

GHANA COUNTRY HEALTH PROFILE

DRAFT

OCTOBER 5, 2020

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ACRONYMS

Acronym	Definition
ANC	Antenatal Care
ART	Antiretroviral treatment
AU	Africa Union
BCG	Bacillus Calmette-Guerin
CHAG	Christian Health Association of Ghana
CHIM	Centre for Health Information Management
CHOs	Community Health Officers
CHPS	Community Based Health Planning and Service Programme
CPR	Contraceptive Prevalence Rate
CSOs	Civil Society Organizations
CYP	Couple Year Protection
DHIMS	District Health Information Management System
DST	Drug Susceptibility Testing
ECOWAS	Economic Community of West African States
EPA	Environmental Protection Agency
EPI	Expanded Program of Immunization
FAO	Food and Agricultural Organization
FDA	Food and Drugs Authority
FP	Family Planning
GAC	Ghana AIDS Commission
GBD	Global Burden of Disease
GDHS	Ghana Demographic and Health Survey
GDP	Gross Domestic Product
GHS	Ghana Health Service
GOG	Government of Ghana
GSS	Ghana Statistical Service
HSMTDP	Health Sector Medium Term Development Plan

ICT	Information Communication Technology
IDD	Iodine Deficiency Disorders
IHME	Institute of Health Metric and Evaluation
IMF	International Monetary Fund
IOM	International Organization for Migration
IPT	Intermitted Preventive Treatment
ITN	Insecticide Treated Nets
LEAP	Livelihood Empowerment Against Poverty
LLIN	Long -Lasting Insecticide Net
MDA	Mass Drug Administration
MDAs	Ministries, Departments and Agencies
MDGs	Millennium Development Goals
MMDAs	Metropolitan, Municipal and District Assemblies
MOH	Ministry of Health
NACP	National AIDS Control Programme
NADMO	National Disaster Management Organization
NCCC	National climate change Committee
NCD	Non-communicable Disease
NDPC	National Development Planning Commission
NGO	Nongovernmental organization
NHIS	National Health Insurance Authority
NHIS	National Health Insurance Scheme
NSPS	National Social Protection Strategy
OPD	Out Patient Department
PHC	Primary healthcare
PLHIV	People Living with HIV
PMMP	Prevention of Maternal Mortality Programme
PMTCT	Prevention of Mother- to- Child Treatment
RCH	Reproductive and Child Health
RDT	Rapid Diagnostic Test

SDGs	Sustainable Development Goals
TB	Tuberculosis
VAS	Vitamin Supplement Programme
WAHO	West Africa Health Organization
WHO	World Health Organization

INTRODUCTION

The analytical profile of Ghana is a product of collection of data and synthesized information relating to the health of populations to serve as evidence based for stakeholders and policy makers. This profile describes in an analytical manner the health situation of Ghana as it stands for 2019 and the years before, with analytical summaries.

This output will be available on the National observatory platform for public use. The profile will serve as primary prompt mechanism: to inform decision-making and development of health policies; and help monitor and evaluate ongoing programmes and progress made in the implementation of these interventions and programmes.

This Health analytical profile consists of six chapters following a country profile template provided by West African Health Organisation (WAHO): (i) Introduction (ii)socio economic indicators (iii) Health status and trends (iv) organizations and functioning of national health systems (iv) Status of epidemic prone diseases. Each chapter has a number of indicators that measures the performance of the country using a trend analyses (2012 -2019) approach.

BACKGROUND

Ghana is situated on the West Coast of Africa and borders with three French speaking countries: Burkina Faso to the North, Ivory Coast to the West, and Togo to the East. Ghana is divided into three ecological regions: the low, sandy coastal plains, with several rivers and streams; the middle and western parts of the country, characterized by a heavy canopy of semi-deciduous rainforests, with many streams and rivers; and a northern savannah, which is drained by the Black and White Volta Rivers. Ghana has a tropical climate throughout the year with two major seasons – a dry (Harmattan) season and a wet (rainy) season (GSS, 2013).

Ghana has 16 administrative regions and 260 districts. The number of regions increased from 10 to 16 in 2019. The country's capital is Accra located in the Greater Accra Region. Ghana’s population for 2019 is estimated at 30,280,482 (based on the 2010 National Housing and Population Census), indicating an increment by 22.79% from 24,658,823 in 2010.



Figure 1: Map of Ghana Showing the 16 regions and administrative capitals

METHODOLOGY

A technical team was constituted to review the 2016 Ghana Country Profile developed with support from WHO. The team, led by the M&E unit is currently updating data gaps for the periods between 2016 to 2019 using data sets generated from DHMIS. The team is also conducting a desk review of Holistic Assessment Reports, other published reports and articles available online.

LIMITATION

1. Lack of recent information for some survey indicators at country level.
2. The poor capacity of the health information system to produce reliable routine data.
3. Limited time frame to gather information

1 SOCIO-DEMOGRAPHIC INDICATORS

1.1 SOCIOECONOMIC CONTEXT

Over the past two decades, the structure of the Ghanaian economy has seen minimal changes. The agriculture sector, previously the largest contributor to the Ghanaian economy, has been overtaken by the service and industry sectors. By 2014, the service sector was the fastest growing sector of the economy, contributing 52% of the gross domestic product (GDP), followed by the industry sector, at 27%, and the agriculture sector, at 22 % (GSS 2015).

Economic growth remains fairly resilient though the rates have been declining since 2011. Ghana documented high growth of 15% in 2011 (IMF, 2014) but could not sustain it over in the succeeding years. Ghana's economic growth slowed to an estimated 3.4% in 2015 from 4% in 2014 and much lower than the rate in 2012 (7.95%) (IMF, 2014; GSS, 2014). Inflation remains a problem in the country even with efforts to tighten monetary policy. Ghana has persistently high inflation rate: 17.7% in Feb 2015; 18.5% in Feb 2016; and 15.5% in Nov 2016 (source).

For every economy, the workforce is the engine of development. The population pyramid of Ghana reveals that the country has very huge economic workforce, that is 57% Ghana's population are people of working age. However, unemployment rate is high [quote) for unemployment]. Consequently, dependency ratio, which is the ratio of the number of dependents (people aged 0-14 years and >65 years) to the number of country's workforce (people aged 15-64) is higher than the expected dependency ratio: actual dependency ratio: 79%; expected dependency ratio: 76% (Table 2) (GSS, 2013).

Table 1: Age dependent and working population

Age group	*Total Population*		*Male*		*Female*	
	Number	*%*	*Number*	*%*	*Number*	*%*
0-14	9,450,398	38.3	4,798,944	39.9	4,651,454	36.8
15-64	14,040,893	56.9	6,727,948	56.0	7,312,945	57.9
65+	1,167,532	4.8	497,953	4.1	669,579	5.3
dependent	10,617,930	43.1	5,296,897	44.0	5,321,033	42.1
Working	14,040,893	56.9	6,727,948	56.0	7,312,945	57.9
Dependency ratio[1]		76.0		79.0		73.0

Source: Ghana Statistical service, 2010 National Population and Housing census

1.2 POPULATION

[1] Ratio of dependent to working

The population pyramid of Ghana depicts bulge in the age group in the under 5, 5-9 and 10-14 age groups; potentially creating pressure for maternal, pediatric (child), and adolescent care. The population pyramid of Ghana reveals that the country has very huge economic workforce, that is 57% Ghana's population are people of working age.

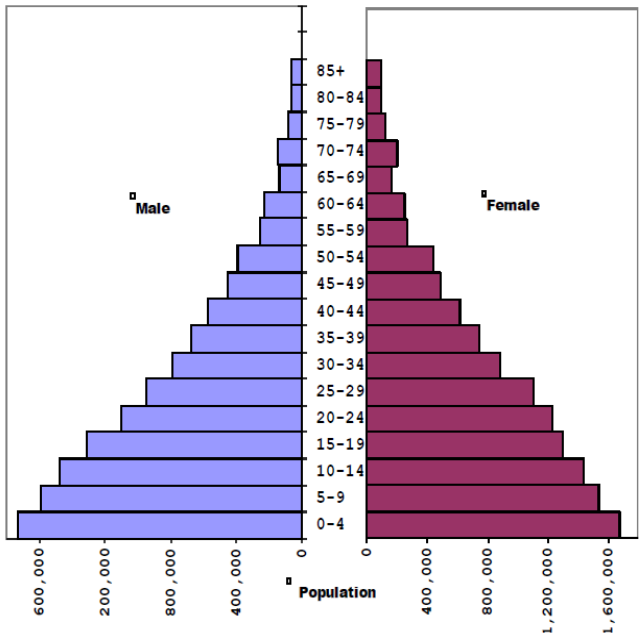


Figure 2: Ghana Population Pyramid 2010

Life expectancy at birth is one of the most important demographic indicators. It is a measure of the overall quality of life in a country and summarizes mortality at all ages. Over the last five decades, the average life expectancy at birth in Ghana has increased from 38 years to 60 years for males and from 43 years to 63 years for females (GSS 2013).

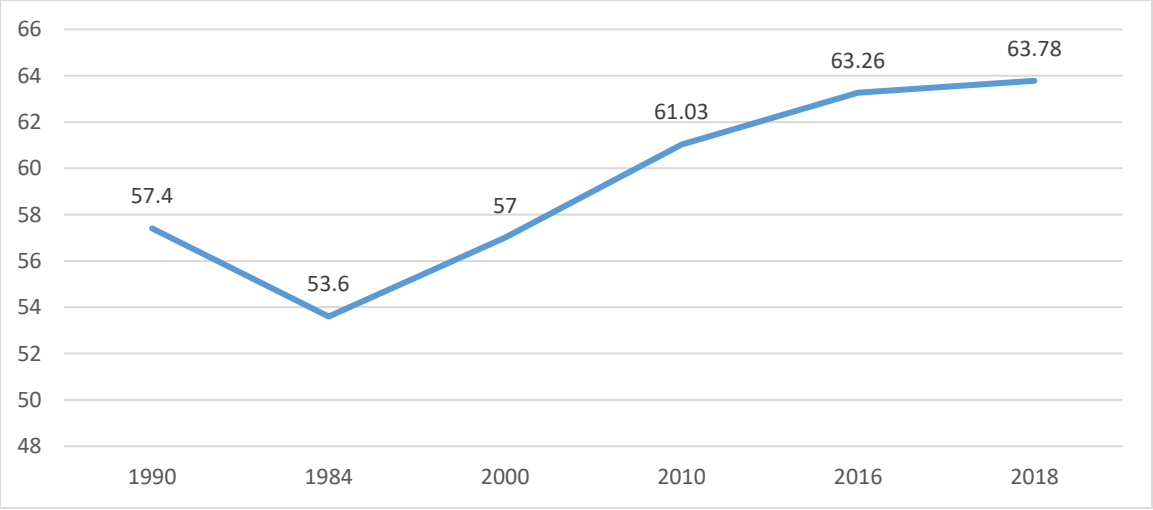


Figure 3: The average life expectancy at birth 1990-2018 (Source, the WB)

- Annual population growth rate (%)
- Population in urban areas (%)
- Synthetic fertility index (per woman)
- Literacy rate of 15–24 year-olds (youth literacy rate)

2 HEALTH STATUS

The 2016 Ghana burden of disease report shows that infectious illnesses, closely followed by chronic non-communicable diseases are the leading causes of mortality and disability in Ghana (Table 4). Road traffic accidents account for 3.1% of all deaths in Ghana.

Table 2: The top 20 causes of deaths and disability in Ghana (Ghana Burden of Disease report, 2016)

Leading causes of death	% of total	Leading causes of DALYS[2]	% of total	Leading risk factors for DALYS	% of total	Years lost due to disability	% of total
Lower respiratory tract infections	9	Malaria	10.5	Unsafe sex	19.9	Depressive disorders	10.7
Malaria	8.8	Lower respiratory tract infection	6.8	Raised blood pressure	13.6	Low back and neck pains	8.7
Cerebrovascular disease	8.5	HIV/AIDS	6.6	Childhood underweight	10.6	Iron deficiency anaemia	8.3
HIV/AIDS	7.9	Neonatal sepsis	4.9	Household air pollution from solid fuels	10.4	Vision problems	6
Ischaemic heart disease	5.3	Complications of preterm birth	4.7	Overweight or obesity	8.9	Skin diseases	4.6
Protein energy malnutrition	3.7	Protein energy malnutrition	4.3	Unsafe water source	7.4	Malaria	3.4
Neonatal sepsis	3.5	Neonatal sepsis	3.7	Raised blood sugar	7.1	Chronic obstructive pulmonary disease	3.3
Complications of preterm birth	3.3	Haemoglobinopathies	3.1	Iron deficiency	7.0	Schistosomiasis	2.9
Road traffic injuries	3.1	Cerebrovascular disease	3.1	Alcohol use	6.9	Migraine	2.7
Neonatal encephalopathy	2.6	Congenital anomalies	2.8	Air pollution	5.3	Anxiety disorders	2.4
Diabetes mellitus	2.5	Road traffic injuries	2.8	Poor sanitation	5.1	Diabetes mellitus	2.3
Haemoglobinopathies	2.3	Iron deficiency anaemia	2.6	Kidney problems	4.5	Other muscular-skeletal disorders	2
Diarrhoeal diseases	2.2	Diarrhoeal diseases	2.5	Low intake of fruits	3.7	Haemoglobinopathies	1.8
Meningitis	2.1	Meningitis	2.3	Suboptimal breastfeeding	3.6	Kidney disease	1.7
Tuberculosis	1.9	Depression	2.2	Low vegetable intake	3.5	Schizophrenia	1.6
Congenital anomalies	1.9	Ischaemic heart disease	2.1	Drug abuse	3.3	Drug abuse	1.5
Hypertensive heart disorders	1.6	Low back and neck pains	1.8	Diet low in whole grains	3	Gynaecological diseases	1.4
Chronic obstructive pulmonary disease	1.5	Diabetes mellitus	1.4	Poor hygienic practices	3	Osteoarthritis	1.4
Other cardiovascular diseases	1.3	Tuberculosis	1.3	Cigarette smoking	2.5	Mental retardation	1.4

[2]DALY is a measure of overall disease burden, expressed as the number of years lost due to ill-health, disability or early death. DALYs for a disease or health condition are calculated as the sum of the Years of Life Lost (YLL) due to premature mortality in the population and the Years Lost due to Disability (YLD) for people living with the health condition or its consequence.

Iron deficiency anaemia	1.3	Skin diseases	1.3	High cholesterol	2.3	Bipolar disorders	1.3

Institute of Health Metric and evaluation (IHME) in 2016 published findings from Global Burden of Disease (GBD). The following were the key findings:

- Malaria and respiratory tract infections have consistently remained among the top three HIV/AIDS moved up the ladder from being the 15th on the list in 1990 to the third position in 2013
- Stroke, one of the NCDs, was 16th on the list in 1990 and is now 8th on the list – suggesting an increase in the burden of the non-communicable diseases.
- Road traffic injuries have also moved up the ladder; from 13th position in1990 to 10th position in 2013.

2.1 MORTALITY

Mortality rate, Under 5 Mortality rate and Maternal Mortality ratio) for the socio economic development of a country. Maternal and child mortalities measures the quality of healthcare provided and the status of implementation of the country's health systems.

Before the end of 2015, considerable gains were made in the targets for infant and under-5 mortalities by Ghana in the MDGs. Infant and child mortality declined sufficiently to reach the target ahead of time. Ghana recorded a continuous decline over a decade.

The infant mortality ratio, measured as the probability of an infant dying before the first birthday, expressed per 1,000 live births recorded a continuous decline over a decade, from 64 in 2003 to 41 in 2014 against a target figure of 22 by 2015.

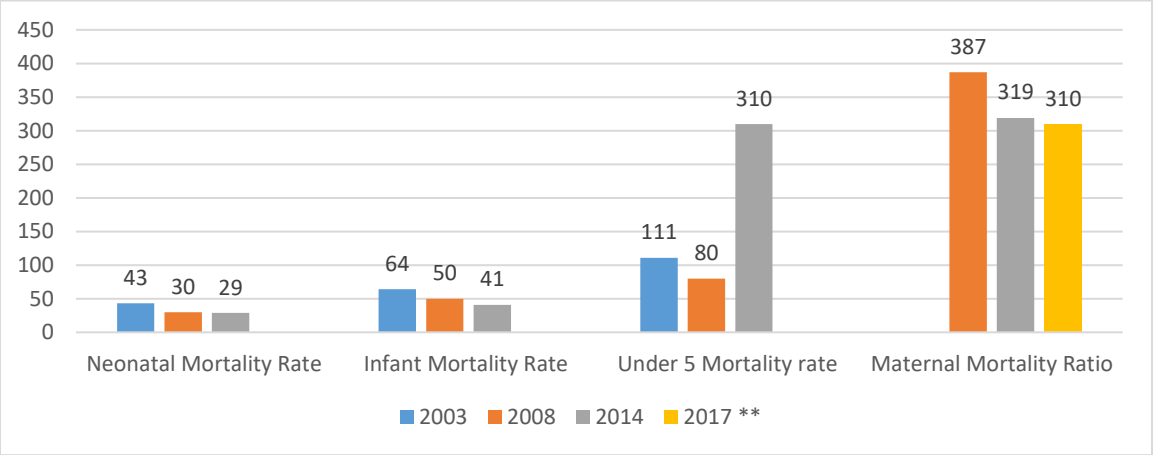


Figure 4: Maternal and Child Mortalities Trend (DHS/Maternal Health Survey)

Neonatal mortality, which measures the probability of the child dying within the first twenty-eight days, expressed per 1,000, experienced a continuous decline from 43 in 2003 to 29 deaths in 2014. Thus the country achieved the MDG target of reducing the child mortality rate by two-thirds ahead of the 2015 deadline. The trend seen in the neonatal mortality rate over the years from 2015 to 2017 may be attributable to the improvement in reporting on neonatal deaths as a result of various interventions ongoing to improve neonatal care.

Generally, the decline in all mortality may be attributed to quality of care improvement intervention being implemented in health facilities.

The maternal mortality ratio continues to see a progressive decline (reduction of 13% from 151/100,000LB in 2016 to 117/100,000LB in 2019) in institutional maternal deaths. This decline was also reflected in the Ghana Maternal Health Survey.

All institutional mortalities have improved over the years. An indication that the country is on a good path to achieving the SDG targets.

Table 3: Mortality indicators (Source MOH; DHS)

Intuitional Data	**2015**	**2016**	**2017**	**2018**
All-cause mortality rate (per 1000 admissions)	23.1	22.8	23.6	21.1
Maternal Mortality Ratio (per 100,000)	142	151	147	129
Neonatal Mortality Rate (per 1000 LB)	5.3	6.3	8.4	7.7
Still Birth Rate (per 1000 TB)	**17**	**19**	**15**	**14**
MICS Results		**2006**	**2011**	**2018**
Maternal Mortality Ratio (per 100,000 LB)**		560	451	310
Neonatal Mortality Rate (per 1000 LB)**		32	32	27
Under-5 Mortality Rate (per 1000 LB)**		111	82	56
Infant Mortality Rate (per 1000 LB)**		71	53	41

Malaria under 5 case fatality has been used as proxy indicator for measuring the performance of the National Malaria Control Programme (NMCP) in the area of facility-based case management. The risk of a child dying from malaria has reduced considerable over the years. Indeed, the probability of a child under 5 years dying in a health facility has reduced to the extent that the programme has exceeded its own expectations. Malaria case fatality at the institutional level was 0.16. This translates to a 20% reduction over the 2017 performance.

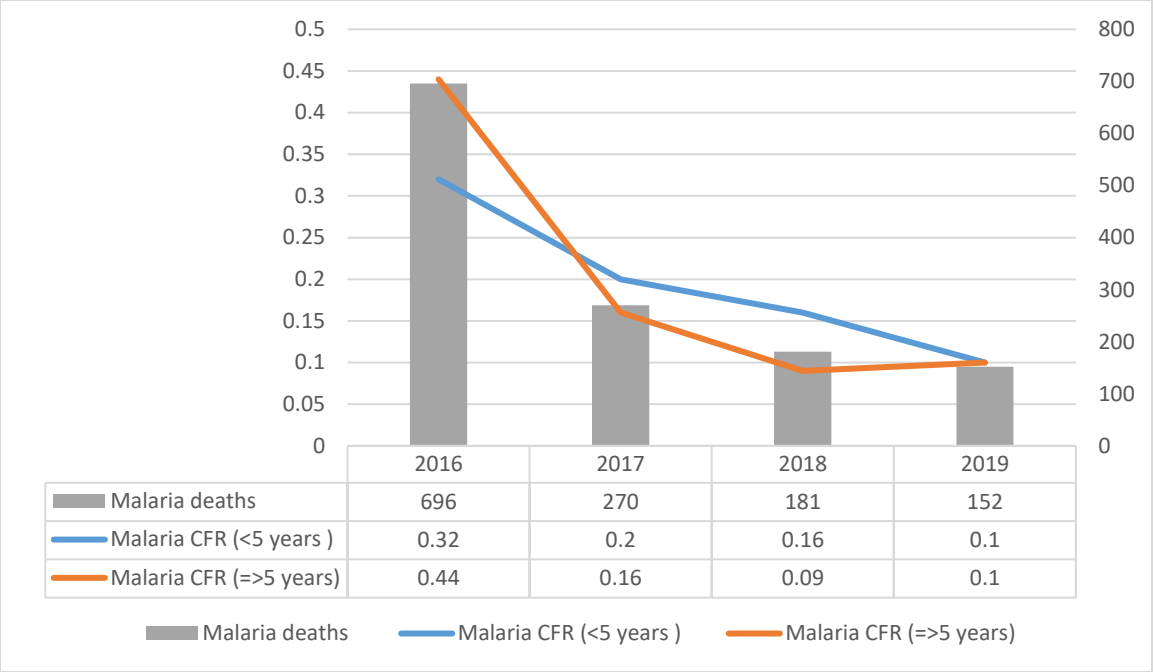


Figure 5: Institutional Malaria under 5 Case Fatality Rate

2.2 MORBIDITY

2.2.1 Communicable diseases

2.2.1.1 Malaria

The Ministry has implemented a number of interventions to improve on child health over the years. Reduction of child morbidity due to malaria is one of such key interventions. The strategies employed included mass distribution of Long Lasting Insecticide Treated Nets (LLITNs), seasonal malaria chemoprophylaxis, indoor residual spraying and improved diagnosis and case management.

Some key finding in the 2019 Ghana Malaria Indicator Survey

- ***Ownership of insecticide-treated nets (ITNs):*** 74% of households in Ghana own at least one ITN, and 52% of households have at least one ITN for every two people.
- ***Sources of ITNs:*** 67% of ITNs owned by households were obtained from the latest mass distribution campaign in 2018.
- ***Access to an ITN:*** Nearly 7 in 10 people (67%) have access to an ITN. This means that 67% of the country's population could sleep under an ITN if every ITN in a household were used by two people.
- ***Use of ITNs:*** 43% of the household population, 54% of children under age 5, and 49% of pregnant women slept under an ITN the night before the survey.

- ***Intermittent preventive treatment (IPTp-SP):*** 80% of pregnant women received at least two doses of IPTp-SP for prevention of malaria in pregnancy, and 61% received at least three doses

In 2019, malaria incidence declined by 35% from 341 in 2018 to 221.3 in 2019.

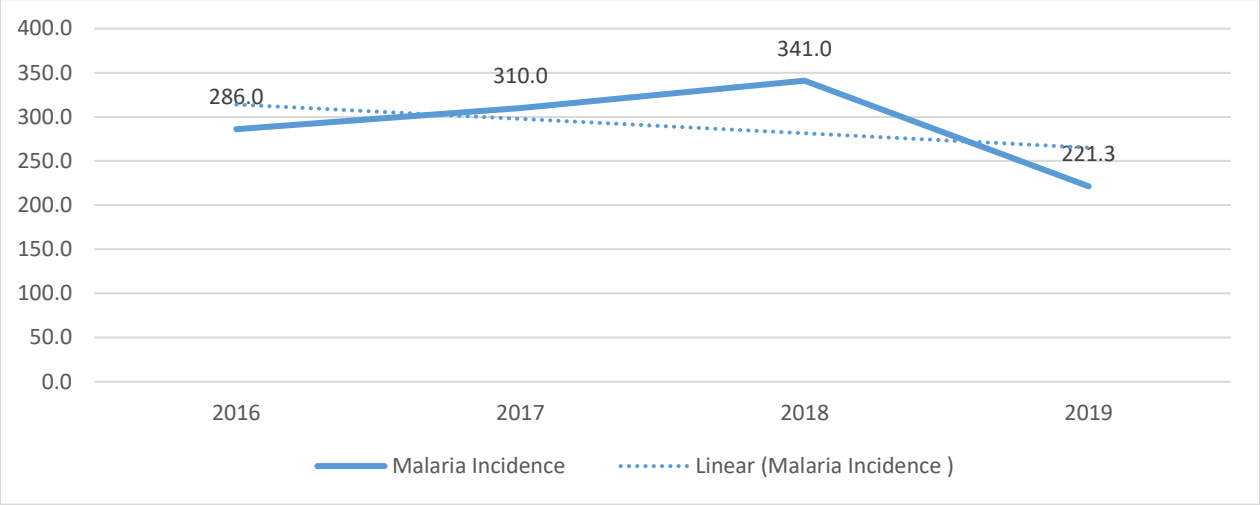


Figure 6: Malaria Incidence Rate

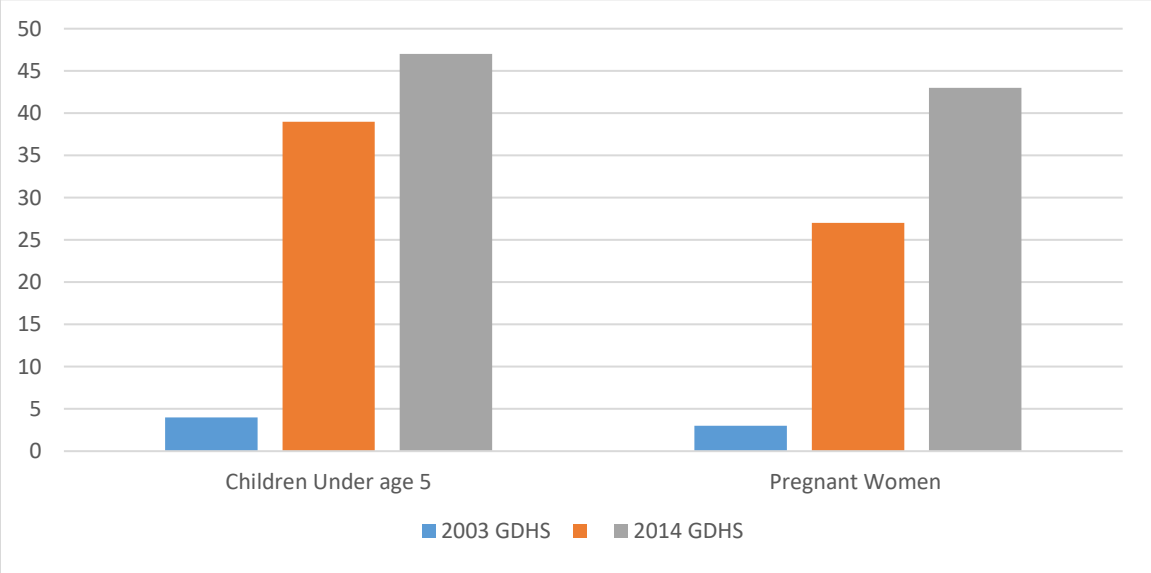


Figure 7: Trend in the Use of ITNs among Children under age 5 and Pregnant women

The figure above shows that the proportion of children under age 5, in all households, who slept under an ITN the night before the survey, has increased steadily and substantially in the last decade from 4 percent in 2003, to 39 percent in 2008, and further to 47 percent in 2014. Similarly, among

pregnant women in all the households, the percentage who slept under an ITN the night before the survey has increased from 3 percent in 2003, to 27 percent in 2008, and to 43 percent in 2014.

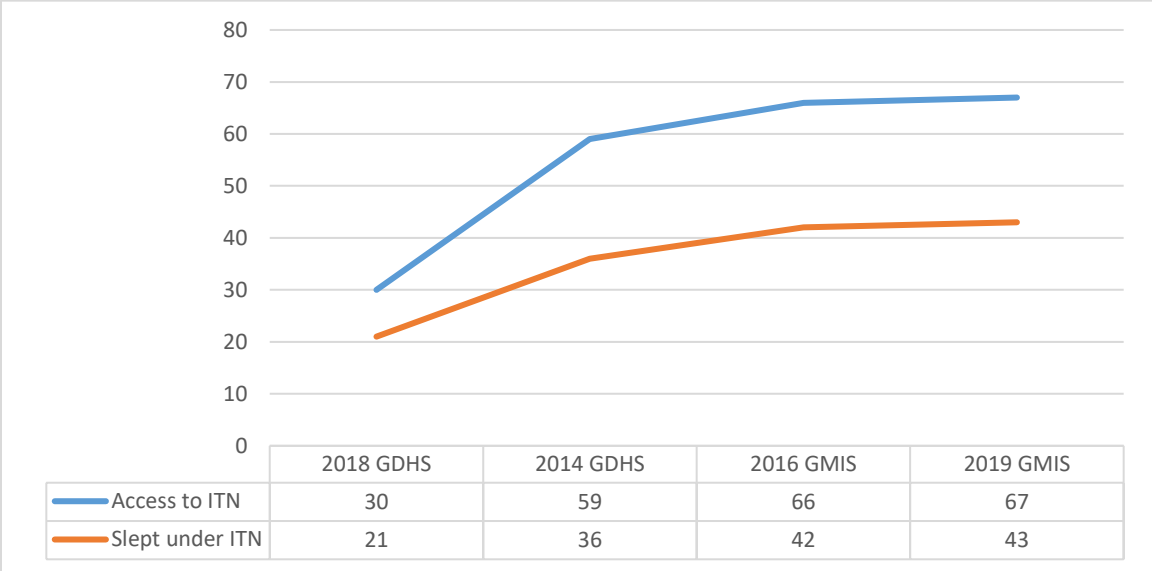


Figure 8: Trends ITN access and Use (Source GMIS 2019)

The malaria indicators are summarized in the next table.

Table 4: Malaria indicators 2003-2019

	2003 GDHS	*2006 MICS*	*2008 GDHS*	*2011 MICS*	*2014 GDHS*	*2016 GMIS*	*2019 GMIS*
Proportion of households with one or more ITN (%)	3.0	19.0	42.0	49.0	49.0	66.0	67.0
Proportion of children under 5 years old who slept under ITN the previous night (%)	4.0	22.0	39.0	39.0	46.6	52.0	54.0
Proportion of pregnant women who slept under ITN the previous night (%)	3.0	-	27.0	3365	43.0	50.0	49.0
Proportion of women who received two or more doses of IPTP during their last pregnancy in the last two years (%)	0.0	28.0	44.0	65.0	68.0	78.0	80.0
Proportion of children under 5 years old with fever in the last two weeks who received treatment with ACTs (%)	-	3.0	12.0	18.0	37.9	-	66.0

2.2.1.2 HIV/AIDS

In 2014, the Joint United Nations Programme on HIV/AIDS (UNAIDS) and partners launched the **90**–**90**–**90** targets. The aim was to diagnose **90**% of all HIV positive persons; provide antiretroviral therapy (ART) for **90**% of those diagnosed; and achieve viral suppression for **90**% of those treated.

The 90 90 90 initiative has become the key strategy in Ghana. It is an attempt to end the epidemic by 2030. Progress regarding treatment has stagnated. The National AIDS Control Programme (NACP) is having difficulties in ensuring the smooth implementation of the 90 90 90 initiative. Under the 1st 90, Test kits are not adequate to meet the estimated demand. Although male involvement is important in ensuring that family members submit to HIV testing, participation of males have been low. The NACP recognizes the significant role CSOs play in educating the public on critical health programmes and expected their participation in the know your status campaign. The CSOs participation has been lower than expected. These challenges have been influenced by the limited funding available to support preventive activities. These preventive activities are essential in preventing new infections.

The achievement of the 2nd 90 targets has fallen far behind because the NACP has challenges with the last mile distribution of ARVs which imply the drugs are not readily available timeously for initiation and or continuation of treatment. This may have resulted in the loss to follow up of clients which is also a major challenge of the Programme. The NACP listed limited human resource at ART centres. Often, staff move on after their capacity have been built. To overcome this challenge, The NACP will have to be strategic and encourage integration of HIV activities into general service delivery and allow on the job training of relevant staff in our health facilities so that movement of a staff does not affect the smooth running of the programme. This could be done by rotating relevant staff in the hospitals to perform varied schedules including that of HIV. Centralized training could be very costly and ineffective in most cases. Another challenge of the NACP is the limited decentralization of HIV services. Officers must be responsible for all health service activities that take in their facilities. They must therefore be given whatever resources available to perform their role as expected.

Under the 3rd 90 target, HIV clients put on treatment are expected to have fully suppressed viral load. This implies Laboratory testing for viral load must be readily available. Unfortunately, some hospitals do not have a competent laboratory to undertake this activity and therefore would have to collect sample and transport to the nearest hospital that is able to conduct the test. The challenge immediately could be cost and convenience. Whilst funds provided for the specimen transport is inadequate, some clients are requested to go to the nearest hospital for the test instead for convenience. The clients may find this demanding due to time and cost reasons. As indicated earlier, non-availability of adequate and competent laboratory staff and the frequent breakdown of equipment is a limiting factor for testing for the viral load suppression. The NACP identify lack of support from managers of facilities for viral load and EID activities as a major difficulty. Most facility managers would work towards the achievement of the 90 90 90 targets if they see the

implementation as their responsibility and not that of someone in the regions or national headquarters. Directives for viral load testing therefore, should be within the local context.

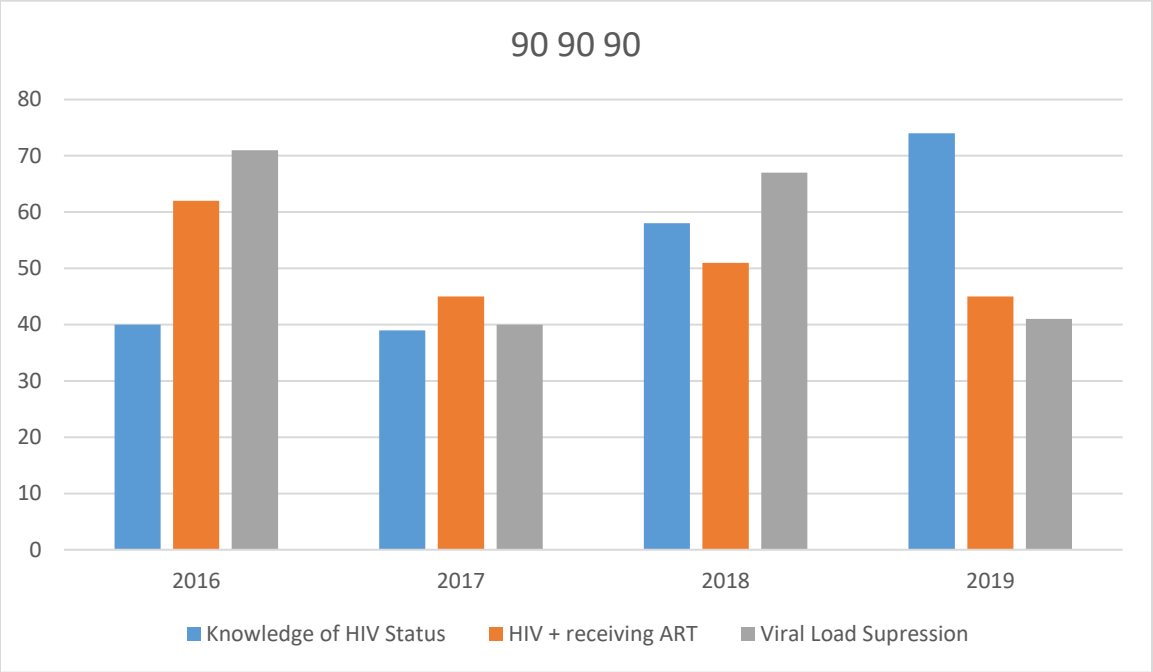


Figure 9: HIV/AIDS Status

HIV Prevalence Rate

- HIV and AIDS prevalence has fallen from 3.6% in 2007 to 1.3% by 2013 but regional disparities persist.
- HIV prevalence in Ghana has remained quite low among the youth (below 2%) since 2010.
- The average HIV prevalence, which was estimated at 2.6% in 2007, declined to 1.6 % in 2019.

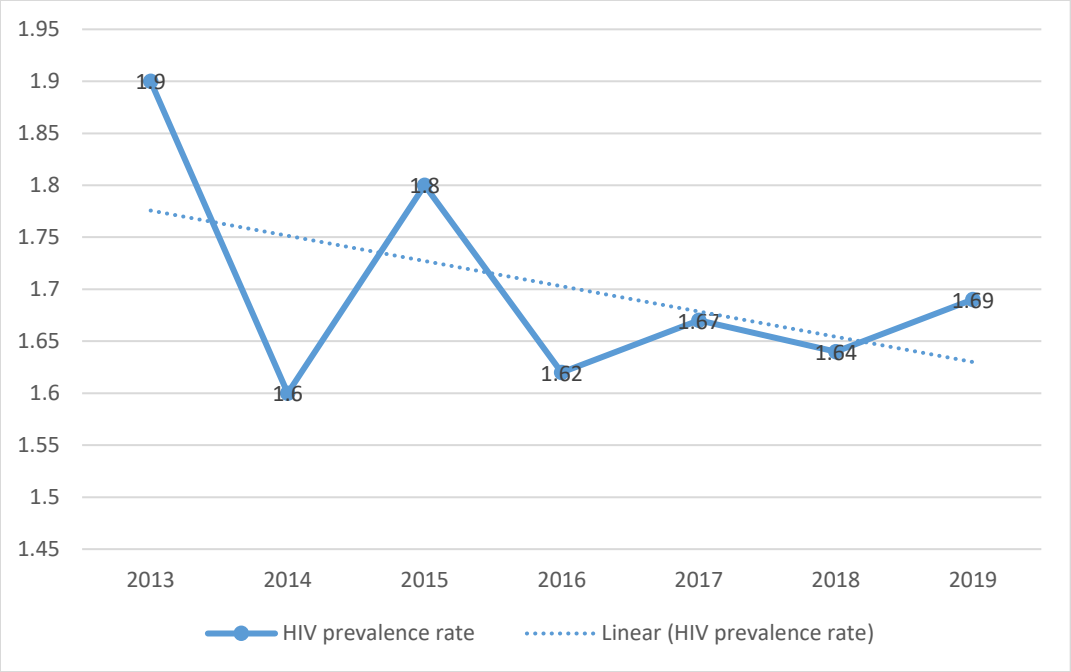


Figure 10: HIV prevalence rate (MOH, 2019)

2.2.2 Non communicable diseases

In Ghana, Non-communicable diseases (NCDs) contribute significantly to illness, disability and deaths and the major NCDs are cardiovascular diseases, cancers, diabetes, chronic respiratory diseases and sickle cell disease. The first four share common risk factors namely, tobacco, harmful use of alcohol, unhealthy diet and physical inactivity. Their burden is projected to increase due to ageing, rapid urbanization and unhealthy lifestyles. Other NCDs are either managed under separate programmes in the Ghana Health Service (e.g. tobacco control, oral health, mental health) or do not have any established programme (e.g. hearing impairment).

The prevalence of adult hypertension in Ghana appears to be increasing and ranges from 19% to 48%. Current studies have identified that, up to 70% of persons identified to have hypertension are not on treatment and only 13% of those with hypertension have their blood pressures well controlled. The prevalence of adult diabetes in Ghana is about 9%. Report from an institutional data in Ghana revealed that NCDs have been increasing in both absolute and relative terms. An estimated 50,000 NCD deaths occur in males and 36,000 deaths occur in females. The proportion of deaths occurring under 70 years is 69% among males and 59% among females (Ghana Health service annual report, 2014). The common disabilities in Ghana are physical, visual, sensory and mental. According to the 2010 Census, 737,743 people representing 3% of Ghana's population were disabled. Eye problems and disorders are usually associated with age group but particularly with babies, the elderly (50 and above) and children.

Accurate, complete and timely health information on morbidity and mortality of NCDs is routinely collected within the context of the District Health Information Management System (DHIMS) and e-Health. Data is collected through hospital visits by patients, hospital admissions and through verbal autopsies. There are two cancer registers that which are located at Korle Bu Teaching hospital (Accra) and Komfo Anokye Teaching Hospital (Kumasi) that are established to collate ad provide information on cancer cases in the country. The cancer registry collects detailed information about cancer patients and the treatments they receive. The data collected is then used by stakeholders and government to employ strategies to curb increasing cases of cancer.

Due to the general lack of national screening programmes and limited diagnostic or screening equipment, information on the actual size of the burden of NCDs is fragmented. Key actions of the sub programmes are therefore focused on building capacity and putting in place management structures that will enable adequate coordination and of control activities at the regional and district levels of the health system. This involves the development of policies and strategies, treatment and counseling guidelines and the mainstreaming of prevention and control of NCD activities into regional and district level interventions.

Table 5: Some Selected NCDs Data 2014 - 2019

Disease	*2015*	*2016*	*2017*	*2018*	*2019*
Hypertension	715,247	605,946	603,344	617,569	626,353
Diabetes Mellitus	185,945	154,650	173,051	172,798	178,037
Asthma	89,642	80,656	83,841	82,098	87,414
Sickle Cell Disease	38,644	35,457	34,557	37,792	40,291
Road Traffic Accidents	91,322	94,592	96,474	103,296	96,509

The next figure presents the repartition of type of disabilities in the Ghanaian population.

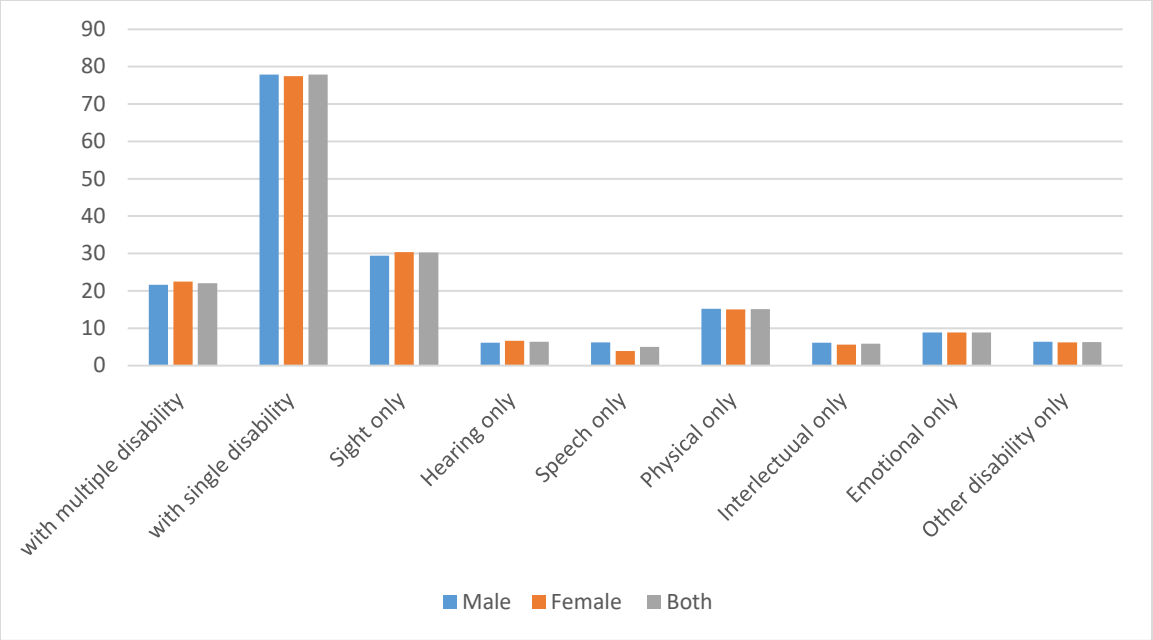


Figure 11: Population with disability by sex (Source GSS, Population and Housing Census, 2010)

Big efforts have been undertaken to control NCDs in Ghana. The Government has defined priority interventions which are listed in the following table.

Table 6: National interventions efforts (2018 Annual report, PHD, GHS)

Priority Interventions	
NCD Policies	• National Non Communicable Diseases policy and strategy document as well as national Cancer plan developed and launched. • Regional cancer registries set up with the Accra and Kumasi Cancer registries functional
Governance of NCD Control Programme	The national NCD multi sectoral committee established to outline and harmonize all activities, programmes and intervention directed at promoting, preventing or management of NCDs in Ghana.
Partnership for NCD control activities	• **Establishment of functional cervical cancer screening sites in Marie Stopes facilities**. • Establishment of functional cervical cancer screening sites Through collaboration with Marie Stopes international Ghana • Development of a national cancer treatment guideline through partnership with Roche pharmaceuticals
Burden of NCDs	**Burden of Disease (BOD) study conducted** A draft report has been submitted after series of meetings.

3 ORGANIZATION AND FUNCTIONING OF NATIONAL HEALTH SYSTEMS

3.1 GOVERNANCE AND HEALTH FINANCING

Leadership, governance and appropriate management structures in the health sector are in recognition of the underlying need for efficiency and effectiveness in the use of limited sector resources. Strategic policy frameworks exist and are combined with effective oversight, coalition building, regulation, attention to system design and accountability.

The emphasis is on the need for improved coordination of service and regulatory functions, improved accountability, improved protection of the general public, increased access to the poor and bridging inequities in distribution of health services. The overall response to these initiatives is measured by:

- Attainment equity targets in the distribution of human resources for health
- Reduction in mortality due to malaria
- Reduction in institutional maternal and neonatal deaths
- Improved performance of the supply chain
- Adoption of improved health financing mechanisms

Table 7: Leadership and governance programme

LEADERSHIP AND GOVERNANCE PROGRAMME			
Programme Elements	**Focus and Level of Implementation**	**Performance**	**Comments**
Review and restructure the health sector leadership development and management programs	Inter-Agency Leadership Committee, made up of heads of agencies, set up to meet every quarter to discuss implementation of sector policies and programmes.	Currently functional but meets once or twice a year.	Key issues such as agenda setting, specific role of the committee in the development or monitoring of policies remains unclear.
Develop and implement a comprehensive leadership and management program	Several initiatives have been tried out with the aim of strengthening leadership at the district level since the early 1990s. These include the Strengthening District Health Systems Initiative, which covered all districts and building leadership capacity to respond to climate change at the	The SDHS initiative produced significant trainer capacity and training materials on leadership focusing on District Health Systems. Training was discontinued after initial run. Huge knowledge materials on health response to climate change at the district level also produced out of the	Leadership development has focused on the district level and yet to be institutionalized.

	district level, which was piloted in three districts from 2012 to2016.	pilot programme. yet to be adopted and used in leadership training.	
Review and strengthen an effective inter agencies communication mechanisms within the health sector	Several platforms established to facilitate and enhance interagency dialogue at the national level. These include the Monthly Sector Working Group meetings, quarterly partners meetings and bi annual business meetings	These platforms are by far the most active in the sector and the meetings are held on schedule. The meeting dates are captured on the Ministry of Health Annual calendar of events thus improving its effective convening.	Although the dialogue processes on these platforms offer effective scope for inter-agency communication they appear to be dominated by multilateral and bilateral partners.
Improving civil society participation	Steps to improve coordination of civil society organizations and the private sector in health include the establishment of a recognized CSO leadership and bringing them under one umbrella.	A coalition of CSOs in health established under functional leadership. This has greatly improved dialogue with the group and coordination of activities at the district level.	The coalition has started developing annual plans and budgets using the health sector priorities as a guide. These are yet to be incorporated into the sector budget and brought under the annual monitoring and evaluation framework.
Institutionalize performance management systems at all levels	Scale up the implementation of performance contract across the sector and at all levels	The Minister of Health Signs Annual Performance Contracts with all heads of agencies who also signs with directors within agencies.	Major challenge is that non performance is hardly sanctioned as resources for implementation are either not released fully or are not released on time.

The total government expenditures on health has remained stable from 2014 to 2017. The government dedicated 6.6% of the expenditures to health which is far from the 15% expected in the Abuja declaration.

Table 8: Health Financing

Indicator	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*
Total expenditure per capita (USD)	32.8	37.6	24.8	43.0		
Total government expenditure on health per capita (%)	61.0	50.3	46.1	55.1	82	
Government expenditure on health as percent of general government (%)	10.1	7.0	6.8	6.5	6.6	

3.2 HEALTH PERSONNEL AVAILABILITY

The key challenges developing the requisite health workforce in Ghana has been the capacity to produce the required numbers of various categories of staff, arriving at a fair and reliable distribution to meet equity demands and putting in place systems that will ensure that staff are retained in places where they are posted. Significant progress has been made in developing production capacity across board making it possible for Ghana to meet international standards for some cadres of staff. Staff retention is also responding to new human resource policies on incentives and conditions of service however the challenge of equitable distribution remains.

Deepening the commitment and sustaining the gains of the national policy on human resource for health has been reviewed. The goal for the new policy is to develop and maintain adequate health workforce with the right skill mix, who are equitably distributed to provide universal health care for people living in Ghana with quality health services.

Table 9: Health workforce

	2016	*2017*	*2018*	*2019*
Doctors per population	1:8301	1:8100	1:7196	1:6899
Nurses per population	1:834	1:799	1:839	1:513
Midwives per population	1:943	1:746	1:689	1:574

The total number of doctors increased by 95% from 2252 in 2012 to 4390 in 2019 leading to an improvement in doctor to population ratio from 1:11,515 in 2017 to 1: 6,899 within the same period.

3.3 HEALTH SERVICES AVAILABILITY AND OPERATIONAL CAPACITY

- *Monitor the 7 indicator list*

3.4 HEALTH SERVICES USE, QUALITY AND SAFETY

Table 10: Some health service indicators

	2016	*2017*	*2018*	*2019*
OPD visits per capita	1.0	1.0	1.0	1.1
Ceasarean Section rate				
TB treatment success rate (%)	86.0	87.0	86.0	84.4
Institutional under 5 Mortality rate	11.3	10.7	9.8	9.8
Institutional Maternal Mortality Ratio	151.0	147.0	128.6	117.5
Still birth rate	19.0	15.0	13.9	13.2

Outpatient (OPD) visits per capita measures the availability and utilization of health services and is also an indicator of health-seeking behaviour of the population. This indicator examines trends and variation of utilization of services by locations and type of facilities to inform policy.

OPD per capita has improved by 10% from 1 in 2016 to 1.1 in 2019, translating to at least one hospital visit per person per year in Ghana in 2019.

3.5 PRIORITY HEALTH PROGRAMS' INTERVENTION COVERAGE

3.5.1 Coverage of interventions in reproductive health

Antenatal care (ANC), skilled delivery and postnatal care (PNC) are among other effective interventions to promote maternal and child health. ANC is provided to ensure that an expectant mother is in the right state of health to the time of delivery and post-delivery. During ANC sessions, three important activities are carried out: identify and manage health problems that may affect the baby health. At least a pregnant woman is expected to visit ANC four times before delivery at the health facility by some trained health personnel. Post-natal is provided within the first 48 hours after birth to ensure mother and baby does not develop any complications of the birth.

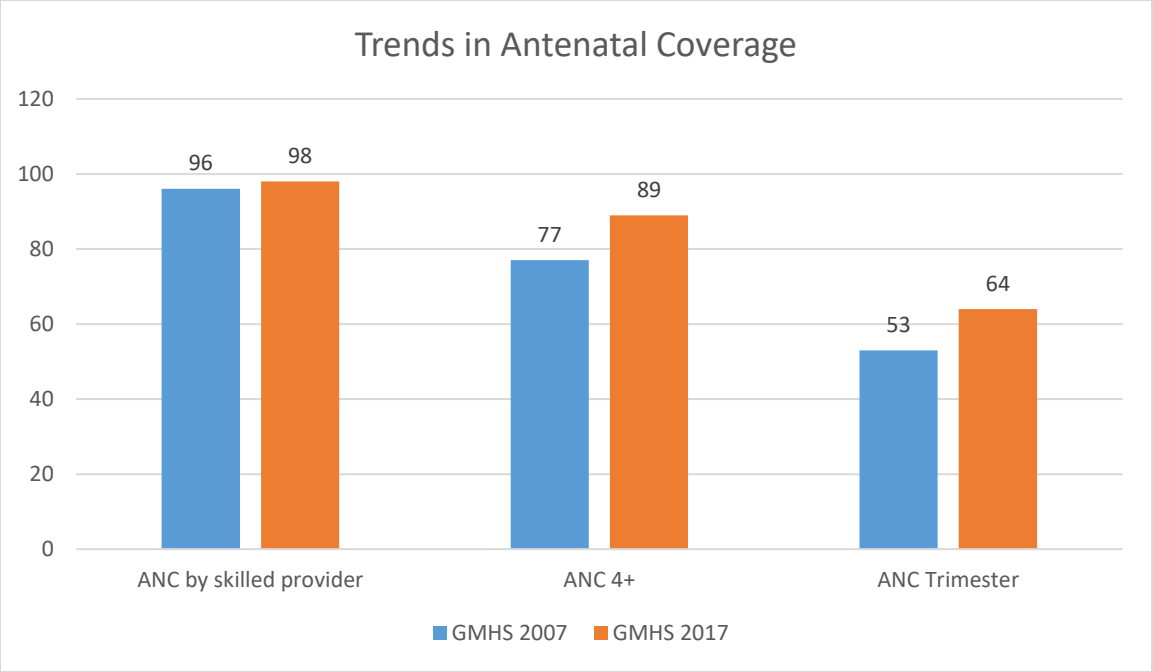


Figure 12: Trends Antenatal Coverage 2007 compared to 2017

The 2017/18 MICS reported national coverage for antenatal care at 98% whilst the routine coverage for ANC within the period recorded 58.2%.

Although these services are rendered for free of charge, an overall analysis of the data for the reporting period shows service utilization has undulating. This inconsistency in marginal decline or rise in performance for ANC 4+ and skilled delivery has been observed since 2015. However, the dropout rate between ANC1 and ANC 4+ has remained stagnant around 20% since 2015. Postnatal care recorded a marginal increase in 2019 by 19% from 45.4% in 2015 to 54.2%.

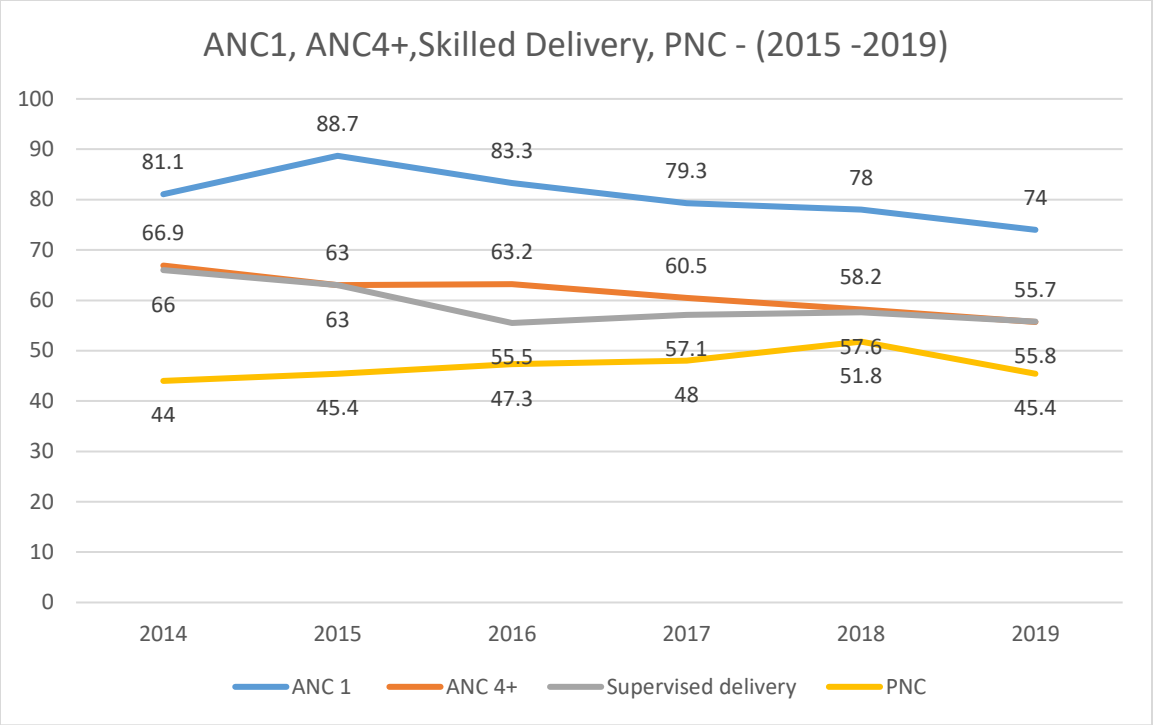


Figure 13 Trend ANC1, ANC+, Supervised delivery, PNC Coverage (2015- 2019)

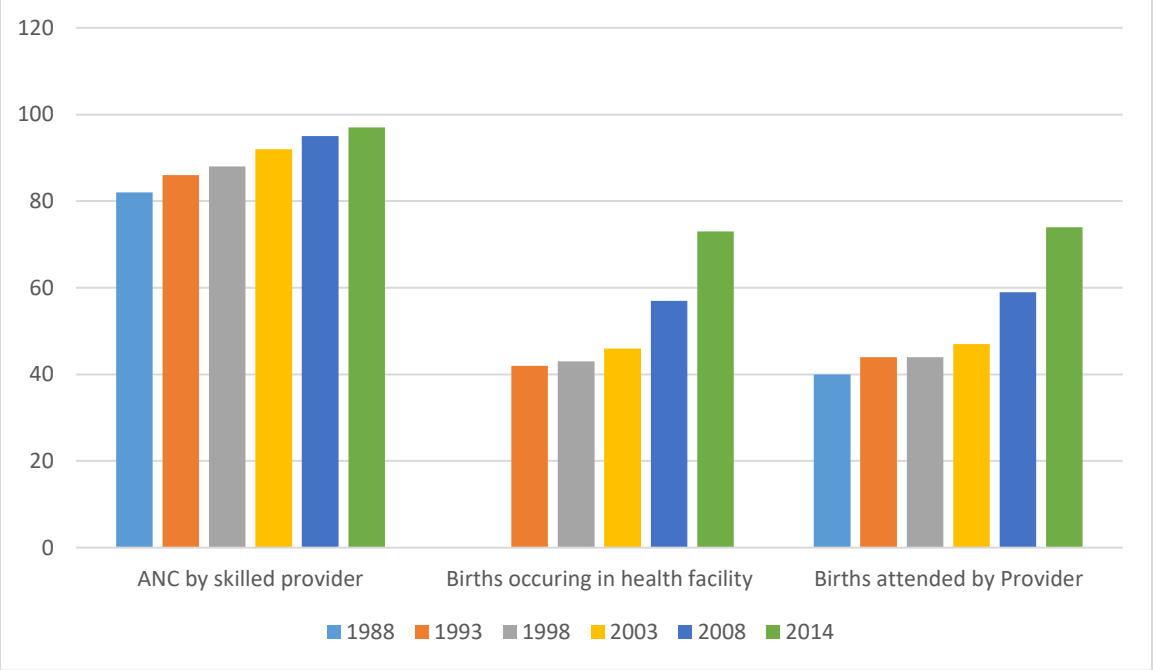


Figure 14 Percentage of trends in maternal health care, 1988-2014

Table 11: Coverage Intervention indicators (%)

	2016	*2017*	*2018*	*2019*
ANC first visit coverage	83.3	79.3	78.0	74.2
ANC four visits coverage	63.2	60.5	58.2	58.4
Proportion of births attended by skilled health personnel	55.5	55.1	57.6	59.1
Postnatal Care rate	47.0	49.8	51.8	54.2
Penta 3 immunisation coverage (used as proxy for full immunisation)	94.6	97.8	95.5	91.1
Adults and Children receivibg HIV antiretroviral therapy			55.1	
Measles Coverage 1	103.5	100.7	99.0	95.8
BCG-Measles dropout rate	12.0	9.3	4.8	1.7
Tuberculosis case detection	49.38	47.52	46.34	
Percentage of children under age 5 sleeping under ITN			54	
Percentage of Pregnant women sleeping under ITN			49	

3.5.2 Child Immunization Coverage

Full immunization coverage is achieved when children in targeted age group have received the full complement of vaccinations against a country's programmed immunizations. In Ghana, vaccination against Tuberculosis, Diphtheria, Pertussis, Tetanus, Polio, Measles, Hepatitis B, Yellow Fever and haemophilus influenza at the recommended schedules and appropriate doses is considered as complete or full immunization. Immunization coverage is used to determine how a nation's immunization system is performing. To measure our immunization coverage, we have chosen to use Penta 3 as a proxy measure. A pentavalent vaccine is a 5-in-1 combination vaccine with five individual vaccines which is intended to provide protection for 5 different diseases.

For the past five years, immunization coverage has exceeded 90%. Although Herd immunity is 95% the relatively high and effective immunization coverage over the years has enabled Ghana to reduce death due these childhood diseases. For instance, there have been no recorded cases of Polio since 2008 and no documented death from measles since 2003. Pneumonia and diarrhoea cases in children have been drastically reduced. The country for the second year in succession has achieved the herd immunity of 95% as indicated in the figure below.

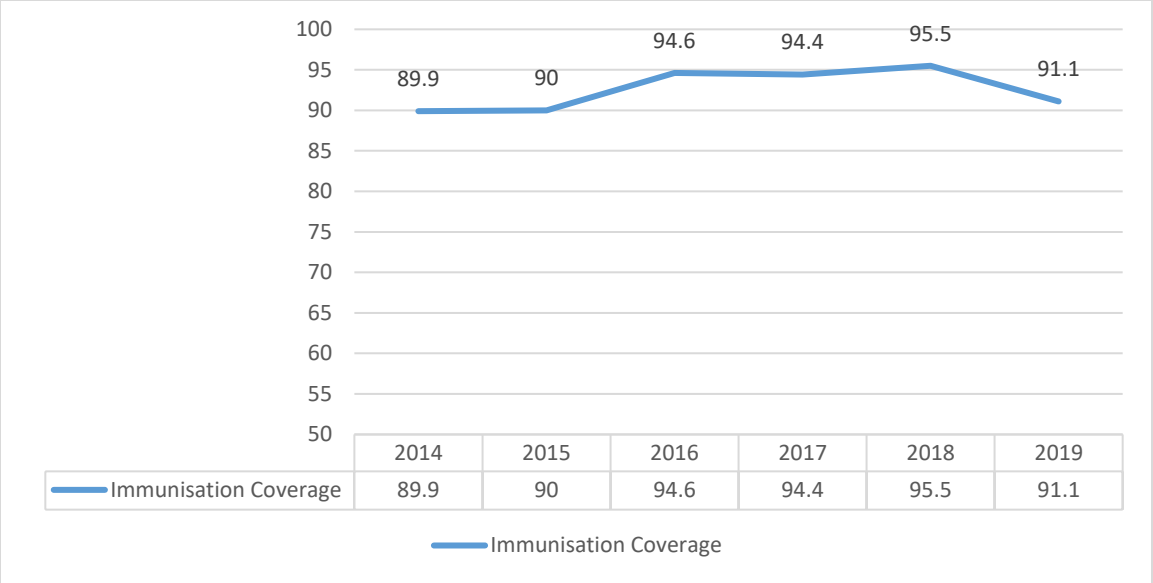


Figure 15: Evolution of the Penta 3 immunisation coverage

The national coverage of Penta 3 immunization rose from 89.9 % in 2014 to 91.1 % in 2019.

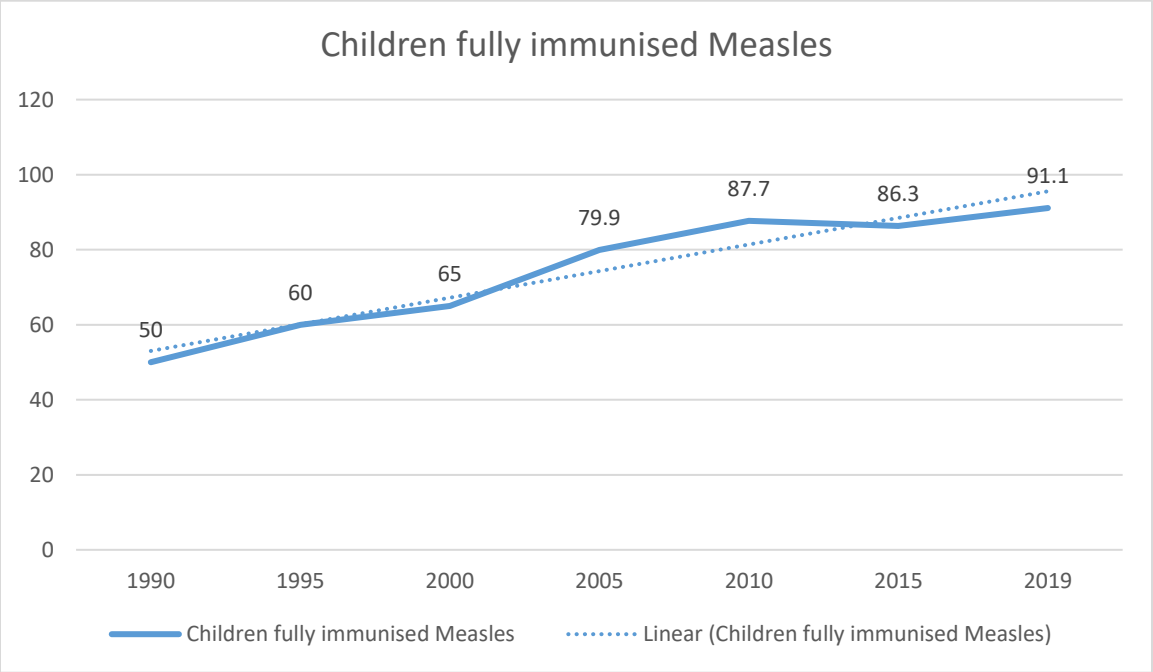


Figure 16: Proportion of children immunized Measles

3.5.3 Coverage of interventions for child nutrition

The Ministry of Health and its stakeholders in the health sector continue to promote the exclusive breastfeeding as the safest and best means of nutrition for newborns and infants. Counselling early initiation and support for nursing mothers are the key strategies for achieving exclusive breastfeeding practices.

Institutional data showed that the early initiation of breastfeeding (defined as initiation of breastfeeding within 30 Minutes after delivery) rate remained high at 93% in 2018. Again, the proportion of mother and infant pairs exclusively breastfed at discharges has also been consistently high around 91%.

At the population level, the last three MICS reported a decline in the proportion of infants exclusively breastfed for the first six month of life from 54.4% in 2006, 45.7% in 2011 to 43%, in 2017/18. The MICS and GDHS data appeared to be consistent on this although the GDHS shows a stagnation of exclusive breastfeeding at a relatively higher rate than the MICS data as depicted in Figure 31.

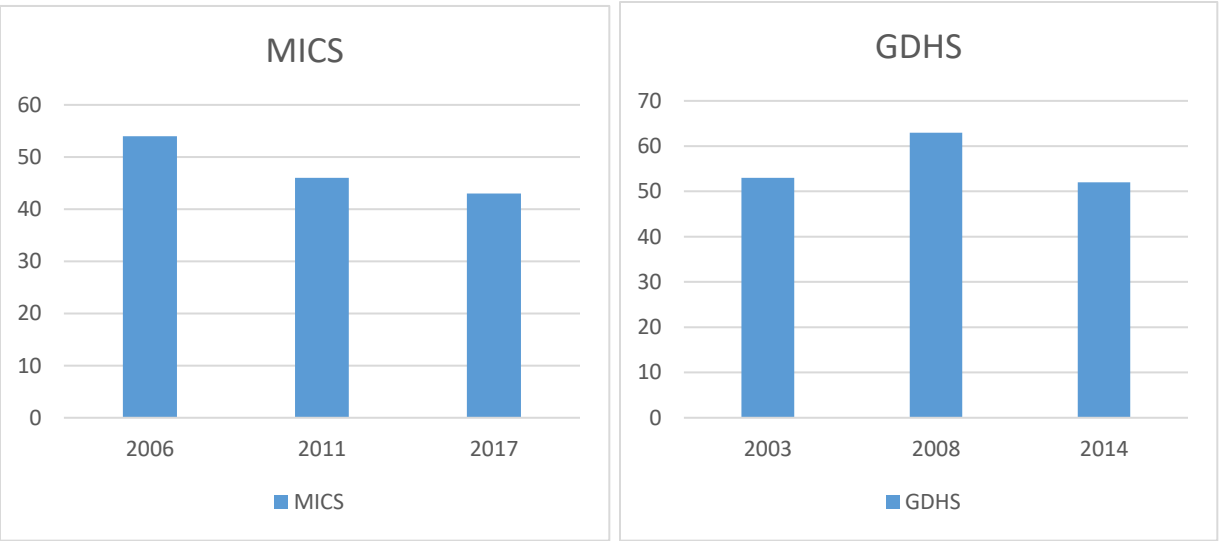


Figure 17 Trend of exclusive breastfeeding by survey type

3.5.4 Family Planning Services

Access to family planning is important to improve the health of women during their reproductive age to preventing unwanted pregnancies, spacing of births and afford mothers time and resources to take good care of infants. Although knowledge of contraceptive methods among women aged 15 – 49 is nearly universal at 99.4%, contraceptive prevalence still remains low in Ghana with

25% coverage (GMHS 2017). Access and coverage for family planning services among the youth especially the adolescents continue to be very

The contraceptive prevalence rate (CPR) is defined as the proportion of women of reproductive age who are using (or whose partner is using) a contraceptive method at a given point in time.

Findings from the GDHS (2008 and 2014) indicate that close to 27 % of married women use some method of contraception.

Table 12: Contraceptive use among married women (Source GSS, GDHS, 2008 and 2014)

Method among married women	2008	2014
Pill	4.7	4.7
Male condom	2.4	1.2
Female condom	0.1	0.0
IUD	0.2	0.8
Injectables	6.2	8.0
Female sterilization	1.6	1.9
Male Sterilization	n.a	n.a
Implants	0.9	5.2
Foam/Jelly	0.2	0.0
Others		0.4
Any traditional method	6.9	4.5
Rhythm	4.7	3.2
Withdrawal	1.4	1.1
Folk method	0.8	
LAM	n.a	0.2
Abstinence	n.a	n.a
Others	n.a	0.2

The 2017/18 MICS reported very high unmet need among sexually active adolescents 15 -19 years; 61% for the unmarried and 36% for the married. This is worrying as a significant number of adolescents 12 – 24 years are sexually active with 48% of girls and 31% boys reporting sexual activities. There is therefore the need to work towards removing barriers to improve access to family planning services meet the needs of the young people. Family acceptor rate is still low in despite the huge needs out there.

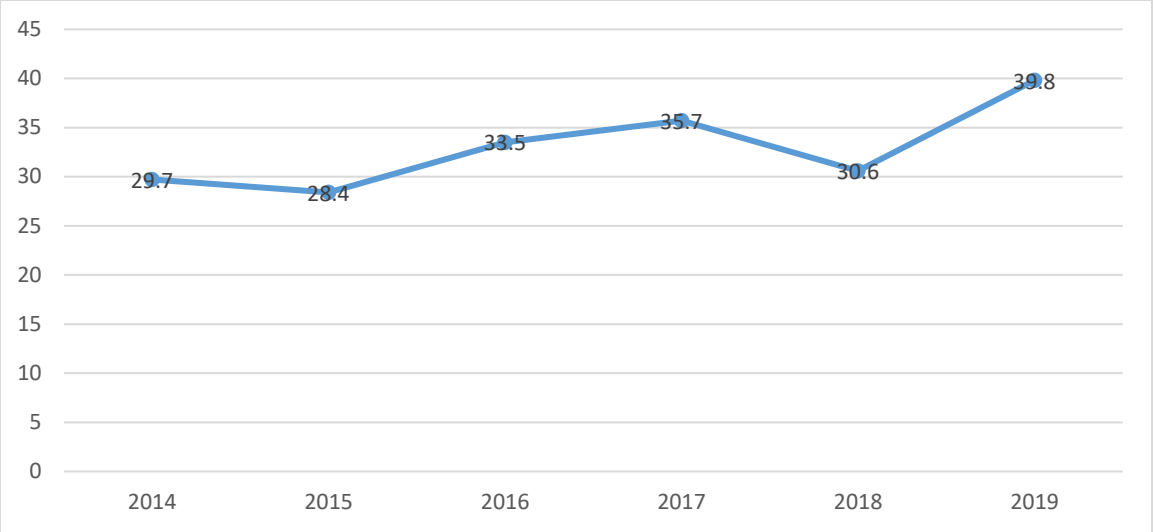


Figure 18 Family Planning Acceptor Rate (2014 - 2019)

3.5.5 Access to healthcare facilities at community levels

Government continues to implement proven interventions to bridge the equity gap in geographic access to healthcare services. Some of the interventions include continuous implementation of Community Health Planning and Services (CHPS), building of District Hospitals and extension of specialized outreach services. The extent of implementation of these interventions varied greatly. However, CHPS remains the key strategy to healthcare to majority of Ghanaians especially those living in deprived and inaccessible communities. To monitor the level of implementation of CHPS, the ministry periodically accesses the functionality of demarcated CHPS zones (defined to be coterminous with an electoral area) and their contribution to health services. At the operational level, CHPS zone functionality has been simply defined as the presence of Community Health Officer (CHO) in communities providing defined health services through appropriate community entry techniques.

Data available from the routine reporting system (DHIMS 2) showed that the proportion of functional CHPS zones decreased from 78.44% in 2017 to 76.50% in 2018, however, in absolute terms, the number of functional CHPS zones increased from 5,100 in 2019 to 5,509 zones in 2018. The reduction in proportion of functional CHPS zones was due to the fact that the number of demarcated CHPS zones increased from 6,502 in 2017 to 6,886 in 2018 as result of new demarcations. Figure 7shows the trend of functional CHPS zones from 2013 to 2018.

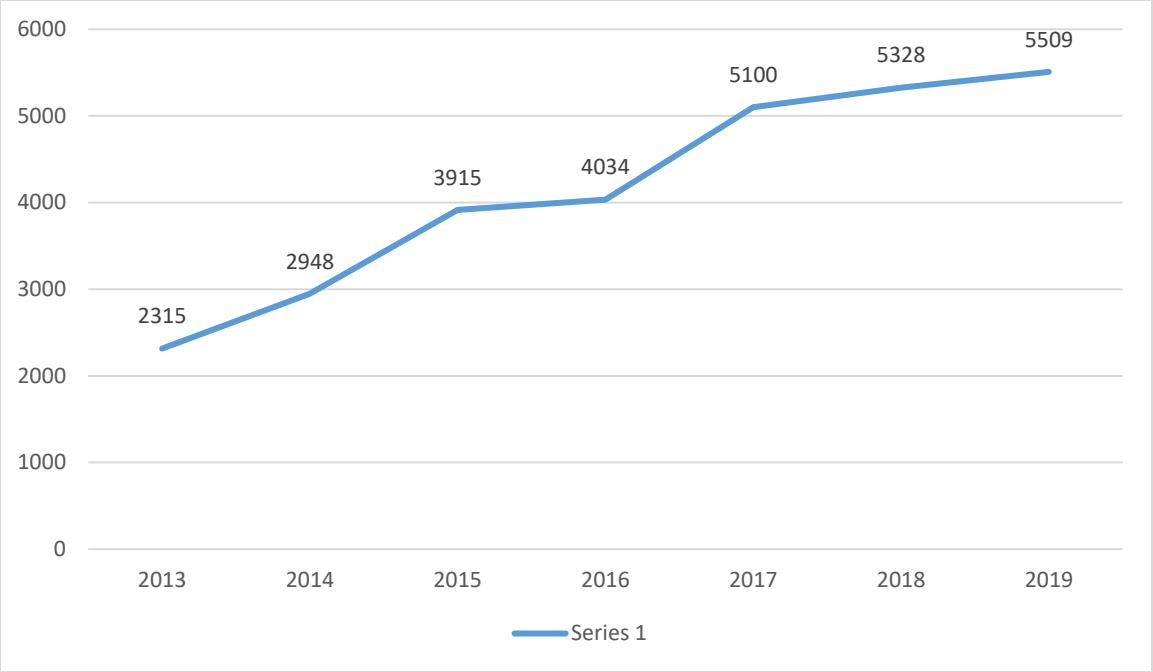


Figure 19 Trend : Functional CHPS zones 2013 -2019

3.5.6 Eradicate extreme poverty/hunger

Ghana broadly halved the proportion of people living in extreme poverty in 2006. On average, this was achieved in both urban and rural areas, and in seven regions. Prospects have improved for the three northern regions to meet the target following a revision of the poverty line, which resulted in a substantial drop in national extreme poverty incidence. However, the prevalence of low-quality employment and considerable numbers of working poor remain causes for concern.

Food security and Hunger

- Ghana made considerable progress in improving the nutritional status of children, exceeding the MDG targets for stunting, wasting and underweight.
- There was a decline in the proportion of stunted children from 33% in 1993 to 19% in 2014, compared to the MDG target of 7%.
- The prevalence rate of underweight children also declined, from 23% to 11% as against a target of 11.5%.
- Wasting prevalence rate dropped by more than half from 14% in 1993 to 5% in 2014. The figure below describes the achievement Ghana made.

3.6 FACTORS AND RISKY BEHAVIORS

3.6.1 risk factors

Determinants of health are the factors that influence health status in a country. The key determinants can be categorize as individual behaviour, Policymaking, Social factors, Health services, and Biology and genetics. It is the interrelationships among these factors that determine individual and population health. In Ghana, the high prevalence of lifestyle-related diseases and conditions creates a dual burden, given that the country already has a high number of infectious diseases that require significant human and financial resources to control. In addition to alcohol, there are other risk factors that determines health in the country. In Ghana, it is estimated that 23.3% of population aged 15years and above take alcohol and 2.1% of the population in the same age category engages in heavy drinking among age3

Thirteen percent of women and men age 15-49 were classified as hypertensive and the percentages increased with age, especially among women4. Risky sexual behaviour about Ghanaian is also one of the key determinants of health. About 2% of women aged 15-49 years and 14% men aged 15-59 years had sex with more than one partner in last 12 months5

Many policies and programmes were put in place to help reduce these lifestyle risks. These include the National Alcohol policy (2016); The Tobacco bill and he National Tobacco Control Programme; Strategy for the Management, Prevention and Control of Chronic Non-Communicable Diseases in Ghana (2012-2016); National Nutrition Policy; MoH Nutrition and Regenerative Health Programme among others.

Surveillance for these key determinants are done by survey's, and routine health information captured at the hospitals

Table 13 Percentage of women and men age 15-49 who smoke cigarettes or a pipe or use other tobacco products, 2014

Age Group	*Female*		*Male*	
	Cigarette	**Other tobacco**	**Cigarette**	**Other tobacco**
15-19	0.0	0.1	0.5	0.6
20-24	0.0	0.3	1.5	1.5
25-29	0.2	0.0	4.9	2.6
30-34	0.0	0.3	4.0	2.6
35-39	0.0	0.3	4.2	1.7
40-44	0.3	0.4	5.6	2.9
45-49	0.0	1.3	10.7	1.2

Source: GDHS, 2014

[3] WHO Global Report on alcohol and health, 2014
[4] GDHS, 2014
[5] MICS, 2011

Comments

Table 14; Number of sexual partners and condom use by sex and age group (Source MICS 2017)

	Age	Multiple sex partners (%)	Used condom at last sex (%)
Female	15-24	2.5	32.6
	15-49	1.5	29.3
Male	15-24	6.0	16.9
	15-59	11.5	25.5

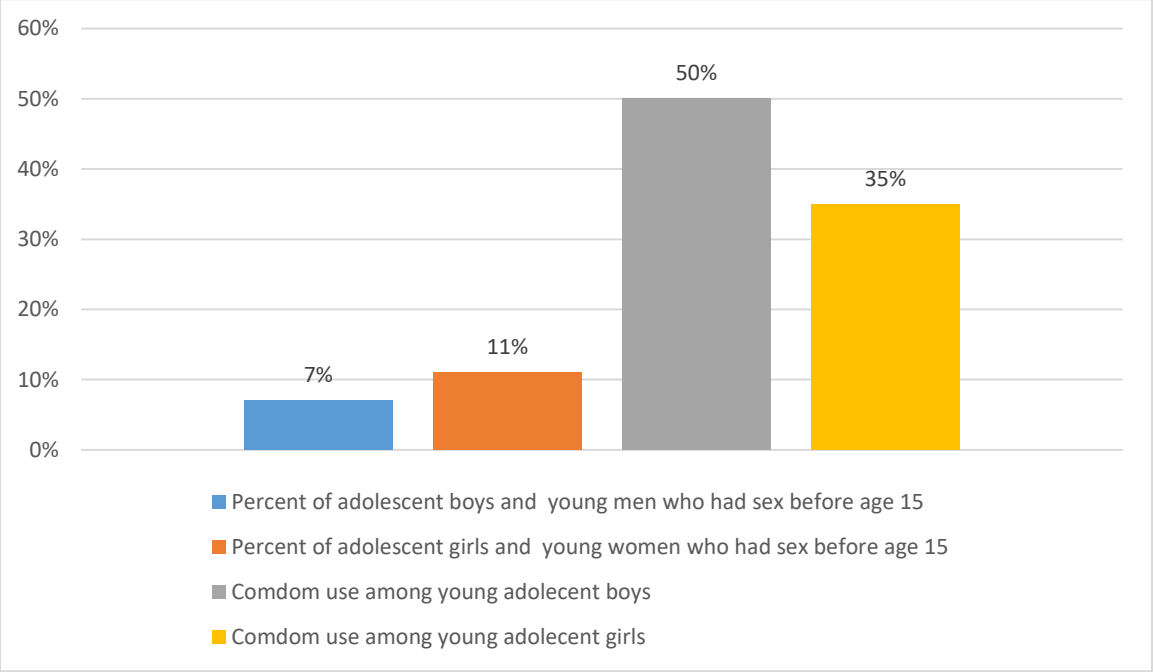


Figure 20: Sex seeking behavior among young adolescents (Source MICS 2017)

3.6.2 Physical environment

The physical environment encompasses tangible and intangible things. It includes land, air, water, plants and animals, buildings and other infrastructure, and all of the natural resources that provide basic needs and opportunities for social and economic development.

- Nearly 80 % of the population was using an improved source of drinking water with 91% in urban areas and 69% in rural areas. The source of drinking water for the population varies strongly by region.
- For sanitation, current estimates reveal that 70% of the population have improved sanitation facility whereas 30% uses non-improved sanitation.
- Nearly 1 out of 4 households (23%) in Ghana practice open defecation or have no toilet facility, and this is more pronounced in rural areas (35%) than urban areas (10%). Regionally, open defecation is mostly practiced in Upper East (89%), Northern (72%) and Upper West (71%).
- Overall use of solid fuels for cooking by households were more than three quarters (81%). Use of solid fuels is lower in urban areas (66%) than in rural areas, where almost all household members are using solid fuels (96%). Also less than 50% of households in Accra use solid fuels for cooking, compared to over 80% of households in all other regions. The three northern regions have the highest percentage of households using solid fuels for cooking (about 98%).

Ghana's first Environmental Policy was enacted in 1995. The emerging environmental challenges and problems in the critical areas of pollution, urban congestion, loss of plant and animal species and climate change necessitated a revised policy which came into being in 2012 (National Environmental Policy, 2012). Government's support for the environment has grown during the past decade and the general performance of the environment has considerably improved. The EPA which is an agency of the Ministry of the Ministry of Environment, Science Technology and Innovation, established by EPA Act 490 oversees the implementation of the National Environment Policy. The EPA has developed guidelines for mining, motor and industry emissions and is in the process of transforming the guidelines into standards.

Ghana has a National Climate Change Committee (NCCC) which includes government, private sector, civil society, research organizations and NGO participation. Ghana's National Disaster Management Organization (NADMO), which falls under the Ministry of Interior, is responsible for the management of disasters and similar emergencies.

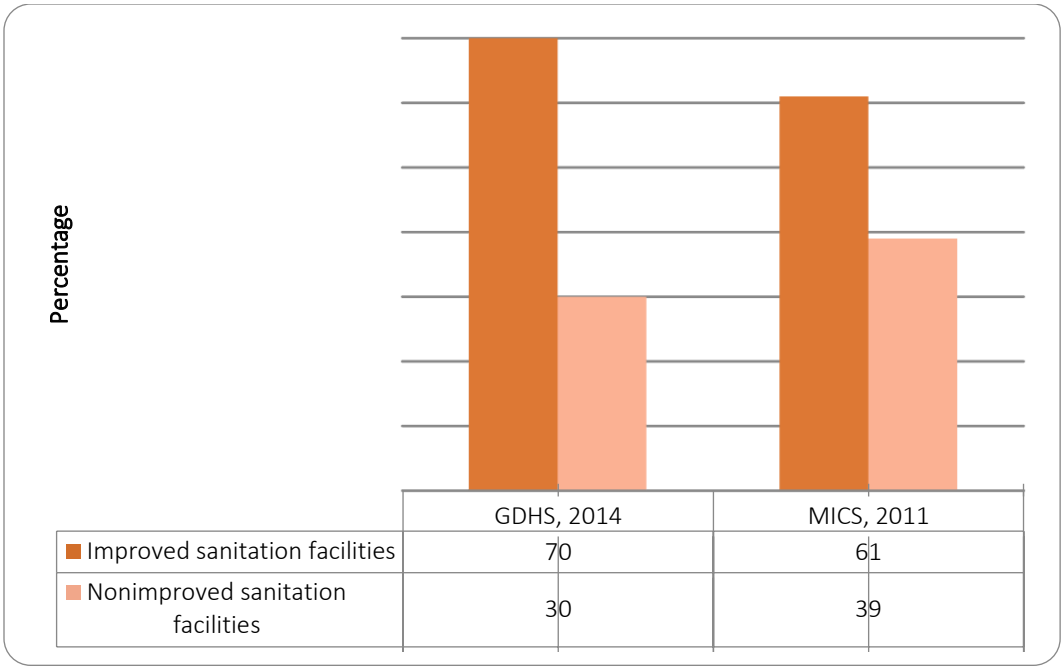


Figure 21: Percentage of improved and non-improved Sanitation facility in Ghana

3.6.3 Food Safety and Nutrition

The safety, quality and nutritional value of the food we eat is of fundamental importance to our health and wellbeing. Food safety and nutrition are therefore key concerns for every country. Improper and malnourished food intake can affect the health of the individuals in the population and thereby affecting health expenditure by government

- For nutritional status, 19% of Ghanaian children were found to be stunted and 5% of children were wasted.
- The results show that 11% of all children are underweight and 2% are severely underweight, a decrease from the 2008 figures of 14% and 3%, respectively (GDHS, 2014).
- Analyses from the 2014 Demographic and Health Survey in comparison with 2008 data show modest improvements in the anaemia situation in children having moved from a prevalence level of 78% in 2008 to 66 %in 2014.
- Ghana is beginning to experience nutrition transition (over-nutrition in the form of obesity concurrently as under-nutrition). There have been recorded cases of over-nutrition (obesity leading to hypertension and other metabolism disease).

The constitution of Ghana provides the Ghanaian the right to health and safety. Section Seven of the Public Health Act, 2012, Act 851 mandates the Food and Drugs Authority (FDA) to protect the Ghanaian public through the regulation of food, drugs, household chemical substances, cosmetics and medical devices. To ensure that issues of appropriate legislation on food security

and nutrition are properly addressed, the existing acts that relate to food and nutrition, and food security is the Food and Drugs Act, 1992 (PNDCL 305B) and in the Food and Drugs Board Regulation (L.I. 1667) which ensures that food for the general public is healthy and safe for consumption. The Animal (Control of Importation) Act, 1952, Standards Authority Act, 1973, Agriculture sector Acts and any other relevant Acts as may apply including The Public Health Bill, 2011.

In 2009, Ghana launched the Nutrition Policy to improve the nutritional status of all Ghanaians, particularly of the most vulnerable groups, by making adequate food accessible both in quantity and quality and the control. Programmes such as Maternal, Infant and Young Child Nutrition programme of the GHS, Nutrition Rehabilitation programme, Ghana School feeding Programme (GSFP), Aneamia Control Programme, the Vitamin A Supplementation Programme (VAS) and the Iodine Deficiency Disorders (IDD) Control Programme are also been implemented in the country.

Nutritional surveillance is done during post antenatal visit to the hospital where anthropometric measure is taken on all children that visit the facility and are recorded in the facility data base and special nutrition surveys.

3.6.4 Ensure environmental sustainability

Ghana achieved the target of halving the proportion of the population without access to safe water. However, poor sanitation persists.

More households in urban than rural areas use improved sanitation (89% versus 60%).

The most commonly used improved toilet facilities in urban areas are flush/pour flush to septic tank facilities (39%) and VIP latrines (32%), while in rural areas pit latrines with slabs (26%) and VIP latrines (25%) are primarily used. By region, use of an improved sanitation facility among the household population ranges from 28% in Upper East region to 94% in Greater Accra region

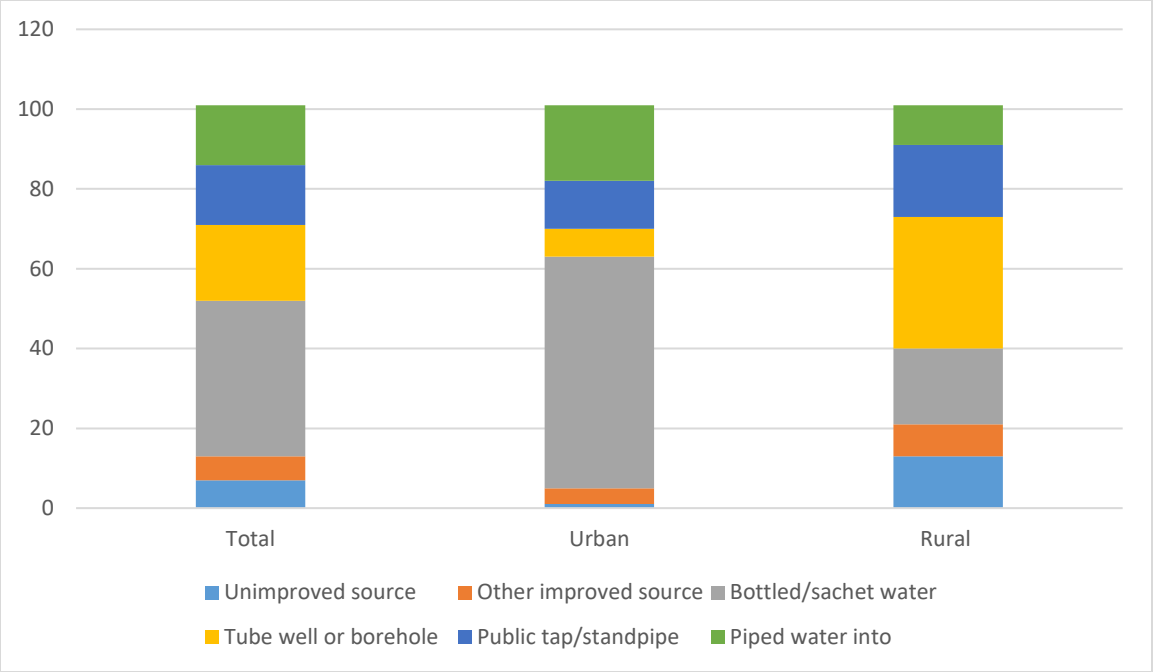


Figure 22: Household drinking water by residence (Source GMIS)

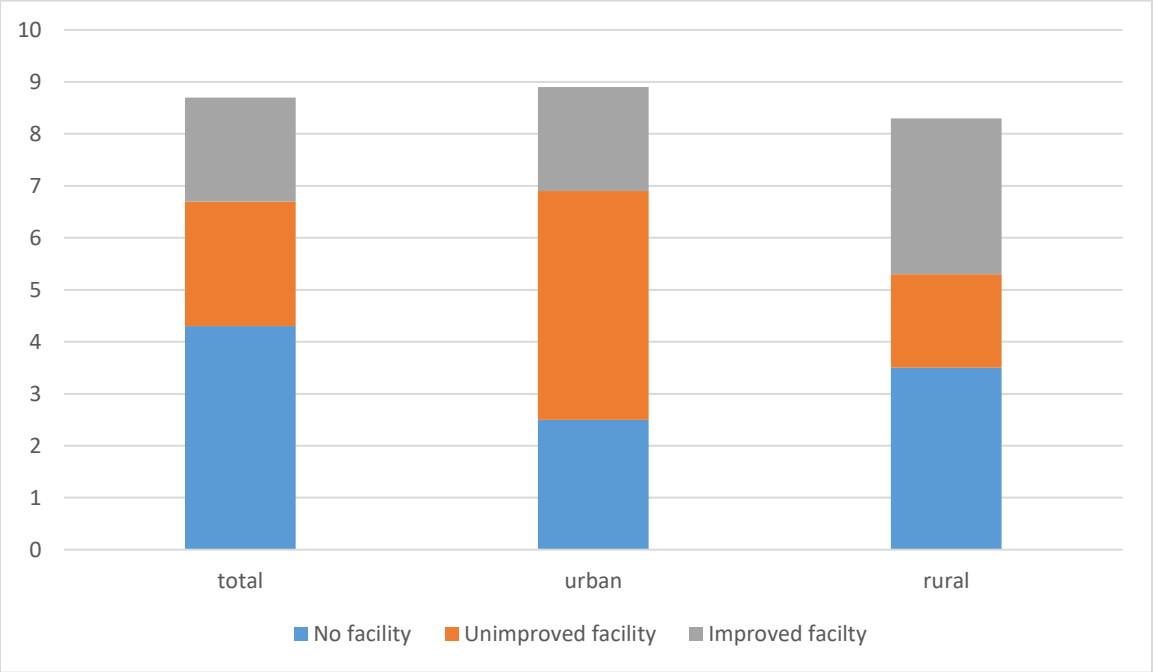


Figure 23 Distribution of households by type of facilities (Source GMIS)

4 STATUS OF EPIDEMIC-PRONE DISEASES

- *Monitor the 14 indicators of the list*

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