GHANA AIDS COMMISSION

Under the Office of the President

2014 STATUS REPORT

ACKNOWLEDGEMENTS

The Ghana AIDS Commission (GAC) acknowledges the immense contribution of all who worked towards the successful development of the 2014 Status Report for the National HIV and AIDS Response.

The 2014 Status Report was prepared under the leadership of the Director General of the GAC. We are sincerely grateful to the Research, Monitoring and Evaluation Committee of the Commission and the National Estimates and Country Response Data Teams for providing technical input during the development processes. We are also grateful to key partners such as the Ghana Health Service/National AIDS Control Programme and Civil Society Organisations for providing a derth of data and other information.

We would like to express our sincere appreciation to all the members of the GAC team who supported the process under the leadership of the Research Monitoring and Evaluation Division.

We acknowledge all Implementing Partners and Funding Partners including Development Partners, Government of Ghana and the Private Sector.

The Ghana AIDS Commission looks forward to more successful collaboration driven by stronger partnerships and a sense of common purpose.

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ADRA	Adventist Development Relief Agency
AIDS	Acquired Immune-Deficiency Syndrome
ANC	Anti Natal Clinic
ARIC	Audit Report Implementation Committee
ART	Anti-Retroviral Therapy
ARV	Anti-Retroviral Drugs
BCC	Behaviour Change Communication
BLIS	Basic Laboratory Information System (BLIS)
CB	Community-Based Organization
CCE	Community Capacity Enhancement
CCM	Country Co-ordinating Mechanism
CD	Compact Disc
CDC	Centres for Disease Control & Prevention
CDD	Centre for Democratic Development of Ghana
CHAG	Christian Health Association of Ghana
CHAI	Clinton Health Access Initiative
CHBC	Community and Home-Based Care
CHPS	Community Health Planning Services
CHRAJ	Commission on Human Rights and Administrative Justice
COS	Continuation of Service
CRS	Catholic Relief Services
CSO	Civil Society Organization
CT	Counselling & Testing
CVM	Condom Vending Machine
DA	District Assemblies
DAC	District AIDS Committee
DANIDA	Danish International Development Agency
DHS	Demographic Health Survey
DOVVSU	Domestic Violence &Victim Support Unit
DQA	Data Quality Assurance
DQAM	Data Quality Assurance Manager
DSW	Department of Social Welfare
EID	Early Infant Diagnosis
EPP	Estimates and Projectiions Package
ETWG	Expanded Technical Working Group
FANTA	Food and Nutritional Technical Assistance
FBO	Faith-Based Organization
FHI 360	Family Health International 360
FIDA	Federation of Women Lawyers
FSW	Female Sex Workers

GAC	Ghana AIDS Commission
GES	Ghana Education Service
GFATM	Global Fund for AIDS, Tuberculosis & Malaria
GHAME	Ghana HIV & AIDS Monitoring and Evaluation
GHS	Ghana Health Service
GIZ	German International Cooperation
GoG	Government of Ghana
H2H	Heart-to-Heart
HAART	Highly Active Anti-retroviral Treatment
HBC	Home-Based Care
HIV	Human Immune-Deficiency Virus
HSS	HIV Surveillance Survey
HTC	HIV Testing and Counselling
IAS	International AIDS Society
IBBSS	Integrated Bio-Behavioural Surveillance Survey
ICASA	International Conference on AIDS and STIs in Africa
ICR	Implementation Completion Report
IDU	Injecting Drug Users
IEC	Information, Education & Communication
ILO	International Labour Organization
IOM	International Organization on Migration
IP	Implementing Partners
IPPF	International Planned Parenthood Federation
JANS	Joint Assessment of National [disease-specific] Strategy
JAOB	Joint Assessment Organizing Body
JICA	Japan International Co-operation Agency
JUTA	Joint United Nation Team on HIV and AIDS
LEAP	Livelihood Empowerment against Poverty Programme
M & E	Monitoring and Evaluation
MAM	Moderate Acutely Malnourished
MARP	Most at Risk Population
MDA	Ministries, Departments & Agencies
MLGRD	Ministry of Local Government & Rural Development
MMDA	Metropolitan, Municipal & District Assemblies
MSHAP	Multisectoral HIV & AIDS Programme
MSM	Men who have Sex with Men
MSM	Morehouse School of Medicine
MTCT	Mother-to-Child Transmission
MTDP	Medium Term Development Plans
NACP	National AIDS/STI Control Programme
NACS	Nutritional Assessment and Counselling Support
NAP+	Network of Persons Living with HIV

NASA	National AIDS Spending Assessment
NDPC	National Development Planning Commission
NGO	Non-Governmental Organisation
NHIS	National Health Insurance Scheme
NMIMR	Noguchi Memorial Institute for Medical Research
NORSAAC	Northern Sector Awareness and Action Centre
NSP	National Strategic Plan
NYA	National Youth Authority
OAFLA	Organisation of African First Ladies Against HIV/AIDS
OI	Opportunistic Infection
OICI	Opportunities Industrialization Centres International
OP	Operational Plan
OVC	Orphans and Vulnerable Children
PCR	Polymerase Chain Reaction
PEP	Post Exposure Prophylaxis
PEPFAR	President's Emergency Program for AIDS Relief
PF/BM	Partnership Forum and Business Meeting
PLHIV	Person(s) Living With HIV and AIDS
PMTCT	Prevention of Mother to Child Transmission
PPAG	Planned Parenthood Association of Ghana
PtG	Protect the Goal
PWID	Persons who Inject Drugs
RAC	Regional AIDS Committee
RCC	Regional Coordinating Council
RMS	Resource Mobilization Strategy
RMSTT	Resource Mobilization Strategy Task Team
RUFT	Ready to Use Therapeutic Food
S&D	Stigma and Discrimination
SAM	Severe Acutely Malnourished
SHARPER	Strengthening HIV/AIDS Response Partnerships with Evidence Based Results
SO	Strategic Objectives
SR	Sub-Recipients
SRH	Sexual & Reproductive Health
SRHR&S	Sexual Reproduction Health Rights and Services
STI	Sexually Transmitted Infections
TA	Technical Assistance
TB	Tuberculosis
TOR	Terms of Reference
TOT	Trainers of Training
TSP	Technical Support Plan
TSU	Technical Support Unit
TTI	Transfusion Transmission Infection
TWG	Technical Working Group

UCSF	University of California, San Francisco
UN	United Nations
UNAIDS	The Joint United Nations Programme on HIV/AIDS
UNC	University of North Carolina
UNFPA	United Nations Population Fund
UNGASS	United Nations General Assembly Special Session
UNICEF	United Nations Children's Fund
UNIFEM	United Nations Development Fund for Women
US	United States
USAID	United States Agency for International Development
USG	United States Government
WAD	World AIDS Day
WAPCAS	West African Program to Combat AIDS
WFP	World Food Programme
WHO	World Health Organization
YES	Youth Entreprenuership Scheme

EXECUTIVE SUMMARY

The Ghana AIDS Commission (GAC) is a multi-sectoral organization established to provide leadership in the management and co-ordination of the national response to the HIV and AIDS epidemic in Ghana. Established by Act 613 (2002) of Parliament under the Office of The President of the Republic of Ghana, GAC works through a multi-faceted approach that engages all levels of government, academia, business sectors, civil society and development partners. The GAC annually develops status report to inform key stakeholders about progress made in the year under review. The status report covers all thematic areas outlined in the National HIV and AIDS Strategic Plan (NSP) 2011- 2015 as follows: prevention of new HIV infections, treatment care and support, mitigation of the socio-economic effects of HIV and AIDS, health systems strengthening, community systems strengthening, public sector response, policy & advocacy, coordination & management, strategic information, costing the NSP 2011-2015, feasibility and risk management of key health systems.

In order to ensure that all national HIV and AIDS data suitable for the generation of annual national estimates and projections are gathered, the GAC and its partners established a National Estimates Team (NET) and the Country Response Data Team (CRDT). The NET works to ensure that all health related and other necessary data gathered are cleaned and made ready to be captured in spectrum software for generating HIV-related estimates results. The CDRT works to compile and review all non-clinical data from community to national level. All data are validated by the Research, Monitoring and Evaluation Committee (RM&E) of the GAC before any form of dissemination or publishing nationally or globally.

Results from the 2014 National HIV and AIDS Estimates show Ghana has 250,232 persons living with HIV (59% females and 41% males). Of this, 229,009 (92%) are adults and 21,223 (8%) children. The Adult HIV incidence is estimated at 0.07%, with 11,356 new infections and 9,248 AIDS-related deaths recorded in 2014. Annual AIDS death amongst children between 0-14 years is estimated at 1,295 (14% of total number of deaths), of which 409 occurred among infants between 1- 4 years of age. The adult national HIV prevalence is1.47% (C.I: 1.12 – 1.96). The median HIV prevalence among pregnant women is 1.6%.

Prevention of HIV infections in Ghana utilizes universally accepted approaches such as behavioural change communication, condom distribution, prevention of mother-to-child transmission (PMTCT), HIV testing and counselling (HTC) among the general and targeted sub-populations, Sexually Transmitted Infections(STIs) services as well as screening of blood and blood products.

The findings of the sixth round of the Ghana Demographic and Health Survey (GDHS) conducted in 2014 showed that 70 percent of women and 82 percent of men know that the risk of getting HIV can be reduced by using condoms and limiting sex to one uninfected partner. However, only 18 percent of women and 30 percent of men have comprehensive knowledge about HIV and AIDS and 13 percent of women and 6 percent of men were tested for HIV in past 12 months and received the results of the test. Regarding the youth, 11 percent of young women and 9 percent of young men age 15-24 had sexual intercourse before age 15 and only 16 percent of

young women and 3 percent of young men who had sexual intercourse in past 12 months were tested for HIV in past 12 months and received the results of the test. Condom use among the youth is also low. The population based estimated HIV prevalence in Ghana according to the 2014 GDHS is 2.0%.

In 2014, of 601,726 pregnant women who were tested for HIV, 12,583 (2.1%) were HIV positive. Out of these positive pregnant women, 8,299 representing 66% received anti-retroviral drugs (ARV) as either prophylaxis or treatment. The number of HIV exposed babies screened for the virus in various facilities was 2,878 with 8% testing positive.

Overall, a total of 798,763 persons were tested for HIV at all HTC centres and through "Know Your Status Campaigns" that were conducted. This figure represents 50% of expected HTC target for the year. Eighty-nine percent (717,638) of those tested were females. HIV prevalence among HTC clients in 2014 was 4.3% as against 6% in 2013.

The Behaviour Change Communication strategies targeted at the youth and adults included; HIV information and education, HTC, abstinence education, safe sex practice including reduction in number of sexual partners, faithfulness, condom use and provision of minimum package of services for the vulnerable and key populations. During the year under review, a total of 916,608 new persons or cases comprising 570,990 youth and 345,618 adults were reached through one-on-one and small group engagements with prevention intervention by peer educators. Condoms are widely promoted to encourage safe sex among the general public. Over the years, implementing partners have adopted innovative strategies through traditional and non – traditional sales outlets including the use of condom vending machines to distribute condoms. Overall, a total of 20,880,654condoms were distributed in 2014. Out of this, 13,078,742 (13,014,067 male condoms and 64,675 female condoms) were distributed to key populations and 7,801,912 (7,714,426 male condoms and 87,486 female condoms) to the general population.

In order to make condoms more accessible and available, GAC with support from the Global Fund imported 400 condom vending machines in 2010 through the Ghana Health Service and installed these condom vending machines across the country. These condom vending machines facilitated condom accessibility aimed at prevention of STIs and HIV.

Activities carried out under mitigation of social and economic impact of HIV and AIDS includes interventions that aimed at the vulnerable in society, PLHIV and their dependants. In addition, the Heart-to-Heart (H2H) campaign to reduce stigma and discrimination against PLHIV provided a human face to HIV and AIDS. The H2H Ambassadors are four PLHIV who have distinguished themselves to share their experiences on HIV-related issues. H2H activities carried out included radio and TV interviews covering stigma reduction against PLHIV, PMTCT, couple support, importance of antiretroviral therapy and adherence to treatment regiments. In 2014 the Livelihood Economic Empowerment against Poverty (LEAP) programme by the Ministry of Gender Children and Social Protection disbursed cash grants to approximately 30,802 orphaned and vulnerable children (OVC) in the country. In the year under review, a total of 15,367 PLHIV and their dependents benefitted from enrolment unto the National Health

Insurance Scheme services. Out of the number enrolled, 3,474 were new entrants while 11,893 cards were renewed onto the National Health Insurance Scheme.

In an effort to strengthen the health systems in Ghana, the Centers for Disease Control and Prevention (CDC) under the US President's Emergency Plan for AIDS Relief (PEPFAR) in collaboration with local partners and other stakeholders, implemented the Strengthening Laboratory Quality Management toward Accreditation (SLMTA) to improve the quality of public health and clinical laboratory services. Fifteen national and regional laboratories were enrolled in SLMTA. This support helped to improve quality of services provided by public health and clinical laboratories.

The GAC embarked on various Policy and Advocacy activities. These included series of workshops targeting three select Committees of Parliament namely Health, Constitutional, Legal and Parliamentary Affairs, and Employment, Social Welfare and State Enterprises. These workshops provided built the capacity of Members of Parliament (MP) on HIV issues and also presented a unique opportunity to establish a framework of working together and utilize the relative strengths of each institution to enhance and strengthen the national response. An advocacy workshop was also organized for religious leaders to mobilize additional funds for the national response. The Commission held two consultative meetings with the associations of persons with disabilities (PWD). The objective of the meetings was to discuss strategic interventions to address the challenges associated with HIV and disabilities. In 2014, dissemination of completed HIV policies was carried out by GAC at various levels across the country.

GAC in collaboration with The Oganisation of African First Ladies Against HIV and AIDS (OAFLA) Ghana Chapter and the First Lady of Ghana undertook regional community mobilization activities to sensitize communities in Central and Western regions on PMTCT of HIV, breast and cervical cancer screening. One thousand five hundred individuals made up of political actors, traditional and community leaders, students and inhabitants of the communities were engaged directly in advocacy, education and HIV/reproductive health outreaches. Overall, 687 individuals benefited from the health screening services, out of which 358 were tested for HIV.

The 10th edition of the Partnership Forum and Business Meeting was held in Accra in 2014under the theme "Getting to Zero: Accelerating the National Response towards the MDG", with funding support from UNFPA. Stakeholders comprising Commissioners of the national response, Development Partners, Regional Ministers and representatives of key line Ministries, Academia, Network of Associations of Persons Living with HIV (NAP+ Ghana), CSOs, Faith-Based Organizations (FBOs), members of Regional AIDS Committees, media partners and staff of the GAC Secretariat attended the Partnership Forum. Discussions focused on non-clinical interventions, clinical interventions; the supply chain master plan, financial report for 2014, the revised GAC Bill and lessons learnt through South-to-South collaboration.

GAC in collaboration with the CDC and the School of Public Health, University of Ghana, organized the 2014 Ghana HIV and AIDS Monitoring and Evaluation (GHAME Workshop for

25 HIV monitoring and evaluation (M&E)personnel and project officers from Ghana Health Service and CSOs. Another25 participants benefitted from a course in Data Analysis. The course was to equip participants to analyze and interpret their own data at the national and sub-national levels. To complement M&E capacity, CDC under the Cooperative Agreement with GAC, trained 50 M & E officers on the use of the Country Response Information System (CRIS) and data management. The training equipped participants with knowledge and skills to collect, capture, manage and report data appropriately for decision making and to ensure effective and efficient use of funds allocated to their organisations.

The Anti-Stigma Index study commissioned in 2013 was completed in 2014. The study was a joint initiative of the Global Network of People Living with HIV and AIDS (GNP+), the Ghana AIDS Commission and the National Association of Persons Living with HIV, AIDS (NAP+) and the Joint United Nations Programme on HIV and AIDS (UNAIDS).

Key findings from the study are as follows:

i. very low disclosure of status to close associates, such as spouses, relatives and friends by PLHIV

ii. High levels of self-stigmatization among PLHIV and that

iii. Members of key populations who are HIV positive suffer significantly higher discrimination than other PLHIV.

During the year under review, a National Strategic Information dissemination forum was held in Accra and Brong Ahafo with the participation of policy makers, program managers, researchers, key populations service providers, PLHIV, development partners and other stakeholders.. The forum covered cross-cutting themes on stigma and discrimination, IBBSS among prison inmates, summary of the National HIV Prevalence and AIDS Estimates 2013, national clinical data and results from operations research among Key Populations (KPs).

Modes of Transmission (MOT) study was conducted in 2014 to update the 2008 MOT andto identify populations at risk of HIV infection. The modelling study estimated new HIV infections among adults and indicated that, majority of infections (72.3%) occur among the general low risk population. Stable heterosexual couples contributed24.2% new infections in 2014 compared to 24.7% in 2008. Persons involved in casual heterosexual sex (CHS) with non-regular partners and their regular partners contributed48.1% of new infection compared to 12.3% in 2008. These findings suggest that intervention efforts in Ghana since 2008 among key populations have resulted in reduced transmission among these (key population) groups. Transmission among the general population (persons having casual heterosexual sex, their partners, and couples in stable heterosexual relationships) is increasingly becoming a more important driver of the HIV epidemic in Ghana.

The World AIDS Day (WAD) was celebrated under the theme “Closing the GAP – Ghana towards an HIV-free generation through PMTCT of HIV, Safe Sex and Stigma Reduction.”

The national durbar which was held at Mamobi Polyclinic celebrated health professionals and their role towards the elimination of Mother to Child transmission of HIV in Ghana.

In conclusion, the the national response to HIV and AIDS made remarkable progress in 2014 and also encounted numerous challenges relating to inadequate commodities and resources. GAC will continue to implementResources Mobilization Strategies to bridge the shortfalls in funding and broaden consultations towards stronger partnership to sustain successes of the national response.

CHAPTER 1: INTRODUCTION

The Ghana AIDS Commission (GAC) is a multi-sectoral organization established to provide leadership in the management and co-ordination of the national response to the HIV and AIDS epidemic in Ghana. Established by Act 613 (2002) of Parliament under the Office of The President of the Republic of Ghana, GAC works through a multi-faceted approach that engages all levels of government, academia, business sectors, civil society and development partners.

Ghana is experiencing a mature mixed epidemic comprising of a low-level generalized epidemic (1.47% among the general population) coupled with a disproportionately high prevalence epidemic among female sex workers (FSW) and Men who have Sex with Men (MSM). HIV Prevalence among key populations is very high

- HIV prevalence for MSM 17.5% (2011, IBBSS)
- HIV Prevalence for FSW 11.1% (2011, IBBSS)

The national HIV and AIDS response is implemented under the guidance of a five-year national strategy, the National Strategic Plan (NSP) for HIV and AIDS 2011-2015 developed in 2010. The goal of the NSP is to reduce new infections by 50%, virtually eliminate mother-to-child transmission and improve the quality of life of Persons living with HIV (PLHIV).

The priorities of the NSP 2011- 2015 are based on targeted populations, regions and thematic areas. These targetted populations include key populations (KPs), which constitute FSW, MSM, persons who inject drugs (PWID) and vulnerable groups such as prison inmate.

The prioritised regions are Greater Accra, Ashanti, Central, Western and Eastern Regions. These regions have high HIV prevalence; high presence of hotspots for sex workers and MSM; a higher percentage of men and women with multiple sexual partners; and those reportedly paying for sex. The Western Region is a target region on account of the great potential for rapid increase in new HIV infections following the commencement of the oil and gas industries.

Currently, the NSP 2011-2015 is being implemented through an Operational Plan (OP) 2014-2015 which was informed by the Mid Term Evaluation of the NSP 2011-2015.

The NSP 2011 – 2015 highly prioritises prevention of new HIV infections. Major HIV prevention activities during the OP period 2014 - 2015 include but not limited to accelerated scale-up of integrated package of PMTCT services, providing quality and readily available HIV information and prevention services to Key Populations (KPs), and greater efforts at reducing high risk sexual behaviours including multiple concurrent sexual partnerships.

CHAPTER 2: THE STATE OF HIV EPIDEMIC IN GHANA

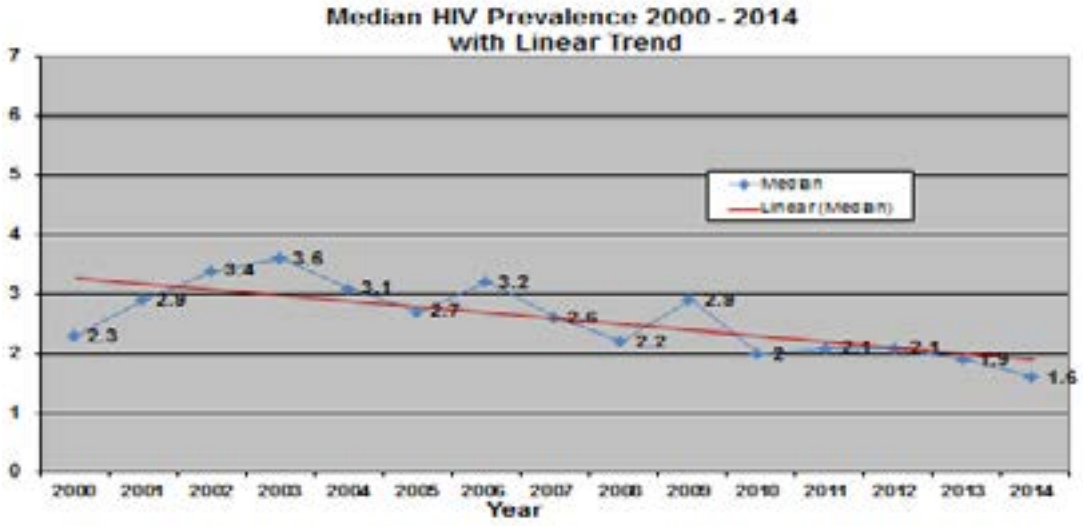
Ghana established the HIV sentinel surveillance (HSS) system in 1992 with eight (8) sites and has maintained forty (40) sentinel sites from 2005 with twenty-three (23) of the sites in the urban areas whilst seventeen (17) are in the rural areas.

The HIV prevalence of the country, over the years, describes Ghana's epidemic as generalized according to WHO classification. There has been a steady decline of HIV prevalence since 2003 when the country recorded 3.6% among antenatal clients. The prevalence among pregnant women in 2014 was 1.6%. The yearly variations are as shown in figure 1.

The country since 2006 has been using the Spectrum and Expanded Projection Package of the UNAIDS to determine the national HIV prevalence using data from HSS, Demographic Health Survey, anti-retroviral therapy (ART)programme, PMTCT and infant feeding programmes. This package gave the 2014 national HIV prevalence as 1.47%. This projection package also enables the country to estimate the number of people who are living with HIV and those in need of key interventions to reduce the incidence and impact of HIV and AIDS in Ghana.

Figure 1 below show the median HIV prevalence from 2000 to 2014 indicating a downward trend over the fifteen years.

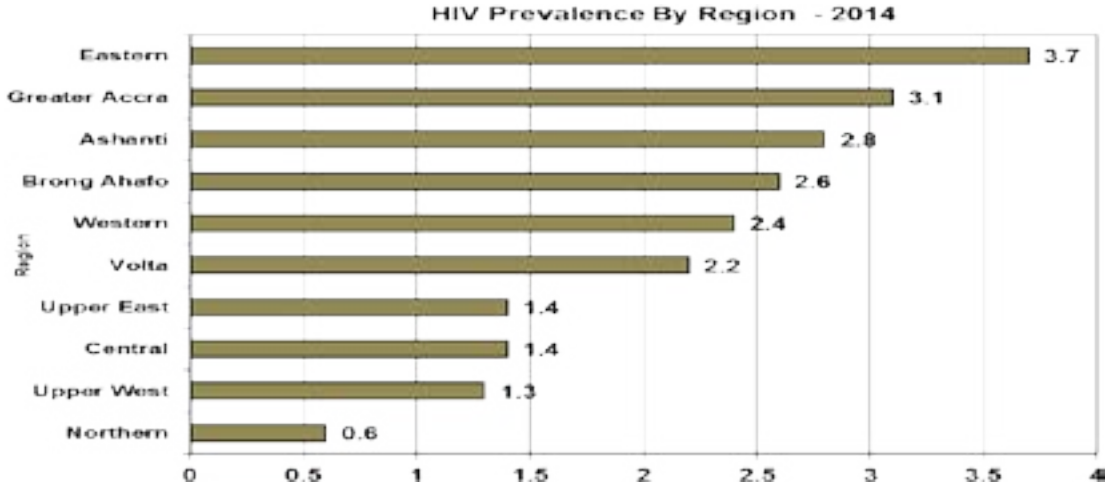
Figure 1: Median HIV Prevalence 2000 – 2014



2.1 HIV Prevalence from HSS by Region in 2014

With respect to regional HIV prevalence in 2014, Eastern region recorded the highest prevalence in the country whilst Northern region recorded the lowest. This is shown if Figure 2.

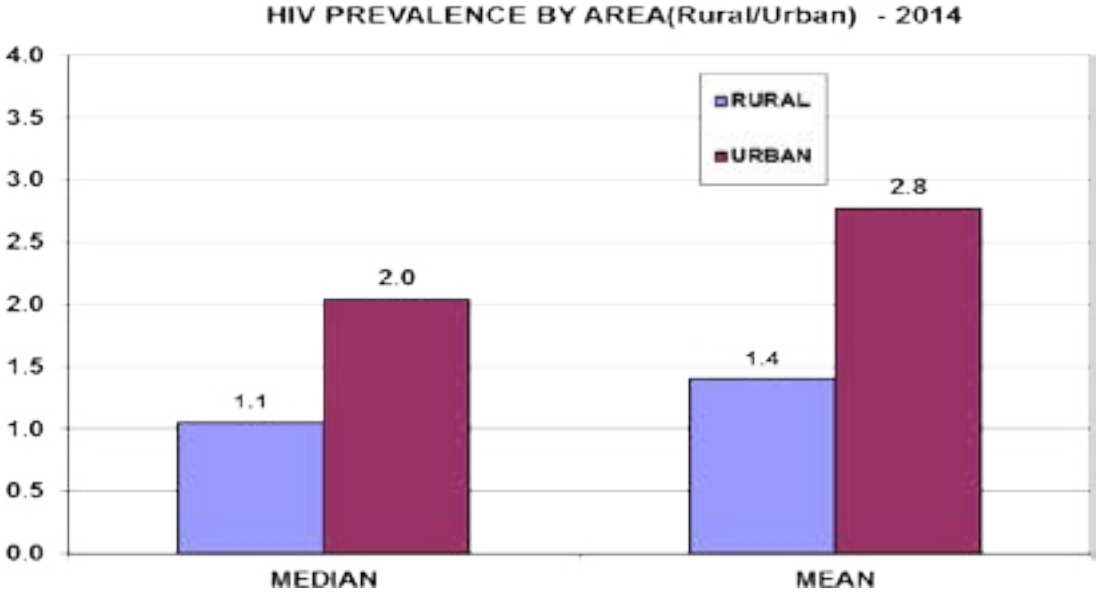
Figure 2: HIV Prevalence by Region-2014



2.2 HIV Prevalence in pregnant women by Place of Residence (Urban/Rural)

As has been the case over the years, the HIV prevalence in pregnant women in urban areas has consistently been higher than the rural areas. In 2014, the same pattern was observed; the urban areas recorded a median prevalence of 2.0% whilst the rural areas recorded a median prevalence of 1.1%. See Figure 3.

Figure 3: HIV Prevalence in Pregnant women by Area (Rural/Urban)

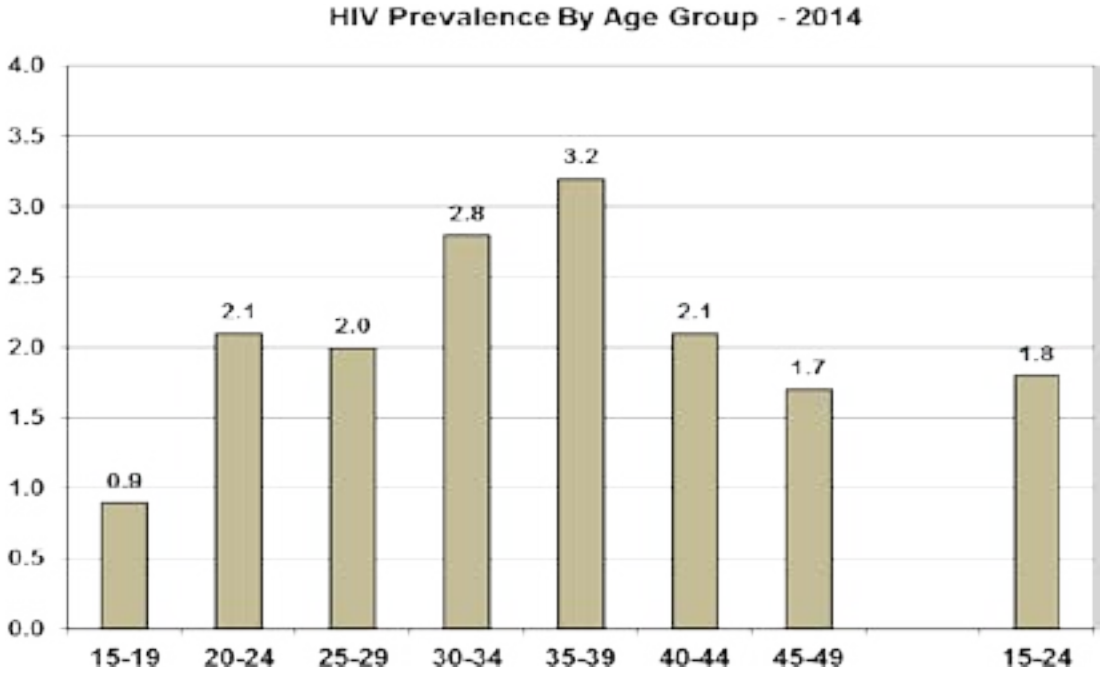


2.3 HIV Prevalence in pregnant women by Age

Pregnant women age 35-39 years recorded the highest HIV prevalence of 3.2% in 2014 whereas those in 15-19 year group recorded the least with 0.9%. (Figure 4)

The 15-24 year group, which is used as a proxy for new infections, recorded 1.8% in 2014 as against 1.2% in 2013.

Figure 4: HIV Prevalence in pregnant women by Age Group - 2014



Urban areas had a higher HIV prevalence than the rural areas in all age groups with the exception of 40-44and 45-49 age groups. Overall, the 45-49 age groups in rural areas recorded the highest HIV prevalence of 3.7% whilst its counterparts in the urban areas recorded 0.0%. In the 15-24 age groups, the rural areas recorded 1.1% whilst the urban areas recorded 2.4%.

CHAPTER 3: NATIONAL HIV ESTIMATES AND PROJECTIONS

HIV prevalence data is critical for planning and implementation of programs within the National Response. The data is useful for understanding the magnitude of HIV and AIDS problems and for monitoring the impact of interventions. Generation of HIV prevalence data is done using UNAIDS/WHO recommended methods. As in other countries with generalized HIV epidemics, the estimates of HIV prevalence in Ghana is primarily based on sentinel surveillance among pregnant women attending antenatal care (ANC) clinics and a national population-based survey that includes HIV testing.

It is recognized that both sentinel surveillance and population-based surveys each have strengths and weaknesses but together provide complementary information. HSS provides samples that are consistent over time so that good estimates of HIV trends can be obtained. Population-based surveys, on the other hand, provide much better geographic coverage of the general populace, and analysis of combined data from the sentinel surveillance and population-based surveys can provide a clear picture of both overall trends and geographical distribution of HIV.

3.1 Background of Estimation and Projection Process

UNAIDS and WHO, with the guidance and recommendations from an external group of scientists and researchers (the UNAIDS Reference Group on Estimates, Modelling and Projections) have developed a set of methods and assumptions to model epidemic trends, to determine annual estimates of HIV prevalence in countries, and to make demographic projections of the epidemic. For countries with generalized epidemics in which HIV is firmly established in the general population, the Estimation and Projection Package (EPP) has been designed as a tool to construct national and sub-national (e.g. urban and rural) epidemic curves to indicate the levels and trends of the epidemic.

Once epidemic curves are produced in EPP, which is already in-built in the SPECTRUM Projection Package, estimates of national prevalence, incidence, mortality and treatment needs by sex and age groups are generated through a stepwise process. The SPECTRUM module for HIV/AIDS projections uses the HIV prevalence curve produced in EPP together with assumptions about the epidemiology of HIV, including the ratio of female to male prevalence, distribution of infection by age, the survival distribution and the effect of HIV on fertility, to calculate HIV prevalence, incidence and mortality by age and sex. It also calculates the number of child infections occurring through infections from the mother, child deaths, and the number of orphans as a result of AIDS, as well as the estimates of persons needing treatment. The UNAIDS Reference Group on Estimates, Modelling and Projections continues to improve the assumptions and EPP software to ensure better estimates and projections. The 2014 data was generated using the SPECTRUM 5.3 version compared to 2013 version 5.03.

3.2 Estimation Process and Method

The sources of data for the National Estimates and Projections 2014-2020 was from HIV Sentinel Survey (1992 to 2014), the 2003 and 2008 Ghana Demographic Health Survey and Antiretroviral Therapy and Prevention of Mother to Child Transmission program data as at December 2014.

3.2.1 Sentinel Surveillance Data Entered in EPP

Ghana has for 23 years been conducting annually the HSS to provide the trend of HIV in Ghana. In the last eight (8) years, the HSS data have also been used as the primary data source for the National HIV and AIDS estimates in Ghana. There are 40 sentinel sites with at least three sites from each region. There are 23urban sites and 17 rural sites. The current rural/urban proportion of sites ensures a balanced representation of rural/urban areas in the determination of the HIV prevalence in Ghana. The number of sites has remained the same since 2005. HIV prevalence among antenatal clients in 2014 was 1.6%. These HSS urban and rural sites data from 1992 to 2014 were entered into EPP to generate the epidemic curve.

3.2.2 Ghana Demographic and Health Survey Data Used to Calibrate the National Epidemic Curve

The 2003 Ghana Demographic and Health Survey (GDHS+) conducted in 2003 included HIV testing. HIV prevalence for urban and rural localities as well as their sample size and standard errors were entered into EPP and used to calibrate the HSS data. In addition to this, infant feeding data from the 2008 GDHS was also included as part of the data used in arriving at projections.

3.2.3 Generating the Epidemic Curve

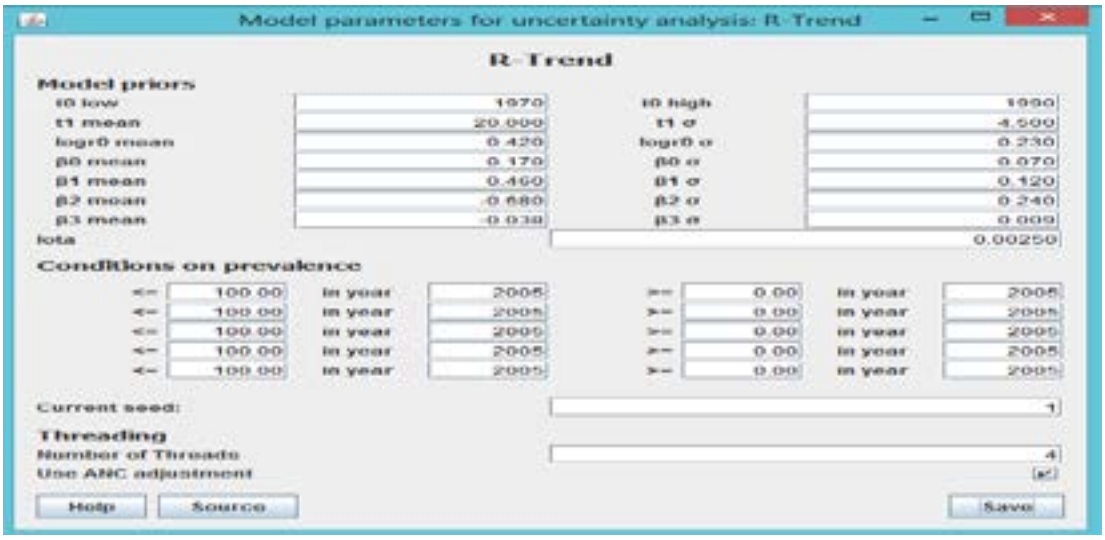
The R-Trend model was used for generating the curves. This is the best model for countries with more than 8 years of surveillance data and over 7 surveillance sites.

Using the sentinel surveillance and GDHS data indicated above, the EPP software generates several probable curves first and then selects a sample of “the best fit curves” out of the total number initially generated through a process referred to as uncertainty analysis. The final epidemic curve is the median of the resampled curves. The specific conditions for each parameter are displayed in tables 1 and 2 respectively.

Based on the parameters and prevalence data from HSS calibrated with DHS+ data, the best fit curve for the Ghana HIV epidemic was generated for both urban and rural locations. See Figures 1 and 2 below.

Table 1: EPP Curve Fitting Urban Parameters

Table 2: EPP Curve Fitting Rural Parameters



The graphs displayed in figure 12 and 13 below show the following features distinguished by colour:

- Surveillance data (Green)
- Unique Curves (Light grey)
- Bounds within which 95% of all curves fall (Blue dashed lines)
- Bayesian Median (Red with +)
- Surveys (Red diamonds with 95% Confidence Interval)

Figure 5: National Urban HIV Prevalence Curves

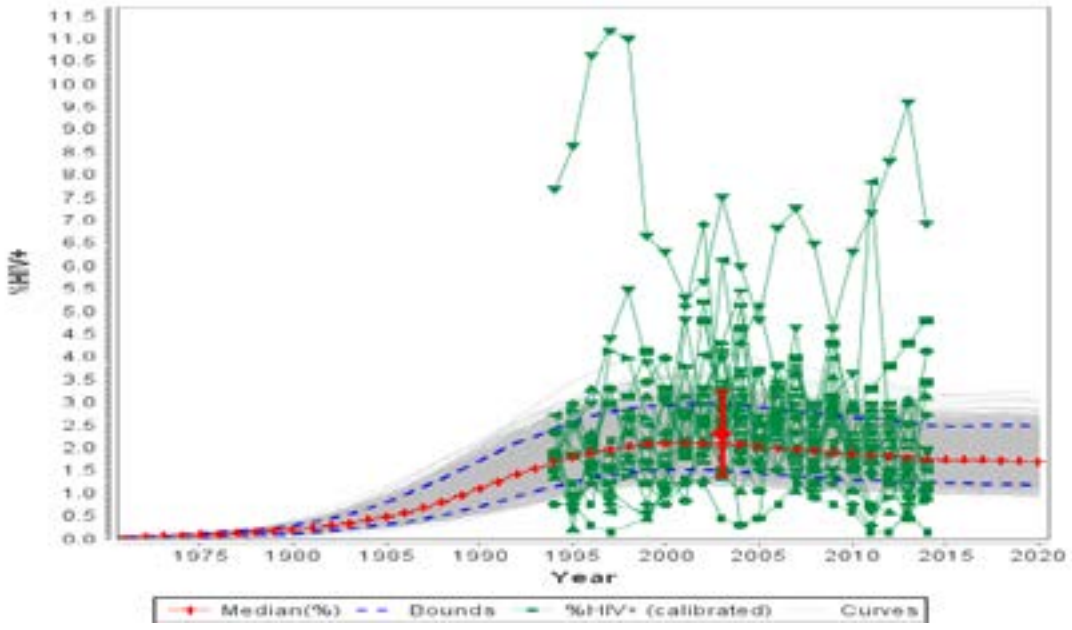


Figure 6 : National Rural HIV Prevalence Curves

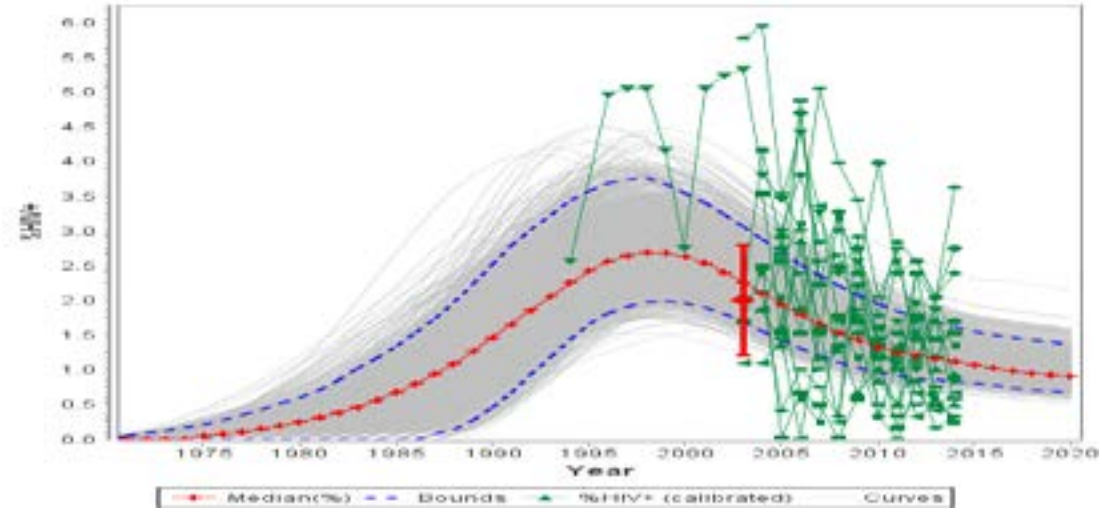
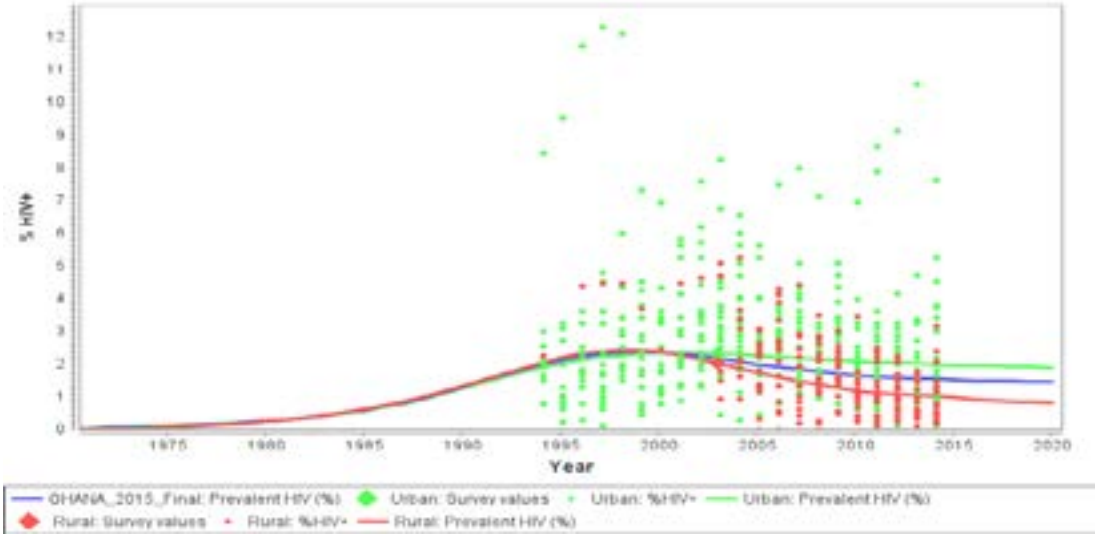


Figure 7: Population Living with HIV in Total (Urban and Rural Areas)



3.2.4 Estimating the Size and Demographic Impact of HIV in Spectrum

Estimating the size of HIV and AIDS population and the demographic impact was based on the curve generated in EPP, estimates of the population, epidemiological assumptions and service provision program data. The Spectrum program calculates the number of adults and children living with HIV, AIDS deaths, new infections, and treatment needs and coverage. Tables 3, 4 show demographic and Program data used in estimating the size and impact of HIV and AIDS.

Table 3: Population and Demographic Parameters Used for Projection

Parameter	...	2008	2009	2010	2011	2012	2013	2014
Life Expectancy								
Male		61.4	61.3	61.2	61.3	61.2	61.0	60.9
Female		63.1	63.1	63.0	63.1	63.1	62.9	62.8
Total Fertility Rate		4.15	4.09	4.02	3.95	3.89	3.83	3.77
Sex Ratio at Birth		105.3	105.3	105.3	105.3	105.3	105.3	105.3

The default values in the Spectrum software which are estimates from the UN Population Division 2012 Population Prospects was used. Below is a summary of the values.

Table 4: Programme Indicators

Programme Indicator	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
No. of children born to HIV + mothers on Cotrimoxazole	261	235	914	1,081	1,291	1,850	1,655	1,468	1,409	1,730
Number of children receiving ART	136	257	538	946	1,617	2,387	2,957	3,504	3,907	4,581
No. of HIV positive Pregnant women receiving single dose Nevirapine	584	1,239	1,448							
No. of HIV positive Pregnant women receiving Combivir			2,896	4,991	3,634	5,845				
No. of HIV positive Pregnant women receiving Triple Prophylaxis from 14 weeks							4,057	4,510	3,712	4,218
No. of Adult receiving ART services (cumulative)	3,663	6,736	11,777	20,602	28,647	38,188	56,050	66,366	71,855	79,131

3.2.5 Other Data Applied

a. Estimates of the population by age and sex projected over time were generated by using data from the UN Population Division.

b. Survival on ART for Children:
Under 1 year old - 85%
Age 1 year and Older
1st year survival - 85% and survival in subsequent years - 93%.

c. Ratio of fertility of HIV infected women to the fertility of uninfected women (15-49) is 95%.

d. Option B+ is projected to start from 2018

e. From 2018 ARV eligibility criteria for adults has been raised from CD4 < 350 to CD4 < 500.

3.3 Estimates Results

3.3.1 2014 Results

In 2014, the estimated adult national HIV prevalence is1.47% (C.I: 1.12 – 1.96), with an estimated 250,232 persons, made up of 229,009 adults (92%) and 21,223 children (8%) living with HIV and AIDS. The HIV adult incidence rate in 2014 is estimated at 0.07%, and there were 11,356 new infections and 9,248 AIDS deaths. An annual AIDS death amongst children 0-14 years is estimated to be 1,295 (14% of total number of deaths), of which 409 occurred in infants 1- 4 years of age.

A total of 1,889 new child infections (17% of all new infections) were estimated to have occurred among children 0-14 years. The 15-24 year group accounted for 2,901 of the new infections (26% of new infections), of whom 64% were female. The number of AIDS orphans is estimated at 124,779. Total need for Antiretroviral Therapy (ART) by Dec 31 2014 is estimated to be 142,164 of which 8,582are children 0-14 years. An estimated 10,226 mothers will also need PMTCT services. See table 5.

Table 5: National HIV Prevalence Estimates, 2014

2014	Lower 2.50%	Median 50%	Upper 97.50%
HIV Adults + Children	192,999	250,232	328,676
HIV population- children(0-14)	16,339	21,223	28,408
HIV adults 15+	176,010	229,009	300,718
HIV prevalence- Adults (15-49)	1.12	1.47	1.96
Number of new HIV infections	7,366	11,356	17,598
New HIV infections- Adults (15+)	6,166	9,467	14,626
New HIV infections- children	1,085	1,889	3,082
Total AIDS deaths	7,008	9,248	12,820
Annual AIDS deaths- Adults (15+)	5,870	7,953	12,133
Annual AIDS deaths- Children (0-14)	823	1,295	1,982
Annual AIDS deaths- adults (15-24)	365	473	647
Annual AIDS deaths:-children (1-4)	235	409	672
Need for ART- Adults 15+ (Dec 31)	114,319	133,582	168,619
Need for ART- children(0-14) (Dec 31)	6,522	8,582	11,583
Mothers needing PMTCT	7,709	10,226	13,666
AIDS orphans	85,047	124,779	254,661
HIV population (15-49)	147,003	192,737	255,920
HIV incidence- Adults (15-49)	0.05	0.07	0.11
HIV 15+ females	106,536	137,916	180,180
New HIV infections-Males 15 -24	607	1,044	1,702
New HIV infections- Females 15-24	1,180	1,857	2,857

3.3.2 Outlook for 2015

In addition to the above estimates, projections for the ensuing year i.e. 2015 are as displayed below in table 6.

Table 6: National HIV Prevalence Estimates, Outlook for 2015

2014	Lower 2.50%	Median 50%	Upper 97.50%
HIV Adults + Children	193,652	251,897	331,079
HIV population- Children(0-14)	15,571	20,107	26,766
HIV population Adults (15+)	178,176	231,791	305,331
HIV Prevalence- Adults (15-49)	1.09	1.44	1.92
Number of new HIV infections	7,040	10,624	16,193
New HIV infections Adults (15+)	5,854	9,019	13,954
New HIV infections- (Children)	1,176	1,605	2,223
Annual AIDS deaths	4,735	6,814	10,471
Annual AIDS deaths- Adults (15+)	3,733	5,706	9,090
Annual AIDS deaths- Children(0-14)	727	1,108	1,670
Annual AIDS deaths- Adults (15-24)	261	394	593
Annual AIDS deaths- Children (1-4)	152	317	580
Need for ART- Adults 15+ (Dec 31)	117,486	141,955	183,880
Need for ART- Children (0-14) (Dec 31)	6,584	8,258	10,745
Mothers needing PMTCT	7,458	10,046	13,677
AIDS orphans	82,891	118,680	230,405
HIV population (15-49)	145,724	192,394	256,518
HIV incidence- Adults (15-49)	0.04	0.07	0.1
HIV 15+ females	108,049	140,097	184,021
New HIV infections- Males 15 -24	570	986	1,620
New HIV infections- Females 15-24	1,105	1,751	2,675

3.3.3 Estimates from 2006-2014 and Projections to 2020

3.3.3.1 HIV Prevalence and Incidence

HIV prevalence and incidence are projected to drop gradually from 1.47% and 0.07% in 2014 to 1.26% and 0.03% in 2020 respectively. See Figures 15 and 16.

Figure 8: Adult HIV Prevalence

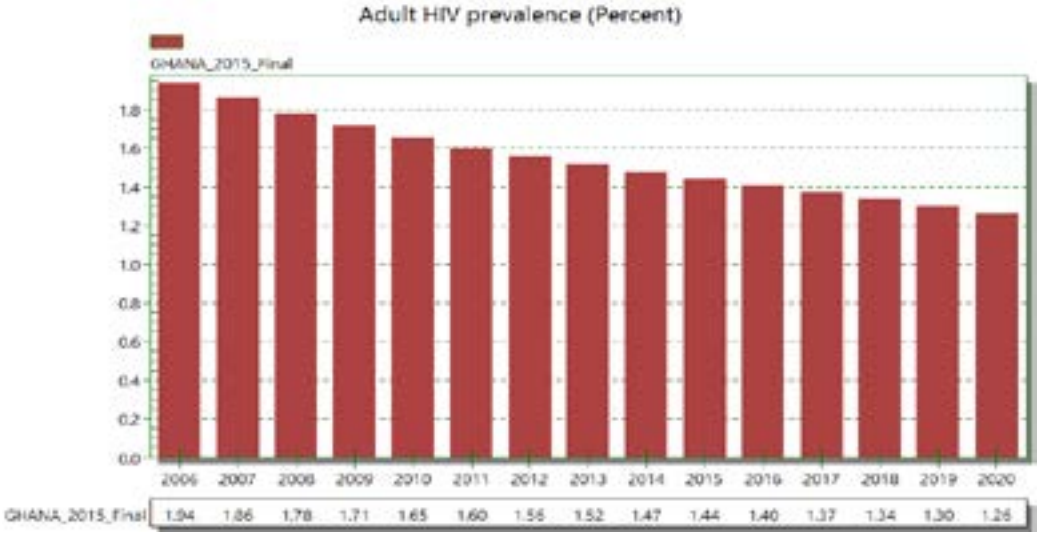
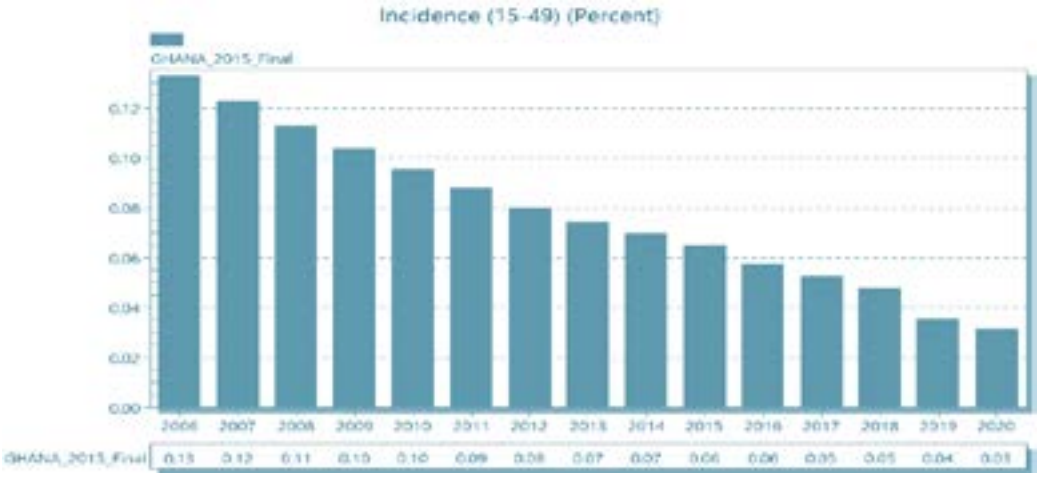


Figure 9: Adult Incidence



3.3.3.2 HIV Population

Over all HIV population will rise slowly due to increased survival on ART as prevalence decreases.

Figure 10: Total HIV Population

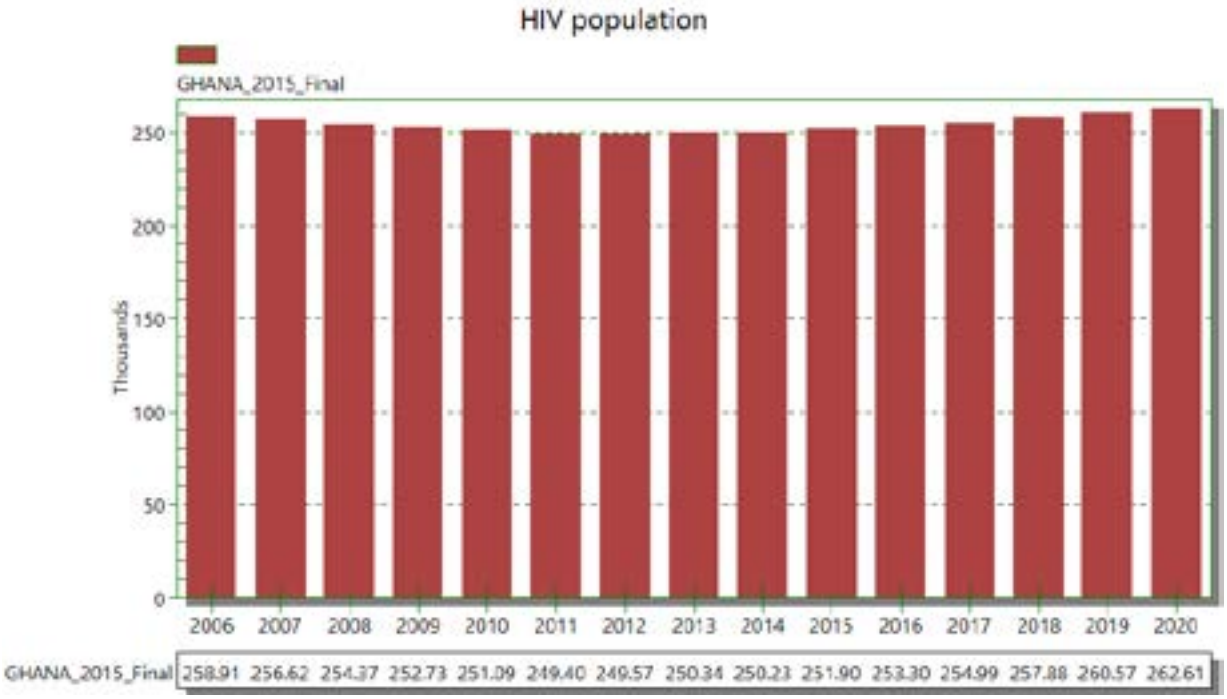
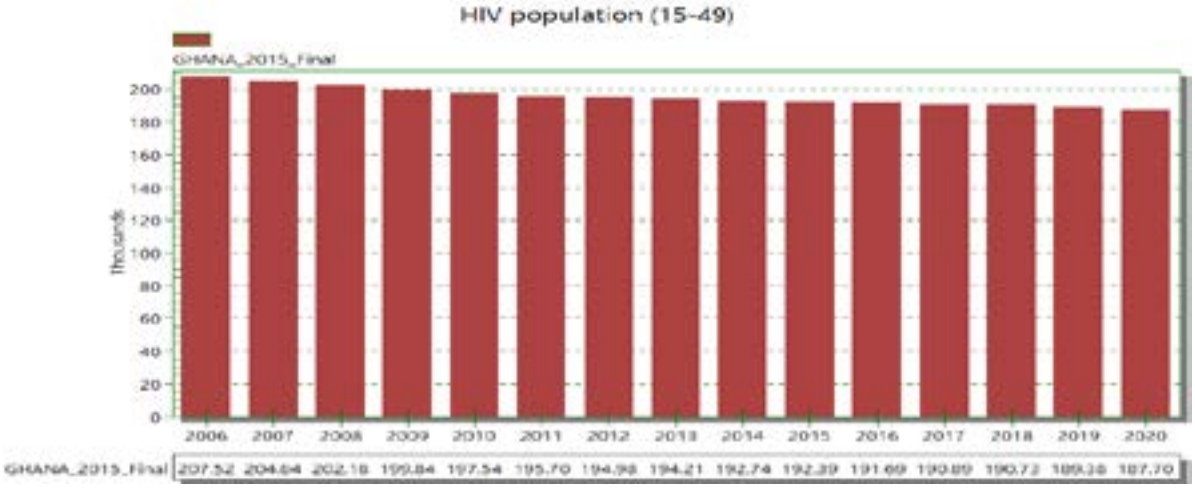


Figure 11: HIV Population (15-49) Years



The HIV population among children 0-14 years shows a decline due to an expected reduction in new child infections through PMTCT. See figure 19.

Figure 12: HIV Population (0-14) Years

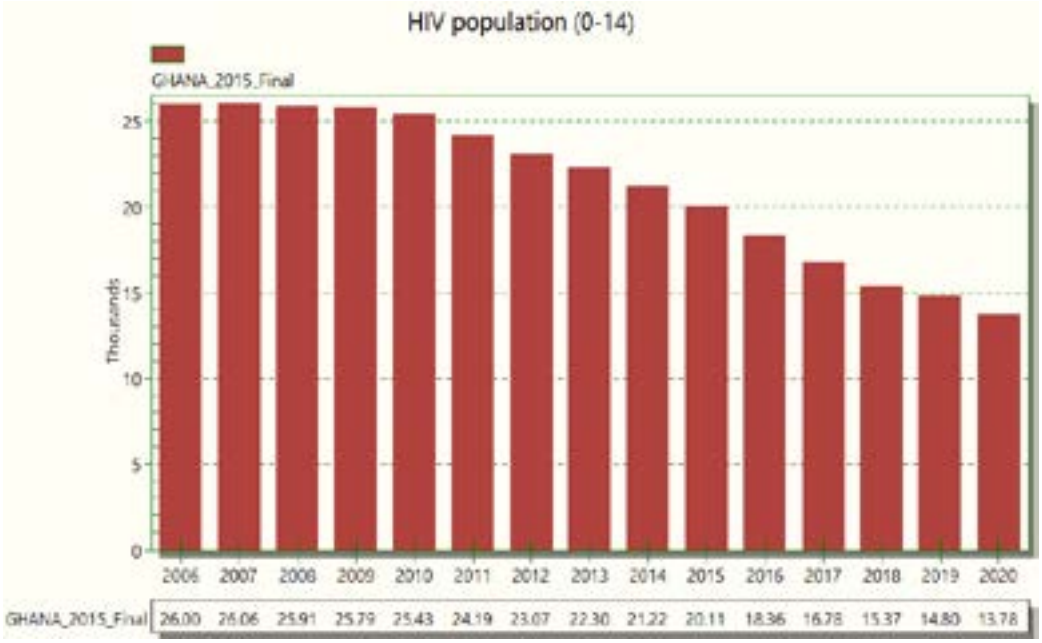


Figure 13: HIV Population (15-24) Years

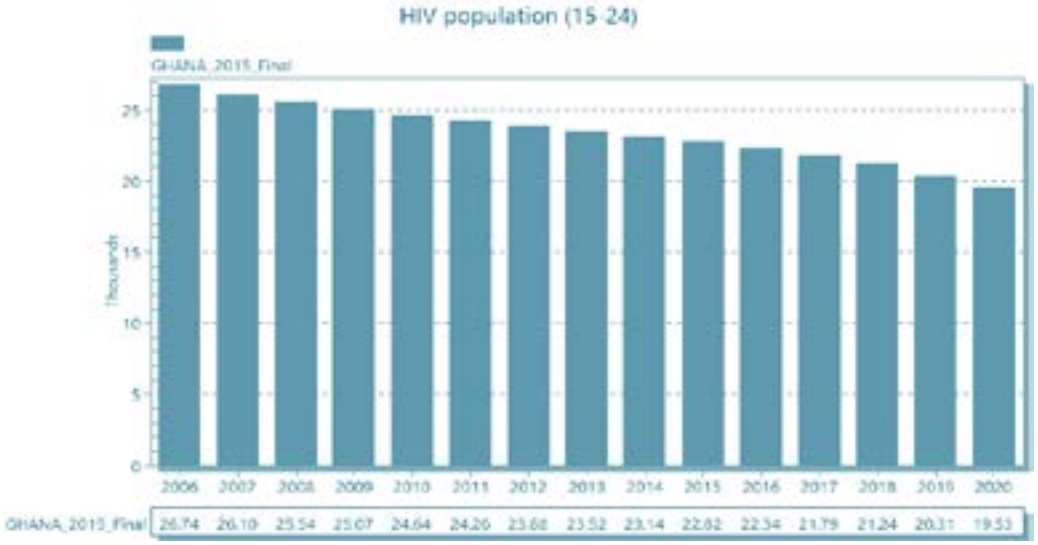


Figure 14: HIV Population (1-4) Years

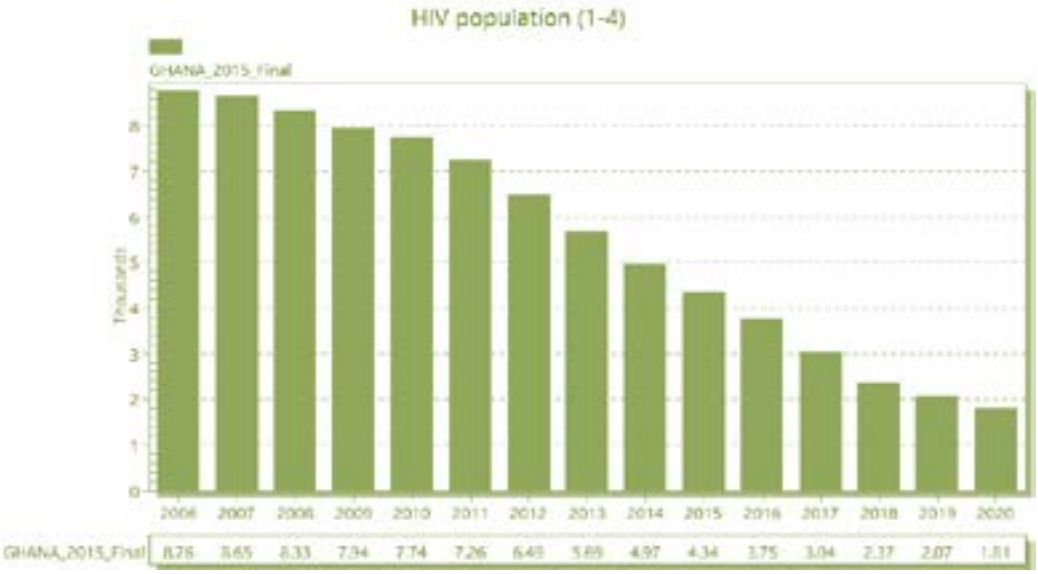
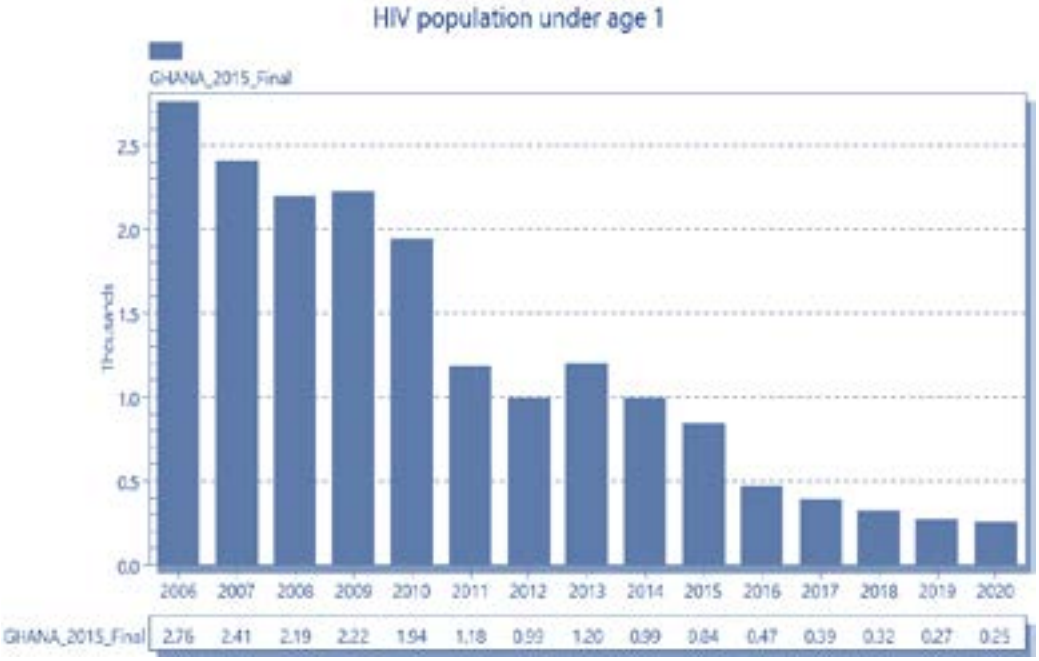


Figure 15: HIV Population under Age 1



3.3.3.3 New HIV Infections

New HIV infections are projected to decline significantly from 2014 to 2020 for both adults and children. See Figures 23-27.

Figure 16: Number of New Infections (ALL)

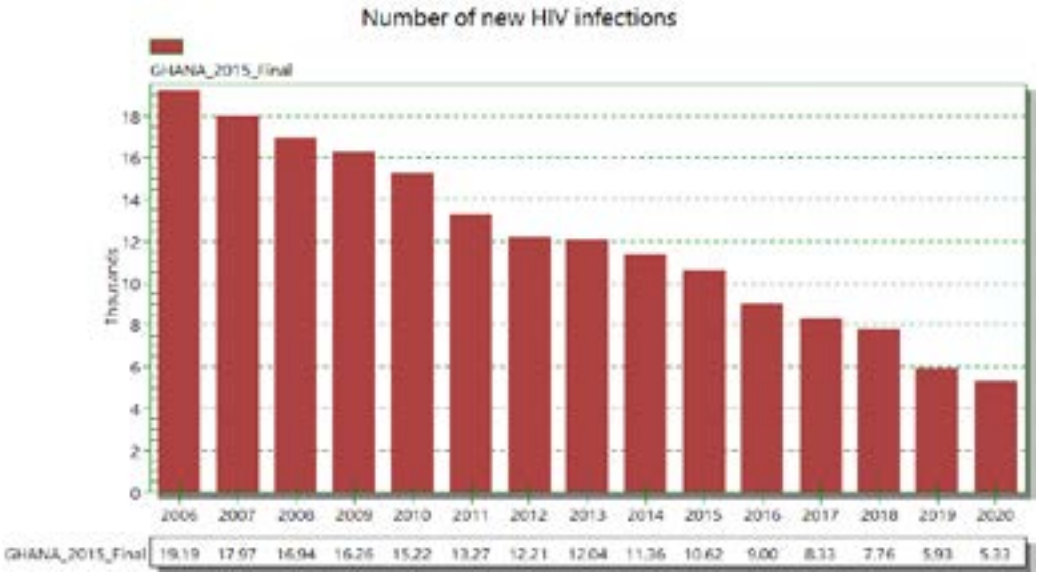


Figure 17: New HIV Infection (0-14) Years

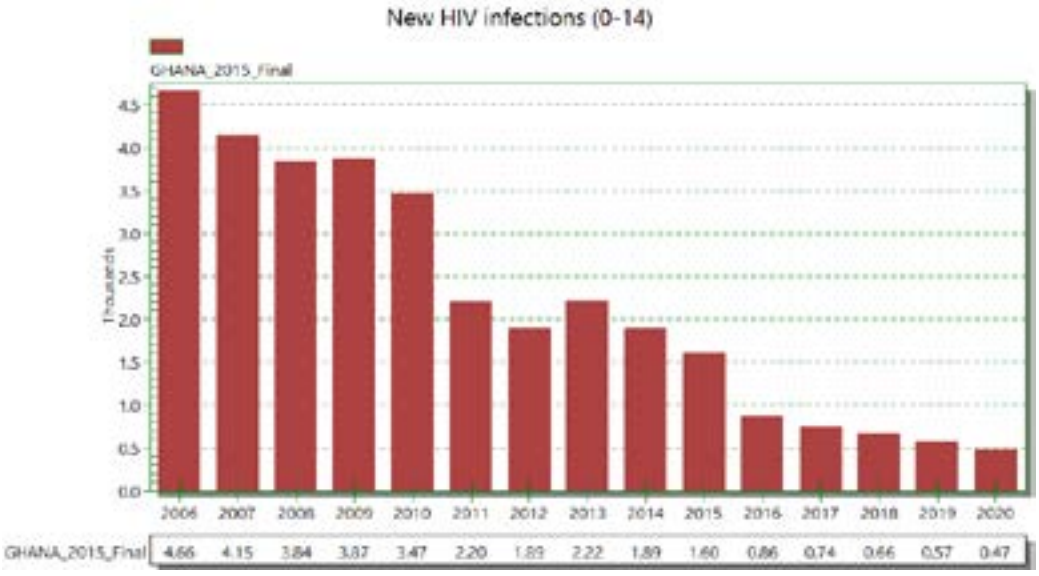


Figure 18: New HIV Infections (15-24) Years

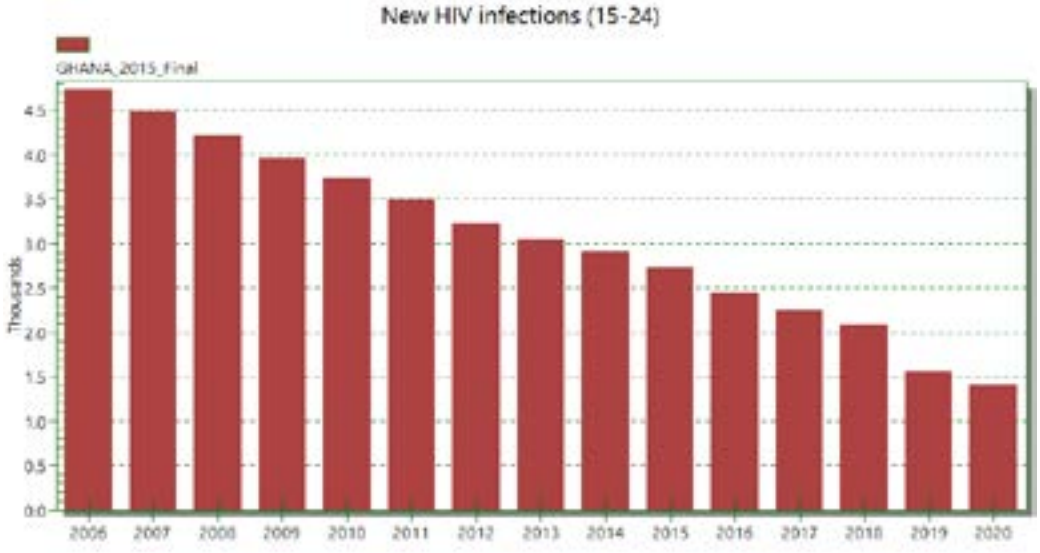


Figure 19: New HIV Infections (1-4) Years

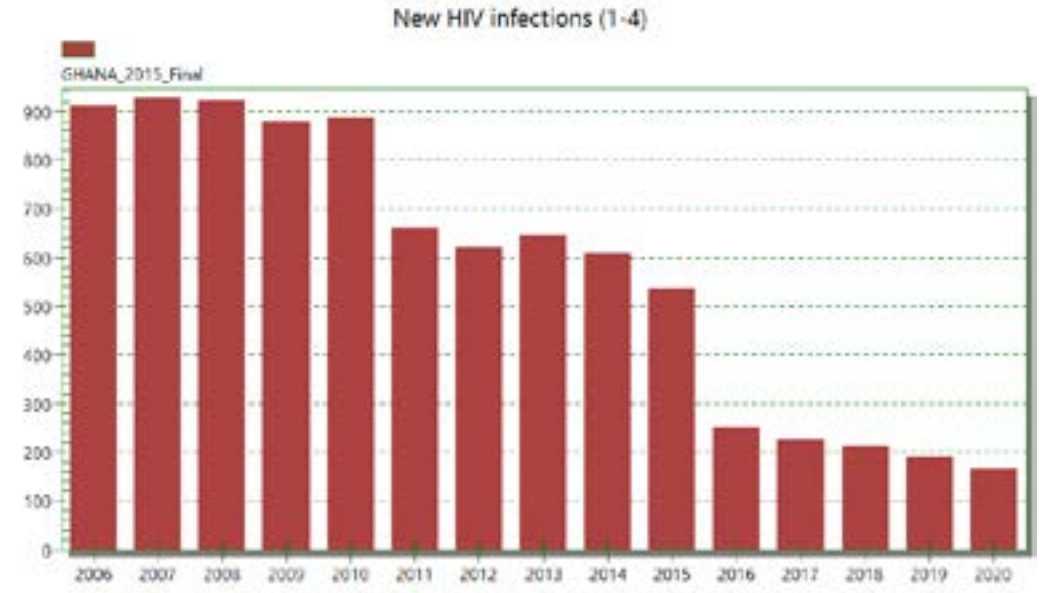
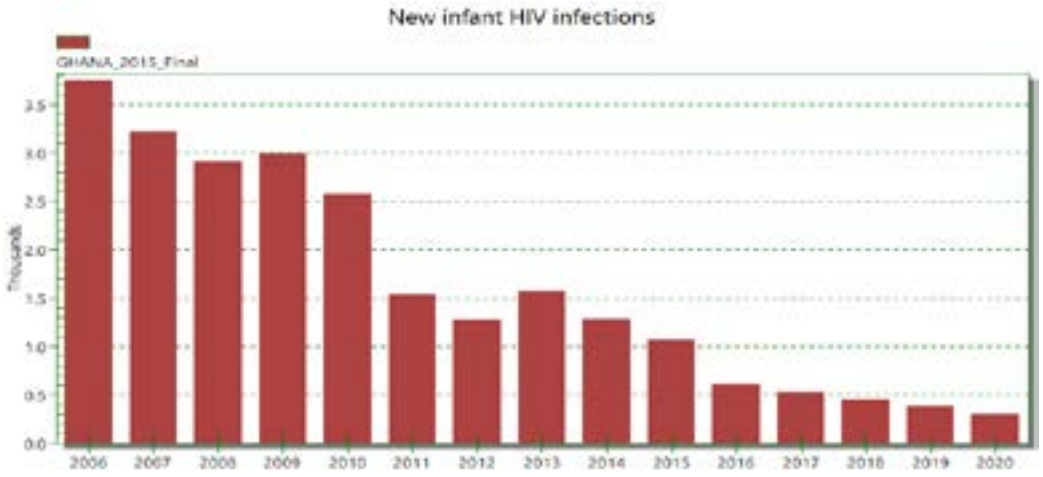


Figure 20: New Infant HIV Infections



3.3.3.4 AIDS Deaths

Cumulatively AIDS deaths will gradually increase up to 2020 despite ART due to other factors including inaccessibility to care. However, annual deaths are projected to decline significantly towards 2020 amongst adults, pregnant women and children. See figures 17, 18, 19 and 20 respectively.

Figure 21: Cumulative AIDS Deaths

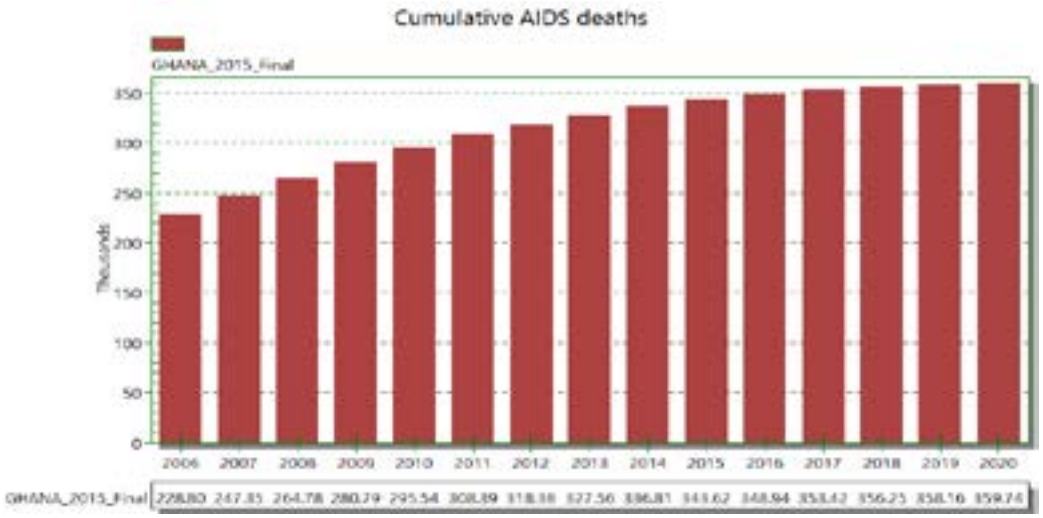


Figure 22: Annual AIDS Deaths (15-49) Years

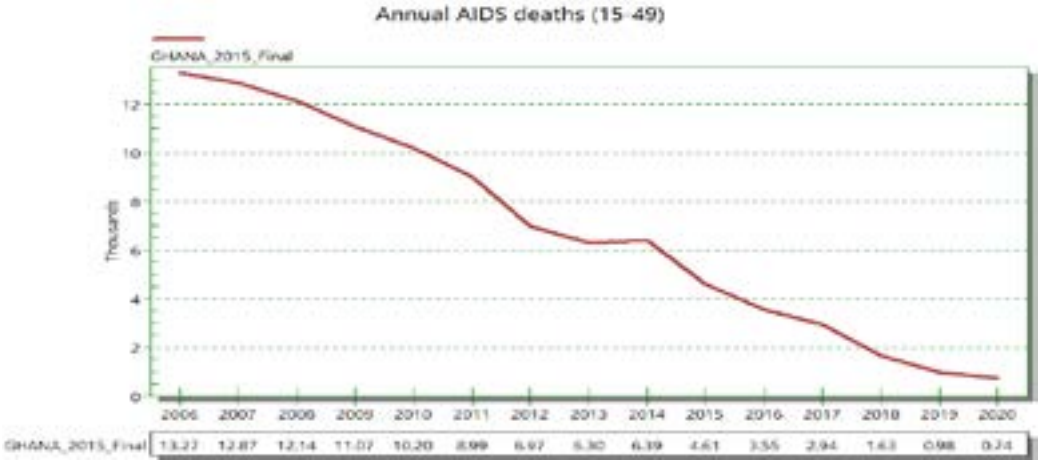


Figure 23: AIDS Deaths among pregnant women (15-49) Years

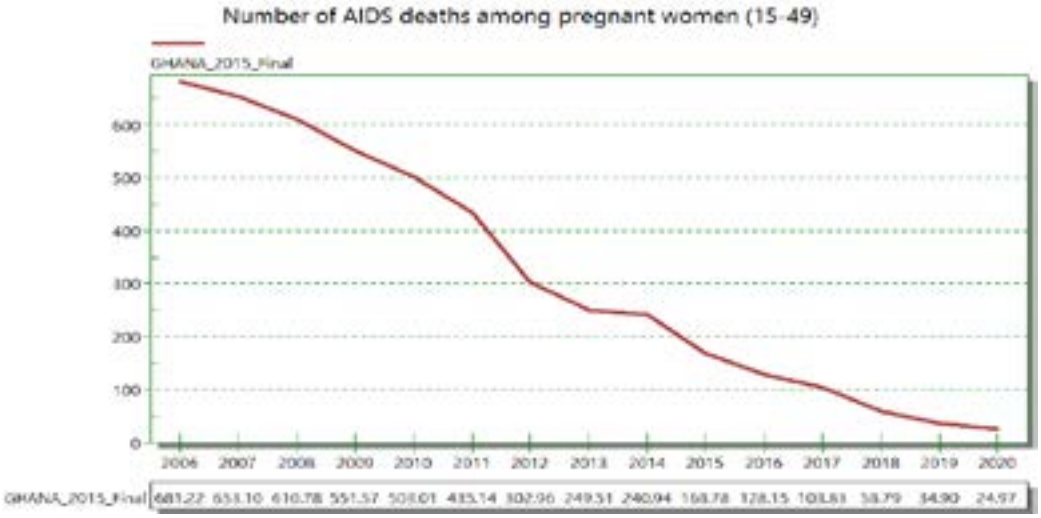
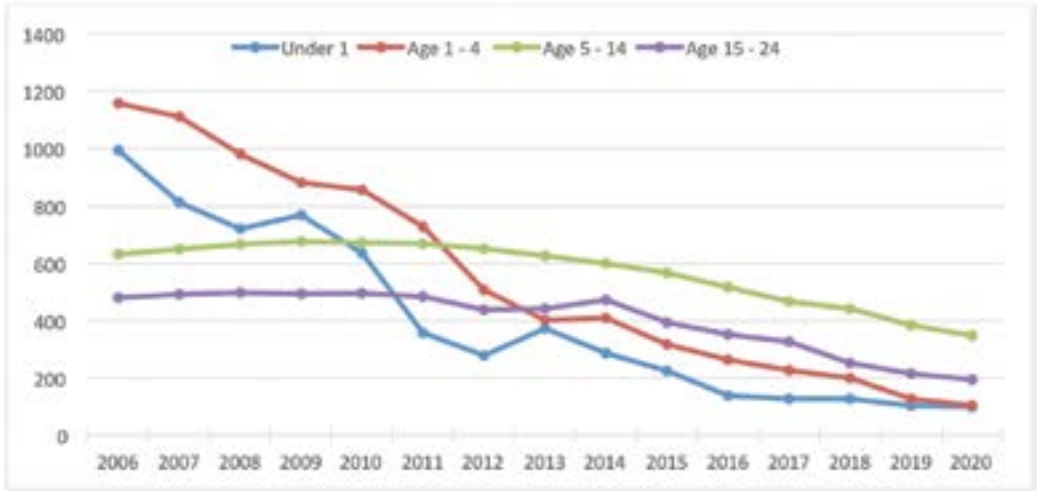
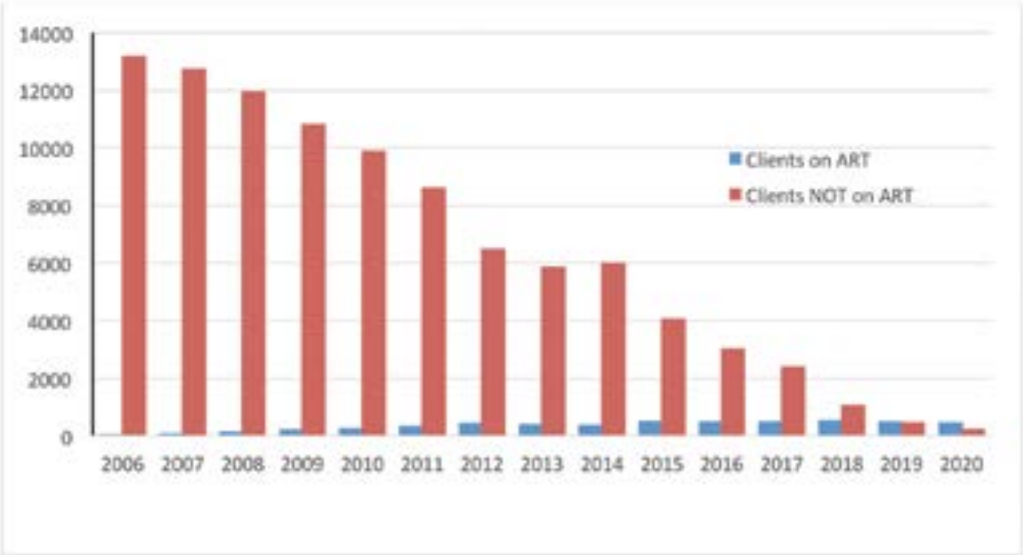


Figure 24: Annual AIDS Deaths in Children and Adolescents



Death is more likely to occur amongst clients who are not on ART than those on ART. This is shown clearly in Figure 25 where the projected annual number of deaths of clients on ART is relatively far lower than those not on ART for the period 2006 to 2018. From 2019 to 2020, the reverse is true, it is projected that the death among clients not on ART will be fewer than those on ART. This could be due to the projected significant increase in ART coverage.

Figure 25: Annual AIDS Deaths for Clients on ART and Clients not on ART (15-49)



3.3.3.5 Need for ART

Total need for ART will increase progressively up to 2020 as HIV population increases cumulatively annually. However, the sharp increase in 2008 and 2018 represents the periods when the protocol for initiation on ART was changed first from CD4<250 to CD4<350 in 2008 and then from CD4<350 to CD4<500 in 2018. However with an expected reduction in new child infections due to improved PMTCT coverage, ART needs amongst children between 0-14 years are projected to decline from 2015 to 2016 but with gradual rise from 2017 to 2018. 2019 will see a little decline and with slight rise in 2020. See figures 33 to 35.

Figure 26: Total Need for ART (ALL)

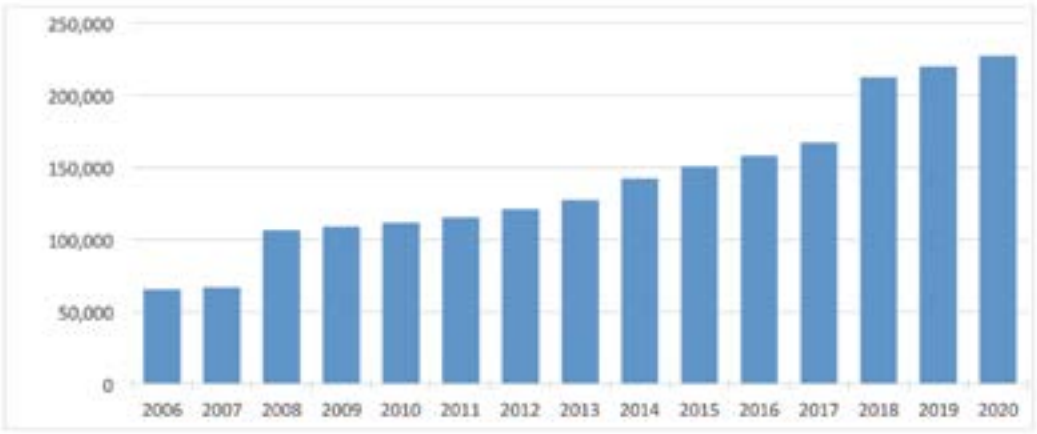


Figure 27: Total Need for ART (15+) Years

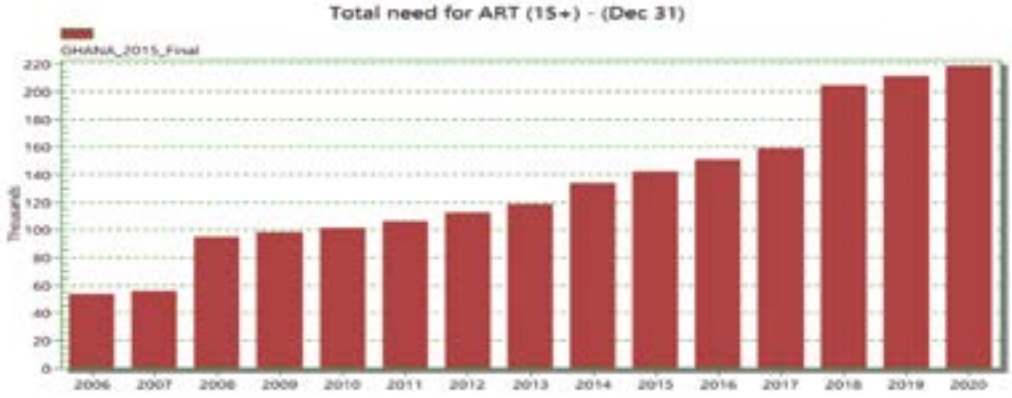
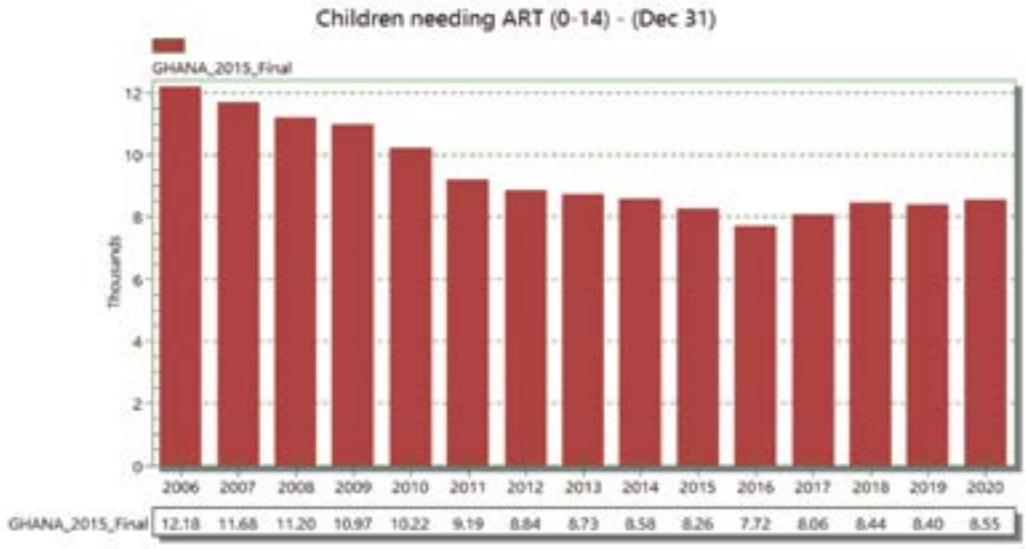


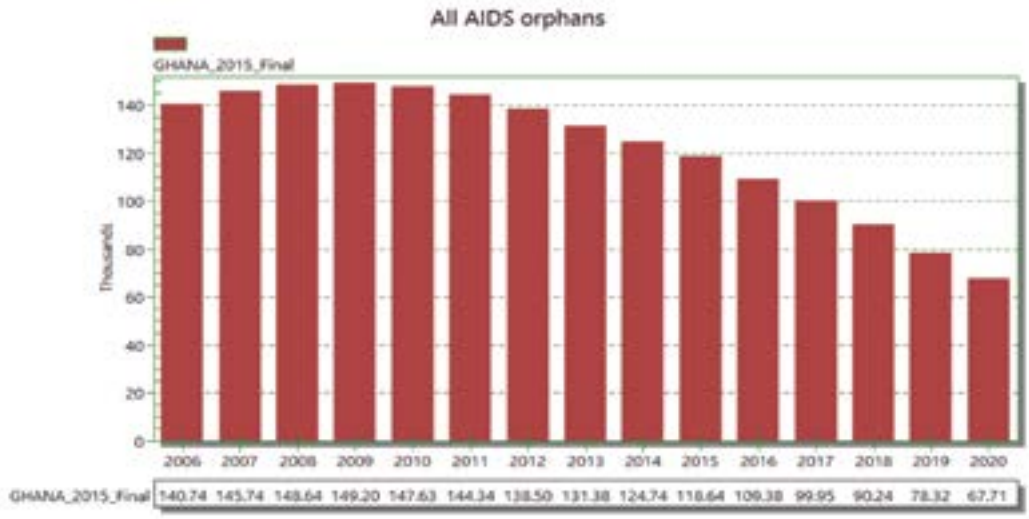
Figure 28: Children Needing ART (0-14)



3.3.3.6 AIDS Orphans

Number of AIDS orphans is expected to decline due to the combined effects of ART and PMTCT as shown in figure 36.

Figure 29: AIDS Orphans



3.3.3.7 ART Coverage

ART coverage of all eligible adults 15+ is expected to hit 96 percent by 2020 and the projection of ART coverage for children 0-14 years is projected to be 100 percent. See figures 37, 38, 39 and 40.

Figure 30: ART Coverage of all HIV+ Adults (15+)

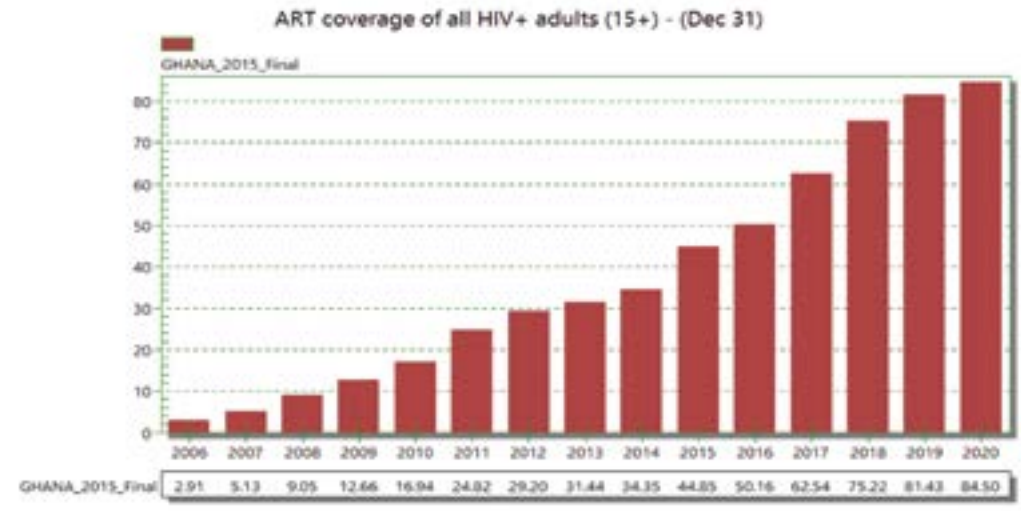


Figure 31: ART Coverage of all Eligible Adult Population (15+)

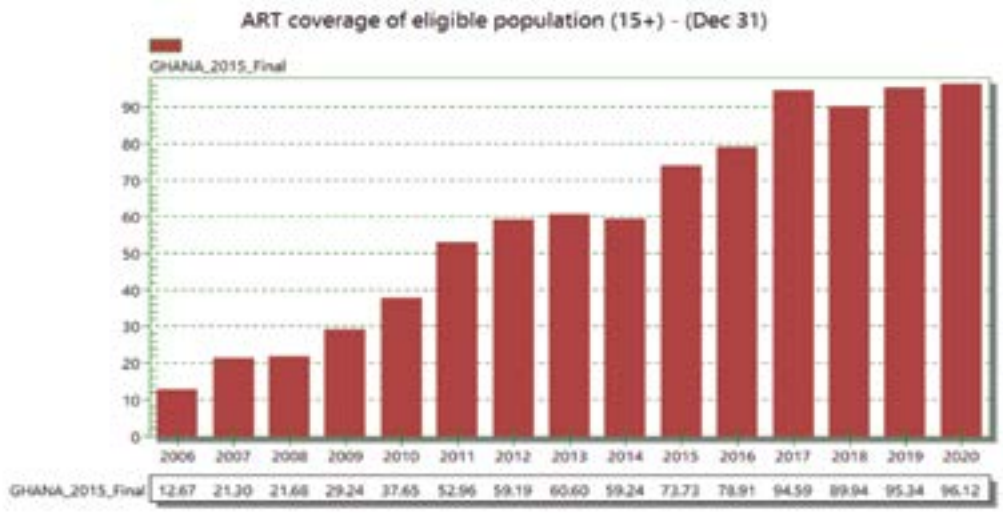


Figure 32: ART Coverage of All HIV+ Children (0-14)

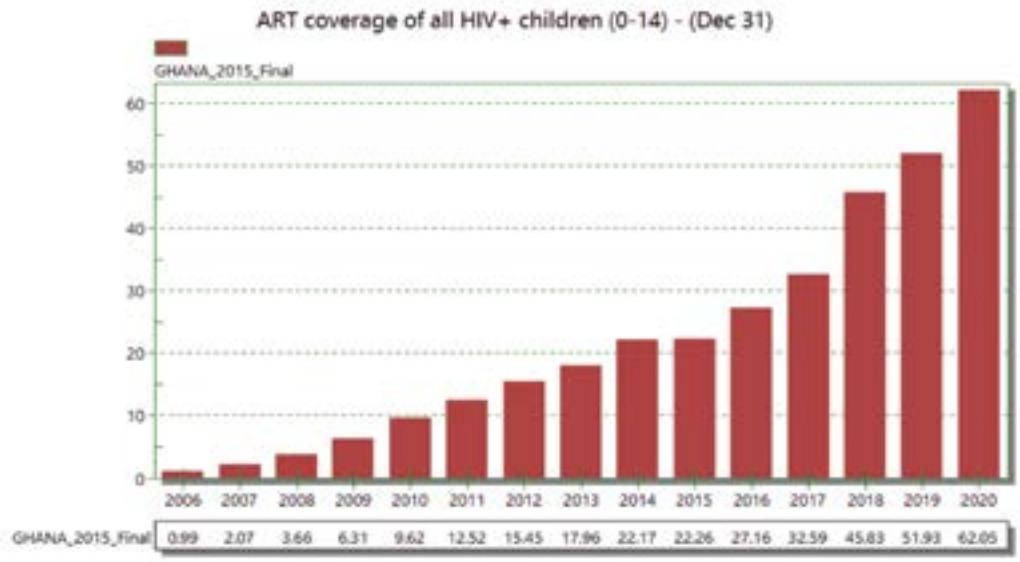
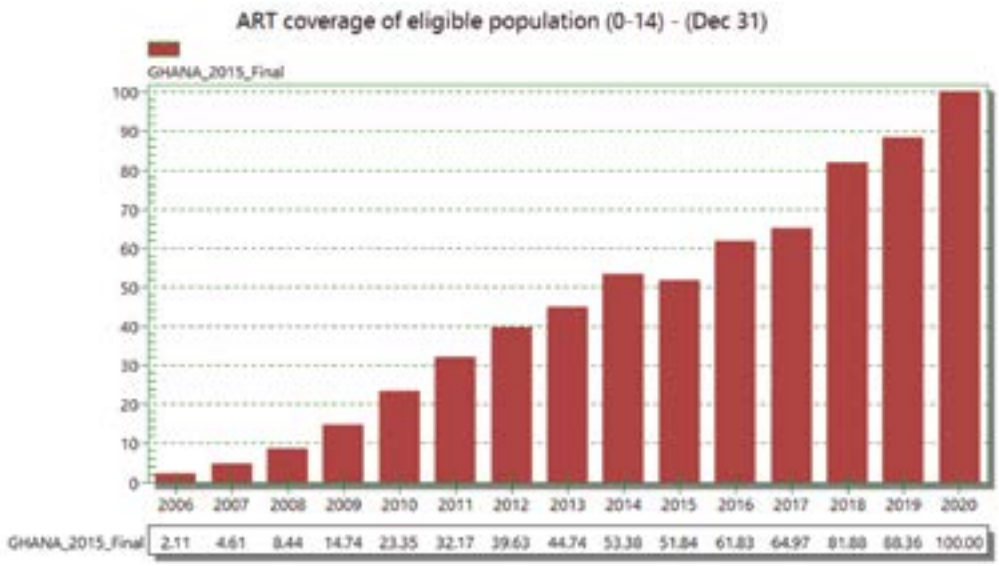


Figure 33: ART Coverage of Eligible Population (0-14)



3.3.3.8 Number of Children Receiving Care (ART and Co-trimoxazole)

The number of children needing ART who will get it is projected to decline slightly from 2015 to 2016 but increase progressively from 2016 and attain almost parity by 2020. Hence the unmet need is expected to shrink over time.

Figure 34: Children 0-14 Needing and Receiving ART

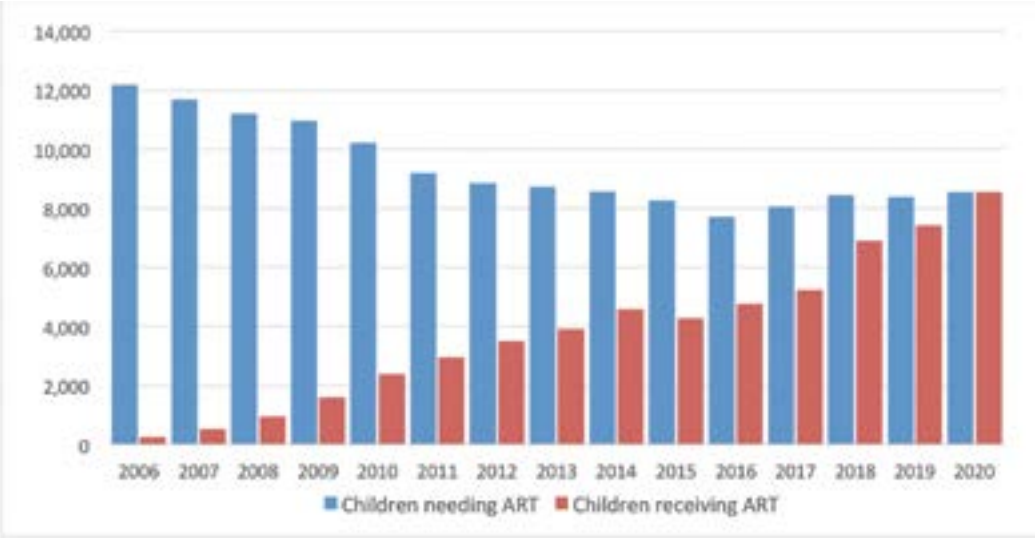
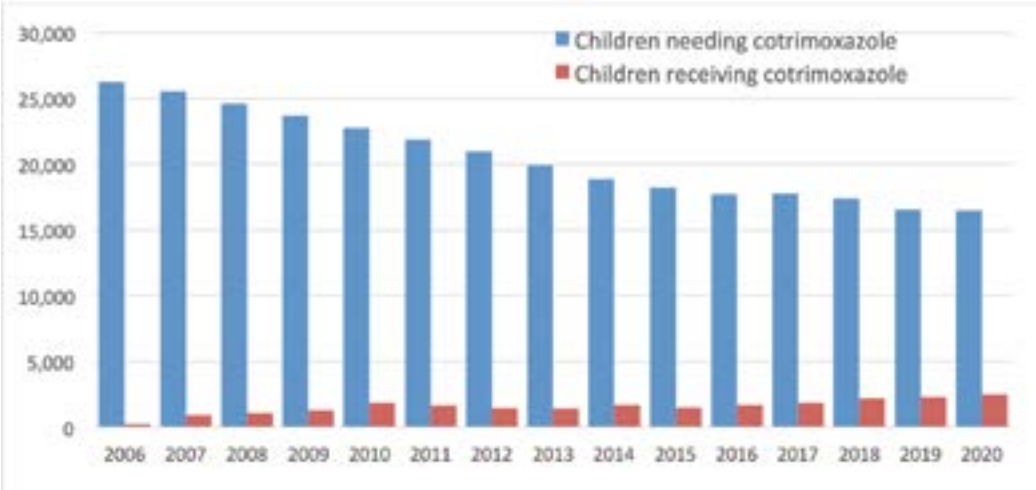


Figure 35: Children 0-14 Needing and Receiving Cotrimoxazole



3.3.3.9 Prevention of Mother-to-Child Transmission of HIV

Generally the number of HIV positive pregnant youth 15-24 will decrease yearly till 2020. The number of positive pregnant women with CD4 count < 350 will however increase drastically in 2016 and continue to increase gradually to 2020 as shown in figures 43 and 44.

Figure 36: HIV Positive Pregnant Women 15 – 24

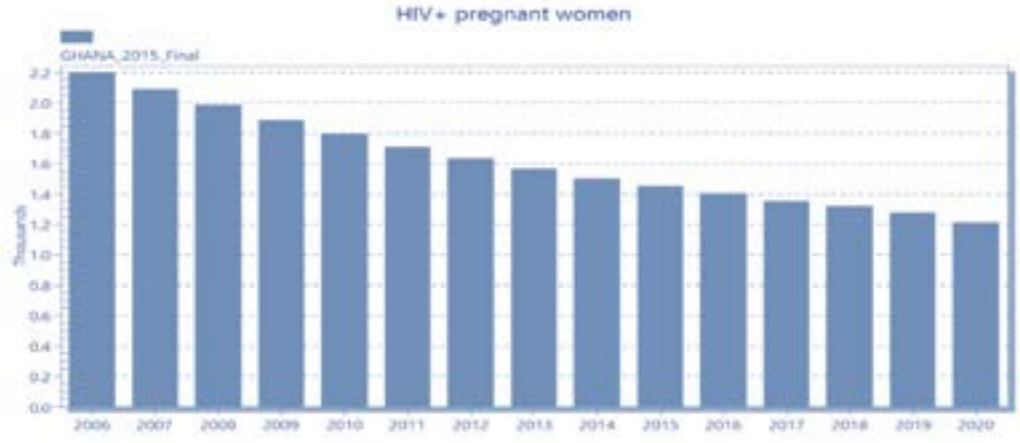
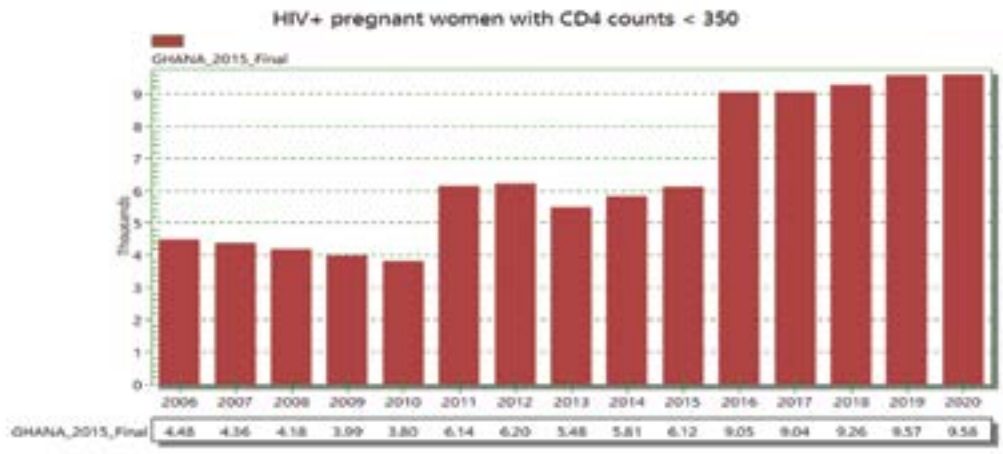


Figure 37: HIV Positive Pregnant Women with CD4 Counts < 350 cells/mm3



The unmet need for PMTCT is projected to reduce gradually up to 2020 when it will be zero. This is because most mothers are projected to receive PMTCT services as displayed in figure 34. Also generally, PMTCT coverage is expected to increase (Figure 46).

Figure 38: Mothers Needing and Receiving PMTCT

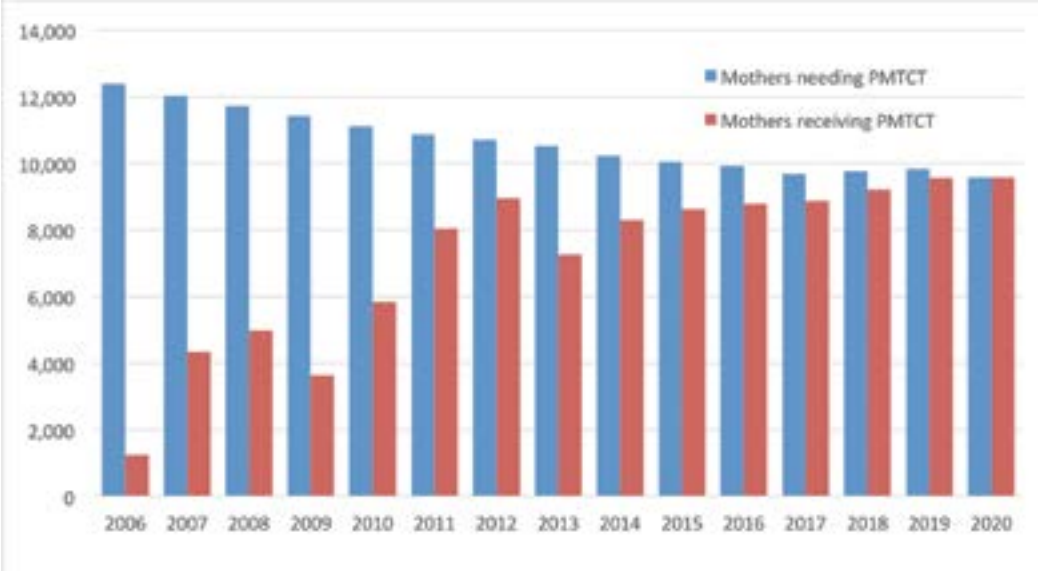
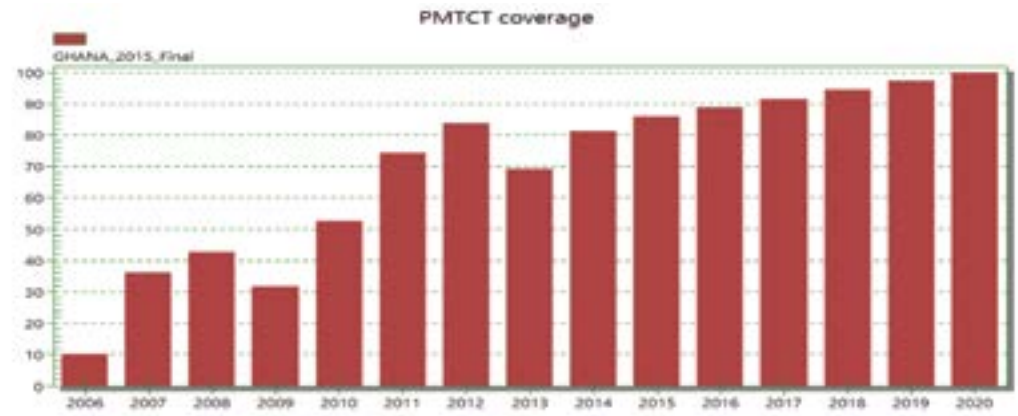


Figure 39: PMTCT Coverage



3.3.3.10 Impact of ART and PMTCT

Number of new infections due to mother-to-child transmission will decline gradually to 2020, whiles deaths averted by ART are projected to increase progressively to 2020. See figures 47 and 48.

Figure 40: Number of New Infections Due to Mother-to-Child Transmission

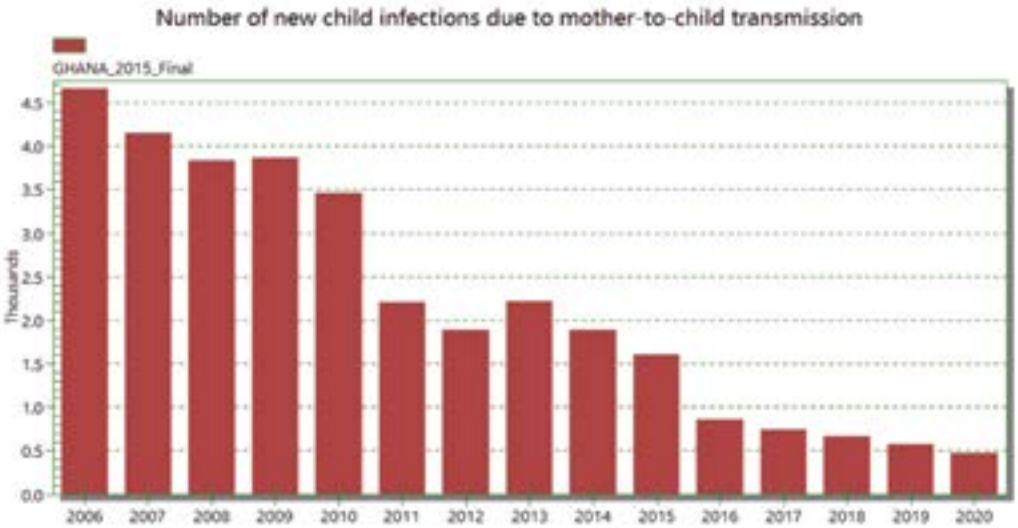


Figure 41: Deaths Averted by ART (ALL)

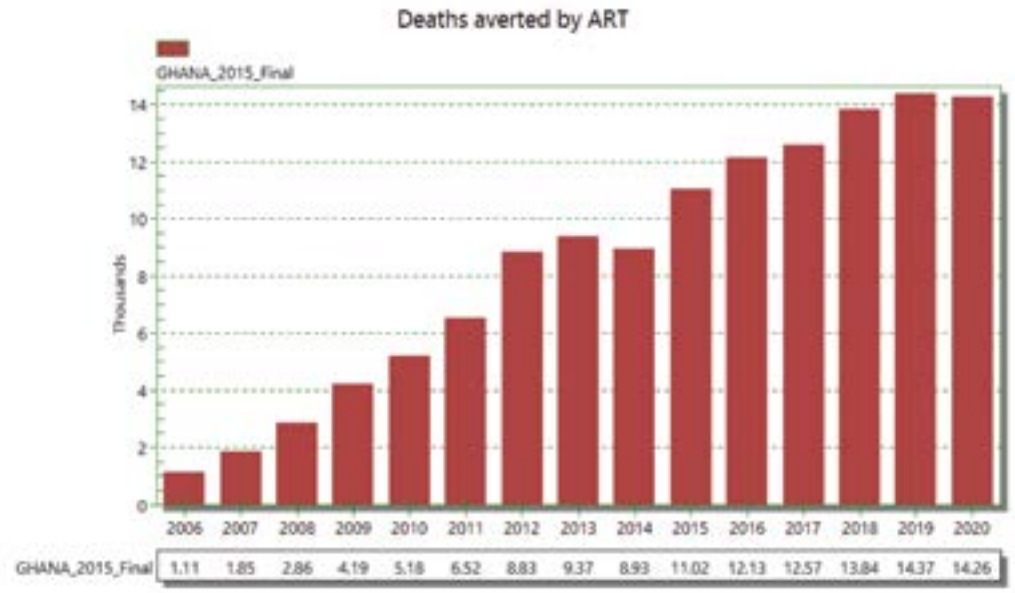
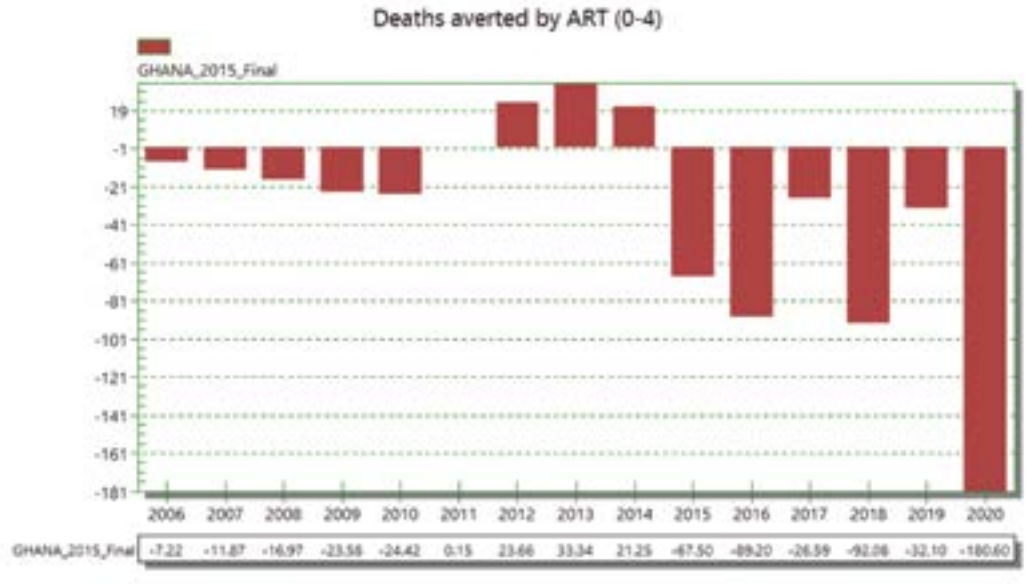


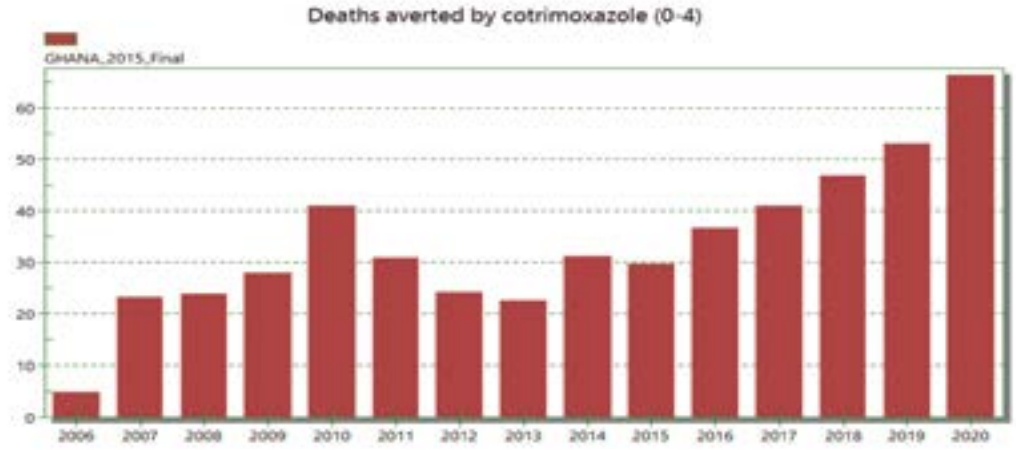
Figure 42: Deaths Averted by ART in Children 0-4 years



Deaths averted by co-trimoxazole in children are projected to increase from 2015 to 2020 gradually fall by 2020.

The expected increment in death to be averted by ART and Co-trimoxazole post 2015 will largely be due to improved PMTCT and paediatric ART coverage and interventions following the implementation of new WHO recommendations.

Figure 43: Deaths Averted by Co-trimoxazole in Children 0-4 years



Deaths and new infections averted by PMTCT in children will reach a peak in 2012 and 2014 respectively before gradually decreasing to 2020. This trend is more determined by the overall decline in the projected PMTCT need for the same period. See figures 44 and 45.

Figure 44: Deaths averted by PMTCT in Children 0-4 Years

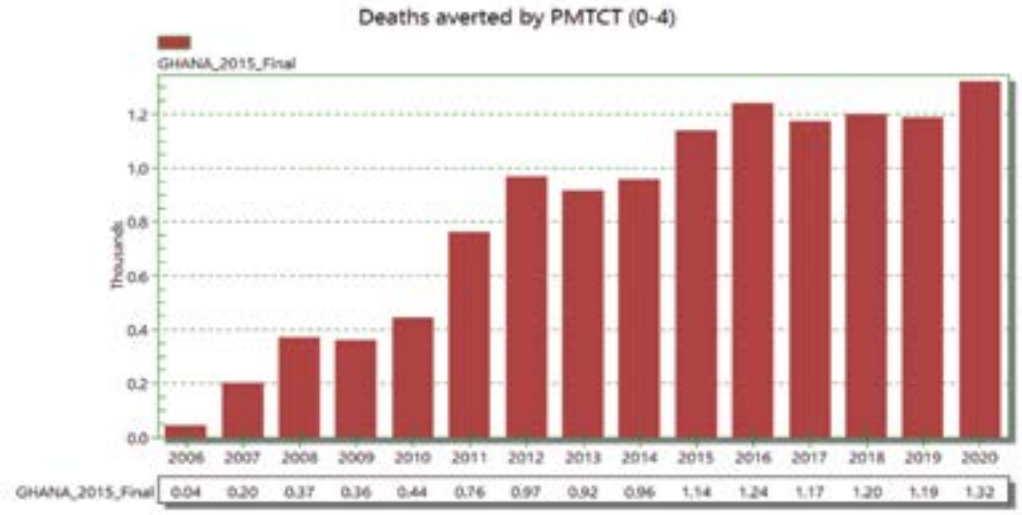


Figure 45: Infections Averted by PMTCT

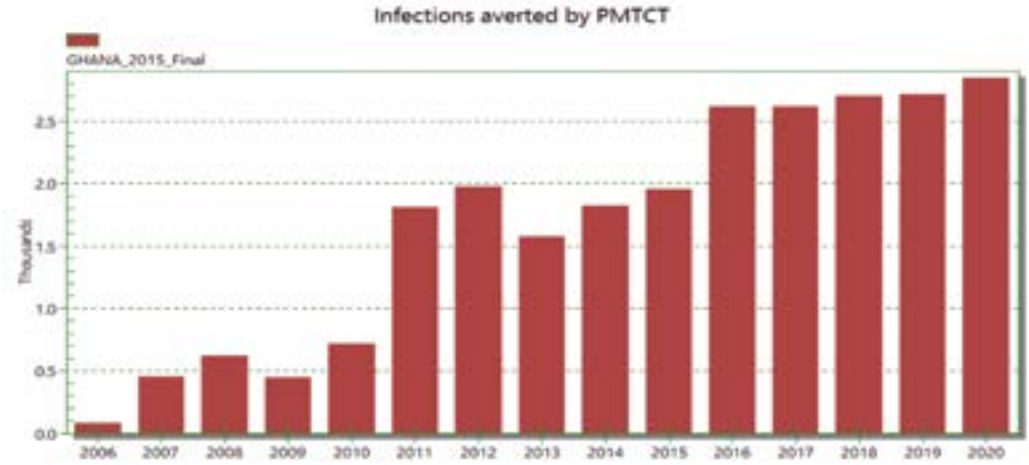
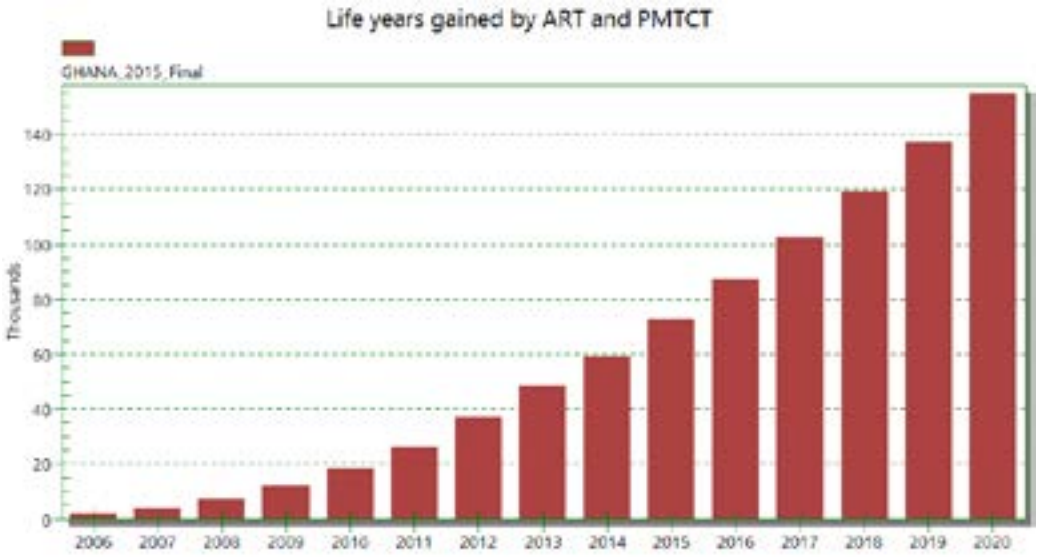


Figure 46: Life Years Gained by ART and PMTCT



As displayed in figure 53, Life-years gained due to ART and PMTCT is projected to increase progressively to 2020.

Table 7: Summary of HIV Population

HIV/AIDS Summary							
	2014	2015	2016	2017	2018	2019	2020
HIV population							
Total	250,232	251,897	253,301	254,987	257,883	260,573	262,606
Male	101,995	102,023	102,019	102,228	103,142	104,093	104,755
Female	148,237	149,874 1	51,282	152,759	154,741	156,480	157,851
Prevalence (15-49)	1.47	1.44	1.4	1.37	1.34	1.3	1.26
New HIV infections							
Total	11,356	10,624	9,002	8,333	7,763	5,931	5,329
Male	4,913	4,586	3,843	3,556	3,313	2,540	2,281
Female	6,444	6,038	5,159	4,777	4,450	3,391	3,049
Annual AIDS Deaths							
Total	9,248	6,814	5,316	4,483	2,830	1,912	1,578
Male	4,754	3,531	2,760	2,327	1,451	998	840
Female	4,493	3,283	2,556	2,156	1,379	913	738

Approximately 59% of HIV population are female with a male to female ratio of 1: 1.5 as shown in Table 7 above. On the other hand the proportion of females newly infected is averagely 57%. Furthermore, annual female deathswere lower than males (49%) in 2014, and projected to be lower to 2020.

Table 8: Trends in Projected HIV Incidence, AIDS Mortality and ART Needs

	2014	2015	2016	2017	2018	2019	2020
New HIV Infections Children 0-14	1,889	1,605	859	745	658	567	465
NEW HIV Infections 15-24	2,902	2,737	2,446	2,255	2,091	1,565	1,410
NEW HIV Infections 15-49	8,805	8,381	7,556	7,033	6,579	4,963	4,498
NEW HIV Infections 15+	9,467	9,019	8,143	7,588	7,105	5,364	4,864
Annual AIDS deaths Children 0-14	1,295	1,108	919	820	769	615	548
Annual AIDS Deaths 15-24	473	394	352	326	252	215	193
Annual AIDS Deaths 15-49	6,391	4,612	3,553	2,942	1,629	982	742
Annual AIDS Deaths 15+	7,953	5,706	4,397	3,663	2,062	1,297	1,031
Children needing Co-trimoxazole 0-14 (Dec 31)	18,865	18,220	17,724	17,773	17,377	16,544	16,475
Children needing ART 0-14 (Dec 31)	8,582	8,258	7,719	8,063	8,444	8,399	8,552
Adult needing ART 15-24	7,208	7,445	7,832	8,106	12,526	12,743	12,786
Adult needing ART 15-49	100,413	103,065	107,344	111,337	148,448	151,384	153,307
Adults needing ART 15+ (Dec 31)	133,582	141,955	150,385	158,925	204,186	211,227	218,720
Mothers needing PMTCT	10,226	10,046	9,916	9,689	9,766	9,832	9,580

In summary, the 2014- 2020estimates results projects HIV population to increase cumulatively but slowly due to an overall decline in prevalence and new infections with a commensurate increase in the need for ART. There would be a decline in trend of the number of AIDS orphans as more clients survive on ART. HIV incidence and AIDS mortality will also be declining as displayed by the number of deaths expected to be averted by ART AND PMTCT interventions, leading to a significant positive outcome in life-years gained. As survival improves the need for ART will also increase, however the need for PMTCT and co-trimoxazole is expected to reduce gradually.

CHAPTER 4: Prevention of New HIV Infections

Prevention of HIV infections in Ghana utilizes all the universally accepted approaches – PMTCT, HTC among the general and targeted sub-populations, behavioural change communication (BCC), condom distribution, STIs services as well as screening of blood and blood products.

The GAC together with partners intensified measures to further reduce HIV infections towards zero. New partnerships and innovative approaches that improve on efficiencies were adopted in 2014, despite challenges faced in the year especially in providing PMTCT and Early Infant Diagnosis (EID)services. In country stakeholders' consultations and assessments towards adoption of WHO option B+ policy on PMTCT were conducted and steps are being put in place towards implementing an appropriate policy in Ghana.

4.1 Prevention of Mother-to-Child Transmission

Encouraging pregnant women to know their HIV sero-status in order to reduce the risk of transmission of the virus from the mother to child is a key component of PMTCT service delivery and acts as the entry point of care for
mothers. HIV testing and counselling is a key prevention intervention and was provided at all PMTCT Centres. Since 2010, the country has been using the WHO option B protocol in the management of HIV positive pregnant women to further reduce Mother-to-Child Transmission (MTCT) rates.

In 2014, out of 601,726 pregnant women that tested for HIV, 12,583 representing 2.1% were found to be HIV positive. Of these positive pregnant women, 8299 representing 66% of pregnant women tested, received ARVs as either prophylaxis or treatment.

4.1.1 Policy Issues relating to Prevention of new infections

In 2014, country consultations, costing and needs assessment were conducted by relevant stakeholders including WHO, UNAIDS, GHS and UNICEF towards transitioning to Option B+. At the national level, the Joint United Nation Team on HIV and AIDS (JUTA) worked with NACP to develop national guidelines for transition from PMTCT option B to B+. UNICEF as a member of JUTA provided technical assistance to NACP to conduct an assessment of Paediatric ART services in Ghana. As GF/CCM members, JUTA supported technically the development of the country's concept note for submission to the GF within the new funding model. The concept note prioritized elimination of mother-to-child transmission (eMTCT) services in four high-burden regions where more than 60% of the country's HIV-positive pregnant women live. UNICEF continued to support the Eastern Region to implement its eMTCT plan developed in 2012. In 2014, UNICEF supported training on PMTCT/EID for 120 health staff from six high prevalence districts of the Eastern Region. Additionally, 75 doctors, nurses and midwives were trained on Paediatric ART Services. UNICEF also supported NACP to train 70 health staff on EID from 3 Northern Regions.

Major challenges that continue to plague the implementation of EID and Paediatric ART interventions include limited skills of health providers, weak defaulter tracing of positive mother-baby pairs, erratic supply of commodities and inefficient system of EID sample collection, transmission, testing and reporting back.

Table 9 shows the trend for PMTCT uptake and intervention including the provision of ARVs from 2009 to 2014

Table 9: PMTCT Service Data 2009-2014

	2009	2010	2011	2012	2013	2014
No. of Pregnant Women Tested	381,874	520,900	627,180	548,933	492,622	601,726
No. Positive	6,634	10,984	15,763	11,145	9,508	12,583
% Positive	1.7%	2.1%	2.5%	2.0%	2.0%	2.1%
No. on ARV Prophylaxis/Treatment	3,643	5,845	8,057	7,781 (70%)	7,266 (76%)	8,299 (66%)

As shown in table 9 above, more pregnant women were tested for HIV in 2014 than in 2013. However, the proportion of those positive, who received ARV's as prophylaxis or treatment in 2014 were less (66%) compared with the previous year (76%). The increase in testing rate could be attributed to an enhanced availability of test kits in the year under review. The provision of PMTCT services takes place in 1,656 health facilities out of 3,765 ANC centres.

4.2 Early Infant Diagnosis of HIV Exposed Infants

The country has installed DNA PCR machines in nine out of the ten regions to facilitate the screening of exposed infants for HIV and also for viral load testing for persons living with HIV and AIDS.

In the course of the year, the number of exposed babies screened for HIV in the various facilities was 2,878. Overall, in 2014 8% of exposed babies screened using DNA PCR were found to be HIV positive compared to 2013 figure of 7%. However, fewer (2,878) infants were screened in 2014 than in 2013 (3,546).

Table 10: HIV Exposed Infants Screened for HIV

No	Facilities with PCR	Infants Screened	Infants Positive at Six Weeks	Percentage (%) Positive
1	Korle Bu	1,628	138	8%
2	Eastern	664	69	10%
3	KomfoAnokye	334	8	2%
4	Sunyani	317	11	3%
5	Western	282	15	5%
6	Northern	211	11	5%
7	Volta	110	3	3%
8	Central Region	0	0	0
9	Upper East	0	0	0
Total		2,878	223	8%

The coverage of EID was low partly due to the fact that only 15% of the PMTCT facilities have the capacity to take dry blood samples (DBS) for PCR screening. In addition, the DBS cards and reagents for PCR testing were in short supply.

4.3 HIV Testing and Counselling (HTC)

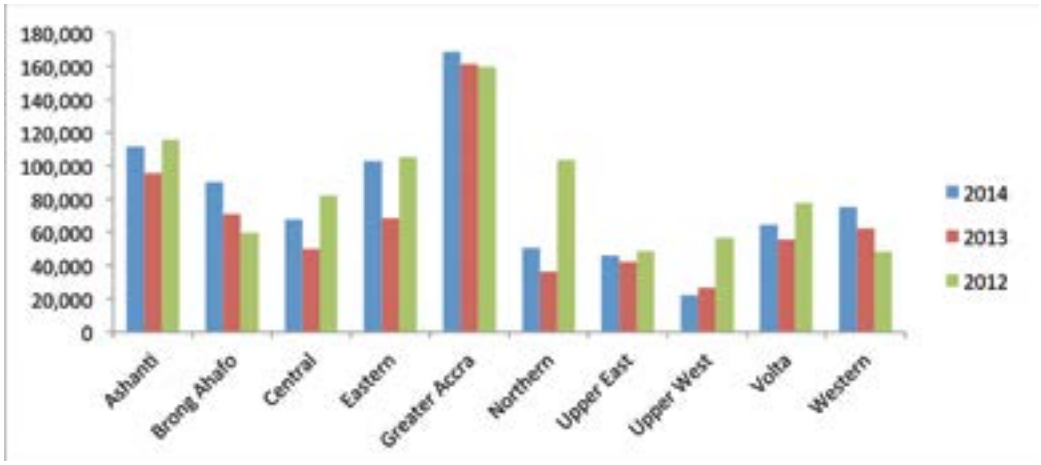
HIV testing and counselling services serve as the point of entry into HIV treatment, care and support services. Ghana has a total of 1,656 service points within health facilities in the country. In addition, mobile centres and outreach testing sites were mounted by civil society organizations and health workers during social events to make testing services available especially in the communities.. In 2014 a total of 798,763people were tested for HIV nationally, through the HTC centres and the limited "Know Your Status Campaigns" that were conducted. This figure represents 50% of expected HTC target for the year. Eighty-nine percent of those testing (717,638) were females. The increase in the numbers tested was due to improved supplies of HIV test kits in the country especially for PMTCT testing.

The HIV prevalence among the HTC clients was 4.3% as against 6% for 2013. Table 4 shows number of persons tested and counselled for HIV by Region in 2014.

Table 11: Number of Persons Tested and Counselled for HIV in 2014

Region	Men tested	Pregnant Women Tested	Non-Pregnant Women tested	Total
Ashanti	9,945	87,623	14,026	111,594
BrongAhafo	8,699	68,227	12,980	89,906
Central	5,033	55,685		7,120 67,838
Eastern	11,385	74,092	17,416	102,893
Greater Accra	21,604	118,472	28,496	168,572
Northern	2,818	42,573	5,068	50,459
Upper East	5,531	32,459	8,007	45,997
Upper West	2,321	16,366	3,257	21,944
Volta	6,843	47,901	9,782	64,526
Western	6,946	58,328	9,760	75,034
Total	81,125	601,726	115,912	798,763

Figure 47: Regional HIV Testing and Counselling Graphs 2010-2014



4.4 Blood Safety

As part of the country's strategy of ensuring that all blood and blood products for transfusion are screened for HIV antibodies among other tests, HIV test kits are provided to all health institutions that collect blood.

In 2014 a total of 168,978units of blood were screened for HIV throughout the country and 8,828, were found to be HIV reactive, giving a prevalence of 5%. The regional distribution is as shown in table below.

Table 12: Regional Distribution of Screened Blood

No	Region	Units of Blood Screened in 2013	Total HIV Reactive in 2013	% HIV Reactive in 2014	Unit of Blood Screened	Total HIV Reactive in 2014	% HIV Reactive
1	Greater Accra	55,953	1,479	3%	49,004	1180	2%
2	BrongAhafo	30,311	2,163	7%	17,8161	1,018	6%
3	Eastern	25,643	593	2%	17,991	891	5%
4	Northern	21,987	1,984	9%	9,839	425	4%
5	Volta	9,544	284	3%	9,097	656	7%
6	Ashanti	10,749	453*	4%	20,548	208	1%
7	Central	20,161	1,497	7%	10,500	758	7%
8	Western	23,705	1,479	6%	15,461	1,203	8%
9	Upper East	3,515	512	15%	5,408	233	4%
10	Upper West	6,332	1,031	16%	13,314	2,256	17%
	Total	207,900	11,475	6%	168,978	8,828	5%

*Without KATH

4.5 Sexually Transmitted Infections (STIs) Surveillance

Early detection and syndromic management of STIs is a major public health strategy for HIV prevention.

In 2014, a total of 11,903 cases of genital ulcer cases were reported in all regions. In addition, 37,545urethral discharge cases were identified as 43 193,402 vaginal discharges. The relative distribution of the various regions is shown below:

Table 13: STI Cases in 2014

Regions	Genital Ulcer	Urethral Discharge	Vaginal Discharge	Total
Ashanti	2,113	7,710	25, 792	35, 615
BrongAhafo	2,179	6,135	29,713	38,027
Central	652	4,072	20,150	24,874
Eastern	1,536	5,774	25,530	32, 840
Greater Accra	796	3,275	18,165	22,236
Northern	990	1,619	17,133	19,742
Upper East	872	1,881	14,968	17,721
Upper West	329	599	6,277	7,205
Volta	1,083	2,517	16,897	20,497
Western	1,353	3,963	18,777	24,093
Total	11,903	37,545	193,402	242,850

4.6 Behaviour Change Communication (BCC)

Comprehensive knowledge of HIV is important for an effective BCC strategy. This focuses on increasing the level of awareness of HIV and AIDS among the various populations; promote safe behaviour to prevent HIV infections, generate demand for HIV services and support effective utilisation of the HIV services. Comprehensive knowledge informs decisions that reduce risk of HIV infections.

4.6.1 HIV and AIDS non-clinical Prevention Interventions

In Ghana's quest to create a generation free of HIV and AIDS, GAC and its partners rolled out BCC activities to reach the general population. These activities targeted both youth and adults with information and education, testing and counselling as well as ABC campaigns.

During the year, a total of 916,608 individuals (comprising 570,990 youth and 345,618 adults) were reached through both one-on-one and group (small and large) engagements.

Table 14: Number of Individuals Reached with HIV Prevention Programmes

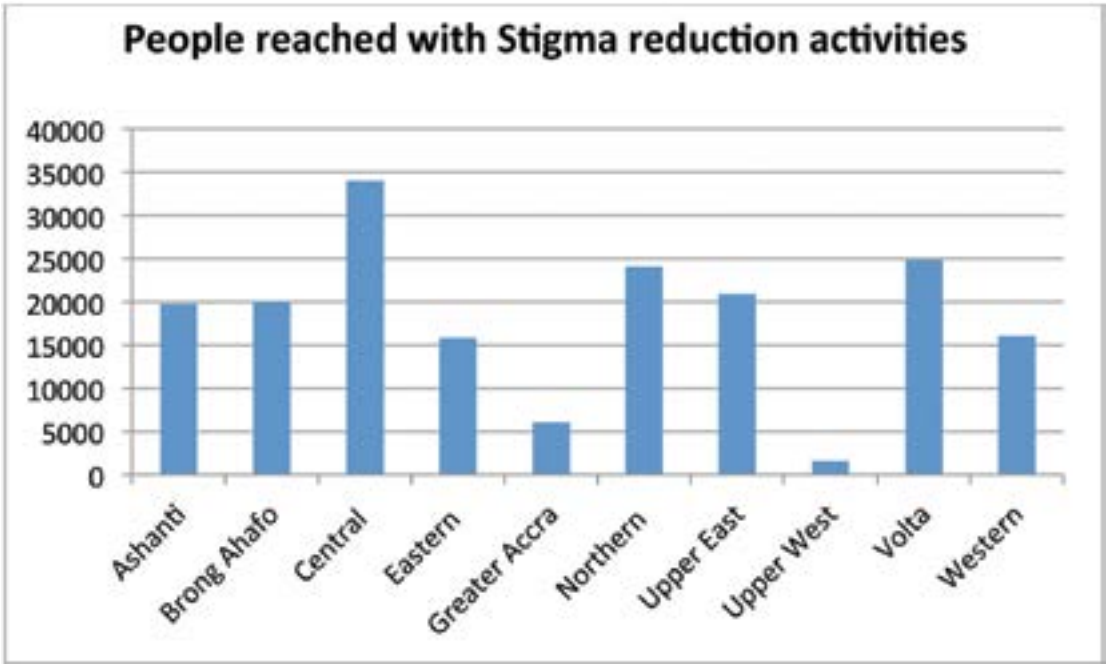
Indicator	Number of Individuals Reached with HIV Prevention Programmes		
Region All	(Youth and Adult)	Youth	Adult
Ashanti	134,279	84,413	49,866
BrongAhafo	103,498	74,105	29,393
Central	98,345	61,319	37,026
Eastern	85,741	40,339	45,402
Greater Accra	56,480	40,999	15,481
Northern	94,714	60,120	34,594
Upper East	104,598	68,185	36,413
Upper West	25,571	16,930	8,641
Volta	155,508	98,941	56,567
Western	57,874	25,639	32,235
Total	916,608	570,990	345,618

4.6.2 Stigma Reduction activities

Stigma continues to be a challenge to the national response since it affects uptake of HIV services including HTC, adherence to antiretroviral therapy and access to supportive services. The reduction of stigma and discrimination facilitates HIV prevention and control activities. A total of 183,006 people were reached with stigma reduction activities.

The figure below shows the extent to which stigma reduction activities were carried out in the all the regions across the country.

Figure 48: Number of People Reached with Stigma Reduction Activities



4.6.3 Condoms Promotion

Condom promotion as a preventive measure receives sufficient publicity to encourage safe sex practices among the general public. Within the year, implementing partners adopted innovative strategies through traditional and
non – traditional outlets to distribute condoms.

Overall, a total number of 20,880,654condoms were distributed in the country. Out of this number 13,078,742 (13,014,067 male condoms and 64,675 female condoms) were distributed to key populations and 7,801,912 (7,714,426 male condoms and 87,486 female condoms) to the general population.

Challenges encountered in the year are related to defective "Be Safe condoms" imported into the country and commodity shortages. It is anticipated that rebranding of the 'Be Safe' condoms, intensified public awareness and the availability of condoms will lead to significant improvement in condom distribution.

Table 15: Regional Distribution of Condoms by Type

Region	Male	Female	Regional Total
Ashanti	2,900,587	15,012	2,915,599
Brong Ahafo	2,329,001	53,215	2,382,216
Central	1,756,341	17,421	1,773,762
Eastern	3,030,184	9,568	3,039,752
Greater Accra	7,487,148	40,349	7,527,497
Northern	675,359	2,125	677,484
Upper East	754,043	6,714	760,757
Upper West	242,088	396	242,484
Volta	1,020,840	4,393	1,025,233
Western	532,902	2,968	535,870
Overall Total	20,728,493	152,161	20,880,654

4.6.4 Peer Education

The concept and the principles underlying Peer Education were applied by implementing partners (IPs), youth groups during their BCC interventions. GAC and stakeholders initiated the development of a National Peer Education Guidelines in 2014. The guidelines will be finalized this year.

4.7 Heart-to-Heart (H2H)(Campaign)

Stigma reduction activities by the Heart-to-Heart Ambassadors continued in 2014, the Ambassadors were mainly engaged in radio and television interviews especially on Radio XYZ and Amansan TV. All the Ambassadors took part in the interviews, either as individuals or in pairs. Scores of interviews, covering themes such as: stigma and discrimination against PLHIV, PMTCT of HIV, and the possibility of HIV positive persons marrying HIV negative persons and availability and accessibility of HIV treatment were conducted to educate and sensitize the public on HIV issues. The interviews also looked at the social impact of HIV and AIDS on PLHIV; care and support for persons living with HIV.

The H2H Ambassadors radio and TV engagements were heightened in November prior to the 2014 World AIDS Day (WAD). They joined their counterparts from NAP+ and stakeholders in the national HIV response to draw attention to the national event and educate the public on the essence of the national theme "Towards an HIV-free generation through PMTCT of HIV, Safe Sex and Stigma Reduction." All four H2H Ambassadors developed concepts for their individual projects in 2014 and these were successfully implemented. The H2H Ambassadors also took part in many other activities such as participating in corporate, religious, educational and national programmes.

4.8 Media Trainings

Media training was carried out for editors, private-sector media producers and presenters. The exercise which was nation-wide was carried out separately. The editors training took place in April and May while the training for private sector media producers and presenters took place in August and September. In both exercises, the country was zoned into three and with the assistant of the Regional Coordinating Councils, the Technical Support Units and media persons fitting into the two categories were selected and invited to participate in the training sessions. Editors and private media producers and presenters were chosen because previous training in 2012 had targeted reporters. The objective of the training was to enhance their understanding in the emerging trends in HIV to enable them report adequately and appropriately on HIV issues. In all, about 105 media persons from each category were trained. Presentations were made on an overview of the National HIV response, the HIV and STIs Policy, stigma and discrimination against PLHIV, the role of the media in the national HIV response, state of HIV in the host regions and UNAIDS accepted terminologies on HIV.

4.9 Key Populations (KPs)

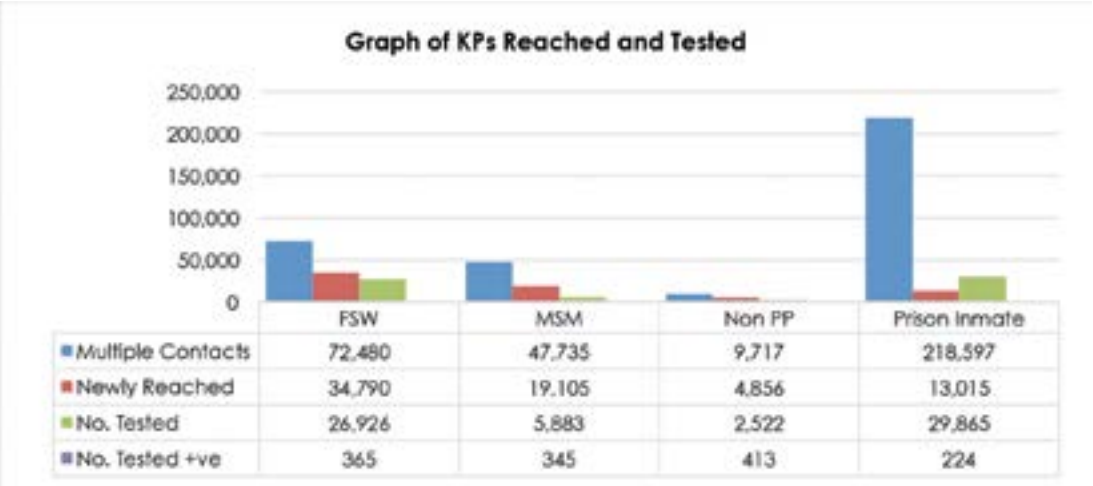
The GAC continues to coordinate a robust National HIV Response to prevent HIV transmission and mitigate its impact on the general and key populations.

The major funding sources for the KP interventions in Ghana are The Global Fund (GF) and President's Emergency Plan for AIDS Relief (PEPFAR).

In 2014, the total number of key population reached across all funding sources in all 10 regions in Ghana was 66,910 (FSW 34,790 MSM 19,105 and prison inmates 13,015) as new reached contacts and 338,812 (FSW 72,480 MSM 47,735 and Prison Inmates 218,597) for multiple contacts. Based on the 2011 estimates the population of FSW and MSM is 51, 937 and 30,579 respectively. Overall, the estimated coverage of FSW and MSM is 67% and 62% respectively. The prison population as at the end of December 2014 was 14,979. In 2014, 13, 015 prison inmates were reached with HIV prevention interventions, thus representing a coverage of 87%.

Service package for key population includes HTC which is routinely offered at Drop – In – Centers and during outreach sessions. In 2014, 348,529 FSW, MSM, Non PP and prison inmates were reached. Nineteen percent (65,196) were tested for HIV and 1,347 tested positive. Figure 56 shows the various target populations and the corresponding indicator.

Figure 49: Key Populations Reached and Tested



	FSW	MSM	Non PP	Prison Inmate
Multiple Contacts	72,480	47,735	9,717	218,597
Newly Reached	34,790	19,105	4,856	13,015
No. Tested	26,926	5,883	2,522	29,865
No. Tested +ve	365	345	413	224

4.10 Usage of Condom Vending Machines (CVM)

The GAC, under the 2010 Global Fund Agreement imported 400 condom vending machines through the Ghana Health Service for distribution throughout the country to prevent infection of STIs and HIV among key populations who engage in high risk sexual behaviour and general populations. Also in line with the NSP 2011-2015 goal of reducing infections of STIs and HIV by 50%, the condom vending machine increased availability and accessibility of condoms in Ghana. Strategically, the CVMs work mechanically and do not require electricity to operate. This feature makes them easy to operate and enable installation in rural and urban areas of the country.

Table 16: Regional Distribution of the CVM

Region	NAP+	CSO & FBO	WAPCAS	Prison Service	Ghana Police	Fire Service	Armed Forces	Total
Northern	1	12	7	2	0	1	1	24
Upper East	1	5	8	2	3	1	0	20
Upper West	1	6	3	1	1	1	0	13
Brong Ahafo	1	5	24	2	4	1	2	39
Ashanti	1	12	27	2	6	1	0	49
Volta	1	14	0	0	7	1	1	24
Western	1	6	6	2	4	1	3	23
Central	1	7	6	3	2	1	0	20
Eastern	1	18	8	2	3	1	0	33
Greater Accra	2	16	39	4	17	4	0	82
Total	11	101	128	20	47	13	7	327

A total of 327 Condom Vending Machines were installed for stakeholders including the security forces by the end of 2014. WAPCAS received the highest number of CVMs (128) for their key population program and these were installed in hot spots throughout their sites in all nine (9) operational regions except the Volta. The Greater Accra region had the highest number of CVMs 82 installations whiles the Upper West region had only thirteen (13)CVMs.

4.10.1 Usage and Condom Sales Figures

The CVMs provide convenient outlets to accessing condoms particularly in places that have non-existing stores and pharmacies which sell condoms. People prefer them to the pharmacies where one has to deal with a third person. This reduces the embarrassment and stigma attached to the sale of condoms. The condoms are also affordable than those sold at the pharmacies, groceries and supermarkets. This is why it is preferred by truck pushers, porters and other key populations. It is also preferred by the unemployed youth that live in the communities.

Table 17: Condoms Distributed by CVM at WAPCAS Sites

No.	Site Name	Pieces Distributed
1	Cape Coast	18,694
2	Swedru	17,464
3	Accra	12,000
4	AssinFoso	5,600
5	Mankessim	19,032
6	Dormaa	15,300
7	Nkawkaw	0
8	Sunyani	72,000
9	Kumasi	11,700
10	Ejura	4,000
11	Techiman	24,092
12	Wa	8,269
13	Tamale	12,300
14	Yeji	2,380
15	Bolga	12,532
16	Kintampo	35,870
	Total	271,233

WAPCAS distributed 271,233 male condoms through the CVMs at their sites. GAC Technical Support Units in Volta and Northern regions sold about 6,959 and 7,200 pieces of condoms sold through some CSOs CVMs. The total male condoms distributed in 2014 through CVMs were 285,392. Regular collection of all sales figures has been challenged by the withdrawal of some unwholesome "Be Safe" brands by the Food and Drugs Board which resulted in stock outs of the brand in 2014.

4.11 Prevention among the Youth

The HIV situation among young Ghanaians aged 15-24years provides a proxy for HIV new infections. According to the GDHS 2014 results, among the youth age 15-24 who have had sexual intercourse in the past year, 16% of young women and 3% of young men have been tested for HIV in the past year and received their results prior to the 2014 GDHS. Overall, less than 1% of Ghanaian youth age 15-24 are HIV positive. HIV prevalence is higher among young women (1.5%) than among young men (0.2%). HIV prevalence among young women is highest among women age 23-24 years (4.7%) and lowest among women age 15-17 years (0.3%).

Intensive youth programing in the past years and more recently a more coordinated response by stakeholders and GAC through the development of the Joint Youth Action Matrix and the "Protect the Goal" Campaign were the major interventions aimed at the youth.

The GAC, operationalized recommendations from the 2013 youth forum by establishing a "Joint Youth Action Matrix" Coordination Committee. A Terms of Reference for the committee was drafted, accepted by members (GAC, National Youth Authority (NYA), Hope Care, PPAG and Curious Minds) and the first meeting was held in May 2014. Subsequently, a retreat was organized for members to draw a work plan, review and outline activities to be implemented in the next half of the year.

In 2014, activities carried out covered essentially all Six Bold Action Areas of the Joint Youth Action Matrix. These are:

1. Prevention of HIV among the youth
2. Implementing Treatment, Care and Support Programs
3. Effective Participation of Young People
4. Effective Coordination of Youth Targeted HIV & AIDS Programs
5. Increase Technical Capacity of Stakeholders
6. Policy and Legal Environment

However, most of the activities were under Area 1 (prevention), 4 (coordination) and 5 (increase technical capacity).

To promote behavioural and social change, help maintain and further decrease the HIV prevalence among the youth and ensure that the country gets to the desired 'Zero New Infection, Zero AIDS related death and Zero discrimination' the national response continued the processes of developing youth specific IE&C materials on three themes – prevention, modes of transmission, availability and use of ART and risk reduction activities. Processes

for the development of a National Peer Education Guideline were also intensified, and it is anticipated that the draft guideline would be ready by third quarter 2015.

4.12 Youth Prevention Programmes/Interventions by Institutions

4.12.1 JUTA and Partner Activities

The Joint United Nations Task Team for HIV and AIDS continued to support activities in-country by funding and providing technical assistance to youth programs using their comparative advantages. The supported activities were linked to the Youth Matrix and involve all the six bold action areas, sexual and reproductive health and the "Protect the Goal (PtG)" Campaign.

4.12.2 UNFPA

(i) Supported review and Development of new Sexual and Reproductive Health (SRH) policy

UNFPA supported the review and development of a new Sexual and Reproductive Health Policy document by providing technical assistance and providing funds for hiring a consultant to work with the NationalPopulation Council (NPC).

(ii) Provision of integrated HIV prevention and family planning (FP) /SRH education and services to out-of-school youth including PWDs, and young FSW (Northern, Upper East, Upper West, Volta, Central, Ashanti, Brong Ahafo) kayaye and male truck pushers and refugees.

Through UNFPA technical and financial support to Ghana Health Services and Ministry of Gender Children and Social Protection (MOGCSP) the following activities were carried out:

- 199 trained PE's and non-traditional health commodities distributors were used in providing health services. About 22,000 youth were reached with these services.
- 30 members of the association of persons with disabilities were trained as PE's in the Upper East region.
- 90 female head porters (kayaye) were trained as community based mobilizers. This group reached about 6,000 kayaye with sex education.
- 60 leaders of the truck pusher's association were also engaged in male interactive sessions to facilitate male involvement in reducing GBV and promoting utilization of integrated HIV and FP services by kayaye.

(iii) Support provision of life skills and sexuality education for in school youth (SHEP, new ALERT model).

Through collaboration with the Ghana Education Service (GES), NYA and UNICEF:

- 390 teachers from 13 Districts in 5 Regions - BA, AR, NR, UE, and UW acquired skills in applying the revised ALERT model in imparting sexuality education to in-school youth.

- 240 in-school youth benefitted from peer education training and acquired skills to provide sexuality education to their peers.

- Heads of 11 NYA youth leadership training institutions benefited from training on integrating sexuality education into existing curriculum.

(iv) Established Support Groups for Sexuality Education and Contraception for Young Female Sex Workers.

The country office provided support to Society of Women in Africa Against AIDS (SWAA) to establish five support groups/networks of young FSW in five districts; Techiman, Kintampo, Sunyani West, Asante Akim and Ejisu-Juabeng. The establishment of five networks/support group of young FSW age 14 to 18 years was an entry point to providing sexuality education for the target group. The Country Office supported the organization of monthly meeting and counselling sessions for the target group. Through these interventions, about 70 marginalized girls were equipped with the necessary skills to avoid teenage pregnancies and gender-based violence, among others.

4.12.3 UNAIDS

UNAIDS continued their coordination and oversight responsibilities to the Youth Cluster of UN agencies in implementing youth related activities. They held High Level Political Advocacy for prevention among youth (as one of the United Nation Country Team (UNCT) advocacy themes for 2014) through the Protect the Goal Campaign (PtG). Meetings with the Minister of Youth and Sports and National Youth Authority to better involve the Youth in HIV and AIDS issues were held for better collaboration. Through the EC/UNAIDS collaboration, the GAC was supported to develop advocacy & communication package/materials for prevention among the youth. TV advertisements, branded shirts and paraphernalia were widely disseminated.

4.12.4 ILO

Based on a study carried out in2013 which identified several vulnerabilities of young workers in the informal economic sector in the Greater Accra Region, ILO provided financial support for the refurbishment and establishment of one Youth Friendly Center. This centre is strategically located in a FSW community in Odawna, a suburb of Accra. In addition, youth leaders in this sector were educated on PtG campaign concepts and messages.

4.12.5 IOM

The International Organization on Migration (IOM) provided support to the Migration Health Assessment Centre (MHAC). This included referrals of HIV positive migrants to facilities providing HIV treatment, care and support.

- 187 migrants reached with HTC and IEC materials. Three (3) HIV positive cases were referred to infectious disease specialist.

- Girls clubs and Pregnancy Schools have been established in the migration camps.

4.12.6 UNHCR

During the 2014 implementation year, UNHCR provided peer education programs to Migrants and monitored their activities. Using their comparative advantage, UNHCR in partnership with Christian Council of Ghana, Ghana Health Service and PPAG, 42 young females received education on HIV/SRH from psychosocial counselors, health personnel and Psychologist. Over 47,493 male condoms and 1,188 female condoms were distributed in the camps and surrounding urban areas. Funds were provided for small business support for a few PLHIV's as well.

4.12.7 WFP

(i) Nutritional Support to Young PLHIV and Refugees: – WFP continued their activities of helping to reduce vulnerability to HIV and households of PLHIV. Through their activities,

- 14,255 PLHIV Households received food and nutritional support

- 65 PLHIVs out of 92 in the refugee camps and the urban area received nutritional support

4.12.8 UNICEF

UNICEF in collaboration with UNFPA supported the provision of life skills and sexuality education for in-school youth (eSHEP, new Alert model).

4.12.9 UNESCO

- US Peace Corps in Ghana worked with GES to produce materials on sexuality education for the hearing impaired by adapting the GES ALERT manual/materials (including sexuality education). This activity was supported by UNESCO, UNICEF and UNFPA.

- UNESCO supported the celebration of International Youth Day and World AIDS Day by distributing relevant Youth and HIV publications during the event as part of the collective UN exhibition.

- UNESCO educated the Management Information System personnel of MoE and built their capacity as part of a West and Central Africa (WCA) intervention to initiate the process of using the core global indicators in selected WCA countries in order to monitor and evaluate the education sector response to HIV and AIDS, either through the integration of some of the indicators in the Annual School Census questionnaire or through specific school-based surveys.

- UNESCO provided technical assistance to Ministry of Education in the review of the sector HIV and AIDS Policy Document launched in December 2014.

4.13 Government Partners

4.13.1 NYA

The National Youth Authority (NYC) seeks to build capacity for youth workers to deliver on HIV/AIDS, gender and adolescents sexual and reproductive health rights.

The need for a data base and directory of all youth focused or youth led organizations and in particular those involved in HIV, SRH work is one of the key recommendations in the action matrix. NYA partnered UNFPA to conduct a mapping of youth led organizations and identify capacity gaps in 5 regions of Ghana. The final report was released in 2014 and regional network review meetings were conducted subsequently to discuss updates on the mapping exercise and activity reports of the mapped organizations. In all, 210 organizations were interacted with. The National Youth Authority also deployed Mobile Technology to facilitate transmission of youth- targeted messages on ASHRH to young people. One hundred and sixty thousand (160,000) young people gained access to accurate HIV and SRH information through the bulk SMS system 'ReProTalk".

4.14 Other Civil Society Partners

4.14.1 Curious Minds

In partnership with UNFPA, Curious Minds reached several numbers of youth and adults through the development and dissemination of magazine and newsletter on leadership, entrepreneurship and development. They collaborated with other youth focused organizations in the 'ASK Alliance' and provided HIV and reproductive health services to 17 districts in Ghana.

4.14.2 PPAG

PPAG, a leading youth focused organization in Ghana carried out a number of projects from different funders to address HIV and SRHR issues of the youth.

(i) PPAG received funds from GAC through the NSP Program and implemented activities which addressed HIV prevention among young people in six tertiary institutions {Kwame Nkrumah University of Science and Technology [KNUST]; University of Ghana; Central University College; University of Development Studies [UDS]-Nyankpala Campus, Cape Coast Polytechnic and the Ho Polytechnic} with a total population of about 90,000 students.

The organization trained a total of 60 peer educators from the tertiary institutions to provide HIV Prevention information to students and also to facilitate the sale of condoms to the student population. Three hundred and fourteen thousand and sixty (314,060) condoms were sold through peer education sessions, talks on stigma reduction and HIV and AIDS, condom demonstration activities and during one-on-one and small group discussions.

(ii) PPAG/WAHO Collaborative Activities in Tertiary Institutions. In 2014, PPAG collaborated with WAHO to embark on contraceptives promotional activities in some selected tertiary institutions namely; University of Education-Winneba Campus, Accra Polytechnic and Ho Polytechnic toincrease knowledge and use of condoms and emergency contraception pills.

A baseline survey, with a primary objective to find out the rate of contraceptive knowledge and usage among students was conducted and report released. PPAG is also part and lead of the 'ASK Alliance'.

4.14.3 The 'ASK' Alliance

The Alliance comprises of eight (8) civil society organizations working towards the improvement of SRHR of young people between the ages of ten and twenty-four years (10-24) as well as the underserved groups such as: YPLHIV, young mothers, disabled youth, hard-to-reach youth in remote areas and young people in the age group 10-16 years in Ghana. This intervention aims at increasing young people's uptake of SRH services by the end of 2015.

The 8 CSOs are Planned Parenthood Association of Ghana – PPAG; Hope for Future Generations (HFFG).; Northern Sector Awareness and Action Centre(NORSAAC); Simli Aid; Presbyterian Health Services – North; Curious Minds and Theatre for a Change and Savannah Signatures. The Alliance is implementing the ASK Programme in seventeen (17) districts in four regions namely, Northern, Upper East, Brong Ahafo and Central Regions of Ghana. As part of the implementation arrangements, referral facilities have been identified in these regions with specific focal points for the youth to contact for information, counselling and SRHR/HIV services.

The Alliance was officially launched on 23rd October 2014 at the Jubilee Park, Tamale with a theme 'Comprehensive Sexuality Education (CSE) What Young People Want, What Young People Need'. The project is being funded by the Dutch Government.

As at October 2014, about 800,000 young people were reached with accurate and comprehensive information of SRHR/HIV and AIDS, 300,000 young people had taken up a variety of contraceptives and over 55,000 parents and guardians of young people were reached at community level with campaigns on SRHR/HIV and AIDS

4.14.4 2014 International Youth Day Celebration

The International Youth Day was jointly planned and organized by NYA, GAC, UNFPA and relevant partners. Key highlight of the celebration was the launch of the Youth Entrepreneurship Scheme (YES) by His Excellency, Mr. John Dramani Mahama, The President of the Republic of Ghana. This is aimed at providing technical and financial support for existing and potential youth entrepreneurs at a separate ceremony same day. His Excellency also launched the 'Selfies Campaign' by UN which serves as an advocacy tool for the consideration of a goal dedicated to young people under the post 2015 agenda. "Condomize" activities and an exhibition of products from youth entrepreneurial activities also formed part of the day's celebrations.

4.14.5 Protect the Goal (PtG) Campaign

The Protect the Goal Campaign concept is based on linking the principle that illustrates the power of protection in the game of football to this idea that if a similar principle of self-protection is applied it will be easy for one to be empowered for protection against HIV infection. It is a campaign to raise awareness around HIV prevention and encourage young people to get

actively involved in both the national and global response to HIV through the promotion of safer sexual practices. The Ghana campaign was launched in December, 2012 at a press conference at the UNAIDS office and endorsed by His Excellency, Mr. John Dramani Mahama, the President of the Republic of Ghana in January 2013 at the Osu Castle. Key partners of the campaign are the GAC, the Ghana Football Association, the National Youth Authority and the UN system. In 2014, the Ghana PtG campaign continued earnestly throughout the year with partners implementing individual activities in addition to joint programs. The three main messages of the campaign, 'Use Condoms, Know Your HIV Status and Reduce Sexual Partners' were adequately shared in these programs. Most of the activities were funded by Government of Ghana (GoG) and the UN system.

Notable among events and activities are as follows:

1. PtG World Tour and Signing of Tour Ball by H.E the President of the Republic of Ghana.
The UNAIDS organized a Global Tour to all 32 participating countries of the 2014 World Cup Tournament, as part of activities towards its kick-off. The tour involved the arrival and symbolic signing of a PtG ball, by all Heads of State/President of the participating countries in solidarity and endorsement of 61 the PtG campaign. The PtG ball arrived in Ghana on 21st May 2014 and presented to His Excellency, President John Dramani Mahama by the Senior Advisor to the UNAIDS Executive Director and the leader of the Tour Team, Dr. Diallo. In a ceremony at the Presidency- Flag Staff House, the President signed the ball on May 23rd 2014.

2. International Protect the Goal Day
The 9th of June has been declared International Protect the Goal Day. As part of the events marking the day the Executive Director, Michel Sidibe performed a global launch of the Day in Salvador da Brazil with representatives of Government and UNAIDS. The Ghana PtG day was launched at Opera Square in Accra. This was characterised by a number of activities such as HTC, condom activation sections and quizzes for youth and the general population. Addressing the youth and traders of Opera Square, the Director General of GAC explained the concept of PtG and urged the audience to practice safer sexual behaviors to avoid HIV infection. Mr. Haile Girmay, Country Director of UNAIDS reaffirmed these concepts and together with other facilitators engaged participants in an open forum to discuss issues on HIV prevention.

Information, education and communication materials and condoms were extensively distributed during the commemoration. A total of 255 individuals voluntarily tested for HIV. The day's event was concluded with a media interaction with the Director General of the GAC and UNAIDS Country Director.

3. Delegation to support Launch of Malawi PtG campaign
Based on the successes achieved, the Ghana campaign became the example and pacesetter to other countries. In August 2014, a PtG team from Ghana was invited by the Government of Malawi and UNAIDS to attend and 62 endorse the Malawian PtG launch ceremony and the signing of the Global Ball by President of Malawi, H.E. Prof Arthur Peter Mutharika. The mission was led by the Director General of the GAC, Dr. Angela El-Adas and included PtG Ambassadors, Mr. Asamoah Gyan, captain of the Black Stars, Steve Bedi a renowned saxophonist and staff from UNAIDS.

CHAPTER 5: HIV Treatment, Care and Support

The country's goal in the area of treatment, care and support is to improve the quality of health and prolong the life of PLHIV. In order to make a significant change in the lives of PLHIV, the country continued with the provision of the highly active antiretroviral therapy.

5.1 HIV Treatment

The country continued with the provision of ARVs to PLHIV as part of its strategy of reducing morbidity and mortality among the infected and to prolong life. Currently, 196 health facilities are providing ART services which include 17 private self-financing facilities.

In the year under review, a total of 14,994 PLHIV, made up of 13,809 adults and 1,185 children were enrolled on ARVs. The regional distributions are as follows:

Table 18: Number Provided Antiretroviral Therapy

Regions	Adults		Children		Total
	Male	Female	Boys	Girls	
Ashanti	781	2,136	132	157	3206
Brong Ahafo	540	1,545	88 1	28	2301
Central	132	496	17	21	666
Eastern	520	1,493	73	85	2171
Greater Accra	793	1,940	118	135	2986
Northern	167	397	5	6	575
Upper East	131	407	20	18	576
Upper West	72	172	4	7	255
Volta	263	798	43	52	1156
Western	242	784	38	38	1102
Total	3641	10,168	538	647	14994

A total of 83,712 PLHIV are alive and on ARV medication as at the end of 2014. These are made up of 79, 131 adults (47,084 females and 24,771 males) and 4,581 children made up of 2,039 girls and 1,868 boys.

In the course of the year, 1,523 deaths among those on ARVs were recorded whilst 143 of those on ARVs stopped treatment due to adverse clinical events In addition, 5,378 were declared as lost to follow ups. In effect, 92% of those on ARVs are still alive and supporting the socio-economic development of the country. See Table19.

Table 19: Total ART Clients as at December 2014

	No. Currently on ART as at December 2014	No. Newly Initiated in 2014	No. of Deaths	No. Lost to Follow up	No. who Stopped Treatment Due to Clinical Status or Events
Adults	79, 131	13,809	1,431	4,968	134
Children	4,581	1,185	92	410	9
Total	83,712	14,994	1,523	5,378	143

5.2 Enrolment and Accessibility to ART

The country's policy has been that all HIV positive clients should be referred to an ART centre or facility and invariably these are done by the health professionals. However, the country does not have full coverage of HIV positive clients at its ART centres. In 2014, 83, 712 PLHIV representing 65.6% of those needing treatment were enrolled at health facilities for ART treatment, care and support. See table 19 above.

5.3 TB and HIV Co-infection

To ensure comprehensive management of persons living with HIV, TB which afflicts majority of HIV infected clients were monitored. Every person infected with HIV is screened for TB before enrolled on ARVs and vice versa. In 2014, a total of 49,343 persons on ART were screened for TB whereas 45,217 were screened in 2013. Again, 1,278 HIV positive persons with TB were put on highly active antiretroviral therapy in 2014 as against 859 in 2013.

5.4 National Health Insurance Scheme (NHIS) Enrolment Uptake

One important strategy of the NSP 2011-2015 is to ensure enrolment uptake of NHIS for PLHIV and their dependents. The NHIS enrolment for PLHIV forms part of the Ghana Government Social Protection Strategy. The purpose for this strategy was for PLHIV and their dependents who are under eighteen years to gain access to comprehensive health care services at a reduced and affordable cost.

The Global Fund in collaboration with the GAC, since 2010 has provided funds to health facilities to enrol PLHIV on to the NHIS. Till date a total of 123 health facilities have been funded to provide this service. The GAC provides oversight, supportive supervision and monitoring of the entire process.

The NHIS is operationalized through the Mutual Health Insurance Schemes (MHIS) at the Metropolitan, Municipal and District level which serve as vehicles for delivering healthcare services.

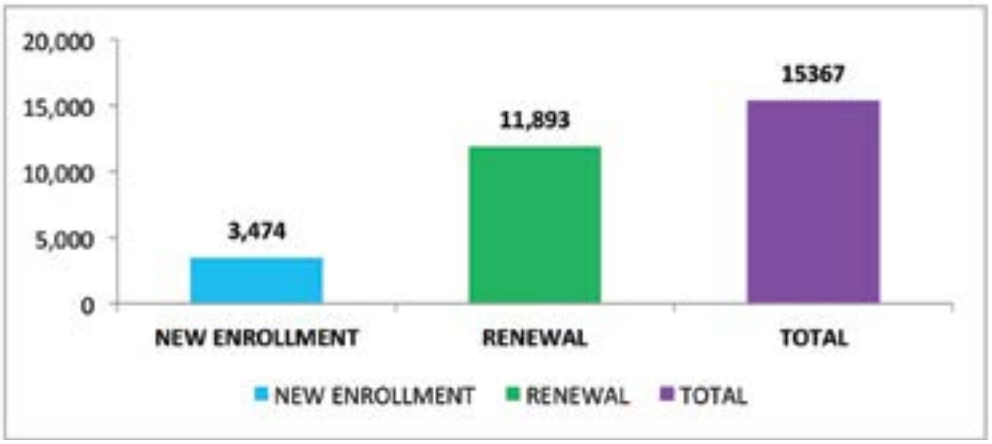
5.4.1 Enrolment of PLHIV Clients in 2014

During the year, (January to December 2014) a total of 15,367 PLHIV and their dependents benefitted from this service. Out of this number, 3,474 were new enrolment and 11,893 cards renewed which is shown in Table 20 and Figure 50.

Table 20 : Number of Enrolment and Renewal

Year	New Enrolment	Renewal	Total
2014	3,474	11,893	15,367

Figure 50: Enrolment of PLHIV Clients in 2014



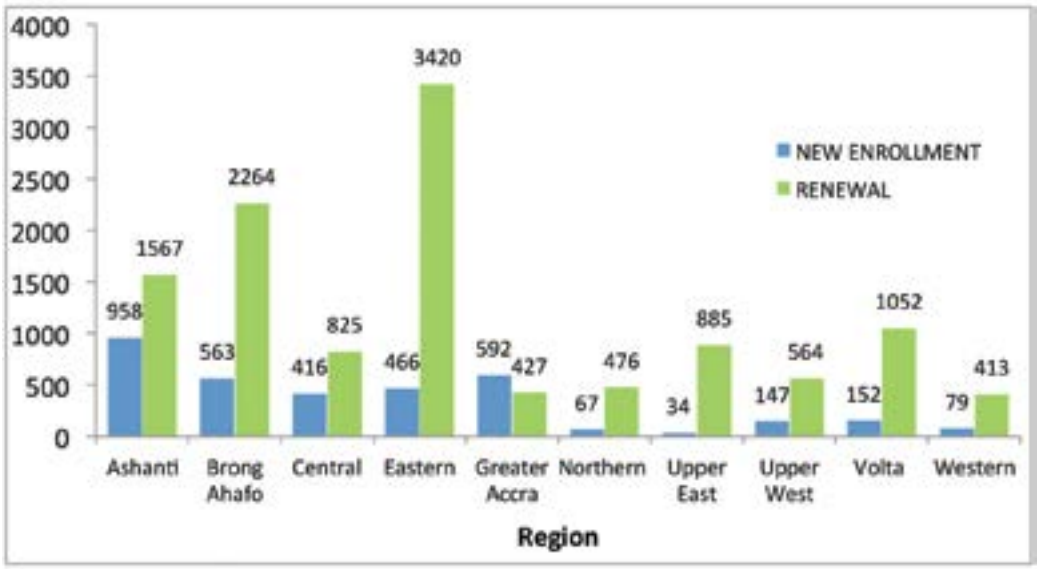
5.4.2 Regional Enrolment of PLHIV clients in 2014

Table 21 shows the regional distribution of new enrolment and renewal for the year under review.

Table 21: Regional Distribution of New Enrolment and Renewal

Regional Disaggregation of 2014 NHIS Data			
Region	**New Enrollment**	**Renewal**	**Total**
Ashanti	958	1567	2525
Brong Ahafo	563	2264	2827
Central	416	825	1241
Eastern	466	3420	3886
Greater Accra	592	427	1019
Northern	67	476	543
Upper East	34	885	919
Upper West	147	564	711
Volta	152	1052	1204
Western	79	413	492
Total	3,474	11,893	15,367

Figure 51: 2014 Regional NHIS enrolment for PLHIV

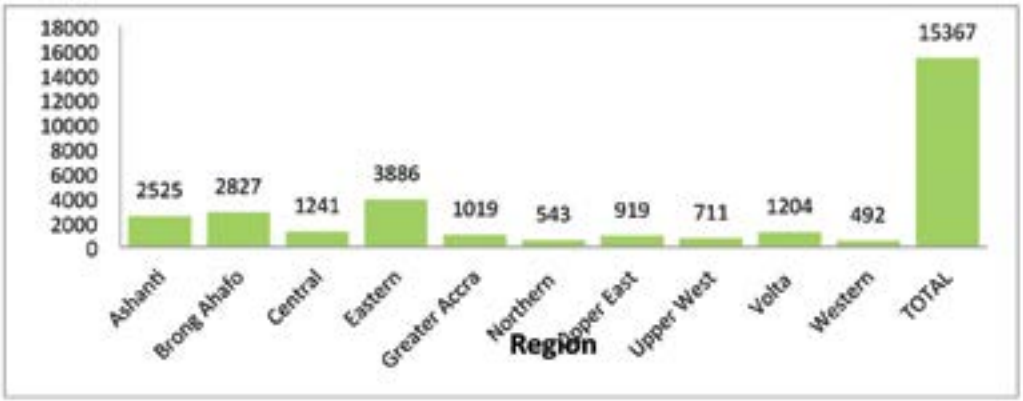


The Table above shows clients that were newly enrolled and those with their cards renewed in 2014. The data shows that Eastern Region had the highest enrolment of PLHIV clients (3,886) in 2014.

Consistently Eastern Region has recorded the highest prevalence. In view, of this almost all the health facilities in the region were funded to enrol PLHIV onto the scheme to access treatment care and support services.

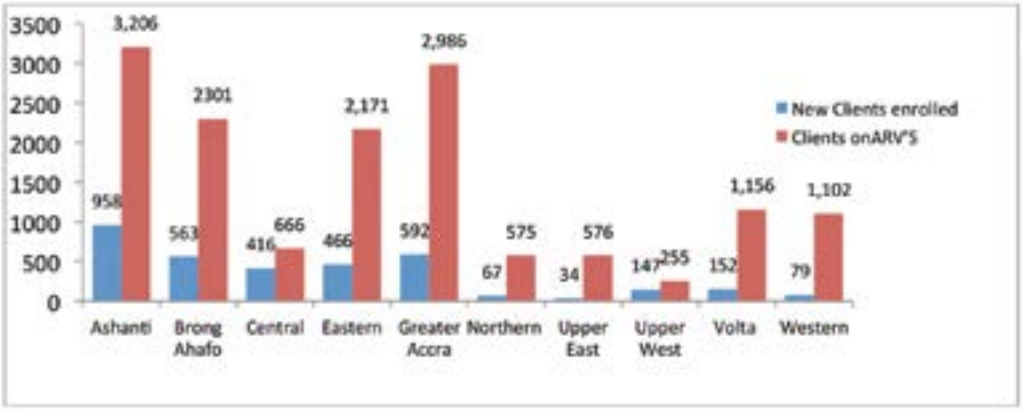
Comparing the enrolment data for 2013 (12,748) and 2014 (15,367) shows a general improvement in the enrolment of PLHIV on to the scheme.

Figure 52: Total Enrolment of PLHIV clients in 2014



The table above shows the regional distribution of enrolment. Eastern Region recorded the highest figure with the least in Western region

Figure 53: Comparative Analysis for New PLIHIVs enrolled and Accessing ARV's



The figure above shows the regional distribution of new clients enrolled onto the scheme and also accessed ARV's in 2014. Ashanti recorded the highest with the least in Northern, Upper West and Upper East region.

Figure 54: 2014 Distribution of Clients on NHIS and Clients Receiving ARVs

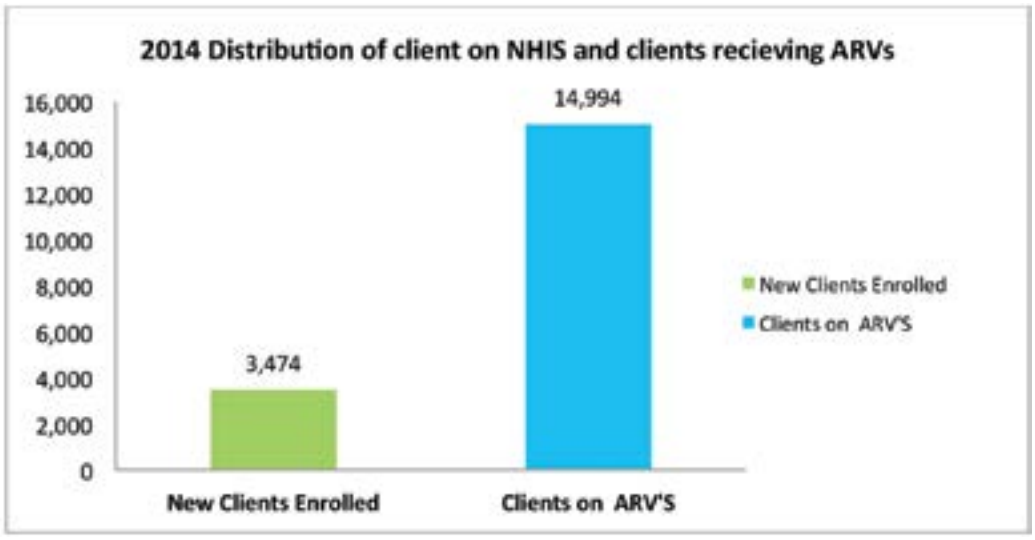


Figure 55: Comparative Analysis of New Clients that Benefited from NHIS

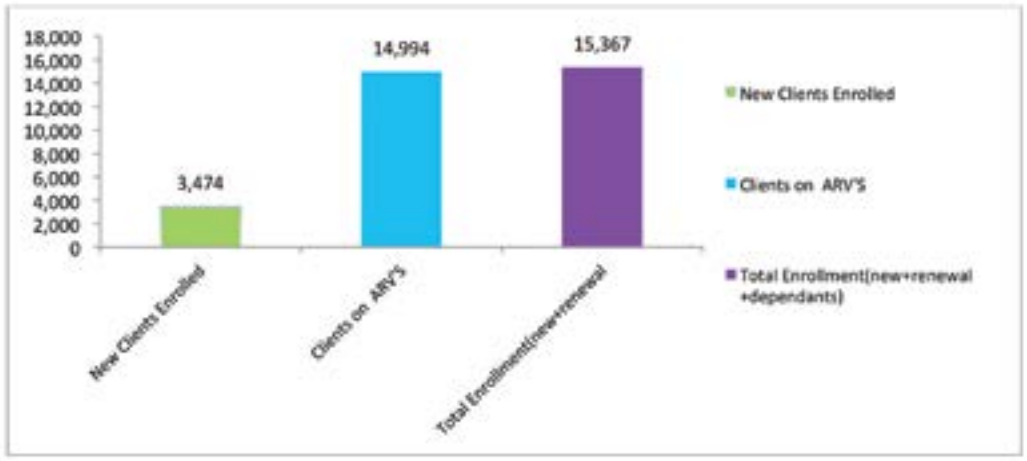


Figure 55 above shows the comparative analysis of new clients that benefitted from the scheme and also received ARV's in 2014. New PLHIV benefitted from the scheme was 3,474. Total enrolment (new+renewal+dependants) for the period 2014 was 15,367. The premiums were paid to PLHIV who could not afford to bear the cost on enrolment as well as dependents that were below eighteen years.

CHAPTER 6: MITIGATION OF SOCIAL AND ECONOMIC EFFECTS OF HIVAND AIDS

6.1 The LEAP Programme

The Livelihood Economic Empowerment Against Poverty (LEAP) program is the flagship for social protection in Ghana. The program aims at improving basic household consumption and nutrition and health access among children below two years of age, the aged and people with severe disability. It also seeks to increase basic school enrolment, attendance and retention of beneficiary children between 5 and 15 years of age.

6.1.1 LEAP Programming and OVC

In 2014 the programme disbursed cash grants to approximately 30,802 orphaned and vulnerable children (OVC) in the country. Table 22 below shows the number of OVC who received cash grants in relation to other vulnerable members of the community who received similar support from the LEAP programme.

Table 22: Number of Vulnerability who Benefited

Vulnerable Criteria	Number of People Benefitting as at December 2014
Orphans and Vulnerable Children	30,802
Disabled	160, 172
Elderly	117, 049
Total Beneficiaries	308, 023

Taking a regional perspective, Ashanti Region has the largest number of OVC whilst Western Region has the lowest number of OVC under the LEAP programme. Table 23 below shows the distribution of OVC being supported across the country's ten regions.

Table 23: OVC Reached by Region

Region	Total Number of OVC at December 2014
Ashanti	3,060
Brong-Ahafo	2,837
Central	2,848
Eastern	3,302
Greater Accra	2,255
Northern	4,787
Upper East	3,012
Upper West	3,421
Volta	3,198
Western	2,082
National	30,802

6.1.2 Impact of the Programme on School Enrolment and Attendance and Health Access

Orphan and Vulnerable Children are mainly affected by problems relating toschool enrolment and attendance due to lack of adequate resources. The LEAP program has been very instrumental in terms of OVC support and care to negate such consequences. According to an impact evaluation done by the University of North Carolina (UNC) and Institute of Statistical, Social and Economic Research of the University of Ghana, Legon in 2013, the LEAP program increased access to schooling at secondary level, and at all levels it has improved the quality of access, with fewer days missed and less grade repetition. Strong impact of the program on access to health services as measured by National Health Insurance Services (NHIS) enrolment, has also been recorded with reduced morbidity among older children.

CHAPTER 7: HEALTH AND COMMUNITY SYSTEM STRENGTHENING AND PUBLIC SECTOR RESPONSE

7.1 Strengthening of Laboratory Systems (SLMTA)

The SLMTA Program with funding from the Centers for Disease Control and Prevention (CDC) under the US Presidents Emergency Plan for AIDS Relief (PEPFAR) and collaboration with local partners and other stakeholders implemented the Strengthening Laboratory Quality Management Toward Accreditation (SLMTA) to improve the quality of public health and clinical laboratory services. Fifteen national and regional laboratories were enrolled in SLMTA. In 2014, external audits were conducted by the African Society for Laboratory Medicine (ASLM) in five laboratories using a zero to five star rating WHO AFRO system. One facility was rated as 4 stars, two were rated as 3 stars, one facility was rated as 2stars, and the last facility was rated with no star.

7.1.1 Basic Laboratory Information System (BLIS)

BLIS implementation in the 14 laboratories continues with improved functionalities. In 2014, the BLIS technical team together with the Laboratory Information System TWG and CHIM interfaced a majority of laboratory equipment with BLIS as well as DHIMS 2. With these improvements, laboratory data would be reported directly into DHIMS 2.

The success of BLIS in-country has been applauded within the PEPFAR community and this has attracted the interest of other African countries. A delegation from Malawi made up of officials from the Ministry of Health (Malawi), CDC -Malawi, Howard University Technical Assistant Project and Baobab Health Trust, an implementing partner for CDC- Malawi, paid a week's learning tour to the program to understudy the implementation of BLIS in laboratories in Ghana.

7.2 Health Management Information System

The country in partnership with CDC, strengthened the country's District Health Information Management (DHIMS II). In the course of year, 126 regional and district health information officers from all regions were trained in DHIMS II.

Sixteen heads of laboratories and quality managers were trained in quality control and method validation to build their knowledge and skills to help them improve upon their activities in the labs. Fifteen of these quality managers were trained and certified by the Clinical Laboratory and Standards Institute

CHAPTER 8: POLICY AND ADVOCACY

8.1 Consultative Engagement with Persons with Disabilities

Persons with Disabilities (PWD) represent a significant minority group and make up about 15% of the world's population and up to 20% in many resource poor countries. GAC as part of strengthening stakeholder involvement and participation held two consultative meetings with the associations of persons with disabilities. The associations that participated in the meeting were:

- Positive Ideas International Foundation
- Ghana National Association of the Deaf
- Ghana Society of the Physically Disabled
- Parent Association of Children with Intellectual Disability
- Ghana Association of Persons with Albinism
- Share Care Ghana
- Mental Health Society of Ghana
- Inclusion Ghana
- Ghana Federation of the Disabled

These meetings also included Development Partners with the aim of informing them about the gaps in the current HIV programing for PWD and receive commitments from them to address the gaps. There were presentations and discussions on improving national coordination for the various types of disabilities in Ghana, Institutional strengthening for improved strategic Interventions for PWD, developing disability specific Information Education and Communication materials and conducting an Integrated Bio-Behavioral Surveillance Survey (IBBSS) among PWD to generate relevant data to improve their programing. At the end of the meeting, the major gap identified was the lack of data about the various types of disabilities in relation to HIV. The consultative meeting brought out the immediate need to mobilize resources to conduct an IBBSS among Persons with Disabilities to generate data to inform programing for PWD and ensure that the various types of PWD are involved in future HIV planning, implementation, monitoring and evaluation activities. The Development Partners present assured the meeting that they will support the GAC's effort to improve planning for PWD in the country.

8.2 Advocacy Workshop with Members of Parliament

Parliament (The Legislature) is one of the traditional "three arms of government" and perhaps the most important in the practice of democracy. This is because it is the institution through which the people are represented in Government. In addition to its legislative functions, Members of Parliament (MPs) as representatives of the people, have closer links with the population in their constituencies and are thus veritable sources for HIV and AIDS information dissemination. Given the mandate of Parliament, it became imperative for GAC to effectively use the largely untapped resource of MPs by forging closer collaboration between the two national institutions. As a result, GAC, which is mandated to coordinate the national HIV and AIDS response, organized a series of advocacy workshops targeting three select Committees of Parliament (i.e. Health, Constitutional, Legal and Parliamentary Affairs and Employment,

Social Welfare and State Enterprises) to build the capacity of MPs on HIV issues. The advocacy workshop also presented a unique opportunity to establish a framework of working together and utilizing the relative strengths of each institution to enhance and strengthen the national response. The workshop also provided the opportunity to share the GAC Bill to MPs to provide inputs to guide finalization of the Bill prior to submission to Cabinet.

8.3 Advocacy and Gender Based Violence Training

GAC routinely and consistently builds the capacity of its staff and implementing partners of the national response. Every year the GAC organizes capacity building workshops for its staff, the executives of PLHIV both at the national and regional level and its implementing partners. In 2014, two trainings were organized on Advocacy and Gender Based Violence to build capacity to conduct effective HIV-related advocacy and draw up programes to prevent and address Gender Based Violence.

8.4 Regional Dissemination of Policies

The NSP 2011 – 2015 which guides the national HIV and AIDS response recommended that the National HIV & AIDS, STI Policy be revised to reflect new knowledge and rapid scientific changes that have occurred globally. Based on this, the policy was finalized and disseminated. In addition, the National Community Home-Based Care (CHBC) Policy and Guidelines and the National HIV and AIDS Workplace Policy were also finalized.

GAC in collaboration with partners conducted series of regional disseminations on the three policies in the Volta, Eastern and Ashanti Regions respectively involving various stakeholders comprising CSOs, FBOs, Academia, traditional, religious and community leaders amongst other. It offered partners and stakeholder the opportunity to seek clarifications on national HIV and AIDS policies and served as a platform to engage GAC in discussions bordering on pertinent issues in the national response.

8.5 Advocacy Workshop with Religious Leaders

The Ghana AIDS Commission organized a two-day residential advocacy on 13th to 14th August, 2014 to strengthen partnership and collaboration with religious groups in the national response. The main purpose of this advocacy workshop was to strengthen partnership and collaboration with religious groups and mobilize additional funds for the national response. The meeting concluded with the GAC receiving commitments from religious leaders to support the national HIV response through a Communiqué.

H.E. Kwesi Amissah-Arthur, Vice President of the Republic of Ghana tasked the GAC to organize a follow-up meeting with Heads of Religious Leaders and availed himself to Chair the meeting. Based on the directive given by H.E. Kwesi Amissah-Arthur, a meeting was organized on 2nd October, 2014 with the Heads of Religious Leaders to discuss funding of key areas in the national HIV response. The meeting ended with firm commitments being made by the religious leaders to support the national HIV response.

8.6 Advocacy campaign to eliminate new HIV infection among children and keeping their mothers alive

The Ghana Chapter of the Organization of African First Ladies Against HIV & AIDS held a number of interventions aimed at supporting the country's target of eliminating Mother-to-Child-Transmission of HIV. In her capacity as the Premier Ambassador of the UNAIDS Global Plan on the Prevention of Motherto-Child Transmission and the Vice President of the Organization of African First Ladies against HIV and AIDS (OAFLA), Her Excellency Mrs. Lordina Dramani Mahama in collaboration with the Ghana AIDS Commission undertook regional community mobilization activities to sensitize communities on PMTCT of HIV, as well as Breast and Cervical Cancer Screening. In 2014, two regions of the country i.e. Western and Central were reached with the Campaign. Over 1,200 individuals made up of political actors, traditional and community leaders, students and inhabitants of the communities were engaged directly in advocacy, education and HIV/reproductive health services provision. Mass media message delivery through radio and TV and information vans reached far more individuals.

In all, about 687 benefited from the catalytic health screening services. A total of 358 received HTC and 50 received Cervical Cancer Screening using Pap smear or Visual Inspection with Acetic Acid (VIA) techniques. Fifteen ofthe HIV tests were positive, 1 of the PAP smears was abnormal and 12 of the clients have abnormal lumps in their breast. These clients have been referred for further test or evaluation and management. Social and Behaviour Change Communication prevention messages on HIV, Breast and Cervical Cancer were delivered in native languages through drama and poetry for easy appreciation of community members. Printed materials on reproductive health and HIV were also distributed widely. PMTCT champions emerged from the interactions and these individuals would carry elimination of mother to child transmission and reproductive health messages across the length and breadth of the regions.

CHAPTER 9: NATIONAL COORDINATION MECHANISMS

GAC coordinates the national response to HIV through various deliberations and actions taken at the Technical Working Groups and at the Partnership and Business Meetings. For coordination to be more effective, GAC also ensure its participation in other stakeholder meetings and organized fora. In 2014, most of the deliberations in the technical working groups focused on research issues, key population programming and issues about improving stigma and discrimination. Resource mobilization from local sources, involvement of private sector and local production of ARVs were key among the critical deliberations. The table and notes below summarizes some of the main issues and actions arrived at in 2014.

Table 24: 2014 Stakeholders Coordination Meetings

2014 GAC NATIONAL AND STAKEHOLDERS COORDINATION MEETINGS			
A. GAC Coordination Meetings	No. Planned	No. Held	Main issues or topics discussed
Research Monitoring and Evaluation Committee Meeting	5	4	■ Validation and dissemination on National data ■ Review of TOR for the Reference Group ■ Ghana Men's Study ■ Stigma Index Study ■ Mid Term Evaluation of the NSP ■ Key Populations ■ Global AIDS Response Progress(GARP) Report ■ National Estimates ■ Review of RME Committee Mandate ■ Validation of Ghana Epi Review and Impact Analysis Report ■ Validation of Data Quality System ■ Modes of Transmission Study
Expanded Technical Working Group	5	4	■ Validation of GARP Report ■ Recent shortages of ARVs & test Kits, state of affairs ■ Update on Ghana Key Population Unique Identification System ■ Update on Anti-stigma tracking system by CHRAJ ■ Update on PWID study Preparation towards NHARCON 2015 ■ Preparations towards NHARCON 2015

Key Population Technical Working Group	3	3	■ Scaling up of UIC System for KP Interventions. ■ Update on 2014 IBBSS process (FSW, MSM,PWID) ■ Overview and update on KP SOPs ■ Update on the Prison IBBSS ■ Update from sub-populations (FSW, MSM, PWID) ■ CHRAJ update on tracking system ■ Update on Legal Aid for KPs implementation ■ Discuss funding for next round for IBBSS and preparation so far. ■ SHARPER innovations and lessons learnt-Approaches
Anti-Stigma Technical Working Group	3	2	■ Update on Discrimination System Development ■ Update on Reported Cases ■ Discussion on Demand Creation
Communication Technical Working Group	6	6	■ Condom Use" advert by Stratcomm ■ Review a film produced by Shirley Frimpong Manso on HIV and entitled "Love or Something Like That" ■ Review of the content of GAC's 2015 calendar ■ Reviewed the presentation on Multiple Concept's materials on sex and gender based violence. ■ Presentation on the revised female condom materials ■ Presentation on visual and hearing impaired. ■ Revised materials on sex and gender based violence, drug and alcohol abuse among key populations
B. Other Stakeholder Meetings	-	-	-
NACP Semi-Annual Review Meetings (Joint HIVTB Review Meeting)	2	1	■ HIV TB Service data ■ Challenges in HIVTB Service Delivery ■ New Funding Model

9.1 Partnership Forum and Business Meeting

The mandate of the GAC is to coordinate and manage the national HIV and AIDS response. In this regard, a Partnership Forum and Business Meeting is organised every year to take stock of the year's performance, prioritize activities for the ensuing year and receive commitments of partners for the priorities agreed upon. The 10th edition of the Partnership Forum and Business Meeting which was supported by the UNFPA was held at the Holiday Inn Hotel, Accra on the 13th and 14th of November, 2014 respectively under the theme "Getting to Zero: Accelerating the National Response towards the MDG". A myriad of stakeholders comprising members of the GAC, Development Partners, Regional Ministers and representatives of key line Ministries, Academia, Network of Associations of Persons Living with HIV (NAP+ Ghana), CSOs, Faith-Based Organisations (FBOs), members of Regional AIDS Committees, media partners and staff of the GAC secretariat attended the Partnership Forum.

The forum was chaired by Honourable Ibrahim Murtala Muhammed, Deputy Minister for Trade and Industry. He re-affirmed Government of Ghana's commitment to continue providing political leadership and high level advocacy for the national HIV response.

Dr. Angela El-Adas, the Director-General of the GAC, stated the purpose of the meeting and highlighted the following as key achievements for 2014:

- Consistent declining trend in general adult prevalence of HIV from 3.6% (2003) to 1.3% (2013)
- Steady reduction in new infections from 25,869 (2009) to 7,812 (2013). This implies that the 2015 target has been achieved
- 30% reduction in annual AIDS deaths from 16,320 (2010) to 10,074 (2013)
- 76% coverage of PMTCT services for pregnant women
- Treatment coverage for persons living with HIV (PLHIV) increased from 47.4% (2011) to 60% (2013).

Six presentations were made focusing on non-clinical interventions, clinical interventions; supply chain master plan, financial report for 2014, Ghana AIDS Commission Bill and lessons learnt from south-to-south collaboration.

The 2014 Business Meeting was chaired by Dr. Seth Adjei-Baah, President, Ghana Chamber of Commerce and Industry and Pan African Chamber of Commerce and in attendance was His Excellency Kwesi Amissah-Arthur, Vice President of Ghana.

Key priorities emanating from the Partnership Forum were presented by Dr. Angela El-Adas. These were: key populations, PMTCT and ART, Local Production of ARV, Resource Mobilisation,

Stigma and Discrimination, Strategic Information, Coordination of the Decentralised Response and Financing the National HIV Response in 2015

The meeting discussed financial challenges faced by the national HIV response as well as innovative financing of the NSP. Commitments were also made by partners.

9.2 Technical Support Unit

The review of the National Strategic Framework (NSF II) recommended that the National Strategic Plan (NSP) 2011-2015 should be positioned for (i) streamlining the coordination of HIV response at the decentralized level; (ii) strengthening capacity of districts and communities for improved coordination and management; and (iii) increasing the government allocation of funds at the decentralized level.

Under Act 613, provision was made for: (i) establishing regional and districts offices in each region and in such districts as may be determined; (ii) each office to be provided with public officers as the president acting in accordance with the advice of the commission in consultation with the public services commission; (iii) public officers shall perform their mandate as directed. This Act establishes the direction for current plans to strengthen the HIV and AIDS decentralised response.

The purpose of strengthening the decentralised response is to ensure the allocation of dedicated experienced full-time technical experts with competencies and skills in HIV programming at the regional level and in the long term to some selected Districts. As indicated in the NSP 2011-2015, the GAC intends to establish ten (10) Technical Support Units (TSUs) over a 5 years. This will ensure an enhanced partnership and technically competent coordination mechanism for a sustainable regional and district HIV response. In the process, the regional coordination will be insulated from political fault lines which have in the past led to the rapid turnover of focal persons and ineffective decentralized response.

As at December 2014, there were eight (8) fully functioning TSU established in eight regions. The outstanding regions are Upper East and Upper West. The TSUs have demonstrated their abilities to strengthen the HIV national response through the coordination of activities at the regional level and providing technical and programmatic assistance to implementing partners despite its teething problems. Examples include technical support being rendered to festive activities like the Kwahu Easter Paragliding in the Eastern region where HTC and other HIV education was carried out. The Technical Support Unit in the Central and Western regions successfully coordinated the third and fourth editions of the OAFLA Ghana Chapter, PMTCT and Reproductive health campaign at the Cape Coast Town Hall and Shama Methodist church park on Saturday 15th November, 2014. The campaign objectives among others were: to galvanize community support and advocate for PMTCT; to advocate male involvement in PMTCT with community actors, chiefs, queen mothers; to organize free examination and screening for other sexual and reproductive health conditions such as HTC, breast cancer screening, cervical

cancer screening, syphilis test among others; and to assist in addressing the reproductive health needs of female Persons Living with HIV (PLHIV) and women in general.

The Regional AIDS Committees have been strengthened and meetings of the committees are now being held regularly. Members actively participate in meetings and also in TSU activities. Inter-Sectoral collaboration has also been strengthened. The TSUs have identified private sector agencies and the media houses that are interested in HIV and AIDS and have established linkage with them. As a result, the level of engagement with the private sector has also improved appreciably. Monitoring of HIV activities have been improved in the districts and it is interesting to know that the Western Region TSU have initiated steps to mobilize resources locally for program implementation.

The calibre of personnel recruited for the staffing of the Technical Support Unit (TSU) have diverse experiences brought to bear on the overall function of the Commission and improvement on the national response. These TSUs develop annual work plans that are approved and followed through based on the availability of funds.

9.3 World AIDS Day Commemoration

World AIDS Day was commemorated on the 1st December alongside the global celebration. The global theme was "Close the Gap," signifying how the world must work together to close the gap between people who need treatment and those who are currently on treatment, by reaching out to more vulnerable populations with targeted HIV prevention and care services, in an environment free of HIV related stigma and discrimination. Close the Gap means ensuring that no one is left behind. The country theme was "Towards an HIV-free generation through prevention of mother-to-child transmission of HIV, Safe Sex and Stigma Reduction." The theme was considered relevant to the national HIV and AIDS response because it draws attention to three areas that the nation needs to focus on.

9.3.1 WAD Launch

The World AIDS Day was launched at Mandela Park at Ashaiman in Tema on the 4th November, 2014. GAC worked closely with the Ashaiman Municipal Assembly to organize the day. A member of the Council of State, H. E. Adjei Annan chaired the occasion. The welcome address was delivered by theAshaiman Municipal Chief Executive, Hon. Ibrahim Baidoo. Dr. Angela El-Adas delivered a statement which focused on the theme adopted by the country. Representatives of the Ghana Health Service, NAP+, PEPFAR and the UNAIDS gave solidarity messages. The keynote address was delivered by the Deputy Greater Accra Regional Minister, Hon. Nii Djamgba Vanderpuye who represented the H.E. the Vice President of the Republic of Ghana.

9.3.2 Activities to commemorate WAD

Several activities were drawn to mark the occasion. The National Durbar activities took place in Accra as opposed to the traditional arrangement of selecting a region to host the activities. The GAC collaborated with religious bodies and corporate organizations to reach out to surrounding communities. For the first time GAC worked with corporate organizations to enhance the national HIV response. The list of the activities drawn up for the celebration was as follows.

9.3.3 Activities for the National Durbar

Activities included;

- Muslim Worship on Friday, 28th November, 2014at the Central Mosque, Abossey Okai
- Red-Ribbon walk on Saturday, 29th November,2014 at the El-Wak Stadium
- Bank of Ghana Health walk on Saturday, 29th November, 2014 at the Bank of Ghana head office
- Christian Worship on Sunday, 30th November,2014 at the Action Chapel International on the Spintex Road
- Visit to Shai Osudoku Hospital on Monday the 1st December, 2014 and later in the morning the national durbar at Maamobi Polyclinic to commemorate the day.
- Coca cola visit to Darling Hair Company and Junior High Schools on Monday, 1st December, 2014
- Danadams Health Walk on Friday 5th December, 2014 at the Coca Cola roundabout

CHAPTER 10: STRATEGIC INFORMATION

10.1 Research, Surveillance and Conferences

As part of its core mandate, GAC through its Research Monitoring and Evaluation (RME) Division coordinates HIV and AIDS research in order to provide strategic information for evidence-informed policy and programmatic decisions to guide the implementation of the national response. Some of the specific activities include; initiating, facilitating and contributing to new and on-going HIV and AIDS research, analysing existing data and reviewing existing and emerging research studies to develop further understanding of the epidemic. The division is also mandated to develop and maintain a resource hub/database to facilitate access to HIV information and research findings, update stakeholders on a regular basis on latest research findings, ensure that research findings guide policy and programing and build the capacity of stakeholders in research.

10.1.1 Stigma Index Study

Stigma, discrimination and the associated, human rights violations and poor access to health care services remain pervasive and a challenge to Ghana's National response to HIV and AIDS. As such the NSP (2011-2015) prioritizes the identification of key drivers of stigma and discrimination and also focuses on strengthening the capacity of networks, association and support groups of Persons Living with HIV (PLHIV).

The Ghana People Living with HIV and AIDS, Stigma Index Study was conducted in 2013 to document the personal experiences of HIV-related stigma and discrimination against PLHIVs and in so doing, contribute to strengthening evidence-informed advocacy, policy change and programmatic interventions. The study was a joint initiative of the Global Network of People Living with HIV and AIDS (GNP+), the International Community of Women Living with HIV and AIDS (ICW), the International Planned Parenthood Federation (IPPF) and the Joint United Nations Programme on HIV and AIDS (UNAIDS).

Preparatory work for the Stigma Index Study started in 2013 and was completed in 2014.

Key findings from the study are as follows:

iv. Due to fear of being stigmatized and discriminated against, there is very low disclosure of status to close associates, such as spouses, relatives and friends

v. There are high levels of self-stigmatization among PLHIV and

vi. Members of key populations who are HIV positive suffer more discrimination

The findings of the Stigma Index Study together with other sources of information will be used to develop an Anti-Stigma Strategy to guide the advocacy and communication towards the elimination of stigma and discrimination in Ghana.

10.1.2 Surveillance of Key Populations

There was a need for new studies that provide a better understanding of the HIV burden among key populations, and how to improve responses through more effective targeting. Two Integrated Bio-Behavioural Surveillance Survey (IBBSS) were launched in 2014. The first is an IBBSS and Population Size Estimates for FSWs and a behavioural survey of clients of FSWs. The research contract was awarded to FHI 360. The second is the IBBSS among MSM, which was awarded to Human Sciences Research Council (HSRC). Data collection for both studies is expected to be completed by December 2015.

10.1.3 International Conferences

To effectively carry out its mandate of coordinating the national HIV and AIDS response, it is necessary to have an up to date understanding of policies, programes, scientific research, and innovative strategies with which other countries and organisations handle their respective HIV response. Conferences present a platform to share and learn from the experiences of other countries. Such platforms are also an important opportunity to showcase the work of the country and to engage in high level advocacy, draw additional global support and donor funding, for the varied strategies within our NSP 2011 – 2015. The main international research conference nationally represented in the year was the International AIDS Society Conference held in Melbourne Australia.

10.1.5 Strategic Information Dissemination

Strategic information plays a very important role in Ghana's HIV response. However to be useful, the information must be made widely available toPolicy Makers, Program Managers, Implementing Partners and other stakeholders. In 2014, GAC organized the third national strategic information forum at the national and regional levels. The national forum was held on the 3rd to 4thJuly, 2014 at Mensvic Hotel, Accra. The two day national dissemination forum brought together over 100 policy makers, program managers, researchers, key populations service providers, PLHIV, development partners and other stakeholders to discuss new program strategies in the light of emerging scientific evidence and best practices. The forum covered cross-cutting themes on stigma and discrimination, integrated behavioral and biological surveillance survey among prison inmates, summary of the National HIV Prevalence and AIDS estimates 2013, national clinical data and results from operations research among KP. The national strategic forum was replicated in the Brong Ahafo Region and drew over 80 participants.

10.1.6 Modes of Transmission Study

A Modes of Transmission (MOT) study was undertaken in 2008 to determine the contributions of various population groups (aged 15-49 years) to HIV transmission. The findings of that survey were revised in 2010 based on an updatd model and to address missing data in the 2008 data set.

This survey was repeated in 2014 to update the modes of transmission study (2008) and to identify populations at risk of HIV infection. The key findings of the modelling study were as follows:

1. With the inputs used the model estimated 6,704 new HIV infections among adults (15-49) in Ghana in 2014). This can be compared with an estimate of 14,744 new HIV infections in Ghana in 2008 from the previous MOT study and 5,970 (2014) as estimated by the SPECTRUM.

2. The majority of infections (72.3%) occurred among the general low risk population. Stable heterosexual couples constituted (24.2% in 2014 compared to 24.7% in 2008) and persons involved in casual heterosexual sex (CHS with non-regular partners) and their regular partners (48.1% compared to 12.3% in 2008).

3. Clients of female sex workers accounted for 5.0% and sex workers for 2.9% of all new infections (compared to 14.7% and 5.4%, respectively, in 2008). Female partners of clients accounted for 10.5% of new infections (compared to 19% in 2008). Thus, taken together sex work accounted for 18.4% (compared to 27% in 2008) of all new infections.

4. Overall, 27.5% (compared to 43% in 2008) of new infections occurred in high-risk groups--people who inject drugs , MSM, FSW, and their regular partners.

5. Data from 2011 IBBSS shows that MSM are responsible for only 3.5% of all new infections (compared to an estimate of 13.1% in 2008).

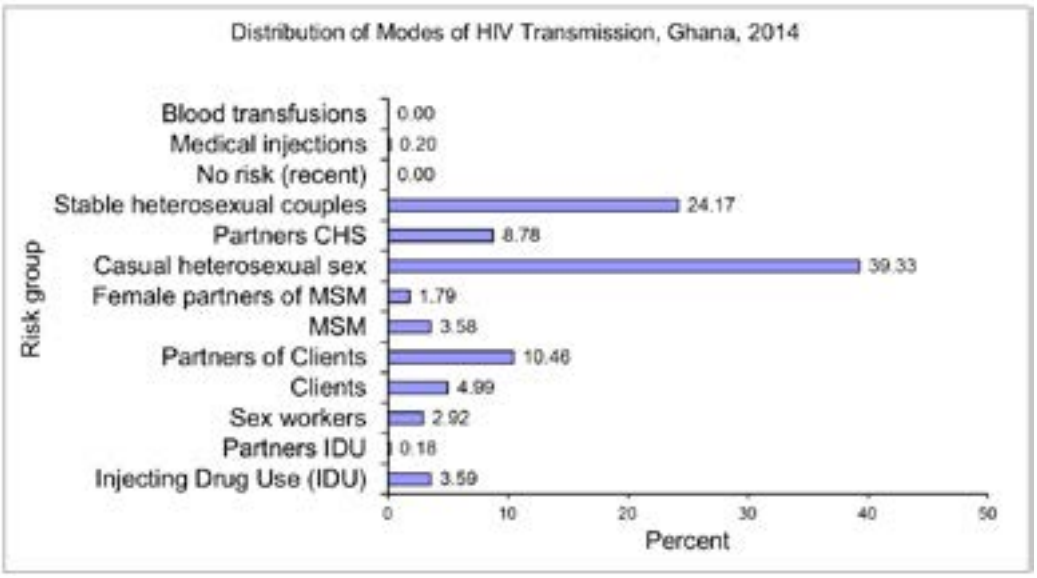
6. Medical injections and blood transfusions together accounted for only 0.2% (compared with less than 0.4% in 2008) of all new infections.

7. The groups with the highest incidence of HIV in 2014 were PWID (3,543 per 100,000) and MSM (696 per 100,000) with their partners (753 per 100,000). This can be compared with 2008: MSM (9,585 per 100,000), their partners (2,439 per 100,000), and PWID (4,996 per 100,000). However, data for PWID were taken from 2013 Prison Study, and thus may be an overestimation population level values.

These findings suggest that intervention efforts in Ghana since 2008 among key populations have resulted in reduced transmission among these groups. Transmission among the general population (persons having casual heterosexual sex, their partners, and couples in stable heterosexual relationships) is becoming a more important driver of the HIV epidemic in Ghana.

Figure 63 gives an overview of the estimated proportion of new infections and their sources.

Figure 56: Distribution of New Infections by Modes of Exposures1



Source: Ghana - Modes of HIV Transmission in West Africa Study, 2014 The relatively low number of new infections is due partly to the fact that 24% of men and 16% of women had either never engaged in sex or had abstained from sex for one year. The high rates of condom use among female sex workers and their clients also contributed to the relatively low number of infections. On the other hand, the use of Syphilis as a proxy for STI infection may have underestimated number of new HIV infections. The highest proportion (39.3% compared to 28.4% in 2009) of new infections occur among those having casual heterosexual sex. Condom use among this group is typically low (18.1%)

The results of the 2014 MoT study suggest that HIV intervention efforts in Ghana since 2008 have resulted in reduced transmission among key populations. However, transmission among the general population (persons having casual heterosexual sex, their partners, and couples in stable heterosexual relationships) is becoming a more important driver of the HIV epidemic in Ghana.

10.2 Ghana HIV and AIDS Monitoring and Evaluation (GHAME) Training Course

The Ghana AIDS Commission, in collaboration with the Centres for Disease Control and Prevention, USA, Morehouse School of Medicine, and the School of Public Health, University of Ghana instituted the GHAME training course in 2010 to address the inadequate capacity for HIV M&E at national and subnational levels. The objectives of the course are follows:

- To equip participants with practical information on M&E that will help them understand and integrate M&E concepts, approaches and methods into their programmes in line with the national HIV M&E system.
- To equip participants with knowledge and skills in M&E and its application in HIV and AIDS programmes / projects

1 Clients refer to persons engaged in sex with female and male sex workers. Partners of clients are the spouses of clients of female or male sex workers.

- To assist participants to develop individual work plan for their HIV and AIDS M&E activities
- To provide avenue for participants to share and learn from other Regions/ Districts in Ghana to strengthen their M&E systems

The GHAME Project was mainly implemented through the use of a targeted M&E curriculum for a two week M&E workshop, a post-workshop three-month facilitator-participant mentorship field project, as well as a dissemination of implementation results. The Workshop basically aimed at equipping participants (M&E focal persons from Governmental and Non-Governmental organizations) with knowledge and skills in M&E and its application to HIV and AIDS Program/ Projects and also to assist them in developing individual Work Plan for their HIV and AIDS Monitoring and Evaluation activities.

The first phase of the GHAME Training Course came to an end in 2013. During the period a total of six (6) M&E Workshops have been conducted at the School of Public Health, University of Ghana, Legon and a total of 147 HIV and AIDS M&E professionals from all ten regions of Ghana were trained. An additional Twenty-five (25) of the 147 participants also benefited from Data Analysis Training Workshop which was identified as an additional need by the GHAME project.

10.2.1 Assessment of GHAME Phase I Implementation

Recognising the overwhelming immediate successes chalked through the first phase of implementation, it has become increasingly important to know the medium to long term impact of the project. To this end, the GHAME partners agreed to conduct a joint assessment of the first phase of implementation, the results of which will be used to improve the implementation of the second phase. As a result of this agreement, Assessment of the GHAME was instituted to be conducted by the School of Public Health led by an independent consultant. The study is currently underway and the report is expected to be submitted by the end of May 2015.

10.2.2 2014 GHAME Workshop

The Ghana AIDS Commission based on the agreement with partners to continue with the Phase II Implementation, invited 25 M&E professionals across the country for the 2014 GHAME workshop and additional 25 who had already benefited from the M &E course for Data Analysis Course. As had been the case for the previous year's these individuals were selected from a diverse spectrum of the National HIV and AIDS response responsible for the management and reporting of HIV and AIDS program. This included Regional and District HIV and AIDS Focal Persons, Data Managers from NACP, M&E personnel from CSOs and a staff from the Ghana AIDS Commission.

10.2.2.1 Trainers of Training Workshop

Prior to the commencement of the training Program, a two-day Trainer of Training (TOT) for facilitators was held to revised the curricular for the M&E as well as the Data Analysis course. The facilitators reviewed the workshop schedule, updated the power point presentations and participants training manuals, and agreed on shared teaching assignments.

10.2.2.2 GHAME Dissemination workshop

The GHAME workshop is not complete until all the participants successfully presented their results of their implementation at a dissemination forum as had been done over the years since inception of the GHAME project. In furtherance of this, each participant had been assigned a facilitator to mentor him/her through implementation, report writing and presentation of results. For the year under review participants will be presenting the results of their implementation at a dissemination forum scheduled to take place in Accra on this year subject to availability of funds.

10.2.2.3 Data Analysis Training

Data Analysis is a critical component of the Monitoring and Evaluation process. As a result Twenty five (25) participants who were selected amongst participants who had completed the M&E Course and successfully implemented their work plans were awarded certificates.

10.3 Data Quality Assessment of the National Programme

The GAC has established a data quality assurance system that is predicated on the efficient and effective collection and reporting of HIV and AIDS data that is valid, reliable, accurate, complete, and timely. To ensure that HIV and AIDS data collected and reported meets the expected and desired standards of data quality, the GAC developed a Monitoring and Evaluation Plan that describes the information system to support the NSP 2011-2015. The M&E Plan stipulates the establishment of a national data quality assurance system for HIV, to be implemented at all levels and in all sectors, as one of the strategies to ensure high-quality strategic information for timely decision making and action. To this end, the GAC has developed the Data Quality Assurance Manual and other Data management Manuals that outlines the quality assurance procedures and processes for collecting and reporting good quality HIV and AIDS data. The Conceptual Framework for this DQAM emphasises three overarching and coordinated processes for Data Quality Assurance which are:

- Error Prevention: These processes support and ensure that data is collected as planned for preventing errors from occurring in the first place and for easily identifying and resolving data quality issues that arise;

- On-going Quality Control, involves planned measures and systematic checks built into data collection, data entry, and data reporting procedures to ensure that data captured in the system are accurate `and reliable; and

- Quality Assessments include in-depth retrospective evaluations and for assessments of over- and/or under-reporting.

10.3.1 2014 Data Quality Assessment of the National Response

The GAC over the years had engaged Khulisa Management Services, Inc. from South Africa to conduct annual independent External Data Quality Assessment (DQA) of National HIV and AIDS response focusing on top four national indicators for HIV in Ghana. One of the key requirements of that Terms or Reference of the exercise among others is building local

capacity in country capable for conducting similar exercise when the need arises. This had been organised through training of trainers' workshop which was held for staff of GAC, NACP, and TSU.

10.3.1.1 Stakeholder's Workshop

During the year under review, the GAC organized a one-day stakeholders' workshop on data quality assessment of the National HIV and AIDS response.
The purpose of the forum was to provide the platform to disseminate the 2013 data quality assessment report and launch the 2014 assessment. The workshop equipped participants with the requisite knowledge and skills tocollect verify and report quality data with particular emphasis on PMTCT data for 2014.
The main objectives of the workshop were as follows:

- Equip officers with the requisite skills to carry out data audits
- Verify the quality of reported data for selected sites across the country.
- Develop an action plan to implement corrective measures for strengthening the data management and reporting system and improving data quality.
- Agree on the indicators and sites to be verified /audited.

A four member Regional Data Quality Assessment team was constituted at the workshop for each region to conduct the 2014 assessment at the subnational levels. These teams comprised the Regional HIV and AIDS Coordinator, The Regional Health Information Officer, Regional AIDS Coordinators, and the Technical Coordinator and/or M&E Officer or The Regional HIV and AIDS Focal Person in the regions where there is no TSUs. The teams were tasked to conduct the 2014 Data quality Audit of the selected indicates for selected within their regions and present the results of their findings at a dissemination forum.

10.4 Routine Data Verification of the National Response

GAC recognizes the importance of reliable information to be delivered to its stakeholders and the general public as a whole. Data quality is crucial and the availability of complete, accurate and timely data is important in delivering on our mandate as the coordinating body for the national response against HIV. The national response is committed to ensuring the highest standards of data quality and as a result gets its performance information right first time, as means of ensuring 100% data integrity.

10.4.1 Data Verification for 2014

For the year under review GAC's overall approach to data quality was in conformity with the 2014 Work plan developed and approved by Management. The work plan stipulates that in addition to the yearly data quality assessment of the National HIV and AIDS response to be conducted by external independent entity; quarterly data verification of all data submitted by implementing partners should be verified before the data is reported.

To this end teams were constituted to monitor and verify the data of all implementing partners for the year under review.

The objectives for the exercises conducted were as follows:

- The main challenges facing Implementing Partners (IP) and their Sub-Sub-Recipients (SSR) in the collection and reporting of quality data to GAC.
- To verify the accuracy, reliability, precision, completeness and timeliness of the reported data for the period.
- Check the processes that exist for tabulation, summation of figures and the level of data analysis at various levels for all SRs and their Peer Educators.
- Offer support and make recommendations for systems improvement.
- Ensure that IPs are using the National Data Collection Tools and reporting through CRIS
- Ensure IPs adhere to the Standard Operating procedures through the use of the Data quality Assurance Manual

Methodology

The top-down approach of data verification was used in conducting the exercise where the report of the IPs submitted to GAC was verified against the copies of same reports at the SR level for the half year. Copies of reports submitted to the SRs by their SSRs were subsequently verified against the original reports when the team visited the SSRs. Available reports, source documents and checklist specifically developed for the exercise were used to verify the data at all levels of the verification process. Tallies were recalculated to find out if they added up to the final figure on the Principal Recipient (PR) summary tools reported to the Commission. Clarifications, best practices and recommendations were made during the visits to strengthen the program implementation.

Indicators Verified

The top 4 national indicators specified below were the focus of the data verification for the year under review;

- Number of MARPs reached with HIV prevention programmes (Multiple Contacts)

- Number of New MARPs reached with HIV preventive services (excluding HTC)
- Number of MARPs who received HTC and who know their results
- Number of condoms distributed to MARPs.

Implementing Partners Visited

For the year under review, implementing partners, their SR and SSRs implementing programs and interventions and health facilities that were implementing the NHIS registration for PLHIV were visited for routine monitoring and data verification

.

Findings and Recommendation

The issues and challenges identified during and after the exercises have been duly communicated back to the Implementing Partners (IPs). Feedback was provided to the IPs through letters and the IPs were tasked to develop action plans to implement the recommendations to improve data quality. Review meetings were also held with the IPs to offer support and to chart a new path for quality improvement.

10.5 Capacity Building of Partners on the Use of Country Response Information System

The GAC under the year three of the Cooperative Agreement (CoAg) in 2014 conducted five day training in two sessions for community-based M&E persons in the use of the Country Response Information System (CRIS). A total of 50 M&E persons were trained and selected from a cross section of Community-Based Organizations (CBOs) in the project regions receiving funds indirectly from the Government of Ghana (GoG), the Global Fund (TGF), directly or indirectly from PEPFAR or other USG sources.

The training was meant to equip participants with the necessary skills to collect, capture, manage and report data at their level electronically, improve timeliness in reporting to the next level and ensure value for money for funds received. As part of the training participants were taken through the Data Collection Tools the Data Management Manuals and data audit processes.

CHAPTER 11: FINANCING THE NATIONAL RESPONSE

11.1 NASA Report

In 2014, the GAC commissioned and completed the National AIDS Spending Assessment (NASA) for 2012 and 2013. The focus of the study, as in the previous years, was at the national and decentralised level. Data collection covered the external sources of funds for HIV and AIDS, Government contribution and funds made available by private entities in the years 2012 and 2013. The study employed the NASA methodology, which allows for the systematic, periodic and exhaustive accounting of the level and flows of financing and expenditures, in public, international and private sectors to confront the HIV and AIDS epidemic.

The results of the NASA study reveal a decline in the amount of funds made available for HIV and AIDS related activities in Ghana, decreasing by 39% from 2012 to 2013. The NASA estimates indicate that the total expenditure on HIV and AIDS related activities in the country was US$109,674,155 in 2012 and US$67,026,665 in 2013. Though there was a huge dip in the funds from international organisations in 2013, such funds still accounted for the largest proportion of funds made available for direct HIV and AIDS programme activities in 2012 and 2013.

The estimates further show that majority of the funds in both years went into Prevention, Care and Treatment Programme Management and Administration, and Human Resources. The analyses also reveal that PLHIV benefited most (46% and 54% of the total funds in 2012 and 2013 respectively) from the total funds and this was followed by specific “accessible” populations, the general population, Key Population and other key populations in both years in that order.

The qualitative assessment of the HIV and AIDS related activities in Ghana revealed that the inadequacy of funding is a major challenge confronting the national response. The assessment also shows that the minimal coordination of efforts among partners especially at district and community levels resulting in duplication of efforts and inefficiencies as well as the refusal of some private institutions to participate in any workplace HIV and AIDS activities are major bottlenecks that need to be addressed by the GAC.

11.2 Resource Mobilization

The GAC developed a Resource Mobilization Strategy to provide strategies for the effective mobilization of local and international resources to support the national HIV response. One of the strategies identified in the Resource Mobilization Strategy to mobilize resources for the national response is to target Religious Groups. Donor funds for the national HIV response have dwindled over the years due to the global economic crisis and Ghana’s attainment of a middle income status. As part of efforts to mobilize resources, a resource mobilization committee was constituted to help mobilize resources for the national response.

Table 25: List of Priority Areas

NO	DESCRIPTION OF ITEM/ SERVICE	TOTAL US DOLLAR ($)
1	Test Kits for first line/preliminary Testing of Pregnant Women towards Prevention off Mother to Child pieces Transmission (PMTCT) of HIV (1,000,000 at $0.90 each)	900,000.00
2	Confirmatory testing for Pregnant Women who will prove positive from the first line/preliminary testing (2% of 1,000.000 = 20,000) at $5.5 each	110,000.00
3	Test Kits for Testing Female Sex Workers (FSWs) to prevent new infections (500,000 pieces at $0.90 each)	450,000.00
4	Confirmatory testing of FSWs who will prove positive (first response) from first line/preliminary testing (11% of 500,000 = 55,000) at $5.5 each	302,500.00
5	Test Kits for Testing Men who have Sex with Men (MSM) (300,000 pieces at $0.90)	270,000.00
6	Confirmatory testing of MSM who will prove positive (first response) from first line/preliminary testing (17.5% of 300,000 = 52,500) at $5.5 each	288,750.00
7	Test Kits for screening blood/blood products to prevent new infections among General Population (1,000,000 pieces at $0.90)	900,000.00
8	Confirmatory testing for blood/blood products to prevent new infections among General Population (1.3% of 1,000,000 = 13,000) at $5.5 each	71,500.00
9	Social Marketing and Female Condoms campaign	60,000.00
10	Male Condoms (108,000,000 pieces at $0.005) for Prevention of HIV and other STIs	540,000.00
11	Anti-retroviral Drugs (ARVs) (30,000 at $150.00 each) to cover gap for first line drugs	4,500,000.00
12	Information Education & Communication (IEC) Materials for behavioural Change for Key Populations for prevention of HIV	200,000.00

13	Behavioural Communication Change Materials for General Population for prevention of HIV	400,000.00
14	HIV and AIDS Testing and Counselling Accessories for Nurses and Care givers handling PLHIV	150,000.00
15	Engagement with Persons with Disability who are HIV Positive: Printing of IEC/BCC materials in Braile, sign language for audio visuals	210,000.00
16	Engagement with Youth and Behavioral Changing Campaign	150,000.00
17	Engagement of Translators of Communication Materials for Visually & Hearing Impaired	48,000.00
18	Program Management 7% of direct Implementation	668,552.50
	Ground Total	**US$ 9,550,750.00**

11.2.1 Engagement with Religious Groups

Religious leaders were engaged on 2nd October, 2014 under the Chairmanship of His Excellency Kwesi Amissah-Arthur, the Vice President of the Republic of Ghana at the Flagstaff House as a follow up to a two day advocacy workshop earlier held. The meeting was held to further impress upon religious leaders to support Government's efforts to finance the national HIV response through the procurement of HIV test kits and antiretroviral drugs. This meeting has yielded positive results and has led to the establishment of a task team among the religious groups to explore avenues for financing the procurement of the HIV commodities i.e. HIV test kits and antiretroviral drugs.

Despite the commitment by religious leaders to support the procurement of the HIV commodities, there still exist priority areas in need of funding within the national HIV response.

CHAPTER 12: PROCUREMENT

In line with Public Procurement Act 663, 2003, goods and services were procured by the Ghana AIDS Commission. The Public Procurement Authority has thresholds and methods for engagement and selection of consultants and procurement of goods.

13.1 Methods of Procurement

The Commission adopted the shopping method whereby invoices are solicited from prospective suppliers who are registered in the GAC supply approved list. An evaluation is undertaken and an economically responsive supplier or bidder is selected. In the case of high value items an invitation for tender is issued in the newspaper for prospective suppliers to bid. An evaluation is done and the technically and financially responsive bidder is selected to supply the goods.

In procurement of consultancy services, the Commission mainly uses the restrictive tendering method for services of low value and applies to the public procurement authority for approval. In areas where the commission has no specialist who has expertise and registered in GAC approved supplier data base, an expression of interest is issued in the Daily Newspapers for proposals. Consultants are evaluated using the Quality Cost Based Selection (QCSB) and qualification selection methods.

13.2 Quality Assurance

In compliance with the Procurement Act, an Entity Tender Committee (ETC) team is formed that reviews and approves procurement activities to ensure that the procedures spelt out in the Act are adhered to. Activities which are reviewed by the ETC are transactions which are above the Head of Entity'sthreshold i.e. above GH¢5,000.00. The committee which is chaired by the Director General comprises a Parliamentarian, a representative from the `Attorney Generals Department and Divisional Directors of the Commission. The procurement manager serves as the secretary to the committee.

CHAPTER 13: CAPACITY BUILDING

The GAC believes that the best results are obtained by and through welltrained employees and, therefore, is interested in the continued development of staff. The GAC, under the year under review improved staff ability to fulfill its mission by developing the capacity of individuals to discharge their present and future responsibilities.

The GAC also encouraged members of staff to improve their technical and intellectual competence by pursuing appropriate courses of formal education.

14.1 Training and Workshops

During the year under review, in order to improve the capacity of staff with a view to enhance performance, approval was granted for staff to attend training programmes to improve their ability to perform on their responsibilities better.

Table 26: Staff who benefited from Training Programmes

NO.	STAFF BENEFICIARY	PROGRAMME	ORGANISATION/ INSTITUTION
Short Term Course – Local Training			
1	Accounts Officer and Office Assistant	Retirement, Social Security Training and Future Wellness Programme	SAVE Foundation International
2	Office Assistant	Basic Records Management Including Registry Management	Laysia Info Consult
3	Procurement Manager	Certificate in Consulting Practice	Ghana Institute of Consulting
Short Term Course – International Training			
4	Accounting Assistant	Financial Management of Development Projects Training	Crown Agents International Training Center, UK
5	Data Quality Assurance Manager and M & E Officer	Generating Sub-national Estimates	Tanzania
6	Data Quality Assurance and Data Manager	Generating Sub-national Estimate	UNAIDS, Kenya

14.2 Staff Retreat

Annual staff retreats are held for all staff to improve upon organizational development efforts and to ensure a successful implementation of GAC programme priorities. The focus of the retreats has been among others, to destress,reflect and re-invigorate the team spirit of staff at the Secretariat.

In 2014, staff took time off from the formal office environment for a retreat at Busua Beach Resort near Takoradi. It afforded staff the opportunity to restrategize in a relaxed environment and engage in strategic planning for the year.

14.2 Other Administrative Activities Report

14.2.1 Study Leave

The Steering Committee of the Commission approved two (2) years studyleave for Mr. Kyeremeh Atuahene, Director of Research, Monitoring and Evaluation (R M & E) to pursue a PhD degree at the University of Ghana, Legon. The successful completion of the course will improve the employee's competence in his field of responsibility and be an ultimate benefit to GAC.

14.2.2 Seconded Officers

The workload of the Commission has been growing at a fast rate necessitating the deployment of additional staff. Efforts to fill vacant positions with permanent staff to augment staff capacity had proved unsuccessful due to non availability of Financial Clearance from the Ministry of Finance for recruitment. The alternate option was to engage staff from other government institutions on secondment. The under listed staff were seconded to GAC Secretariat upon request.

Table 27: Number of Officers on Secondment

No.	Position	Institution	Reporting Date
1	Stenographer Grade I	Ministry of Energy	20th Jan, 2014
2	StenographerGrade II	Information Service Department	20th Jan, 2014
3	Principal Records Supervisor	Ministry of Gender & Social Protection	27th Jan, 2014
4	Driver Grade II	Ministry of Youth & Sports	20th Jan, 2014
5	Driver Grade III	Office of the President	23rd Jan, 2014
6	Driver Grade II	Office of the President	23rd Jan, 2014
7	Senior Pharmacist	Ghana Health Service	1st December, 2014

CHAPTER 14: FINANCIAL REPORT

Below are GAC Audited Financial statements for 2013 and 2014

Income Statement for the Year Ended 31st December 2014

Income	Note	2014 US$	2013 US$
Receipts from Funding Partners	3	1, 6910,875	3,226,820
Government of Ghana Counterpart Funds	4	3,706,339	9,604,443
Other Income	5	118,038	135,128
Total		**5,435,252**	**12,966,391**
Expenditure			
Operating & Project Management Cost	6	5,966,494	5,392,528
Non-Expendable Equipment	7	75,695	381,478
Disbursement to Sub-Projects	8	2,072,126	6,519,965
Total Expenditure		**8,114,315**	12,293,971
Excess Expenditure over Income		**(2,679,063)**	**672,420**

Accumulated Fund for the Year Ended 31st December 2014

	2014 US$	2013 US$
Balance at 1st January	5,206,168	4,589,545
Adjustments in Fund Balances	-	(23,077)
Excess Expenditure over Income for the Period	2,679,063)	627,420
Movements in Fund Balances	-	(32,720)
Balance at 31st December	**2,527,105**	**5,206,168**

Assets

Current Assets

Bank Balances	9	2,546,724	5,244,260
Accounts Receivable and Prepayments	10	10,004	-
Total Current Assets		**2,556,728**	**5,244,260**

	Note	2014 US$	2013 US$
Liabilities			
Current Liabilities			
Accounts Payable and Accruals	11	29,623	38,092
Net Current Liabilities		29,623	38,092
Financed by Accumulated Funds		**2,527,105**	**5,206,168**

Director General
10 / 06 / 15

Director of Finance

Statement of Sources and Uses of Funds for the Year Ended 31st December 2014

	2014 US$	2013 US$
Sources of Funds		
(a) US Government Funds:		
USAID	162,382	149,306
GAC/CDC COAg	603,833	140,649
UCSF	-	6,593
CFC 2 (Morehouse School of Medicine)	41,324	-
(b) Multi-Lateral Funds:		
UNDP	-	49,735
UNFPA	17,229	-
UNICEF	54,365	26,261
UNAIDS	-	167,950
World Health Organisation	11,367	4,818
Global Fund	716,745	2,659,392
Africa Union (OAFLA)	-	22,116
African Union (ALCO)	3,630	-
	1,610,875	**3,226,820**

	2014 US$	2013 US$
Other Income	26,771	84,869
Total Foreign Sources	**1,637,646**	**3,311,689**
Government of Ghana Counterpart Funds	3,706,339	9,604,443
	3,706,339	9,604,443
Other Income	91,267	50,259
Total Local Sources	**3,797,606**	9,654,702
Total Funds Received during the year	**5,435,252**	**12,966,391**
Changes in Available Funds:		
Staff Loans Liquidated	(10,004)	1,326
Petty Cash	-	390
Payables	(8,469)	(36,164)
Advances Recoverable Locally	-	890,869
Adjustment in Bank Balances	-	(21,664)
Changes in Accumulated Funds	-	(32,720)
Subtotal	(18,473)	**802,037**
Total Funds Available	**5,416,779**	**13,768,428**
Less: Uses of Funds		
Operating and Project Management Cost	5,966,494	5,849,146
Non-Expendable Equipment (PPE)	75,695	381,478
Disbursements to sub-Projects	2,072,126	6,063,347
Total Use of Funds	**8,114,315**	**12,293,971**
Net Cash (Used)/ Available	(2,697,536)	1,474,457
Bank Balance as at January 1	5,244,260	3,769,803
Bank Balances as at December 31	**2,546,724**	**5,244260**

	2014 US$	2013 US$
3. Receipts from Funding Partners		
3a. Earmarked Funds		
USAID	162,382	149,306
GAC/CDC COAg	603,833	140,649
UCSF	-	-
CFC 2 (Morehouse School of Medicine)	41,324	-
3b. Multi-Lateral Funds		
UNDP	-	49,735
UNFPA	17,229	-
UNICEF	54,365	26,261
UNAIDS	-	167,950
World Health Organization	11,367	4,818
IDA-Pool	-	-
Global Fund	716,745	2,659,392
African Union (ALCO)	3,630	-
	803,336	2,930,272
Grand Total	**1,610,875**	**3,226,820**
Government of Ghana Counterpart Fund		
Government of Ghana Counterpart Fund	3,706,339	9,604,443
	3,706,339	**9,604,443**
5. Other Income		
Other Income – GOG	83,570	50,259
Other Income – UNC-CH	-	143
Other Income – SIPAA	269	318
Other Income – Recovery	3,660	21,403
Other Income – NHARCON – Recovery	-	1,644
Other Income – Global Fund	12	58,509
Other Income – Earmarked	-	1,688
Exchange Gain – GOG	7,697	-
Exchange Gain – Statutory Pool PtG	-	1,164
Exchange Gain – SIPAA	733	-
Exchange Gain – Pool	14,083	-
	118,038	**135,128**

	2014	2013
	US$	US$
6. Operating and Project Management Cost		
Staff Cost	826,406	958,214
Seminar/Conference/Workshop/Meeting	2,002,063	1,822,979
Advertisement &Publicity	123,368	24,955
Staff Development	3,371	110,847
Stationery & Printing	241,929	128,920
World AIDS Day	99,652	310,191
Local Consultant	1,199,433	642,628
Bank Charges	5,832	6,422
Audit Expenses	10,979	-
Audit Fees	18,874	-
Insurance	25,955	34,253
Refreshment	38,851	45,335
Utilities	166,038	92,264
Uniforms &Protective Clothing	1,188	1,439
Contribution/Subscription/Registration	15,945	9,062
Repairs & Maintenance	98,309	225,996
Travelling & Transport	216,412	181,873
Allowance & Foreign Travels	285,964	140,058
Exchange Loss	580,296	657,092
Cost of Inspecting GAC Plot	5,629	-
	5,966,495	5,392,528

7. Non – Expendable Equipment		
Purchase of Equipment	20,598	50,870
Purchase of Furniture	48,050	38,696
Purchase of Vehicles	-	218,644
Purchase of Printer	5,919	-
Networking & ICT Equipment	1,128	-
Computers and Accessories	-	73,268
	75,695	**381,478**

8. Disbursement to Sub – Projects

Sub - Projects Descriptions

Ghana AIDS Commission transfers funds to various implementing partners and classified as follows:

Window A: Disbursement to Ministries, Departments and Agencies (MDAs) and the Regional Coordinating Councils (RCCs)

Window B: Disbursement to the Metropolitan, Municipal and District Assemblies

Window C: Disbursement to Hospitals for enrollment of PLHIV on the National Health Insurance Scheme.

Window D: Disbursement to Global Fund Sub-recipient including national umbrella organisation and programs of nation character.

	2014	**2013**
	US$	US$
Window A: MDAs & RCCs	85,288	446,211
Window B: MMDAs	8,426	10,285
Window C: PLHIV & NHIS Hospitals	387,437	99,495
Window D: CSOs, FBOs GFR8 (SRs), PS	1,590,975	2,513,536
Special Release to MOH for Drugs	-	3,450,438
	2,072,126	**6,519,965**

9. Bank Balances

GoG Project Account	2,356,794	2,573,789
UNC-CH (Merchant) – CoAG $ Bank A/c	151,517	318
USAID Account (Ecobank) – UCSF	45	7,476
CFC 2 A/C – Morehouse	6,858	406
DFID SIPAA Accts GHC (Action Aid)	993	253,718
Poof Fund 392 2,022		
Global Fund R8 US$	1,887	2,200,998
Prudential Pound Sterling £	176	176
GIZ Project Account	547	547
DANIDA Earmark Account	135	2,464
Interest Only A/c	638	6
UNC-CH (Merchant) – CoAG ¢ Bank A/c	203	300
GARFUND Recovery	26,317	189,314
GFR8 GH¢	2	11,531
Prudential GH¢	220	582
	2,546,724	**5,244,260**

	2014	2013
	US$	US$
10. Accounts Receivable and Prepayments		
Staff Loan	10,004	-
11. Accounts Payable and Accruals		
Accounts Payable - GoG	2,180	17,208
Accounts Payable – Global Fund	-	20,884
Accrued Audit Fees	18,874	-
Other Payables	8,569	-
	29,623	**38,092**

12. Contingencies

There were no contingent assets and liabilities as at 31st December 2014 (2013: Nil)

APPENDICES

Table 28: 2014 Children under 1 year Summary

Summary table for children under 1							
	2014	2015	2016	2017	2018	2019	2020
HIV population							
Total	993	844	472	393	322	275	248
Male	511	434	242	202	167	143	130
Female	482	410	230	190	155	132	118
New HIV infections							
Total	1,281	1,069	610	520	447	377	300
Male	657	548	313	267	229	193	154
Female	624	521	297	253	218	184	146
Annual AIDS deaths							
Total	287	225	138	127	127	104	97
Male	146	114	71	64	63	52	47
Female	142	110	67	63	64	53	50

Table 29: 2014 Children 1 to 4 years Summary

Summary table for children 1 – 4							
	2014	2015	2016	2017	2018	2019	2020
HIV population							
Total	4,967	4,342	3,746	3,042	2,367	2,073	1,811
Male	2,561	2,238	1,930	1,569	1,223	1,071	938
Female	2,405	2,104	1,816	1,473	1,144	1,001	873
New HIV infections							
Total	608	536	250	225	210	190	165
Male	311	274	128	115	108	97	85
Female	297	261	122	110	103	93	81
Annual AIDS deaths							
Total	409	317	264	226	200	126	103
Male	207	160	135	114	98	60	49
Female	203	157	130	112	102	65	54

Table 30: 2014 Children 0 to 14 years Summary

Summary table for children 0 – 14							
	2014	2015	2016	2017	2018	2019	2020
HIV population							
Total	21,223	20,107	18,359	16,779	15,370	14,799	13,783
Male	10,902	10,330	9,434	8,625	7,906	7,607	7,087
Female	10,322	9,777	8,926	8,154	7,464	7,192	6,696
New HIV infections							
Total	1,889	1,605	859	745	658	567	465
Male	968	823	440	382	337	290	239
Female	921	782	419	363	321	276	227
Annual AIDS deaths							
Total	1,295	1,108	919	820	769	615	548
Male	659	566	471	419	388	310	275
Female	635	542	448	401	380	305	272
Population							
Total	9,764,973	9,904,179	10,033,126	10,151,594	10,257,137	10,351,856	10,434,510
Male	5,005,963	5,076,969	5,142,704	5,202,891	5,256,414	5,304,234	5,345,866
Female	4,759,010	4,827,209	4,890,422	4,948,703	5,000,723	5,047,622	5,088,645
HIV Population 15-17							
Total	4,235	4,215	4,188	4,150	4,092	4,012	4,051
Male	1,973	1,976	1,982	1,978	1,961	1,943	1,979
Female	2,262	2,239	2,206	2,172	2,132	2,069	2,072

Table 31: 2014 Adults 15 to 24 years Summary

	2014	2015	2016	2017	2018	2019	2020
HIV population							
Total	23,1 44 2	2,8 22	22,3 43	21,7 86	21,2 39	20,3 11	19,5 27
Male	9,281	9,252	9,156	9,017	8,878	8,594	8,369
Female	13,863	13,570	13,188	12,770	12,361	11,717	11,158
Prevalence	0.46	0.44	0.43	0.41	0.4	0.37	0.35
New HIV infections							
Total	2,902	2,737	2,446	2,255	2,091	1,565	1,410
Male	1,044	986	880	811	751	561	505
Female	1,857	1,751	1,565	1,444	1,340	1,004	906
Incidence	0.06	0.05	0.05	0.04	0.04	0.03	0.03
HIV + pregnant women	1,501	1,452	1,404	1,350	1,318	1,277	1,211
Annual AIDS deaths							
Total	473	394	352	326	252	215	193
Male	246	203	180	167	128	111	102
Female	228	192	172	159	124	104	91
Annual AIDS deaths among those on ART							
Total	5 1	78	84	91	113	123	12 7
Male	24	40	44	49	61	68	70
Female	27	37	40	43	52	56	57
Annual AIDS deaths among those not on ART							
Total	423	31 7	268	235	139	92	66
Male	222	162	135	118	66	43	31
Female	201	154	132	117	72	49	34
Population							
Total	5,080,521	5,144,740	5,212,229	5,283,988	5,362,188	5,449,646	5,548,129
Male	2,588,241	2,624,062	2,660,790	2,699,136	2,740,413	2,786,075	2,837,105
Female	2,492,280	2,520,677	2,551,439	2,584,853	2,621,775	2,663,571	2,711,025

Table 32: 2014 Adults 15 to 49 years Summary

Adults 15 to 49 Summary	2014	2015	2016	2017	2018	2019	2020
HIV Population							
Total	192,737	192,394	191,690	190,887	190,729	189,380	187,696
Male	75,053	74,488	73,891	73,342	73,228	72,694	72,079
Female	117,684	117,906	117,799	117,545	117,501	116,686	115,617
Prevalence	1.47	1.44	1.4	1.37	1.34	1.3	1.26
New HIV infections							
Total	8,805	8,381	7,556	7,033	6,579	4,963	4,498
Male	3,634	3,466	3,129	2,917	2,732	2,064	1,873
Female	5,171	4,915	4,426	4,116	3,846	2,899	2,624
Incidence	0.07	0.07	0.06	0.05	0.05	0.04	0.03
Annual AIDS Deaths							
Total	6,391	4,612	3,553	2,942	1,629	982	742
Male	3,186	2,322	1,793	1,486	812	503	394
Female	3,205	2,290	1,760	1,456	818	479	348
Annual AIDS deaths among those on ART							
Total	389	540	515	510	554	512	477
Male	171	262	261	265	299	284	269
Female	218	278	255	245	255	228	209
Annual AIDS deaths among those not on ART							
Total	6,002	4,072	3,038	2,432	1,075	470	265
Male	3,014	2,060	1,532	1,221	513	219	125
Female	2,988	2,012	1,505	1,211	563	251	140
Number of AIDS deaths among pregnant women	241	169	128	104	59	35	25
Population							
Total	13,086,791	13,372,576	13,651,981	13,944,522	14,250,541	14,570,012	14,901,754
Male	6,433,987	6,582,919	6,729,008	6,882,012	7,042,284	7,209,678	7,383,781
Female	6,652,803	6,789,657	6,922,974	7,062,510	7,208,258	7,360,334	7,517,972

Table 33: 2014 Adults 15+ years Summary

	2014	2015	2016	2017	2018	2019	2020
HIV Population							
Total	229,009	231,791	234,941	238,208	242,513	245,774	248,823
Male	91,093	91,693	92,585	93,603	95,235	96,486	97,668
Female	137,916	140,097	142,356	144,605	147,277	149,289 1	51,155
Prevalence	1.42	1.41	1.39	1.38	1.37	1.36	1.34
New HIV infections							
Total	9,467	9,019	8,143	7,588	7,105	5,364	4,864
Male	3,944	3,764	3,402	3,175	2,976	2,250	2,042
Female	5,523	5,256	4,740	4,414	4,129	3,115	2,822
Incidence	0.06	0.06	0.05	0.05	0.04	0.03	0.03
Annual AIDS deaths							
Total	7,953	5,706	4,397	3,663	2,062	1,297	1,031
Male	4,095	2,965	2,289	1,908	1,062	688	565
Female	3,858	2,741	2,108	1,755	999	609	466
AIDS 45q15	0.02125	0.01479	0.011	0.00881	0.00463	0.00265	0.00193
Annual AIDS deaths among those on ART							
Total	569	788	757	760	816	765	732
Male	268	404	403	415	458	437	422
Female	301	384	354	346	358	328	310
Annual AIDS deaths among those not on ART							
Total	7,384	4,918	3,640	2,903	1,245	532	298
Male	3,827	2,561	1,885	1,494	605	251	143
Female	3,557	2,357	1,755	1,409	641	281	156
Population							
Total	16,106,641	16,483,619	16,871,981	17,272,802	17,686,103	18,112,467	18,550,713
Male	7,848,448	8,042,052	8,241,254	8,446,437	8,657,827	8,875,442	9,098,877
Female	8,258,193	8,441,567	8,630,726	8,826,364	9,028,277	9,237,025	9,451,835

Table 34: 2014 AIDS Orphans Summary

Orphans summary table (Total) (Male+Female)	2014	2015	2016	2017	2018	2019	2020
Maternal Orphans							
AIDS	61,198	56,963	51,656	46,441	41,312	35,196	30,114
Non-AIDS	354,733	360,572	366,228	371,041	375,688	379,342	382,289
Total	415,931	417,534	417,885	417,482	417,000	414,538	412,403
Paternal orphans							
AIDS	93,381	89,803	83,513	76,940	69,994	61,447	53,481
Non-AIDS	567,319	578,186	589,421	600,399	611,473	621,723	631,146
Total	660,700	667,990	672,933	677,339	681,467	683,170	684,627
Double orphans							
AIDS	35,682	33,667	30,890	28,074	25,250	21,944	19,005
Non-AIDS	95,230	96,951	98,736	100,421	102,201	104,003	105,543
Total	130,912	130,618	129,627	128,495	127,451	125,947	124,548
Total orphans	945,719	954,906	961,192	966,326	971,016	971,760	972,481
All AIDS orphans	124,869	118,767	109,502	100,073	90,357	78,427	67,811

Table 35: 2014 PMTCT Summary

Orphans summary table (Total) (Male+Female)	2014	2015	2016	2017	2018	2019	2020
Maternal orphans							
AIDS	61,198	56,963	51,656	46,441	41,312	35,196	30,114
Non-AIDS	354,733	360,572	366,228	371,041	375,688	379,342	382,289
Total	415,931	417,534	417,885	417,482	417,000	414,538	412,403
Paternal orphans							
AIDS	93,381	89,803	83,513	76,940	69,994	61,447	53,481
Non-AIDS	567,319	578,186	589,421	600,399	611,473	621,723	631,146
Total	660,700	667,990	672,933	677,339	681,467	683,170	684,627
Double orphans							
AIDS	35,682	33,667	30,890	28,074	25,250	21,944	19,005
Non-AIDS	95,230	96,951	98,736	100,421	102,201	104,003	105,543
Total	130,912	130,618	129,627	128,495	127,451	125,947	124,548
Total orphans	945,719	954,906	961,192	966,326	971,016	971,760	972,481
All AIDS orphans	124,869	118,767	109,502	100,073	90,357	78,427	67,811

Table 35: 2014 PMTCT Summary

	2014	2015	2016	2017	2018	2019	2020
Mothers needing PMTCT	10,226	10,046	9,916	9,689	9,766	9,832	9,580
Mothers receiving PMTCT	8,299	8,623	8,792	8,866	9,212	9,554	9,580
Single dose nevirapine	0	0	0	0	0	0	0
Dual ARV	0	0	0	0	0	0	0
Option A - maternal	0	0	0	0	0	0	0
Option B - triple prophylaxis from 14 weeks	4,268	3,767	0	0	0	0	0
ART started before current pregnancy	1,099	1,339	1,355	1,357	1,400	1,442	1,437
ART started during current pregnancy	2,932	3,516	7,437	7,509	7,813	8,111	8,143
PMTCT coverage	81.15	85.83	88.67	91.5	94.33	97.17	100
MTCT rate at 6 weeks	4.26	3.31	2.81	2.31	1.75	1.3	0.88
Final transmission rate including breastfeeding period	18.47	15.97	8.67	7.69	6.74	5.76	4.86
Number of new child infections due to mother - to- child transmission							
Total	1,889	1,605	859	745	658	567	465
Male	968	823	440	382	337	290	239
Female	921	782	419	363	321	276	227
HIV+ pregnant women with CD4 < 350	5,807	6,116	9,051	9,040	9,264	9,569	9,580
Treatment coverage for HIV+ pregnant women	39.42	48.33	88.67	91.5	94.33	97.17	100

Table 36: 2014 Impact Summary

Impacts (Total) (Male + Female							
	2014	2015	2016	2017	2018	2019	2020
Deaths averted by ART	8,930	11,018	12,132	12,571	13,844	14,366	14,257
Infections averted by PMTCT	1,821	1,956	2,615	2,616	2,701	2,715	2,848
Life years gained by ART and PMTCT	59,404	72,730	87,230	102,450	119,180	137,236	154,844
Deaths averted by ART (0-4)	21	-68	-89	-27	-92	-32	-181
Deaths averted by cotrimoxzole (0-4)	31	30	37	41	47	53	66
Deaths averted by PMTCT (0-$)	955	1,137	1,239	1,173	1,201	1,188	1,320

Table 37: HIV Age Distribution

	2014			2015			2016			2017			2018		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
0-4	5,960	3,072	2,887	5,186	2,671	2,514	4,218	2,172	2,046	3,435	1,771	1,664	2,690	1,390	1,299
5-9	8,153	4,188	3,965	7,884	4,053	3,831	7,153	3,680	3,473	6,425	3,307	3,119	5,826	3,000	2,825
10-14	7,110	3,642	3,469	7,036	3,605	3,431	6,989	3,582	3,407	6,919	3,547	3,372	6,855	3,515	3,339
15-19	7,893	3,498	4,394	7,855	3,502	4,353	7,746	3,481	4,265	7,613	3,453	4,160	7,523	3,448	4,076
20-24	15,251	5,782	9,469	14,967	5,750	9,217	14,597	5,674	8,923	14,173	5,563	8,610	13,716	5,431	8,285
25-29	26,845	9,838	17,007	25,785	9,545	16,240	24,788	9,271	15,517	23,875	9,020	14,854	23,101	8,819	14,282
30-34	38,324	14,055	24,269	36,911	13,537	23,373	35,497	13,059	22,438	34,102	12,615	21,487	32,858	12,258	20,600
35-39	42,446	16,144	26,301	42,227	15,827	26,400	41,875	15,532	26,343	41,304	15,220	26,084	40,753	15,005	25,747
40-44	35,789	14,503	21,286	37,297	14,817	22,480	38,452	14,998	23,454	39,509	15,156	24,354	40,596	15,380	25,216
45-49	26,190	11,233	14,956	27,352	11,509	15,843	28,735	11,876	16,859	30,311	12,314	17,997	32,183	12,888	19,295
50-54	15,964	7,016	8,948	17,370	7,519	9,851	19,220	8,214	11,006	21,022	8,879	12,143	22,839	9,555	13,285
55-59	9,212	3,995	5,217	10,060	4,345	5,715	11,020	4,745	6,275	12,095	5,185	6,910	13,346	5,694	7,652
60-64	5,026	2,186	2,840	5,500	2,348	3,153	6,085	2,567	3,518	6,755	2,833	3,922	7,521	3,154	4,367
65-69	2,972	1,385	1,587	3,195	1,465	1,730	3,435	1,547	1,888	3,700	1,633	2,066	4,023	1,742	2,281
70-74	1,611	771	840	1,742	823	919	1,903	888	1,015	2,085	963	1,122	2,288	1,048	1,239
75-79	939	439	500	949	447	502	976	462	514	1,022	484	538	1,094	516	578
80+	549	249	300	581	260	321	613	272	341	643	284	359	674	299	375
Total	250,232	101,995	148,237	251,897	102,023	149,874	253,301	102,019	151,282 2	54,987	102,228	152,759	257,883	103,142	154,741

Table 38: AIDS Death By Age

	2014			2015			2016			2017			2018		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
0-4	697	352	345	542	275	268	402	205	197	353	178	175	327	161	166
5-9	274	141	133	249	129	121	213	110	103	183	95	88	167	86	81
10-14	324	166	158	317	162	154	304	156	148	285	146	138	274	141	134
15-19	265	152	113	206	117	90	181	101	81	168	93	75	130	70	60
20-24	209	93	115	188	86	102	170	79	92	158	74	84	122	57	65
25-29	550	238	313	416	184	233	335	150	184	284	129	155	169	78	92
30-34	1,000	452	548	722	330	391	552	255	297	452	211	241	257	120	138
35-39	1,686	809	877	1,197	582	615	903	441	463	728	356	372	361	174	187
40-44	1,538	801	737	1,098	579	518	828	437	390	673	353	319	340	174	166
45-49	1,143	641	503	785	444	341	584	330	254	478	269	210	250	138	111
50-54	709	414	296	497	292	205	382	224	158	322	188	133	182	105	77
55-59	386	221	165	272	158	114	211	123	88	182	106	76	114	66	48
60-64	209	119	90	147	84	63	116	66	50	102	58	44	66	37	28
65-69	124	75	50	87	52	34	66	40	27	57	34	23	35	20	15
70-74	67	41	26	47	29	18	37	23	14	33	20	13	20	12	8
75-79	41	24	16	27	16	11	20	12	8	17	10	6	10	6	4
80+	25	15	10	16	10	6	12	7	5	10	6	4	6	4	2
Total	9,248	4,754	4,493	6,814	3,531	3,283	5,316	2,760	2,556	4,483	2,327	2,156	2,830	1,451	1,379

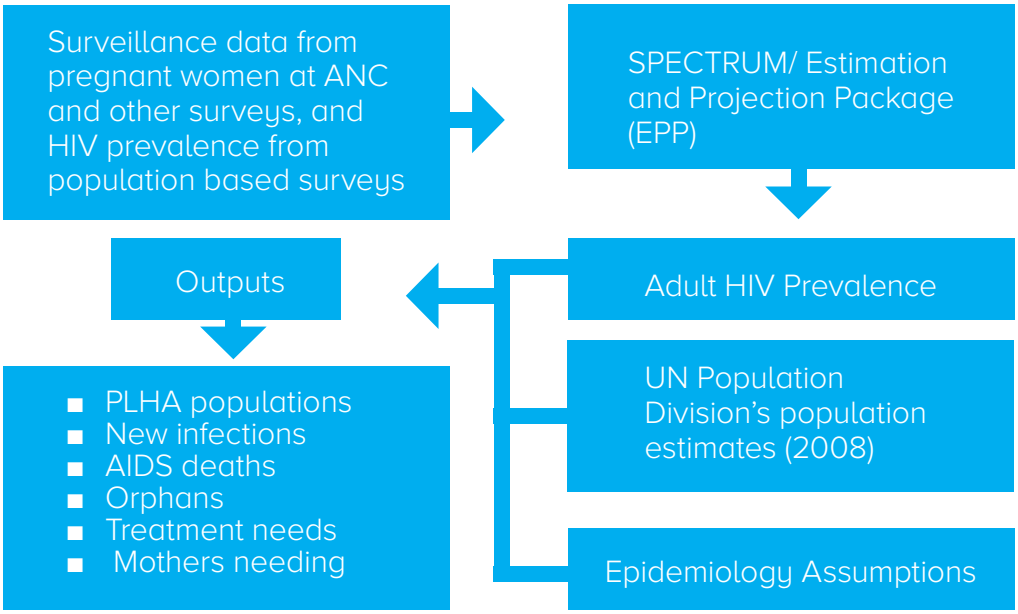
Table 39: Sub Populations Summary

	2014			2015			2016			2017		
HIV population	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
Total	229,009	161,279	67,730	231,791	165,620	66,171	234,941	171,418	63,523	238,208	176,897	61,311
Male	91,093	64,152	26,941	91,693	65,517	26,176	92,585	67,552	25,033	93,603	69,511	24,092
Female	137,916	97,127	40,789	140,097	100,103	39,995	142,356	103,866	38,490	144,605	107,386	37,219
Prevalence (15-49)	1.47	1.94	0.98	1.44	1.91	0.94	1.4	1.91	0.9	1.37	1.9	0.86
New HIV infections												
Total	9,467	8,266	1,201	9,019	7,975	1,044	8,143	7,194	949	7,588	6,752	837
Male	3,944	3,444	501	3,764	3,328	436	3,402	3,006	396	3,175	2,824	350
Female	5,523	4,822	701	5,256	4,647	608	4,740	4,188	552	4,414	3,927	487
Incidence (15-49)	0.07	0.14	0.02	0.07	0.13	0.02	0.06	0.11	0.02	0.05	0.1	0.02
Annual AIDS deaths												
Total	7,953	5,601	2,352	5,706	4,077	1,629	4,397	3,208	1,189	3,663	2,720	943
Male	4,095	2,884	1,211	2,965	2,119	846	2,289	1,670	619	1,908	1,417	491
Female	3,858	2,717	1,141	2,741	1,959	783	2,108	1,538	570	1,755	1,303	452
Total number receiving ART												
Total	79,131	55,728	23,403	104,785	74,871	29,914	118,896	86,749	32,147	133,973	99,490	34,482
Male	26,369	18,570	7,799	36,182	25,853	10,329	41,411	30,215	11,197	47,082	34,964	12,118
Female	52,762	37,158	15,604	68,603	49,018	19,585	77,485	56,534	20,950	86,890	64,526	22,364
Total need for ART												
Total	133,582	94,075	39,507	141,955	101,430	40,525	150,385	109,724	40,661	158,925	118,020	40,905
Male	49,267	34,696	14,571	51,688	36,932	14,756	54,489	39,756	14,733	57,417	42,639	14,778
Female	84,315	59,379	24,936	90,267	64,498	25,769	95,897	69,968	25,928	101,507	75,381	26,126
Population												
Total	16,106,641	8,780,709	7,325,932	16,483,619	9,101,352	7,382,267	16,871,981	9,429,591	7,442,390	17,272,802	9,768,295	7,504,507
Male	7,848,448	4,278,666	3,569,782	8,042,052	4,440,381	3,601,671	8,241,254	4,605,959	3,635,295	8,446,437	4,776,717	3,669,720
Female	8,258,193	4,502,043	3,756,150	8,441,567	4,660,971	3,780,596	8,630,726	4,823,631	3,807,095	8,826,364	4,991,577	3,834,787

Table 40: DHS + HIV Prevalence (2003)

	Male Prevalence	Female Prevalence	Total Prevalence	Standard Error
Rural	1.4%	2.5%	2.0%	0.2%
Urban	1.5%	2.9%	2.3%	0.3%
Total	1.5%	2.7%	2.2%	0.2%

Figure 57: Overview of Estimation Process for Generalized Epidemic



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