

GHANA Annual Report

2019



ACRONYMS

AFP Acute Flaccid Paralysis

AFRO WHO Regional Office for Africa

CCS Country Cooperation Strategy

CHW Community Health Worker

EPI Expanded Programme on Immunization

EU European Union

FDA Food and Drugs Authority

GF Global Fund

GPW 13 Global Programme of Work 13

HiAP Health in All Policies

IDSR Integrated Disease Surveillance and Response

IHR International Health Regulations

JEE Joint External Evaluation

MoH Ministry of Health

RMNCAH Reproductive, Maternal, Newborn, Child and Adolescent Health

NAPHS National Action Plan for Health Security

NCDs Non-communicable diseases

NFM New Funding Mechanisms

OPV Oral polio vaccine

PMTCT Prevention of mother-to-child transmission

TB Tuberculosis

U5MR Under-5 Mortality Rate

UHC Universal Health Coverage

UN United Nations

UNICEF United Nations Children's Fund

WCO WHO Country Office

WHO World Health Organization

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Foreword



The focus of the World Health Organization (WHO's) support during the year under review was on priority areas for both Government and WHO including: improved access to quality essential health services, attainment of Universal Health Coverage (UHC) through strengthening of health systems and Primary Health Care, addressing public health emergencies and promoting healthier populations through multisector actions and approaches.

Like preceding years, the office continued to play an active role in existing partnerships and coordination mechanisms including Development Partners (DPs) Group, UN Sustainable Development Partnership (UNSDP) Thematic Working Groups, and the Health Sector Working Group among others.

In the reporting year, the main achievements registered by WCO in support of the country's efforts included improved coverage of sexual and reproductive, maternal, neonatal, child and adolescent health (SRMNCAH) and priority interventions, increased and sustained vaccination coverage, strengthened country capacity to prevent, detect and respond to public health emergencies, strengthening national capacity and coordination mechanisms in the area of HIV/AIDS, Malaria, TB, Public health emergencies preparedness and response, non-communicable diseases, NTDs and Mental Health.

It is worth noting that the Country Office played an important role in strengthening national, regional and district health systems and services through people-centered service delivery approaches in line with the implementation of the Primary Health Care (PHC) principles.

The country office owes a debt of gratitude to office of the Regional Director for Africa, AFRO including IST and HQ for the support during the year. The office owes same gratitude to the Ministry of Health, the Ghana Health Service, Development Partners and other stakeholders for the collaboration and teamwork during the year 2019.

I would also want to seize the opportunity to thank all WHO staff who dedicated their expertise and time to support their counterparts and closely worked with health development partners for better alignment and harmonization of programmes to the benefit of the Ghanaian people. The country office hopes to work with the same team spirit and enthusiasm in the year 2020 and beyond.

Dr. Neema Rusibamayila Kimambo

Acting WHO Country Representative for Ghana

Executive Summary

The WHO country office for Ghana, began the year 2019 with a 4-day staff retreat at the Busua Beach Resort in the Western Region from 04 to 08 March 2019. The theme for the retreat was ‘Impacting the Health and Lives of the people of Ghana through the Triple Billion Goal’. The staff outlined priorities and strategies to strengthen WHO’s contribution to the national health agenda during the year

Working in collaboration with the Ministry of Health/Ghana Health Service and other allied health institutions and stakeholders, the WHO country office, provided support aimed at achieving its mission which is attaining the highest level of health by the people in the country through its six operational areas which are (i) Communicable Diseases (ii) Non-Communicable Diseases, (iii) Promoting Health through the Life Course (iv), Health Systems, (v) Preparedness, Surveillance and Response (vi) Corporate services and enabling functions.

In addition to the financial support, technical assistance was also provided to build capacity and strengthen health governance structures at all levels. The following are some of the achievements from the support provided:

- Introduction of RTS, S/AS01E malaria vaccine, the world’s first malaria vaccine, into routine immunization through the WHO-coordinated Malaria Vaccine Implementation Programme (MVIP)
- Conduct of response vaccination campaigns to Circulating Vaccine-Derived Poliovirus (cVDPV) Type 2 using monovalent oral polio vaccine type 2 (mOPV2) in Bono, Greater Accra, Northern, North East, Oti, Savanna and Upper East regions.
- Commemoration of Child Health Promotion Week and Africa Vaccination Week to promote preventive child survival interventions like Immunization, Vitamin A Supplementation, Growth monitoring, birth registration and ITN use
- Development of a 5-year comprehensive Multi-Year Plan (cMYP) for Immunizations in Ghana for the period 2020-2024
- Conduct of a comprehensive Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCAH) program review to inform policy and programmatic strategic plans

- Adaptation of the WHO training package on growth assessment and infant and young child feeding counselling for Ghana specific training manual to that will be used for strengthening skills of health workers.
- Development of the National Multisectoral NCDs Policy and Strategy in collaboration with the World Bank and other Health Partners
- Launch of the Quality Rights in Mental Health in Ghana, which is an e-training programme with online coaching on mental health, human rights and recovery to promote attitudes and practices that respect dignity and rights, and which promote holistic, person-centered and recovery-oriented care and support.
- Commemoration of key health-days such as World Health Day, World No Tobacco Day, World diabetes day to create more awareness on health living and life style.
- Development of case studies for the chemical events/ environmental surveillance curriculum for the Ghana Field Epidemiology and Laboratory Training (GFELT) program at the University of Ghana School of Public Health (UGSPH) in collaboration with NIPH
- Support for meningitis preparedness with the provision of diagnostic laboratory logistics and support for strengthening surveillance and clinical diagnosis using case definition in Upper West Region.

SIGNIFICANT ACHIEVEMENTS BY CATEGORY OF WORK

1.0 COMMUNICABLE DISEASES

1.1 Malaria

Malaria control has seen some remarkable improvement over the past years. Malaria transmission is generally reducing in Ghana. Malaria parasite prevalence has decreased from 27.5% in 2011 (MICS, 2011) to 14.1% (MICS, 2019) with varying endemicity across the regions from 2.4% in the Greater Accra Region to 27.0% in the Western Region. In 2019, one major activity was a comprehensive review of the Malaria Strategic Plan 2014-2020 which was mainly supported by WHO and partners. Key findings from this program review (MPR) indicated that the malaria program is on track to achieving its targets if efforts are sustained. Nationally, the proportion of deaths attributed to malaria per 100,000 population decreased from 10.8/100,000 in 2012 to 1.1/100,000 in 2019 exceeding the national target of 2.5/100,000. Case Fatality Rate among children under five years of age also reduced from 0.6% in 2012 to 0.1% in 2019 again exceeding the target of 0.2% set for 2019 (HMIS, 2020).

Many of these achievements can be attributed to improved coverage and access to key interventions such as the distribution of LLINs, seasonal malaria chemoprevention and indoor residual spraying for eligible populations over the years. In general, there has been an increase of Long-lasting Insecticide Treated Net (LLIN) ownership from 68% in 2014 to 73% in 2019.

Key Activities, Outcomes and Achievements

1.1.1 Revision of Guidelines and Tools

During the review year, the NMCP was supported to revise various guidelines such as the Malaria Treatment Guidelines, Malaria in Pregnancy Guidelines, Laboratory Guidelines among others. Subsequent to this, there were a series of trainings on these which WCO supported.

1.1.2 Entomological Monitoring

The Annual Insecticide Resistance Surveillance is a major component of the National Insecticide Resistance Management Plan. WCO has been providing continuous funding and technical support including field supervision for the entomological monitoring for vector

control to address the emerging insecticide resistance in the country. There are ten sentinel sites across the country for entomological surveillance. This annual activity is carried out in collaboration with Noguchi and supported by USAID PMI. Results from these sites inform the NMCP in the choice of insecticides for vector control interventions such as the Indoor Residual Spraying.

1.1.3 Seasonal Malaria Chemoprevention (SMC)

Seasonal Malaria Chemoprevention (SMC) is one of the key malaria preventive interventions for children 3 months to 6 years. It is carried out annually in four rounds of dosing in the five regions of the northern sector of the country. WHO has been a major technical partner for this intervention providing technical support for the planning as well as field supervision for at least one of the dosing rounds every year. For the supervision, districts are assessed for preparedness, logistics management, quality of dosing among others. This intervention has been very successful with average coverage of more than 90%. In 2019 WHO again supported the field supervision of this exercise in the Upper East, Northern and Upper West regions.



WHO supports SMC in Upper East Region.

1.2 HIV, Tuberculosis

Key Activities, Outcomes and Achievements

1.2.1 Reprogramming of Global Fund NFM 2 Grant Application

Support was provided to the National AIDS control program and the National TB control program to successfully reprogram the Global Fund grants for TB and HIV. This intervention was critical to maintain critical funding for the HIV and TB programs in Ghana. The support involved working together across the three levels of WHO, three consultants provided in-country support, while colleagues at AFRO and HQ provided continuous review of documents throughout the process.

The reprogramming aimed at enabling the HIV and TB programs accelerate progress towards the 90-90-90 targets and the End TB goals respectively. The reprogrammed HIV operational plan emphasized innovative differentiated testing approaches, decentralization of ownership of interventions to sub-national levels whilst promoting integration and increased involvement of CSOs and the private sector. The TB plan focused on improving TB case finding by introduction of a Sputum Sample referral system that would make the 126 GeneXpert machines accessible to over one thousand health facilities across the country.

1.2.2 Implementation of Accelerated Plan for HIV and Tuberculosis

The NFM 2 grant reprogramming resulted in accelerated plans for achieving the 90-90-90 targets and increasing TB case detection. WHO provided continuous support to the HIV and Tuberculosis programs for the implementation of the accelerated plans.

The Tuberculosis program successfully rolled out the innovative sputum transport system that is expected to link over 1000 health facilities to the 126 GeneXpert sites and thereby improve the diagnostic capacity at the peripheral level and improve TB case detection rate. Preliminary results as at January 2020 showed marked increase of 26% in the case detection rates for tuberculosis across the country compared with January 2019.

The National AIDS control program has been supported by organizing monthly update calls where programmatic data and performance is reviewed and required technical support provided for improved performance. This has resulted in the NACP achieving all programmatic targets set for 2019, better positioning the country to accelerate progress towards the 90-90-90 targets which stood at 58-77-68 as at the end of 2019.

1.2.3 Review of National Guidelines and Tools for HIV

Support was provided to update HIV testing and treatment guidelines to conform with WHO recommendations and global and regional best practices.

For testing the changes include differentiated testing approaches such as index client testing, switch from two tests to three test algorithms, use of HIV-Syphilis Combo test for ANC clients testing amongst others. For treatment, the guidelines were reviewed to include use of Dolutegravir based regimen as first line for adolescents and adults and Lopinavir for pediatric

regimen. Data collection tools such as testing registers and ART primary data collection tools were also revised and updated to reflect the changes in the guidelines.

The National HIV/AIDS control program was also supported to revise primary data collection tools such as the ART folder as well as registers for HIV testing. The revision was relevant make the data collection tools responsive to new and innovative interventions such as differentiated service delivery and Index testing.

1.2.4 Programmatic Review of National Strategic Plan for TB 2016

The program review was essential to enable the National Tuberculosis Control Program identify strengths as well as weaknesses in the current National Strategic Plan (NSP) to inform the development of a new NSP ahead of the Global Fund Grant Making process for the NFM 3 cycle. WHO in collaboration with AFRO and HQ provided financial and technical support to the National Tuberculosis Control Program to conduct an extensive program review and submitted the final report and recommendations. The review was supported by a WHO led team of six external reviewers including consultants from WHO AFRO and HQ and KNCV

1.3 Hepatitis

Key Activities, Outcomes and Achievements

1.3.1 Advocacy and Awareness for scale up of Hepatitis Control and launch of National Viral Hepatitis Prevention, Care and Treatment Guidelines

Financial and technical support was provided for advocacy and awareness creation activities as part of celebration of World Hepatitis Day 2019. The national hepatitis guideline was also launched.

Activities for commemorating the World Hepatitis Day included a stakeholder meeting for CSOs involved in Hepatitis, massive print, broadcast and social media campaigns to raise awareness on Hepatitis. The activities were climaxed with an indoor event attended by two ministers of state and a member of parliament, at which the National Viral Hepatitis prevention, care and treatment guidelines was launched. At the event, WHO Country representative Dr Owen Kaluwa advocated strongly for the urgent need to invest to eliminate viral Hepatitis. The member of parliament after the event, realizing the urgency of the Hepatitis

problem delivered a speech on the floor of parliament to advocate for increased resources for Hepatitis in Ghana.

1.3.2 Training of Frontline Workers on National Guidelines for Viral Hepatitis

The National Viral Hepatitis Control Program was supported to train selected frontline health care workers in the Greater Accra region of Ghana on the National guidelines for the prevention care and treatment of Viral Hepatitis.

The training equipped the participants with the required knowledge to detect early, report and manage all persons with Viral Hepatitis and thereby reduce the burden of Viral Hepatitis morbidity, disability and death in Ghana



National Guidelines for the Prevention, Care and Treatment of Viral Hepatitis officially launched in Ghana

1.4 Neglected Tropical Diseases

The Neglected Tropical Diseases are group of important communicable diseases which have suffered little attention and minimal funding over the years. However, there have been some successes with a few of them such Guinea worm and Trachoma which have been certified as eradicated and eliminated as a public health problem respectively in Ghana. Ghana is endemic for other NTDs such as Onchocerciasis, Lymphatic filariasis (LF), Soil Transmitted Helminths (STH) and Schistosomiasis (SCH) for which Mass Drug Administration (MDAs) are conducted annually and semiannually in some locations. Ghana is also endemic for Yaws for which the country is planning eradication using Azithromycin. Human African Trypanosomiasis (HAT) has been earmarked for elimination as public health problem and as

such the country is preparing a dossier for WHO evaluation. A program for Cutaneous Leishmaniasis is in the process of being set up with characterization of the lesions discovered so far. WHO provides technical and logistic support for prevention, control and surveillance (including pharmacovigilance) of these NTDs and in the application and delivery of drugs for the MDAs and the community transmission surveys.

Key activities, Outcomes and Achievements

1.4.1 Yaws Eradication with Azithromycin Pilot

The National Yaws Program in collaboration with the Noguchi Memorial Institute has secured funding from WHO/TDR through the ADP “Access and Delivery Partnership (ADP)” project for Yaws eradication using single dose Azithromycin. This project was to be piloted in three endemic districts namely West Akyem (Eastern Region), Awutu-Senya and Agona East (Central Region). This collaboration between Noguchi Memorial Institute for Medical Research and National Yaws Eradication Programme also sought to build capacity of frontline health workers at the health centers and CHPS zones to identify key operational challenges in the use of azithromycin for yaws eradication among others. This project which took the form of a joint implementation research by the two institutions which will eventually inform the future nationwide Mass Administration with Azithromycin (MAA). Activities included capacity building for frontline health workers in case search, identification and diagnosis of Yaws.

An important highlight was the donation of a Toyota Hilux pick up to West Akim District as part of the project. The WR did this official handing over to the Director General of the Ghana Health Service.



Donation of Toyota Hilux vehicle to support YAWS Programme

1.4.2 Mass Drug Administration (MDA) for Onchocerciasis and Lymphatic Filariasis

Mass Drug Administration (MDA) is a major intervention in the control of neglected tropical diseases such as Onchocerciasis and Lymphatic Filariasis which are endemic in Ghana and earmarked for eradication and elimination respectively. There were 98 districts endemic for Lymphatic Filariasis but through effective mass drug administration, transmission has been broken in 83 of them with only 15 districts remaining. Onchocerciasis was also endemic in 85 districts across the country. Unfortunately, an Onchocerciasis Impact Assessment done in 2017 identified additional 35 districts for Onchocerciasis making a total of 120 districts endemic for Onchocerciasis. WHO has been the major provider of technical assistance for these diseases. This assistance includes planning, logistics support, drug donations and monitoring of community treatment and adverse drug reactions. During the year, WHO supported the annual review of the previous years' MDA and the mass treatment in the Western, Eastern and Central regions where on spot corrections, coaching and recommendations were made to improve upon program performance.

1.4.3 Guinea Worm Eradication Programme

The WHO support the GHS to sustain the Post Certified status of the country by maintaining Guinea worm (GW) rumour registry of all rumors investigated in the regions.

In February 2019 WHO supported a joint WHO/GHS monitoring and advocacy visit to the Northern region. The visit was to identify gaps in the integration of Guinea worm eradication activities into the IDSR/DMIS for reporting and to address post certification surveillance activities in the region.

1.5 Vaccine Preventable Diseases

In the year under review, the WHO supported the Ministry of Health and the Ghana Health Service (GHS) to implement immunization and disease surveillance activities. These were done mainly through the Expanded Programme on Immunization (EPI) and the Disease Surveillance Department; all of the Public Health Division (PHD) of the GHS. The mandate of the EPI Programme is to reduce morbidity, mortality and disability due to vaccine preventable diseases (VPDs) through immunization; an essential component of Primary Health Care (PHC). Accomplishing this mandate requires achieving and maintaining high vaccination coverage levels, improving vaccination strategies among under-vaccinated populations, prompt reporting and thorough investigation of suspected diseases, and rapid institution of control measures.

The WHO provided support through the (i) strengthening of routine immunization activities which focuses on the implementation of the reaching every district/child (RED/REC) approach (ii) Accelerated Disease Control (ADC) and (iii) Vaccine Preventable Disease (VPD) surveillance.

Key activities, Outcomes and Achievements

Preparation and Submission of Reports

WHO provided support for the preparation and finalization of reports. Key among these reports were (i) the WHO-UNICEF Joint Reporting Form (JRF), (ii) Annual Progress Report (APR) for Polio Eradication Activities and (iii) the Joint Appraisal Report.

1.5.1 Strengthening of Routine Immunization

WHO supported the delivery of routine immunization in all regions and districts through the implementation of the Reaching Every District (RED) approach. Table 1 shows routine immunization performance for 2019.

Table 1: Trends in EPI Performance, 2017-2019

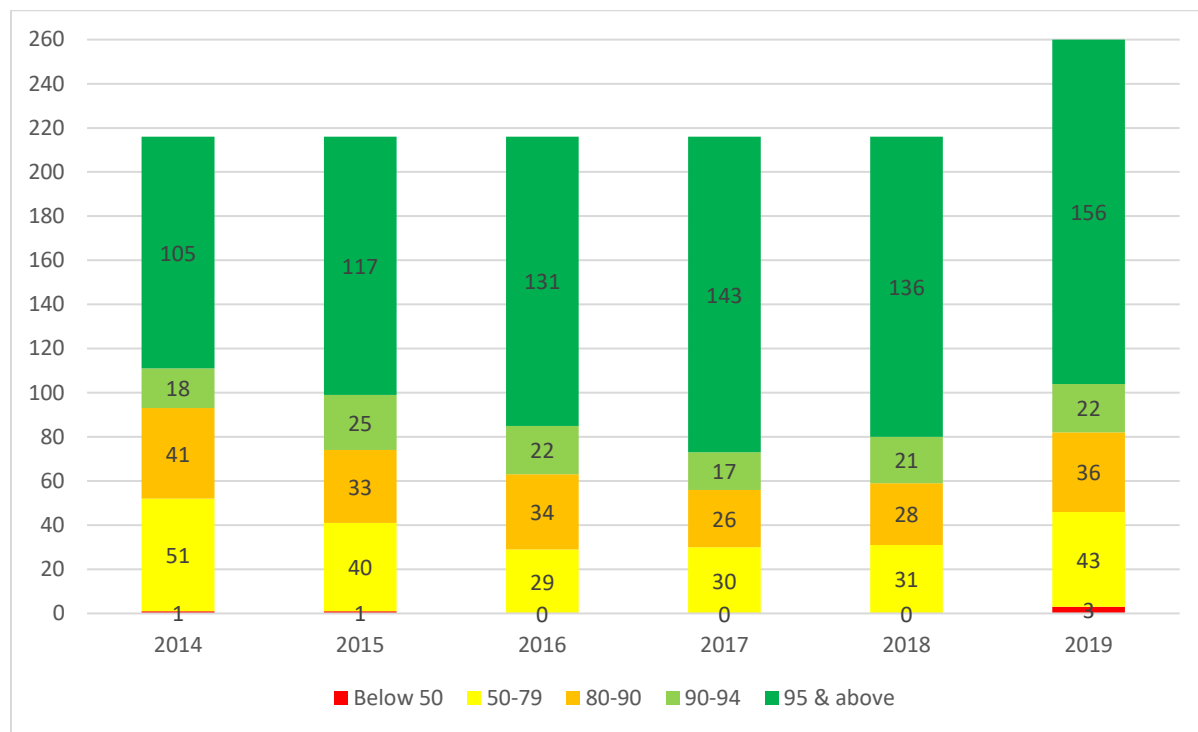
National trend in EPI Performance for all antigens 2017-2019							
Antigen	2017		2018		2019		Difference
	No Vaccinated	% Coverage	No Vaccinated	% Coverage	No Vaccinated	% Coverage	
BCG	1,161,227	100	1,166,047	98	1,158,483	96	- 7,564
OPV-3	1,033,776	94	1,155,221	100	1,173,761	99	18,540
Penta 3	1,119,742	102	1,153,978	100	1,174,466	99	20,488
PCV-3	1,117,766	102	1,157,362	100	1,181,151	100	23,789
Rota-2	1,069,885	97	1,112,233	96	1,125,470	95	13,237
IPV			649,433	56	1,163,714	99	514,281
MR-1	1,040,141	95	1,094,228	95	1,124,121	95	29,893
MR-2	908,217	83	979,243	85	1,022,001	87	42,758
YF	947,030	86	1,080,149	94	1,117,440	95	37,291
Td2+	744,859	68	760,255	64	799,818	66	39,563
MenA	901,131	82	985,578	85	957,093	81	- 28,485

*IPV was introduced into routine immunization in June 2018

Table 1 shows a 3-year trend in EPI performance for 2017 to 2019. From the table, the minimum coverage target of 95% was achieved for all antigens except for the second dose of measles-rubella (MR-2), tetanus toxoid 2 plus (Td2+) and Meningococcal A Conjugate Vaccine (Men A). Ghana vaccinated 20,488 additional children with Penta-3 in 2019 compared to 2018.

A total of 156 (60%) districts achieved Penta-3 coverage of 95% and above. Three districts however had coverage rates of less than 50%. These districts will be targeted for support in 2020. Figure 1 shows district level Penta-3 performance.

Figure 1: Penta-3 Performance by performance category by districts, Ghana 2014-2019



To further generate demand for immunization activities, WHO provided support to the government to commemorate the 2019 African Vaccination Week (AVW). The week was commemorated under the theme “Protected Together: Vaccines Work!”. As part of the activities to mark this year’s AVW, WHO joined the Ghana National Polio Plus Committee (GNPPC) of Rotary International to unveil two (2) billboards with the inscription “This close to End Polio in two (2) prime locations in Accra.

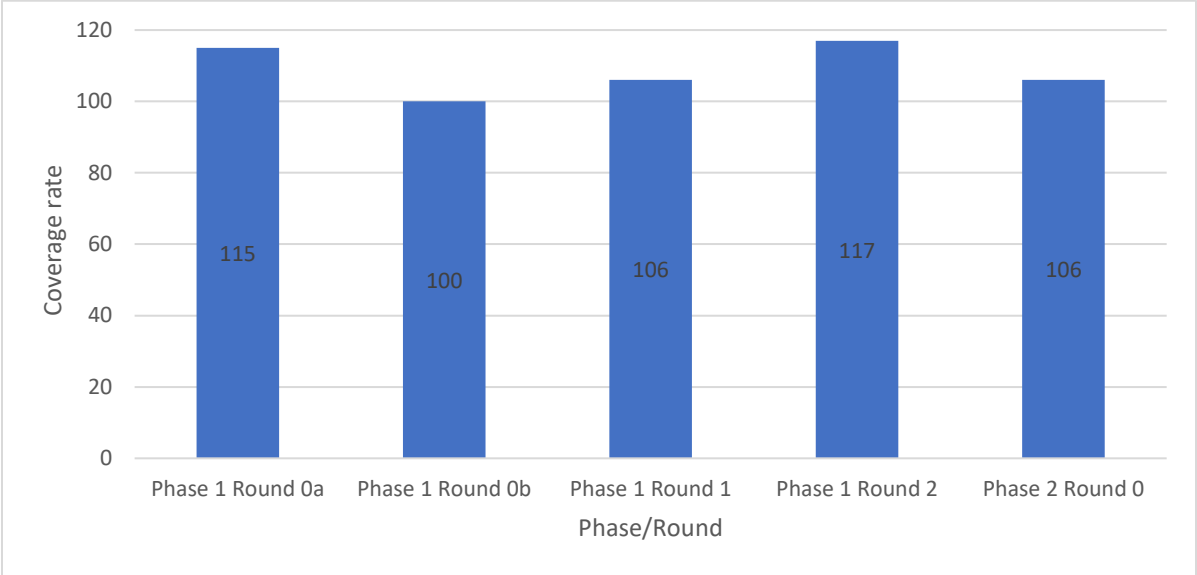
1.5.2 Outbreak of Circulating Vaccine-Derived Poliovirus Type 2

On 19 August 2019, the WHO Country Office was notified of circulating vaccine-derived poliovirus Type 2 (cVDPV2) in a 2 years 9 months old girl from Chereponi District in the North-East Region of Ghana. Prior to this, cVDPV2 was confirmed in a sewage sample from the environmental surveillance (ES) site in Koblimagu in Tamale Metro the Northern Region. The virus was again confirmed in another sewage sample from an ES site in Agbobloshie in Asheidu-Keteke Metro in Greater Accra Region.

The Ministry of Health officially informed the WHO Country Office and other partner organizations within the sector and subsequently declared public health emergency of national concern.

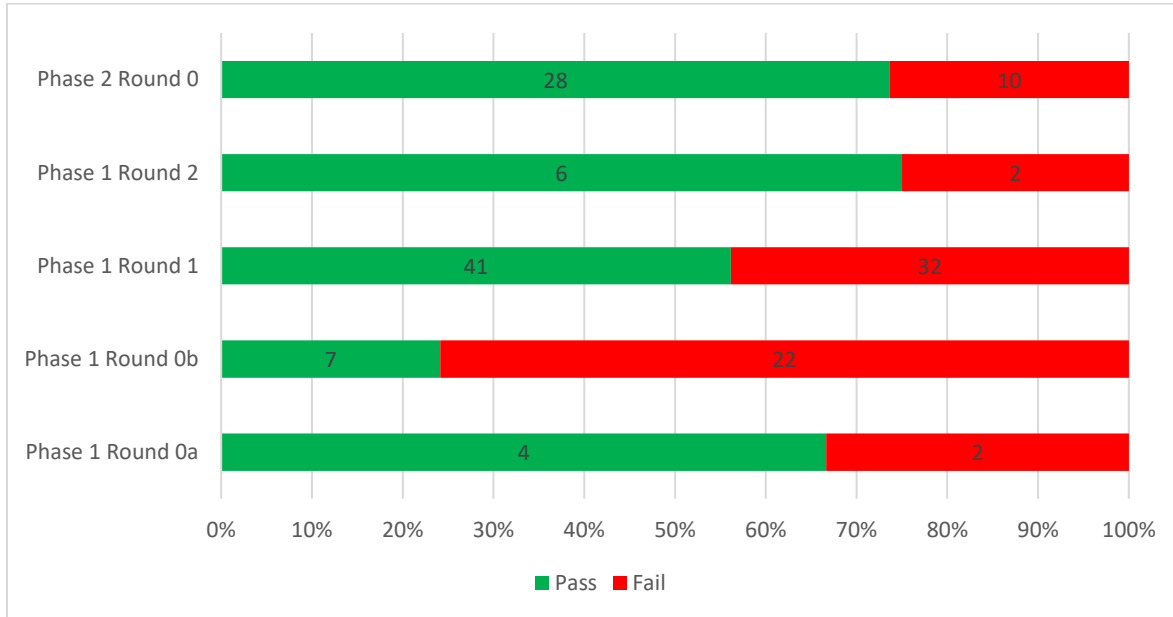
Response vaccination campaigns using monovalent oral polio vaccine type 2 (mOPV2) were conducted in Bono, Greater Accra, Northern, North East, Oti, Savanna and Upper East regions. The administrative coverage of the SIAs are shown in the figure below;

Figure 2: Administrative coverage of Polio SIAs, September – December 2019



Lot quality assurance sampling (LQAS) survey was conducted to validate Administrative coverage and identify poorly covered lots or districts. The LQAS was conducted in all implementing districts by trained independent assessors. The results of the LQAS, which is essentially a pass or fail assessment, is shown in the figure below;

Figure 3: LQAS results of the Polio Outbreak Response Vaccination Campaigns



1.5.4 Vaccine Preventable Diseases Surveillance

Acute Flaccid Paralysis: The country achieved the two core AFP Performance indicators; Non-Polio AFP rate of 4.7 and stool adequacy of 88.9% with the detection of 19 circulating Vaccine Derived Polioviruses. The Environmental Surveillance platform confirmed 79 samples collected from 11 sites as positive for cVDPV2.

Yellow Fever: A total of 1,213 suspected Yellow Fever cases were reported from 193 districts. All regions attained and exceeded the target of at least 80% districts reporting.

Neonatal Tetanus: A total of 9 neonatal tetanus cases were reported and investigated from 5 regions namely Eastern, Central, Northern, Volta and Western. This was same as that reported in 2018. This represents the highest number of annual cases since 2007. A steady increase has been observed after 2015.

Measles: Every district reported at least one suspected measles case, with 76 confirmed. A total 2,591 cases were considered compatible because they could not be tested in the laboratory.

Support for other VPDs: WHO supported surveillance activities for other VPDs including, congenital rubella syndrome (CRS), rotavirus diarrhoea and paediatric bacterial meningitis

(PBM). Support for rotavirus diarrhoea, CRS and PBM were implemented through sentinel sites in Komfo-Anokye Teaching Hospital and Korle-Bu Teaching Hospital. There are plans to scale up the number of sites.

Integrated Supportive Supervision: The use of the AFRO developed GIS-based Integrated Supportive Supervision (ISS) tool was promoted and saw a rise from 42 visits in 2018 to 1,541 in 2019 with officers involved being 2 and 367 respectively for 2018 and 2019.

Summary of Achievements

- Ghana achieved Penta-3 coverage of 99% with 20,488 more children vaccinated in 2019 compared to 2018
- The coverage for the second dose of measles-rubella (MR2) increased from 85% in 2018 to 87% in 2019 with 42,758 more children vaccinated
- The country achieved the two core AFP performance indicators: Non-Polio AFP rate of 4.7 and stool adequacy of 88.9%
- WHO together with other GPEI partners, supported the government to respond to the cVDPV2 outbreak

1.6 Malaria Vaccine Implementation Programme (MVIP)

The Ministry of Health and the Ghana Health Service introduced the RTS,S/AS01_E malaria vaccine, the world's first malaria vaccine, into routine immunization through the WHO-coordinated Malaria Vaccine Implementation Programme (MVIP) on 01 May 2019. The programme was launched on 30 April 2019 in the Central Region under the theme "*Malaria Vaccine for Additional Protection*". The national launch was subsequently followed by various regional launches in four MVIP regions.

The MVIP is hinged on three core objectives: a) evaluating the operational feasibility of administering the 4-dose schedule RTS,S malaria vaccine to eligible children in routine immunization; b) documenting the safety profile of the vaccine in the context of routine use and; c) assessing the impact of the vaccine on malaria outcomes. Two other African countries, Kenya and Malawi are also participating in the pilot implementation programme.

The critical evidence generated from the programme will inform WHO policy decision on the potential wider scale use of the RTS,S malaria vaccine.



(Left)-Dignitaries present at the national launch of the MVIP; (Right)- Cross section of the participants at the national launch of the MVIP.

Key activities, Outcomes and Achievements

1.6.1 Coordination and stakeholder engagements

The MVIP technical working group (TWG) provided overall technical guidance for the implementation of activities with support from other sub-committees. Advocacy, social mobilization and other demand generation activities were spearheaded by the Advocacy Communication and Social Mobilization (ACSM) committee.

Extensive and broad stakeholder consultations and engagements were conducted before the introduction of the vaccine. The TWG engaged the Ghana Academy of Arts and Sciences (GAAS), the Parliamentary Select Committee on Health, Ghana Medical Association (GMA), Paediatric Society of Ghana, Civil Society Organizations (CSOs), Coalition of NGOs in Health and the National House of Chiefs. Stakeholder consultations were also conducted at the regional, district, sub-district and community level.

1.6.2 Vaccine Introduction

The vaccine introduction was preceded by a comprehensive pre-introduction assessment and cascaded healthcare worker training. The training covered all aspects of the MVIP and provided the platform to build the capacity of healthcare workers on best practices in the context of immunisation and vaccine safety surveillance.

The vaccine has been incorporated into the routine childhood immunisation schedule in 42 districts in 7 regions (Ahafo, Bono, Bono East, Central, Oti, Volta and Upper East regions) with an additional 39 districts serving as comparator districts. A total of 178,552 doses of the vaccine was administered to age-eligible by the end of 2019 with the annualized Dose 1 coverage of 66% [59% - 87%]. The dose 2 and 3 coverage over the same period were 62% [56% - 78%] and 51% [46% - 64%] respectively with a 7% average drop-out rate between the first and third doses. The WHO continues to support the EPI and other partners to strengthen communication and social mobilization activities to generate and sustain demand for the malaria vaccine and targeted support supervision to improve vaccination coverage and optimize safety surveillance.



: (Left)- the first two children to receive the malaria vaccine in Ghana and their mothers, (Right)- A nurse administering the malaria vaccine to a child during a vaccination session.

1.6.3 Logistical support

To further strengthen the health delivery system, the country office supported the Ghana Health Service and the Expanded Programme on Immunization (EPI) with data collection and monitoring tools, motorcycles, vehicles and desktop computers.



The WHO Country Representative to Ghana, Dr Owen Laws Kaluwa handing over two vehicles and motorcycles to the Director General of the Ghana Health Service (GHS), Dr Anthony Nsiah-Asare.

1.6.4 Malaria Vaccine Pilot Evaluation (MVPE)

The MVIP is complemented by a robust evaluation programme, the Malaria Vaccine Pilot Evaluation (MVPE) which was commissioned by the WHO. The MVPE in Ghana is led by a local consortium, *Consortium to Evaluate Mosquirix (CEM-GH)* which comprises of local research and academic institutions. The MVPE will generate important evidence through the operationalization of three modules (feasibility, safety and impact) to guide WHO policy decision on the wider scale use of the vaccine. Two other evaluation modules (Health Utilization Study (HUS) and Costing Study), commissioned by PATH, will generate qualitative information on utilization of EPI services, health seeking behavior and pre-existing malaria interventions and costing data to guide future introduction of the vaccine beyond the pilot programme. All the evaluation modules were fully operationalized by the end of 2019

2.0 NON-COMMUNICABLE DISEASES AND MENTAL HEALTH

NCDs are rapidly emerging as a significant cause of morbidity and mortality in Ghana. Heart diseases, cancers, respiratory disease and diabetes, mental health problems and injuries are among The NCDs of concern in the country. In 2019, WHO supported the development of a multi-sectoral NCDs Policy and Strategy in collaboration with the World Bank. Support was also provided for capacity building in the management of mental health conditions, and the roll out the WHO Quality Rights Initiative in Ghana.

Key Activities, Outcomes and Achievements

2.1 Non-Communicable Diseases

2.1.1 Development of NCDs Policy and Strategy

During the year under review, the World Bank partnered with WHO to support the Government of Ghana to strengthen efforts around NCD prevention and control. One of the key areas of support, identified in consultation with Government was updating the National Policy and Strategy which expired in 2016.

The Ministry of Health and other stakeholders put together a Multi-Sectoral Technical Working Group to review the current NCDs Policy, identify gaps and align to Government's overall vision for NCDs as well as national and international resolutions, policies and strategies.

The review process included several consultations with broader stakeholders in Health, Education, Agriculture, Justice, Private Sector, Sports, Finance, Civil Society Organisations (CSOs) and Academia, which was followed by validation and consensus building sessions.

The final document was submitted to the Honourable Minister of Health who approved and submitted to the Ministerial Cabinet for clearance and official launch of the documents.

2.2 Mental Health

2.2.1 Launch of the Quality Rights (QR) Initiative in Ghana

The human rights violations and poor quality of care and support for people with mental health conditions, psychosocial and intellectual disabilities have been well documented in recent UN, Human Rights Watch and other report in Ghana. WHO is supporting the QualityRights initiative, which is an e-training programme with online coaching on mental health, human rights and recovery; a foundation course among key mental health and disability stakeholders including service providers in order to promote attitudes and practices that respect dignity and rights and which promote holistic, person-centered and recovery oriented care and support. The Ghana Mental Health Authority (MHA) in collaboration with WHO and other stakeholders initiated the

Quality Rights in Mental Health Ghana Initiative to roll out activities to promote uptake of the program. This was launched in February 2019.

A total of Seven hundred and Sixty-three (763) people drawn from all over the country participated. This included representatives of international Partners from, WHO HQ, AFRO and Country Office, some members of the diplomatic corps, Traditional leaders, NGOs & CSOs, Mental health professionals and other health professionals, school children, Pupils of Special Schools, People with lived experience with psychosocial, intellectual and cognitive disabilities, caregivers and a cross section of the general public.

2.2.2 MHGAP Training for Primary Health Care Providers

Accessibility to mental health services is a critical component of universal health care. In line with the Ministry of Health policy to promote community based mental health services, WHO supported the training of 70 Medical Officers, Physician Assistants, Nurse Prescribers from Western and Brong Ahafo Regions in the management of common mental health disorders using the WHO Mental Health Gap Action Programme (MHGAP) Intervention Guide curriculum.

These primary health care providers from lower level facilities were equipped with the skills to be able to provide first line management of the mental health conditions of their patients even as they attend to their physical ailments thereby providing one-stop care for their patients.

The training was very well received as evidenced by this comment from a Physician Assistant manning a Health Centre. *“My facilitators have equipped me with much needed resources to confidently diagnose and manage mental health conditions with ease”*

WHO with support from DFID will be rolling out this MHGAP training to other regions in 2020.



Participants in a role play session during the training

2.3 Nutrition and Food Safety

In 2019, WHO provided technical support in collaboration with UN and development partners, to the Ghana Health Service, Food, Drugs Authority and Ministry of Health. WHO supported capacity building of National Food Safety Regulatory Authority on Food Safety Risk Profiling and Food Safety Alert System. The Ghana Health Service was supported to finalize the adaptation of the WHO Training Package on Infant and Young Child Nutrition.

Key activities, Outcomes and Achievements

2.3.1 Food Safety Risk Profiling

Foodborne Diseases Outbreak in one country can easily affected another as experienced in the South Africa Listeriosis outbreak of 2018. Following the outbreak WHO organized a Regional Technical Meeting on Listeriosis. A key objective was to highlight the importance of strengthening food safety systems to reduce the risk of foodborne public health events of such magnitude and resulted in country specific contingency plans for emergency. At the request of the Food and Drugs Authority (FDA), WHO provided technical and financial support for training of national food safety authorities on food safety risk profiling which is a key component of the contingency plan.

The workshop aimed at conducting a national training on food safety risk profiling for national regulatory authorities to enable them to have a hands-on experience and capacity to identify high risk foods and to undertake their risk profiling.

The training was conducted mainly for FDA staff representatives for all the regions of Ghana and national level staff but included Ghana Health Service Staff. The training focused on the understanding of the concept of risk profiling. Participant through a hand on experience identified 5 top high-risk foods, conducted risk ranking, familiarized themselves with the risk ranger software and developed risk profile for identified high risk foods based on the Codex Alimentarius Guideline.

The main outcome of the workshop was 22 National Food Safety Regulatory Authority and Ghana Health Service Staff trained in Food Safety Risk Profiling and skills built through the development of risk profiles of 5 hazard-food pairs. Participants of the training were assigned a food-hazard pair each and tasked to develop risk profiles for them. It was further recommended that Ghana should conduct a National Food Consumption Survey to identify and create an evidenced based list of top priority foods.



Group work sessions during the training



Participants Receiving Certificates at the end of training

2.3.2 Food Safety Alert System

The increasingly interconnected global food supply means that risks of unsafe food with the potential to cause harm is no longer a local problem as it can quickly evolve to cause an emergency of international dimension. FAO/WHO International Food Safety Authorities Network (INFOSAN) facilitates the rapid exchange of information across borders and between members, during food safety events. WHO provided technical and financial support to train key food safety stakeholders in strengthen the National Food Safety Alert System particularly national cross-sectoral collaboration and information sharing on matters of food safety including emergencies.

The workshop provided the opportunity to identify priorities and actions to strengthen the National Food Safety Alert System and strengthen capacities for enhanced country participation in global and regional INFOSAN activities. A total of forty-nine (49) participants from 14 institutions, the nine (9) regional offices of FDA, WHO-Ghana, WHO-AFRO and FAO attended the workshop.

Participants were oriented on the AU Food Safety Management Coordination Mechanism and implementation of an African Rapid Alert System for Food and the link with INFOSAN, INFOSAN and International Health Regulation (IHR), National control system and elements of rapid alert networks. Participants had a hands-on experience through simulation of a food safety emergency and mounting a response with INFOSAN. The meeting resulted in a multi-sectoral team of 49 Key Food Safety Stakeholders trained on the Food Safety Alert System. The stakeholders agreed to develop a Food Safety Emergency Response Plan and a Technical



Committee Constituted to work on the plan for review and approval of a wider stakeholder group.

Participants with Dignitaries at the INFOSAN Workshop

2.3.3 WHO training package and training of health workers on Infant and Young Child Nutrition

At the end of 2018, WHO provided technical and financial support to the GHS hold a workshop to adapt the WHO Training Package of Growth Assessment and Infant and Young Child Feeding. The adaptation workshop took stock of the manuals and tools of the training package. However, the participants agreed to begin work on the Trainer Guide and subsequently make changes to the other manuals in line with the Trainer's Manual. The team reviewed the Trainer's manual by incorporating current national policies and documents e.g. the combined maternal and child health record books and new immunization schedules. The workshop resulted in the identification of the areas for adaptation and the content was developed to reflect the local context as well as align with national policies and guidelines. A road-map was developed for completion of the adaptation process planned for 2019.

In 2019 a series of working sessions were held and adaptation of the WHO training package on growth assessment and infant and young child feeding counselling which was finalized resulting in the Ghana specific training manual that will be used for strengthening skills of health workers.

Training of health workers using the newly develop National Training Package is scheduled for 2020.

3.0 PROMOTING HEALTH THROUGH THE LIFE COURSE

3.1 Reproductive, Maternal, Newborn, Child & Adolescent Health

Ghana's maternal mortality ratio is 310 per 100,000 live births and under 5 mortality is 52 per 1000 live births. Although Ghana did not meet its MDG 4 and 5 targets, it made significant progress in reducing maternal and under 5 mortalities. The neonatal mortality rate is 25 per 1000 live births making up 68% of infant mortality and 48% of under-five mortality. Antenatal clinic attendance (at least 4 visits) is 89% with a skilled attendance at birth being 79%. Modern contraceptive prevalence rate is 25% and the unmet need for family planning is 30% with an adolescent pregnancy rate of 14.0% (GMHS 2017). The country still has high maternal, neonatal and child mortality rates in spite of the relatively good coverages of Maternal and Child health interventions. Inadequate access to quality skilled delivery, emergency obstetric and newborn care and family planning has been identified as some contributing factors.

WHO provides technical support to the Ministry of Health/Ghana Health Service (GHS) and partners for planning, implementation, monitoring and evaluation of Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCAH) programmes in the country in line with the Global Strategy for Women's, Children's and Adolescents' Health (GSWCAH). WHO is working to improve access to, coverage and quality of health services for pregnant women, newborns, children and adolescents along the continuum of care.

The RMNCAH program will continue to support the achievement of the health-related Sustainable Development Goals by supporting country adoption and adaptation of various WHO guidelines and strategies for implementation as well as the development of national strategic documents and capacity building of health workers.

Key activities, Outcomes and Achievements

3.1.1 Maintaining Standards for Quality Healthcare Services for Adolescents

Adolescence is a special period of physiological and psychological transition to adulthood. Setting standards for quality healthcare services is a way to ensure every service delivery point has the minimum required level of quality to protect adolescents' rights in health care. The country has been supported to adapt the WHO/UNAIDS Global standards for quality health care services for adolescents. The National Guidelines for Adolescent and Youth Friendly Service has been reviewed and aligned to the WHO Global standards to improve quality of health-care services for adolescents and the Accelerated Action for the Health of Adolescents (AA-HA). This is guiding the delivery of adolescent and youth friendly services. A Web-based Platform for monitoring the standards for quality healthcare services for adolescents has been successfully piloted in six selected health facilities in the Central Region that provide adolescent health services including infirmaries of some Senior High Schools. These are the Cape Coast School for the Deaf and Blind, Holy Child School, Wesley Girls High School, St Augustine's College, Aggrey Memorial Zion Senior High School and Planned Parenthood Association of Ghana (PPAG) clinic. A Standard Operating Procedure and Field Guide for the implementation of the Web Platform has also been developed for the country. Healthcare managers and providers have been trained to deliver comprehensive set of interventions for adolescent health especially nurses who manage the school's sickbays/infirmaries. Gaps identified during the monitoring were addressed and this has improved the quality of healthcare services for adolescents.





Official hand-over of ASRH materials to the GHS

3.1.2 Conduct of a comprehensive Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCAH) program review to inform policy and programmatic strategic plans

To accelerate efforts to reduce the high maternal and child mortality rates in the country, there are a number of protocols and guidelines in Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCAH) to guide clinical practice. Ghana has a number of strategies which are being implemented for Maternal Health, Child Health, Newborn Health, Adolescent Health and Family planning separately. There was the need for the development of an integrated Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCAH) Plan to guide and coordinate efforts at adapting and implementing the Global Strategy for Women, Children and Adolescent Health; 2016 -2030 (GSWCAH) to achieve the SDGs, particularly Goal 3. In response to a request from Ghana Health Service /MOH, WHO has provided both financial and technical assistance to the Ghana Health Service/Ministry of Health to conduct an Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCAH) program review using the WHO Program Review Tool.

This has helped identify areas that have gaps and challenges as far as the delivery of RMNCAH services in country is concerned. The results of this situational analysis has informed policy and programmatic strategic plans particularly the development of an Integrated Strategic Plan for RMNCAH. Support was also sort from the country H6 platform (WHO, UNFPA, UNICEF, UNAIDS).

3.1.3 Quality of Care for Maternal, Newborn and Child Health

The country has high numbers of preventable maternal and neonatal deaths in spite of a relatively good coverage rates for maternal, newborn and child health interventions. Sub-optimal quality of care has been identified as a key factor in this. The country has committed to the Global Network to improve the Quality of Care for Maternal and Newborn Health to ultimately reduce preventable maternal and newborn deaths and achieve the maternal and newborn health targets of the SDGs.

Continuous support has been provided to the implementation of the WHO Standards for Quality of Care for Maternal and New-born and Child Health in three regions (Ashanti region, Western region, Brong-Ahafo region) through trainings and coaching. These three regions are implementing Quality Improvement interventions in their learning sites. WHO has supported the National level in their coordination role in collaboration with a Mission from the Global Network Secretariat. The National Roadmap for Maternal and Newborn Health and the Implementation Guide developed with support from WHO are being used in conjunction with the National Healthcare Quality Strategy to improve the quality of healthcare services particularly for mothers and newborns beyond the three regions. Quality Improvement Interventions are ongoing in implementing facilities ensuring quality care and better outcomes for mothers and newborns. Community participation in the healthcare delivery system has also been enhanced through the training of Community Health Management Committee members (CHMC) and the use of the Community Scorecard.

3.1.4 National Maternal, Child Health and Nutrition Conference

To ensure that every woman and child has access to quality comprehensive healthcare requires the involvement of health partners and stakeholders and integration of interventions for women and children in the country. The second National Maternal, Child Health and Nutrition Conference was therefore held in 2019 with the theme “Enhancing Integrated RMNCAH & Nutrition

Interventions to Accelerate the Achievement of the SDGs”. The conference provided the forum to broaden the engagement of health partners and stakeholders involved in provision of care for women and children and also provided a platform to review the situation of reproductive health, child health and nutrition in the country. The identified policy and programmatic gaps have informed the development of a National Action Plans to improve RMNCAH services.

WHO played a key role by providing both technical and financial support to successfully hold the conference. The WHO Africa Regional Office provided a technical expert from the Regional Office (Dr Innocent B Nuwagira) who gave a presentation from the global perspective on “Interventions and Strategies in Reproductive, Maternal, Newborn, Child and Adolescent Health to end preventable Maternal and Child mortalities”. This set the tone for the conference and was the pivot for subsequent discussions throughout the conference. The conference had financial technical support from partners including the World Health Organization.

3.1.5 National Newborn Stakeholders’ Conference and observation of Child Health Promotion Week to deliver integrated child survival interventions

Ghana’s neonatal mortality rate according to the 2017 Ghana Maternal Health Survey is 25 per 1000 live births. This still makes up 68% of infant mortality and 48% of under-five mortality. Annual National Newborn Stakeholders meetings are held to take stock of the progress of implementation the National Newborn Healthcare Strategy and develop action plans for the following year.

. In 2019 the National Newborn Stakeholders conference that brought together stakeholders’ in newborn health had a focus on improving the quality of care for the small and sick newborns. Support was provided by multiple partners. Technical support was provided by WHO. Dr Ornella Lincetto from the WHO Headquarters made a presentation on “Survive and thrive: Transforming care for every small and sick newborn” The implementation of the key action points from the meeting has tremendously contributed to improved focus on newborn health in the country and the reduction of neonatal mortality. The new National Newborn Healthcare Strategy was launched at the event.

The African Vaccination week and Child Health Promotion week were successfully commemorated to promote integrated service delivery to improve coverage of preventive child survival interventions like Immunization, Vitamin A Supplementation, Growth monitoring, birth registration and promotion of ITN use. It was used as a week of advocacy, awareness creation and for service delivery.



Launch of the Newborn strategy

3.1.6 Support to Professional Associations

Supported the Society of Obstetricians and Gynecologists of Ghana (SOGOG), the Pediatric Association of Ghana (PSG) and the Ghana Registered Nurses and Midwives Association (GRNMA) in their activities for the year all geared towards improving Reproductive, Maternal, Newborn, Child and Adolescent Health.

The Ghana Registered Nurses and Midwives Association (GRNMA) was supported in the observation of the International Nurses Day. The occasion was used to create awareness about the nursing profession and acknowledge the contribution made by nurses and midwives towards health care delivery in the country. WHO delivered the keynote address on **“Nursing and Midwifery; The key in the delivery of Universal Health Coverage”** emphasizing the lead role nurses and midwives have to play in the attainment of the global goal of Universal Health coverage.

The Society of Obstetricians and Gynecologists of Ghana (SOGOG), was also supported with the Annual General and Scientific Conference and provided technical guidance on “Improving access to reproductive healthcare in Ghana”. This increased the focus on increasing access to emergency obstetric and newborn care, family planning services and outreach services to deprived areas.



WHO staff making presentations at meetings for Professional bodies

3.2 Gender, Equity and Human Rights

In collaboration with the UN Gender Team, gender related UN Days were observed to raise awareness on gender issues and to promote gender mainstreaming. These included the

International Women's Day, the International Day of the Girl Child, International day for the Elimination of Violence against Women and 16 days of activism against Gender Based Violence.

Capacity of staff are being built in gender mainstreaming and human rights approaches in health programmes through trainings, implementation of the Gender Action Plan and advocacy through the observation of Gender related UN Days. In addition to taking the online course on Prevention of Sexual Exploitation, harassment and Abuse (PSEA), the content was put together as a presentation which all staff were taken through again, face-to-face and discussed. This was a very useful exercise which afforded staff the opportunity to openly discuss issues and agree on country office specific strategies.

An orientation on Gender Equity and Human Rights is conducted for all new staff as part of the Africa Region Orientation Program for new staff recruited to the Ghana Country Office. This has ensured that all staff are well oriented on the WHO policy on Zero tolerance for all forms of sexual exploitation, harassment and abuse.

3.3 Environment and Health

During 2019, WHO provided technical support in collaborating with UN and development partners, to the Ghana Health Service and Ministry of Health, Ministry of Sanitation and Water Resources. Support was provided for the Development of a Public Health Strategy for the National Plan of Action for Reducing Mercury in Artisanal and Small-Scale Gold Mining (ASGM) based on two assessments on institutional capacity and health challenges faced by small scale miners. In partnership with UNICEF, WHO also provided technical support for the training of trainers for Water Safety Plans (WSPs) in Schools.

3.3.1 Development of a Health Strategy to Address the Use of Mercury in Artisanal and Small-Scale Gold Mining (ASGM)

The Minamata Convention on Mercury, adopted in 2013, is an international environmental treaty designed to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds. Ghana became signatory to the Minamata Convention in

2013. Ghana is obligated under the convention to develop a National Action Plan (NAP) which includes a public health strategy on the exposure to mercury of ASGM miners and their communities due to the fact there is more than insignificant ASGM in the country. The development of the NAP in Ghana was coordinated by the EPA under Ministry of Environment, Science, Technology and Innovation (MESTI) supported by UNIDO with funding from the Global Environment Facility (GEF). WHO provided technical and financial support for the development of the health component of the NAP. The health component of the NAP was developed based on the findings of two assessments conducted namely; an Institutional Capacity Assessment and a Rapid Health Assessment in two mining communities in Ghana.

3.3.2 Institutional Capacity Assessment

The institutional capacity assessment was conducted to assess the capacity of key institutions particularly the Ministry of Health to detect, prevent and address health issues artisanal and small-scale gold miners and their communities are exposed to, including mercury exposure.

The objective was to determine priority areas of significant importance which should be considered for the Public Health Strategy of the NAP. The key areas that guided the assessment were;

- Existence of regulations, policies, structures and processes in place at the national and sub-national levels to respond to ASGM health-related issues
- Institutional capacities at the MOH and EPA available to deal with health issues in the context of ASGM
- Strengths and opportunities to enhance existing capacities and challenges that need to be addressed

The method used was identification of key stakeholders, a compilation and desk review of existing regulations, policies and strategies. Interview of focal points of key institutions to understand the structure, operations and networks. The assessment identified strengths of the MOH and partners on which to build ASGM health strategy. These included a comprehensive legal framework on public health, a well-structured health system with clearly defined roles and responsibilities; and the existence of emergency protocols. Challenges included, inequitable distribution of human

resources, deficiencies in the quality of services and inadequate emergency preparedness to chemical spills. The report of the assessment was finalized and fed into the public health strategy for the NAP.

3.3.3 Rapid Health Assessment in two Artisanal and Small-Scale Gold Mining (ASGM) Communities

The rapid health assessment was carried out in New Abirem in the Eastern Region and Tarkwa in the Western Region.

The objectives for the meeting was as follows:

- To describe the health issues as reported by artisanal and small-scale gold miners and by health care providers living and working in ASGM areas
- To describe health risk perceptions in artisanal and small-scale gold miners
- To describe the access to health care, healthcare seeking behavior patterns and challenges related with it
- To describe the capacity and readiness of the health system and qualification of health care providers to address health problems specific to artisanal and small-scale gold miners, their families and the broader communities

The methodology employed was key informant interviews, focus group discussions (FDGs) and health facility assessment. For the FDGs four mining communities (Nyafoman, Noyem, Amenam and Nwinso) were visited in Birim-North District and two (Kanianko and Kedadwen) in Tarkwa-Nsuaem Municipality. Key informants included district assembly staff, miners' association leaders and community leaders. The district hospitals and community health facilities were assessed for their capacity and readiness of the health system.

A number of environmental (e.g. environmental degradation, contamination of soil, water and air) and social challenges (e.g. low school enrolment, conflicts, lack of institutionalization of mining activities, in-migration, inequalities, disruption of social cohesion, poor living conditions, crime,

drugs and prostitution) were described by participants of key informant interviews and FGDs. The community members were of the perception that local health facilities are not adequately equipped to address major mining related health issues were backed up by the results of health facility assessments. The District level hospital was better equipped to deal with health issues and could refer patients to the regional level as and when needed. The report of the rapid health assessment has been finalized and also fed into the development of a Public Health Strategy.

Following the finalization of the two assessments a stakeholder's" workshop was held for the dissemination of the findings and the development of the Public Health Strategy for the NAP with the following objectives:

- To disseminate the study findings and recommendations to the larger stakeholder group and provide an opportunity to validate the findings
- To make recommendations for the development of a public health strategy for ASGM based on the study findings and stakeholder inputs

The stakeholder's dissemination workshop involved decision-makers at national, regional and local levels (study sites) in the domains of health, environment and mining. The meeting was organized by the MoH /GHS and WHO and representatives included the Ministry of Health/ GHS, representatives from the Inter-ministerial Task Force on Small Scale mining, Ministry of Mines, Minerals Commission, EPA, country office, regional and headquarters, staff of the WHO, ASGM association leaders, civil societies engaged in ASGM areas. Participants validated the findings of the assessments and elaborated recommendations for the four main components of the public health strategy namely; (i) Mitigation of direct health impacts of mining, (ii) Mitigation of indirect health impacts of mining, (iii) Health system capacity strengthening and (iv) Other Institutional capacity strengthening which were further developed into a strategy. The output of the workshop was the draft public health strategy to feed into the National Plan of Action to Address the use of mercury in ASGM.



Engagement with some members of mining communities in Birim North during the assessment

3.3.4 Training of Trainers on Water Safety Plans (WSPs) for Schools

In 2015 Ghana developed the National Drinking Water Quality Management Framework (NDWQMF) to provide the programming space for a systematic, risk-based approach, which is more reliable in ensuring that safe water is delivered at all levels on a sustainable basis to safeguard public health. The main approach for the operationalization of the framework is Water Safety Planning (WSP), an approach that ensures the safety of water through a comprehensive risk assessment and risk management of the entire water supply chain, from catchment to point of use. WSPs in institutions such as health and schools therefore ensures that water source within these institutions are safe for consumers.

The Ghana Education service in collaboration with the MSWR embarked on a WSPs in schools initiative. A technical guidance document was developed and technical support was sought from UNICEF and WHO for a Training of Trainers on WSPs to be conducted for staff of Ghana Education Service.

The training took place at Ejisu in the Ashanti Region. WHO provided technical support whilst UNICEF provided funding for the training. Participants were national and regional level staff from School Health Education Unit (SHEP) of the Ghana Education Service (GES), Ghana Water Company Limited (GWCL), Community Water and Sanitation Agency (CWSA), Environmental Health and Sanitation Directorate (EHSD) and the Water Directorate (WD) of the Ministry of Sanitation and Water Resources (MSWR). A total of 25 participants were trained in Water Safety Planning and its implementation in Schools. The participants developed an action plan for the roll out of WSPs in schools. The next steps included the final review and finalization of the Technical Guidance Note.



Practical Sessions During WSPs in Schools Training

3.4 Urban Health Initiative (UHI)

The WHO Urban Health Initiative (UHI) aims to reduce deaths and diseases associated with air and climate pollutants and enhance health co-benefits from policies to tackle urban air pollution and short-lived climate pollutants (SLCPs) – saving lives by linking health, environment and sustainable development. The UHI is mobilizing and empowering the health sector to use its influential position to promote the implementation of air and climate pollutant reduction strategies,

provide the required tools and guidance for decision-makers to assess potential health benefits and health risks, and demonstrate to the public the full range of health, economic and climate benefits that can be achieved from implementing local emission reduction policies and strategies. Cities are uniquely positioned to work against air pollution, with actions that reduce air pollution's health and economic burden, while creating an urban environment that promotes health and fosters vibrant communities.

3.4.1 Planning for climate action, improved air quality and health

The World Health Organization, Accra Metropolitan Assembly, Ghana Health Service, Environmental Protection Agency, UN-Habitat and ICLEI hosted a two-day workshop with the Accra Metropolitan Assembly in May 2019 to support action towards healthier urban environments and to engage other municipalities to jointly act on air quality, public health and the reduction of short-lived climate pollutants. With representatives from several assemblies and municipalities, ministries and other relevant institutions, the workshop took participants through working sessions to discuss the health and economic impacts of sectoral policies, to inform the development of Accra's Climate Action Plan and control of air pollution. Participants for the workshop were drawn from the metropolitan, municipal and district assemblies across the country, ministries, departments and agencies, as well as Lagos Nigeria, Dakar, and Senegal.

The workshop was highly successful, with wide media coverage creating a growing interest along with requests for scaling action to other regions. The workshop also informed the ongoing development of Accra's Climate Action Plan and supported Accra's leadership role in the global agenda against air pollution.

3.4.2 Media Engagement

Recognizing the essential role media play in educating and informing policy change in public health related issues, the UHI project organized the Editors' Forum for mainstream media editors to espouse the objective of the project, outline major milestones and solicit the support of the media in educating the masses on the impact of Climate Change and Air Pollution on Health outcomes

in Ghana and globally. This is in line with the project's aim of ensuring effective collaboration, building synergy and effective community participation for sustainability of gains and best practices beyond 2021.

3.4.3 Community Engagement

The Accra Metropolitan Assembly, the Coalition of NGOs in Health as well as the Environmental Protection Agency (EPA) continue to offer greater visibility and community awareness within the Accra Metropolitan Area to solicit Traditional Authority buy-in and community support to reduce human factor pollution in the city. The AMA with Technical and financial support from WCO/WHO organized series of community engagements to sensitize communities and their leadership on the need to end waste burning, practice waste segregation, plant trees and support the Assembly's efforts on the creation of green fields within the metropolis.



Queen mother making a statement at the community event

3.4.4 School Based Activities

School Health Education Program unit of the Ghana Education Service in close collaboration with the AMA within the period have organized series of capacity and awareness raising events in schools for both pupils and school managers to promote tree planting and green environment, curtail waste burning and improve sanitary conditions within the markets and public places within the Accra Metropolitan Assembly

3.5 Celebration of Official Health Days

3.5.1 World No Tobacco Day Celebration

Ghana on Monday 3rd June 2019 joined the rest of the world to celebrate “No Tobacco Day” to increase awareness on the dangers of tobacco smoke to lung health and the fundamental role lungs played in the health and well-being of individuals.

The celebration on the theme: “Tobacco and Lung Health”, also aimed at raising awareness on cost-effective and feasible actions that key audiences, including governments and the public could take to reduce the risks to lung health posed by tobacco.

Prior to the official launch event that took place on 3rd June, a series of activities had been carried out to raise awareness and sensitize the general public on the health consequences of the use of tobacco and tobacco products. These included health walks, TV and radio discussions and market storms. These activities were also replicated in other regions of Ghana.

The launch event was also a platform to disseminate the findings of the 2017 Global Youth Tobacco Survey. Major findings of the survey revealed that 39.3 per cent of public in public and private Junior High Schools were exposed to tobacco smoke and 71.3 per cent JHS pupils below the ages of 18 had access to tobacco. It said although the tobacco smoking rates declined from 27 per cent in 2000 to 20 per cent in 2016, youth from the ages of 13 to 15 years were exposed to tobacco, a situation that made tobacco a public health threat.

3.5.2 World Health Day

The Ministry of Health in collaboration with the WHO Country Office organized a Press Briefing at the Ministry of Information Press Centre to mark the World Health Day on 08 April which this year falls under the theme “Universal Health Coverage, everyone, everywhere” and the slogan of “Health for All”.

The occasion was an create opportunity to create awareness and understanding about Universal Health Coverage (UHC) and the objectives of the World Health Day 2019 among partners and stakeholders in health and the media.

In attendance was the Honourable Minister of Health, Dr Agyeman-Manu, the Country Representative of WHO, Dr Owen Kaluwa, Traditional Leaders, Directors from MOH, GHS and WCO staff, representatives from Religious Institutions, Civil Society Organizations among others.



Dr Kaluwa making a presentation during WHD celebration

4.0 Health Systems

4.1 National Health Policies, Strategies and Plans

Key Activities, Outcomes and Achievements

4.1.1 Enabling sustainable financing for health in Ghana

The 2015-2020 Ghana health financing strategy (HFS) expires in December 2020. This HFS outlines five health financing objectives as follows:

- Improve resource mobilization to ensure sufficient and predictable revenue including the neglected services (palliative service, rehabilitative service etc.)
- Promote equity in the distribution of health resources and use of health services and reduce financial barriers to access to health care
- Efficient allocation and use of health sector resources
- Motivate and stimulate service delivery and quality improvement and increase population satisfaction and involvement in their own health
- Strengthen governance, transparency and accountability.

The Government of Ghana is striving to achieve Universal Health Coverage (UHC), yet financing issues remain a challenge. To address this issue, technical and financial support was given to the Ministry of Health to organize a Health Financing Forum in November 2019, under the theme, “Sustainable Health Financing for Universal Health Coverage (UHC).” The forum brought together over 100 state and non-state health sector stakeholders to take stock of the performance of the country’s health financing system and deliberate on the challenges faced and proposed potential actions that are needed to strengthen the health financing system. Specifically, the forum sought to achieve the following objectives:

- Identify health financing priorities, short, medium and long-term actions, and relevant timelines to achieve sustainable financing for UHC in Ghana
- Agree on a system of coordination and accountability of health financing initiatives by government and development partners

This forum was meant to provide a thorough review of the health financing situation in the country and inject new energy into achieving identified priorities. Stakeholders deliberated on the challenges faced and proposed potential actions that are needed to strengthen the health financing system. The health financing forum was ended with commitments by the MOH, presented by the Chief Director of the Ministry of Health. He took into consideration the forum’s recommendations and assured participants of the MOH’s

commitment to develop plans for implementation. Specifically, the Chief Director made the following commitments along the four thematic areas of the forum.

4.1.2 MOH Commitments on Resource Mobilization and Donor Transition

- Revise the health financing strategy to include a resource mobilization strategy that will guide mobilization of additional resources for health
- Advocate for increased allocation from the Ministry of Finance
- Explore the mobilization of additional resources for health from alternative sources that include sin/health taxes, and oil revenue
- Identify and implement measures to enhance the efficiency of the health system and unlock efficiency gains
- Deepen the engagement with the private sector to explore the potential for mobilizing additional resources from the private sector
- Take leadership in the coordination of donor support and transition plans

4.1.3 MOH Commitments on PFM reforms

- Harmonize and integrate the budgeting process across MOH and its agencies
- Enhance the adoption and implementation of all GIFMIS modules across MOH, its agencies and levels, as well as for all funding sources including donor funding, statutory funds etc
- Enhance the alignment between the budget and the procurement plan
- Invest in the infrastructure required for GIFMIS implementation (GIFMIS Strategy)- this includes internet access and bandwidth, and hardware
- Invest in capacity development for users of GIFMIS

4.1.4 MOH Commitments on PHC and sustainable financing

- Enhance NHIS benefit package to prioritize primary healthcare
- To increase investments in PHC to strengthen their capacity to deliver quality healthcare services – this includes financial, human resource, and infrastructure capacity
- Reform provider payment mechanisms for PHC to incentivize efficiency and quality and ensure financial autonomy (decentralisation)at the district level to facilitate optimal resource allocation

- Enhance the linkage of levels within the district health system (network of practices) to strengthen oversight and care integration

4.1.5 MOH Commitments on NHIS reforms for UHC

- Optimize benefit package development by incorporating a systematic, transparent, inclusive, benefit package development process that employs health technology assessment
- Enhance the use of data analytics to inform management decisions
- Re-engineer its systems to enhance the ease of member enrolment and renewal of membership
- Implement measures to improve operational efficiencies that will reduce its administrative costs
- Scale the E-claims system to improve the efficiency of the claims processing
- Enhance the integration of key information systems (financial, claims, membership) within the NHIS to improve efficiency of operations, and across the health system – e.g. with DHIMs

The discussions at the forum were well timed to align the country’s health financing strategy with the UHC roadmap (2020-2030). Decisions taken at the forum were expected to help shape the new health financing strategy as well as the on-going UHC Investment Case/Prioritized Operational Plan-Costing (POP-C) and pave the way for a smooth transition from donor support whilst ensuring financial and programmatic sustainability. WHO is currently supporting the Ministry of Health to incorporate the recommendations into the UHC Investment case and eventually revise the national health financing strategy by December 2020 to ensure that Ghanaians have timely access to quality health services irrespective of their ability to pay at the point of use.



4.2 Essential Drugs and Medicines

4.2.1 Celebration of the First World Patient Safety Day

The first World Patient Safety day was observed in Ghana on the 17th September 2019 with the opening of National Conference on Patient Safety and Healthcare Quality which took place from the 17-19 September 2019. The Ghana Health Service in collaboration with the Ministry of Health, agencies and Health Partners, such as WaterAid and Systems for health and WHO organized this conference to contribute to the Global effort in achieving Quality Universal Health Coverage by 2030. The conference created a platform for all stakeholders to discuss Patient Safety and Healthcare Quality across Clinical, Public Health and administrative considerations in relation to Water, Sanitation and Hygiene (WASH) as well as Infection Prevention and Control (IPC). The theme for the conference was: 'No Quality, No Coverage'; WASH/IPC in all Healthcare Facilities now'. Awareness raising campaigns were organized all around the country in health facilities with the hanging of orange balloons to commemorate the day.

The day brought stakeholders together in an effort to reduce the unintended harm caused by healthcare. No one should be harmed in health care. And yet thousands of patients in the world suffer avoidable harm or are put at risk of injury while receiving health care every single day. Patient safety is the prevention of harm and the reduction of risk of injury and errors in health care.

In high-income countries, it is estimated that 1 in 10 patients is harmed while receiving hospital care. The available evidence suggests that 134 million adverse events occur annually in hospitals in low- and middle-income countries, contributing to 2.6 million deaths every year.

The Deputy Minister for Health speaking on behalf of the Minister at the opening ceremony said government was developing a road map policy on Universal Health Coverage, which includes actions on patient safety to improve the health of the citizenry because many patients suffer avoidable harm or were put at the risk of injury while receiving healthcare. He announced that Ghana, Ethiopia and South Africa were among African countries selected to model the Africa initiative involving 10 hospitals and it was aimed at reducing avoidable harm by 25 per cent in two years. The Minister of Sanitation and Water Resources, Honourable Cecilia Abena Dapaah, said

government was committed to providing the needed technical support to improve sanitation especially in the health sector and urged health practitioners to ensure proper management of sanitation at the hospitals to improve healthcare delivery.

The WHO Representative Dr Owen Laws Kaluwa in his message from the Regional Director, WHO/AFRO, said that the WHO Regional Office for Africa recognizes and places high importance on patient safety to ensure that it has the rightful prominence within health care in the region. He said that there are many challenges in strengthening health systems to ensure patient safety in the region: (1) there is a lack of national policies, strategies, standards, guidelines and tools on safe health-care practices, and ineffective implementation where they exist; (2) inadequate funding; (3) inadequate human resources for health, weak health-care delivery systems with suboptimal infrastructure, poor management capacity and under-equipped health facilities; and (4) ineffective mechanisms for forging strong partnerships to adequately involve patients and civil society in the improvement of patient safety. He called on all stakeholders to make strong commitments, prioritize and take early action, and support the implementation of strategies for ensuring patient safety, managing risks and fostering supportive, learning cultures.

In concluding his remarks, he emphasized the point stated by the WHO Director General Dr Tedros Adhanom Ghebreyesus: “No one should be harmed while receiving health care, Patient harm in health care is unacceptable” and said that WHO is calling for urgent action by countries and partners around the world to reduce patient harm in health care as part of the journey towards Universal Health Coverage.

4.2.2 World Antibiotic Week Celebration

The 68th World Health Assembly (WHA) in May 2015 endorsed the Global Action Plan (GAP) to tackle the growing problem of antimicrobial resistance (AMR). AMR poses threat to food security and achievement of Sustainable Development Goals (SDGs). Access to safe and effective antimicrobials could become a challenge and hence, a barrier to attaining Universal Health Coverage (UHC); because of treatment failures due to resistance.

In 2017, the Ghana National AMR Platform, the MoH and other implementing ministries with support from development partners, developed and launched a national Policy and a 5-year

National Action Plan (NAP) with monitoring and evaluation on antimicrobial use and resistance in line with the five strategic objectives of the GAP in one health.

Awareness creation is the first key objective of the GAP, aimed at improving understanding of antimicrobial resistance (AMR) through effective communication, education, and training. Annually the month of November is set aside to celebrate the World Antibiotic Awareness Week (WAAW) globally.

The theme for the 2019 WAAW celebration: “*The Future of Antibiotics Depend on all of Us*”, brought to bear the need to focus on infection prevention and encourage basic interventions to prevent and control infections. For Ghana, in addition to creating awareness, the 2019 celebration also aimed at building the capacity of the private sector, CSOs and media professionals with in-depth knowledge and understanding of AMR issues for effective and accurate reporting in one health. The contributions of these group of cadres is clearly recognised by the NAP

a. Official launch of WAAW celebration

The Minister for Health, Hon. Kwaku Agyeman Manu officially launched the year’s celebration, calling on all to put in resources to implement the NAP. He charged the regulatory agencies to enforce existing laws and also come out with new legislations with punitive measure to fight irresponsible use. He further requested the AMR Platform to extend the community durbar activities to Dormaa-Ahenkro in the Bono region; the poultry hub of the country.

Dr Neema Rusibamayila Kimambo; the Acting WHO Country Representative reiterated WHO’s support to address the challenge of AMR by implementing the one-health national action plans. She commended Ghana for developing a national policy and an action plan that has received attention from the President of the Republic of Ghana. She urged the government of Ghana to further resource national plans, strengthen AMR governance and facilitate multi sectoral collaboration. Dr Neema Kimambo said, “Working together, and taking a holistic approach to safeguarding antimicrobials, will help to ensure that we can all look forward to a healthier future”.

The Chief Director of the Ministry of Environment, Science, Technology and Innovation encouraged the practice of keeping the environment clean, using only prescribed antimicrobials, washing hands regularly and safe disposal of waste among other things to help fight against AMR.

Other dignitaries and representatives from the Ghana Health Service, FAO Ghana and Regional Office for Africa, the World Organisation for Animal Health (OIE), Ministry of Environment, Science, Technology and Innovation and National AMR Platform made statements to commemorate the celebration.

b. Capacity building for media practitioners in health on AMR reporting

Twenty-five media practitioners from print, radio, television and online media houses, with biases in health, food and agriculture, and environment reporting, received training on accurate reporting of AMR issues in a two-day residential workshop. The workshop equipped media practitioners with in-depth knowledge and understanding of AMR issues for effective and accurate reporting in one health. Strengthened partnership as well as a long-term working relationship was established with this cohort of media practitioners for AMR reporting. Training was facilitated and technically supported by WHO, FAO, a media consultant and the PROs of implementing ministries.

c. Private Sector Engagement Workshop on Antimicrobial Use and Resistance

Sensitisation activities on AMR have in the past, mainly been within the formal public sector. A one-day workshop was organised to educate participants who are not core health persons, and practice in the private sector. Presentations focused on the responsible use and the dangers involved in the misuse of antimicrobials, the roles and the linkages between the three main sectors and the need for one health approach in tackling AMR.

Sixty participants made up of representatives of women in poultry farming, veterinary drug sellers, over-the-counter-medicines-sellers, animal feed millers, animal farmers, veterinary services division, AMR platform, policy makers and the Environmental Protection Agency participated with technical and financial support from WHO and FAO.

d. Community Durbar and Health Screening

Health Keepers Network (HKN) and the Hope For Future Generations (HFFG); non-governmental organizations, partnered the AMR WAAW Planning Committee for public education through community durbars and health screening. The outdoor event organised by the HKN attracted over 250 community members including traditional, district and opinion leaders, and the GHS at Teshie Salem, a suburb of the Greater Accra Region, Ghana. Effective hand washing, responsible use of

antibiotics, environmental cleanliness and good health seeking behaviour were demonstrated through role-play and education in the local language. HFFG embarked on a similar mission among 480 community members including over-the-counter medicine sellers and women in mining communities of Tarkwa Nsaem Municipality in the Western Region of Ghana. The sensitization program was integrated into existing community interventions on sexual and reproductive health including HIV prevention as well as Water, Sanitation and Hygiene program activities implemented by HFFG in the municipality.

e. Schools and organized groups education on AMR

The regional wings of the Pharmaceutical Society of Ghana (PSGH); the professional group of registered Pharmacist in Ghana continue to partner in the annual celebration of WAAW. The PSGH effort has always been in the group spaces such as religious gatherings, schools, lorry stations and market places, educating on AMR and the dos and don'ts of antimicrobial use.

f. Media engagements on AMR activities

The public relations officers of the FAO and the MoH collaborated with the WAAW Planning Committee and the PSGH to engage the media; television and radio for air time, to educate and sustain the awareness activity throughout the month and beyond. The Committee put together resource persons drawn from the AMR Platform in one health, based on expertise and language of preference for public education on AMR.

At the end of the activities planned for the week, a cohort of media and private organizations within food and agriculture, health and environment were trained and provided with information, education and communication materials to support and appropriately communicate the dangers of AMR and responsible use of antimicrobials in the media and the public.

4.2.3 Structured Operational Research Initiative (SORT IT)

At the start of 2019, the Special Programme for Research and Training in Tropical Diseases (TDR), launched the SORT IT programme focusing on tackling AMR in Ghana. This Structured Operational Research Initiative (SORT IT) is implemented in one health in collaboration with ministries of health and various partners.

SORT IT supports countries to build sustainable capacity to conduct and publish operational research and use the evidence for informed decision-making to improve public health. The goal is to make countries “data rich, information rich and action rich”

SORT IT’s approach to AMR is aligned with the strategic pillars of WHO’s Global Action Plan on AMR which include improving awareness, strengthening knowledge through surveillance and research, reducing the incidence of infection, optimizing the use of antimicrobials, and developing the economic case for sustainable investment.¹

WHO/TDR earlier in the year engaged the Ghana National AMR Platform to select candidates for the African regional course based on the standard SORT IT eligibility criteria. This exercise was to ensure ownership, responsibility, supervision and eventual research uptake.

Four candidates were successful in their application and included in the Africa regional training held in Entebbe, Uganda. These candidates have successfully completed modules one and two of the program. WHO country has provided candidates with technical and some funding support to candidates to complete field-work. Candidates were also given the opportunity to present and engage the larger National AMR Platform. Below are the participant’s details and research protocols. They will be completing their work in 2020 per the TDR course module.

Participant details	Protocol title
1. Lady Adomako Female, MPhil Environment Chief Technical Officer, CSIR Water Research Institute, Ministry of the Environment	Wastewater released into the Onyasia stream by a sewage treatment plant in Accra, Ghana: what are the bacterial loads and antibiotic resistance profiles?
2. Regina Banu Female, MPhil Environment Chief Scientist, CSIR Water Research Institute, Ministry of the Environment	Prevalence of Escherichia coli and Extended Spectrum Beta Lactamase Escherichia coli in environmental hotspot sources from two sentinel cities in Ghana
3. Wisdom Adeapena	Characterizing antibiotic use in a Municipal Veterinary clinic in rural Ghana.

<p>Male, BSc Public Health</p> <p>Research Officer, Kintampo Health Research Centre</p>	
<p>4. Godfred Saviour K. Azaglo</p> <p>Male, MSC Environment, Environmental Protection Agency, Ghana</p>	<p>Assessing the presence and antibiotics resistance profile of bacterial isolates in ambient air in urban Accra, Ghana</p>

1. <https://www.who.int/tdr/news/2019/or-on-frontline-to-fight-amr/en/>

5.0 Public Health Emergencies, Preparedness, Surveillance and Response

Public Health Emergency, Preparedness and Response

WHO's support for Public Health Security in Ghana in the context of 2005 International Health Regulations (IHR) remains unflinching. In 2029, the country's capacity to prevent, detect and promptly respond to health emergencies to mitigate devastating consequences was strengthened on multiple fronts leveraging technical assistance and resources from CDC, Norway Institute of Public Health, the country office, WHO AFRO and HQ.

Capacity was built in integrated diseases surveillance and response, chemical emergency preparedness, One Health and outbreak response among others

Key Activities, Outcomes and Achievements

5.1 Integrated Disease Surveillance and Response (IDSR)

5.1.1 Rapid Response Team Training in Regions/Districts

In the bid to ensure availability of adequate human resources for public health emergency preparedness and response across Ghana, national, regional, district and facility level staff were trained to be part of Rapid Response Teams RRT at the various levels. A total of 40 regional RRT staff were first trained as trainers to cascade training for four hundred and three (403) district level RRT members, comprising Surveillance Officers, Clinical staff, Animal and Environmental Health Officers from 62 districts in 10. The interactive training involved table top simulations exercises and case studies to enhance the practical operations of RRTs.

This has led to creation of a core pool of competent technical persons to serve as first responders within each level of the rapid response structure. A database of trained RRT members has also been developed for rapid deployment to other districts/regions when the need arises.

5.2 Simulation Exercise (Simex) in Eastern Region

WHO supported a full-scale simulation exercise in the Nsawam-Adoagyiri District, Easter Region to provide real time experience in activation and deployment of the District RRT in response to a public health emergency at the district level. The Simex code named *EXERCISE RED ALERT* tested the municipality's response to a Viral Haemorrhagic Fever (VHF) outbreak and covered

triaging and isolation, case management, IPC practices, contact identification and follow up, and risk communication

The trained RRT members from districts and regions who participated in the Simex as evaluators and observers gained much practical insight learning from the strengths and lapses as the simulated activities rolled out. A framework was developed to work on the gaps identified in the exercise. The visiting regional teams have also been motivated to replicate such hand-on capacity building activities on their own.



A scene from the simulation exercise in Nsawam, Eastern Region

5.3 EOC study tour to Tanzania

On the back of recommendations from the 2017 Joint External Evaluations (JEE) and subsequent activities set out in the National Action Plan for Health Security (NAPHS), WHO remains committed to strengthening response structures to events of public health importance in Ghana including a fully functioning National Emergency Operation Centre (EOC). The EOC serves as the fulcrum for technical coordination of public health emergencies in the response structure.

To strengthen Ghana's EOC set up, WHO supported a study tour for Senior Public Health Officers and Information Technology Specialist to the Public Health Emergency Operation Centre in Tanzania to acquire firsthand knowledge about their operations. The valuable lessons learned from the tour have come in very handy to augment the function of the Ghana EOC as evidenced by the able coordination of the response for the COVID-19 preparedness and response activities.



Ghanaian delegates with the Minister of Health Community Development Gender Elderly Children (MoHCGEC) of the United Republic of Tanzania during the EOC tour in Dodoma, Tanzania

5.4 IDSR 3 Technical Guidelines and Training Manual adaptation

The WHO continues to support the implementation of strategies and policies to ensure rapid detection, containment and appropriate response to epidemic prone diseases, events and conditions of public health importance to safeguard global health security by strengthening capacity in IDSR.

To this end, the country office equipped district level staff with skills in surveillance, data analyses, reporting, investigation of public health events and response. The training using the One Health approach (covering human, animal and environment health workers) will ensure that public health occurrences in any of these domains will be addressed holistically.

Ghana Health Service was also supported to adapt the IDSR 3rd edition technical guidelines and training manuals which emphasizes an all hazards One Health approach to public health

surveillance including chemical events. WHO looks forward to supporting the roll out effective trainings on the revised strategy.

5.4.1 IDSR training in Ashanti Region

Over 125 district level staff of the Ghana Health Service, Veterinary Services Directorate and the Environmental Health Directorate from 5 districts in the Ashanti Region were trained in Integrated Disease Surveillance and Response strategy for Ghana.

5.5 One Health

5.5.1 Institutionalising One Health in Ghana

One Health Technical Working Group (TWG)

While there exists some level of collaboration between the human, animal and environmental sectors, it was ad-hoc and on an informal basis. Recognizing the need for the formal collaboration between the sectors to achieve higher health outcomes, the WHO supported the establishment and inauguration of a multi-sectoral One Health Technical Working Group with NADMO serving as the secretariat.

The TWG has further been provided technical and financial support to spearhead the drafting of a One Health policy. The policy when adopted will streamline the institutionalisation of One Health in various aspects including disease surveillance and response, research, advocacy and project implementation. The draft policy has received inputs from over 90 stakeholders across various sectors in the country through consultative sessions to ensure the final document is national in nature and has the buy-in of all sectors to facilitate operationalisation.



Courtesy call of the One Health TWG on the Chief Director of the Ministry of Fisheries and Aquaculture Development, Accra.



One Health TWG members with former WR of the WHO Ghana after the outdooring of the TWG

5.6 Building capacities for Chemical Emergencies

5.6.1 National awareness creation/advocacy on Chemical Emergencies

Ghana's National Action Plan for Health Security (NAPHS) sets out a roadmap for expanding Ghana's capacities to respond to public health events in an all-hazards approach as required under the International Health Regulations (IHR, 2005). While Ghana has a robust surveillance and response system for infectious diseases, previous assessments identify weakness in surveillance and response to chemical emergencies.

WHO has supported the GHS to develop a health sector preparedness and response plan for chemical events/emergencies which will be consolidated with other sector-specific plans into the national multi-sector chemical events plan.

Additionally, the WHO has also provided IT equipment including smart phones, laptop and desk top computers to the Ghana Poison Control Centre (PCC). The equipment has enhanced data capture and analysis at the PCC and eliminated the challenges associated with paper-based data collection. The improved data processing will allow for identification of priority poisoning events and guide the functioning of the PCC.



Donation of IT Equipment to the Ghana Poison Control Center

5.6.2 Case Studies for UG SPH

To support capacity building on Chemical events, the WHO in collaboration with NIPH and Public Health England (PHE) supported the development of case studies for the chemical events/ environmental surveillance curriculum for the Ghana Field Epidemiology and Laboratory Training (GFELT) program at the University of Ghana School of Public Health (UGSPH).



Group work during the chemical preparedness module workshop

The case studies, which incorporate the local context and use relevant historical events, complement training materials for the course which were jointly developed by WHO, NIPH, PHE and UG SPH. The case studies bring home environmental and human exposure to unknown chemicals and equip the residents with the needed skills for epidemiological thinking as well as cluster investigations in response to these events. A training in the chemical events/ environmental surveillance module was subsequently organized for 30 current students and alumni of the GFELT program.



A session at the chemical preparedness module workshop

5.6.3 Capacity building for chemical events preparedness and response

To ensure the availability of capacity to identify and adequately provide initial response and risk assessment to chemical events/emergencies, WHO in collaboration with the NIPH, supported the development and validation of a Rapid Risk Assessment (RRA) tool for chemical events/emergencies with a broad range of stakeholders from the health sector to petroleum industries.

The RRA tool has already been put to use in the training of 40 district and regional level Rapid Response Team (RRT) members in 6 districts across Ashanti, Volta and Western Regions in its application. The training has built a critical mass of health professionals with competences in environmental surveillance to augment capacities in infectious disease surveillance.

5.7 Meningitis

5.7.1 Meningitis surveillance in UWR

Outbreaks of meningitis are a common occurrence in the northern part of Ghana especially in the Upper West Region. In 2019 by the end of the meningitis season at week 31, 757 cases, 21 deaths and case fatality of 2.8% compared to 843 cases, 60 deaths CFR 6.9% over the same period of 2018.

WHO supported meningitis preparedness with the provision of laboratory diagnostic and sampling logistics including lumbar puncture (LP) kits which contributed to the achievement of over 90% LP rates. Support from WHO also enabled a visit by a national team to Upper West to review case

identification practices, provide orientation on Meningitis Case-Based Surveillance SOP and address challenges in surveillance for better response to meningitis outbreaks.



Upper West Region health staff in meningitis case identification orientation

5.8 Influenza

Documentation of best practices- influenza sentinel surveillance

For more than a decade, Ghana has been implementing sentinel surveillance for acute respiratory infections (ARIs) which is a key component of Ghana's surveillance system in collaboration with the National Influenza Center (NIC) at Noguchi Memorial Institute for Medical Research. WHO support includes capacity strengthening of the NIC staff and influenza sentinel sites.

There is a lot to learn from Ghana's influenza sentinel surveillance having been set up and operational since 2007 however there is no documentation on the experiences of the system. To address this gap, WHO commissioned the documentation of best practices of the system to highlight the successes, challenges and lessons learnt in the implementation. The exercise highlighted practices related to case detection, completion of associated forms, sample collection and shipment, dissemination and analysis of results which will be leveraged to improve the country's surveillance system and also be a resource for systems in other countries with similar settings.



Dr Ivy Asante, virologist at the National Influenza Centre coordinates

Table 2. WHO Support for IHR, IDSR, public health emergency and preparedness

Area of support	Objective	Achieved	Output
Coordination and Health Systems strengthening	Provide technical expertise to support coordination of preparedness and response activities and health systems strengthening	One Health TWG platform established	Draft One Health policy to institutionalize OH collaboration developed
		New IHR NFP trained on new State Parties Self-Assessment Annual Report	2019 annual SPAR platform completed and submitted timely
		National coordination mechanism activated for IHR implementation	Multi-sectoral IHR Steering committee meeting supported to coordinate IHR implementation in Ghana
		Coordination of response to chemical emergencies strengthened	Health sector Plan for chemical emergencies developed
		Public Health Emergency Operation Center (PHEOC)	7-member team benefits from Tanzania EOC study tour to enhance Ghana EOC operations
Surveillance	Build capacity in surveillance, case investigation, contact tracing and data management	Surveillance strengthened through technical support visits and on the job coaching	Supportive supervision visits to 20 districts implementing IDSR and 30 districts implementing CBS across the country conducted. Timeliness and completeness of weekly IDSR reporting generally above 90% in all districts
		Capacity built in Integrated Disease Surveillance and Response (IDSR)	Technical guidelines and training manuals of the 3 rd edition of the IDSR strategy adapted to country context
			125 male and female disease control, laboratory, veterinary and surveillance officers, facility and community health workers, from 6 districts in Ashanti Region trained to monitor and interpret data to early detect, report and respond to events
Laboratory	Support laboratory operations	Meningitis diagnostic capacity enhanced	Meningitis laboratory reagents and logistics including 653 transport medium bottles, 37 boxes of spinal needles supplied to 4 regions for timely diagnosis and case management
		National Influenza Centre (NIC), Noguchi supported	Capacity of 2 virologists from Noguchi NIC augmented in influenza surveillance bioinformatics

		Influenza Sentinel Surveillance supported	Support provided for the transportation of over 450 specimens from 10 sentinel sites to NIC to ensure the smooth running of the influenza sentinel surveillance system
Case management	Support case management	Meningitis case review supported and orientation for health staff supported	48 health staff including clinicians oriented on appropriate meningitis case identification and management

6.0 Staff Movement

- During the year under review, the Country Representative, Dr Owen Laws Kaluwa ended his 4-years duties in Ghana and was reassigned to South Africa as the Country Representative. In that same year Dr Neema Rusibamayila Kimambo, assumed office as the Acting Country Representative in Ghana