pace towards the 2020 target of reducing new HIV infections by 80%, Ghana adopted PrEP in its Consolidated Guidelines for HIV Care (August 2019) and captured it as part of the combination prevention package, which includes HIV testing services (HTS), male and female condom and lubricant promotion, ART for HIV-positive partners in serodiscordant couples, and STI prevention and management. The regimen adopted by the country is oral Tenofovir (TDF) co-formulated with Emtricitabine (FTC), whose efficacy has been strongly demonstrated by multiple studies if the daily course is adhered to.

With financial support from PEPFAR and the Global Fund and technical support from NACP, the West African Programme to Combat AIDS and STIs(WAPCAS), FHI 360 as well as John Snow International, and their sub-recipients provided PrEP services to clients in 2021.

As of December 2021, a total of 185 clients had been screened for PrEP, 184 found eligible, and 183 were offered PrEP. At the end of the year, a cumulative total of 2,134 clients were currently receiving PrEP. A summary of clients initiated on PrEP can be found in table 2-4, with a breakdown by various key population groups found in table 11-9 in the appendix.

Table 2 - 4 *PrEP Results for all KPs from implementing partners*

Indicator	Sex	Age Group									
		Unknown Age	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50+	Total	Grand Total
PrEP_SCREEN	Male	0	6	28	21	1	3	3	0	4	66	185
	Female	0	15	32	39	14	7	6	4	2	119	
PrEP_ELIGIBLE	Male	0	6	27	21	1	3	3	0	4	65	184
	Female	0	15	32	39	14	7	6	4	2	119	
PrEP_NEW	Male	0	6	27	21	1	3	3	0	4	65	183
	Female	0	15	32	38	14	7	6	4	2	118	
PrEP_CURR	Male	0	81	241	216	141	82	39	31	57	888	2134
	Female	0	149	440	344	156	86	37	25	9	1246	
PrEP_1 Month	Male	0	0	2	1	1	1	0	0	2	7	16
	Female	0	3	6	0	0	0	0	0	0	9	
PrEP_RETURN_OTHER	Male	0	0	5	4	1	1	0	0	1	12	13
	Female	0	0	0	0	1	0	0	0	0	1	
PrEP_Discontinuation	Male	0	0	6	10	2	0	0	0	0	18	29
	Female	0	1	4	5	1	0	0	0	0	11	
PrEP_Adverse events	Male	0	0	0	0	0	0	0	0	0	0	0
	Female	0	0	0	0	0	0	0	0	0	0	
PrEP_RESTART	Male	0	0	0	0	0	0	0	0	0	0	10
	Female	0	0	5	3	1	1	0	0	0	10	
PrEP_SERO	Male	0	0	0	0	0	0	0	0	0	0	0
	Female	0	0	0	0	0	0	0	0	0	0	
Linked to ART	Male	0	0	0	0	0	0	0	0	0	0	0
	Female	0	0	0	0	0	0	0	0	0	0	
No. of deaths	Male	0	0	0	0	0	0	0	0	0	0	0
	Female	0	0	0	0	0	0	0	0	0	0	
No. of Transfer out	Male	0	0	0	0	0	0	0	0	0	0	0
	Female	0	0	0	0	0	0	0	0	0	0	
No. of Missed Appointment	Male	0	0	0	0	0	0	0	0	0	0	0
	Female	0	0	0	0	0	0	0	0	0	0	
No. of Loss to Follow up	Male	0	0	0	0	0	0	0	0	0	0	0
	Female	0	0	0	0	0	0	0	0	0	0	

CHAPTER
three

The Delivery of the Package of Treatment, Care, and Support Services for PLHIV

Provision of care and support to persons diagnosed with HIV is critical to ensure their retention in care, adherence to medication, and viral suppression. This, when done, will cause an improvement in their quality of life and reduce the incidence of AIDS-related deaths. To achieve this, the Programme supported service providers to

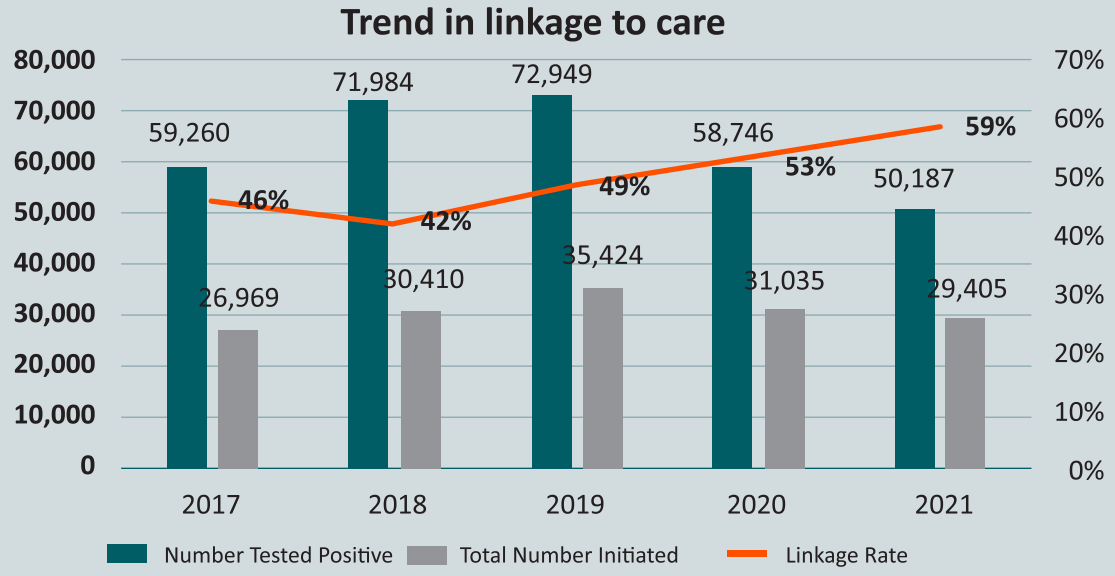
- Link newly diagnosed clients into care,
- Provide antiretroviral therapy to all positive clients,
- Prevent and manage opportunistic infections (Ois),
- Provide Continuous Supportive Counselling
- Ensure the delivery of effective home-based Care.

The Programme also worked with various associations of Persons Living with HIV in the year under review and involved them in intervention planning and implementation.

3.1 Linkage to care

With the 'treat all policy,' all persons diagnosed with HIV are eligible for treatment. Out of the 50,187 newly diagnosed persons in 2021, 29,405 clients were initiated on ARVs giving a linkage rate of 59%, which is the highest in the last five years (figure 3-1). Adults (15+ years) constituted 94.5% (27,786) of those initiated, and by gender, females formed the majority (71%). Only 58% of the 48,014 adults and 75% of the 2,173 children diagnosed were initiated on ARVs in 2021. This gap in ARV initiation is significant and needs to be addressed.

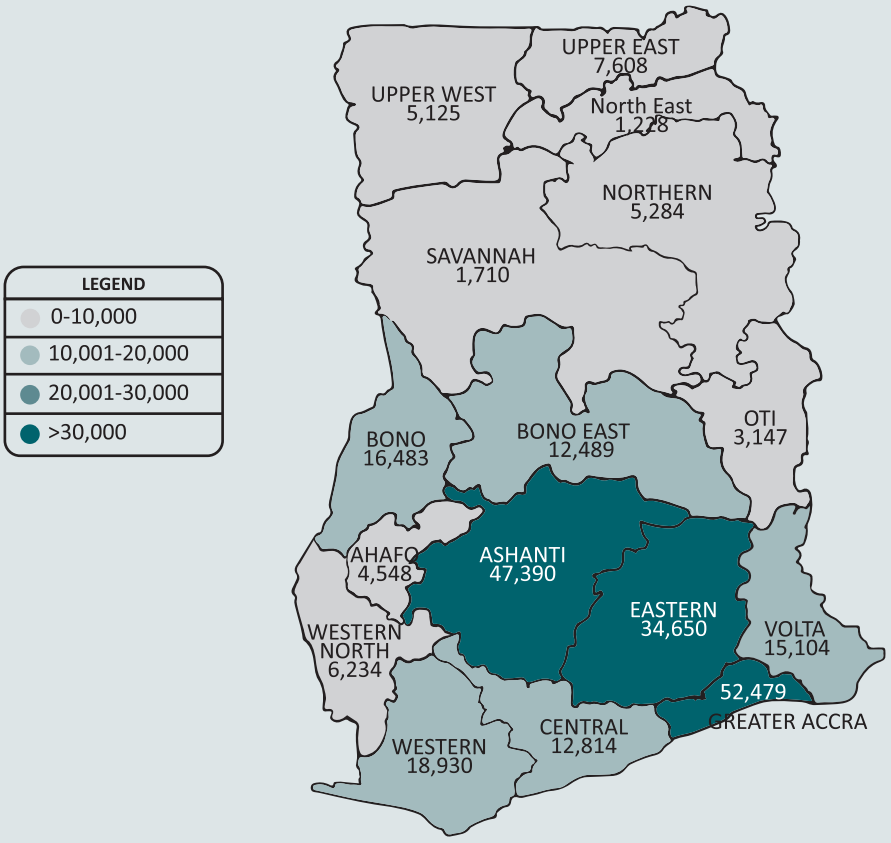
Figure 3 - 1 *Trend in linkage to care 2017-2021*



3.2 Total clients on treatment

As of December 2021, there were 245,223 clients on treatment, most of whom were in the Greater Accra and Ashanti and Eastern Regions (>30,000 each). The regional breakdown for the clients on treatment is as found in figure 3-2.

Figure 3 - 2 *Clients on treatment by Region as of December 2021*



3.3 Diagnosis, Prevention and Management of Opportunistic infections (Advanced Disease)

Due to the immunosuppression induced by infection with HIV, the clients are predisposed to opportunistic infections such as tuberculosis, cryptococcal meningitis, Pneumocystis jiroveci pneumonia, and toxoplasmosis. As part of the package of services for preventing and managing advanced HIV disease, PLHIV are screened for TB at initiation and offered TB Preventive Therapy if found negative, as prescribed in the Guidelines for Latent TB infection Management in Ghana. Those found with TB disease are also offered TPT after completing the TB treatment. Those already on treatment are screened for TB at every visit, and those found to be infected are put on treatment. In 2021, 99,740 PLHIV were screened for TB and 24,162 found eligible for TPT. Of these, 79%(19,063) were offered TPT. Cotrimoxazole was also offered to 18,757 newly diagnosed and eligible clients to provide primary prophylaxis from toxoplasmosis and Pneumocystis jiroveci pneumonia. The Regional breakdown of the TPT enrolments can be found in table 11-8 in the appendix.

3.4 Capacity building for service delivery

To ensure the delivery of quality services across all facilities, the Programme offers periodic updates to service providers. In 2021, these updates were on antiretroviral therapy, early infant diagnosis, the three-test algorithm, transition to a dolutegravir-based regimen, and the use of lopinavir granules in children living with HIV. Selected facilities were also trained on the delivery of differentiated HIV care in all Regions but the Western, Western North, and Ahafo Regions. Facilities involved in early infant diagnosis were also oriented on the HIV-positive baby's audit tool. The Programme also built the capacity of 36 PMTCT sites to provide antiretroviral therapy with support from UNICEF. They were from the Greater Accra, Bono, Savannah, Upper West, North East and Western North Regions.

CHAPTER four

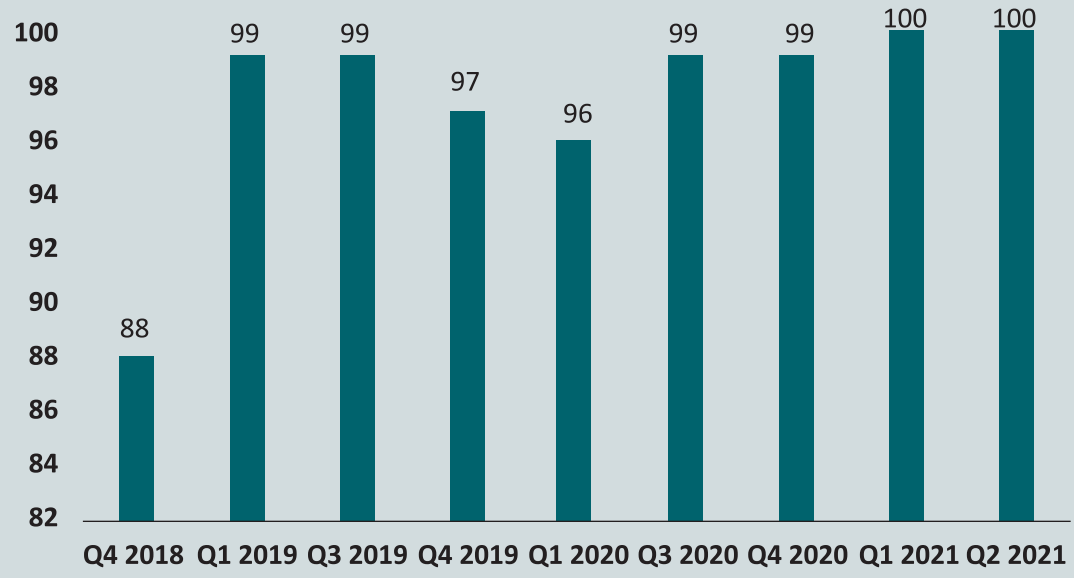
Procurement and Supply Management of HIV logistics

The supply chain management of HIV commodities in Ghana continues to witness tremendous progress and increased efficiency. The delivery of GoG-financed commodities provided timely support.

4.1 Product Availability

Although the country has recently experienced several challenges with the funding of HIV commodities, the improvement of the supply chain system has resulted in improved commodity availability at service delivery points, as shown in reports by the KPMG (Figure 4-1).

Figure 4 - 1 *Comparison of percentage tracer availability of First Line ARVs between 2018 and 2021 surveys by KPMG (LFA)*



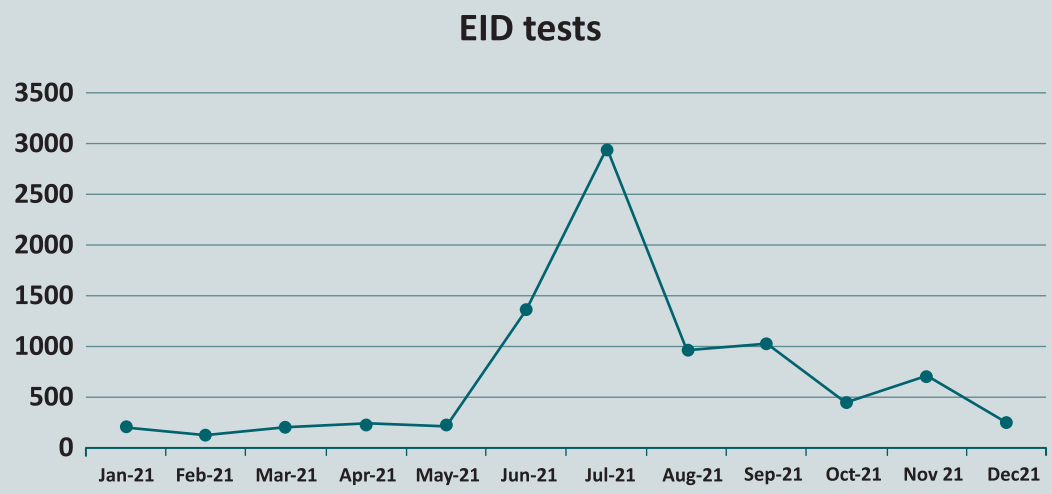
Laboratory Commodities

The Global Fund (GF) supports the procurement of reagents for HIV Viral Load testing and Early Infant Diagnosis of HIV (EID) under the current NFM3 grant. Below is an update on the availability of laboratory commodities.

COBAS/AmpliPrep COBAS Taqman 48 Qualitative (EID) Reagents

A total of 142 packs (or 6.5 months of stock) of the reagents required for early infant diagnosis of HIV were available at the regional level and central levels as of the end of December 2021. Due to challenges with the main supplier of reagents for the country, Roche, the country was virtually stocked out from January to May 2021. To avoid similar challenges in the future, other testing platforms such as the GeneXpert are being introduced. Figure 4-2 provides the tests done from January to December 2021.

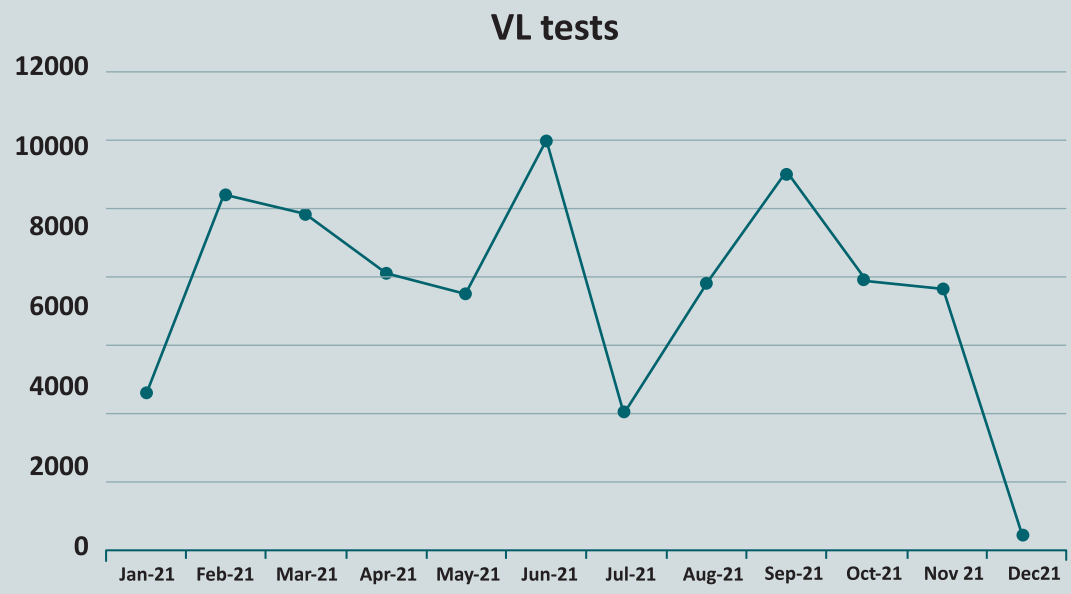
Figure 4 - 2 *EID tests done*



COBAS/AmpliPrep COBAS Taqman 48 Quantitative (Viral Load)

A total of 293 packs (or 1.36 months of stock) of the reagents required for Viral Load testing were available at the regional level and central levels as of the end of December 2021. Figure 4-3 shows the tests done from January to December 2021.

Figure 4 - 3 *Viral Load tests done from January to December 2021*



4.2 Antiretroviral Medicines And HIV Rapid Diagnostic Test Kits

December 2021 Stock status

Table 4-1 *Stock levels of adult first-line Antiretroviral Medicines*

Products	Unit of Issue	Inventory (in packs) at Central level	Inventory (in packs) at 10 RMSs	Forecast AMC	Estimated MoS (Central)	Estimated MoS (Regional)	Estimated Total MoS (Regional + Central)	Next expected shipment - Qty	Next expected shipment Delivery date	GF MoS of next shipments
Adult First Line										
Abacavir + Lamivudine, 600mg+300mg	**30**	130,675	20,466	9,633	**13.57**	2.12	**15.69**	-		0.00
Doloutegravir Tablet 50mg	**30**	86,741	37,944	17,226	5.04	2.20	7.24	160,640	28-Feb-22	9.33
Efavirenz Capsule, 600mg	**30**	-	12,345	3,853	-	3.20	3.20	-		0.00
Emtracitabine+Tenofovir , 200mg+300mg	**30**	-	3,943	3,853	-	1.02	1.02	23,649	30-Dec-21	6.14
Lamivudine +Tenofovir, 300mg+ 300mg	**30**	9,779	71,282	4,397	2.22	**16.21**	**18.44**	-		0.00
Tenofovir +Lamivudine+ Doloutegravir, 300mg+300mg+50mg	**30**	386,006	362,603	142,011	2.72	2.55	5.27	400,000	15-Dec-21	2.82
Tenofovir +Lamivudine+ Efavirenz, 300mg+300mg+600mg	**30**	262,337	145,536	34,866	**7.52**	4.17	11.70	-		0.00
Zidovudine + Lamivudine Tablet 300mg+150mg	**60**	30,246	29,146	2,412	**12.54**	**12.08**	**24.62**	-		0.00

Table 4-2 *Stock levels of Second-line Antiretroviral Medicines*

Products	Unit of Issue	Inventory (in packs) at Central level	Inventory (in packs) at 10 RMSs	Forecast AMC	Estimated MoS (Central)	Estimated MoS (Regional)	Estimated Total MoS (Regional + Central)	Next expected shipment - Qty	Next expected shipment Delivery date	GF MoS of next shipments
Adult Second Line										
Atazanavir + Ritonavir, 300mg+100mg	**30**	13,478	7,132	1,166	**11.56**	**6.12**	**17.68**	-		0.00
Lopinavir + Ritonavir Tablet, 200 mg +50 mg	**120**	6,545	13,561	2,165	3.02	**6.26**	9.29	-		0.00

Table 4-3 *Stock levels of paediatric antiretroviral medicines*

Products	Unit of Issue	Inventory (in packs) at Central level	Inventory (in packs) at 10 RMSs	Forecast AMC	Estimated MoS (Central)	Estimated MoS (Regional)	Estimated Total MoS (Regional + Central)	Next expected shipment - Qty	Next expected shipment Delivery date	GF MoS of next shipments
Paediatric										
Abacavir+Lamivudine, 120mg+60mg Dispersible Tablet	30	118	2,639	7,485	0.02	0.35	0.37	77,340	30-Dec-21	10.33
Efavirenz Capsule, 200 mg	90	2,642	9,747	1,283	2.06	**7.60**	9.66	-		0.00
Lopinavir + Ritonavir Tablet, 100 mg +25mg	60	28,092	9,693	3,074	**9.14**	3.15	**12.29**	-		0.00
Lopinavir/ Ritonavir 40/10mg Oral sachet	120	480	14,496	2,721	0.18	5.33	5.50	15,846	30-Dec-21	5.82
Nevirapine 50mg dispersible tablet	30	-	9,447	3,628		2.60	2.60	-		0.00
Nevirapine Suspension, 10 mg/ml	bottle	22,349	7,525	2,458	**9.09**	3.06	**12.15**	31,369	30-Dec-21	12.76
Zidovudine + Lamivudine Tablet, 60 mg +30 mg Dispersible Tablet	60	167,091	16,807	11,280	**14.81**	1.49	**16.30**	96,021	30-Dec-21	8.51
Zidovudine Syrup, 10 mg/ml	bottle	53,175	9,475	3,822	**13.91**	2.48	**16.39**	35,444	30-Dec-21	9.27

Table 4-4 *Stock levels of HIV test kits*

Products	Unit of Issue	Inventory (in packs) at Central level	Inventory (in packs) at 10 RMSs	Forecast AMC	Estimated MoS (Central)	Estimated MoS (Regional)	Estimated Total MoS (Regional + Central)	Next expected shipment - Qty	Next expected shipment Delivery date	GF MoS of next shipments
Test Kits										
HIV Test Kit (First Response)	Piece	186,170	151,777	109,462	1.70	1.39	3.09			0.00
HIV/Syphilis Combo (First Response)	Piece	1,247,300	601,522	181,130	**6.89**	3.32	10.21			0.00
Oraquick Test Kit	Piece	139,969	57,124	14,202	**9.86**	4.02	**13.88**			0.00
Oraquick Self Test Kit	Piece	-	1,291			INDETERMINATE	INDETERMINATE			#DIV/0!
SD Bioline HIV 1&2	Piece	49,650	89,905	14,202	3.50	**6.33**	9.83			0.00

Legend

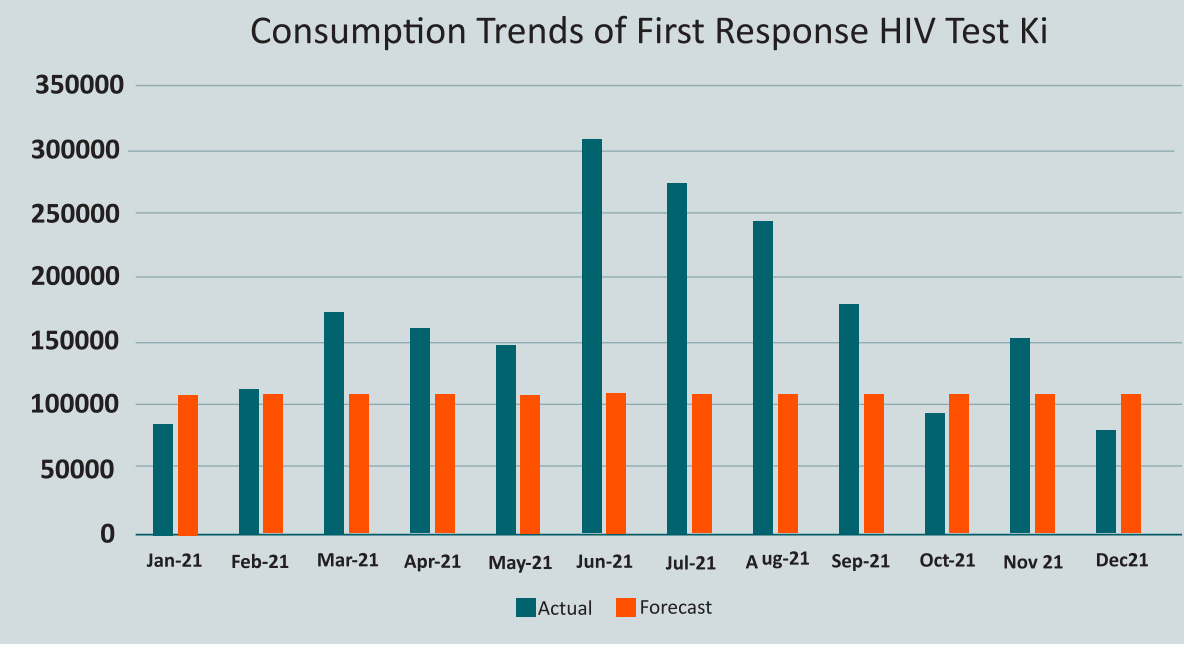
Overstock	Adequate Stock	Low	Stockout	Indeterminate
> 12 Months	6 to 12 Months	< 6 Months	0 Stock	INDETERMINATE

4.3 HIV Rapid Diagnostic Test Kits

An analysis of the trends of issues of First Response HIV Test Kits from the regional medical stores and teaching hospitals shows an increasing difference between the actual issues and forecasted quantities, as displayed in figure 4-4 below.

In June, July, and August 2021, the quantities issued were over twice the forecasted quantities. This resulted in low stock levels during the last quarter of 2021, particularly the First Response kits.

Figure 4-4 *Consumption Trends of HIV First Response*



4.4 Government of Ghana Procurement

The Ministry procured an estimated $17,566,657.40 worth of HIV commodities in 2021. This contributed significantly to the improved stock situation for HIV medicines and test kits. This represents a significant improvement in funding by the Government of Ghana. Table 5-5 shows HIV commodities procured and delivered by the Ministry of Health over the past year.

Table 4-5 *HIV commodities procured and delivered by the Ministry of Health in 2021*

Product	Quantity	Pack Size	Unit Cost	Product Cost	Supply Chain Cost	Total Cost	Supplier
			$	$	$	$	
Abacavir 600mg+Lamivudine 300mg	65,000	30	8.99	584,350.00	151,931.00	736,281.00	Mylan
Abacavir 60mg+Lamivudine 30mg	20,000	60	3.10	62,000.00	16,120.00	78,120.00	Mylan
Atazanavir 300mg+Ritonavir 100mg (ATV/r)	1,000	30	14.25	14,250.00	3,705.00	17,955.00	Mylan
Efavirenz 200mg Capsule	11,059	90	2.19	24,219.21	6,296.99	30,516.20	Mylan
Lamivudine30mg+ Zidovudine 60mg	20,000	60	1.75	35,000.00	9,100.00	44,100.00	Mylan
Lopinavir 100mg+ Ritonavir 25mg	4,000	60	8.25	33,000.00	8,580.00	41,580.00	Mylan
Lopinavir 200Mg + Ritonavir 50mg (Lpv/r)	20,000	120	21.00	420,000.00	109,200.00	529,200.00	Mylan
Tenofovir 300mg+ Lamivudine 300mg	70,000	30	2.80	196,000.00	50,960.00	246,960.00	Mylan
Tenofovir 300mg+Lamivudine 300mg+DTG 50mg	400,000	30	5.39	2,156,000.00	560,560.00	2,716,560.00	Mylan
Tenofovir 300mg+Lamivudine 300mg+EFV 600mg	563,892	30	6.19	3,490,491.48	907,527.78	4,398,019.26	Mylan
First Response HIV1+2 / Syphillis Combo Card Test	2,457,859	piece	1.42	3,490,159.75	907,441.53	4,397,601.28	Premier Med
First Response	1,610,131	piece	1.12	1,803,346.65	468,870.13	2,272,216.78	Premier Med
Oraquick	248,637	piece	4.53	1,126,325.61	292,844.66	1,419,170.27	K. Yalley co Ltd
SD Bioline HIV-1/2	248,637	piece	1.84	456,248.90	118,624.71	574,873.61	Mcleigh Hold
Hepatitis B First response Rapid Diag test	63,000	100	0.80	50,400.00	13,104.00	63,504.00	Premier Med
						17,566,657.40	

Table 4-6 *Commodities yet to be Delivered*

Product	Quantity	Receive Date	Pack size	unit cost	Product Costs
			$	$	
First Response HIV1+2/ Syphillis Combo Card Test	700,000	November 2021	piece/test	1.42	994,000.00
First Response HIV	700,000	November 2021	piece/test	1.12	784,000.00
Oraquick	70,000	November 2021	piece/test	4.53	317,100.00
SD Bioline HIV-1/1	180,000	November 2021	piece/test	1.84	331,200.00
Hepatitis B Rapid Diag. test	60,000	November 2021	piece/test	0.80	48,000.00
Dolutegravir 50mg tab.	150,000	November 2021	30	3.20	480,000.00
Tenofovir 300mg+Lamivudine 300mg+Dolutegravir 50mg tab.	699,630	November 2021	30	5.39	3,771,005.70
					6,725,305.70

4.5 Condom Gap Analysis

Gap analysis

At the end of December 2021, 20,376 (0.01 months of stock) were available at the central level. There were no female condoms. This represents a significant setback for efforts to prevent the virus's spread in the country. However, the situation is expected to improve in 2022 with additional support expected from the Global Fund, USAID, and UNFPA.

Table 4-6 *Condoms at the Regional and Central levels as at the end of July 2021*

Product	Unit of issue	Inventory (in packs) at Central level	Inventory (in packs) at 10RMSs	Forecast AMC	Estimated MoS (Regional)	Estimated Total MoS (Regional + Central)
Contraceptives						
Male Condom	**Piece**	20,376	735,562	3,794,882	0.19	0.20

CHAPTER five

Laboratory Systems Strengthening and Viral Load Testing

The United States Government, under the Co-operative Agreement (CoAg) between the Ghana Health Service and the Centres for Disease Control and Prevention, Atlanta, Georgia, U.S.A, together with the Global Fund for AIDS, Tuberculosis, and Malaria, provided funding for some activities which the NACP implemented in collaboration with the Institutional Care Division (ICD) on behalf of the Ghana Health Service. The main activities undertaken were under the following broad headings:

5.1 Enrolment in Proficiency Testing Programs (PT)

The viral load/EID testing laboratories were enrolled in the proficiency testing scheme provided by the Institut de Recherché en Santé, de Surveillance Epidémiologique et de Formation (IRESSEF) or Institute for Health Research, Epidemiological Surveillance and Training and Cheikh Anta Diop University (CADU), Senegal. Six (6) testing sites, namely, Ho teaching hospital laboratory, Upper East regional hospital laboratory, Bolgatanga, Bono regional hospital laboratory, Sunyani, Public Health laboratory Sekondi, Serology Laboratory, Komfo Anokye teaching hospital, and Eastern regional hospital laboratory, Koforidua participated in the two rounds of the PT challenge for viral load and DNA PCR test for early infant diagnosis. The performance of the sites in the PT programme has been generally satisfactory.

5.2 Specimen Referral System

The specimen transport and results return system using the Ghana Post Company Ltd as the third-party courier agency has been in operation since September 2018. Owing to the centralized management of the sample transport system, there is limited regional ownership and accountability, resulting in suboptimal operation in some regions. Consequently, the decision was taken to let the regions manage the sample transport system from October 2021.

5.3 Implementation of Viral Load Data Management System (VLDMS):

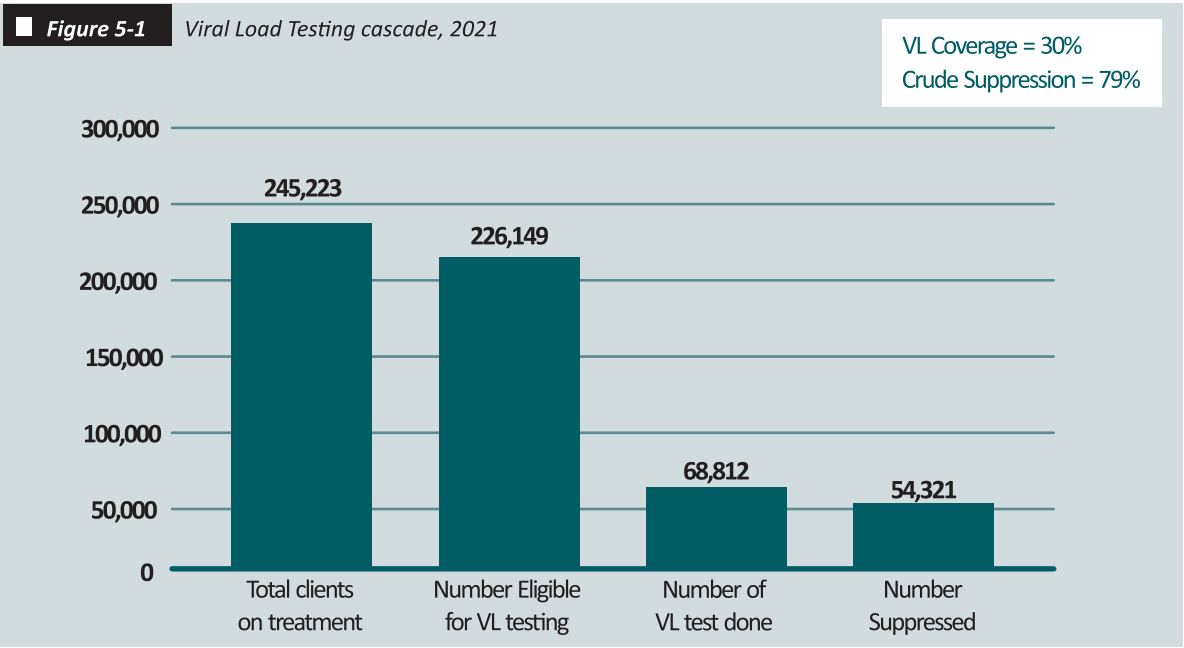
The viral load and EID testing laboratories generate a lot of data/information that is increasingly difficult to manage manually because of the large number of tests they conduct. In order to overcome this challenge, an electronic laboratory information management system called "Viral Load Data Management System" (VLDMS) was developed and piloted in the Western region. The Viral Load Data Management System (VLDMS) integrates DHIS2 eTracker, VL Laboratory Information System, and Roche Cobas Amplilink Software networking system. The DHIS2 eTracker collects patients' Viral Load (VL) requests from ART clinics and sends them automatically to the VL Laboratory Information System at the testing laboratory. The VL Laboratory Information System then automatically sends the patients' VL results back to the DHIS2 eTracker after the samples have been tested via an interface for use at the ART clinics and reporting to the various levels in the country. The VLDMS is currently operational in Western, Western North, Ahafo, Bono and Bono East regions, with a scale-up plan to all 16 regions of the country.

5.4 Viral Load Testing

Viral load testing is done to objectively assess client adherence to medications, treatment progress, and diagnosis of treatment failure or drug resistance. To increase demand for viral load testing, orientation on the need for viral load testing was included in all training sessions organized by the Programme for service providers. These included ART training for newly accredited facilities, orientation on Differentiated Service delivery, orientation on TLD transition and the Paediatric HIV SOPs and job aids, and facility engagements during supportive supervisory visits. The staff were also encouraged to educate clients on viral load testing to remind the service providers when they are due to be tested. SOPs, job aids, and patient education posters meant to promote viral load testing were also distributed as part of the DSD orientation.

As of June 2021, the 226,149 clients on treatment were eligible for viral load testing by December 2021. From these, 68,812 viral load tests had been done as of 31st December 2021 (figure 5-1), out of which 54,321 were virally suppressed, giving a crude suppression rate of 79%.

Figure 5-1 *Viral Load Testing cascade, 2021*



5.5 Review of Early infant diagnosis bottlenecks

With support from UNICEF, the programme engaged representatives from all the 16 Regional Health Directorates, teaching hospitals, and PCR labs. This was to help understand the issues responsible for low EID coverage and long turnaround time for results. It is hoped that the follow-up interventions to be implemented in 2021 will help resolve these bottlenecks.

5.6 Point of Care Testing

The early infant diagnosis of HIV and viral load monitoring of clients on treatment in Ghana are done using laboratory-based conventional testing platforms that are centrally located at the regional capitals of Ghana, necessitating transport of specimens from hundreds of clinics to a few centralized molecular testing centres. Inefficiencies in the transportation of blood samples from the peripheral health

facilities to the testing laboratory, delays in return of results to the referring facilities leading to very long turnaround times. As a result, the proportion of PLHIV tested for VL and HIV-exposed infants diagnosed is low as healthcare workers are not encouraged to collect more samples by these challenges. Consequently, all the efforts being made by the country to increase access and improve the quality of testing services were significantly negated.

It is in recognition of the limitation of the centralized laboratory-based testing systems that the Ghana Health Service, through the National AIDS/STI Control Programme in collaboration with partners such as UNICEF and Global Fund, adopted the use of point of care technologies for EID and viral load tests to complement the conventional platforms. The use of GeneXpert for viral load and early infant diagnosis of HIV was started as a pilot in five facilities in the Eastern region in March 2021 and later expanded to ten additional sites.

Tables 5-1 and 5-2 summarize the outputs from the POC testing sites as of December 2021.

A total 1,666 tests were conducted using the GeneXpert point of care equipment, constituting 18% of the total number of EID tests done in 2021 (9,044).

Table 5 -1 *Number of EID tests conducted by the GeneXpert sites and the number put on treatment*

Number of EID Tests Conducted using GeneXpert			
Month	**No Tested**	**No Positive**	**No. on Treatment**
March	21	1	1
April	83	3	3
May	95	7	7
June	119	6	5
July	286	13	11
August	199	6	5
September	265	11	10
October	156	16	10
November	269	7	1
December	173	1	1
Total	**1666**	**71**	**54**

Table 5-2 *Number of Viral Load tests conducted by pilot sites and suppression rates by category of clients.*

Viral Load Suppression Rates by Sub-Populations			
Category	**No. Tested**	**No. Suppressed**	**Suppression Rate (%)**
Children	354	208	59%
Breastfeeding women	226	187	83%
Pregnant women	51	44	86%

CHAPTER six

Provision of Essential Technical Support to All MDAS in the Implementation of their Programmes

The NACP continued to provide technical support to various MDAs and stakeholders in their workplace HIV and AIDS programs. In addition, the Programme participated fully in most activities of the Ghana AIDS Commission and the Country Coordinating Mechanism (CCM) of the Global Fund by providing technical assistance to enhance their advocacy role.

6.1 Academic Institutions

Students from the Ghana College of Physicians and Surgeons, University of Ghana School of Medicine and Dentistry, School of Nursing, Ensign School of Public Health and School of Public Health- UG were lectured by the PM and officers of the Programme and spent weeks with the Programme to gain practical skills on what they had been taught. Students from other foreign and local institutions were also supported to undertake HIV-related research to fulfil their Masters and PhD requirements.

Community Health Workers Project

The Programme also supported Millennium Promise(MP) and the Youth Employment Agency(YEA) during their trainer-of Trainers session. The session was organised to train individuals who will build the capacity of Community Health Workers to be engaged by YEA as part of the One Million Community Health Workers Project by MP.

CHAPTER
seven

Programme Performance Review

7.1 Staff meetings

The Programme held four quarterly staff meetings where the performance of various units against their planned activities for the quarter was reviewed, and plans for subsequent quarters were developed.

7.2 Technical Working Group (TWG) Meetings

The HIV Technical Working group also had a blend of virtual and in-person meetings to review the Programme's data, level of implementation of activities and address critical challenges that bedevil the Programme, mainly due to the pandemic. The paediatric HIV task team also held its quarterly meetings and helped to review the National Acceleration Plan for Paediatric HIV Services (2016-2020) and develop a new guidance document for paediatric and adolescent HIV services from 2022-2026.

7.3 Joint TB/HIV Review Meeting

The annual joint TB/HIV Review meeting was held in three zones in 2021. This was done to limit the number of participants per session and reduce the risk of COVID-19 transmission. They were held in Ho, Sunyani, and Bolgatanga, representing the southern, middle and Northern zones respectively. As was done in previous years, the gathering provided an opportunity to review the performance of the Regions and Teaching Hospitals for the year 2020.

CHAPTER
eight

Financial Information

From January to December 2021, the Programme had a budget of $73,346,215.23 under the Global Fund grant (both NFM3 and C19RM) and spent $40,051,540.60 representing 54.61% Burn Rate for both programme activities and Pooled Procurement Mechanism (PPM). Expenditure from other donors (CDC, WHO, WAHO and the UNICEF) amounted to $465,756.37, representing 45.39% of total receipts of $ 1,026,095.37.

These Funds supported the GHS/MOH in implementing its strategic activities such as Covid-19, PMTCT, Antiretroviral Therapy, HIV Testing, HIV/TB Collaboration, Health Systems Strengthening, Programme Management as well as Monitoring and Evaluation. The year's total expenditure was $40,517,296.97.A summary of the breakdown showing the budget, disbursement, and expenditures as of the end of 2021 is shown in table 8-1.

Table 8-8-1 *Financial Summaries for 2021*

Source of Funding	Total Grant	Budget	Total Disbursement		Suppression Rate (%)	
		US$	US$	US$	US$	US$
		2021	2020	2021	2020	2021
NFM 3 Grant (1 Jan 2021 to 31 Dec 2023)		27,699,926.47		37,358,036.60		32,440,625.68
C19RM Grant (1 Jan 2021 to 31 Dec 2023)		45,646,288.76	381,508.78	13,315,888.07		7,610,914.92
Others			381,508.78	1,026,095.37	437,318.28	465,756.37
Total		**73,346,215.23**	**381,508.78**	**51,700,020.04**	**437,318.28**	**40,517,296.97**

8.1 Total Expenditure within 2021

Expenditure under the NFM3 Grant was $ 32,440,625.68, C19RM Grant was $7,610,914.92 and under others was $ 465,756.37.

The cost categories are as defined below:

1. **Human Resource**- includes all HR expenditure under the grants
2. **Travel Related Cost** -includes training, Supervision, surveys, data collection, meeting, advocacy-related costs etc.
3. **External Professional services** - includes Data Quality Assessment, HIV Sentinel Survey, DHIMS activities etc
4. **Health Products - Pharmaceutical Products** - includes Procurement of ARVs for ART etc

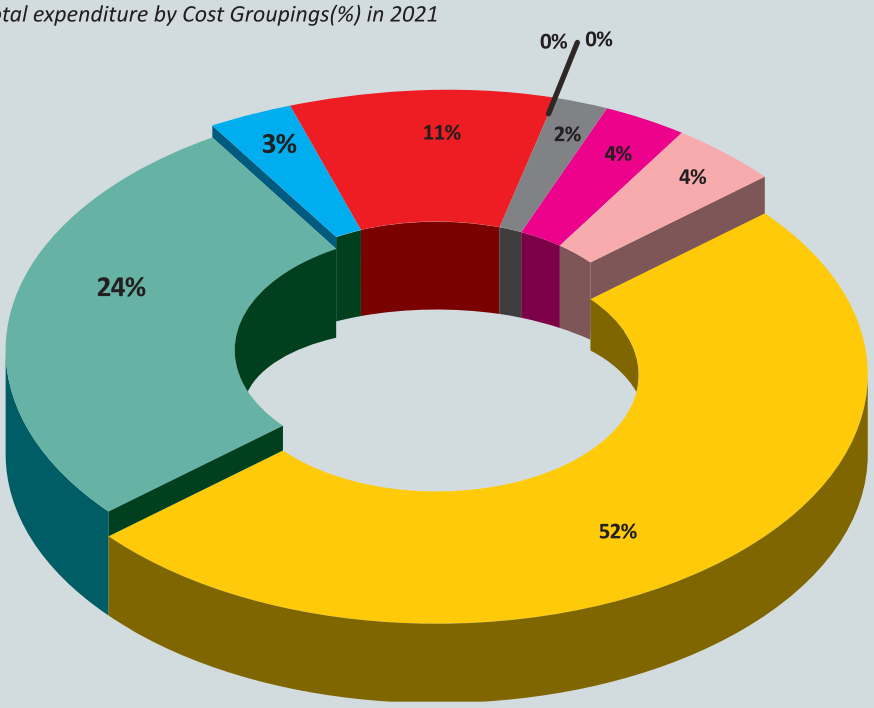
5. **Health Products-Non-Pharmaceuticals** - includes Procurement of HIV Test kits, BD, Viral Load, Haematology and Chemistry reagents etc
6. **Health Products and Equipment** -includes the cost of Maintaining of Laboratory equipment, CD4 and Haematology Machines etc
7. **Procurement and Supply-Chain Management costs (PSM)**-includes Freight and Insurance, Warehouse and Storage, distribution etc,
8. **Infrastructure (INF) -** includes repair and maintenance of buildings, equipment
9. **Non-health equipment**- includes the procurement of Computers and Accessories for ART client Data capture and monitoring
10. **Communication Material and Publications** - includes the cost of printing of tools and registers, IEC materials, reports, PMTCT and HTC manuals etc
11. **Programme Administration costs** - includes office-related costs

The total expenditure in 2021 as defined according to Cost Groupings and Modules respectively are shown in tables 8-2 and 8-3 as well as their respective figures.

Table 8-8-2 *Total Expenditure by cost grouping*

Cost Groupings	NFM3/C19RM Grant	Others	Total Expenditures
	US$	US$	US$
1.0 Human Resources (HR)	764,666.34	199,188.97	**963,855.31**
2.0 Travel related costs (TRC)	1,377,405.761	142,203.00	**1,519,608.76**
3.0 External Professional services (EPS)	1,548,534.98		**1,548,534.98**
4.0 Health Products - Pharmaceutical Products (HPPP)	20,936,179.91		**20,936,179.91**
5.0 Health Products - Non-Pharmaceuticals (HPNP)	9,515,606.01		**9,515,606.01**
6.0 Health Products - Equipment (HPE)	1,155,141.18		**1,155,141.18**
7.0 Procurement and Supply-Chain Management costs (PSM)	4,653,437.13		**4,653,437.13**
9.0 Non-health equipment (NHP)	2,746.06		**2,746.06**
10.0 Communication Material and Publications (CMP)	3,758.95		**3,758.95**
11.0 Programme Administration costs (PA)	94,064.28	124,364.40	**218,428.68**
Total	**40,051,540.60**	**465,756.37**	**40,517,296.97**

Figure 8-1 *Total expenditure by Cost Groupings(%) in 2021*

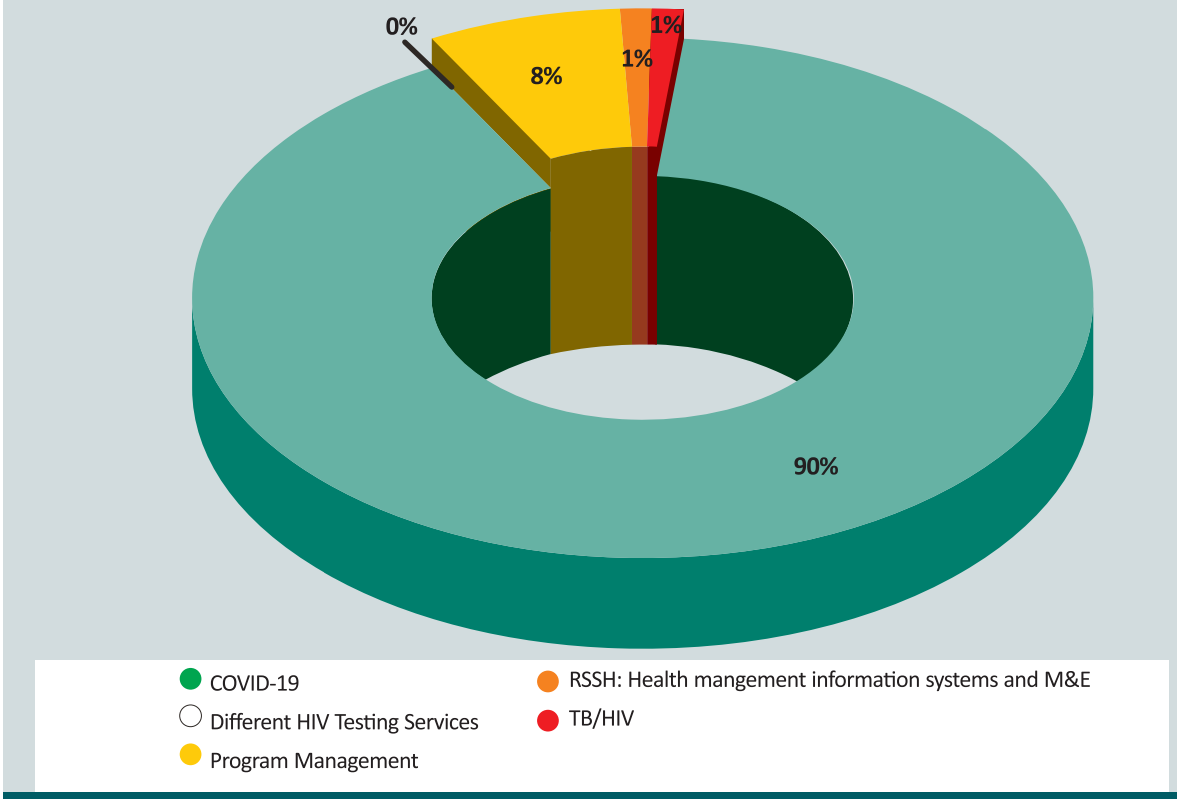


- **1.0** Human Resources (HR)
- **2.0** Travel related costs (TRC)
- **3.0** External Professional services (EPS)
- **4.0** Health Products - Pharmaceutical Products (HPPP)
- **5.0** Health Products - Non- Pharmaceuticals (HPNP)
- **6.0** Health Products - Equipment (HPE)
- **7.0** Procurement and Supply-Chain Management costs (PSM)
- **8.0** Non-Health Equipment(NHP)
- **9.0** Communication Material and Publications (CMP)

Table 8-8-3 *Total Expenditure by Modules*

By Module	NFM3/C19RM Grant	Others	Total Expenditures
	US$	US$	US$
COVID-19	13,511,792.46		**13,511,792.46**
Differentiated HIV Testing Services	2,228.09		**2,228.09**
Program management	677,349.68	465,756.37	**1,143,106.05**
RSSH: Health management information systems and M&E	224,635.78		**224,635.78**
TB/HIV	171,423.13		**171,423.13**
Treatment, care and support	25,464,111.46		**25,464,111.46**
Total	**40,051,540.60**	**465,756.37**	**40,517,296.97**

Figure 8- 2 *Total expenditure by Modules in 2021 in 2021*



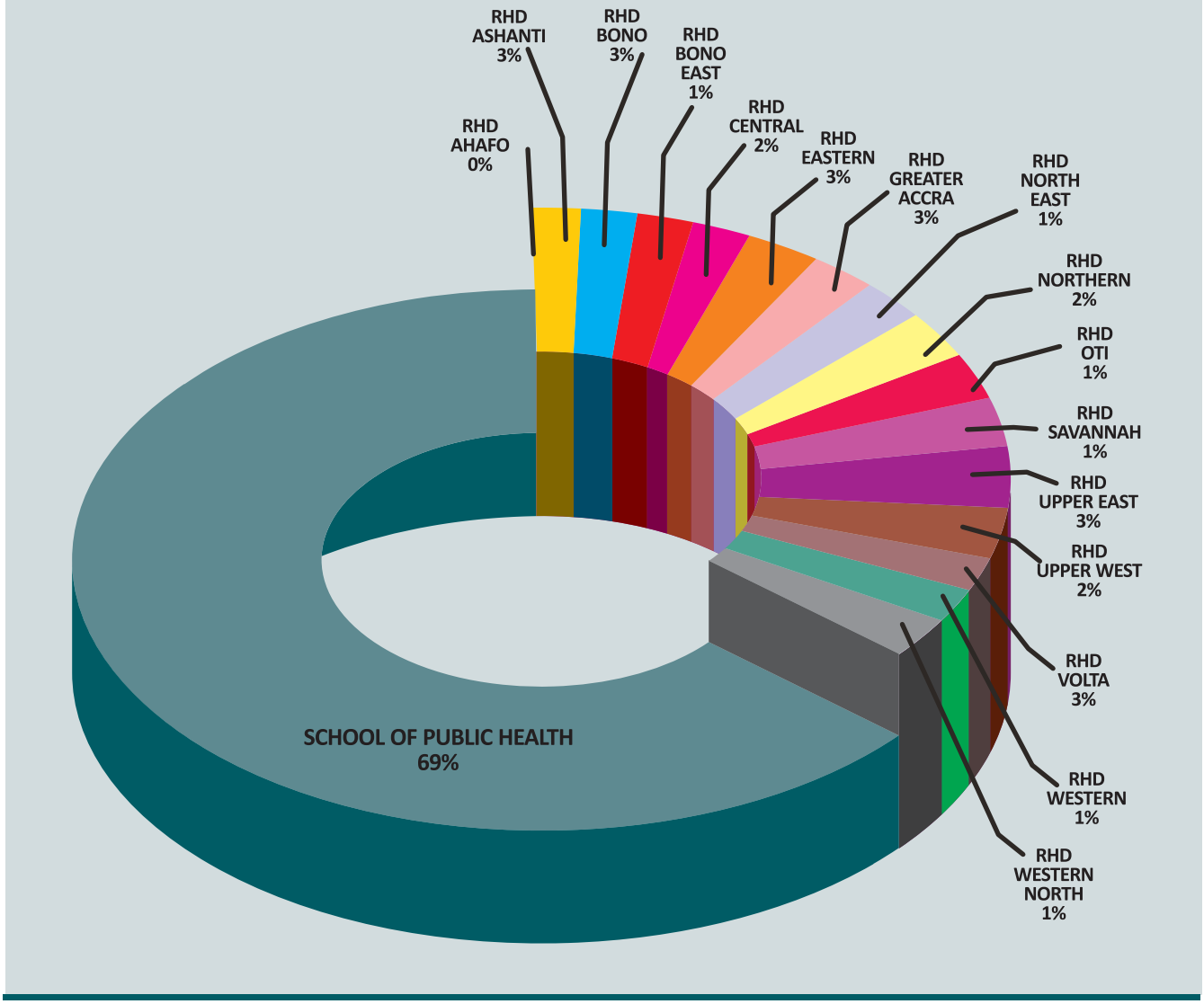
8.2 Financial Support to Regions and Implementing Partners

The Programme disbursed a total amount of $ 777,180.03to all sixteen regions for monitoring and training activities and $1,719,580.00 to the School of Public Health to conduct a study on Sero- Prevalence and circulating variants of SARS-CoV-2 among Ghanaian Population. Table 8-4 and figure 8-3 show the actual amounts allocated to each Region and the School of Public Health, Legon.

Table 8-8-4 *Financial Support to Regions and Implementing partners*

Regions And Implementing Partners	Amount
	US$
AHAFO REGION	10,421.55
ASHANTI REGION	81,215.98
BONO REGION	86,756.32
BONO EAST REGION	32,050.68
CENTRAL REGION	48,319.74
EASTERN REGION	66,368.05
GREATER ACCRA REGION	82,907.49
NORTH EAST REGION	28,830.25
NORTHERN REGION	38,754.35
OTI REGION	28,294.77
SAVANNAH REGION	29,206.17
UPPER EAST REGION	76,632.70
UPPER WEST REGION	42,067.65
VOLTA REGION	86,698.36
WESTERN REGION	24,389.51
WESTERN NORTH REGION	14,266.46
SCHOOL OF PUBLIC HEALTH	1,719,580.00
Total	**2,496,760.031**

Figure 8 - 3 *Total Support to Regions and Implementing partners in 2021*



CHAPTER
nine

Implementation Challenges

The following were challenges that hampered the attainment of set goals in 2021:

9.1 Procurement

- Supply chain bottlenecks from procurement to last-mile distribution.
- COVID-induced delays in commodity delivery.
- Shortage and stock out of commodities due to poor supplier collaboration and coordination.
- Expiration of commodities due to delays in clearance, short shelf life of Roche Lab reagents.
- Expired commodities were not disposed of timely.
- Unpredictable delivery timelines for the Government of Ghana procurement.
- Difficulty in accessing delivery van for distribution/ redistribution.
- Unavailability of adequate cold storage facilities at the regional level resulting in large volumes being stored in the private warehouse (I.H.S) at a high cost.

9.2 Financial

- Significant funding gap for implementing critical interventions such as Differentiated Service Delivery and orientation of service providers on Paediatric HIV SOPs and the viral load scale-up plan.

9.3 Data Management

- Inadequacy of integrated RCH registers for EMTCT and EID resulting in under-reporting of results.
- Lack of funds for routine quarterly data monitoring.
- Poor data collection on viral load.
- Low data quality as a result of delay in orientations on revised HIV indicators as a result of the COVID 19 pandemic in Ghana. Also, less than 20% of all facilities providing HIV services in the country were oriented on the revised HIV indicators
- Unavailability of primary data collection tools at all health facilities

9.4 Service Delivery

- No funding support for preventive activities despite the need to prevent new infections.
- Limited Human resource at ART sites and low capacity in HIV-related counselling due to staff attrition.
- COVID-induced disruption of HIV service access and delivery across the cascade
- Low ART linkage rate and high lost-to-follow-up of clients.
- Challenges with the last mile distribution of ARVs leading to stock-outs of commodities.
- Frequent break down of machines and weak maintenance support from Roche.
- Funding gap for implementation of Differentiated Service Delivery to scale.

9.5 Administrative

- Continued delays in the replacement of very old Programme vehicles continues to create a huge maintenance bill.
- Difficulties in getting vehicles and drivers outside NACP

CHAPTER
ten

Conclusion and Way Forward

Much more progress was witnessed in 2021 compared to last year. The Programme is working assiduously with the Global Fund and partners to implement the NFM3 activities towards attaining the 95-95-95 targets. The data shows a recovery from covid19 impact to a positive outlook.

To further accelerate the progress towards epidemic control, interventions have been planned to

- Enhance onsite supportive supervision and mentorship.
- Scale-up DSD implementation and decentralization of ART to PMTCT sites.
- Engage faith-based organizations, CSOs and media houses for greater involvement in prevention
  campaigns.
- Roll out an STI and HIV Awareness Challenge (SHAC) among students in Senior High Schools
- Engage Regional Health Directorates and facility heads to improve ownership and oversight for HIV interventions at the sub-national level.
- Strengthen the sample referral system nationwide and continue implementation of the viral load Scale-up plan.
- Build capacity for NACP staff to be able to support e-Tracker functionality and offer intense supportive supervision for HIV e-Tracker.
- Improve differentiated HIV care at the community level by sharing some tasks with the Community Health Workers such as Models of Hope, CATS and Mentor Mothers.
- Improving elimination of mother to child transmission interventions through lessons learnt from the conduct of the HIV positive babies' audits.

We wish to thank the Director of Public Health, our partners and staff of all divisions of the GHS and MOH for their continued support to the NACP. Special appreciation goes to the Director-General and staff for the leadership and guidance that has brought us this far.

Notes

Appendix

2021 ANNUAL REPORT

September 2022

NACP
NATIONAL AIDS CONTROL PROGRAMME

GHANA HEALTH SERVICE
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Table 11-1 *Regional distribution of HIV tests done by age and gender-2021*

Region	Male Tested	Female Tested	Adult Tested	Child Tested	Total Tested
Ahafo	10,221	34,674	41,582	3,313	44,895
Ashanti	44,026	222,673	255,806	10,893	266,699
Bono	20,436	72,481	86,586	6,331	92,917
Bono East	30,613	88,136	102,399	16,350	118,749
Central	41,465	158,102	183,737	15,830	199,567
Eastern	30,691	135,242	157,053	8,880	165,933
Greater Accra	54,587	241,629	285,847	10,369	296,216
North East	4,941	27,224	29,296	2,869	32,165
Northern	13,639	113,172	118,669	8,142	126,811
Oti	25,177	65,912	72,443	18,646	91,089
Savannah	6,717	33,057	36,404	3,370	39,774
Upper East	18,895	76,047	83,428	11,514	94,942
Upper West	9,371	44,550	48,594	5,327	53,921
Volta	41,198	120,418	139,067	22,549	161,616
Western	32,172	111,366	137,533	6,005	143,538
Western North	7,586	39,716	44,635	2,667	47,302
NATIONAL	**391,735**	**1,584,399**	**1,823,079**	**153,055**	**1,976,134**

Table 11-2 *Regional Distribution of persons testing HIV positive by age and gender-2020*

Region	Male Tested Positive	Female Tested Positive	Adult Tested Positive	Child Tested Positive	Total Tested Positive
Ahafo	289	887	1,124	52	1,176
Ashanti	2,366	6,896	8,894	368	9,262
Bono	926	2,487	3,255	158	3,413
Bono East	705	1,826	2,436	95	2,531
Central	959	2,910	3,706	163	3,869
Eastern	1,770	5,285	6,698	357	7,055
Greater Accra	3,264	7,568	10,442	390	10,832
North East	54	143	186	11	197
Northern	185	498	630	53	683
Oti	255	774	960	69	1,029
Savannah	112	370	453	29	482
Upper East	279	804	1,005	78	1,083
Upper West	169	539	665	43	708
Volta	675	2,116	2,665	126	2,791
Western	886	2,509	3,283	112	3,395
Western North	371	1,310	1,612	69	1,681
NATIONAL	**13,265**	**36,922**	**48,014**	**2,173**	**50,187**

Table 11-3 *HIV Exposed Infants Screened for HIV by region-DHIMS(2021)*

Region	Number of HIV exposed infants tested by DNA	Number of HIV exposed infants tested positive by DNA PCR	% Tested Positive
Ahafo	236	5	2.1%
Ashanti	1,412	17	1.2%
Bono	966	36	3.7%
Bono East	521	23	4.4%
Central	644	27	4.2%
Eastern	1,061	29	2.7%
Greater Accra	2,150	21	1.0%
North East	1	0	0.0%
Northern	102	2	2.0%
Oti	116	2	1.7%
Savannah	83	1	1.2%
Upper East	293	20	6.8%
Upper West	115	12	10.4%
Volta	481	21	4.4%
Western	650	15	2.3%
Western North	213	8	3.8%
NATIONAL	**9,044**	**239**	**2.6%**

Table 11-4 *Regional Distribution of clients currently on treatment*

Region	Child Female	Child Fmale	Adult Female	Adult Female	Total
Ahafo	91	79	3,326	1,052	4,548
Ashanti	1,076	1,150	34,023	11,141	47,390
Bono	410	401	12,039	3,633	16,483
Bono East	313	324	9,092	2,760	12,489
Central	252	275	9,676	2,611	12,814
Eastern	826	809	24,939	8,076	34,650
Greater Accra	1,115	1,295	35,597	14,472	52,479
North East	52	38	873	265	1,228
Northern	116	134	3,711	1,323	5,284
Oti	75	72	2,239	761	3,147
Savannah	45	30	1,277	358	1,710
Upper East	254	228	5,381	1,745	7,608
Upper West	102	114	3,710	1,199	5,125
Volta	393	402	10,874	3,435	15,104
Western	358	405	13,414	4,753	18,930
Western North	141	133	4,576	1,384	6,234
NATIONAL	**5,619**	**5,889**	**174,747**	**58,968**	**245,223**

Table 11-5 *Trend in Syphilis testing and treatment at ANC(2017-2021)*

Indicator	2017	2018	2019	2020	2021
Number Screened for Syphilis	420,681	49,665	529,312	686,176	894,983
# Positive for SyphilisNo.	12,883	13,668	14,053	15,576	12,769
Treated for Syphilis	11,776	13,135	13,373	17,518	15,217
% Treated	91%	96%	95%	112%	119%

Table 11-6 *Index testing among partners of index clients*

Region	Female Partners of IC Tested for HIV	Male Partners of IC Tested for HIV	Total Partners of IC Tested for HIV	Female Partners of IC Tested Positive for HIV	Male Partners of IC Tested Positive for HIV	Total Partners of IC Tested Positive for HIV	Yield
Ahafo	277	206	483	42	23	65	**13.5%**
Ashanti	1,412	770	2,182	156	113	269	**12.3%**
Bono	415	305	720	56	45	101	**14.0%**
Bono East	1,493	440	1,933	39	33	72	**3.7%**
Central	1,873	1,195	3,068	65	54	119	**3.9%**
Eastern	2,097	1,177	3,274	134	86	220	**6.7%**
Greater Accra	772	770	1,542	231	175	406	**26.3%**
North East	8	12	20	2	3	5	**25.0%**
Northern	602	237	839	11	15	26	**3.1%**
Oti	431	290	721	38	17	55	**7.6%**
Savannah	215	107	322	26	9	35	**10.9%**
Upper East	1,117	713	1,830	11	11	22	**1.2%**
Upper West	131	107	238	20	12	32	**13.4%**
Volta	875	475	1,350	42	33	75	**5.6%**
Western	622	563	1,185	79	79	158	**13.3%**
Western North	155	123	278	13	22	35	**12.6%**
NATIONAL	**12,495**	**7,490**	**19,985**	**965**	**730**	**1,695**	**8.5%**

Table 11-7 *Index testing among children of index clients*

Female Children of IC Tested for HIV	Male Children of IC Tested for HIV	Total Children of IC Tested for HIV	Female Children of IC Tested Positive for HIV	Male Children of IC Tested Positive for HIV	Total Children of IC Tested Positive for HIV	Yield
104	88	192	12	10	22	11.5%
591	507	1098	58	67	125	11.4%
198	176	374	22	16	38	10.2%
91	84	175	15	8	23	13.1%
405	323	728	29	32	61	8.4%
568	494	1062	78	49	127	12.0%
496	496	992	59	65	124	12.5%
5	12	17	2	2	4	23.5%
134	149	283	9	6	15	5.3%
101	83	184	13	11	24	13.0%
48	48	96	10	11	21	21.9%
115	97	212	13	13	26	12.3%
66	77	143	4	16	20	14.0%
288	251	539	24	29	53	9.8%
406	390	796	29	33	62	7.8%
178	214	392	20	12	32	8.2%
3,794	**3,489**	**7283**	**397**	**380**	**777**	**10.7%**

Table 11-8 *TB Preventive therapy coverage by Region*

Region	HIV Clients Enrolled Into Care	HIV Clients Enrolled into Care and Screened for TB	Eligible for TPT	Given TPT	Proportion of eligible clients Given TPT
Ahafo	5,050	991	182	161	88%
Ashanti	51,990	17,216	1,561	960	61%
Bono	17,838	3,696	3,944	3,672	93%
Bono East	13,725	4,448	2,220	1,729	78%
Central	14,508	13,583	1,511	1,083	72%
Eastern	36,919	6,714	2,297	2,218	97%
Greater Accra	56,329	20,486	4,008	3,199	80%
North East	1,347	1,191	58	50	86%
Northern	5,645	1,108	65	65	100%
Oti	3,676	3,000	799	55	7%
Savannah	1,925	362	216	200	93%
Upper East	8,149	1,775	2,456	1,966	80%
Upper West	5,693	5,045	1,232	446	36%
Volta	16,583	4,986	1,560	1,133	73%
Western	20,372	9,115	1,631	1,777	109%
Western North	6,752	6,024	422	349	83%
NATIONAL	**266,501**	**99,740**	**24,162**	**19,063**	**79%**

PrEP Annual Report Summary

Organization Name:	NATIONAL AIDS/STI CONTROL PROGRAMME		Month: March	Year: 2021	

Indicator	Female Sex Workers (FSWs)									
	Age Group									
	Unknown Age	<20	20-24	25-29	30-34	35-39	40-44	45-49	50+	Total
PrEP_SCREEN	0	7	24	29	6	2	0	1	0	69
PrEP_ELIGIBLE	0	7	24	29	6	2	0	1	0	69
PrEP_NEW	0	7	24	29	6	2	0	1	0	69
PrEP_CURR	0	105	373	295	134	58	21	15	3	1004
PrEP_1 Month	0	2	6	0	0	0	0	0	0	8
PrEP_RETURN_OTHER	0	0	0	0	1	0	0	0	0	1
PrEP_Discontinuation	0	1	4	5	1	0	0	0	0	11
PrEP_Adverse events	0	0	0	0	0	0	0	0	0	0
PrEP_RESTART	0	0	5	3	1	1	0	0	0	10
PrEP_SERO	0	0	0	0	0	0	0	0	0	0
Linked to ART	0	0	0	0	0	0	0	0	0	0
No. of deaths	0	0	0	0	0	0	0	0	0	0
No. of Transfer out	0	0	0	0	0	0	0	0	0	0
No. of Missed Appointment	0	0	0	0	0	0	0	0	0	0
No. of Loss to Follow up	0	0	0	0	0	0	0	0	0	0

Indicator	Men who have Sex with Men									
	Age Group									
	Unknown Age	<20	20-24	25-29	30-34	35-39	40-44	45-49	50+	Total
PrEP_SCREEN	0	4	23	15	0	0	2	0	0	44
PrEP_ELIGIBLE	0	4	22	15	0	0	2	0	0	43
PrEP_NEW	0	4	22	15	0	0	2	0	0	43
PrEP_CURR	0	53	139	112	52	25	16	14	17	428
PrEP_1 Month	0	0	2	1	1	1	0	0	2	7
PrEP_RETURN_OTHER	0	0	5	4	1	0	0	0	0	10
PrEP_Discontinuation	0	0	6	10	2	0	0	0	0	18
PrEP_Adverse events	0	0	0	0	0	0	0	0	0	0
PrEP_RESTART	0	0	0	0	0	0	0	0	0	0
PrEP_SERO	0	0	0	0	0	0	0	0	0	0
Linked to ART	0	0	0	0	0	0	0	0	0	0
No. of deaths	0	0	0	0	0	0	0	0	0	0
No. of Transfer out	0	0	0	0	0	0	0	0	0	0
No. of Missed Appointment	0	0	0	0	0	0	0	0	0	0
No. of Loss to Follow up	0	0	0	0	0	0	0	0	0	0

PrEP Annual Report Summary

Organization Name:	NATIONAL AIDS/STI CONTROL PROGRAMME	Month: March	Year: 2021

Indicator	Transgender (TG) People									
	Age Group									
	Unknown Age	<20	20-24	25-29	30-34	35-39	40-44	45-49	50+	Total
PrEP_SCREEN	0	0	1	0	0	0	0	0	0	1
PrEP_ELIGIBLE	0	0	1	0	0	0	0	0	0	1
PrEP_NEW	0	0	1	0	0	0	0	0	0	1
PrEP_CURR	0	1	0	0	0	0	0	0	0	1
PrEP_1 Month	0	1	0	0	0	0	0	0	0	1
PrEP_RETURN_OTHER	0	0	0	0	0	0	0	0	0	0
PrEP_Discontinuation	0	0	0	0	0	0	0	0	0	0
PrEP_Adverse events	0	0	0	0	0	0	0	0	0	0
PrEP_RESTART	0	0	0	0	0	0	0	0	0	0
PrEP_SERO	0	0	0	0	0	0	0	0	0	0
Linked to ART	0	0	0	0	0	0	0	0	0	0
No. of deaths	0	0	0	0	0	0	0	0	0	0
No. of Transfer out	0	0	0	0	0	0	0	0	0	0
No. of Missed Appointment	0	0	0	0	0	0	0	0	0	0
No. of Loss to Follow up	0	0	0	0	0	0	0	0	0	0

Indicator	Person Who Inject Drugs (PWID)									
	Age Group									
	Unknown Age	<20	20-24	25-29	30-34	35-39	40-44	45-49	50+	Total
PrEP_SCREEN	0	0	0	0	0	0	0	0	0	0
PrEP_ELIGIBLE	0	0	0	0	0	0	0	0	0	0
PrEP_NEW	0	0	0	0	0	0	0	0	0	0
PrEP_CURR	0	0	0	0	0	0	0	0	0	0
PrEP_1 Month	0	0	0	0	0	0	0	0	0	0
PrEP_RETURN_OTHER	0	0	0	0	0	0	0	0	0	0
PrEP_Discontinuation	0	0	0	0	0	0	0	0	0	0
PrEP_Adverse events	0	0	0	0	0	0	0	0	0	0
PrEP_RESTART	0	0	0	0	0	0	0	0	0	0
PrEP_SERO	0	0	0	0	0	0	0	0	0	0
Linked to ART	0	0	0	0	0	0	0	0	0	0
No. of deaths	0	0	0	0	0	0	0	0	0	0
No. of Transfer out	0	0	0	0	0	0	0	0	0	0
No. of Missed Appointment	0	0	0	0	0	0	0	0	0	0
No. of Loss to Follow up	0	0	0	0	0	0	0	0	0	0

PrEP Annual Report Summary

Organization Name:	NATIONAL AIDS/STI CONTROL PROGRAMME	Month: March	Year: 2021

Indicator	People in Prison and Other Closed Settings (PP)									
	Age Group									
	Unknown Age	<20	20-24	25-29	30-34	35-39	40-44	45-49	50+	Total
PrEP_SCREEN	0	0	0	0	0	0	0	0	0	**0**
PrEP_ELIGIBLE	0	0	0	0	0	0	0	0	0	**0**
PrEP_NEW	0	0	0	0	0	0	0	0	0	**0**
PrEP_CURR	0	0	0	0	0	0	0	0	0	**0**
PrEP_1 Month	0	0	0	0	0	0	0	0	0	**0**
PrEP_RETURN_OTHER	0	0	0	0	0	0	0	0	0	**0**
PrEP_Discontinuation	0	0	0	0	0	0	0	0	0	**0**
PrEP_Adverse events	0	0	0	0	0	0	0	0	0	**0**
PrEP_RESTART	0	0	0	0	0	0	0	0	0	**0**
PrEP_SERO	0	0	0	0	0	0	0	0	0	**0**
Linked to ART	0	0	0	0	0	0	0	0	0	**0**
No. of deaths	0	0	0	0	0	0	0	0	0	**0**
No. of Transfer out	0	0	0	0	0	0	0	0	0	**0**
No. of Missed Appointment	0	0	0	0	0	0	0	0	0	**0**
No. of Loss to Follow up	0	0	0	0	0	0	0	0	0	**0**

Indicator	Sero-Discordant Couples (SDCs)									
	Age Group									
	Unknown Age	<20	20-24	25-29	30-34	35-39	40-44	45-49	50+	Total
PrEP_SCREEN	0	0	0	0	0	0	0	0	0	**1**
PrEP_ELIGIBLE	0	0	0	0	0	0	0	0	0	**1**
PrEP_NEW	0	0	0	0	0	0	0	0	0	**1**
PrEP_CURR	0	2	3	13	13	27	12	10	10	**90**
PrEP_1 Month	0	0	0	0	0	0	0	0	0	**0**
PrEP_RETURN_OTHER	0	0	0	0	0	0	0	0	0	**0**
PrEP_Discontinuation	0	0	0	0	0	0	0	0	0	**0**
PrEP_Adverse events	0	0	0	0	0	0	0	0	0	**0**
PrEP_RESTART	0	0	0	0	0	0	0	0	0	**0**
PrEP_SERO	0	0	0	0	0	0	0	0	0	**0**
Linked to ART	0	0	0	0	0	0	0	0	0	**0**
No. of deaths	0	0	0	0	0	0	0	0	0	**0**
No. of Transfer out	0	0	0	0	0	0	0	0	0	**0**
No. of Missed Appointment	0	0	0	0	0	0	0	0	0	**0**
No. of Loss to Follow up	0	0	0	0	0	0	0	0	0	**0**

PrEP Annual Report Summary

Organization Name:	NATIONAL AIDS/STI CONTROL PROGRAMME	Month: March	Year: 2021

Indicator	Pregnant and Breastfeeding Women (PBFW)									
	Age Group									
	Unknown Age	<20	20-24	25-29	30-34	35-39	40-44	45-49	50+	Total
PrEP_SCREEN	0	0	0	0	0	0	0	0	0	0
PrEP_ELIGIBLE	0	0	0	0	0	0	0	0	0	0
PrEP_NEW	0	0	0	0	0	0	0	0	0	0
PrEP_CURR	0	0	0	0	0	0	0	0	0	0
PrEP_1 Month	0	0	0	0	0	0	0	0	0	0
PrEP_RETURN_OTHER	0	0	0	0	0	0	0	0	0	0
PrEP_Discontinuation	0	0	0	0	0	0	0	0	0	0
PrEP_Adverse events	0	0	0	0	0	0	0	0	0	0
PrEP_RESTART	0	0	0	0	0	0	0	0	0	0
PrEP_SERO	0	0	0	0	0	0	0	0	0	0
Linked to ART	0	0	0	0	0	0	0	0	0	0
No. of deaths	0	0	0	0	0	0	0	0	0	0
No. of Transfer out	0	0	0	0	0	0	0	0	0	0
No. of Missed Appointment	0	0	0	0	0	0	0	0	0	0
No. of Loss to Follow up	0	0	0	0	0	0	0	0	0	0

Indicator										
	Age Group									
	Unknown Age	<20	20-24	25-29	30-34	35-39	40-44	45-49	50+	Total
PrEP_SCREEN	0	8	7							15
PrEP_ELIGIBLE	0	8	7							15
PrEP_NEW	0	8	7							15
PrEP_CURR	0	43	65							108
PrEP_1 Month	0	0	0							0
PrEP_RETURN_OTHER	0	0	0							0
PrEP_Discontinuation	0	0	0							0
PrEP_Adverse events	0	0	0							0
PrEP_RESTART	0	0	0							0
PrEP_SERO	0	0	0							0
Linked to ART	0	0	0							0
No. of deaths	0	0	0							0
No. of Transfer out	0	0	0							0
No. of Missed Appointment	0	0	0							0
No. of Loss to Follow up	0	0	0							0

PrEP Annual Report Summary

Organization Name:	NATIONAL AIDS/STI CONTROL PROGRAMME	Month: March	Year: 2021

Indicator	Adolescent Boys and Young Men (ABYM)									
	Age Group									
	Unknown Age	<20	20-24	25-29	30-34	35-39	40-44	45-49	50+	Total
PrEP_SCREEN	0	0	0							7
PrEP_ELIGIBLE	0	0	0							7
PrEP_NEW	0	0	0							7
PrEP_CURR	0	0	0							127
PrEP_1 Month	0	0	0							0
PrEP_RETURN_OTHER	0	0	0							0
PrEP_Discontinuation	0	0	0							0
PrEP_Adverse events	0	0	0							0
PrEP_RESTART	0	0	0							0
PrEP_SERO	0	0	0							0
Linked to ART	0	0	0							0
No. of deaths	0	0	0							0
No. of Transfer out	0	0	0							0
No. of Missed Appointment	0	0	0							0
No. of Loss to Follow up	0	0	0							0

Indicator	Other High Risk People*									
	Age Group									
	Unknown Age	<20	20-24	25-29	30-34	35-39	40-44	45-49	50+	Total
PrEP_SCREEN	0	0	0	16	9	7	7	3	6	48
PrEP_ELIGIBLE	0	0	0	16	9	7	7	3	6	48
PrEP_NEW	0	0	0	15	9	7	7	3	6	47
PrEP_CURR	0	0	0	140	88	53	26	17	36	360
PrEP_1 Month	0	0	0	0	0	0	0	0	0	0
PrEP_RETURN_OTHER	0	0	0	0	0	2	0	0	1	3
PrEP_Discontinuation	0	0	0	0	0	0	0	0	0	0
PrEP_Adverse events	0	0	0	0	0	0	0	0	0	0
PrEP_RESTART	0	0	0	0	0	0	0	0	0	0
PrEP_SERO	0	0	0	0	0	0	0	0	0	0
Linked to ART	0	0	0	0	0	0	0	0	0	0
No. of deaths	0	0	0	0	0	0	0	0	0	0
No. of Transfer out	0	0	0	0	0	0	0	0	0	0
No. of Missed Appointment	0	0	0	0	0	0	0	0	0	0
No. of Loss to Follow up	0	0	0	0	0	0	0	0	0	0

* These persons are not part of any of the above population classification but received PrEP during the reporting period.

Notes

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