



World Health
Organization
GHANA

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EXECUTIVE SUMMARY

The WHO Country office for Ghana held a four-day staff planning retreat in March at the Aqua Safari Beach Resort in the Greater Accra Region under the leadership of the WHO Representative, Dr Owen Laws Kaluwa. The staff outlined priorities and strategies to strengthen WHO's contribution to the national health agenda during the year.

They also developed action plans on the 4 thematic areas of the Transformation Agenda – (i) Ethics, Pro-Results values (ii) Smart Technical focus, (iii) Strategic Operations and (iv) Effective Communication and Partnership to facilitate its implementation in Ghana.

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 Strengthening, (v) Preparedness, Surveillance and Response, (vi) Corporate services and enabling functions. Notable among the support provided during the year were:

1. Technical assistance was provided to build capacity and instructional at all levels. The following are some of the achievement from the support provided:

- The capacity of the country to prevent, detect and respond to public health emergencies was enhanced. The Meningitis and cholera outbreaks were successfully controlled thereby minimizing morbidity and mortality. Forty health workers from 10 regions have skills and capacity to conduct proper surveillance and 800 persons from 37 districts and 75 multi-sector teams now have the skills in Rapid Response Team activities.
- Ghana achieved 84.8% coverage for Meningococcal A Conjugate Vaccine in the first full year of introduction
- Ghana successfully received approval to pilot RTS,S Malaria Vaccine in routine immunization
- As part of efforts to contain resistance to commonly used antimicrobials, the Ministry of health, the Ministry of Food and Agriculture and the Ministry of Environment together with WHO, FAO, OIE and other stakeholders developed an Antimicrobial Resistance Policy together with a National Action plan. A surveillance system for monitoring antibiotic consumption has been put in place in all the regional hospitals.

- The Maternal Death Surveillance and Response system for Ghana was assessed leading to recommendations for strengthening and expanding the system and focus on quality of care improvement. Ghana has since committed to be part of the Global Network to improve quality of care for maternal and newborn health and a baseline has been provided for the Ghana Health Service/Ministry of Health for plans to improve MDSR in the country.

- To reduce risk factors for NCDs, Smoking Cessation Clinical Guidelines for Ghana and Tobacco Control Regulations, Legislative Instrument 2247 was successfully passed by Parliament. A national alcohol control policy was developed and launched.

- WHO in collaboration with Ghana Health Services secured funding under the Strategic Approach to International Chemical Quick Project (SAICM QSP) for a two year project (2015-2017). The objective of the project was to strengthen country systems to manage public health impacts of chemicals generated by or used in the oil and gas sector. Chemical release scenarios were developed which enriched the evidence base regarding health risks associated with chemicals used in the extractive industries. The project also developed a model framework and self-assessment tool and trained 45 stakeholders in the occupational, public health and clinical management of chemical incidents associated with the extractive industry.

In addition, financial support, amounting to US\$1,416,034 was released through the direct financial cooperation (DFC) for implementation of programmes.

The country office owes a debt of gratitude to office of the Regional Director (AFRO), 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 2017. The country office hopes to work with the same team spirit and enthusiasm in the year 2018 and beyond.

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1.0 Introduction

This report details the work of WHO in Ghana in 2017. The report highlights the delivery of results achieved in supporting the Ministry of Health and its Agencies and collaborating with Partners to improve health outcomes in Ghana. The WCO Ghana provides support by adapting and disseminating norms and standards, providing technical assistance to develop or update national policies and plans for cost effective health interventions, strengthening national capacity to implement and monitor activities, advocating for investment in health and fostering partner collaboration.

The report is presented according to the 6 categories of the 12th Global Programme of Work (GPW), namely:

- 1) Communicable Disease
- 2) Non-Communicable Disease
- 3) Promoting Life through the Life Course
- 4) Health Systems
- 5) Preparedness Surveillance and Response
- 6) Corporate services and enabling functions



SIGNIFICANT ACHIEVEMENTS BY CATEGORY OF WORK

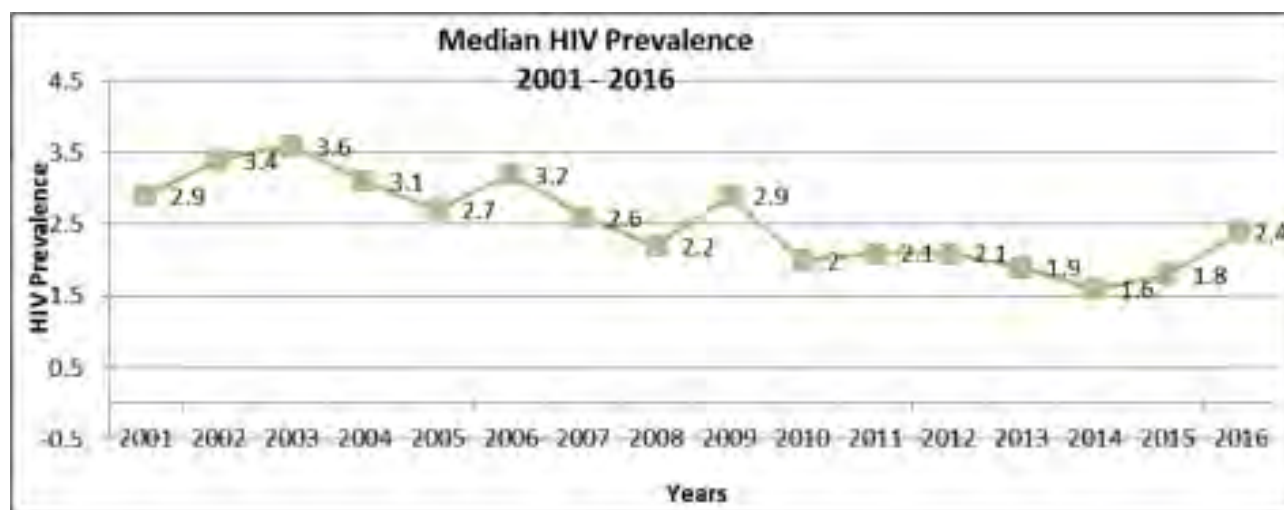
Category 1: Communicable Diseases

HIV/AIDS

The national HIV prevalence in 2017 was 1.7% in the general population and 2.1% among ANC attendants an increase over 2016 prevalence of 1.6% in the general population. There is however a general decline in HIV prevalence over the past 10 years as depicted in the Figure 1. There was an estimated 310,000 Persons Living with HIV (PLHIV) in 2017 out of which 28,000 were children 0-14 years of age. There were 19,000 new infections also an increase over 2016 new infections of 12,803. Of the 19,000 new infections, 3,400 (18%) were children 0 -14 years and of the 16,000 HIV deaths, 2,900 (18%) were children under 14 years of age (NACP 2017).



Fig. 1: Median HIV Prevalence



HIV Testing and Treatment Services

HIV testing, treatment and care services improved slightly in 2017 after the introduction of the Treat All and task sharing policies. In 2016, proportion of PLHIV knowing their status was 45%, proportion on antiretroviral medicines (ARVs) was 34% and proportion virally suppressed is yet to be established (NACP Service Data, 2016). In 2017 there was however, a slight improvement with number of persons tested increasing from 1,023,048 to 1,271,347 persons (NACP Service Data, 2017). Elimination of Mother to Child Transmission of HIV (e-MTCT) services improved slightly with 10,568 of the 15829 HIV positive pregnant women (67%) on ARVs over the period.

WCO provided continuous technical support for the implementation 90-90-90 Roadmap to achieve the targets of the National Strategic Plan 2016 -2020 through policy guidelines, norms and standards in line with WHO recommendations. The Ghana 90-90-90 Roadmap seeks to get 90% of all PLHIV know their status, 90% of these on ARVs and a further 90% of these with viral suppression. The roadmap is implemented within the "Treat ALL policy" which was successfully scaled up to all regions in the country in the year. To improve access to universal and quality HIV testing services and antiretroviral therapy, WCO supported the National AIDS Control Program (NACP) to revise the HIV testing algorithm in line with WHO recommendations and again to develop a Differentiated Model of Care for HIV management,

implementation of which WCO is supporting in collaboration with USAID. To address the extensive human resource implications for Treat All policy and ensure geographic access to ART and at all levels, WCO supported the NACP to implement the task sharing policy in 2017 after a baseline study in 2016. These efforts led to an increase in HIV testing from 1 million in 2016 to 1.2 million in 2017 and the increase in number of PLHW on ART increasing from 34% in 2016 to 40% in 2017. 12-month retention among PLHIV on ART remains more than 91% (NACP Service Data, 2017)

Key challenges and how to address them

Ghana has a low-level generalised HIV epidemic which calls for a strategic HIV testing approach for efficiency and high yield therefore to address this, the focus will be to support a review of the national strategy for testing services and come out with ideal testing approaches for maximum yield and impact. Technical assistance will also be provided for the adoption of the Duo HIV-Syphilis test kits for efficiency and for the dual elimination of HIV and Syphilis.

Tuberculosis

WHO provided technical assistance to the National TB Control Program (NTP) in the implementation of the End TB Strategy. There was a focus on improving case finding particularly at the clinic outpatients using a symptom screening tool. This activity is ongoing in all outpatient clinics in the country and has led to an increase in Gene Xpert utilization.

Management of Drug Sensitive TB generally has good outcomes however; management of MDR-TB has been much challenged with poor outcomes particularly with treatment defaulting and high mortality among these patients. The year ended with the detection of one Extremely Drug Sensitive TB (XDR-TB) which called for intensive WHO technical assistance for management of MDR TB in 2018.

Programmatic Management of Drug Resistant TB (PMDT)

WCO supported the NTP to adopt the WHO recommended shorter term regimen and through a consultant built the national capacity for the successful introduction of the Short Term Regimen (STR) for the management of MDRTB in 2017. This 9-11 months treatment regimen replaces the previous long term 20 months treatment. This new regimen has been scaled nationwide after receiving the full complement of medications. A joint supportive supervision

carried out in the year to two regions on the management of MDR TB cases revealed that, implementation and uptake of this new regimen is slow with a back log of MDR cases to be initiated on treatment. Focus therefore will be to reduce the long treatment initiation period.

Patient Cost Survey

One thrust of the End TB strategy is to reduce or eliminate the catastrophic costs incurred by many TB patients. To address this, the NTP was supported by WHO, Global Fund and consultants from the London School of Hygiene to undertake a nationwide patient cost survey in the year. The report of this very important survey which sought to determine the cost burden of TB treatment to patients and households, drivers of these costs and how to mitigate this burden was finalized. The study revealed that, the median cost for TB management was USD 455 translating into 64% catastrophic cost to patients for the 46% of TB cases living below the poverty line for Ghana higher than the 24% for the general population. A dissemination of this study has been planned for 2018 to be jointly supported by WHO and Global Fund.



Malaria

The overall malaria parasite prevalence reduced significantly from 27.5% (MICS 2011) to 20.4% (MIS 2016). Estimated outpatient malaria cases stagnated at 10448267 in 2016 and 10228988 in 2017 (World Malaria Report, 2017). However, there was a reduction in number of malaria deaths in all ages from 1264 in 2016 to 599 in 2017 (WMR 2017). Case Fatality Rate reduced significantly from 1.32% in 2010 to 0.20% in 2017. Implementation of Intermittent Preventive Therapy in Pregnancy has improved. The current IPT3 coverage of 59.6% (2016 MICS) is adjudged the highest in West Africa (PMI, 2017). The country has achieved an average Seasonal Malaria Chemoprevention (SMC) coverage of 92% over the past three years.

WHO continued to support the main prevention interventions and case management. One major support for the year was for the Mid Term Review (MTR) of the National Malaria Control Strategic Plan 2014-2020; the main goal of which is to reduce malaria morbidity and mortality by 75% by 2020 (using 2012 as baseline).



Programmatic Mid Term Review (MTR)

The main objective of this review was to ascertain the progress made with regards to the current malaria burden and trends in the context of the Sustainable Development Goals (SDGs), the Global Technical Strategy (GTS) targets as well as national targets.

This review was a major achievement for WCO. The next steps are to develop an addendum to the existing Plan which ends in 2020

Seasonal Malaria Chemoprevention (SMC)

Seasonal Malaria Chemoprevention (SMC) is a preventive malaria intervention where children 3-59 months are given full monthly treatment courses with Sulphadoxine-Pyrimethamine & Amodiaquine tablets during the rainy season. WCO supported the 2017 implementation by carrying a field supervision of the third round dosing which achieved 92% coverage.

Therapeutic Efficacy Studies of antimalarial medicines.

WHO recommends a two year efficacy studies of antimalarials (TES) as a critical component of malaria control programs. In Ghana, the Noguchi Memorial Research Institute in collaboration with WHO-HQ and WCO has been undertaking the studies for the country since 2003, the results of which have been informing the program in the area of case management. The results are also compiled into the global database. WHO has just produced a checklist for monitoring of these studies to ensure quality of processes. The TES studies are carried out every two years and 2017 happened to be a data collection year for Ghana. This technical mission was carried out as an interim assessment of the procedure and processes using the newly developed WHO checklist.

Technical assistance was provided on the field using the new WHO checklist. Best practices were identified and recommendations made.

Key challenges and how to address them

- Insecticide resistance development has affected all the current classes of insecticides.
- Lack of resources for scale up of:
 - Indoor residual spraying
 - Seasonal malaria Chemoprevention

- Low utilization of LLINs,
- Poor environmental practices leading to mosquito breeding.

WCO is supporting the NMCP to address these challenges. Technical assistance is being provided for implementation of the insecticide resistance management plan which WCO supported the development. The NMCP is engaging civil society to address behavioral change issues. WCO will continue to support the nationwide mass LLINs distribution with a major emphasis on public education.

2.4 Neglected Tropical Diseases (NTDs)

The Neglected Tropical Diseases (NTDs) endemic to Ghana fall into the following 2 groups:

(i) The Preventive Chemotherapy (PCT) diseases namely Lymphatic Filariasis, Onchocerciasis, Trachoma, Schistosomiasis and Soil Transmitted Helminthiasis mainly controlled by Mass Drug Administration (MDA)

(ii) The Case Management diseases comprising Buruli ulcer, Yaws, Leprosy and Human African Trypanosomiasis.



Children lined up for MDA

Support for MDA and NTD Surveys

WHO technical and logistic support for NTDs strengthens planning, research and surveys, surveillance and mapping and enables delivery of drugs for Mass Drug Administration (MDA).

The year 2017 was no exception. Through WHO's logistical support, more than \$5 million worth of drugs were applied for, cleared and delivered to enable MDA to be undertaken for lymphatic filariasis, schistosomiasis, onchocerciasis and soil transmitted helminths. Coverage of 80% was achieved among the targeted population in 2017.

Buruli Ulcer (BU)

Buruli ulcer usually affects poor people in remote areas causing considerable suffering to those with the disease. Ghana is one of the most affected countries with over 600 cases reported in 2017. Fortunately the study in Ghana supported by WHO and American Leprosy Mission which wrapped up in 2017 concluded that an 8-week combination of 2 antibiotics clarithromycin and streptomycin, was effective and safe treatment for patients. The outcome of patients is best when the early forms of the disease are timely detected highlighting the importance of BU awareness creation in affected communities.

WHO continued the ongoing support for the study assessing a BU rapid diagnostic test by researchers in the Chemistry Department, University of Ghana. If this test is found to be effective, it will reduce the waiting time for detecting BU in affected patients as diagnosis will be brought to the door steps of the patient to facilitate early initiation of treatment.

Human African Trypanosomiasis (HAT)

HAT, commonly known as sleeping sickness disease is transmitted through the bite of an infected tsetse fly. Ghana is on the verge of elimination status but requires documentation to show that despite an effective surveillance no cases are being identified. WHO in 2017 supported the setup of 5 more HAT sentinel surveillance sites in Mampong, Adidwan and Ejura (Ashanti region), Damongo (Northern regions and Wechiau (Upper West region) bringing to 11 the number of surveillance sites in the country. A total of 729 suspected HAT cases were tested in the sentinel sites in 2017 using a preliminary rapid diagnostic test (RDT).

Even though 10 were identified positive by the RDT, gold standard tests conducted in the WHO Collaborating Center in Burkina Faso ruled out HAT.

Yaws

Yaws is a skin NTD slated for eradication. The disease can be effectively cured with a single dose of oral Azithromycin however many children in rural poor and hard-to-reach communities in Ghana are still affected. The results of a WHO-supported study in Ghana released in 2017 concluded that the effectiveness of the lower dose of 20mg of Azithromycin which is used to treat trachoma is also effective against yaws which is conventionally treated with 30mg. These findings are of particular benefit as they simplify treatment for yaws and trachoma in countries co-endemic for both diseases. The quest for Ghana to achieve eradication was given a boost when EMS Pharmaceutical Group of Brazil pledged to donate Azithromycin for the eradication of yaws in 13 countries including Ghana is endemic for yaws. WHO supported the National Yaws Eradication program to develop an implementation plan which includes the estimation of azithromycin needs. This will enable Ghana to access Azithromycin free of charge for Yaws eradication.

Schistosomiasis

An instructor explains a point in the snail control training
Schistosomiasis is a water-borne with a small snail as the intermediate host for the disease causing parasites. One of the symptoms of the disease is blood in the urine. Apart from giving drugs to school-aged children and adults in high risk affected areas as a preventive measure, the control of the intermediate host snail has been found to be a complementary strategy to interrupt disease transmission. With WHO support, Ghana now has a team trained in the needed skills for snail control activities to augment Schistosomiasis control in Ghana.

Onchocerciasis

Onchocerciasis or river blindness as the disease is commonly known, affects the skin and eye leading to severe itchy discolored skin and blindness respectively. The Ghana NTD Control with support from partners is working towards elimination of Onchocerciasis. To this end, the Ghana Onchocerciasis Elimination Committee has been established to guide the process. WHO technical support to this committee makes available guidance on appropriate processes and documentation to prove elimination.

Lymphatic filariasis

Elephantiasis, the more commonly known name for lymphatic filariasis (LF) is manifested as swollen parts of the body such as lower limbs. This may be associated with challenges with mobility, stigma and pain reducing quality of life. Morbidity management is a key aspect of care for affected people. In 2017, NTD program staff benefitted from morbidity management and disability prevention training to strengthen services for LF patients with the ultimate aim of improving their physical and psychological outcomes. Capacity was also built in synergising LF survey protocols with that for soil transmitted helminths to enable efficient use of resources when conducting surveys to assess whether cycles of MDA have been successful in interrupting disease transmission.

WCO facilitated the shipment of 2430 Lymphatic Filariasis (LF) Test Strips used in LF monitoring surveys to Central African Republic to enable completion of CAR LF mapping

Guinea Worm Eradication Programme

WHO supported GHS/GWEP to carry out a survey in the last 5 formerly endemic regions in view of the emerged infection of GW disease infection in Dogs and Pets in the last remaining endemic countries in AFRO.

WHO supported joint Field and visits to 3 regions (Ashanti, Brong Ahafo and Northern) during the year to discuss post certification activities in the regions

Absence of GW infection in Dogs' and Pets in confirmed in Ghana. The survey conducted from February-March 2017; teams visited 261 formerly endemic communities and interviewed members in 2610 households in 41 districts

Rumour registry: All regions reported at least a rumour in 2017. A total of 82 rumours were reported of which 80 were investigated within 24 hours (97%). A total of 94% of Health Facilities did report on GW during the year 2017

Key challenges and how to address them

Low rumour reporting from regions was addressed by a circular from DG/GHS on the need for all levels to document rumours a requirement of our post certification status.

2.5 Vaccine Preventable Diseases (VPD)

The WHO supports the Ministry of Health and the Ghana Health Service (GHS) in the implementation of immunization and disease surveillance activities. These are done 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) that comprises supplemental immunization activities such as Polio NIDs and other vaccination campaigns and (iii) Vaccine Preventable Disease (VPD) surveillance. The support was aimed at sustaining the gains made over the years. These include (i) break in transmission of wild polio since November 2008 (ii) no documented death from measles since 2003 and (iii) maintain MNT Elimination since October 2011.

Preparation and Submission of Reports

WHO provided technical support for the preparation and finalization of reports. These reports were (i) the WHO-UNICEF Joint Reporting Form (JRF), (ii) Annual Progress Report (APR) for Polio Eradication Activities and (iii) Joint Appraisal Report (JAR) for GAVI. WHO also supported the completion and submission of the Vaccine Renewal Request to GAVI.

Strengthening of Routine Immunization

WHO supported the delivery of routine immunization in all ten (10) regions of the country. WHO provided technical support in the development of standardized training materials for the training of peripheral staff in Immunization Basics. Most of these trainings were supported through the WHO/CDC collaborative Second Year of Life (2YL) Flagship Project. As a follow-up to the baseline survey that was conducted in 2016, funds were distributed to the implementing regions to support immunization service delivery. These have contributed significantly to the increase in immunization coverage rates in general and interventions in the 2YL in particular. WHO again supported the mid-term survey of the 2YL project to assess the change in immunization outputs. The survey was jointly implemented by the WHO, GHS, CDC and the College of Health and Well-Being, Kintampo.

WHO supported the commemoration of the 2017 African Vaccination Week which was organized under the theme, "Vaccines protect everyone, get vaccinated". The week was commemorated to heighten awareness on immunization and generate demand. All regions and districts carried out activities to highlight the theme for the commemoration and provided services.

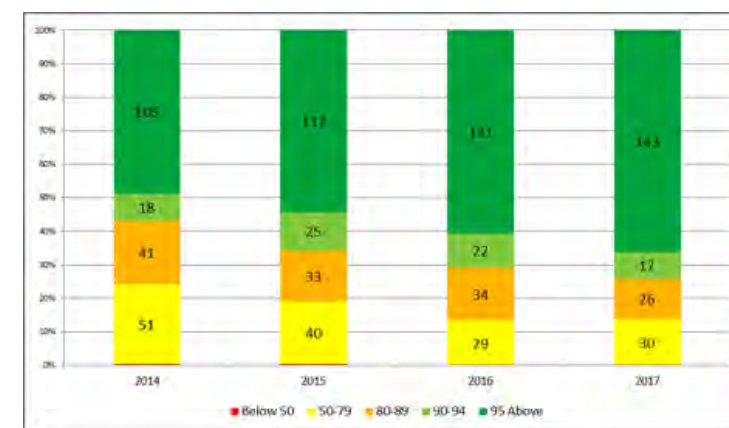
Through GAVI's Targeted Country Assistance (TCA), WHO supported the country to initiate the processes towards the establishment of the National Immunization Technical Advisory Group (NITAG). The Concept Note for the establishment of NITAG as well as the terms of reference (TORs) for the Group were developed. The TCA also enabled the WCO to provide supportive supervision to low performing regions and districts and provided technical support.

These activities resulted in an increased in routine immunization performance compared to previous years as shown in the table below;

Table 1: Trends in EPI Performance, 2014-2017

Antigens	2014		2015		2016		2017	
	No Vaccinated	% Cov	No Vaccinated	% Cov	No Vaccinated	% Cov	No Vaccinated	% Cov
BCG	1,122,322	103	1,063,417	95	1,171,338	103	1161227	100
Penta1	1,012,838	98	1,027,903	97	1,085,820	101	1111550	101
Penta3	981,952	95	1,012,362	95	1,060,040	99	1119742	102
OPV3	983,977	95	1,024,889	96	1,054,966	98	10330776	94
PCV-1	1,014,709	98	1,040,404	98	1,083,534	101	1108070	101
PCV-2	977,288	94	1,002,203	94	1,046,154	97	1085802	99
PCV-3	989,147	95	1,021,622	96	1,060,728	99	1117766	102
Rota-1	1,009,329	97	1,037,356	98	1,084,543	101	1100190	100
Rota -2	971,357	94	998,311	94	1,035,727	96	1069885	97
MCV-1	960,406	93	995,553	94	1,023,596	95	1040141	95
MCV-2	711,148	69	768,966	72	795,695	74	908,217	83
YF	952,384	92	1,014,378	95	918,745	85	947030	86
TT2+	679,344	62	725,439	65	732,734	65	744859	68

Figure 3: Penta-3 Performance by districts 2014-2017



Support for New Vaccines Introduction

WHO supported the country to develop and submit Ghana's application to Gavi for support to conduct Measles-Rubella (MR) Follow-Up Campaign in the whole country. The rationale for the campaign, which is scheduled for October 2018, is to sustain the gains made in the country's measles elimination efforts.

WHO and other partners supported the Government of Ghana to develop and present an application to participate in the pilot implementation of RTS,S Malaria Vaccine, dubbed, the Malaria Vaccine Implementation Pilot (MVIP). The pilot is to evaluate the feasibility of delivering the 4-dose RTS,S vaccine (Mosquirix) in routine setting, assess the safety of the vaccine and the impact. Vaccine deployment is scheduled for September 2018.

Accelerated Disease Control Activities

The Ghana Health Service (GHS) with the support of the WHO conducted a reactive vaccination campaign against H1N1 for students and tutors of Kumasi Academy Senior High School (KUMACA). This was in response to H1N1 outbreak that was confirmed in the school. The vaccination campaign was conducted on the 21 – 22 December 2017 at the premises of the school. WHO supported the planning of the campaign as well as the development of data collection and training materials for the reactive vaccination. WHO again participated in the training of vaccinators and supervisors prior to the vaccination campaign. A total of 80 community health nurses drawn from Asokore-Mampong Municipal and Kumasi Metro were trained for the campaign.

Support for Polio Eradication Initiatives

WHO supported the implementation of polio eradication activities in the country. The office provided both technical and secretarial support to the National Certification Committee (NCC), the National Polio Experts Committee (NPEC) and the National Taskforce for Laboratory Containment (NTF). Just as last year, the WHO supported

environmental surveillance assessment which is a crucial activity towards polio eradication. Through the support of AFRO and IST, the Country Office supported the monitoring of polio eradication activities in the country using the GIS-based technology. Through this monitoring, on-the-job coaching and trainings were provided to staff to improve the quality and coverage of immunization interventions.

Tables 2 and 3 show AFP surveillance performance for Ghana. Table 2 shows trends in AFP surveillance indicators from 2014 to 2017. From the table, the country performed better in 2017 than in previous years with non-Polio AFP rate increasing from 3.5 in 2016 to 4.28 in 2017. Stool adequacy also improved from 83% in 2016 to 88% in 2017.

Table 2: AFP surveillance Performance Indicators, 2014-2017

Indicator	2014	2015	2016	2017
Number of cases reported	376	352	468	562
Non Polio AFP rate	2.95	2.36	3.50	4.28
% Timely stools	88	87	91	91
% adequate stool	86	73	83	88
Number of Wild poliovirus isolated	0	0	0	0
Number compatible with Polio	24	24	29	26
Number discarded as non-Polio	338	277	422	528

Table 3 shows the 2017 AFP surveillance performance by region. From the table Ashanti and Greater Accra regions did not achieve the non-Polio AFP rate of 2. Greater Accra and Upper West regions also did not meet the target for stool adequacy.

Table 3: AFP Surveillance Performance Indicators, 2017

Region	Population Under 15 yrs.	Expected AFP	Reported AFP	Compatible	Discarded	Annualized Non-Polio AFP Rate	% Timely Stools	% Stool Adequacy
Ashanti	2,419,384	48	50	2	45	1.88	92	90
Brong-Ahafo	1,138,087	23	130	4	125	10.87	92	88
Central	1,145,118	23	44	2	41	3.57	86	86
Eastern	1,279,104	26	45	1	44	3.38	96	96
Greater Accra	2,085,500	42	42	5	37	1.76	88	88
Northern	1,272,079	25	48	5	42	3.36	90	79
Upper East	477,827	10	35	1	34	6.80	97	97
Upper West	336,414	7	22	1	20	5.71	86	77
Volta	1,057,533	21	36	1	35	3.33	94	92
Western	1,146,307	23	110	4	105	9.13	90	87
Ghana	12,357,352	247	562	26	528	4.28	91	88

Support for other Vaccine Preventable Diseases

WHO supported surveillance activities for other VPDs including measles, rubella, congenital rubella syndrome (CRS), Yellow Fever, neonatal tetanus, 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. The others were supported as part of the integrated disease surveillance and response (IDSR) system.

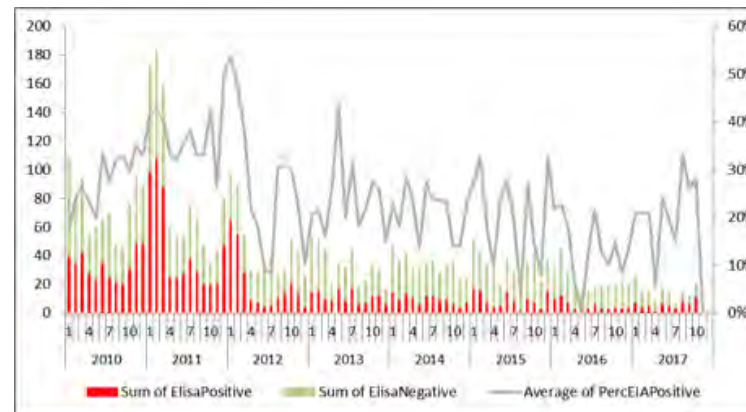
Table 4: Suspected and confirmed measles and rubella cases, 2011-2017

Year	Suspected cases		confirmed cases - (IgM+ve)		percentage (%) confirmed	
	Measles	rubella	Measles	rubella	Measles	rubella
2011	1744	1635	109	596	6.2	3.6
2012	1423	1134	289	335	20.3	29.5
2013	1081	762	319	168	29.5	22
2014	1039	918	121	39	11.6	4.2
2015	1034	1004	23	12	2.2	1.2
2016*	1218	788	32	11	2.2	1.2
2017	1055	1036	19	16	1.8	1.5

Key challenges and how to address them

1. Delays in vaccine procurement
2. Inadequate cold chain at the sub-district level
3. High numbers of unimmunized in the urban and peri-urban communities
4. Inadequate demand generation for routine immunisation
5. Weak monitoring and supervision
6. Weak data recording and reporting
 - a. Discrepancies between tally counts and monthly reports
 - b. Incomplete entries in DHIMS
 - c. Incomplete logistics data in DHIMS

Figure 4: Trends in confirmed rotavirus diarrhoea, 2010-2017



1. Ghana achieved over 95% coverage for Penta-3 with about 59,702 more children vaccinated in 2017 compared to 2016
2. The coverage for the second dose of measles increased from 74% in 2016 to 83% in 2017 with about 113,596 children vaccinated over the previous year
3. Non-Polio AFP rate of 4.28 is the highest ever rate achieved in the country
4. Incidence of rotavirus diarrhoea has reduced significantly following the introduction of the rotavirus diarrhoea vaccine

The above challenges will be addressed as follows:

1. Continuous dialoguing and advocacy with government for timely payment of cost of vaccines
2. The country will apply for Gavi's Cold Chain Equipment Optimization Platform (CCEOP) to address the cold chain gap
3. Identify the reasons for low uptake of immunization services in urban areas
4. Improve and sustain demand generation activities at the community level
5. Improve monitoring and supervision
6. Implement all activities in the data quality improvement plan (DQIP)



Category 2: Non- Communicable Diseases

3.1 Non - Communicable Diseases (NCDs)

NCDs constitute a growing health problem in Ghana. Prevention and control of NCDs including heart attacks and stroke, cancers, respiratory disease and diabetes as well as mental health disorders, violence and injuries promote health and reduce premature death and disability.

WHO supported the NCDs control program to update the NCD strategy which outlines multi-sectoral approaches to prevention and reduction of these diseases. The review brings the NCDs strategy up to date with current best practices and to align it with WHO's Global Action Plans for NCDs 2013-2020. Subsequent stakeholder input and consensus on the strategy will foster an integrated approach by all sectors to tackle the burden of NCDs.

With technical and financial assistance provided by WHO, NCD stakeholders technical working group meetings were convened to develop a budgeted Programme of Work (POW) for NCDs. The plan covered several areas including awareness creation, alcohol, substance abuse & mental health, physical activity and healthy diet.





The NCD Control Program, the Mental health Authority and the National Road Safety Commission were also supported to conduct the 2017 NCD country capacity, Mental health Atlas and the 4th Global Status Report on

Road Safety surveys respectively. The conduct of these surveys will enable data to be included in the respective global reports published by WHO.

Road Safety

Road traffic accidents claim a lot of lives annually. More 7,000 people are estimated to have died in 2016 from road traffic injuries in Ghana. In collaboration with the UN Information Center and Accra Metropolitan Assembly Bloomberg Initiative Global Road Safety (AMA-BIGRS) Unit WHO embarked on an advocacy campaign for road safety. The top hierarchy of the Ministry of Health and the UN Resident Coordinator were among the high profile supporters of the campaign.

3.2 Mental Health

The Mental Health Authority mantra “there is no health without health” speaks to the WHO definition of health which encompasses the total well-being of every individual. It is in this vein that WHO advocates for accessible community based mental health services at the primary health care level.

Suicide Prevention

Having a strategy to prevent suicides helps to make services available for persons who may be contemplating suicide and ultimately reduce deaths from suicide. To support Ghana move the suicide prevention efforts forward, a psychiatrist was supported to attend a suicide prevention workshop in Namibia. The workshop equipped participants’ capacity to develop, implement and evaluate comprehensive multi-sectoral national suicide prevention strategies; as well as set up a suicide surveillance system and interventions to guide prevention efforts. The country has developed suicide indicators as part of Mental Health indicators and these are now included in the DHIMS.



Mental Health Day (MHD)

The celebration of the MHD provides year-long the opportunities to create awareness about common mental health problems to enhance seeking appropriate care and reduce stigma. WHO supported the MHA mark the 2017 MHD Day under the theme: “Mental Health At The Work Place” to empower the workforce to pursue optimum mental well being to enhance productivity.



3.3 Nutrition

In 2016, the Minister of Health launched the National Nutrition Policy, following which the Ghana Health Service drafted a strategic plan for the implementation of the policy. WHO provides technical support to the Ghana Health Service for the development of policies and strategies, capacity building of health workers and demonstration / piloting of proven effective nutrition interventions.

The prevalence of anaemia remains high among children under-five 42% and women in reproductive health 66%. WHO recommends the weekly supplementation of menstruating

women with iron and folic acid for improving anaemia in women. Ghana has reviewed the WHO guidelines and has adopted this and other recommendations addressing micronutrient deficiencies for implementation.

WHO was a member of task team put together by the GHS and provided technical support for the development of training materials and tools for adolescent Girls Iron and Folic acid Tablet s Supplementation (GIFTS) as a new intervention for improving the iron status of adolescent girls and women in the reproductive age group The GIFTS Programme was launched by her the First Lady of the Republic of Ghana in October, 2017. The programme is providing Iron and Folic Acid (IFA) Supplementation for menstruating girls/women aged 10-19 years and strengthening the existing IFA Supplementation for pregnant women as well as promoting weekly IFA supplementation in non-pregnant women.

In addition to the GIFTS programme and IFA supplementation, the use of Micronutrient Powders Supplementation (MNPs) for children 6-23 months is also being implemented on a smaller scale.

Revision of Integrated Strategy for Anaemia and Control

The Ghana Health Service developed an Integrated Strategy for Anaemia Control in 2003, which is outdated considering the changing landscape and the new evidence based interventions some of which are being implemented but not reflected in the strategy. The USAID supported the GHS to conduct a landscape analysis in 2015. In 2017, WHO provided technical support; an international and local consultant and financial support to the GHS to review and update the 2015 landscape analysis and the 2003 Integrated Strategy for Anaemia Control. An agreed plan of work, a list of available reference documents and resources on anaemia reduction were developed. A two-day stakeholder's workshop was held with participants drawn from governmental agencies, health partners, academia and non-governmental organizations. The workshop resulted in the identification of the strategies, proven interventions and target groups that would form the basis of for the development of an anaemia reduction strategy.

World Breastfeeding Week 2017

WHO in collaboration with UNICEF supported the commemoration of World Breastfeeding Week (WBW) 2017 under the theme "Sustaining Breastfeeding Together" At the Global level, The Global Breastfeeding Collective was formed during WBW 2017.

The collective brings together implementers and donors from governments, philanthropies, international organizations, civil society and is led by UNICEF and the World Health Organization (WHO). A number of documents were released jointly by WHO and UNICEF and these were disseminated among stakeholders. WHO also participated in the national launch of the Breastfeeding which was officially launched by her Excellency The First Lady of the Republic of Ghana.

Partnerships and Coordination

WHO participated in a number of initiatives in collaboration with other UN Agencies, Development Partners and Academia. These included the Becoming Breastfeeding Friendly Initiative led by the School of Public Health and the objective were **1) Develop an evidence-based country led process for identifying gaps in breastfeeding programme scale-up 2) Identifying strategies linked to the gaps 3) Guide country to scale up.** The Strategic direction of the Initiative for food and



Nutrition Security in Africa (IFNA) led by JICA and in collaboration with the UN and government which resulted in the development of an action plan for implementation. The implementation of the UNDAF Nutrition and Food Security and the SUN network improved coordination.

Key challenges and how to address them

Inadequate funding continues to be a challenge for the implementation and scaling up of nutrition interventions. In 2017 technical and financial support was sought from the regional office and headquarters. Also WCO collaborated with partners with funding in the provision of technical support to the Ghana Health



Category 3: Promoting Life through the Life Course

4.1 Reproductive, Maternal, Newborn, Child and Adolescent Health

Introduction

Ghana's maternal mortality ratio is currently 319 per 100,000 live births and under 5 mortality is 60 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 29 per 1000 live births making up 71% of infant mortality and 48% of under-five mortality. 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) 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 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.



Quality of Care for Mothers and Newborns

The country did not meet its MDG 4 and 5 targets at the end of 2015; there are high numbers of preventable maternal and neonatal deaths. These figures have remained high 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 mothers and children to ultimately reduce preventable maternal and newborn deaths and achieve the maternal and newborn health targets of the SDGs. The country was supported in the implementation activities and participation in the Global Network with good advocacy for quality of care. Quality of care was therefore the theme for major national fora throughout the year including, Family Health Division annual review meeting for RMNCAH- "Improving Quality of Care to Ensure, Survival, Thriving and Transformation for National Development" and the Annual General and Scientific meeting of the Society of Obstetricians and Gynaecologists of Ghana :- "Improving maternal and newborn health through quality care". The country will continue to be supported in the achievements of the Network milestones and ultimately reduce preventable maternal and neonatal deaths.

National Newborn Stakeholders' Forum

Ghana's demographic and health survey in 2014 showed that Ghana's neonatal mortality had declined marginally by 3 percent over the 15-year period preceding the survey, from 30 to 29 deaths per 1,000 live births. Neonatal mortality make up 71% of infant mortality and 48 percent of under-five mortality. To address this challenge, Ghana launched the National Newborn Health Strategy and Action Plan (2014-2018) which is an integrated, comprehensive, and data-driven road map to measurably improve services and care for newborns by 2018. Annual National Newborn Stakeholders meetings are held to take stock of the progress of implementation and develop action plans for the next year. WHO as a partner on the National Newborn Sub-Committee provided technical and financial support to the fora. The 2017 forum was held in Accra from 25th to 27th July with a focus on improving quality of care for newborns. The theme was "Quality Care, my right" and had two sub-themes: Water, Sanitation and Hygiene (WASH), and Respectful Care. Participants were representatives from Ghana's Ministry of Health, the Ghana Health Service, the Private Health Sector, the Parliament of Ghana, the Ministry of Gender, Children and Social Protection, United Nations Agencies and other partners. The WHO Country Representative for Ghana, Dr Owen Kaluwa made a statement on behalf of the UN System and the Maternal and Child Health officer, Dr Roseline Doe made a presentation on Quality of care for newborns; a global perspective. The forum served as opportunity to advocate for and obtain stakeholders' commitment, participation and accountability for improving quality of care for newborns and reducing the neonatal mortality rate.

Review and Development of a new Ghana's Child Health Policy and Strategy

Ghana has made some progress in the area of child survival and development although the MDG 4 target was not met. The under 5 mortality is 60 per 1000 live births and infant mortality is 41 per 1000 live births. There was the need to review the existing policy and strategy in line with current guidance and trends in order to step up progress. The GHS/MOH was supported to review Ghana's Child Health Policy and Strategy (2007 – 2015) and to develop a new Child Health Policy and Strategy (2017 – 2025). The new document, which uses a life course approach, will provide guidance and direction to achieve the child and adolescent health components within the context of the Global Strategy for Women, Children and Adolescents Health (2016 – 2030) and the Sustainable Development Goals.

Commemoration of Child Health Promotion Week

Ghana has over the years integrated the Africa Vaccination Week (AVW) with Child Health Promotion Week (CHPW) as one of the sustainable ways of improving coverage of preventive child survival interventions. It is used as a week of advocacy, awareness creation and service delivery to improve coverage of preventive child survival interventions like Immunization, Vitamin A Supplementation, Growth monitoring, birth registration and promotion of ITN use. The year's theme for the country was "Healthy Child, Start Right, do it right for total growth and development". WHO as a key partner supported Ghana's Ministry of Health / Ghana Health Service to observe the week. During the week-long celebration, awareness on these interventions was heightened and uptake has increased.



An International Neonatology Scientific Conference was hosted by the Paediatric Society of Ghana in collaboration with IPOKRATES Foundation with a focus on improving the quality of care for newborns in sub-Saharan Africa. WHO provided technical and financial support to the conference. The 107 participants (made up of neonatologists, paediatricians, obstetrician and gynaecologists, residents, paediatrics and nurses from Ghana, Benin, Nigeria, Sweden, Tanzania, and Zambia) were updated on the scientific basis of practices in neonatal care and skills to impact clinical practice.

Costing of the National Adolescent Health Service Strategy and Policy (2016 – 2020)

Adolescent health and development is a key component of universal access to reproductive health. The 2010 Population and Housing Census indicated that there are 5,526,029 adolescents in Ghana, constituting about 22.4 per cent of the total Ghanaian population. Adolescents have special physical, physiological, psychological and reproductive health needs hence the need for a specific service policy and strategy to guide the provision of care to this group. The Ghana Health Service/MOH

was supported to develop a Service Policy and Strategy to provide the blueprint for implementing evidence-based interventions and address areas for improvement to achieve the Adolescent Health and Development Program's goals and objectives. The UKAID through the Palladium Group also supported the process. WHO supported the costing of the strategy to guide resource mobilization and efficient use of resources.

Capacity Building and Workshops

WHO also provided technical and/or financial support for national capacity building through workshops and meetings:

- WHO regional workshop on accelerating efforts to scale up diagnosis and treatment for children and adolescents living with HIV. Ghana's team comprised of the Programme Officer, Clinical Care of the National AIDS/STI Control Program, Program officer for Hope for Future Generation (NGO), NPOs for ATM and Child and Adolescent Health at the WHO country office (Pre-ICASA, Abidjan, Cote D'Ivoire, 01 December 2017)
- WHO regional capacity building workshop on equity oriented, rights based and gender transformative approaches to strengthening RMNCAH policies, plans and programs. Ghana's team was made up of the Deputy Director of the Family Health Division, a Representative from the Ministry of Gender, Children and Social Protection and the Gender Focal point for the WCO (Dar es Salam, Tanzania. 6-9 November 2017)

- WHO regional workshop for the African Region on innovating and strengthening the postnatal package of care for HIV-exposed infants and ensuring comprehensive services for the first 2 years of life. Ghana's delegation was made up of program officers from the National AIDS/STI Control Program, Family Health Division, Network of Association of Persons living with HIV, [NAP+ Ghana] and the NPO-MCH from the WHO country office (Johannesburg, South Africa, 20-23 June 2017)

- WHO regional capacity building workshop in using the Global Accelerated Action for the Health of Adolescents (AA-HA!): A Guidance to support the implementation of the Adolescent Health flagship programme in the African Region. The Ghana team comprised of the Program Manager for Adolescent Health of the Ghana Health Service/MOH, the Program Officer for School Health Program of the Ghana Education Service/MOE and the NPO in charge of Adolescent Health at the WHO Ghana country office (Kigali, Rwanda, 29 - 30 November 2017)

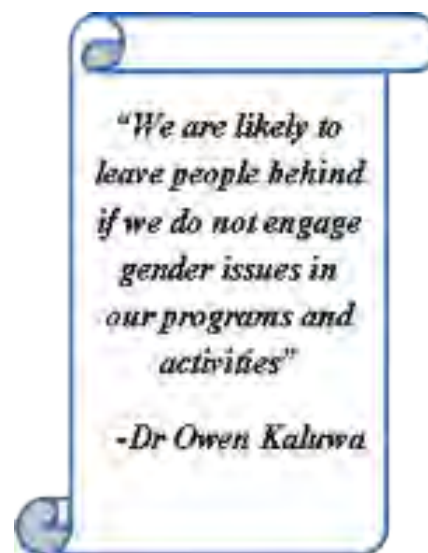
- Technical support provided to the Society of Obstetricians and Gynecologists of Ghana (SOGOG) to orient and train its members on current family planning guidelines and tools including the WHO Medical Eligibility Criteria for contraceptive use

4.2 Gender, Equity and Human Rights

Orientation of WCO staff in gender mainstreaming, equity and human rights

A Participatory Gender Audit (PGA) was conducted for the WHO Country Office to assess how well gender is mainstreamed in its programming. This was part of a UN system wide Participatory Gender Audit (PGA) to advance gender equality within the organization of the UN in Ghana and in its programming. Key findings and recommendations of the Participatory Gender Audit were shared with staff of the WCO. Among these was the limited and uneven capacity of WCO staff in gender mainstreaming. In order for WHO to provide appropriate support to the Ministry of Health and other partners in gender mainstreaming in programs, there was the need to build internal capacity.

A workshop on gender mainstreaming, equity and human rights was therefore conducted for all staff of WCO with support from WHO IST/AFRO. Dr Sentumbwe-Musiga was assigned to facilitate the workshop and she was supported by Dr Roseline Doe the gender focal point for the country office. An action plan was developed and is being implemented. The workshop has resulted in



increased awareness of the gender issues in the various programs and the capacity of WCO staff has been built in the basic concepts to mainstream gender in their programming. The audit and the workshop has also resulted in some restructuring activities within the office to make it more sensitive in terms of gender, equity and human rights. These include ensuring gender parity among staff, appointment of a male alternate gender focal point, gender sensitive washrooms and cars and provision of a disability access to the office.

16 Days of Activism against Gender-Based Violence Campaign

From 25 November, the International Day for the Elimination of Violence against Women, to 10 December, Human Rights Day, is the 16 Days of Activism against Gender-Based Violence Campaign. It is a time to galvanize action to end violence against women and girls around the world. WHO joined the UN system in Ghana in the 16 Days of Activism against Gender-Based Violence Campaign to galvanize action to end violence against women and girls in Ghana. Staff joined the campaign to orange the world by wearing orange coloured apparel.



Celebration of UN Days

The WHO through the UN Gender Team (UNGT) supported and participated in the celebration of UN days. The UNGT is made up of staff/focal points from the UN offices, agencies and programmes in the country whose purpose is to provide overall direction and guidance to the UN System in Ghana to advance gender equality in the country. There was a lot of social media advocacy on all the above gender related UN days.

International Women's Day:

The UN globally celebrated International Women's Day under the theme: "Women in the Changing World of Work: Planet 50:50 by 2030". The celebration drew attention to the fact that the achievement of the Sustainable Development Goals including achieving gender equality and empowerment of all women and girls, depends upon unlocking the full potential of women in the world of work. The need for gender-responsive economic policies to ensure women's economic empowerment was brought to the fore. The UN Gender Team hosted some students who toured selected UN agencies with art work, photos and messages on women at the work place and they also interacted with some women staff of the UN.



International Day of the Girl Child:

The UN Gender Team supported an Op-ed by the United Nations Resident Coordinator in Ghana, Ms Christine Evans-Klock on the occasion of the International Day of the Girl Child, 11 October 2017. It drew attention to the status of the Ghanaian Girl Child and called for collective commitment to actions that can make a difference for girls in Ghana.

Key challenges and how to address them

- Inadequate funding for some programs
- Technical officers handling multiple major programs which sometimes makes it difficult to give each program adequate attention

4.3 Environment and Health

WHO provided technical and financial support to the Ghana Health Service, Ministry of Sanitation and Water Resources and the Local Government to

i) develop/update policies and strategies

2) scale up pilot initiatives, capacity strengthening to respond to health risks associated with environmental

Piloting of Water Safety Plans

Drinking water quality remains a challenge in some communities, particularly in the rural settings. About 45% of the rural population obtains drinking water from a tube well or borehole and as much as 20% use an unimproved source. A Joint UN Programme was implemented in Northern Ghana from 2014 to 2017 funded by Global Affairs Canada. The programme provided resilient WASH facilities in disaster prone areas and WHO was responsible for the water quality



improvement component. The risk based approach to ensuring the quality of drinking water as per the WHO Guidelines for Drinking Water Quality 4th Edition was applied for the improvement of water quality in the programme areas. In 2016 training materials and tools including a Water Safety Planning (WSP) template for rural and small water systems were developed, Environmental Health Officers were trained in water quality assessment and monitoring. The WSP template was piloted in 6 districts.

In 2017 the WSP was scaled up to an additional 6 districts. The main activities undertaken at the community level were community entry and sensitization, Formation of Water safety Plan Teams (WSPTs), Training of the Water Safety Planning Teams (WSPT), Field Assessment of the Water safety Situation in the community and identification of risks, Development of Water Safety Plans to mitigate the risks identified, implementation of some of the action plans with resources from the community and self-monitoring of solutions put in place to avoid their recurrence and unannounced visits to houses by WSPTs to check on how water is stored. Behaviour change communication activities were conducted at the community level and some logistics support provided. The regional and national level provided mentoring and coaching support to the district team and conducted joint monitoring visits. This resulted in high level of awareness of risks associated with water sources, improved management of community water facilities and improved water handling at the household.

WASH in Schools in the three northern regions

The WASH in DPC programme has also supported the School Health Education Programme (SHEP) to train regional and district level teachers in the value-based approach for WASH education. WHO has also provided support for the development of Behaviour Change Communication materials. In order to capitalize on the gains already made and strengthen the School Health further, SHEP in collaboration with WHO organized a Healthy School Environment Competition in selected schools in the WASH in Disaster Prone Programme Communities in the three northern regions.

Objectives

- Support school health clubs to sustain water, sanitation and hygiene (WASH) in schools
- Increase efforts to improve school environment and enhance the beauty of the school
- Contribute towards the reduction of the disease burden among school children

Regional and District Education offices, SHEP Coordinators and relevant officers participated in the process with a total of 27 schools (9 per region) being part of the competition. The schools were assessed using an agreed checklist and scoring process.

All participating schools were awarded certificates and plaques were given to first position schools by the Regional and District Directors of Education. Overall the competition was highly successful and was a major motivation to the schools who participated. The skills of the regional and districts teams also been built to hold similar competitions in the future in their respective schools as part of the activities to promoting a health school environment.

In addition to the Health Environment Competition in Schools, WHO under the WASH in DPC Programme procured 200 hand washing facilities (veronica buckets) and delivered to selected schools to promote hygiene in schools. Subsequent monitoring carried out in schools in the Northern Region indicated that the hand washing stations were being used and hand washing promotion was ongoing in the schools.

Evaluation of the Health Impact of the WASH in DPC Interventions

WHO provided financial support to evaluate the health impacts of the WASH interventions carried out in the three Northern Regions. The study was conducted in a selected number of interventions and non-interventions communities with similar characteristics, the findings of which have been published and disseminated to the implementing partners as well as the donor of the programme

The Global Analysis and Assessment of Sanitation and Drinking-Water Report

The Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) is a UN-Water initiative implemented by the World Health Organization (WHO). In a national context, GLAAS aims to complement sector review processes and to assist in assessing the state of the enabling environment including financial and human resources inputs being directed to sanitation, drinking-water and hygiene whilst identifying barriers and enablers.

In 2017 the WHO supported the Ministry of Sanitation and Water Resources to conduct a Global Analysis and Assessment of Sanitation and Drinking Water and Sanitation (GLAAS) Survey. The findings of the survey were validated at stakeholder's meeting and the report finalized



Capacity Building of Health Sector to Respond to Health Impacts Resulting from Chemical Incidents associated with the Oil and Gas Industry

WHO in collaboration with Ghana Health Services secured funding under the Strategic Approach to International Chemical Quick Project (SAICM QSP) for a two year project (2015-2017). The objective of the project was to strengthen country systems to manage public health impacts of chemicals generated by or used in the oil and gas sector. Chemical release scenarios were developed which enriched the evidence base regarding health risks associated with chemicals used in the extractive industries. The project also developed a model framework and self-assessment tool and trained 45 stakeholders in the occupational, public health and clinical management of chemical incidents associated with the extractive industry. This stimulated the establishment of a working group which developed draft Standard Operating

Procedures (SOPs) and a national framework on the public health response to chemical incidents in Ghana. The training materials developed for the training were also used to inform the development of training materials used for another similar SAICM QSP project in Mongolia. The project has resulted in improved capacity for the public health management of chemical incidents associated with the oil and gas sector and it has also built on the achievements of the ongoing Strategic Health Impact Assessment (sHIA) as well as received policy recommendations on how to mitigate negative health impacts of the Oil and Gas sector.

Development of WASH/IPC Indicators and Monitoring Tools

The Ghana Health Service has integrated Water Sanitation and Hygiene into Infection Prevention and Control recognizing the importance of WASH in Health Care Facilities not only in infection prevention and control but also in the quality of care. In 2016 Technical Guidelines for WASH in Health Care Facilities was drafted and this has been subjected to a wider stakeholder review, including regional consultations in 2017.

WHO in collaboration with UNICEF provided technical support for the development of a WASH/IPC monitoring tool as well a set of defined indicators which has been integrated into DHIMS. The next step is to build the capacity of Health Information officers on the indicators for collection of the data and input into the DHIMS.

Key challenges and how to address them

- The realignment of the sanitation sector in early 2017 to another Ministry delayed the execution of some key activities related to WASH. There was therefore a need to re-programme these activities for 2018.
- Some key capacity strengthening activities planned in 2017 could not be carried out due to lack of funds, however efforts are being made to secure funding for implementation.

4.4 Social Determinants of Health

In this area of work, support was to strengthen capacity for multi-sectoral and multi-stakeholder action to address the social determinates of non-communicable diseases in particular.

Framework convention on tobacco control (FCTC) implementation Development and launch of the Tobacco Cessation Guidelines

Ghana has made strides in her tobacco control efforts by implementing various initiatives. However, passing of the Public Health Act (Act 851, 2012) that requires the Ministry of Health (MOH) and the Ghana Health Service (GHS) to establish the requisite systems to protect the populace from the harmful effects of tobacco as well as assisting tobacco users to stop tobacco use and instituting regular increases in the taxation of tobacco products to reduce consumption. In an effort to fill the gap in implementation of Article 14 of the WHO FCTC and to provide support to health workers providing tobacco cessation services, the Government of Ghana with support from the WHO Regional Office for Africa has developed this tobacco cessation clinical guideline. This guideline provides information on the various forms of cessation support from brief intervention to the more detailed pharmacological interventions.

The World Health Organization (WHO) office in Ghana in collaboration with the Ministry of Health, Ghana Health Service and Foods and Drugs Authority launched the Smoking Cessation Clinical Guidelines for Ghana and Tobacco Control Regulations, LI 2247 during the national launch of World No Tobacco Day celebrations in Ghana. The occasion also saw the presentation of the 2017 World No Tobacco Day, Director-General's Awards to Mrs Olivia Agyekumwaa Boateng, Head of Tobacco and Substance Abuse, Foods and Drugs Authority.

Development and launch of the National Alcohol Policy

At the Sixtieth Session of the WHO Regional Committee for Africa, the ministers of health adopted the document “Reduction of the harmful use of alcohol: a strategy for the WHO African Region” (AFR/RC60/4) and endorsed resolution AFR/RC60/R2 (WHO, 2010a). Following from this, the Ministry of Health set out to initiate the process of developing a national alcohol policy. The process stalled for several years as a result of interference from the aggressive alcohol industry in Ghana. To move the process forward, the Ministry of Health requested for technical assistance. AFRO provided a consultant from Malawi to support the Ministry of Health to complete the process. In 2016 the draft policy was validated by stakeholders and the final policy was launched by the Honourable Minister of Health, Dr Agyeman-Manu in 2017.

The National Alcohol Policy sets out policy direction to regulate the production, distribution, sale, advertisement and consumption of alcohol with the aim to minimize the negative impact of alcohol consumption on the individual, family and society as a whole (especially the vulnerable) and thereby safeguarding and protecting the society. The policy identifies major priority areas for the reduction of alcohol related harms. These include the WHO best buy areas such as taxation, regulating availability; and regulating marketing of alcohol. Other areas of focus include; prevention and management of health effects and social services actions; surveillance, research, monitoring and evaluation; drink driving counter measures and capacity building for the health sector and other stakeholders.

The process of developing a legislative instrument (LI) is currently ongoing. The LI would among other things, allow for the full implementation of Chapter Six of the Public Health Act (Act 851), which deals with tobacco use as well as the harmful use of alcohol in the country.

Conduct of Global Youth Tobacco Survey, 2017

The Global Youth Tobacco Survey has been conducted in more than 185 countries or sites. Countries are expected to repeat the survey every four to five years to generate data that are comparable within and across countries. Ghana had already conducted such studies three times in 2000, 2006 and 2009 among Junior High Schools. In 2017, WHO AFRO with support from CDC Atlanta conducted the Global Youth Tobacco Survey in Ghana.

The aim of the Ghana GYTS, like in all other participating countries, was to build the capacity of the country to design, implement and evaluate its comprehensive tobacco control programmes, to enable the formulation of policies for effective tobacco control interventions among the youth in Ghana.

This was a cross-sectional survey of students in Junior High Schools conducted among 4500 students in 60 schools across Ghana. A total of 4,500 Junior High School students at the age group 13-15years were sampled and interviewed across the country using a self-administered questionnaire as a data collection tool. The data was shipped to CDC Atlanta for analysis. Subsequently a comprehensive Country Report will be developed on receiving the analysis.

Health Promotion Study Tour to Botswana

The 2017 Health Sector Aide Memoire noted among others that the vast majority of issues affecting populations' health can easily be addressed with sustained health promotion for behaviour change. This required that health promotion within the sector be further strengthened by establishing Health Promotion Structures within the Ministry of Health. In view of this, the Ministry of Health in Ghana requested WHO AFRO to provide technical support on the establishment of a Health Promotion Structures to address existing health challenges.

WHO AFRO responded by facilitating a Health Promotion Study Tour to Botswana to expose government officials from the health and other sectors to gain firsthand knowledge regarding health promotion set-up, structure, operations, programmes and integration of health into policies, strategies and programmes of other sectors to address social determinants of health (SDH).

On returning to Ghana, the Team compiled a comprehensive report which was shared with AFRO, Ministry of Health in Ghana, Ministry of Health and Wellness in Botswana. Debriefing sessions were done with the Hon. Minister of Health, Chief Director of the Ministry of Health, Divisional Directors of the Ministry and other Multi-sectoral Stakeholders. Follow-ups on clear action points with the Ministry of Health including proposal developments will be carried out in 2018.



World Health Day Celebration, 2017

Under the theme "Depression. Let's talk", Ghana joined the rest of the world to celebrate this year's World Health Day in a series of activities which was climaxed with a public lecture and drama performance on depression, on 7th April, 2017 at the Civil Servants Association Hall in Accra. The event was kicked off with a series of TV and Radio talk discussions to create awareness on the prevention and treatment of depression. Challenges in the Ghanaian context and the best way for dealing with depression were discussed in the wake of the recent spate of suicide cases in the country.

On the 7th of April, a float on the principal streets of Accra was organized by the Methodist Health Services which was followed by a public lecture delivered by Professor J. B. Asare (Consultant Psychiatrist) on symptoms and signs of depression, the best way of dealing with depression as well as messages on mental health in general. In addition a skit was performed by students from the Pantang Nursing Training. The event was attended by the general public, officials from the Ministry of Health, staff of the World Health Organization, Health professionals, students from the Nursing Training Colleges, Prisons and Police Academies, selected Senior High Schools in Accra and the media among others.



Category 4: Health Systems

5.1 National Health Policies, Systems and Plans

The WHO Country Office (WCO) during the year under review supported the Ministry of Health (MOH) and its agencies and partners in the implementation of the fourth and final programme of work (POW) of the Health Sector Medium Term Development Plan II (HSMTDP II) 2014-2017.

Health Sector Medium Term Development Plan (2018-2021)

As the Health Sector Medium Term Development Plan (2014-2017) was ending in 2017, the WCO supported the MOH and its agencies to develop a new Health Sector Medium Term Development Plan for 2018 - 2021. This followed a review of the sector's performance over previous four years under the expired HSMTDP. The new HSMTDP, 2018-2021 prioritized four development objectives for the health sector for the period of four years (2018-2021). These are:

- 1. Ensure sustainable, affordable, equitable, easily accessible healthcare services towards Universal Health Coverage (UHC)*
- 2. Reduce morbidity, disability mortality and intensify prevention and control of non-communicable diseases*
- 3. Enhance efficiency in governance and management of the health system*
- 4. Intensify prevention and control of communicable diseases and ensure the reduction of new HIV and AIDS/STIs infections, especially among the vulnerable groups*

The WCO has not only played an active role the development of the HSMTDP, but also led a number of stakeholder engagements at various Health Sector Working Group meetings and other fora for inputs to build consensus around the objectives, programmes and broad activities outlined in HSMTDP which is awaiting finalisation.

Furthermore, WHO is providing ongoing support to the MOH in terms of technical assistance and capacity building to cost the HSMTDP using the One Health Tool (OHT) to reflect, to the extent possible, realistic financing scenarios by objectives and programs.

Health Workforce Gap Analysis Using Staffing Norms

The MOH and its service delivery agencies had been desirous of an analysis of the workforce gaps using the 70% completed staffing norms which was developed with technical support of WHO. WCO provided technical and financial assistance to the Ghana Health Service (GHS) to conducted a facility-by-facility HRH gaps analysis for all their hospitals, polyclinics and health centres to adduce empirical evidence to support workforce planning and management. An innovative Health Workforce Gaps Analysis Tool was developed with technical input from WCO for the assignment. The results show that the composite staffing requirement of GHS using the 70% staffing norms 62,082 but only 42,389 was available, leaving a composite HR gap (need) of 19,693 representing 32% vacancy rate . The vacancy rates were however, worse among specialised clinical professionals including doctors, nurses and allied health. For instance, vacancy rates of doctors are about 57%, except Greater Accra, doctor vacancy rate is more than 55% in all the regions, which is worse in Upper east, Northern, Western and Upper West Regions. Also, support staff shortage appears to have become critical with many health facilities having no procurement, supply and logistics professionals, thereby exposing them to huge financial accountability risks. It was also noted that there is no coherent system in place for the collection and update of individual and aggregate HRH information. This has resulted in inconsistencies in the nominal rolls collected and kept across health facilities, districts and regions. The findings were used to develop recruitment and distribution plan for 2017.

Resource mobilisation

As part of efforts by the WCO to support the MOH in its resource mobilisation drive, the WCO played an active role in Global Fund Country Coordination Mechanism (CCM) technical task team that led the country dialogue and made recommendations for the modalities of the country's Global Fund grant application. Also, the WCO provided guidance and actively participated in the in Global Fund Resilient System Strengthening for Health (RSSH) grant application development which was hugely successful.

Cross-programmatic efficiency analysis

WHO also provided technical support to the MOH to undertake cross programmatic efficiency analysis to adduce evidence to support programme planning and implementation. The cross Programmatic Efficiency Analysis was completed and the report disseminated to stakeholders. The findings revealed the following:

1) fragmentation and lack of coordination between health programs and rest of health system exists across all functions and levels of the system 2) donor financing exacerbating (and in some cases motivating) the undue fragmentation, raising concerns related to transition processes in terms of sustainability of coverage 3) duplication and misalignments in governance and financing which make coordination and integration of service provision very difficult and 3) financial stress on the health system which is leading to many inter-related distortions.

Monitoring, evaluation and accountability in the health sector

WHO played an active role in the planning and organisation of monitoring and evaluation activities in the health sector including the holistic assessment of the health sector performance against

the annual programme of work. These reviews start from the lowest level of service delivery and culminates in a health summit where stakeholders review and validate the holistic assessment report and recommendations for improvement are made for the subsequent year. During the year under review, the health summit was held on 19-21 April 2017 under the theme "Accountability in the health sector to achieve health related SDGs." WCO coordinated the inputs of Development Partners' (DPs) towards the preparation for the 2017 Health Summit and the signing of aide memoire between MOH and DPs in late April 2017 which is used to track progress on agreed milestones in the annual programme of work.

5.2 Access to Medicines, Products and Technologies

Orientation of health professionals on the use of revised Standard Treatment Guidelines and Essential Medicines List in five regions.

The development and use of Standard Treatment Guidelines (STG) and Essential Medicines Lists (EML) are strategies to promote the rational use of medicines. Provision of treatment guidelines and medicines list can serve as a major asset to improving therapeutic effectiveness and economically efficient prescribing. The National Medicines Policy of Ghana stipulates that the STGs and EMLS be updated every two years. This has not been possible for Ghana the last updates were in 2010. Fortunately the Ministry with support of WHO and other partners updated and launched the two documents in 2017. There has been observed poor levels of adherence to recommendations from the Standard Treatment Guidelines which could be due to the fact that there is normally no orientation or awareness creation for use of the documents. WHO therefore supported the Ministry of Health and the Ghana Health Service to orient service providers on the use of the documents. It is hoped that this orientation will create an impetus for the use of the documents.



Assessment of availability and price and assess the prescribing, dispensing and use of medicines for palliative care in three teaching hospitals, three regional hospitals and six district hospitals

Palliative care services in the country are limited at all levels and almost non-existent at the primary care level. The need for palliative care services continue to increase as the burden of cancer and other chronic diseases increase, coupled with the late reporting of the majority of the cases to facilities. Other barriers to the accessing treatment are lack of awareness among policymakers, health professionals and the public about what palliative care is, and the benefits it can offer patients and health systems, cultural and social barriers, such as beliefs about death and dying, misconceptions about palliative care, such as that it is only for patients with cancer, or for the last weeks of life, misconceptions that improving access to opioid analgesia will lead to increased substance abuse. The survey was therefore to determine the availability and prices of a selected number of medicines for palliative care and how affordable treatment is for patients with a selected number of diseases requiring chemotherapy. The survey also assessed the use of standard treatment guidelines by prescribers for managing a selection of diseases requiring palliative care. The survey revealed key challenges experienced by the health facilities, care givers and the national health insurance benefit package. The availability of medicines used for the treatment of cancer in tertiary public health facilities visited, was found to be 31 out of 67 (46%) medicines surveyed for KBTH and 18 out of 67 (27%) for KATH. Regional hospitals, regional medical stores, central medical stores, and district hospitals did not stock anticancer medicines. The cost of chemotherapy was very prohibitive to sufferers. Families had to go through a lot of distress to pay for treatment when a family member is taken ill. There is need for a comprehensive intervention that addresses the cost of treatment in a holistic social support programme.

Logistics Information systems for supply chain management

Logistics Management information systems has been unstructured and uncontrolled in the public health system. Over the years it has been identified that accuracy in requisitioning for needed quantities was a challenge for health personnel at all levels. Therefore, training of health personnel in methods for estimation of health commodity requirement was necessary. The ministry was supported to undertake this training to help streamline the Logistics Management Information systems in two regions to learn from and scale up to other regions. The training was undertaken in the Eastern and Volta Regions. Participants were selected from ten (10) Health facilities in each region. These facilities included the regional Hospital and nine other district hospitals. For each health facility, personnel that perform requisitioning activities were selected to be trained.

Development of the National Action Plan for Antimicrobial Resistance

The emergence of antimicrobial resistance due to poor prescription practices by health care professionals, misuse by patients and

overuse in farming and animal husbandry, poor infection control and a lack of new antibiotics pose a security threat for infection control. The Ministry of health together with other Ministries and stakeholders developed a national Antimicrobial Resistance a costed national action plan (NAP) in "one health" to contain antimicrobial resistance. The National Action Plan (NAP) represents a synthesis of the steps which would help Ghana realise her aspirations at combating the AMR phenomenon in the country. The Ministry was supported to develop this plan in the one health approach working with the Ministry of Food and Agriculture, Ministry of Environment Science and Technology and the Ministry of Fisheries and Aqua Culture, the Food and Agriculture Organization (FAO). The FAO is provided support for this activity through the provision of funds and technical expert for the Ministry of Agriculture to help develop the NAP. It defines the role of all implementing stakeholders and shall be the focus for investments into AMR containment efforts in Ghana. The plan was submitted to cabinet and has been endorsed for launching and implementation.



5.2 Health Systems Information and Evidence

The production of 'The Health Sector in Ghana: Facts and Figures' since 2005 has become a handy reference on the performance of the health sector as an information tool for policy makers, health service/programme managers, health partners, stakeholders, researchers and students. WHO in 2017 supported the GHS to develop 2016 and 2017 editions which are currently the reference materials for service delivery indicators of the health sector.

Ghana effort of establishing its National health observatory as an open source health information platform to gathering, analysing, synthesizing and sharing of reliable and



quality health information on population health and health services as well as monitor and tracking the progress of UHC and health related SDGs is being pursued vigorously by the MOH. WHO in 2017 supported MOH to install a web version prototype for the National Health Observatory developed by AFRO. The prototype which is publicly accessible online is currently going through indicators analysis and populating of data.

Category 5: Surveillance, Preparedness and Response

6.1 Alert and Response Capacities IHR, IDSR

Even though epidemics and public health emergencies may be difficult to predict, strengthening systems that ensure preparedness, effective surveillance and timely response to public health events limit negative and devastating consequences. WHO technical assistance, advocacy and partnerships, are leveraged to augment the 2005 International Health Regulations core capacities. The objective is to enhance Ghana's ability to prevent, detect and promptly respond to health emergencies.

Areas of support include coordination and simulation exercises, integrated diseases surveillance and response system training, laboratory strengthening, case management and risk communication. WHO acknowledges the support from the various partners such as CDC, EU, DFID, JICA and Norway, technical assistance and resources from AFRO and HQ for the immensely contributed to the health security agenda in Ghana.

Table 5: WHO Support for IHR, IDSR, public health emergency, preparedness and response and health system strengthening

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	Technical support provided for emergency preparedness and response activities	Coordination of training and assessments for PHE, simulation exercises and IHR core capacity development supported by WHO Country office (WCO) international health security officer
		Capacity built in regional coordination of emergency response	Volta and Central regional public health emergency management committees supported to undertake cholera outbreak simulation exercise to identify gaps for correction
		Public Health Emergency Operation Center (PHEOC)	GHS staff trained in EOC and incident management system to enhance the establishment of a functional PHEOC in Ghana
		Port Health and Point of Entry (POE) staff equipped for effective surveillance and response to emergencies at POE	38 personnel from Port Health Unit, Ghana Civil Aviation Authority (GCAA), the Ghana Airport Company Limited, Customs (division of Ghana Revenue Authority) aircraft operators, airline operators, and other stakeholders in air transport trained in prevention, detection and management of PHE at the airport
		IHR 2005 sensitization supported	IHR advocacy materials including 300 IHR (2005) booklets 50 IHR flip charts and 6,000 Flyers on Frequently Asked Questions on IHR were provided to the MOH for dissemination.
	Emergency coordination committees reactivated	Ashanti, Eastern, Western, Brong Ahafo and Upper West Regional Emergency Management Coordination Committees supported to reactivate meetings.	
		National Action Plan for Health Security (NAPHS) drafted	GHS and collaborators were supported to outline priority action using recommendations from the JEE
Surveillance	Build capacity in surveillance, case investigation, contact tracing, data management	Capacity built for regional rapid response teams (RRT)	73 multi-disciplinary health staff from all 10 regions trained to early detect and effective response to public health events, irrespective of origin or source
		Teams in Eastern Region trained for rapid response to PHE	31 multi-disciplinary health staff Clinicians, Epidemiologist, Biomedical scientists, IPC Focal Persons Health Promotion, Surveillance, Environmental Health and Veterinary Officers from 4 districts (New Juaben, Nsawam-Adoagyiri, Suhum and Akwapim North) trained as RRT
		Community based surveillance (CBS) strengthened	Standard operating procedures (SOPs), training manual and reporting tools for community-based surveillance reviewed.
		Technical support provided for public health surveillance activities	Preparedness, outbreak investigation, response activities and evaluation outbreak response, health staff training, revision of public health documents supported by international epidemiologist
		Capacity built in Integrated Disease Surveillance and Response (IDSR) built	IDSR technical guidelines and training manuals updated to reflect one health concept of enhancing surveillance and detection of zoonotic and environmental hazards. 40 participants from the national and regional levels trained of trainers in updated IDSR documents to cascade regional training. 865 male and female disease control, laboratory veterinary and surveillance officers, facility and community health workers, from 37 districts across the country trained to monitor and interpret data to early detect, report and respond to events
		IDSR planning supported	5-year Ghana Integrated Disease Surveillance and Response Strategic Plan (2017-2021) incorporating the One-Health concept in public health surveillance developed
		Skills in surveillance mapping enhanced	20 Disease Surveillance, EPI, NCD and health information staff and 7 officers from WCO trained in the use of 3 mapping software to enhance surveillance maps in reports.
Sensitization on IHR 2005 conducted	Seminar on International Health Regulations 2005 conducted as part of support to mark 10th Anniversary of the Ghana Field Epidemiology and Laboratory Training Program.		
Laboratory	Support laboratory operations	Tamale Public Health Laboratory (PHL) supported	PHL equipped with biosafety cabinet, deep freezers for sample storage, thermometers and other logistics to augment diagnostic functions especially for meningitis
Case Management and Infection Prevention & Control (IPC)	Build capacity for case management in outbreaks	Capacity for Ebola Virus Disease (EVD) case management supported	80 multi-disciplinary health staff from all 10 regions trained on newly developed Ebola Case Management Training manual to standardize EVD management and form a pool of regional trainers for subsequent EVD management training

Joint External Evaluation (JEE)

In 2017, WHO coordinated a joint external evaluation (JEE) by a multi-disciplinary international team to assess existing capabilities in 19 technical areas ranging from IHR implementation legislation to back chemical and radiation events response mechanisms. Gaps in the technical areas and recommendations for addressing these gaps were documented. The findings from the JEE exercises informed appropriate prioritization of public health interventions and served as major inputs in the development of a draft comprehensive all-hazards strategic plan for emergency preparedness and response facilitated by WHO. This National Action Plan for Health Security will be validated in 2018 following WHO technical input and support for the costing of the plan.

Ghana WHO Country Office (WCO) Simulation Exercise

The WCO Ghana staff participated in a table top exercise that simulated activation of the office business continuity plan (BCP) using the scenario of a fire disrupting operations in the country office. The exercise, facilitated by the Public Health Emergency team of the country office, enabled the successful update of WHO Country Office BCP to address weaknesses that were identified. This is to ensure there is a functional BCP to guide continued performance of WHO's role in the event of an office disaster.

6.2 Epidemic and Pandemic Prone Diseases

Cholera

Over the past decade there have been several outbreaks of cholera with 2014 being the worst year; over 28,000 people were affected with a case fatality rate of 0.8%. The year 2017 was relatively quiet year with 4 confirmed out of 25 suspected cases (no deaths) in Cape Coast, Central Region between weeks 2 and 42. The cases were rapidly contained minimizing spread to prevent the situation of the year before when over 700 cases reported.

Meningitis

In the 2017 meningitis season, as at week 31, 881 cases of meningitis, 84 deaths, 9.5% case fatality rate had been reported. The lumbar puncture rate of almost 90% enabled testing for meningitis in these cases. PCR was conducted on more than 500 samples from Upper West, Upper East and Northern regions. About 47% yielded a positive test result by PCR with *Streptococcus pneumoniae* and *Neisseria meningitidis* (N Mn) accounting for 52% and 46% respectively. In some districts the number of suspected cases reported exceeded the epidemic threshold in some weeks; however no epidemics due to N Mn were declared as laboratory tests yielded negative results.

- Annually WHO supports the public health system with meningitis diagnosis logistics including rapid diagnostic test kits and reagents to enhance timely diagnosis of meningitis patients. In 2017, there were no shortages as the logistics supplied were in adequate quantities.

- WHO in collaboration with CDC supported the adaptation of the GHS SOPs for surveillance prevention, control and management of Meningitis Outbreak and meningitis case-based surveillance training for 80 surveillance, laboratory and disease control officers in the meningitis belt; namely Northern, Upper East, Upper West and Brong Ahafo Regions. The training augmented the participants' acumen in early detection and reporting to enable rapid response to meningitis outbreaks. Meningitis belt of Ghana

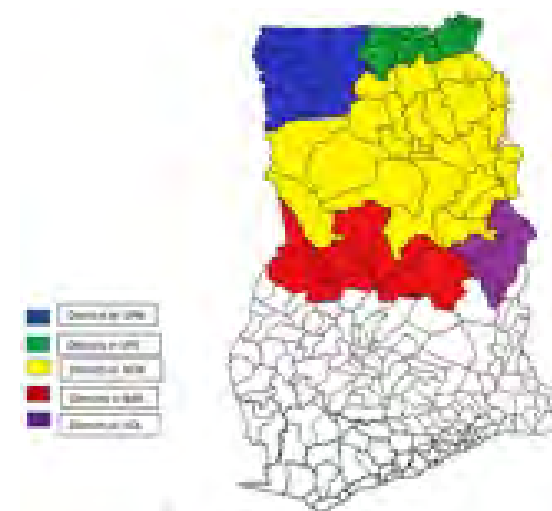


Figure 5: Meningitis belt in Ghana

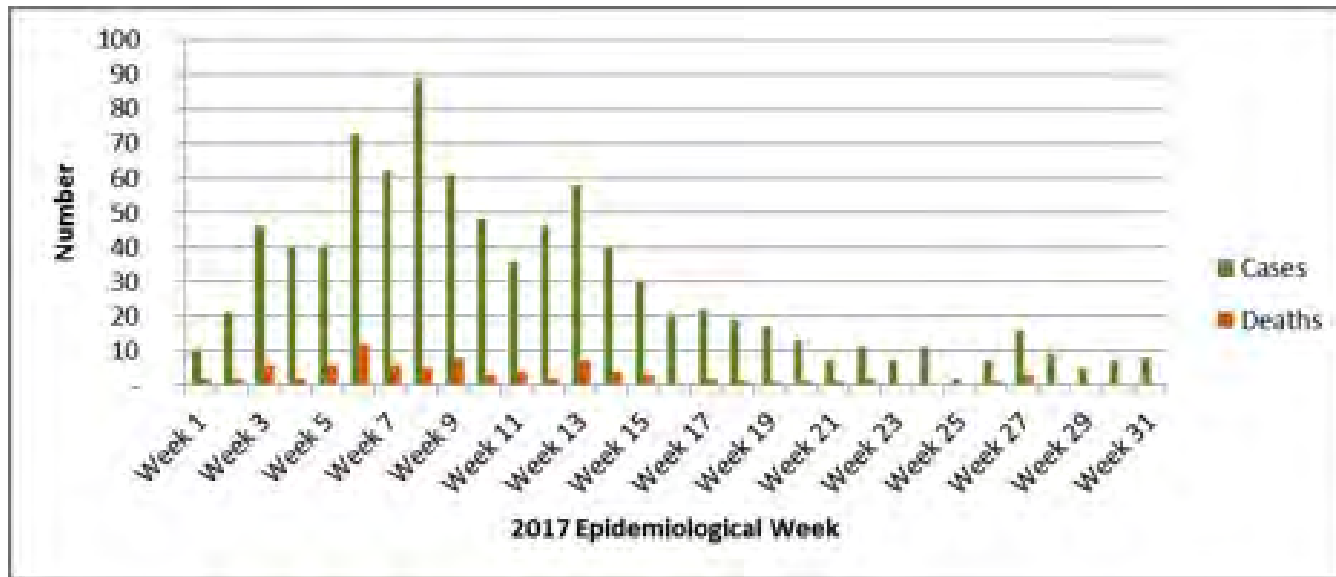


Figure 6: Distribution of meningitis cases and deaths by week, 2017

Influenza

The year 2017 was the fifth year running for WHO pandemic influenza preparedness support. In line with the objectives to strengthen influenza surveillance, laboratory diagnosis, data sharing, WHO presented a vehicle and office logistics (laptops, scanners, printers) worth \$85,000 to support the Disease Surveillance Department of the Ghana Health Service. The items were received by the Director General of the GHS.

The influenza sentinel sites benefitted from review meetings, support for shipment of samples and refresher training. A team from Ghana paid a study visit to understudy best practices in influenza surveillance structures to inform Ghana's program.

Results from the PIP capacity building activities include:

- The first upload of Ghana influenza data into the global FlulD platform on the 23 May 2017.
- A 4-fold increase in samples from sentinel sites reaching the NIC for processing,
- Entry of data on Acute Respiratory Infections (ARI) into the DHIMS platform and
- Increased ownership of Public Health Unit Staff in influenza sentinel in coordinating influenza surveillance activities
- A mobile phone based networking system encompassing the influenza sentinel sites to enable rapid information sharing between the national level and the sites
- Promotion of the One Health agenda at the district level, with improved collaboration and joint response and investigations of zoonotic events by human and animal health staff.

WHO supports response to influenza A (H1N1) pdm09 outbreak in the Ashanti Region

An outbreak of a febrile illness suspected to be meningitis was reported in Kumasi Academy High School (KASHS), Asokore Mampong Municipal, Kumasi with index case reporting on 29th November 2017. As at 5th December, 44 cases had been reported with 4 deaths giving a case fatality rate of 9.1%. The outbreak was later confirmed to be due to influenza A H1N1. Earlier in April 2017, KASHS had experienced an outbreak of meningitis with the causative organism identified as *Neisseria Meningitidis* subtype C. The school has a total population of about 2,800 including 541 day students. The males are about 60% of the total student population. There are eight student houses (3 for females and the rest for males) in the school. The school has a Sick Bay managed by a Physician Assistant and two enrolled nurses with average attendance of about 60 cases per week. Serious cases are referred to Kumasi National University of Science and Technology (KNUST) Hospital.

The Public Health Directorate of the Ghana Health Service was notified by the Ashanti Regional Health Directorate on the 1st of December, 2017 about the death of two students in KASHS on 29th and 30th November. Common presenting symptoms were fever, headache and body pains. Other symptoms found in some patients were neck stiffness, cough and sore throat. The majority of the cases, 66%, were males and over 95% of the cases were teenagers.

A multidisciplinary national team that included WHO staff was dispatched to support the Ashanti Regional Health Directorate to conduct investigations into the possible cause(s) of the outbreak and the response. Subsequently, WHO continued to provide support for the outbreak response, including:

- Mobilisation of 5000 doses of TAMIFLU (75MG 10CAPH) and 10,000 doses of Flu Vaccines
- Technical guidance for case management for H1N1 Flu
- Coordination of Outbreak response at national level
- Support for Laboratory Investigations - reagents for laboratory investigations at Noguchi Memorial Institute for Research (NMIMR) and shipment of specimen to WHO Laboratory Collaborating Centres
- Development of health message on infection prevention and control
- The response actions were rapid and effective; and the situation was contained.

Category 6: Corporate Services and Enabling Functions

7.1 Strategic Communication

During the year under review, the facebook page: www.facebook.com/WHOGhana and the WCO/Ghana website which were regularly updated. WCO/Ghana produced quarterly newsletters in addition to press releases on African Vaccination and Child Health Promotion Weeks. Official Health Days were also planned and celebrated and activities documented and disseminated to Technical Staff, Development partners, WRs & HPRs in AFRO

7.2 Transparency Accountability and Risk Management

As part of the Transformational Agenda, the Regional Office has set up the Accountability and Internal Control Strengthening Project to assist Country Office Staff in improving controls and accountabilities. There are now best practices, guidance on rules and regulations, SOPs, checklists and templates in place to increase work efficiencies. The use of KPIs is also in place for Country Offices to have a complete self-check on its performances against well-defined indicators.

The WCO had its Desk Review Audit 2016/2017 closed with the main recommendation to ensure that onsite monitoring on DFC are documented.

7.3 Management and Administration

The general management and administration of the Office was ensuring full compliance and implementing control framework, ensuring a very efficient and effective information, communication and technology system with up-to-date infrastructure, provision of operational and logistic support and compliance of MOSS requirements.

7.5.1-Compliance and Control Framework -

The necessary internal controls for efficient running of the office has been in line with organizational policy. The WCO followed clear delegation of authority, clear lines for reporting and strict adherence to laid down policies and procedures. The Country Office has a Compliance and Risk Management Committee who met quarterly to ensure full compliance of rules and regulations, SOPs and policies at the country level.



The WCO as a normal practice followed up with government counterparts to have overdue and currently due reports submitted in due course for full closure of the POs. elmprest Operations.

The elmprest system has been managed very well in the year and monthly closures are done promptly and reports submitted before the 10th of every month. The WCO has been very prompt in its elmprest operations and it has scored very good KPI ratings in the year.

Information and Communication Technology

WCO Ghana enjoyed a year of effective and efficient computing infrastructure and systems during the period with the provision of excellent ICT management and support to ensure uninterrupted reliable operation of all ICT infrastructures.

OFFICE 365 Mailbox Storage Increase

After the successfully migration of all users email boxes to office 365 (O365) with 50GB of storage, staff members further enjoyed another increase of email storage size from 50GB to 100GB

Service request

Information and Technology Management (ITM) unit including WCO Ghana continues to use the new Service Request platform - ServiceNow. This is an Incident Management system that manages all WHO activities including IT incidents and requests. It also gives an overview of all reported incidents which is used for IT KPIs. All ICT help-desk support offered to staff were logged during the last quarter of 2017 with a total of 291 incidents

Server Upgrades

The Dynamic Host Configuration Protocol (DHCP) and Domain Name System (DNS) and Active Directory (AD) services were upgraded from Windows 2003 Server to Windows 2012 Server. These upgrades were installed on two new Dell Servers. After the successfully installation and upgrades, the old applications on the 2003 servers were decommissioned.

Business Continuity Plan (BCP)

In other for the office to be able to continue critical processes in an event of a disaster or crisis such as major power outages, natural disasters, terrorist attacks, and a possible pandemic influenza, WHO Ghana together with the Regional Office for Africa implemented a corporate Business Continuity Management Strategy Plan. The plan ensures the provision for staff safety and security as well as the continuity of critical business processes during and after an incident to enable the organization delivers its mandate. WCO Business Continuity Plan (BCP) was finalised and signed. A table top Business Continuity Plan (BCP) drill was conducted at WCO and the BCP document was also updated.

ICT Infrastructure Upgrade

The office had a new CAT6 Network Cabling. The Local Area Network was changed from CAT5e to CAT6 and new UPS backup equipment were successfully installed to keep the servers running in the event of power failures. This was in conformity with the recommendations from the regional ICT assessment and standard check list of tests of key office IT indicators conducted the previous year to review our WAN and LAN performance. This assessment checked to ensure an enable environment for staff to work and access ICT services adequately.

As part of the recommendations, the Equipment Room also had a face-lift of two new Server Racks and Air Condition. Also, ICT successfully installed a new WIRELESS LAN to CISCO WIRELESS NETWORK to conform to WHO LAN and WAN standards

Back Up Service (ICT)

Currently document files are backed up daily and monthly. A copy of the monthly backup is kept off-site at one of the UN sister agency.

A Backup Internet connectivity service is operational 24-7. This serves as backup for the primary VSAT Internet

Staff Support and Training Needs on ICT

Support and Training were provided for staff throughout the year on all new ICT initiated projects. Training were given to staff on various innovations and requirements for ICT. Eg. The Drivers were taken through how to write Travel Report in e-Work and how to create Travel Plan in GSM

WHO Ghana ICT Policy and other ICT Circulars were reviewed and disseminated periodically.

Operational and Logistics Support Office Accommodation

The WCO Ghana office has been at its present location since August 1997. The agreed rate for rent is \$11,500/month which is a 28% increment from the previous rate of \$9000. The WCO has been in earnest search for less costly but modern office premises but has not been successful yet. The WCO has also written to the Minister of Health to support in this regard but has also not been successful.

The WCO hope to pursue both actions to ensure cost on rent payment is reduces at the barest minimum.

Fleet Management

The WCO had nine (9) vehicles which are all operational, of which two were procured in 2016. Only one of them is overaged (2008) and it disposed of three (3) vehicles as donation to government health institutions. A total mileage of almost 180,000kms was safely covered by the fleet during the period. Service/maintenance expense of GHS43,142.76 was incurred on the fleet with an average downtime for maintenance service of 1 day.

Procurement of Goods and Services

There is a Local Procurement Committee in place at the WCO set up in 2014. Its main mandate is to provide objective and independent advice on procurement of goods and services for the WCO. The Regional Office provided new terms of reference for local LPCs which will be set up in 2018. A total of 24 LPC meetings were held. 29 rounds of goods procurement, 200 General External Services and 4 Imprest Purchase Orders were successfully carried out in GSM during the period. 52 port clearances activities were also successfully undertaken and all consignments were delivered to the end user projects. Also of significance was the involvement of Logistics in various joint UN activities.

MOSS

The WCO did its Mandatory Assessment in November 2017 and was requested to present its budget since the office was non-compliant. This we could not take action due to the fact that there is a possible relocation and some actions might have to be repeated if done now.

