2020 ANNUAL REPORT

National AIDS/STI Control Programme,
Ghana Health Service.

NACP
NATIONAL AIDS CONTROL PROGRAMME

GHANA HEALTH SERVICE
GHS
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June 2021

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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

List of Abbreviations

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 2020, the HIV prevalence was 2.0% amongst pregnant women attending antenatal care (2020 HIV Sentinel Survey Report, June 2021). To reduce the incidence of HIV in the country, the Programme developed and began the implementation of an Advocacy, Communication and Social Mobilization plan and collaborated with other partners to address HIV- and COVID-related stigma and human rights abuses.

One million eight hundred and thirty-seven thousand, one hundred and forty-nine (1,837,149) out of a target of 1,440,103 were tested for HIV in 2020, representing 128% target coverage. Approximately 17% were males, 32% were non-pregnant women, and 51% were pregnant women. Of those tested, 58,746 were found positive, giving a testing yield of 3.2%, the lowest in the last five years.

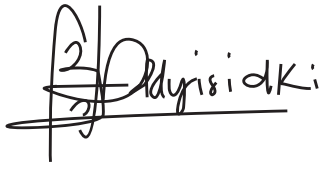
From a total of 1,238,208 expected pregnancies in 2020, 70% (861,030) were tested for HIV and received their results. Thirteen thousand, two hundred and twenty-seven (13,227) out of those tested were newly diagnosed as HIV positive, giving a yield of 1.5%, and 8,125(61%) were initiated on ARVs. In addition, 17,665 clients who already knew that they were HIV positive were validated to be HIV positive at ANC registration, and 14,998(88%) of them were also already on antiretroviral treatment. In all, 24,762 of the 30,892 HIV positive pregnant women were offered ARVs, giving an ARV coverage of 80% among ANC clients in the year under review. Nine thousand nine hundred and seventy-seven (9,977) of the 29,851 expected HIV Exposed Infants identified received Early Infant Diagnosis (EID), giving a 33% nucleic acid testing coverage, and 7.2% (716) of them were positive at six weeks.

Thirty-one thousand and thirty-five (31,035) adults and children were initiated on ART in 2020. As of December 2020, a total of 208,811 clients were on treatment, a significant increase from the 2019 figure. Ninety-four thousand six hundred and eighty-eight (94,688) viral load tests were performed as of December 2020, and 69,090 were virally suppressed. With the estimated 346,120 persons living with HIV in Ghana in 2020(Spectrum Estimates 2020), the 90-90-90 status for the country was 63-95-73 as of December 2020.

NACP organized healthcare workers' training 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 2020, 138,507 PLHIV were screened symptomatically for TB, and 936 found to be co-infected. Guidelines for TB Preventive Therapy in Ghana were also developed by a joint TB/HIV task team, and the intervention was piloted in facilities led by the National TB Control Programme.

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 Western Region. 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 Offices of the Hon. Minister for Health, Chief Director-MOH, Director General-GHS, all Divisions and Directorates of the GHS, MOH, GAC, CCM, Development Partners, especially the GF-ATM, 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(NACP)

CHAPTER 01 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 (2016-2020).

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 the implementation of 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-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 etc. • Dissemination of HIV information via conventional and social media platforms. · Publication of annual reports and periodic bulletins.
Provide essential technical support to all Ministries, Departments, and Agencies (MDAs) in the implementation of their HIV programmes	• Providing technical support to the Ghana AIDS Commission and other stakeholders. • Assisting MDAs to develop and deploy 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.1e administrative structure for NACP at the National level.

ORGANOGRAM FOR NATIONAL AIDS/STI CONTROL PROGRAMME

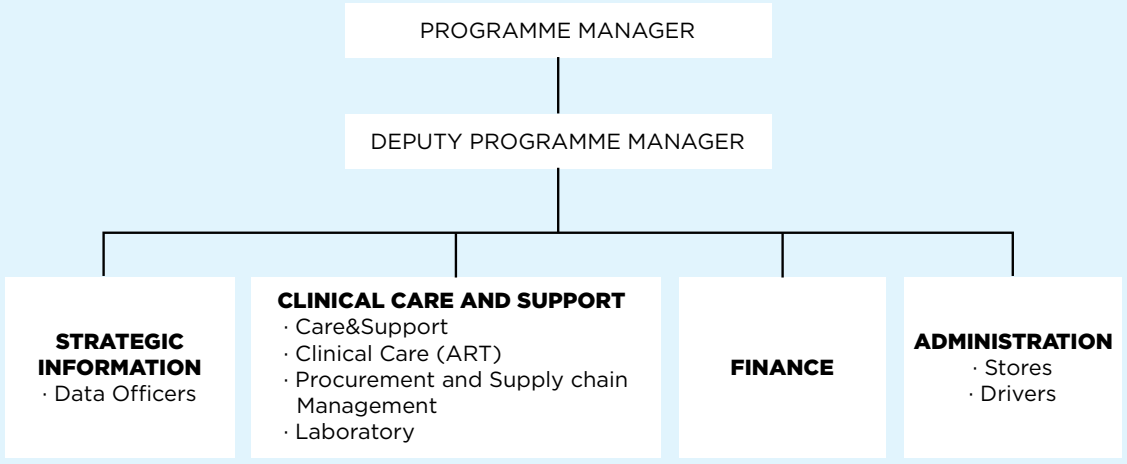


Figure 1-1 - Organogram for NACP at the National Level

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 38 as of December 2020. The 233 data officers across facilities in the 16 regions have all been 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 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 planning, implementation and monitoring of Programme activities.
- AFRICAID ZVANDIRI who supported with the baseline assessment, training and continuous mentorship of Community Adolescent Treatment Supporters.
- The Research Documentation Division of the GHS and University of Ghana School of Public Health provide 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 Policy, Planning, Monitoring and Evaluation (PPME) Division of the Ghana Health Service and the Ghana AIDS Commission to track all HIV activities in the country. Dedicated officers at the NACP SI Unit help with the provision of baseline, process and outcome indicators as well as 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 5,861 facilities provided Elimination of Mother to Child Transmission (eMTCT) services in 2020, with the Eastern Region having the highest number (926). Out of the 349 facilities where samples were taken for early infant diagnosis(EID), the majority (57) were in the Greater Accra Region with the least (2) being in the North East region. Six thousand three hundred and ninety-nine (6,399) facilities offered HIV testing and Counselling Services to clients as of December 2020, with the majority (977) located in the Eastern region. Five hundred and seventy-seven (577) facilities offered antiretroviral therapy to clients in 2020, with most of them located in the Central region. Table 1- 2 provides a summary of 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	71	86	11	14
Ashanti	651	705	66	43
Bono	167	181	41	20
Bono East	167	188	14	13
Central	562	590	111	24
Eastern	926	977	38	32
Greater Accra	555	693	86	57
North East	122	126	10	2
Northern	408	431	24	12
Oti	186	219	12	5
Savannah	152	158	8	5
Upper East	486	504	28	51
Upper West	429	430	19	12
Volta	374	401	44	28
Western	386	468	57	26
Western North	219	242	8	5
National	**5,861**	**6,399**	**577**	**349**

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 02 INTERVENTIONS TO REDUCE HIV TRANSMISSION

To reduce the incidence of HIV in the country in 2020, 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.
- Post-exposure prophylaxis.

2.1 Advocacy, Communication and Social Mobilisation (ACSM)

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

First Lady's Support for Kayayei

In collaboration with InfantaMalaria foundation, the Ghana health service, represented by the National Malaria Control Programme and NACP, supported an initiative by the First Lady to reduce the incidence of Malaria and HIV among head porters working in selected markets across the country. The intervention included education on preventive measures, HIV and malaria testing, Condom distribution, distribution of mosquito repellents, and fortified food to infants of the beneficiaries. The intervention was launched in the Greater Accra Region and replicated in the Ashanti and Northern Regions but got halted with the surge in COVID 19 numbers in Ghana.

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 nine media houses in 2020, including Adom TV, Citi FM online, Ghana Web, GTV, Peace FM, Angel FM, Daily Graphic, Daily Guide and UTV. Though the stations are all located in the Greater Accra Region, their online and digital satellite platforms widened the coverage for the messages. Service providers across the regions also educated the populace in their catchment areas through local media houses and social events. The Programme Manager launched the "What time is it" campaign on UTV and Citi FM online to sensitize the media, their audience and other stakeholders to realize the need to join the fight in achieving the 90-90-90 targets, which were due in December 2020. Several activities outlined as part of the campaign did not materialize due to the outbreak of the pandemic. The Programme is grateful to all the Media Houses, who offered free airtime to help our primary prevention activities. In 2021, there shall be more of such collaborations with other public, private and faith-based media outlets. Service providers in the regions shall also be encouraged to continue such media engagements in their local context.

Social Media Campaigns

To increase awareness and promote preventive behaviour change and services across the HIV care cascade, the Programme engaged Stratcomm Africa to provide technical assistance with developing and implementing a Communication Plan. The intervention, code-named "Free-to-be", involves engagements mainly on social and traditional media and the community. It includes the use of influencers of various target populations to help deliver group-specific messages of hope, leading to behaviour change. Social Media handles, named "Operation 90-90-90", have been created on Facebook, Twitter and Instagram since December 2019 and are steadily increasing in followership and activity.

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 action(Figure 2-1).

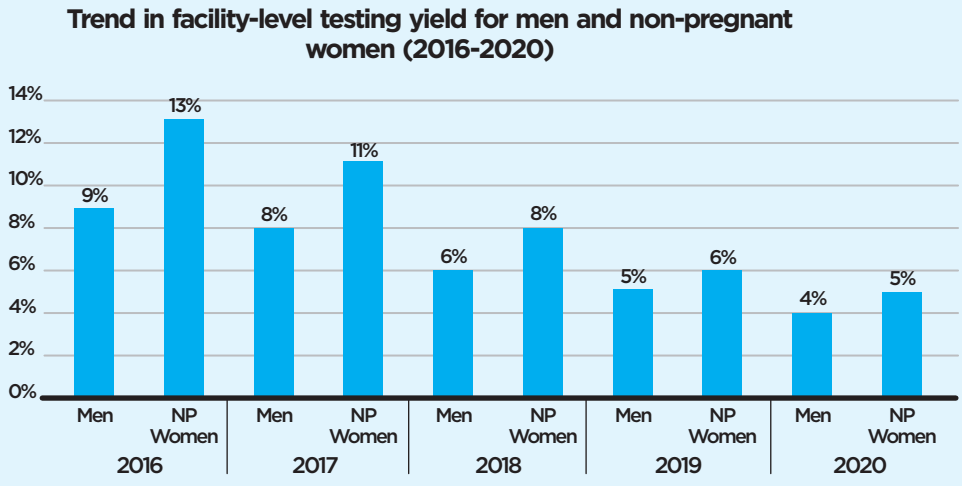


Figure 2-1 Trend in facility-level testing yield for men and non-pregnant women (NACP service data 2016-2020)

2.2 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 address the stigma within health facilities, NACP supported the West African Program to Combat AIDS and STI (WAPCAS) to train service providers in eight facilities to reduce stigma in their settings. The Programme again worked with WAPCAS to train senior Police officers across the country on the rights of Key and Vulnerable populations. This was a follow up to an earlier engagement meeting held by key stakeholders with the Inspector General of Police in 2018 on reducing the incidence of human right abuses towards key populations, especially the female sex workers.

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 in 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 also serve as prompts for service providers were developed. They will be distributed to all ART sites by the end of the second quarter of 2021.

2.3 HIV Testing and Counselling Services (HTS)

HIV testing serves as the entry point to antiretroviral treatment and helps to prevent new infections and re-infection in the general population. In 2020, 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 "90 90 90" targets for 2020 towards the elimination of HIV by 2030, there was the need for innovative approaches to achieve these targets. The first step was the attainment of the first "90", which required that 90% of people living with HIV in Ghana knew their status. Ghana at the end of 2019 was at 58% due to low testing coverage among high risk and vulnerable groups, and efforts to accelerate progress led to the pilot 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 early and
- Link negative partners to prevention services

From the 40 pilot facilities, a total of 1,676 index clients were offered FBIT with an average acceptance rate of 78% across the regions and a contact elicitation rate of 1:1.8. Of the contacts reached, 86% were tested and a yield of 24% recorded (children and partners), which was significantly greater than the provider-initiated testing and counselling (PITC) yield (difference=19%,95% CI=16.6%-22.5%, $p<0.0001$). Compared to PITC initiation rates, a significant proportion of the positives (94%) were initiated on ARVs (difference =52%,95% CI=48%-55%, $p<0.0001$).

Though the use of Community Health Nurses and Models of Hope promoted FBIT, fear of disclosure on the part of index clients, refusal of the partners to report for testing, schooling schedules of listed children, children not living with the index clients and lack of community-level access to ART were barriers to testing and ARV initiation during the pilot.

With this evidence, the country scaled up index testing to additional service delivery sites and developed data capture tools being used to report it in DHIMS. Table 2-1 provides details of HIV tests captured in DHIMS in 2020 and showed that the testing yield among index client contacts is approximately twice that from 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 and the movement restrictions imposed during the peak of the pandemic in the year. 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 globally.

Table 2-1 HIV testing yield by population (NACP 2020 service data)

Population	Children of Index clients		Partners of Index clients		All index clients contacts		General Population	
Gender	Male	Female	Male	Female	Male	Female	Male	Female
Tested	2,600	2,968	6,001	10,361	8,601	13,329	262,100	435,954
Positive	233	234	510	783	743	1,017	9,271	19,784
Yield	9%	8%	8%	8%	9%	8%	4%	5%

Capacity building for family-based index client testing

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 which was used to manage clients in 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 UNICEF and the WHO, additional facilities were trained in the Volta Region on demand creation, documentation and reporting of index testing. Facilities trained on Differentiated Service Delivery were also oriented on the intervention and its associated tools.

HIV Testing Coverage

One million eight hundred and thirty-seven thousand, one hundred and forty-nine (1,837,149) out of a target of 1,440,103 were tested for HIV in 2020, representing 128% target coverage, a dip from the 158% achieved from 2019 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. The majority (51%) of those tested were pregnant women, with men tested being the least (figure 2-4). However, there was a marginal decline in the contributions from males and non-pregnant women to the testing figures compared to 2019. By age, there was an increase in children's contribution to the testing numbers from 3% in the previous year to 8%, with some additional numbers coming from family-based index testing (figure 2-5).

HIV Testing Among Men

The current facility-based testing and general population outreach models are not well patronized by high-risk men, including long-distance drivers, uniformed service personnel and men within high-risk networks such as regular and non-regular partners of female sex workers, those in discordant relationships and key populations. To reach them, the West African AIDS Foundation (WAAF) was engaged to use strategic community-based interventions to test them and link the positives to care. Out of the 5,584 high-risk men tested in the Eastern, Greater Accra and Western Regions, 525(9.4%) were found positive, and 61 %(321) of them initiated treatment. Those negative were also offered prevention services, including condom distribution. This model needs to be scaled up strategically across the country to help improve the testing coverage for these high-risk men.

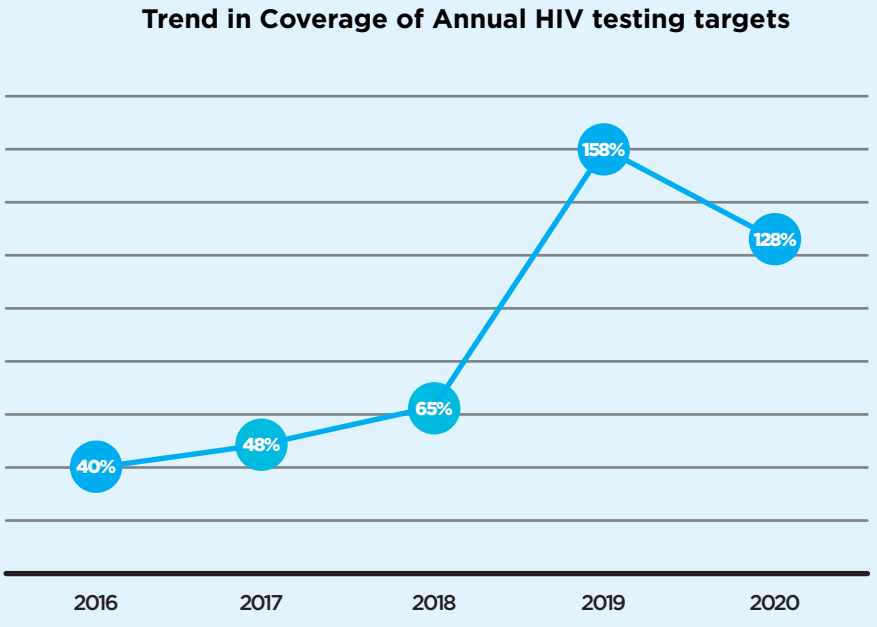


Figure 2-2 *Trend in Coverage of Annual HIV testing targets (2016-2020)*

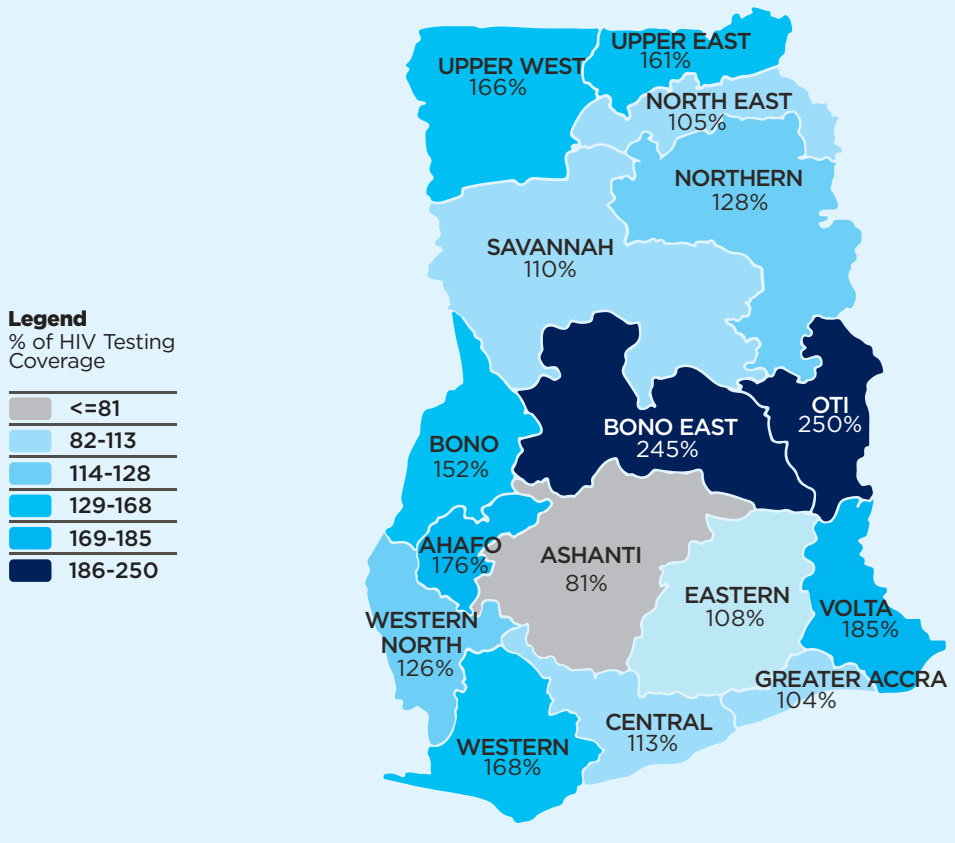


Figure 2-3 *HIV testing coverage by region-2020*

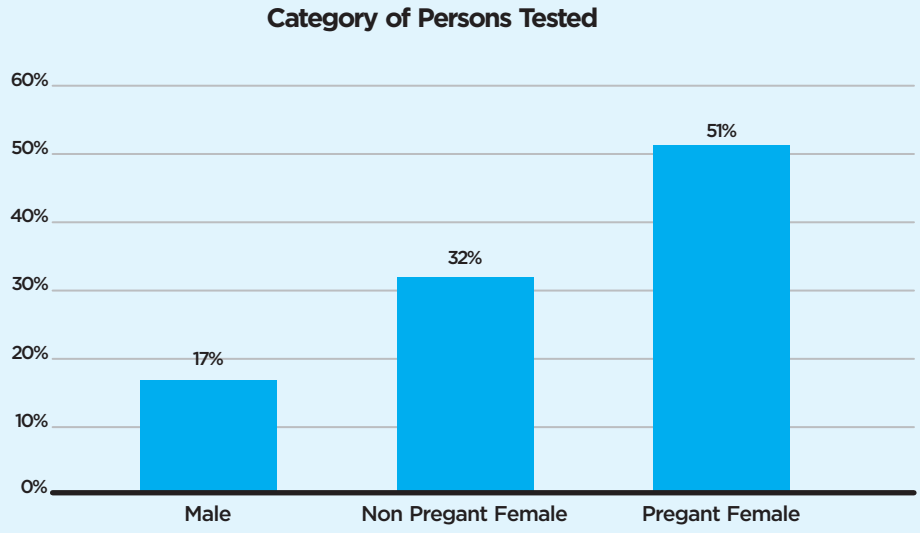


Figure 2-4 *Category of persons tested-2020*

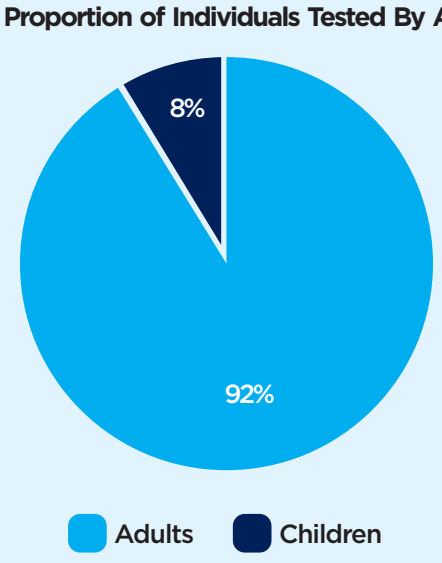


Figure 2-5 *Category of persons tested-2020*

HIV Testing Yield

Among those tested, 58,746 persons were positive in 2020. The numbers positive translated into a yield of 3.2% 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 have consistently been high but are also seeing a downward trend (figure 2-6). Out of the 154,282 children tested, 1.7% (2,678) were positive, while 3.3% (56,068) of the 1,682,867 adults tested were positive. Family-based index testing improved paediatric case detection and thus contributed to the increased proportion of children positive from 1% in 2019 to 5% in 2020. The regional distribution of these figures can be found in tables 13-1 and 13-2 in the appendix.

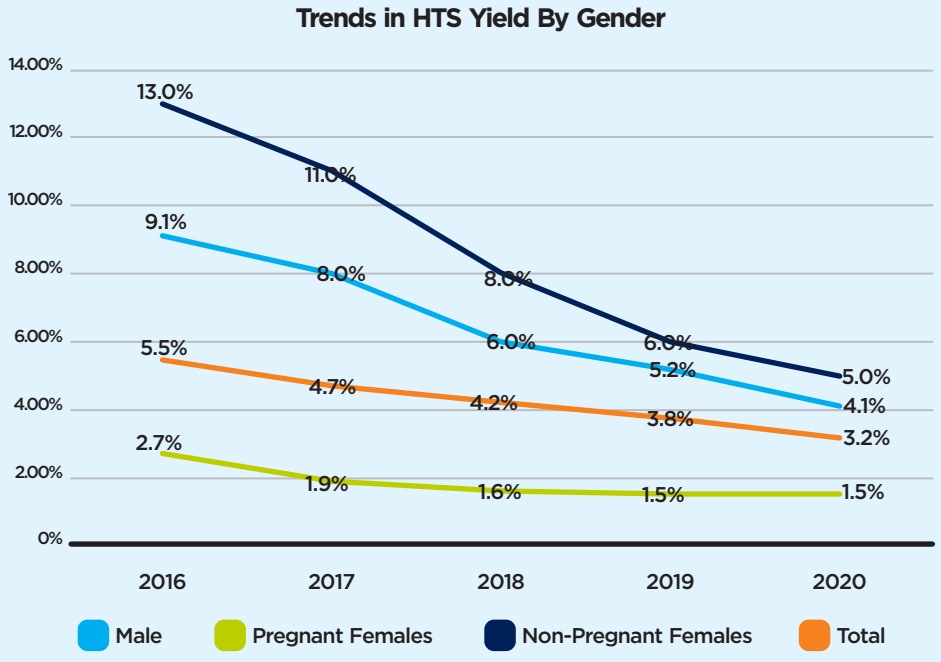


Figure 2-6 *HIV testing yield by gender-2020*

2.4 Implementation guideline for HIV self-testing in Ghana.

The Programme aims to increase testing coverage among high-risk and vulnerable populations using differentiated testing approaches such as orphanage testing, Ante-Natal Care (ANC) testing, and family-based index testing. To further augment the yield from these approaches, HIV Self-Testing (HIVST) was introduced in 2020. To guide its implementation, ***HIV Self-Testing in Ghana, An Implementation Guide***, was developed. It is to guide the provision of quality and affordable HIVST services, ensure access, promote uptake and strengthen linkage to confirmatory testing, care and treatment. Priority populations to be targeted include high-risk men, Key Populations (KP) and their sexual partners and partners of Persons Living with HIV (PLHIV). Other populations to be targeted include Adolescent Girls and Young Women (AGYW), Adolescent Boys and Young Men (ABYM) and people with SexuallyTransmitted Infections (STI's), HIV negative partners of HIV discordant couples, and HIV negative partners of STI and Tuberculosis (TB) clients. Delivery models include a facility-based approach where kits will be distributed to clients who are unwilling to take an HIV test at the facility and notably via secondary distribution to partners of clients who visit facilities. A community-based model will include utilizing existing community engagement and outreach programmes, faith-based and workplace programmes for free or at discounted cost. The private sector will also be engaged to distribute kits through pharmacies, licensed chemical sellers and private health facilities at a cost.

2.5 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 2020 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 achieving the elimination of Mother to Child Transmission (eMTCT). Therefore, the eMTCT guidelines recommend that all pregnant women are tested for HIV at registration and 34 weeks if the earlier test is negative.

HIV Testing Coverage at ANC

Out of a total of 1,238,208 expected pregnancies in 2020, 70% (861,030) were offered HTS (figure 2-7). Although restrictions induced by the COVID 19 outbreak might be contributing to the low coverage in 2020, 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. The testing coverage among ANC registrants is, however consistently above 85% since 2016 (figure 2-16).

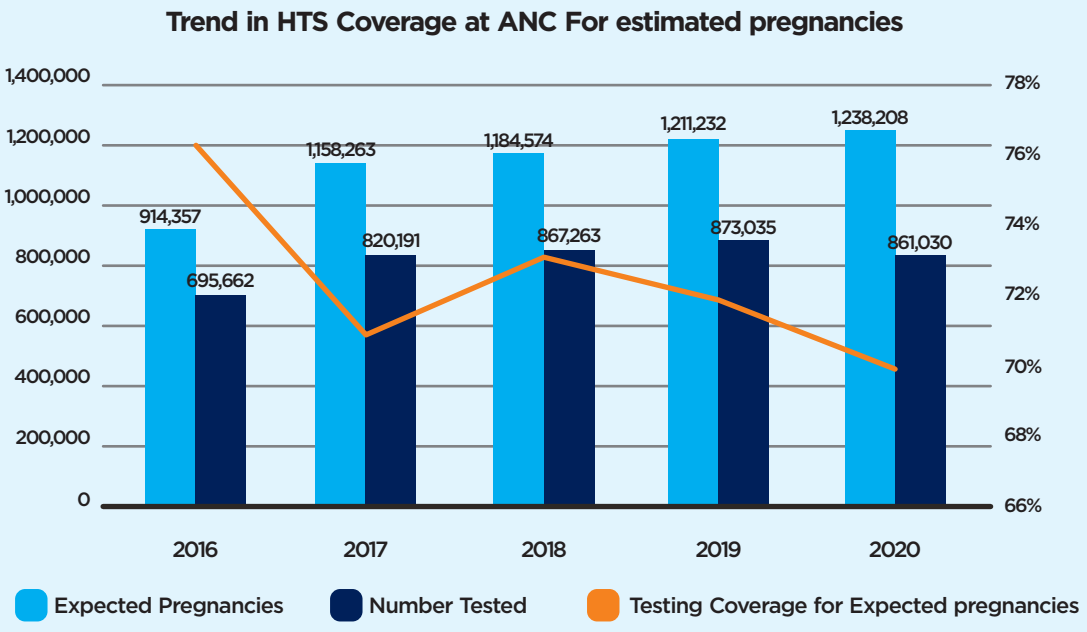


Figure 2-7 *Trend in HTS Coverage for expected pregnancies at ANC: 2016-2020*

HIV Testing Yield at ANC

Of the pregnant women tested, 13,227 were newly identified as HIV positive, giving a yield of 1.5 %. (figure 2-6). Figure 2-8 gives the ANC testing yields across the regions, with the lowest (0.3%) and the highest (2.2%) being from the Northern and Central Regions, respectively.

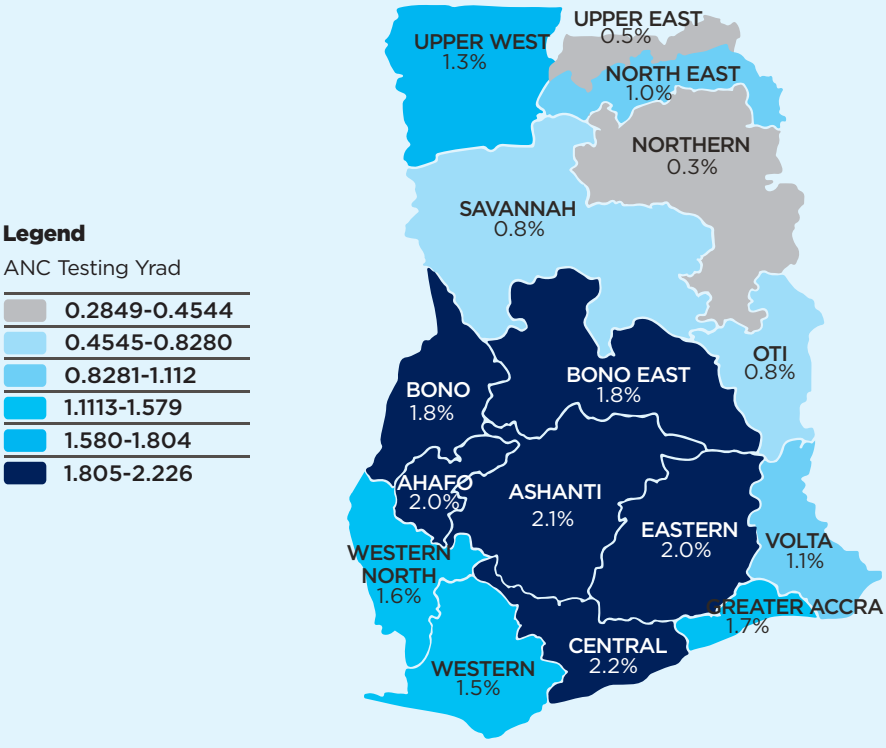


Figure 2-8 *Regional distribution of ANC testing yield-2020*

Provision of ARVs to HIV Positive Pregnant Women

The provision of 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 13,227 newly diagnosed HIV positive pregnant women, there were 17,665 clients who were already known to be HIV positive at ANC registration. Of the newly diagnosed, 8,125(61%) were initiated on ARVs, and 14,998(88%) of the known positives were already on treatment or initiated on ARVs. In all, 24,762 of the 30,892 HIV positive pregnant women were offered ARVs, giving coverage 80%. This is a 9% dip from the 2019 figure, most likely due to the initial challenges encountered with data capture using the new reporting templates deployed in January 2020 (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.

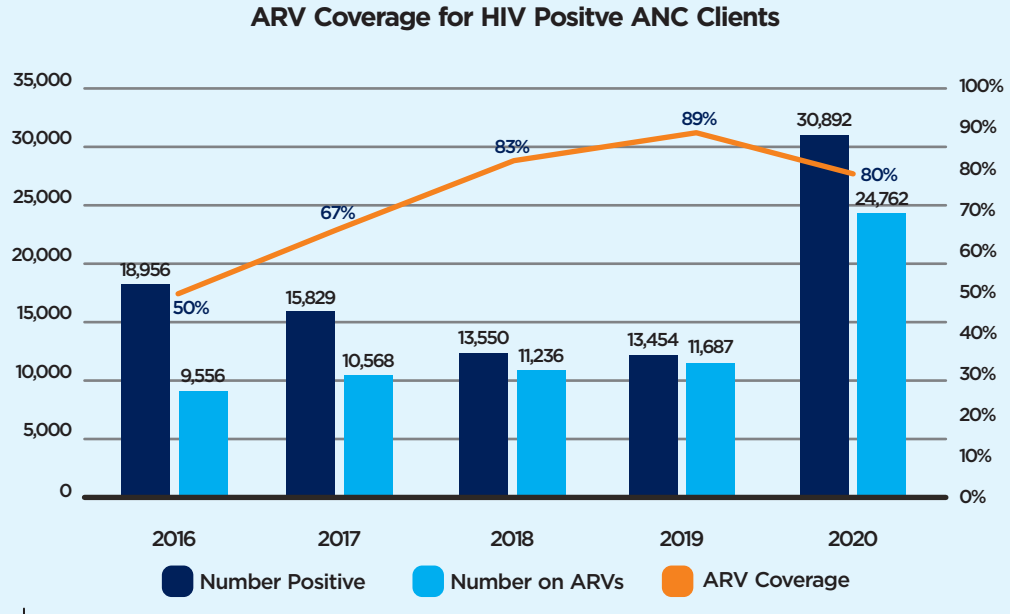


Figure 2-9 *Trend in ARV Coverage among HIV positive ANC clients*

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

From the 29,851 HIV exposed infants delivered in 2020, only 33% (9,977) received nucleic acid testing (NAT) for HIV by the 6th week of life (figure 2-10). This is a significant fluctuation in the

upward trend observed in previous years due to the increased capacity for DBS sample collection and infant identification using the integrated maternal and child health records. This decline in performance is partly due to the breakdown of some PCR machines, shortage of reagents, and disruption of services due to COVID-19. It calls for the urgent deployment of point of care devices to strategically augment the existing testing platforms and make early infant diagnosis services more resilient (figure 2-11).

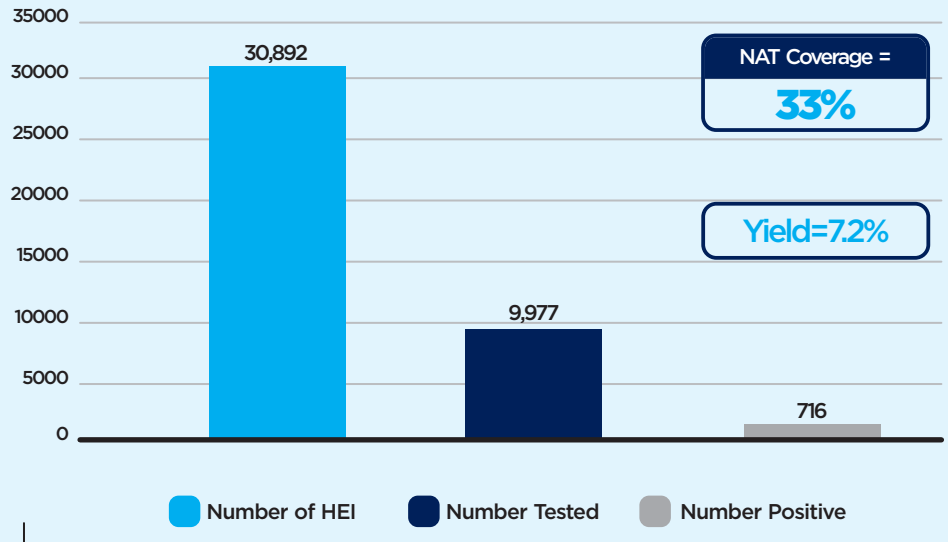


Figure 2-10 *Nucleic acid testing(NAT) cascade and yield-2020*

Seven hundred and sixteen (716) of the HIV exposed infants tested at six weeks in 2020 were positive, giving a 6-week transmission rate of 7.2%, which is lower than the spectrum projected rate of 11%. Though the rate is projected to decline, the transmission has consistently been higher in the first six weeks of life since 2016 (fig 2-12). The regional breakdown of the tests performed and their yield can be found in table 13-3.

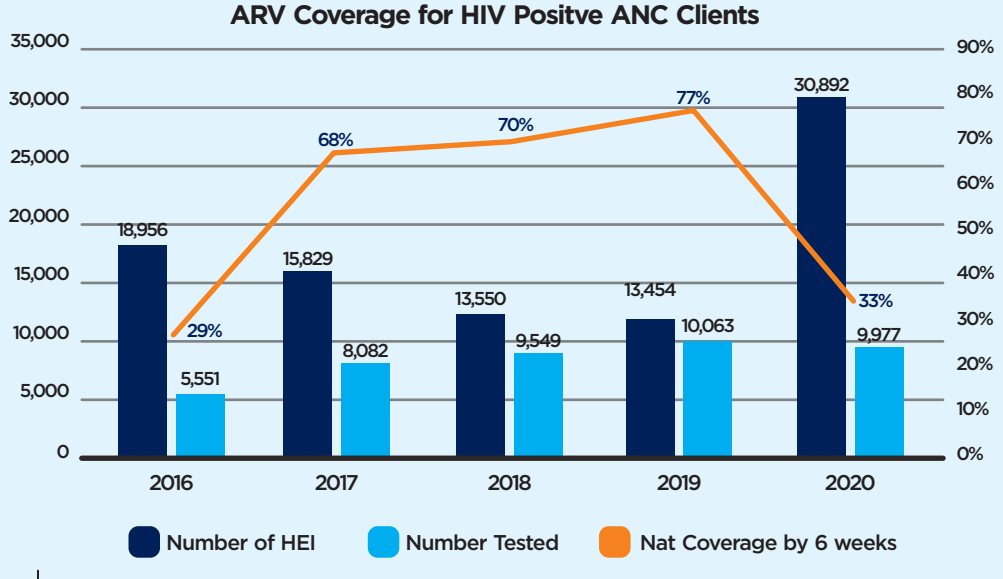


Figure 2-11 *Trend in NAT coverage at six weeks*

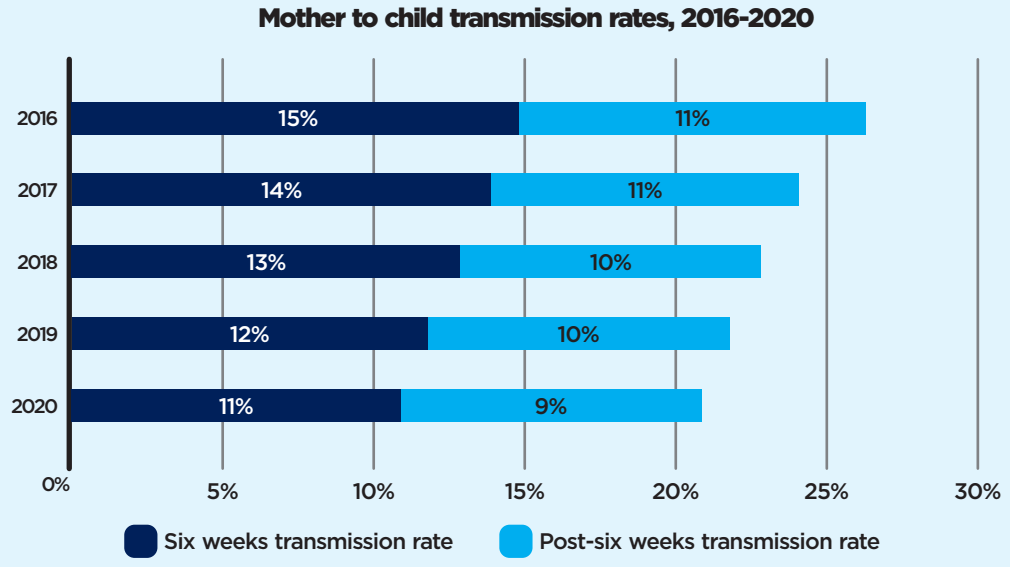


Figure 2-12 *Projected Trend in PMTCT rate-Spectrum Outputs, June 2021*

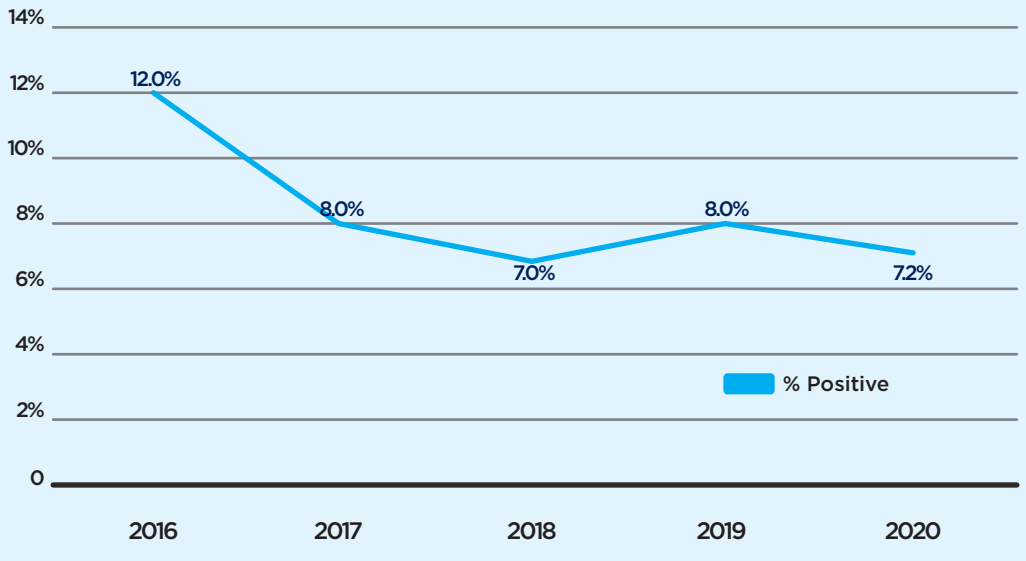


Figure 2-13 *Trend in EID positivity rate at six weeks(2016-2020)- Actual service DHIS2 data*

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 9 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(MM) 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 work voluntarily in collaboration 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. It is hoped that HIV positive pregnant and breastfeeding mothers will receive greater attention and therefore reduce the mother to child transmission rate in the country when this intervention is scaled up.

In 2020, a total of 4,243 HIV positive pregnant and breastfeeding mothers were uniquely enrolled and supported by the MM, and through their support, they got 1,265 initiated on ARVs. They tested 1,331 contacts of index clients and found 15% (201) positive. 234 Of their beneficiaries had recent viral loads as of December, and 160(68.4%) of them were virally suppressed. Of the 1,933 DBS samples whose results were received at implementing sites, 39 were positive, giving an MTCT rate of 2.02%, significantly lower than the national figure.

Syphilis testing at ANC

One of the strategies recommended by WHO 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 that of HIV significantly over the last five years (Figure 2-16). To bridge this gap, the Programme introduced the First response HIV/Syphilis duo kit to help test for both pathogens simultaneously. 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).

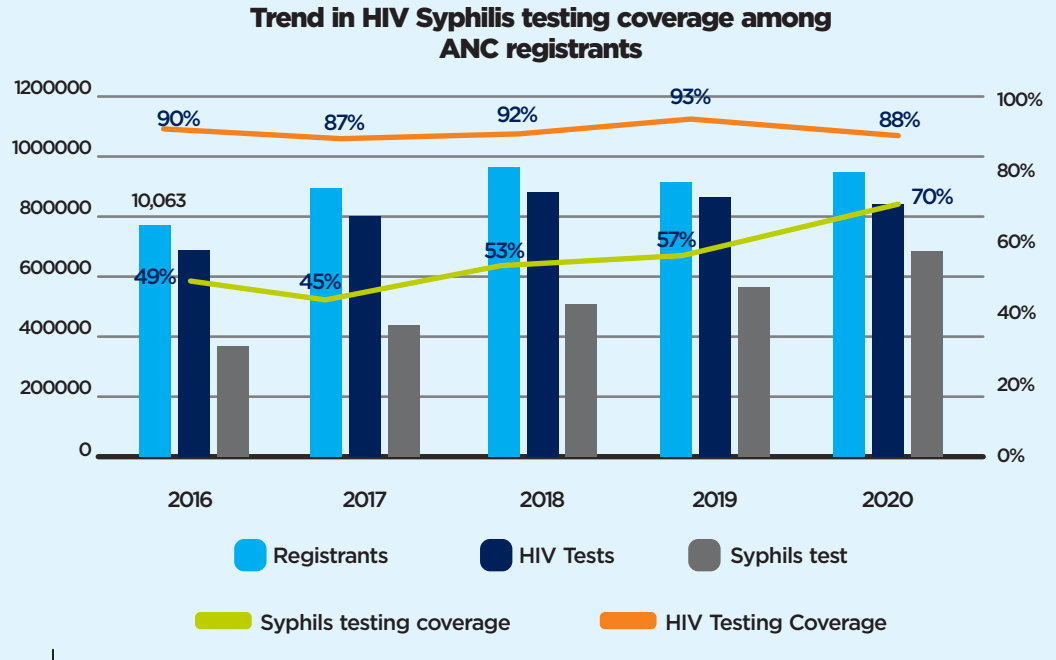


Figure 2-16 *HIV and Syphilis testing coverage among ANC registrants 2016-2020*

Out of the 686,176 pregnant women tested in 2020 for syphilis, 15,576 were found positive and, 17,518 pregnant women and their partners were put on treatment. Table 13-5 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.

2.6 Condom Distribution and Sexually Transmitted Infection Management

Sexually Transmitted Infections (STI) increase the risk of HIV transmission, and condoms significantly reduce transmission of these STIs, including HIV. With the support of the Ministry of Health, USAID and UNFPA, the Programme distributed a total of 8,374,330 condoms to the public through the Family Health Division of the Ghana Health Service in 2020. Although this was less than what was distributed in 2019 (excluding condoms distributed through private-sector channels such as Private Pharmacies and Chemical shops), there was for the first time in five years, a 12% decrease in the number of STI cases diagnosed and managed compared to the 2019 figures(figure 2-17). 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.

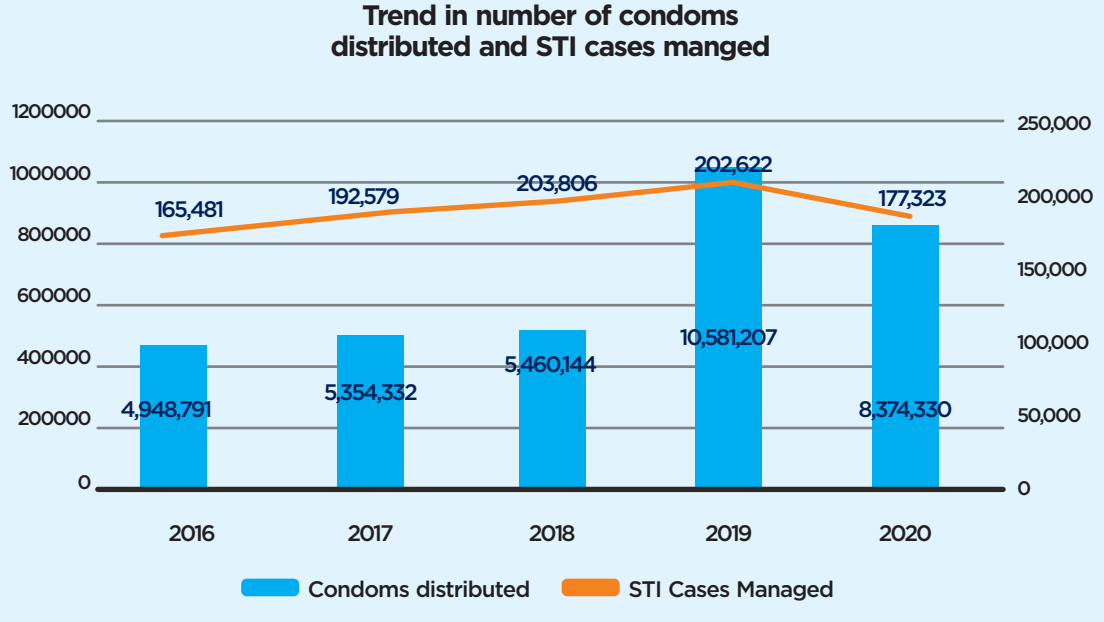


Figure 2-17 *Trend in condom distribution and number of STI cases diagnosed and treated 2016-2020*

2.7 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 119,801 units of blood screened, 2.0% (2,338) were reactive, a decrease from the 2.4% rate in 2019. Table 2-3 gives the regional distribution of the units tested 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 Sites providing Services across regions

Region	NUMBER OF BLOOD UNITS SCREENED	NUMBER REACTIVE	% REACTIVE
Ahafo	4,313	34	0.8%
Ashanti	7,984	460	5.8%
Bono	4,580	31	0.7%
Bono East	7,775	95	1.2%
Central	16,668	369	2.2%
Eastern	19,017	104	0.5%
Greater Accra	2,588	223	8.6%
North East	3,721	17	0.5%
Northern	3,456	29	0.8%
Oti	1,918	158	8.2%
Savannah	1,167	8	0.7%
Upper East	11,973	157	1.3%
Upper West	8,334	93	1.1%
Volta	11,436	163	1.4%
Western	10,634	351	3.3%
Western North	4,237	46	1.1%
National	**119,801**	**2,338**	**2.0%**

2.8 Pre-Exposure Prophylaxis(PrEP)

Several trials have demonstrated the effectiveness of using antiretroviral medication for 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 behavioural 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.

PEPFAR, through USAID, is funding the "Meeting Targets and Maintaining Epidemic Control (EpiC)" project, led by FHI 360 with funding from the Key Population Investment Fund (KPIF), to support a KP-led approach to accelerate progress toward the ambitious 95-95-95 goals in West Africa. The principles guiding the project include using a client-centred approach, data-driven responses, focusing on populations with the highest levels of HIV prevalence, and emphasising geographical areas (mainly urban) where the HIV epidemic is rooted. The project supported the development of the ***"ABC of Pre-Exposure Prophylaxis (PrEP) Ghana Implementation Guide"*** to provide the basis for planning, organizing, and implementing PrEP at all levels of service delivery in governmental, non-governmental, and private health institutions in Ghana.

With support from NACP and in partnership with the West AFRICAN AIDS Foundation(WAAF), EQUIP Ghana and the West African Programme to Combat AIDS and STIs(WAPCAS), individuals and selected facilities (Public and private) were trained and certified to offer PrEP services in the Greater Accra and Ashanti regions among key populations.

As of December 2020, there were 404 clients on PrEP at all the EPIC implementing sites (Figure 19). Of the 432 KPs screened, about 5% were not eligible due to being known HIV positive, testing positive during the screening or needing PEP instead of PrEP at the time of screening. About a fifth of those found eligible were not initiated on PrEP due to their unwillingness to commit to the daily dosing and their conviction that they are not at substantial risk of HIV, although found to be at high risk during screening.

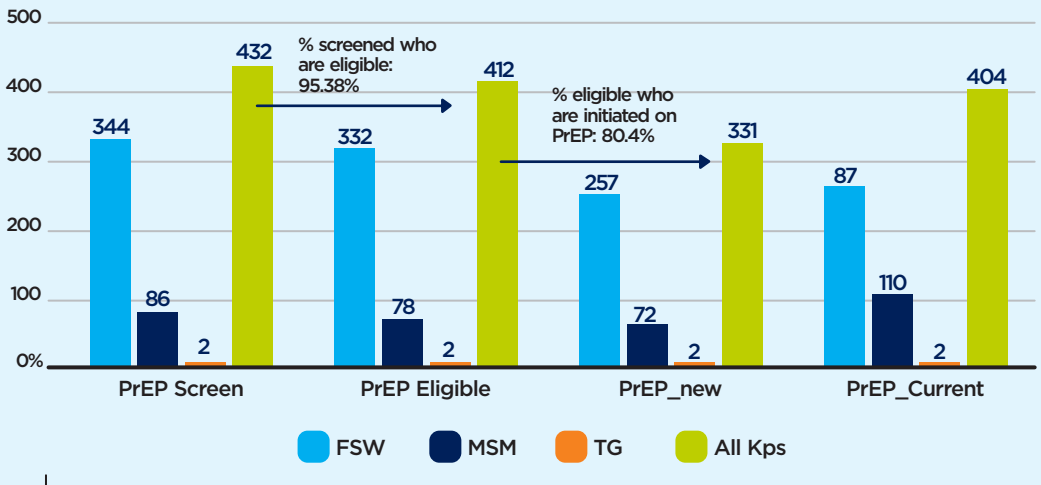


Figure 2-18 *PrEP results among all KPs at EPIC implementing sites(October-December 2020)*

CHAPTER 03

THE DELIVERY OF THE PACKAGE OF TREATMENT, CARE AND SUPPORT SERVICES FOR PLHIV

Provision of care and support to persons diagnosed with HIV is key 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 and
- 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 58,746 newly diagnosed persons in 2020, 31,035 clients were initiated on ARVs giving a linkage rate of 53%, which is the highest in the last five years (figure 3-1). Adults (15+ years) constituted 95% (29532) of those initiated and by gender, females formed the majority (71%). Only 53% of the 56,068 adults and 56% of the 2,678 children diagnosed were initiated on ARVs in 2020. This gap in ARV initiation is significant and needs to be addressed.

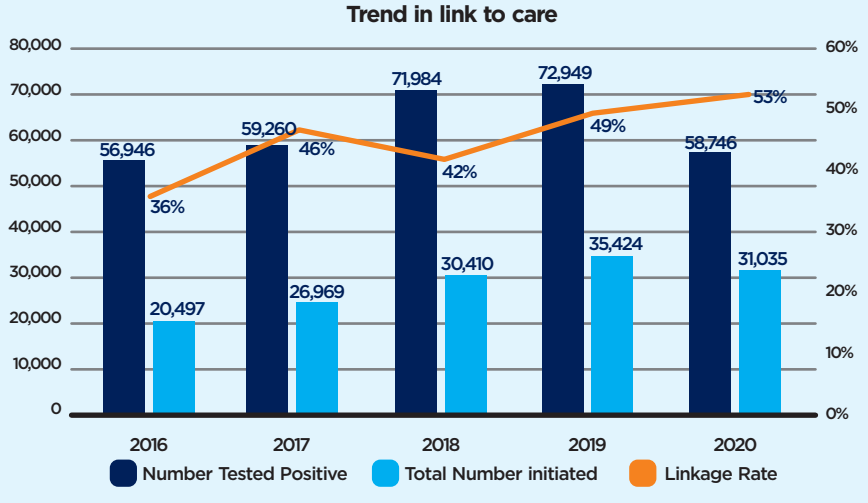


Figure 3-1 *Trend in linkage to care 2016-2020*

3.2 Total clients on treatment

As of December 2020, there were 208,811 clients on treatment, most of whom were in the Greater Accra and Ashanti (>40,000 each), Eastern (~30,000), Western, Bono, Volta, Central and Bono East regions (>10,00 to ~16,000) and less than 10,000 clients in the remaining regions respectively. The regional breakdown for the clients on treatment is as found in figure 3-2.

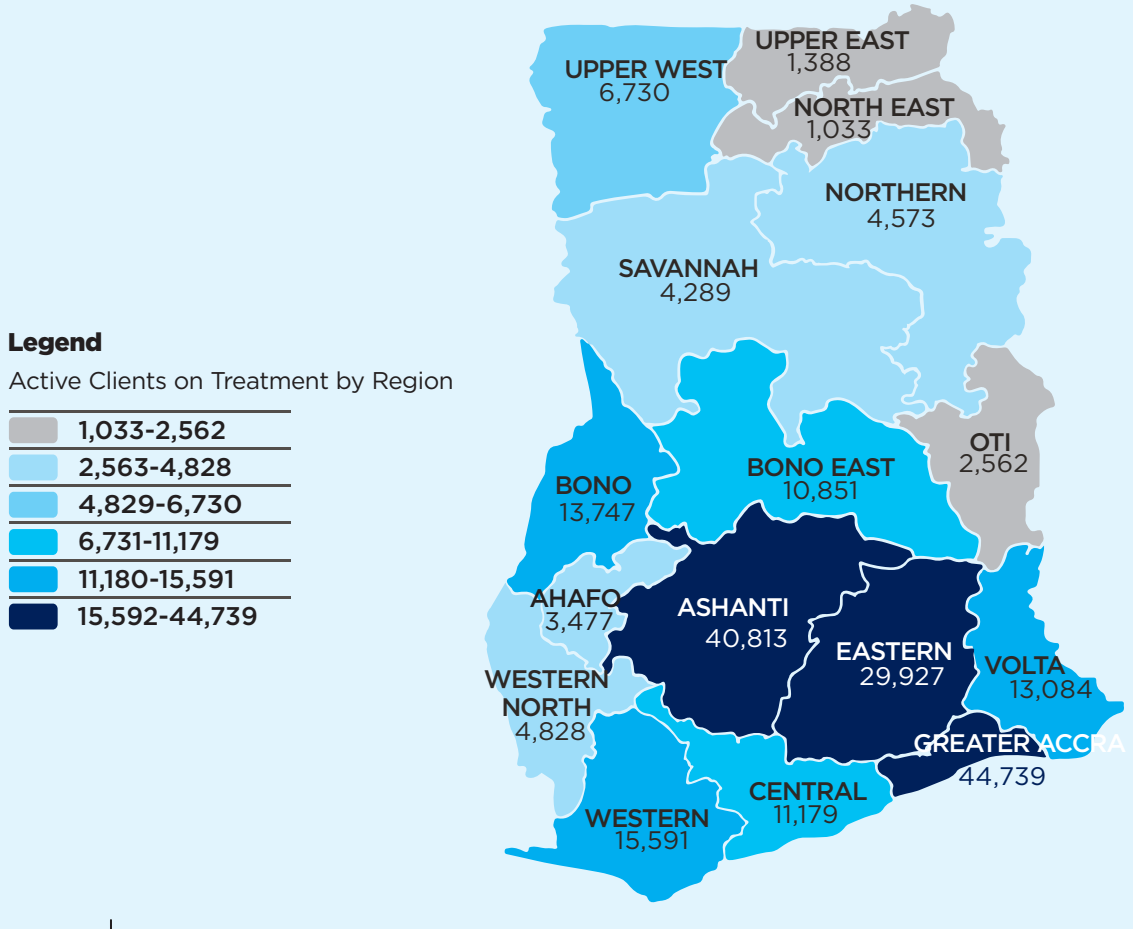


Figure 3-2 *Clients on treatment by Region as of December 2020*

3.3 Prevention and Management of Opportunistic infections

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. Because of their 50% chance of acquiring TB in their lifetime, it is recommended that HIV positive clients are screened for TB at every visit and put on treatment when found infected. In 2020, a total of 138,507 HIV positive clients were screened for TB, and all 936 co-infected individuals were put on treatment. Cotrimoxazole was also offered to 20,857 newly diagnosed and eligible clients to provide primary prophylaxis from toxoplasmosis and Pneumocystis jiroveci pneumonia. With the commencement of TB preventive therapy (see below) in some high burden facilities in 2020, it is hoped that TB incidence amongst PLHIV will significantly reduce in 2021 and subsequent years.

3.4 Provision of Continuous Supportive Counselling and Ensuring delivery of effective home-based Care.

To improve treatment adherence, reduce missed appointments and loss-to-follow up, and provide psychosocial support for children and young persons living with HIV, the Programme, through Inerela Ghana and Planned Parenthood Association of Ghana, engaged and trained Community Adolescent Treatment Supporters (CATS). CATS are young persons 18-22 years old who are HIV positive, virally suppressed and stable on treatment. The beneficiaries of the CATS are Children, adolescents, and young people living with HIV, aged 0-24, and their caregivers. The CATS support their beneficiaries to

- Know their HIV Status
- Understand and accept their HIV status
- Start ART treatment with understanding and confidence
- Take their medication
- Get the services they need
- Attend clinic review days and support group meetings
- Feel cared for, understood, valued, supported and have a purpose.
- Have skills to keep themselves well
- Be linked to HIV prevention services if found HIV negative

Their beneficiaries are supported during clinic visits, at home, during support group sessions and through MHealth (SMS, WhatsApp messaging and phone calls).

In December 2019, 16 CATS were trained with support from Africaid Zvandiri and deployed to five facilities in the Ashanti and Greater Accra regions.

The 16 CATS had a total of 667 recruited beneficiaries from all implementing sites. As of December 2020, there were 267 beneficiaries with recent viral load, of which 215(81%) were virally suppressed. In addition, the intervention helped improve the 6-month retention at the intervention sites from 84% at baseline to 96% as of December 2020. Annual mortality among the 0-24-year-old HIV clients also reduced from 24 before the intervention to 4 during the intervention period.

After six months of supporting beneficiaries, the CATS were offered a level-2 training by the Zvandiri Team. It covered HIV status disclosure, ART initiation for beneficiaries, mental health support for beneficiaries, sexual and reproductive health, social protection for peers, TB management, support for beneficiaries who are pregnant, breastfeeding or who have disabilities.

In addition to Models of Hope, who provide support for all clients living with HIV, Case Managers were also trained and deployed across the regions in the first quarter of 2020.

3.5 Continuous Quality Improvement in Differentiated Service Delivery for HIV Clients

Following the reprogramming of HIV funds in June 2019, EQUIP Ghana was engaged to provide enhanced site management services in high volume facilities that have been trained to offer differentiated HIV services in the Ashanti, Brong Ahafo, Eastern and Greater Accra Regions to help achieve the national 90-90-90 targets by December 2020. The goal was to strengthen facility staff knowledge, understanding and use of data for improved quality of care and decision making to ensure attainment of epidemic control through improved health outcomes of clients on treatment. This was done through biweekly monitoring of site performance against targets and prompt feedback on key indicators, biweekly leadership/partner meetings, regular communication with partners, staff and weekly conferencing to share programmatic progress and lessons learned. Clinical mentors also supported continuous quality improvement, including identifying the top challenges per site, developing an action plan to resolve challenges and in-depth analysis and reporting of site-level data.

The intervention was implemented in 38 facilities in the target regions. Apart from a reduction in the testing yield (which was still above the national average), aggregate data from the intervention sites showed a significant improvement in linkage and viral suppression rates from baseline to baseline December 2020. All the indicators were also significantly improved in the implementing facilities compared to their respective Regional averages for the same period. With plans to scale up this enhanced site management to more facilities in 2021, progress towards the new 95-95-95 targets is expected to be accelerated.

3.6. Guidelines for Latent Tuberculosis Infection Management in Ghana

Due to the immunosuppression induced by HIV infection, TB remains the major opportunistic cause of morbidity and mortality amongst persons living with HIV. TB preventive therapy (TPT) is administering one or more anti-tuberculous drugs to individuals with latent TB infection to prevent progression to active disease. To minimise the scourge of TB amongst PLHIV, the WHO recommended the use of isoniazid for six months in resource-limited settings for the prevention of TB in at-risk populations living in high TB incidence, prevalence and transmission settings. Others include three months of daily Rifampicin plus Isoniazid (3HR)(Preferably for children) and three months of weekly Rifapentine plus Isoniazid(3HP). To guide the implementation of this life-saving intervention in the country, the National TB Control Programme and the NACP, with support from the National TB/HIV task team, finalised the Guidelines for Latent TB infection Management in Ghana in 2020. With funding from the Aurum Institute, copies of the document have been printed to support capacity building and service delivery. Indicators for TB preventive therapy have also been developed and are being reported in DHIMS. In 2020, 42 additional facilities were trained on the use of Isoniazid for TB preventive therapy and selected facilities in the Ashanti, Eastern, Greater Accra and Western Regions trained on the use of both Isoniazid and 3HP for TPT. The use of 3HP will be commenced in the country by the second quarter of 2021.

3.7 Capacity building for service delivery

To ensure the delivery of quality services across all facilities, the Programme offers periodic updates to service providers. In 2020, these updates were on antiretroviral therapy, early infant diagnosis, the three-test algorithm and transition to dolutegravir-based regimen. Selected facilities were also trained on the delivery of differentiated HIV care. Facilities involved in early infant diagnosis were also oriented on the HIV positive baby's audit tool.

CHAPTER 04

PROCUREMENT AND SUPPLY MANAGEMENT OF HIV LOGISTICS

4.1 Introduction

At the end of December 2020, key adult antiretroviral medicines (ARVs) and related commodities required for HIV programme interventions were not adequately available, particularly at the regional and facility levels. This was due to delays in the procurement of GoG-financed commodities and clearance of Global Fund-financed commodities. These challenges were exacerbated by the unpredictable and very long process (often more than eight weeks) in the clearance of shipments consigned to the Ministry of Health (MoH). This remains one of the biggest risks to the HIV supply chain and commodity availability and calls for the need to obtain long term waivers, as was done previously. However, the timely delivery of some shipments (from the Global Fund) during the latter part of December 2020 and early January 2021 is expected to provide some reprieve. Some have been distributed, with others expected to be distributed as part of the integrated schedule delivery from 18-31 January 2021. For HIV test kits, there were sufficient stocks available, including the recently introduced HIV self-test kits. Regarding condoms, there are still challenges with the availability due to the delayed testing of condoms by the Food and Drugs Authority (FDA).

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	126,411	18,270	18,416	6.86	0.99	7.86	50,000	30-Jan-21	2.72
Doloutegravir Tablet 50mg	30	64,992	23,971	26,871	2.42	0.89	3.31			0.00
Efavirenz Capsule, 600mg	30	67	24,249	9,196	0.01	2.64	2.64			0.00
Emtracitabine+Tenofovir , 200mg+300mg	30	19,338	16,70	3,837	5.04	4.35	9.39			0.00
Lamivudine +Tenofovir, 300mg+ 300mg	30	94,333	97,378	17,459	5.40	0.42	5.83	75,830	30-Jan-21	4.34
Tenofovir +Lamivudine+ Doloutegravir, 300mg+300mg+50mg	30	310,000	47,996	90,125	3.44	0.53	3.97	107,000	30-Jan-21	1.19
Tenofovir +Lamivudine+ Efavirenz, 300mg+300mg+600mg	30	26,100	150,452	57,574	0.45	2.61	3.07			0.00
Zidovudine + Lamivudine Tablet 300mg+150mg	60	2,188	27,056	2,624	0.83	10.31	11.14	26,530	30-Jan-21	10.11

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	12,140	110,265	1,189	1.80	8.63	10.43	8,000	30-Jan-21	6.73
Lopinavir + Ritonavir Tablet, 200 mg +50 mg	120	4,090	11,940	2,418	1.69	4.94	6.63	11,391	30-Jan-21	4.71

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										
Efavirenz Capsule, 200 mg	90	1,730	11,867	4,776	0.36	2.48	2.85			0.00
Lopinavir + Ritonavir Tablet, 100 mg +25mg	60	4,180	3,616	1,083	3.86	3.34	7.20	800	30-Jan-21	0.74
Nevirapine 50mg dispersible tablet	30	-	2,500	541	-	4.62	4.62	40,000	30-Jan-21	73.94
Nevirapine Suspension, 10 mg/ml	bottle	-	114	948	-	0.12	0.12	13,000		0.00
Zidovudine + Lamivudine Tablet, 60 mg +30 mg Dispersible Tablet	60	-	6,307	5,240	-	1.20	1.20		30-Jan-21	2.48
Zidovudine Syrup, 10 mg/ml	bottle	2,430	6,380	1,232	1.97	5.18	7.15			0.00
Abacavir + Lamivudine, 120mg+60mg Dispersible Tablet	30	12,372	8,004	3,447	3.59	2.32	5.91	11,000	30-Jan-21	3.19
Lopinavir/ Ritonavir 40/10mg Oral sachet	120	810	3,162	736	1.10	4.30	5.40	1,474	30-Jan-21	2.00

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	151,536	109,462	286,845	5.88	1.38	7.26			0.00
HIV/Syphilis Combo (First Response)	Piece	384,756	181,130	-	7.19	2.12	9.31			0.00
Oraquick Test KitSD	Piece	23,288	14,202	14,202	8.79	1.64	10.43	19,500	30-Jan-21	1.37
Bioline HIV 1&2	Piece	19,053	14,202	-	15.89	1.34	17.24			0.00

Legend

> 12 Months	6 to 12 Months	< 6 Months	0 Stock

The shipments from the Global Fund will not be adequate in the absence of significant Months of stock expected from GoG. The availability of critical antiretroviral medicines at ART sites as at December 2020 is shown in figure 4-1.

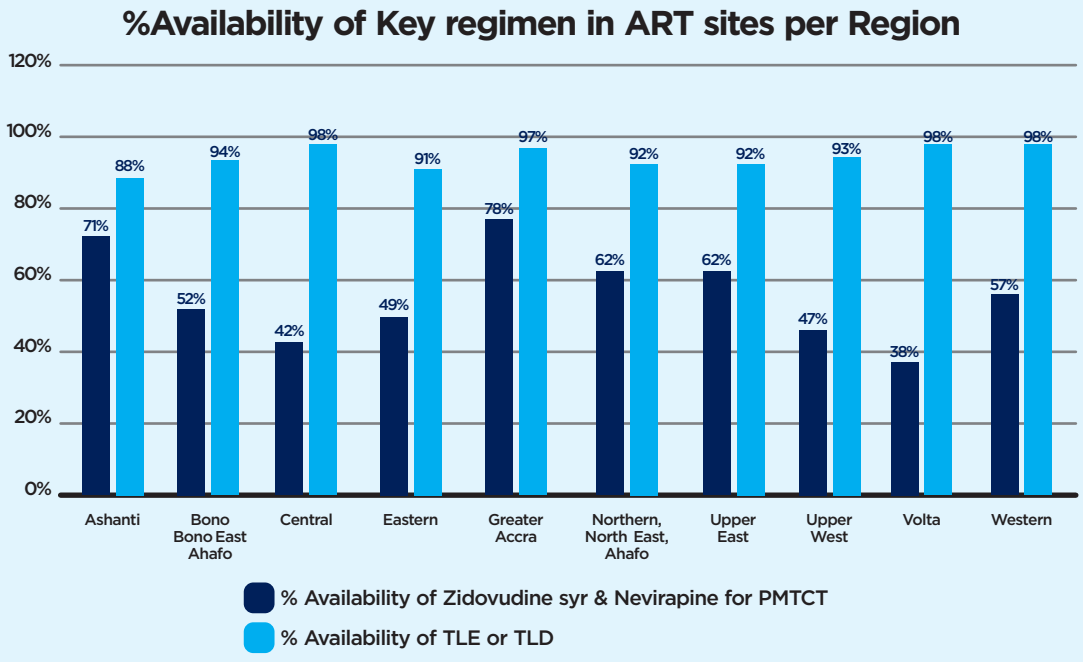


Figure 4-1 *Stock levels of antiretroviral medicines*

4.2 Stock Status Summary

- Very low stock levels of many tracer commodities, especially at the regional and facility levels.
- The distribution of recently received stocks in December 2020 is expected to improve the stock levels across the country in the short term.
- The shipments from the Global Fund, in the long term, will not be adequate in the absence of the additional shipments from GoG, which is estimated to cost $7,959,766.25.
- The delays in the clearance of Global Fund-financed ARVs should also be addressed to improve stock levels further.

4.3 HIV Self-Testing

The country has developed an implementation plan with support from WHO and oriented selected service providers in the Ashanti, Eastern and Greater Accra regions. Only the following HIVST kits have been approved by the Ghana Health Service and can be used in Ghana:

- Oraquick self-test kit
- First Response self-test kit
- Biosure self-test kit

Some of these test kits have been provided to support the rollout in 2021.

4.4 Procurement and Supply Chain management interventions

Some interventions that the PSM team was engaged in during the year under review included

- Capacity Development
- Quantification of HIV commodities
- Procurement
- Warehousing and Inventory Management
- Governance
- Logistics Management Information Systems (LMIS)
- Distribution
- Data Quality Assurance
- Collaboration with Private Sector
- Dolutegravir study
- COVID management
- Quality monitoring of HIV commodities
- Collaboration with the Food and Drugs Authority (FDA) to assess storage and distribution practices across the country as well as laboratory analysis of HIV commodities
- Additional commodities such as HIV self-testing kits were introduced to support new strategies & interventions.

4.5 Other Highlights

Commodities were also procured to support new interventions such as the 3-test algorithm, HIV self-testing (HIVST) and HIV Pre Exposure (PrEP). Also, the transition to the dolutegravir-containing regimen has been slower in recent months due to stock tensions with the commodity in the last quarter of 2020.

The COVID-19 pandemic has also adversely affected HIV care in the country. The Ghana Health Service, with the support of the Global Fund, therefore distributed some commodities to enhance infection prevention and control at HIV management sites across the country. This is expected to assure staff and clients of their safety resulting in uninterrupted HIV services across the cascade.

4.6 Achievements

- Quantification and quarterly supply plan updates conducted in accordance with established timelines.
- HIV supportive supervision targeted at high heavy caseload facilities and those experiencing challenges with inventory management. This was expected to increase access to HIV commodities at the last mile.
- Feedback from field visits and spot checks used to stabilize stock levels at service delivery points (SDPs).
- Expansion in HIV testing services and commodity uptake through collaboration with Civil Society Organizations.
- Improvement in the implementation of multi-month dispensing due to increased sensitization of ART sites.
- Supply Chain Coordination meetings at the regional level being used to enhance the integration of HIV commodities into last-mile distribution.
- Procured about $18 million worth of HIV commodities during the period under review.

CHAPTER 05

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. The testing sites namely, Volta regional hospital laboratory, Ho, Upper East regional hospital laboratory, Bolgatanga, Bono regional hospital laboratory, Sunyani, Public Health laboratory Sekondi, Serology Laboratory, Komfo Anokye teaching hospital, Public Health Laboratory, Tamale and Immunology Laboratory, Korle Bu Teaching hospital 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 was scaled up to serve 488 ART sites in 2020. Some key challenges identified in the operationalization of the sample transport system were; delayed and/or non-response of riders to service call, long turnaround times for viral load and EID, and new sites not included in the scheduled pick-ups. In spite of these challenges, it remains one of the major interventions towards the attainment of the 3rd 95 goals. Consequently all efforts are being taken to improve upon it.

5.3 Laboratory Quality Management System (LQMS)

HIV Viral Load testing services are currently available at nine Viral Load Testing Centres in the country and over 94,000 tests were conducted in 2020. In order to assure the quality of test results produced by these viral load testing laboratories, GHS through NACP implemented Laboratory Quality Management System (LQMS) in these facilities. This was done through onsite mentorship and training of the laboratory staff at the viral load testing centres.

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

The viral load and EID testing laboratories generate a lot of data/information that are increasingly becoming 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 will be scaled up to cover all the viral load testing laboratories.

5.5 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.

5.6 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 largely.

5.7 Progress towards epidemic control

As of June 2020, the 176,296 clients on treatment were eligible for viral load testing by December 2020. From these, 94,688 viral load tests had been done as of 31st December 2020 (figure 5-1), out of which 69,090 were virally suppressed, giving a crude suppression rate of 73%. Figures 5-2 and 5-3 provide the full 90-90-90 cascade and the testing and treatment cascade, respectively for the country as of December 2020.

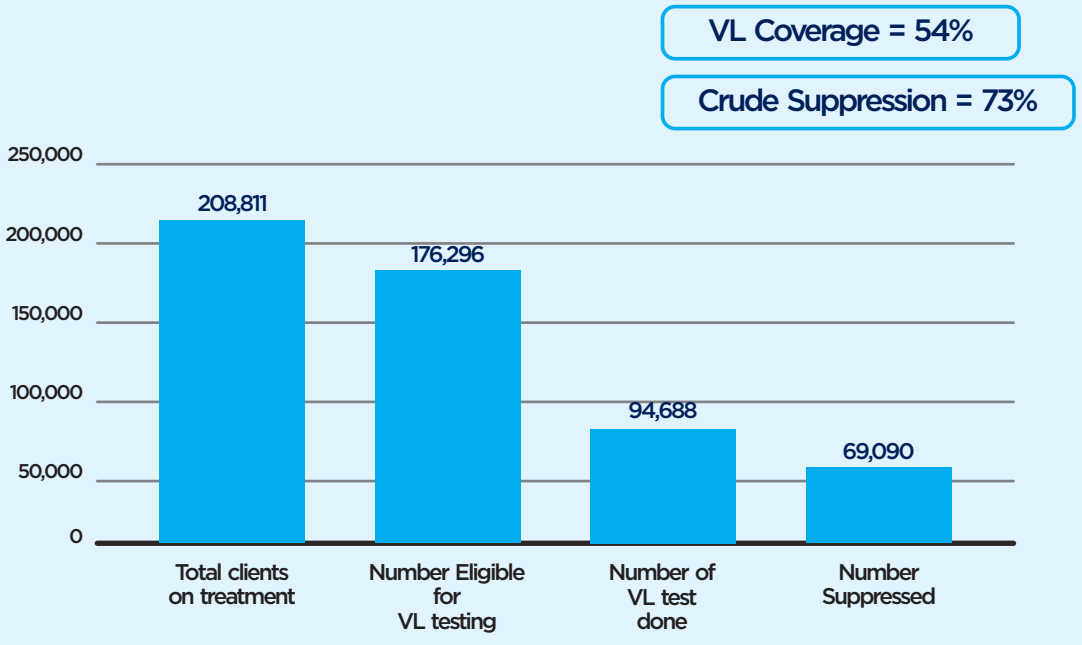


Figure 5-1 *Viral Load Testing cascade, 2020*

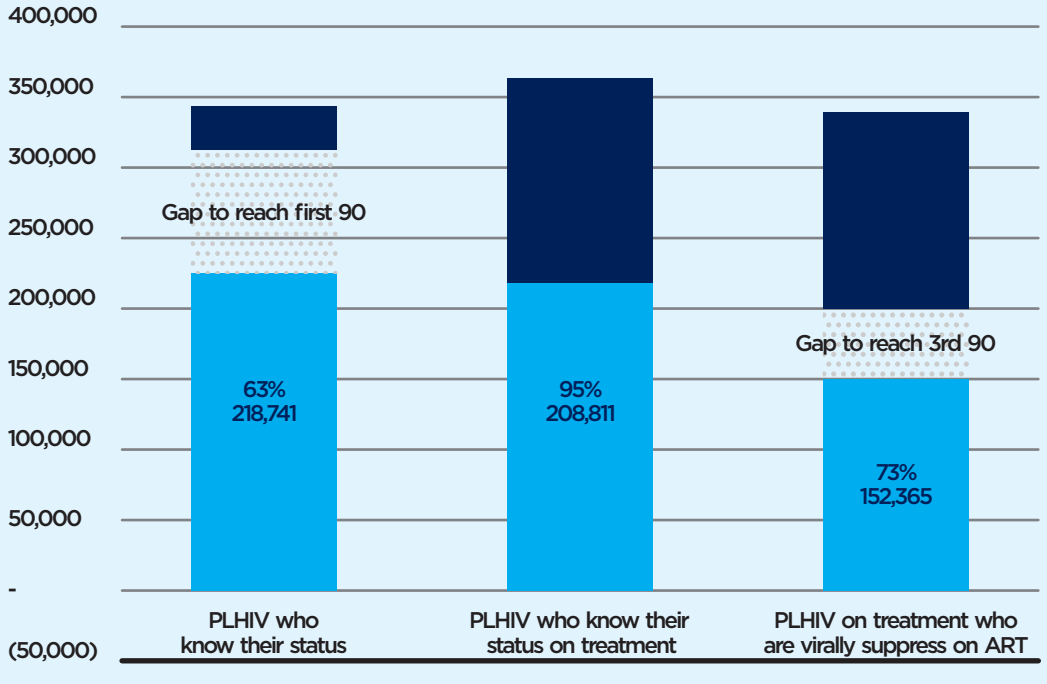


Figure 5-2 *90-90-90 Cascade-2020*

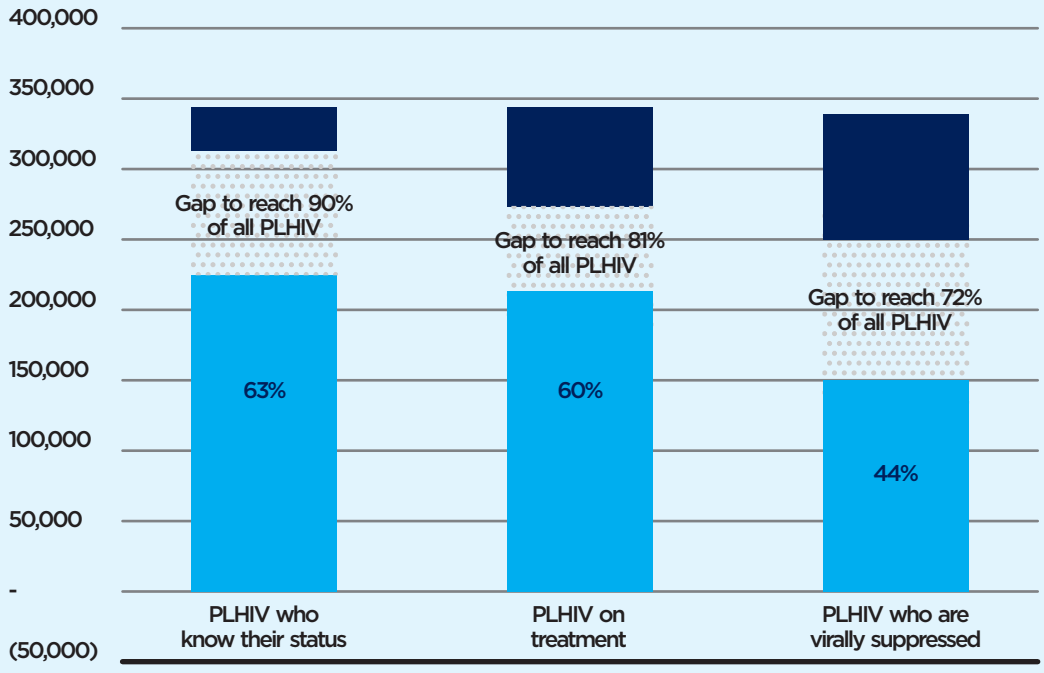


Figure 5-3 *Testing and Treatment cascade-2020*

CHAPTER 06

THE DELIVERY OF STRATEGIC INFORMATION ON HIV AND AIDS

6.1 HIV Sentinel Survey

As part of its mandate to provide strategic information to guide the control of the HIV epidemic in Ghana, the NACP conducts HIV sentinel surveys (HSS) annually. The objectives of the HSS are

- To determine the HIV and syphilis prevalence among ANC and STI clients
- To monitor the trends in HIV and syphilis prevalence among ANC and STI clients at sentinel sites
- To provide data for the estimation and projection of HIV prevalence in the general population of Ghana
- To provide data to inform intervention programs and policy decisions.

It is based on an annual HIV seroprevalence survey conducted using unlinked anonymous samples from pregnant women accessing antenatal services for the first time and clients seeking treatment for STI during the survey period at 93 antenatal clinics from 54 sentinel sites. The Survey results are the primary data for the estimation and projection of HIV infection in the general population which provides a firm basis for planning and forecasting for prevention, treatment, management, and care-related programs.

In 2020, samples were collected from 54 out of the 55 sentinel sites. The site prevalence ranged from 0% in Adibo a rural site to 5.7% in Nkoranza an urban site. This was followed by Kumasi 5.2%, Techiman 4.8% and Adabraka 4.6%, all urban sites. The overall national median prevalence was 2.0%. Figure 6-1 shows the Regional distribution of ANC prevalence from the 2020 HSS. The Bono Region maintained the lead but increased in prevalence from 3.4% in 2019 to 4.2% in 2020.

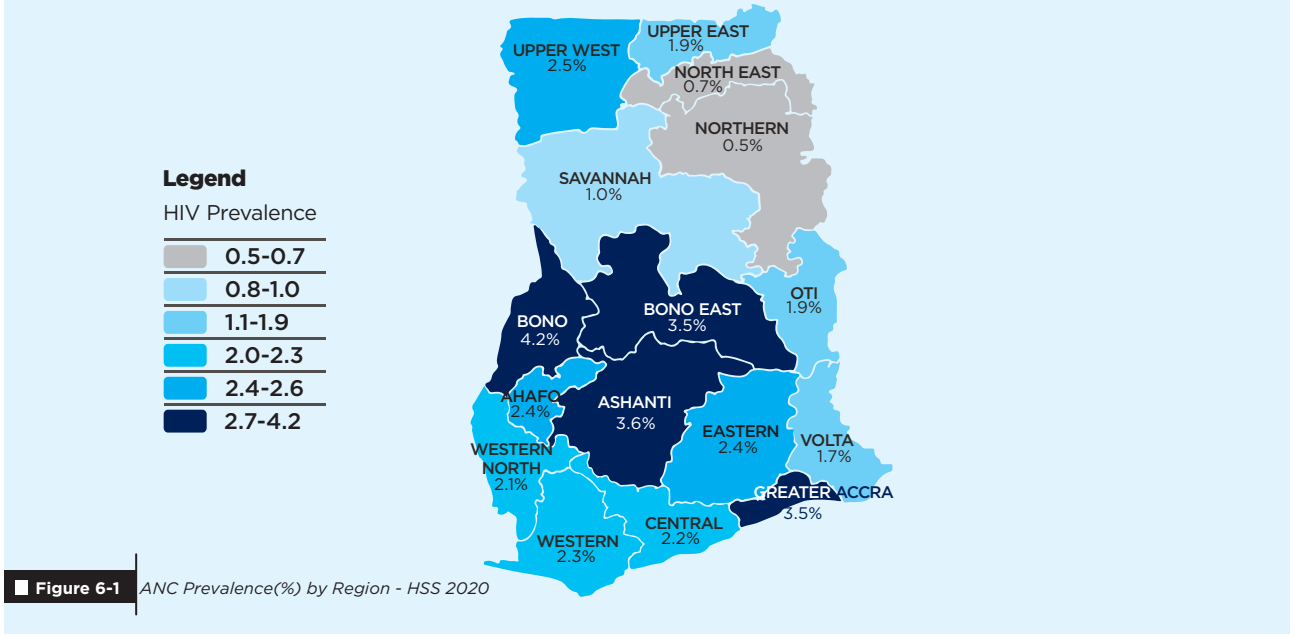


Figure 6-1 *ANC Prevalence(%) by Region - HSS 2020*

6.2 Dolutegravir study

Dolutegravir(DTG), an integrase strand transfer inhibitor, has been recommended by WHO for use as a first-line ART treatment option for low- and middle-income countries and as part of antiretroviral modifications in patients who have failed first-line treatment. This is due to the numerous advantages observed from its use in several observational studies. Ghana is one of the countries that has adopted this recommendation and is using the regimen widely as part of the antiretroviral regimen.

Despite its reported optimum efficacy and safety, adverse effects have observed with DTG use among PLHIV. Therefore, it is crucial to document treatment outcomes in a natural setting when rolling out this new regimen. In this regard, the NACP, with funding from the Global Fund, is collaborating with the University of Ghana Medical School and School of Public Health to undertake a prospective cohort study. The overall aim is to assess the Treatment Outcomes and Adverse Effects in Patients initiating and maintaining a Dolutegravir-based treatment regimen. Clients have so far been recruited and are being followed up for two years.

CHAPTER 07

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.

7.1 Academic Institutions

Students from the Ghana College of Physicians and Surgeons, University of Ghana School of Medicine and Dentistry, School of Nursing and School of Public Health 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.

7.2 Reducing COVID-related Human Rights abuses

Aside from its negative impact on health service delivery, the fear of death from COVID- 19 and the increased periods of "confinement" due to movement restrictions led to increased COVID-related human rights abuses and gender-based violence. The Ghana Health Service, represented by the Health Promotion Division, Malaria, HIV and TB Control Programmes, and other stakeholders, provided WAPCAS with the needed support to reduce COVID-related human rights abuses and support victims.

7.3 Resource Mobilisation for Disease Control Efforts in Ghana

To sustain the achievements in Malaria, TB and HIV Control in Ghana, the Programme supported proposals to request funds and other resources from the Global Fund. The Programme focused mainly on HIV resource mobilisation but made significant inputs into the proposals developed by the National TB Control Programme, WAPCAS and the Christian Health Association of Ghana, who are managing the Community-level HIV interventions. The application was successful and secured $88,833,024 for HIV-related interventions and $18,197,239 in support of TB care in the country. Again, the Programme supported the country's resource mobilisation efforts towards mitigating the adverse effects of COVID-19 and building a more resilient health system for future hazards.

7.4 Support for Community-level intervention delivery

The Programme supported Inerela Ghana, Planned Parenthood Association of Ghana, Rural Watch and Christian Association of Ghana in implementing the CATS and Mentor Mothers interventions. The support involved data review meetings, supportive supervision to implementing facilities and meetings with community cadre and their beneficiaries to assess intervention fidelity.

CHAPTER 08 CAPACITY BUILDING AND MONITORING

8.1 Capacity building for Programme Management

To provide Programme staff with new knowledge in HIV care and improve their skills in intervention delivery, the Programme participated in a number of conferences in 2020. The programme made both oral and poster presentations at the following virtual meetings:

- International Conference on HIV Treatment, Pathogenesis, and Prevention Research in Resource-Limited Settings
- International AIDS Conference-UNICEF Adolescent HIV session
- UNICEF Family HIV testing learning sessions.

The Programme also applied and got admitted into the Coverage, Quality and Impact Network (CQUIN) in the year under review. The HIV CQUIN is a multi-country learning network dedicated to expanding and improving differentiated service delivery (DSD) for people living with HIV. The network convenes health system leaders from countries in sub-Saharan Africa to participate in joint learning and information exchange, to foster the scale-up and spread of high-quality, high-impact HIV services. It supports experience-sharing, peer-to-peer learning, and collaborative problem solving, and enables member countries to request technical assistance from ICAP at Columbia University.

The Programme, members of the DSD task team, and selected stakeholders took part in several learning sessions organised by the network, including their first virtual annual conference where Programme staff moderated, gave oral presentations, and participated in panel discussions. It is hoped that membership in the network will help accelerate progress towards attaining the 95-95-95 targets.

8.2 Supportive supervisory visits to service delivery sites

To address service delivery challenges, update service providers on new guidelines and policies, ensure quality in service provision, and support facility management for HIV services, the programme undertakes quarterly monitoring activities to purposively selected facilities in all regions. Unlike previous years, each region was visited once due to the COVID-induced movement restrictions in the first and second quarters of the year. The Volta and Western Regions received additional focused supportive visits to address specific issues.

CHAPTER 09 PROGRAMME PERFORMANCE REVIEW

9.1 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 developed. Two of these were, however, held virtually.

9.2 Technical Working Group (TWG) Meetings:

The HIV Technical Working group also had virtual 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 met in October to review the National Acceleration Plan for Paediatric HIV Services(2016-2020) and plan to develop a new guidance document for paediatric and adolescent HIV services from 2021-2025.

9.3 Joint TB/HIV Review Meeting

The annual joint TB/HIV Review meeting was held in Koforidua to review the performance of the Regions and Teaching Hospitals for the year 2019.

CHAPTER 10

FINANCIAL INFORMATION

From January to December 2020, the Programme had a budget of $ 32,498,222 under the Global Fund grant and spent 24,580,846.91, representing 75.6% Burn Rate for both programme activities and Pooled Procurement Mechanism(PPM). Expenditure from other donors (CDC, WHO and the UNICEF) amounted to $ 437,318.28, representing 114.6% of total receipts of $ 381,508.78 due to unutilized funds in 2019.

These Funds supported the GHS/MOH in the implementation of its strategic activities such as 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 $25,018,165. A summary of the breakdown showing the budget, disbursement and expenditures as at the end of 2020 is as shown in table 10-1.

Table 10 -1 Financial Summaries for 2020

Source of Funding	Total Grant	Budget	Total Disbursement		Total Expenditure	
		US$	US$	US$	US$	US$
		2020	2019	2020	2019	2020
NFM 2 Grant (1 Jan 2018 to 31 Dec 2020)		32,498,222.17	17,268,646.51	26,506,959.01	117,750,475.93	24,580,846.91
Others			1,126,310.17	381,508.78	1,283,600.75	437,318.28
Total			**18,394,956.68**	**26,888,467.79**	**19,034,076.68**	**25,018,165.19**

10.1 Total Expenditure within 2020

Expenditure under the NFM 2 amounted to $ 24,580,846.91 whiles expenditure under others amounted to $ 437,318.28.

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 service**s - 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 2020 as defined according to Cost Groupings and Modules respectively are shown in tables 10-2 and 10-3 as well as their respective figures.

Table 10 -2 Total Expenditure by cost grouping

Cost Groupings	NFM Grant	Others	Total Expenditure
	US$	US$	US$
1.0 Human Resources (HR)	741,046.57	115,479.04	856,525.61
2.0 Travel related costs (TRC)	1,542,623.07	165,864.95	1,708,488.02
3.0 External Professional services (EPS)	594,411.49		594,411.49
4.0 Health Products - Pharmaceutical Products (HPPP)	12,581,429.53		12,581,429.53
5.0 Health Products - Non-Pharmaceuticals(HPNP)	3,709,307.46		3,709,307.46
6.0 Health Products - Equipment (HPE)	868,216.62		868,216.62
7.0 Procurement and Supply-Chain Management costs (PSM)	3,874,586.97		3,874,586.97
9.0 Non-health equipment (NHP)	10,592.01		10,592.01
10.0 Communication Material and Publications (CMP)	609,138.14		609,138.14
11.0 Programme Administration costs (PA)	49,495.05	155,974.29	205,469.34
TOTAL	**24,580,846.91**	**437,318.28**	**25,018,165.19**

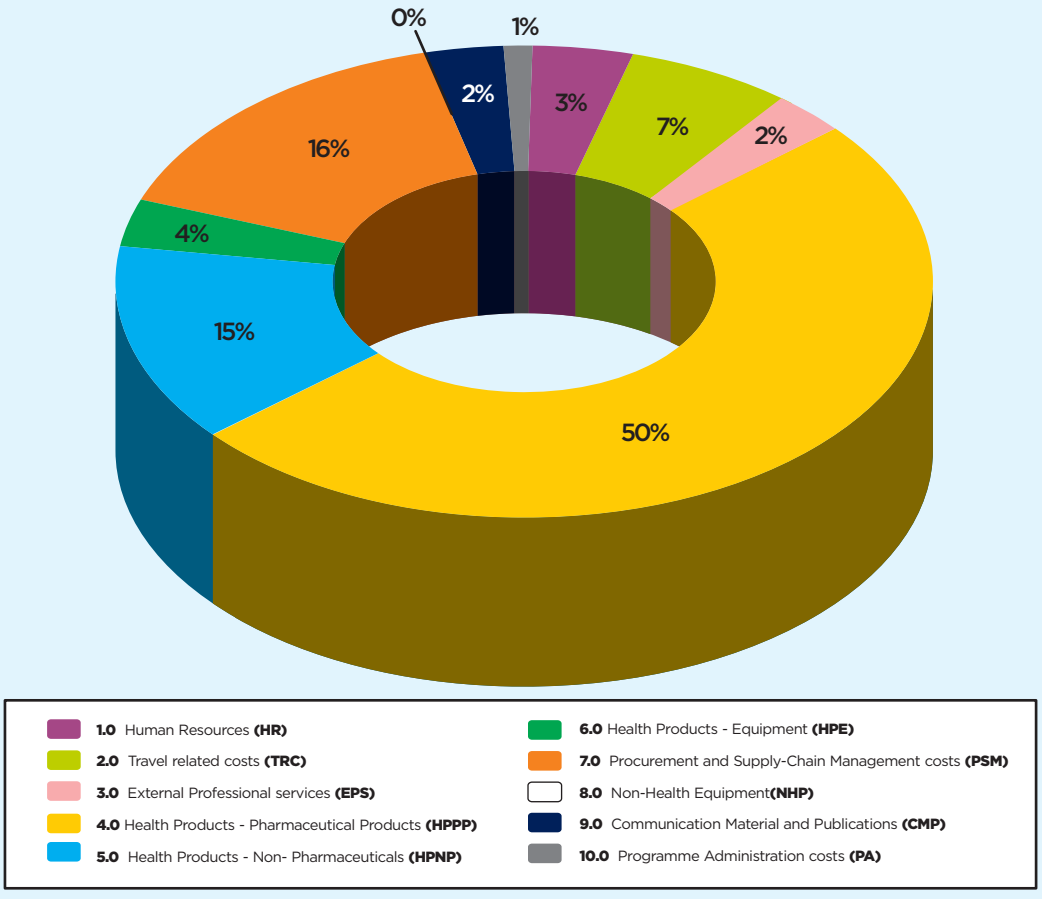


Figure 10-1 *Total expenditure by Cost Groupings(%) in 2020*

Table 10 -3 Total Expenditure by Modules

By Modules	NFM Grant	Others	Total Expenditure
	US$	US$	US$
Comprehensive prevention programs for MSM	1,668.35		1,668.35
Comprehensive prevention programs for sex workers and their clients	4,082.59		4,082.59
Comprehensive programs for people in prisons and other closed settings	3,224.78		3,224.78
COVID-19	1,325,036.13		1,325,036.13
HIV Testing Services	1,040,307.90		1,040,307.90
PMTCT	1,942,719.32		1,942,719.32
Prevention programs for general population	93,263.24		93,263.24
Prevention programs for other vulnerable populations	18,192.36		18,192.36
Program management	689,031.91	437,318.28	1,126,350.19
RSSH: Health management information systems and M&E	284,652.24		284,652.24
RSSH: Procurement and supply chain management systems	46,142.00		46,142.00
TB care and prevention	5,215.05		5,215.05
Treatment, care and support	19,127,311.04		19,127,311.04
TOTAL	**24,580,846.91**	**437,318.28**	**25,018,165.19**

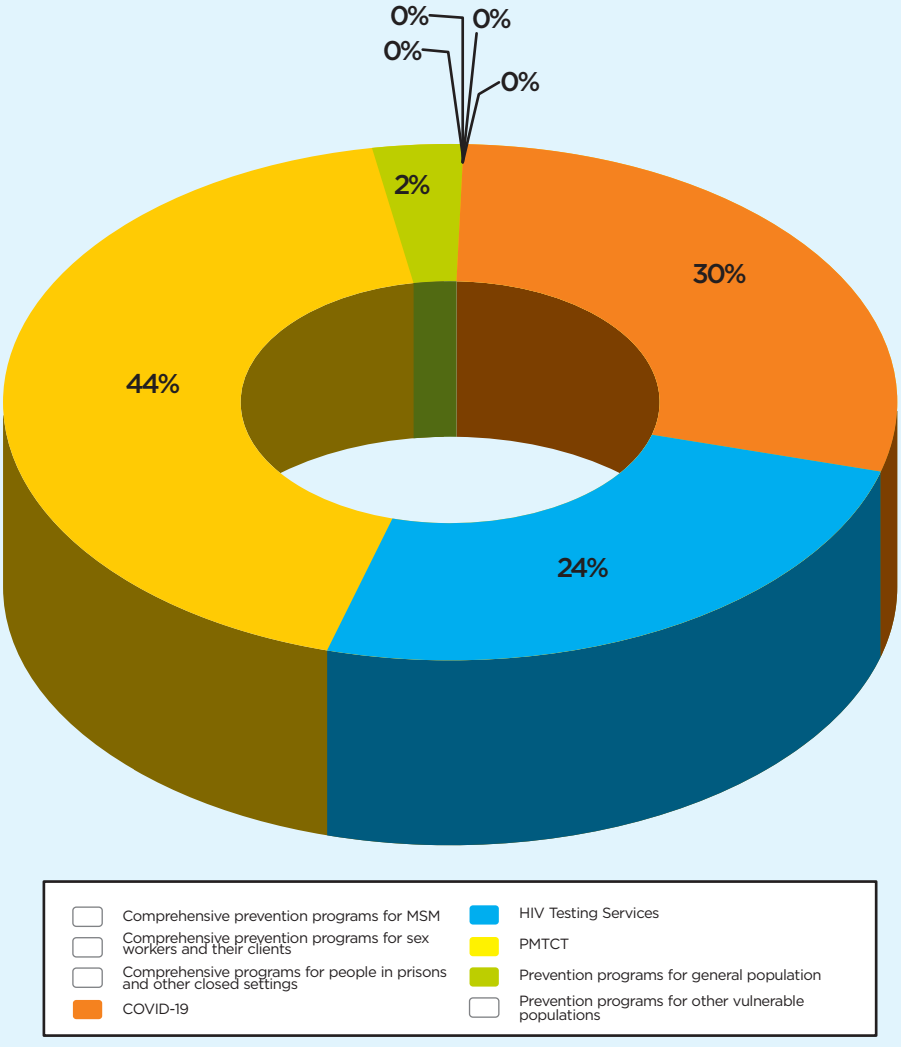


Figure 10-2 *Total expenditure by Modules in 2020*

10.2 Financial Support to Regions and Implementing Partners

The Programme disbursed a total amount of $ 1,518,424.321 to all the ten regions and Implementing Partners Including EQUIP Ghana, Christian Health Association of Ghana (CHAG) and West African AID Foundation (WAAF). Table 10-4 and figure 10-3 show the actual amounts allocated to each Region and the implementing partners.

Figure 10-2 Total expenditure by Modules in 2020

Table 10 -4 Total Expenditure by Modules

Regions and Implementing Partners	Regions and Implementing Partners Amount
	US$
AHAFO REGION	7,847.05
ASHANTI REGION	114,356.95
BONO REGION	123,464.15
BONO EAST REGION	6,471.56
CENTRAL REGION	60,878.75
EASTERN REGION	88,983.20
GREATER ACCRA REGION	116,335.25
NORTH EAST REGION	2,459.55
NORTHERN REGION	91,010.13
OTI REGION	1,677.12
SAVANNAH REGION	874.65
UPPER EAST REGION	51,787.43
UPPER WEST REGION	46,066.51
VOLTA REGION	71,213.88
WESTERN REGION	70,625.63
WESTERN NORTH REGION	1,926.25
CHAG	127,665.08
EQUIP	516,588.8
WAAF	218,192.36
TOTAL	1,518,424.32

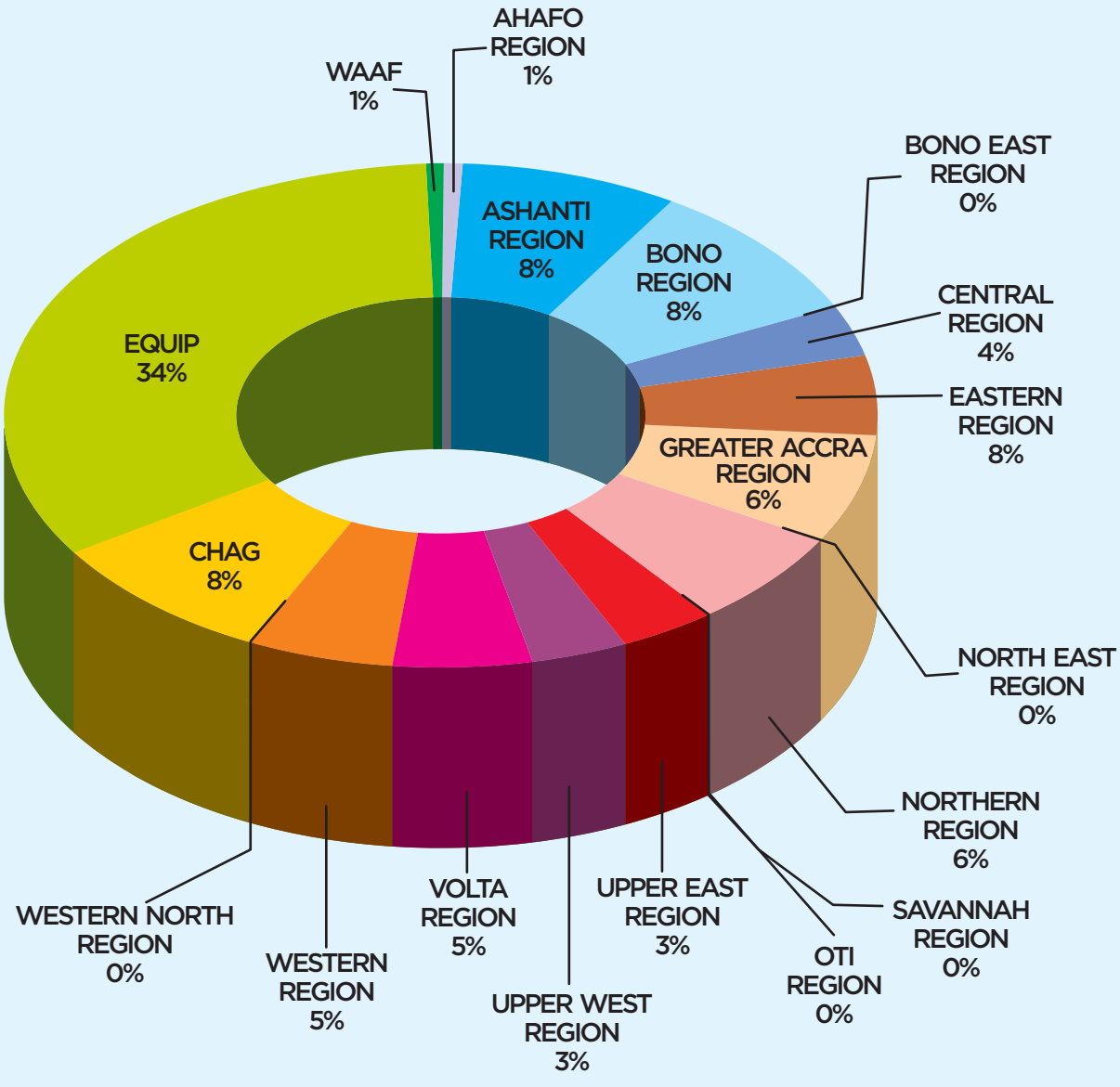


Figure 10-3 *Total Support to Regions and Implementing partners in 2020*

CHAPTER 11 IMPLEMENTATION CHALLENGES

The following were challenges that hampered the attainment of set goals in 2020:

11.1 Procurement

- Supply chain bottlenecks from procurement to last-mile distribution.
- Shortage and expiration of commodities and untimely disposal.
- Limited visibility of stock at the IHS warehouse and all RMSs posed a risk for expiry.
- Unpredictable commodity delivery timelines from both local and international sources worsened by COVID-induced delays, other global level challenges that affect the availability of some ARVs in-country and delays in securing waivers and clearing of HIV commodities from the port.
- 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.
- Funding gap for the procurement of HIV commodities.
- Some ART sites not fully utilizing the GhiLMIS platform to carry out receipt and consumption transactions coupled with poor HIV commodity management.
- Limited adherence to DTG transition guidelines resulting in increased consumption/ risk of expiry e.g. TDF (overused), ABC (underused)
- Significantly smaller rise in the consumption of VL & EID commodities.
- Inadequate monitoring of facility-level requisitions by Regional Medical Stores resulting In stock imbalances at some ART sites.
- Delays in the scheduled delivery of commodities to regions and Teaching Hospitals and last mile distribution to service delivery points.

11.2 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.
- Delayed disbursement of funds from Global Fund and bottlenecks in getting approvals from the ministry

11.3 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.

11.4 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.
- Funding gap for implementation of Differentiated Service Delivery.

11.5 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 12

CONCLUSION AND WAY FORWARD

Much more progress was witnessed in 2020 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.

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.
- Engage Regional Health Directorates and facility heads to improve ownership and oversight for HIV interventions at the sub-national level.
- Strengthen the VL and EID sample referral system nationwide and continue implementation of a revised viral load Scale-up plan.
- Revise the of the Paediatric Acceleration Plan (2016-2020).
- 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.
- Improve commodity availability at service delivery sites through high level engagement and implementation of recent PSM initiatives to scale.

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 Honourable Minister for Health, Director-General and all our Development Partners and HIV TB stakeholders for the leadership and guidance that has brought us this far.

CHAPTER 13

APPENDIX

Table 13-1 Regional distribution of HIV tests done by age and gender-2020

Region	Male Tested	Female Tested	Adult Tested	Child Tested	Total Tested
Ahafo	12,716	36,064	45,244	3,536	48,780
Ashanti	37,083	190,812	218,672	9,223	227,895
Bono	15,996	64,159	74,321	5,834	80,155
Bono East	31,838	94,424	107,962	18,300	126,262
Central	29,605	123,099	138,951	13,753	152,704
Eastern	29,134	130,736	151,226	8,644	159,870
Greater Accra	42,780	211,429	245,872	8,337	254,209
North East	2,734	25,084	26,558	1,260	27,818
Northern	15,074	104,674	110,265	9,483	119,748
Oti	23,260	64,394	69,881	17,773	87,654
Savannah	4,701	27,734	29,775	2,660	32,435
Upper East	17,055	70,400	76,872	10,583	87,455
Upper West	14,080	50,101	54,533	9,648	64,181
Volta	42,765	120,259	140,652	22,372	163,024
Western	34,726	121,135	146,982	8,879	155,861
Western North	9,034	40,064	45,101	3,997	49,098
National	**362,581**	**1,474,568**	**1,682,867**	**154,282**	**1,837,149**

Table 13-2 Regional Distribution of persons testing HIV positive by age and gender-2020

Region	Male Tested Positive	FemaleTested Positive	Adult Tested Positive	Child Tested Positive	Total Tested Positive
Ahafo	386	1,242	1,566	62	1,628
Ashanti	2,782	8,708	11,019	471	11,490
Bono	894	2,758	3,488	164	3,652
Bono East	824	2,462	3,142	144	3,286
Central	1,109	4,196	5,034	271	5,305
Eastern	1,909	5,697	7,253	353	7,606
Greater Accra	3,339	8,188	11,105	422	11,527
North East	43	291	322	12	334
Northern	192	650	798	44	842
Oti	288	764	1,004	48	1,052
Savannah	108	444	488	64	552
Upper East	295	773	992	76	1,068
Upper West	195	675	826	44	870
Volta	884	2,602	3,272	214	3,486
Western	1,080	3,352	4,222	210	4,432
Western North	356	1,260	1,537	79	1,616
National	**14,684**	**44,062**	**56,068**	**2,678**	**58,746**

Table 13-3 Regional Distribution of persons testing HIV positive by age and gender-2020

Region	EID Tests done	Number Positive	% Positive
BAR	1,925	119	6.2%
CCTH	0	0	-
ER	0	0	-
KATH	1,542	84	5.4%
KBTH	4049	351	8.7%
NR	103	12	11.7%
UER	443	46	10.4%
VR	935	49	5.2%
WR	980	55	5.6%
NATIONAL	9,977	716	7.2%

Table 13-4 Regional Distribution of clients currently on treatment

Region	Adult Female	Adult Male	Child Female	Child Male	Total
Ahafo	2,558	796	71	52	3,477
Ashanti	29,389	9,532	919	973	40,813
Bono	10,114	2,962	330	341	13,747
Bono East	7,977	2,341	275	258	10,851
Central	8,496	2,227	214	242	11,179
Eastern	21,580	6,949	715	683	29,927
Greater Accra	30,600	12,144	903	1,092	44,739
North East	740	226	41	26	1,033
Northern	3,242	1,138	92	101	4,573
Oti	1,829	611	63	59	2,562
Savannah	1,057	283	28	20	1,388
Upper East	4,772	1,547	220	191	6,730
Upper West	3,090	1,001	103	95	4,289
Volta	9,464	2,965	315	340	13,084
Western	11,119	3,869	288	315	15,591
Western North	3,573	1,076	94	85	4,828
Total	**149,600**	**49,667**	**4,671**	**4,873**	**208,811**

Table 13-5 *Trend in Syphilis testing and treatment at ANC*

Indicator	2016	2017	2018	2019	2020
Number Screened for Syphilis	603,465	420,681	49,665	529,312	686,176
# Positive for Syphilis	13,035	12,883	13,668	14,053	15,576
No. Treated for Syphilis	13,065	11,776	13,135	13,373	17,518
% Treated	100%	91%	96%	95%	112%

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