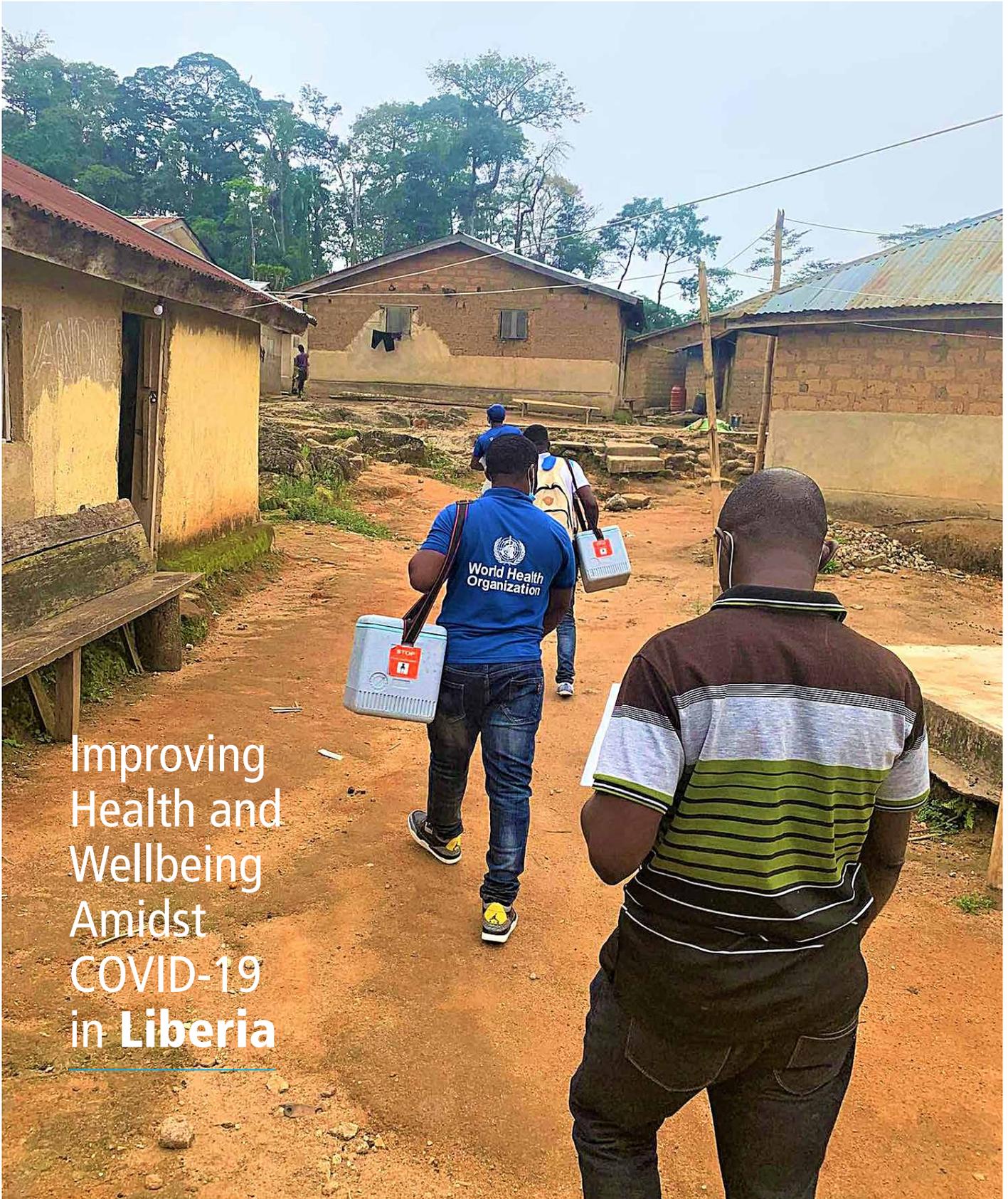




World Health
Organization

WHO LIBERIA COUNTRY OFFICE

2021
ANNUAL
REPORT



Improving
Health and
Wellbeing
Amidst
COVID-19
in **Liberia**

WORLD HEALTH ORGANIZATION CORE FUNCTIONS

- Articulating consistent, ethical, and evidence-based policy and advocacy positions.
- Managing information, assess trends and compare performance of health systems; set the agenda for, and stimulate, research and development.
- Catalyzing change through technical and policy support, in ways that stimulate action and help to build sustainable national capacity in the health sector.
- Negotiating and sustaining national and global partnerships.
- Setting, validating, monitoring, and pursuing the proper implementation of norms and standards.
- Stimulating the development and testing of new technologies, tools and guidelines for disease control, risk reduction, health care management and service delivery.

WORLD HEALTH ORGANIZATION STRATEGIC DIRECTIONS

- Continued focus on WHO's leadership role in the provision of normative and policy guidance as well as strengthening partnerships and harmonization.
- Supporting the strengthening of health systems based on the primary health care approach.
- Putting the health of mothers and children first.
- Accelerated actions on HIV/AIDS, malaria, and tuberculosis.
- Intensifying the prevention and control of communicable and noncommunicable diseases.
- Accelerating response to the determinants of health.

WHO'S MISSION IS TO PROMOTE HEALTH, KEEP THE WORLD SAFE, AND SERVE THE VULNERABLE.

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COVER: Breaking the barrier of geography and ensuring access for COVID-19 vaccines.
©WHO Liberia

ABOVE: A health worker immunizes a child.
©WHO Liberia

Contents

2	FOREWORD
3	EXECUTIVE SUMMARY
6	BACKGROUND
8	INTRODUCTION
10	HEALTH SYSTEM STRENGTHENING (HSS) CLUSTER
16	FAMILY AND REPRODUCTIVE HEALTH (FRH) CLUSTER
20	EXPANDED PROGRAM ON IMMUNIZATION (EPI)
34	DISEASE PREVENTION AND CONTROL (DPC) CLUSTER
42	HEALTH EMERGENCIES (WHE) CLUSTER
60	ENABLING FUNCTIONS (MANAGEMENT)
67	KEY CHALLENGES
68	RECOMMENDATIONS
69	LESSONS LEARNED
70	CONCLUSION
71	PRIORITY FOCUS (PB 2022 - 2023)
72	ANNEX 1
74	ANNEX 2

List of Figures and Tables

Figure 1: Liberia map	7
Figure 2: Maternal Deaths reported at HF Vs Community, Jan.- Oct. 2021 (DHIS2)	19
Figure 3: ANC 1 vs ANC 4, Jan.- Oct. 2021 (DHIS2)	19
Figure 4: Neonatal Mortality reported at HF Vs Community, Jan.- Oct. 2021 (DHIS2)	19
Figure 5: Number of ISIS Visits by Priority Level	22
Figure 6: ISIS Visits by Priority Level	22
Figure 7: Surveillance Focal Point Last Training	22
Figure 8: National Routine Immunization Performance Jan - Oct 2021	26
Figure 9: Map showing Penta 3 and OPV 3 coverage Jan - Oct 2021	26
Figure 10: Map showing Penta 3 and OPV 3 coverage Jan - Dec 2020	26
Figure 11: Strategic Information generated from the rATA Survey	36
Figure 12: Providers and Funding Sources of Assistive Products	36
Figure 13: Reasons for not having the needed assistive products	37
Figure 14: The road map towards eliminating cervical cancer in Liberia	39
Figure 15: Location of WHO field offices in Liberia, 2021	41
Figure 16: IDSR Selected Key Performance Monitoring Indicators, Liberia, 2016 to 2021	42
Figure 17: Diseases Outbreak by Districts, Liberia, Epi-week 01 to 52	43
Figure 18: Countrywide oxygen supply plan	45
Figure 19: COVID-19 situation Report	50
Figure 20: Epi - classification of Lassa fever cases and confirmed deaths by reporting weeks, Liberia, Epi-week 1 - 49, 2021	52
Figure 21: Geographical distribution of Lassa fever cases by health districts, Epi-week 1 - 49, 2021	52
Figure 22: Capacity building on Laboratory capacity for quality specimen collection and management for EVD and other VHF's	53
Figure 23: NAPHS activities implemented status in percentage	55
Figure 24: Partner and Resource Mapping for Health	56
Table 1: AFP Surveillance	27
Table 2: Measles febrile illness rash rate by county as of Epi week 45, 2021	28
Table 3: Cumulative vaccination status of reported Yellow Fever cases by County as of week 45, 2020	28
Table 4: Disease outbreak investigation and response	43
Table 5: List of items procured	46
Table 6: List of items procured for Cholera lab kits	47
Table 7: COVID-19 Surveillance status	50
Table 8: COVID-19 Surveillance status from neighboring countries	50
Table 9: Summary of IHR technical areas performance as of June 2021	55

Acronyms

AESI	Adverse Events of Special Interest (following vaccination)	HMIS	Health Management Information System
AFENET	Africa Field Epidemiology Network	HQ	WHO Headquarters
AFP	Acute Flaccid Paralysis	IATI	International Aid Transparency Initiative
AFRO	African Regional Office	IDSR	Integrated Disease Surveillance and Response
AIDS	Acquired Immune Deficiency Syndrome	IEC	Information, Education, and Communication
AMR	Antimicrobial Resistance	IHR	International Health Regulations
ANC	Antenatal Care	IOM	International Organization for Migration
AVADAR	Auto Visual AFP Detection and Reporting	IPC	Infection Prevention and Control
BMGF	Bill and Melinda Gates Foundation	IPT	Intermittent Preventive Therapy
CCS	Country Cooperation Strategy	IPV	Inactivated Poliovirus Vaccine
CDC	Centre for Disease Control	ITN	Insecticide Treated Nets
CHAI	Clinton Health Access Initiative	JICA	Japan International Cooperation Agency
COVID-19	Corona Virus Disease	KOICA	Korean International Cooperation Agency
DHIS	District Health Information System	LDHS	Liberia Demographic and Health Survey
DPT	Diphtheria, Pertussis and Tetanus vaccine	LISGIS	Liberia Institute for Statistics and Geo-Information Services
EPA	Environmental Protection Agency	LMH	Last Mile Health
EPHS	Essential Package of Health Services	LMHRA	Liberia Medicines and Health Products Regulatory Authority
EPI	Expanded Programme on Immunization	MDR-TB	Multi-Drug Resistant Tuberculosis
EVD	Ebola Virus Disease	MOH	Ministry of Health
FAO	Food and Agriculture Organization	MPTF	Multi-Partner Trust Fund
FCTC	Framework Convention on Tobacco Control	MTR	Mid-Term Review
GAVI	Global Alliance for Vaccines and Immunization (GAVI the Vaccine Alliance)	MVD	Marburg Virus Disease
GHSA	Global Health Security Agenda	NCD	Non-Communicable Diseases
GoL	Government of Liberia	NGO	Non-Governmental Organization
GPS	Global Positioning System	NHFPS	National Health Financing Plan and Strategy
GPW-13	Thirteenth General Programme of Work	NIH	National Institute of Health
HIV	Human Immunodeficiency Virus		

nOPV2	2 nd Dose of Novel Oral Polio Vaccine	WCO	WHO Country Office
NPHIL	National Public Health Institute of Liberia	WHE	WHO Health Emergencies Programme
NRL	National Reference Laboratory	WHO	World Health Organization
NTD	Neglected Tropical Diseases	WR	WHO Country Representative
ODK	Open Data Kit		
OPV	Oral Polio Vaccine		
PCR	Polymerase Chain Reaction		
PMI	US President's Malaria Initiative		
POE	Point of Entry		
PSEA	Prevention of Sexual Exploitation and Abuse		
QC/QA	Quality Control / Quality Assurance		
RCCE	Risk Communication and Community Engagement		
RMNCAH-N	Reproductive Maternal Newborn Child and Adolescent Health and Nutrition		
SAM	Semi-Annual Monitoring		
SARA	Service Availability and Readiness Assessment		
SDG	Sustainable Development Goals		
SOP	Standard Operating Procedures		
SRMNCAH	Sexual, Reproductive, Maternal, Newborn, Child, and Adolescent Health		
STEPS	Stepwise Approach to NCD Risk Factor Surveillance		
UHC	Universal Health Coverage		
UNAIDS	Joint United Nations Program on HIV/AIDS		
UNFPA	United Nations Population Fund		
UNICEF	United Nations Children's Fund		
USAID	United States Agency for International Development		
VOC	Variants of Concern		
VPD	Vaccine Preventable Diseases		





Foreword

The WHO Country Office (WCO) in Liberia assiduously worked with the Government of Liberia through the Ministry of Health to respond to the COVID-19 pandemic while ensuring the continuity of essential health services. The work of the Organization aligned with and focused on the Thirteenth General Programme of Work (GPW13), which defined WHO strategic priorities from 2019 - 2023.

Continuing with this alignment, the WCO centered its work along the other global and national priorities like the SDGs, the National Development Agenda – the Pro Poor Agenda for Prosperity and Development (PAPD) and the National Health Policy and Strategic Plan (NHPSP) 2011-2021 and the UNSDCF.

The impact of WHO work and results achieved in 2021 were possible because of the strong collaboration and very good working environment with the Government of Liberia, guidance, technical and financial support from WHO Afro and HQ as well as financial support from development partners. The contributions from the WHO staff have been instrumental.

Despite health system challenges and interruptions of service delivery from COVID-19, the work of WHO Liberia is contributing to keeping Liberia safe from public health threats, increasing access to universal health coverage and promoting healthier lives.



Dr. Clement Peter Lasuba Lugala

WHO Representative for Liberia

Executive Summary

The WHO Country Office in Liberia 2021 annual report reflects the key achievements, challenges and lessons learnt in the implementation of programmes of technical cooperation with the Government of Liberia from January to December 2021.

The focus of our work is to achieve impact in Liberia through improving access to essential health services, protecting the population from health emergencies and promoting health and well-being.

The key achievements are summarized under the thematic areas below:

1. Strengthening leadership for health and increasing WHO Visibility



WHO stanchly played a lead role in the Incident Management System (IMS) established for coordinating, strengthening multisectoral partnership and addressing COVID-19 preparedness and response in Liberia at national and sub-national levels.

Under the Multi-Partner Trust Fund (MPTF), a UN joint project for RMNCAH under the leadership of the Resident Coordinator, WHO was tasked to coordinate the planning, coordination, implementation, and monitoring of the project in Grand Bassa, Gbarpolu and Grand Kru counties.

Within the UN Country Team (UNCT), WHO provided guidance on public health threats and social measures contributing to the health security of all UN Staff in the context of COVID-19 pandemic preparedness and response in the country.

Under the guidance and leadership of the WR, the WCO successfully planned, coordinated the evaluation of the GoL-WHO CCS 2018-2021 by stakeholders including GOL, UNCT, health partners including donors, National and International NGOs/CSOs, Academia and private sector.

The CCS evaluation also included a one-day strategic dialogue session involving strategic partners and online surveys to identify strategic priorities and recommendations for the ensuing CCS (2022-2026).

WHO's strong technical assistance to key areas like capacity building for data managers for the collection of real time data, monitoring and use of data at county / district level improved to 89% in 2021. Enhanced surveillance at all levels also increased in terms of the number of

reported cases from 15 cases in 3rd quarter of 2020 to over 33 reported cases at the end of 2021.

The WCO was highly instrumental in facilitating technically and financially, the revision of core national policies, strategies, standards, guidelines and SOPs that contributed to improving delivery of quality health services. These included the revision of the national health policy, health sector strategic plan, the essential package of health services, priority programme strategies, protocols, job aids, and guidelines.

2. Sustaining and ensuring continuity of immunization and vaccinations

Progress on routine immunization is back on track despite the setback caused by the pandemic. Liberia is the first country that secured the approval for the introduction of nOPV2 under the US License conditions and the second to introduce nOPV2 globally.



This increased effort has improved the level of routine immunization in the country. As the first country in the African region to carry out Typhoid Conjugate Vaccine (TCV) mass campaign at national scale and the only country with TCV in its routine immunization schedule, overall, a rapid progress is anticipated towards the health and health-related goals (3.8) in the country. The WHO daily interactions and support to the COVID-19 vaccinations by the Government also steered the country towards maintaining a focus on achieving the WHO target of 40% by the end of 2021. Progress toward this target was estimated at 22% as at the end of December 2021.

3. Preventing and controlling Communicable, Non-Communicable and Neglected Tropical diseases

The Malaria National Strategic Plan was updated for 2021-2025 and used to mobilize Global Fund resources for 2021-2023.

Nearly 3 million insecticide-treated mosquito nets were distributed to households throughout the country in June 2021. HIV Testing, Treatment, and Viral Suppression, Liberia is at 78-68-77 towards the 90-90-90 target. Supported the MOH and partners to implement priority NCD activities, capacity building for health workers on Cervical and Breast Cancer screening and Priority Assistive Products.



4. Effective implementation and resource management

WHO Liberia has successfully implemented and operationalized the mobile money initiative. This has facilitated and fast tracked the completion of all payments in real time, further resulting in a wider vaccination coverage through strengthened field support in a more effective manner.



5. Health Security and Emergency Preparedness and Response

WHO supported the preparedness, detection and response to 42 disease outbreaks, of which 40 outbreaks (95.2%) were responded to within 48hrs. As of 31 December, upsurges of COVID-19 were controlled in collaboration with partners. A total of 173,984 tests were conducted with 4,858 confirmed cases including 201 health worker infections, 207 deaths (CFR : 4.2%) while 4,504 cases recovered.

WHO technical and financial support heightened community engagement that scaled up COVID-19 vaccination uptake in five densely populated counties, in the last quarter of 2021. This led to increased vaccination coverage from 11% earlier in the year to 22% at the end of the year.

More than 2,000 radio and 24 television spots were aired, assorted IEC materials developed, disseminated and used in creating awareness and educating the general public on basic preventive measures of COVID-19 and scale up of COVID-19 vaccination.

Challenges

- The major challenges faced centered around the adverse effects of COVID-19 outbreak on the health system, resource constraints, nationwide vaccine hesitancy towards COVID-19 vaccines, among others.
- Disruption in the access to and utilization of essential health services due to COVID-19. Restrictions in access to office reduced the work outputs.
- Limited human and financial resources to effectively implement biennial planned activities and adequately provide technical support to the Ministry of Health and the National Programs.
- Mobile money payment challenges especially in the mismatching of phone numbers, names and limited wallet space is leading to delays in payments.



Moving Forward in 2022

In 2022, WHO support to the health sector will focus on:

- Improving access to quality essential health services, facilitating disease prevention and control, scaling up immunization, improving essential maternal newborn child and adolescent health and strengthening the health system.
- Enhancing national and subnational capacities for emergency preparedness and response, prevention and control of outbreaks, epidemics and pandemics, and scaleup information generation through operational research and innovations.
- Contributing to safe and healthier environment, supporting equitable access to basic social services and wellbeing.
- Reinforce strengthening of leadership and good governance through improved management of financial, human, and administrative resources and strategic partnerships to ensure an enabling environment for the attainment of desired results.



Background

The WCO 2021 annual report highlights key achievements, lessons learnt, and challenges of the Liberia Country Office. It is aligned with the national health priorities set by the National Health Policy and Strategic Plan (NHPS) 2011-2021, the GoL Pro-Poor Agenda for Prosperity and Development (PAPD) 2018-2023, GoL-UN Sustainable Development Framework 2020-2024, WHO Member States Thirteenth General Programme of Work (GPW 13) 2018-2023 and the Sustainable Development Goals (SDGs).

In collaboration with partners, WHO worked to support the Health Sector along five

strategic areas as outlined in the GoL-WHO Country Cooperation Strategy (CCS) 2018-2021, namely: health systems strengthening, sexual reproductive maternal, newborn child, and adolescent health and gender equity and rights, health security, disease prevention and control and coordination and partnerships. The Country Office worked across all levels of the health care delivery system, serving at national and sub national levels (counties, districts, health facilities, and communities) focusing on quality health care service provision as well as emphasis and advocacy on addressing the social determinants of health (SDH).

LIBERIA'S DEMOGRAPHIC, ECONOMIC AND HEALTH INDICATORS

Liberia is located on the west coast of Africa, bordered by Sierra Leone on the west, Guinea on the north, Ivory Coast on the east, and the Atlantic Ocean on the south. The country covers a land area of 111,369 square kilometers, with up to 580 kilometer coastline and home to about 5.6 million people in 2020.

It is a low-income country with GDP per capita estimate at US\$483 in 2020 (World Bank) and projected at 3.6 percent in 2021 (World Bank).

The country is geographically divided into five regions and 15 counties, population ranging from 74,317 in Grand Kru County to 1,434,974 in Montserrado County.

The 2019-2020 Demographic and Health Survey (DHS) results indicate that infant mortality rate in Liberia increased from 54 deaths per 1,000 live births in 2013 to 63 deaths per 1,000 live births in 2019-20. Liberia's maternal mortality ratio though still unacceptable, significantly reduced from 1,072 per 100,000 live births in 2013 to 742 deaths per 100,000 live births (DHS 2019 - 2020), a 31% decline from the 2013 estimate. The total fertility rate is 4.2 with rural women most likely to have more children (5.5 births per woman) than those in urban areas (3.4 births per woman). The 2019-2020 LDHS also indicates a worsening neonatal mortality rate at 37 per 1000 live births compared to 26 per 1000 live births in 2013 and an Under Five Mortality Rate at 93 per 1,000 live births.



Figure 1: Liberia map.

On the UHC pillar, the triple billion dashboard projections for 2023 shows a negative trend in three UHC indicators: DPT3 immunization (83%), Mean Fasting Blood Glucose (40%) and use of ITN (25%). There is a significant regression in terms of progress of these indicators; thus, WHO Liberia prioritized its work on the relevant outputs addressing these indicators in the 2022-2023 biennial workplans.

The health facility density ratio of Liberia is 2.1 per 10,000 people, which is encouraging base on the WHO threshold of 2 while the core health worker's density is 12.8 per 10,000 populations which is nearly a quarter of WHO recommendation (44.5 per 10,000 population).

HIV prevalence among adults aged 15-49 is 2.1% (LDHS, TB incidence is 510 per 100,000 (2019 WHO country profile), and Malaria prevalence has declined from 66% in 2005 to 28% in 2021. For Maternal and Child Health, only 69.2% of children under 1 year received

DPT3 and Penta-3 vaccination, while 70% of pregnant mothers received IPT2. Up to 87% of pregnant mothers attended four antenatal care (ANC4) visits, skilled birth attendance is 84%, and institutional delivery is 80%. Up to 3% of children under 5 years are reported to have chronic malnutrition and 45% of pregnant mothers are reported to have varying degrees of anemia (LDHS 2019-2020).

Liberia is the 1st Country in West Africa to introduce nOPV2 vaccine and TCv. A total of 853,279 children were vaccinated during the first round and 978,333 were vaccinated during the second round of nOPV2 vaccination campaign all aged 0-59 months were vaccinated against poliomyelitis in March and May 2021. A total of 1,524,209 children aged 9 months – <15 years were vaccinated against Typhoid disease in April 2021. Of the 1,524,209 children vaccinated, 789,322 (52%) were females and 734,887 (48%) were males.

Introduction

WHO-Liberia has focused its contributions on results that are critical in addressing issues prioritized in the national health agenda. The work and implementation plan for the year 2021 was aligned to the WHO thirteenth General Program of Work (GPW13) 2019 - 2023 (2025), WHO Transformation Agenda (2015 - 2020) and the sustainable Development Goals (SDGs).

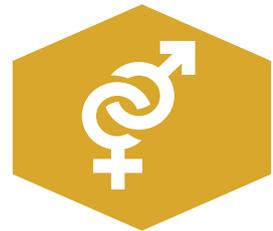
WHO key focus areas were: **health systems strengthening, sexual reproductive maternal, newborn child, and adolescent health and gender equity and rights, health security, disease prevention and control and coordination and partnerships.**

The sections that follow are a summary of the key results achieved by the focused areas from January to December 2021.

SRMNCH



GENDER



NUTRITION

HEALTH SYSTEMS
STRENGTHENING

IMMUNIZATION

HEALTH
EMERGENCIES



Pregnant mothers que up for Antenatal Health Care at a Health Facility in Liberia. ©WHO Liberia

Health Systems Strengthening (HSS) Cluster



Participants at the Strategic dialogue meeting between WHO and the Government of Liberia on 8 Dec 2021 for the evaluation of the GoL-WHO CCS 2018-2021 and Development of the new GoL-WHO CCS (2022 - 2026). © WHO Liberia

Liberia health system remains fragile and this has been further strained by the COVID-19 pandemic with significant disruption in access to and utilization of essential health services. Key efforts by MOH and partners have focused on rebuilding the health system at national

and sub national levels while simultaneously ensuring continuity of essential health services. These health systems strengthening efforts have been based on and guided by the WHO Member States Action Framework for HSS towards UHC in African region.

Achievements

- **Strengthened Leadership and governance**



Five key policies and strategies (National Health Policy 2022-2030, Health Sector Strategic Plan 2022-2026, National Health Financing Policy and Strategy 2022-2026, EPHS II 2022-2026 and Community Health Program Policy and Strategy) were reviewed, elaborated, and costed for final validation, dissemination, and use at national and sub-national levels to inform and guide health service delivery towards UHC, Global Health Security Agenda and other health related SDGs.

- **Strengthened Antimicrobial Stewardship (AMS) and Quality Assurance/Control**



Successfully adapted, launched, and rolled out the National Antimicrobial Stewardship (AMS) Guidelines and Toolkits resulting in strengthened surveillance and reduction in antimicrobial resistance (AMR) in 07 hospitals across 05 counties.

Completed the baseline assessment of antibiotic consumption and resistance using the adapted WHO Point Prevalence Survey in 07 hospitals across four counties (Montserrado, Grand Cape Mount, Bong and Lofa). The findings provided a baseline and informed antibiotic prescription practices and stewardship programming in referral healthcare facilities in Liberia hospitals.

Built the technical capacity of 78 frontline healthcare workers at the national and health facility levels; and logistic capacity of 07 referral hospitals which resulted to the establishment and strengthening of multidisciplinary Antimicrobial Stewardship Committees (Quality Management Teams) Quality Management Teams in 7 public hospitals in 4 counties (Grand Cape Mount, Lofa, Bong and Montserrado).

Successfully collaborated and supported Liberia Medicines and Health Products Regulatory Authority (LMHRA) in revising the design of the National QC/QA Laboratory in line with WHO guidelines and recommendations. Once completed, the laboratory will improve the capacity of the National QC/QA Laboratory testing centres in quality assessment and control.

- **Strengthened Health Information System**



Supported the MOH and partners to review and update data for the National Health Observatory (NHO) for Liberia. The latter is part of the overall integrated Africa Health Observatory platform. The NHO for Liberia contains data, statistics and report and other knowledge products that are critical for policy, planning and programming at national and sub national levels. This has improved the availability of real time data and strategic information for evidence-based decision making.

Supported the first ever Harmonized Health Facility Assessment (HHFA) in Liberia covering 606 out of 936 public and private facilities.

The assessment findings defined key areas of health system performance including readiness, service availability, quality of care, management and finance and others. These will be used by MOH and partners to provide specific health systems strengthening efforts at sub national levels.

Successfully launched and adapted the Health Systems Off-The-Shelf Simulation Exercise (OTSE) package which will be used to facilitate Health Systems SimEx at the sub national level including mass casualties.

Completed the mid-term review of the implementation status of the KOICA-funded Health Service Resilience (HSR) project. This has identified key priority areas and opportunities that will improve project implementation on HSR in the final years of the project.

- **Improved delivery of essential health services**

Completed two pulse surveys to assess and monitor the continuity of essential health services in the context of COVID-19 pandemic.

Successfully supported 15 counties to review and improve the quality of HMIS data for evidence-based decision making and planning.

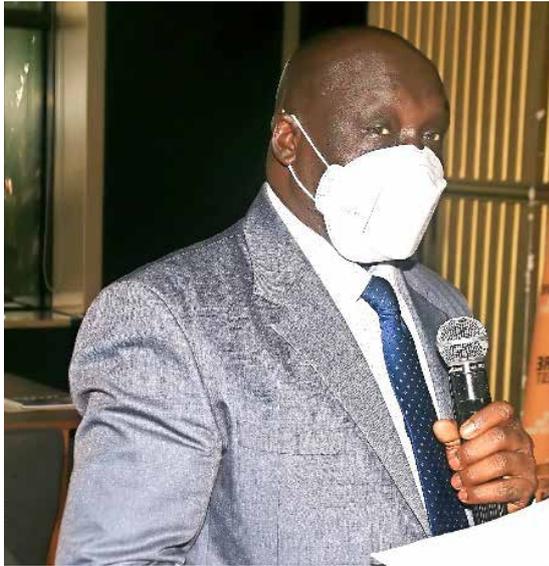


- **Sustainable health care financing**

Completed the validation of the FY 2018/19 National Health Accounts (NHA). Key findings from the NHA showed an unacceptable high out of pocket household expenditure on health at 53%, which is pushing a number of people into poverty and needs to be addressed and reversed collectively.



Completed comprehensive health financing review and situation analysis that informed the NHFPS 2022- 2026 with earmarked reforms to be undertaken by GoL. Among these are the roll out of the Liberia Health Equity Fund, Revolving Drugs Fund, scale up of Performance Based Financing over



Above: The Honorable Minister of Health and the WHO Country Representative during the Strategic dialogue for the evaluation of the GoL-WHO CCS 2018-2021 and development of the new GoL-CCS for the next four years (2022 - 2026). ©WHO Liberia

the next five years to improve sustainable and equitable health financing.

- **Fit for Purpose Human Resources for Health**

Supported the MOH and partners in planning and implementing the first ever Workload Indicators of Staffing Need (WISN) to generate evidence that informs the national health workforce strategy and staffing norms for Liberia.



- **Improved Water Sanitation and Hygiene (WASH) and Environmental Health**

National Capacity to safely manage health care waste has been enhanced through the training of 1347 health care workers (including 250 heads of Nurses, Midwives, Physician Assistants, and Doctors, 75

Water Quality Technicians, 90 CHTs master trainers, and 932 waste managers, and janitors) contributing to the successful implementation of the National Guidelines for the Safe Management of healthcare services in 10 of the 15 counties in the country.

Scaled up Water Safety Planning and Quality Monitoring through procurement and distribution of water quality testing kits and reagents resulting in strengthening of water quality surveillance activities within the 15 counties in the country.



Improved knowledge and awareness on lead poisoning among locals in Liberia through completion and validation of the National Regulation for Lead Paint Use. Conducted a baseline assessment and data collection for mercury use in

Artisanal Small-Scale Gold Mines (ASGM), selected 8 health facilities, and conducted awareness activities for 8 ASGM communities and health facilities. Data collected is intended to support the National Chemical Road Map Development process in 2022.

Enhanced food disease surveillance and timely reporting across the 15 counties through the procurement and donation of tools and resources to the National Food Safety Secretariat in Liberia.



Built the technical capacity of

78

frontline healthcare workers at the national and health facility levels; and logistic capacity of 07 referral hospitals which resulted to the establishment and strengthening of multidisciplinary Antimicrobial Stewardship Committees.



Improved the capacity to sustain delivery of quality routine healthcare services across all levels of health care through capacity building of

48

national and sub-national health system managers on healthcare quality and service resilience.



Supported the first ever Harmonized Health Facility Assessment (HHFA) in Liberia covering

606

out of 936 public and private facilities.



National Capacity to safely manage health care waste has been enhanced through the training of

1347

health care workers.



Vivien Teekpor 31 years acknowledges the benefits of exclusive breast feeding for the nourishment of her 4 month child Mary Gorr. ©WHO Liberia

Family and Reproductive Health (FRH) Cluster



The Family and Reproductive Health (FRH) Cluster comprises programmes that focus on the care continuum along the Life Course. The overarching goal of the Cluster is towards accelerated restoration and delivery of essential sexual reproductive health, maternal, newborn, child and adolescent health services and nutrition programmes in Liberia. In consonance with the National RMNCAH Investment Case,

which was endorsed as the National Road Map, the National Nutrition Policy and Plan, the core results of the Cluster's contributions are prioritized below. Collaboration and synergies were established with other health partners including NGOs to support the Ministry of Health obtain optimal gains in improving SRMCAH care and services across the Country.

Achievements



- Improved skills in the planning and delivery of Sexual Reproductive Health and Rights (SRHR) services and programmes during COVID-19 and beyond through the capacity building of 17 professionals on the WHO African Regional Sexual, Reproductive Health and Rights guidelines; the WHO Training Resource Package (TRP) on Family Planning.
- Successfully mobilised resources for improved RMNCAH-N services in the most vulnerable Counties with the worst health indicators, targeting improved coverages of key essential maternity care services such as emergency obstetric and newborn care. This was achieved in collaboration with UNICEF, UNFPA, and IOM through the Multi Partner Trust Funds (MPTF) Platform for COVID-19, under the national joint project, the WCO secured 267,341 USD) out of 849,931 USD for 12 months.
- Instituted core competencies and standards resulting in effective guidance

and standardization of the planning and implementation of adolescent friendly health services at both health facility and community levels. This was achieved through the adoption and pre-validation of the Core Competencies in adolescent health and development for primary health care providers and the National Adolescent Sexual Reproductive Health (ASRH) standards with secured funding (US\$30,000) and technical support from AFRO, the Ministry of Health in collaboration with key stakeholders in ASRH.

Supported the improvement of human resources for enhanced quality of Maternal and Newborn Care and midwifery practices through the employment of a junior professional officer (JPO) in collaboration with HQ to support MOH for a period of 2 years.

- Supported the improvement of nutrition care and services as an integral component in both emergency and recovery programmes in Liberia through the adoption, revision and validation of the IMAM Guidelines by the Ministry of Health in collaboration with key Nutrition actors.
- Revised and pre-validated seven interlinked protocols and tools to support planning and delivery of sexual, reproductive, maternal, newborn, adolescent health care services at all levels of the health care delivery system. The use of these continuum of care protocols will contribute to the reduction of maternal, neonatal and child mortality currently plaguing the Country.

Some of the specific indicators agreed and integrated in the HMIS for continuous monitoring and reporting to showcase progress and trends are the following:



A depressed neonate been resuscitated by a mid-wife. ©WHO Liberia

Figure 2: Maternal Deaths reported at HF Vs Community, Jan.- Oct. 2021 (DHIS2)

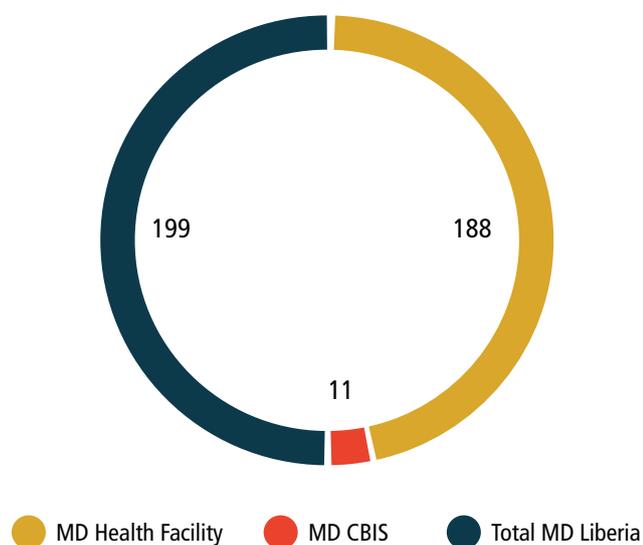


Figure 3: ANC 1 vs ANC 4, Jan.- Oct. 2021 (DHIS2)

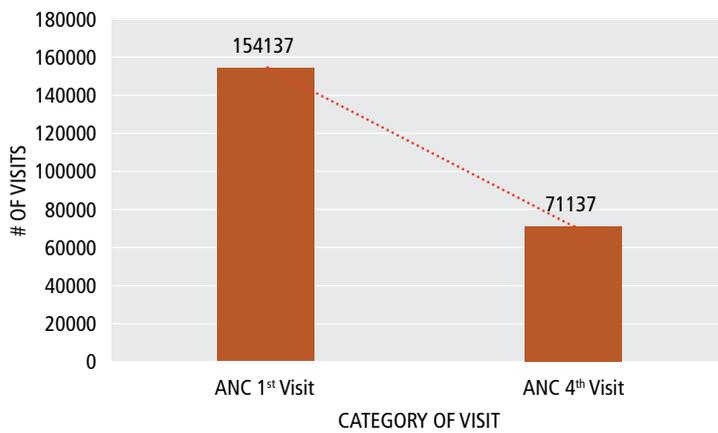
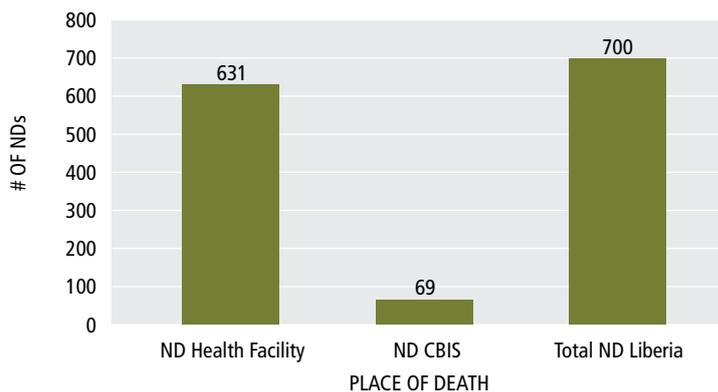


Figure 4: Neonatal Mortality reported at HF Vs Community, Jan.- Oct. 2021 (DHIS2)



Improved the number of AFP reported cases from 48 cases in 2020 to

127

cases in 2021 as a result of the intensification of AFP surveillance.

Improved skills in the planning and delivery of Sexual Reproductive Health and Rights (SRHR) services and programmes during COVID-19 and beyond through the capacity building of



professionals on the WHO African Regional Sexual, Reproductive Health and Rights guidelines.

Expanded Program on Immunization (EPI)



The overall goal for immunization program in Liberia is to continue the restoration and strengthening of immunization services that are available and accessible to all targeted population aligned with the five-year National Immunization Strategic Plan (NISP) and the

Global Immunization Agenda 2030. WHO-Liberia in collaboration with partners, coordinates and provides technical support to the government for the reduction of mortality /morbidity from vaccine preventable diseases.

Achievements

- Liberia was the first country, globally, to have successfully obtained the approval for the introduction of nOPV2 under US License conditions. This has resulted in interruption of the transmission of cVDPV2 since May 2021 to date.
- A total of 853,279 children under five years were vaccinated with nOPV2 vaccines in the first round while a total of 957,832 were vaccinated in the second round.
- Liberia has reported 3 Adverse Events following Immunization (AEFI) and a case of Adverse Event of Special Interest (AESI) linked to Acute Flaccid Paralysis (AFP) as a result of the institutionalization of heightened surveillance on AEFI and AESI/ AFP.

- Improved the number of AFP reported cases from 48 cases in 2020 to 127 cases in 2021 as a result of the intensification of AFP surveillance.

The first country in Africa to conduct a country wide Typhoid Conjugate Vaccine (TCV) campaign and subsequently introduce TCV as part of the country routine immunization schedule. This is resulting in a significant reduction in Typhoid disease condition in the country.

Key issues in EPI as of end 2020

Immunization service utilization continued to be poor due to: outreach in most places were sub-optimal, as a result of new vaccines introduced (nOPV2, TCV and COVID-19) that added more work couple with COVID-19 vaccines rumors which significantly affected the immunization

coverage nationally. Delayed disbursement of funds to support EPI activities especially outreach at peripheral level, data quality issues including timeliness, completeness and accuracy and the inability of the government to pay for the hosting of the DHIS2 platform and Sporadic outbreak of vaccine preventable diseases (e.g. Measles, cVDP2, etc.).

Figure 5: Number of ISIS Visits by Priority Level

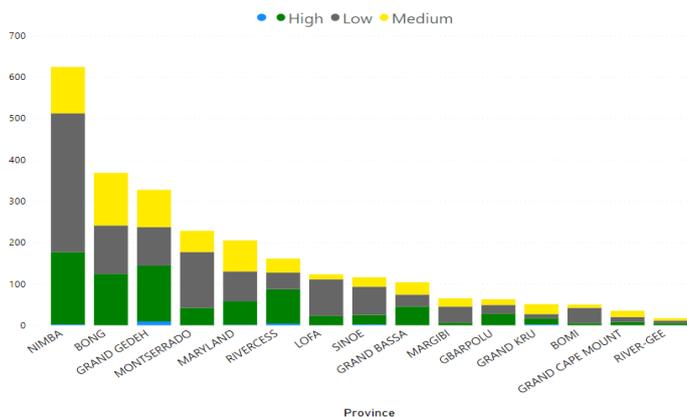
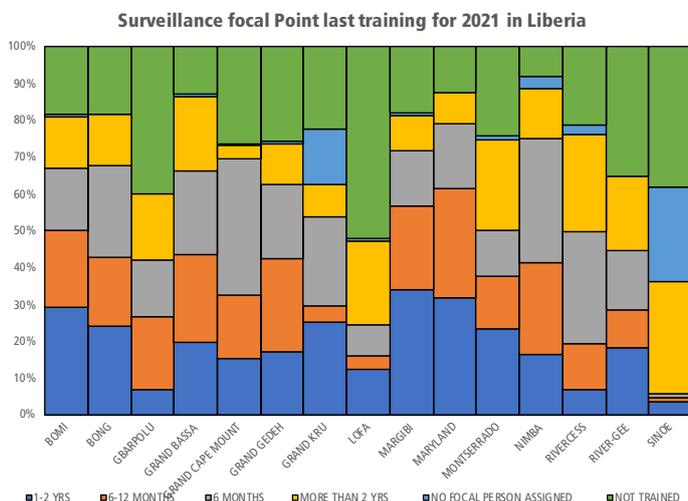


Figure 6: ISIS Visits by Priority Level



Figure 7: Surveillance Focal Point Training.



Routine Immunization

Monitored implementation of MOH-EPI Work plans

Conducted weekly EPI Technical Working Group (TWG) meetings with participants from MOH, WHO, UNICEF, LIP, USAID, CDC, JSI, LMH, etc. Furthermore, participated in Ebola Vaccine Technical Working Group (TWG) meetings along with NPHIL, MOH, CDC, Merck, NIH improving our coordination, updating our work plans and ensuring planned activities are effectively conducted.



Use of ISS checklists in the field and feedback to counties

WHO/ MOH personnel continued to use electronic integrated supportive supervision checklists at the county level during supportive supervision. A total of 2,033 ISS checklists have been completed from Jan - Nov 2021 during the visits. Data analysed and feedback provided to national and county teams to informed action plans for continued program improvement.



During the first quarter of 2021, support was provided for the application, and introduction of nOPV2 vaccine in response to cVDPV2 outbreak in Liberia, 853,279 children under five years were vaccinated.

Technical support was provided by WHO for the preparation of the application, development of guidelines and SOPs as

well as the successful introduction of TCV and COVID-19 vaccine and monitoring of the quality of the implementation.

Built the capacity of 132 surveillance officers for active case search and heightening surveillance for AEFI/AESI after nOPV2 introduction in Liberia and case finding activities ongoing have reported 3 AEFI and 1 AESI/AFP cases.

During 2nd quarter, support the planning, implementation, and monitoring of the 2nd round of nOPV2 NIDs immunization activities (May 28-31). A total of 957,832 Children under five were vaccinated with nOPV2 vaccines.

Donated 132 mobile phones to the government to support the use of new technology in VPD surveillance. This is strengthening surveillance and supervision using the ODK platform.

Safety surveillance (AEFI/AESI) was institutionalized as part of the pre-condition for use of nOPV2 under EUL to ensure monitoring of the vaccine safety in line with EUL guidelines for new vaccines.

Enhanced environmental surveillance established as part of the nOPV2 introduction to increase frequency of sample collection and by extension increase sensitivity of case detection. A total of 128 AFP cases were reported from the 15 counties, achieving the national surveillance indicators on stool adequacy and Non-Polio AFP rate.

Enhanced tracking for Adverse Events Following Immunization (AEFI)

As part of the requirements for the use of nOPV2 under US License conditions, EPI/MOH was supported to conduct national surveillance training of trainers in preparations for the nOPV2 introduction in Liberia, and AEFI/ AESI with participants from the national level (MOH/NPHIL), County surveillance officers and WHO county coordinators. A follow up training for the district surveillance officers for the 15 counties and the same were also cascaded to the health facility focal persons and community informants. Liberia has also been put on the ODK for AEFI surveillance making it ready for the deployment of nOPV2 and COVID-19 vaccines for effective surveillance on the possible outcome of the vaccine introduction. The Polio expert committee members and the AEFI causality assessment committee were trained on the new vaccines introduction and brought them up to speed with why AEFI / AESI monitoring is critical at this time. They were also oriented on their roles / responsibilities as members of the national causality assessment committee team to analyse and classify all reported cases accordingly.



New Vaccines Introduction

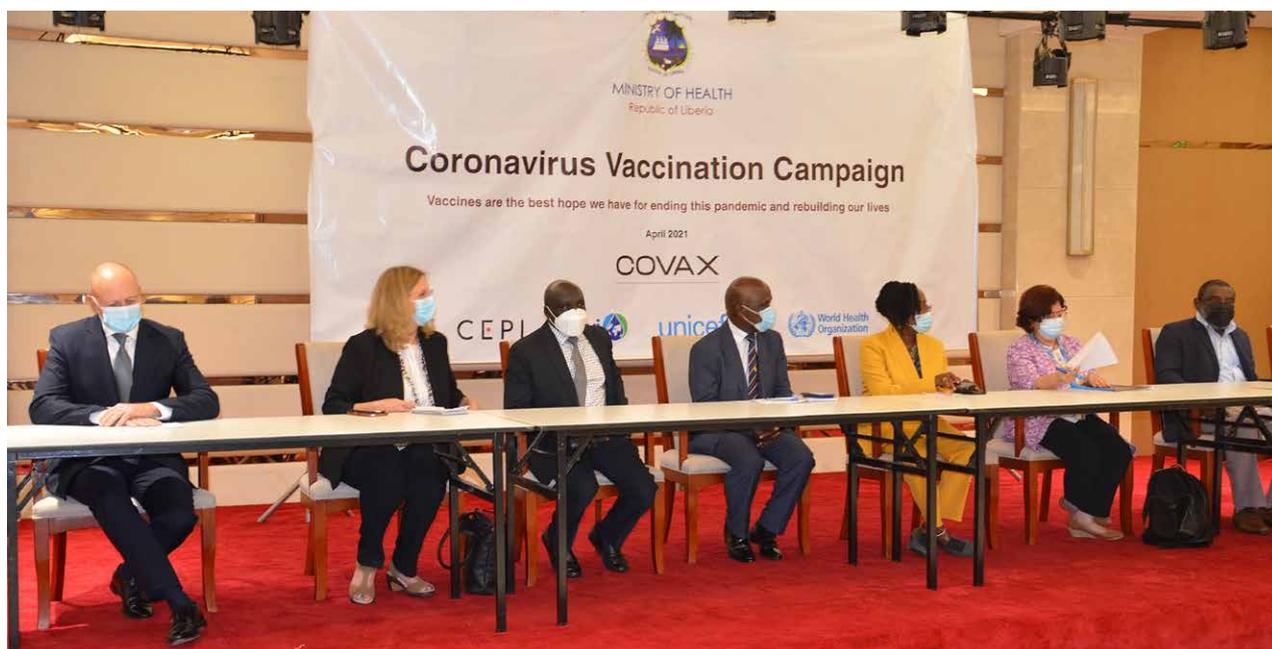
Typhoid Conjugate Vaccines (TCV) Introduction

As part of the plan to introduce Typhoid Conjugate Vaccines in Liberia, WHO supported the development of guidelines, SOPs, training materials and conducted training at the national level in January 2021 and cascaded the training to the sub-national and lower levels in April. The launching, campaign, monitoring and evaluation and final institutionalization of TCV into routine immunization took place in April 2021.

Novel Oral Polio Vaccine (nOPV) introduction

Sequel to the outbreaks of cVDPV2 in Côte d'Ivoire and Guinea with common borders with many counties in Liberia, couple with the high population movement between the countries, common cultures / traditions, the political instability, particularly in Côte d'Ivoire. The Rapid Response Team (RRT) in African Region AFRO conducted two rounds of polio campaigns in all the 15 counties in Liberia including 6 counties bordering Guinea and Côte d'Ivoire as a way of "fire walling" and improve the immunity profile of the children under five that are vulnerable.

Liberia have accepted to be one of the selected countries for the initial use of the nOPV2 vaccines under the WHO approved emergency use listing (EUL). Liberia conducted two rounds of the nOPV2 campaign as planned with good coverages outcomes as indicated by Lot Quality Assurance Sampling (LQAS).



Multi-partner Collaboration on Coronavirus Vaccination Campaign. ©WHO Liberia

Deployment of COVID-19 vaccines



Following the outbreaks of COVID-19 in Liberia, and the discovery of vaccines as part of the control measure of COVID-19, Liberia keyed into the COVAX vaccines facility, a platform provided by Gavi for low- and medium-income countries for vaccine supplies. WHO supported the development of the Liberia's initial National Deployment and Vaccine Plan

(NDVP) for COVID-19 Vaccine and adoption of the guidelines, SOPs and other training materials and eventual use of the vaccine. Currently, Liberia has received 1,303,200 doses of COVID-19 vaccine from the COVAX facility and other donors. Out of these, 288,000 doses were of AstraZeneca, while 1,015,200 doses were of the Johnson and Johnson products. We have fully vaccinated of 469,859, out of these 400,893 were with J & J, while it is only 69,705 were fully vaccinated with AstraZeneca.

Polio Eradication

Integrated Polio Immunization Campaign

Support was provided for the introduction of nOPV2 vaccination in response to cVDPV2 outbreak that was confirmed in Liberia on December 24, 2020, following the isolation of cVDPV2 in the environmental samples collected from communities in Montserrado County.

In March 2021, Liberia conducted its first nOPV2 National Immunization Days (NIDs), vaccinating 853,279 children under five years of age. With WHO support, the second round of NIDs was conducted in May 2021, reaching a total of 957,832 Children under five.

National Polio Certification Committee Meetings were held, in support of the Polio Certification process for the African Region in May 2021. Quarterly National Polio Committee Meetings involving NTF, NPEC and NCC members were held with the key outcomes including the annual polio report and the final classification of AFP cases.

National Surveillance Training

The national surveillance training was conducted for the national team, county surveillance officers, district surveillance officers, and WHO county coordinators to strengthen the surveillance system for effective nOPV2 vaccine introduction. A total of 154 participants from the central MOH and the 15 counties were trained.

AFP Surveillance scale up

Provided 132 mobile phones to support the use of new technology in VPD surveillance to the government to strengthen surveillance and supervision using the ODK platform.

Safety surveillance (AEFI/AESI) was institutionalized as part of the pre-condition for use of nOPV2 under EUL to ensure monitoring of the vaccine safety in line with EUL guidelines for new vaccines.



A child receiving Polio vaccination in action. ©WHO Liberia

Enhanced environmental surveillance established as part of the nOPV2 introduction condition to increase sample collection and sensitivity of case detection. A total of 128 AFP cases were reported from 15 counties and all are below 15 years of age and 1 AFP case reported from population above 15 years.

The National annualized Non-Polio AFP rate is 5.9 as of Epi week 45 while the National Polio AFP rate without annualization is 6.8 as compared to the regional target of 3/100,000 children under 15 years.

The national Stool Adequacy rate is 100% as compared to regional target of $\geq 80\%$ and the National Non polio enterovirus rate is 22% as compared to the regional target of 10%.

Effective AVADAR implementation



AVADAR is ongoing with funding from BMGF and in partnership with Novel-t in Montserrado county 4 pilot sites (Careysburg, Central Monrovia, Commonwealth and St Paul districts). A total of 200 informants, 93 health workers and 14 surveillance officers are engaged in AVADAR and provided with mobile phones to report AFP alerts and trigger case investigation.

Liberia have received an award for outstanding performance in throughput of AFP Alerts from AFRO for AVADAR program.

Routine Immunization

In 2019, routine immunization coverage of Penta 3 and OPV 3 was 87% nationwide and only three counties (Bomi, Gbarpolu and Maryland) did not achieve 80% and above coverage. Due to COVID-19 outbreak, Liberia did not maintain the coverage achieved of 2019 in 2020 nationwide but rather achieved 84% coverage for OPV-3 and 81% for Penta-3 by Dec. 31, 2020.

Three counties (Gbarpolu, Grand Bassa and Montserrado) did not meet the target of 80% and above for the period under review 2020.

As of 2021 October, routine immunization coverage of Penta 3 and OPV 3 was 81% as compared to 81% coverage achieved as of Dec. 31, 2020. This has increased to 87% in December 2021.

Figure 8

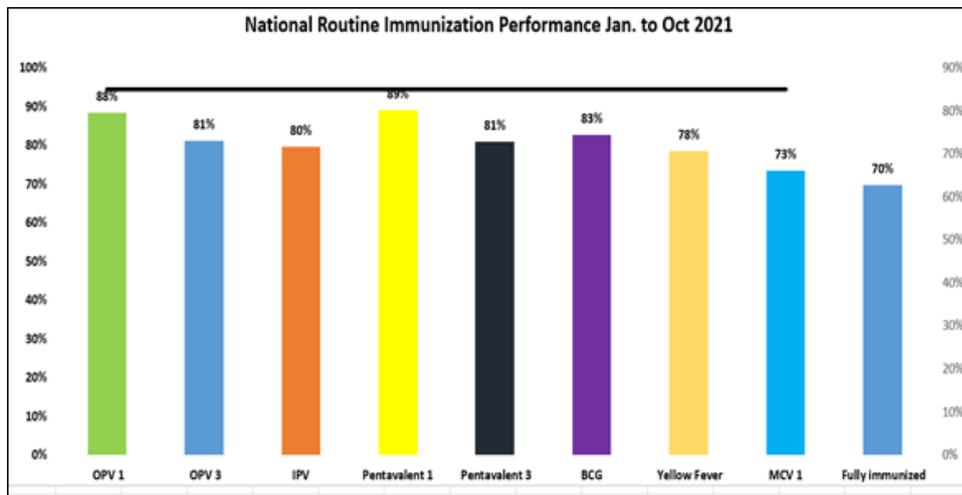


Figure 9

Map showing Penta 3 and OPV 3 coverage from Jan- Oct 2021

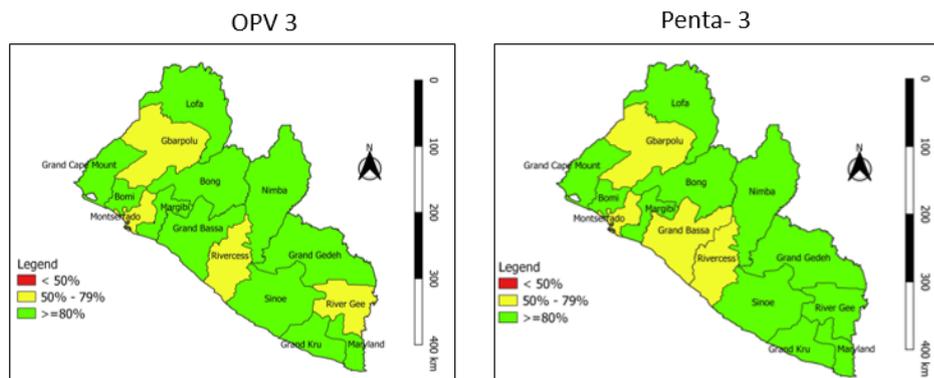
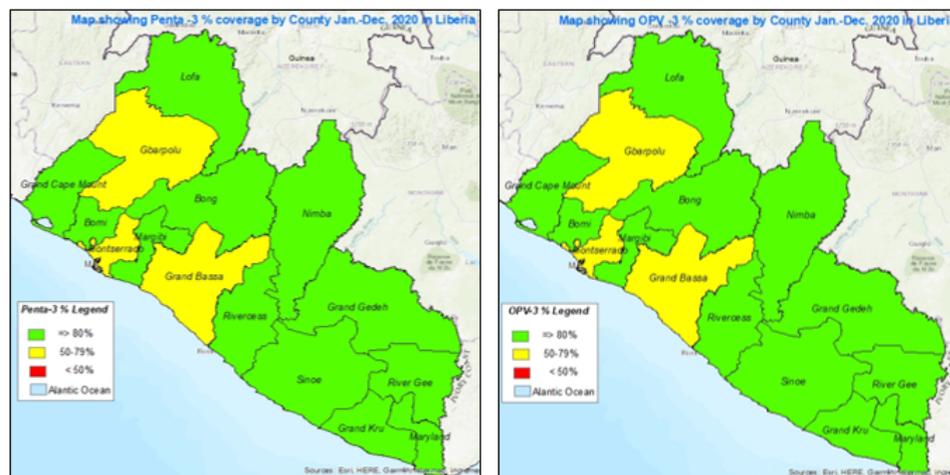


Figure 10

Map showing Penta 3 and OPV 3 coverage from Jan- Dec 2020



Strengthened Surveillance

Table 1: AFP Surveillance.

Non-Polio AFP Rate 3/100,000 <15 years by County as of week 52, 2021											
County	Total Population	<15 years pop	# of expected AFP cases	# of total reported AFP cases	# of reported AFP cases <15 years	# of Non-Polio AFP cases <15 years	Non-Polio AFP Rate <15 years	# of cases within 14 days of stool	% of cases within 14 days stool	# of NPENTs	% of NPENT
Bomi	110,212	49,595	2	3	3	3	6.2	3	100%	2	67%
Bong	455,156	204,820	7	21	21	20	10	20	100%	5	28%
Gbarpolu	109,248	49,162	2	7	7	7	14.5	7	100%	5	71%
Grand Bassa	290,450	130,702	4	7	7	7	5.5	7	100%	1	14%
Grand Cape Mount	166,504	74,927	3	2	2	2	2.7	2	100%	0	0%
Grand Gedeh	164,106	73,848	3	11	11	11	15.2	11	100%	2	18%
Grand Kru	75,890	34,150	1	4	4	4	11.9	4	100%	0	0%
Lofa	361,492	162,671	5	12	11	11	6.9	12	100%	2	18%
Margibi	275,048	123,772	4	7	7	7	5.8	7	100%	0	0%
Maryland	178,101	80,146	3	2	2	2	2.5	2	100%	0	0%
Montserado	1,514,667	681,600	21	18	18	18	2.7	18	100%	3	17%
Nimba	605,346	272,406	9	26	26	26	9.7	26	100%	3	12%
Rivercess	93,689	42,160	2	4	4	4	10.4	4	100%	2	67%
River Gee	87,513	39,381	2	2	2	2	4.8	2	100%	0	0%
Sinoe	134,162	60,373	2	3	3	3	5.1	3	100%	1	33%
Liberia	4,621,584	2,079,713	70	131	131	131	6.2	131	100%	26	21%
Legend	NPAFP rate						>=3	% of cases within 14 days stool	>=80%	Npent rate	>=10%
							<3		<80%		<10%
							Silent		Silent		Silent

- No AFP case reported during week 45.
- 123 AFP cases <15 years have been reported as of week 45, 2021 from 15 counties.
- NPENT % are calculated from lab result received.
- NPAFP rate was calculated from non-polio cases (122).

Measles surveillance indicators

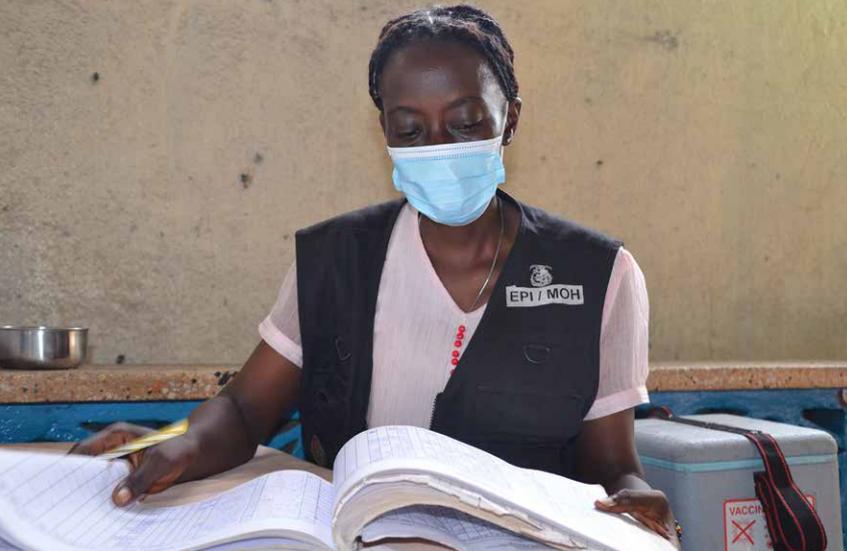
Table 2: Measles febrile illness rash rate by county as of Epi week 45, 2021

County	Confirmed	Compatible / Epi Link	Discarded	Pending	Grand Total	% of Cases With Lab Result	Non Measles Febrile Rash Rate
Bomi	1	7	2		10	80%	2.4
Bong	1	8	7		16	56%	2.1
Gbarpolu	1	5	6	1	13	46%	7.3
Grand Bassa	2	0	2		4	0%	0.9
Grand Cape Mount	1	1	4		6	33%	3.2
Grand Gedeh	7	14	44		65	32%	35.7
Grand Kru	4	4	12		20	40%	21.1
Lofa	7	37	28	1	73	60%	10.3
Margibi	2	4	7		13	46%	3.4
Maryland	2	1	2		5	60%	1.5
Monteserrado	6	17	31		54	43%	2.7
Nimba	1	32	17		50	66%	3.7
Rivercess		0	1		1	0%	1.5
River Gee	2	7	15		24	38%	21.3
Sinoe	7	9	25		41	39%	24.8
Liberia	44	146	203	2	395	48%	5.9

Yellow Fever surveillance indicators

Table 3: Cumulative vaccination status of reported Yellow Fever cases by County as of week 45, 2020

County	Cases	Vaccinated	Vaccinated by History	Not Vaccinated	Unknown
Bomi	3	0%	0%	67%	33%
Bong	0	0%	0%	0%	0%
Gbarpolu	3	0%	0%	100%	0%
Grand Bassa	3	33%	0%	67%	0%
Grand Cape Mount	7	100%	0%	0%	0%
Grand Gedeh	15	7%	0%	60%	33%
Grand Kru	22	18%	9%	73%	0%
Lofa	7	14%	57%	14%	14%
Margibi	0	0%	0%	0%	0%
Maryland	6	33%	0%	50%	17%
Monteserrado	0	0%	0%	0%	0%
Nimba	4	25%	0%	50%	25%
River Gee	5	40%	20%	120%	160%
Rivercess	14	0%	0%	21%	0%
Sinoe	2	0%	50%	0%	0%
Liberia	91	21%	9%	52%	19%



Success Story

ABOVE LEFT: Patricia Parker Vaccinator at Soniwein Health Centre during routine immunisations for u5 and antenatal mothers.

An accompanied child waits for immunisation. This child was among many who took part in the massive immunisation exercise that was supported by WHO.

©WHO Liberia

Liberia Introduces 3 new vaccines to Tackle Typhoid, Polio and COVID-19 in 2021

Problem

Introduction of new vaccines is never an easy task to do especially in a country facing numerous challenges. Liberia introduced three new vaccines in 2021 amidst multiple outbreaks.

Typhoid Conjugate Vaccines (TCV), Novel Oral Polio Vaccine type 2 (nOPV2) and at least two different COVID19 vaccines (AstraZeneca and J&J) were introduced, with TCV introduced into the routine immunization schedule of the country for sustainability. Capacity building of staff is still a challenge.

What was done

During the first quarter of 2021, support was provided for the application, and introduction of nOPV2 vaccine in response to cVDPV2 outbreak in Liberia, 853,279 (90%) children under five years were vaccinated and a total of 957,832 Children under five were vaccinated with nOPV2 vaccines.

Technical support was provided by WHO for the preparation of the application, development of guidelines and SOPs as well as the successful introduction of TCV and COVID-19 vaccine.

WHO trained 132 surveillance officers for active case search and heightening surveillance for AEFI/AESI after nOPV2 introduction in Liberia and case finding activities ongoing have reported 3 AEFI and 1 AESI/AFP cases.

What has changed

Supported the Government of Liberia to secure the approval for the introduction of nOPV2 vaccine under EUL condition that responded to the cVDPV2 outbreak in 2021.

During the first quarter of 2021, nOPV2 vaccine was successfully introduced in response to cVDPV2 outbreak in Liberia, 853,279 (90%) children under five years were vaccinated and a total of 957,832 Children under five were vaccinated with nOPV2 vaccines. This has resulted in low incidence of cVDPV2 outbreak from 5 confirmed cases to 0 confirmed as of December 2021.

Improved the number of reported cases of AFP from 48 cases in 2020 to 127 cases in 2021 through WHO supported active case search activities after round 1 of nOPV2 vaccination.

Improved the coverage of nOPV2 from 90% during round one to 100% during nOPV2 round 2 WHO support in the early deployment of supervisors from MOH & Partners.

Liberia is the first country to carry out TCV mass vaccination campaign nationwide and the only country with TCV in its routine immunization schedule in the African region.

Technical support was provided by WHO for the preparation of the application, development of guidelines and SOPs as well as the successful introduction of TCV and COVID-19 vaccine.



Lara Jones, a Liberian mother who believes her child's health is a priority takes her for immunisation. ©WHO Liberia



A child is immunised from a health centre. ©WHO Liberia



Mr. John Ali – 41 years- takes an active role in the health of his children- After hearing the call for mass measles vaccination for children, he took his daughters for vaccination at New Georgia Hospital. ©WHO Liberia



Supported the development of the Liberia's initial National Deployment and Vaccine Plan (NDVP) for COVID-19 Vaccine. Currently, Liberia has received



1,303,200

doses of COVID-19 vaccine from the COVAX facility and other donors.

With WHO support, in March 2021 Liberia conducted its first nOPV2 National Immunization Days (NIDs), vaccinating



853,279

children under five. The second round of NIDs was conducted in May 2021, reaching a total of **957,832** children under five.

Built the capacity of



132

surveillance officers for active case search and heightening surveillance for AEFI/AESI after nOPV2 introduction in Liberia.

Donated



132

mobile phones to the government to support the use of new technology in VPD surveillance.

Disease Prevention and Control (DPC) Cluster



The scope of priority actions of the Disease Prevention and Control Cluster (DPC) included HIV/AIDS, TB, MALARIA, hepatitis, syphilis, non-communicable diseases such as hypertension, diabetes, cancers, especially cervical cancer, neglected tropical diseases and mental health ill conditions.

The achievements outlined below are the results of collaboration at the three levels of WHO, with technical and financial support received from AFRO and HQ to provide WHO normative support to the Ministry of Health, specifically the National HIV, TB, Malaria, Non-Communicable Diseases and Injuries (NCDI) and Mental Health, and Neglected Tropical

Diseases (NTD) Programs. The key partners engaged in country level collaboration are PMI/USAID, Plan International, EquipHealth, Partners in Health, Clinton Health Access Initiative, The Carter Center, and Sight Savers. Collaboration with UN Agencies, particularly UNAIDS, was key for specific program areas. Other collaborating stakeholders include the Liberia Coordinating Mechanism for the Global Fund and the National AIDS Commission of Liberia. The Liberia Institute for Statistics and Geo-Information Services (LISGIS) was instrumental in the generation of strategic information, specifically population-based surveys that generated evidence base for programming.

Achievements

- Supported the strengthening of National HIV Program that ensures People Living with HIV (PLHIV), particularly Key and Vulnerable Populations, continue to have access to services, including increasing refill of treatment up to 6 months, introducing HIV self-testing. Technical support was mainly on the adoption of Differentiated Service Delivery model to for the 90-90-90 targets for HIV Testing, Treatment, and Viral Suppression, Liberia is at 78-68-77.
- Continued reduction of the impact of COVID-19 on disease programs, strengthened Health and Community Systems, and improved the national response to COVID-19 through the strengthening and integration of HIV, TB, COVID-19 laboratory services. This was achieved in collaboration with EquipHealth, a subsidiary of Wits Health Consortium, South Africa, using Global Fund resources. GeneXpert testing capacity was improved and service agreement was established with equipment manufacturer, Cepheid, to provide maintenance and warranty services for 24 GeneXpert machines for 2-3 years.
- TB diagnostic and sample transportation was improved, particularly diagnosis of Multi-Drug Resistant Tuberculosis (MDR-TB) using GeneXpert machines, leading to increase in the number MDR-TB cases notified, despite the adverse effects of COVID-19. Green Light Committee assessment of Programmatic Management of MDR-TB and laboratory quality assurance was conducted, and recommendations made to improve the program.

- The Malaria Program was supported to procure and distribute 2.7 million mosquito nets to households throughout Liberia. This has significantly reduced both the incidence and prevalence of Malaria disease in Liberia. Malaria prevention, diagnosis, and treatment interventions were sustained through community engagement and strengthening of community systems to increase access to services in collaboration with Plan International Liberia, PMI/USAID, and other partners.
- Significantly increased awareness on Malaria prevention, prompt treatment and health seeking behavior and specifically, prevention of Malaria in pregnancy, and the regular and proper use of mosquito nets through technical support in the development of two strategic documents: Communications Strategy and Private Sector Engagement Strategy for Malaria Prevention and Control to ensure standardized Malaria case management, data collection, and reporting at private sector level, mainly in urban areas.
- The MOH NTD Program was supported to plan and implement integrated Mass Drug Administration (MDA) for the prevention and treatment of targeted NTDs with 85% treatment coverage; WHO donated the drugs for the MDA. Technical and financial support was secured to set up surveillance system for Human African Trypanosomiasis to contribute to the elimination target. Tests kits and visual aids for community health workers were also provided to facilitate community-based identification and referral of suspected Skin NTDs.

Through the Liberia Coordinating Mechanism for the Global Fund, supported and mobilized US\$77m for HIV, TB, Malaria and Health System Strengthening under the 2021-2023 funding cycle and US\$19.5m under the Global Fund COVID-19 Response Mechanism for the period ending 31 December 2023.

- Liberia has increased tobacco excise tax from 35% to 80% and the National Tobacco Regulations prohibit smoking in public places and the sale of tobacco products to children under 18 years of age. This was achieved through technical support from WHO to the Ministry of Health in processing the ratification of the WHO FCTC Protocol on the Elimination of Elicit Trade in Tobacco Products; the ratification document is in the final stage for submission to the Legislature (Parliament) for approval.
- More than US\$543,442.00 was mobilized to support the MOH and partners to implement priority NCD activities, including Nationwide STEPS Survey, capacity building for Cervical and Breast Cancers screening and treatment of pre-cancerous lesions, development of Alcohol Policy, and Training of Primary Healthcare workers on Priority Assistive Products to increasing access to Assistive Technology in the country.

- Liberia has established its first two cancer screening and treatment centers at Redemption Hospital in Monrovia and C. B. Dunbar Hospital in Gbarnga, Bong County. With technical support from WHO through capacity building of 20 healthcare workers, including Doctors and Nurses, to conduct active screening for cervical and breast cancers and treat pre-cancerous lesions, the goal of reaching 140,000 women of child-bearing age through increased awareness
- In collaboration with Clinton Health Access Initiative (CHAI), US\$150,000.00 was mobilized from the Global Disability Innovation Hub (GDI Hub), Country Investment Fund (CIF) to address foundational gaps within the current AT system to catalyse AT access for People with Disabilities in the country; this funding was matched with US\$100,000.00 from WHO.



Analysis of a laboratory sample. ©WHO Liberia



Dr. Nicolas KING, a gynaecologist at Redemption Hospital screening a client for pre-cancerous lesions. ©WHO Liberia

and 15,000 women to be enrolled in the screening program will be achieved by the end of 2022.

- A population-based Rapid Assistive Technology Assessment (rATA) was conducted to generate strategic and comprehensive data to determine the met and unmet Assistive Technology (AT) needs in the country, inform prioritization/ allocation of health/social sector resources, and integrate AT data into routine health information systems.
- WHO collaborated with Clinton Health Access Initiative (CHAI) to support the MOH to strengthen AT services in the country, particularly coordination of efforts of partners, development of list of essential AT products, and training of primary healthcare workers to provide AT services close to the community level, and NCD indicators were integrated in the national HMIS with data disaggregated by sex.

Figure 11: Strategic Information generated from the rATA Survey

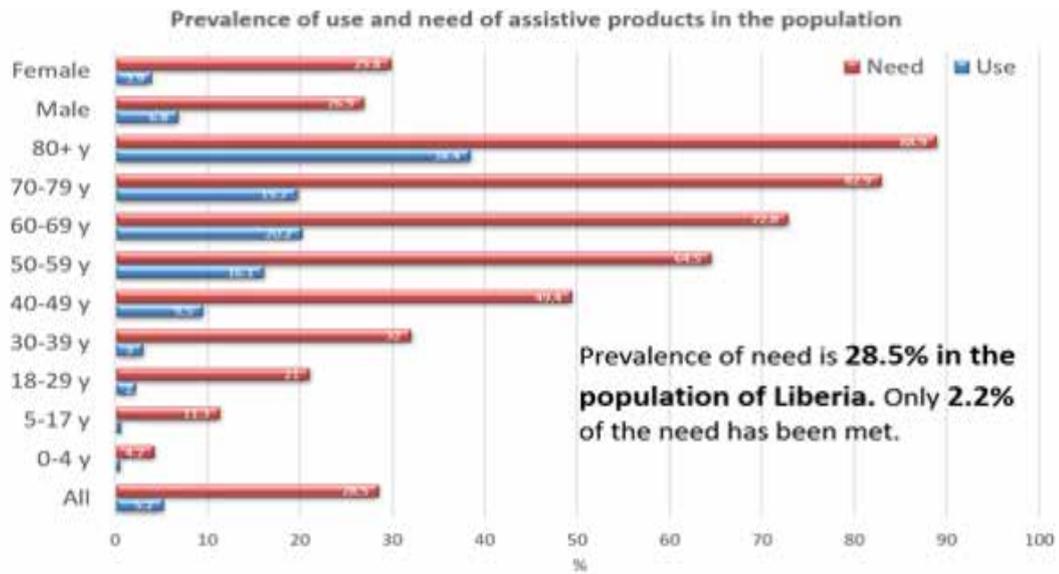
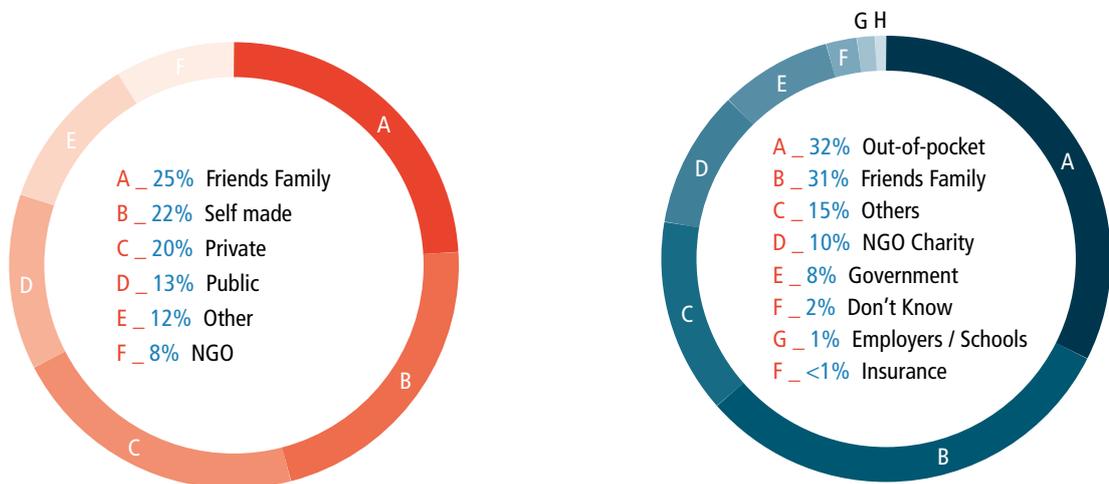


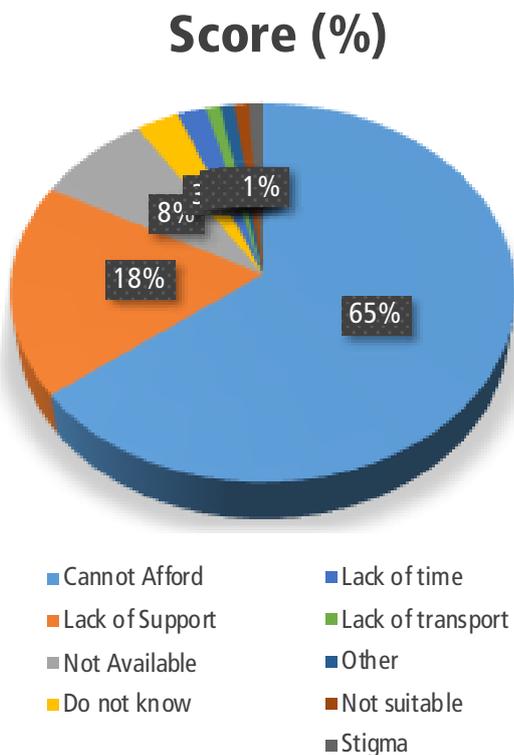
Figure 12: Providers and Funding Sources of Assistive Products





A blood sample is drawn from a child at a clinic. ©WHO Liberia

Figure 13: Reasons for not having the needed assistive products.



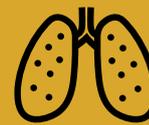
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million mosquito nets to households throughout Liberia. This has significantly reduced both the incidence and prevalence of Malaria disease in Liberia.

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35% to



80%

and the National Tobacco

Regulations prohibit smoking in public places and the sale of tobacco products to children under 18 years of age.



Liberia has established its first two cancer screening and treatment centers at Redemption Hospital in Monrovia and C. B. Dunbar Hospital in Gbarnga, Bong County. With technical support from WHO through capacity building of

20

healthcare workers.



ABOVE: Non-Communicable Diseases and Injuries Division in Ministry of Health Trains health workers in Cervical and Breast Cancer Screening – Ministry of Health.⁴

Success Story

Liberia makes a leap in cervical cancer control by establishing its first cervical cancer screening centers in public health facilities

Introduction

After years of conflict, Liberia's health system faces a vast array of challenges. The impact of Ebola outbreak has had a devastating effect on the population's health. Consequently, efforts to look into other essential services and public health concerns, including the growing cancer burden, have significantly lagged behind.¹

It is estimated that 3,552 women died because of cervical cancer in 2020, and 117,972 new cases diagnosed in the same year with an age-standardized rate of 40.8 per 100 000 women.² WHO Cervical Cancer Elimination Strategy provides the basis for accelerating action in countries. HPV vaccine has been introduced within the national immunization program with coverage of 42% and 18% for first and second doses respectively with the support of GAVI. For secondary prevention,

national screenings programs are not established, leading to missed cases and late detection. Management and supportive care is negatively affected by shortages in radiotherapy, commodities and shortage in staff including surgeons.³

Women are particularly more affected because of the high burden of cervical cancer which accounts for almost a third of all female cancer deaths, followed by breast cancer which claims one in five. IAEA mission in 2018 drew attention to the urgent need to re-build and train the much-depleted health workforce following the Ebola crisis.

The National Cancer Control Policy (NCCP) was developed in 2018 by the Ministry of Health with the support of WHO and technical partners. WHO has responded through its technical support

¹ Prioritizing Comprehensive Cancer Care in Liberia, impact review. IAEA 2016

² GLOBOCAN, 2020

³ Cervical cancer country profile, Liberia. World Health Organization, 2021

⁴ <https://moh.gov.lr/news/2021/ncdi-trains-health-workers-in-cervical-and-breast-cancer-screening/>

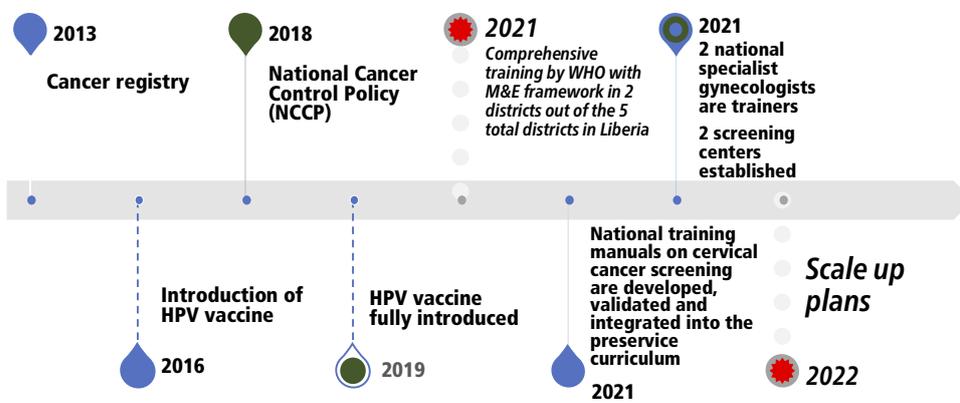


Figure 14: The road map towards eliminating cervical cancer in Liberia.

by introducing a cost-effective comprehensive training to provide screening services in the two centers established for women in catchment areas.

This was followed by the introduction of HPV vaccine into the national programs in 2019. However, resources to establish the basis for screening is a requirement to save lives and to achieve the goals of the WHO strategy of eliminating cervical cancer world by 2030.

In 2021, WHO supported the Liberian Ministry of Health with funding and technical support to organize a three-phase pilot project that trained national trainers and service providers in cervical cancer screening and to set up 2 pilot centers in 2 main geographical zones out of 5 areas in Liberia (Monrovia and the district of Monrovia). This focused on comprehensive quality services for early detection and treatment of precancerous lesions.

A health system-based approach has been used to introduce health staff to screening services. A national training and service provision manual has been developed. This was used for the clinical on-job training that took place in secondary care setting for 3 days, where 20 medical staff, nurses and para-medical staff were included. The main focus was on screening techniques, equipment and safe use. This was followed by training on data collection and monitoring and evaluation in simple ways without causing extra burden to medical staff. Data should be used in decision making and monitoring purposes. In addition, part of the training is to enable the health facilities and environment to offer the services required. Two of

national senior consultant were trained as trainers to support the scale up in the future.

As part of the continuum of care, 12 community health assistance have been trained to be able to provide the necessary sensitization and awareness aiming to empower women within their circle. Furthermore, the training module will be included in pre-service institution at the University of Liberia and the School of Midwifery.

This model is established to reach 140,000 women of reproductive age and enroll 15,000 women in 2022. From total visits since December 2021, 7 women were diagnosed with cervical cancer while three had pre-cancerous lesions and were treated. Three women had stage IV cancer and were referred to the specialist hospital for treatment. Monitoring system will be in place as part of the series of activities by the government to follow up the community awareness activities in ensuring impact of the training on staff knowledge. Even though the government is planning to reach the 15 counties over 3 years, now the focus is on prioritizing the full setup of the screening and treatment centers in the two counties before moving to other regions of the country.

Conclusion

A health system-based approach to pilot the introduction of a screening services could be a successful model even in areas with no experience and low of resources. Developing a comprehensive Cervical Cancer training module was instrumental in achieving the desired results. WHO supported.

Health Emergencies Cluster



A WHO staff member guiding community engagement on COVID-19 prevention. ©WHO Liberia

WHO-Liberia Country Office's work under health emergencies cluster is to support the government in the mitigation, preparation, and response to public health threats. It ensures Liberia is better protected from public health emergencies as prioritized in the Pro-poor

Agenda for Prosperity and Development (PAPD), the health-related Sustainable Development Goals (SDGs) and the International Health Regulations (IHR) 2005 with interventions at national and subnational levels.

Achievements

Enhanced IDSR

Updated the National IDSR technical guidelines, SoPs, training manuals and tools using the AFRO 3rd Edition IDSR TGs, and the COVID-19 lessons learnt. The technical guidelines and tools are used for the implementation IDSR core functions at national and subnational levels in the country as well as capacity building for health workers in preservice training institutions and in-service refresher trainings.

A total of 147 health workers have been trained as trainer of trainees (ToT) and these will roll out the IDSR at subnational level including in preservice training instructions.

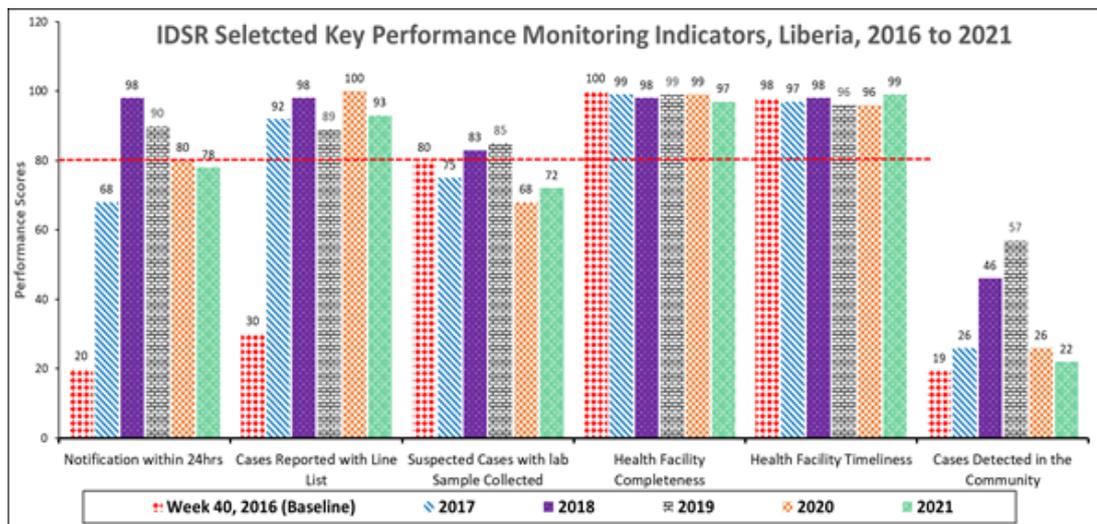


IDSR/IHR modules were incorporated in preservice curricula for health professional training institutions and universities. These are being used for pre-service training of health workers resulting in a sustainable IDSR capacity building in Liberia.

Figure 15



Figure 16: IDSR Selected Key Performance Monitoring Indicators, Liberia, 2016 to 2021



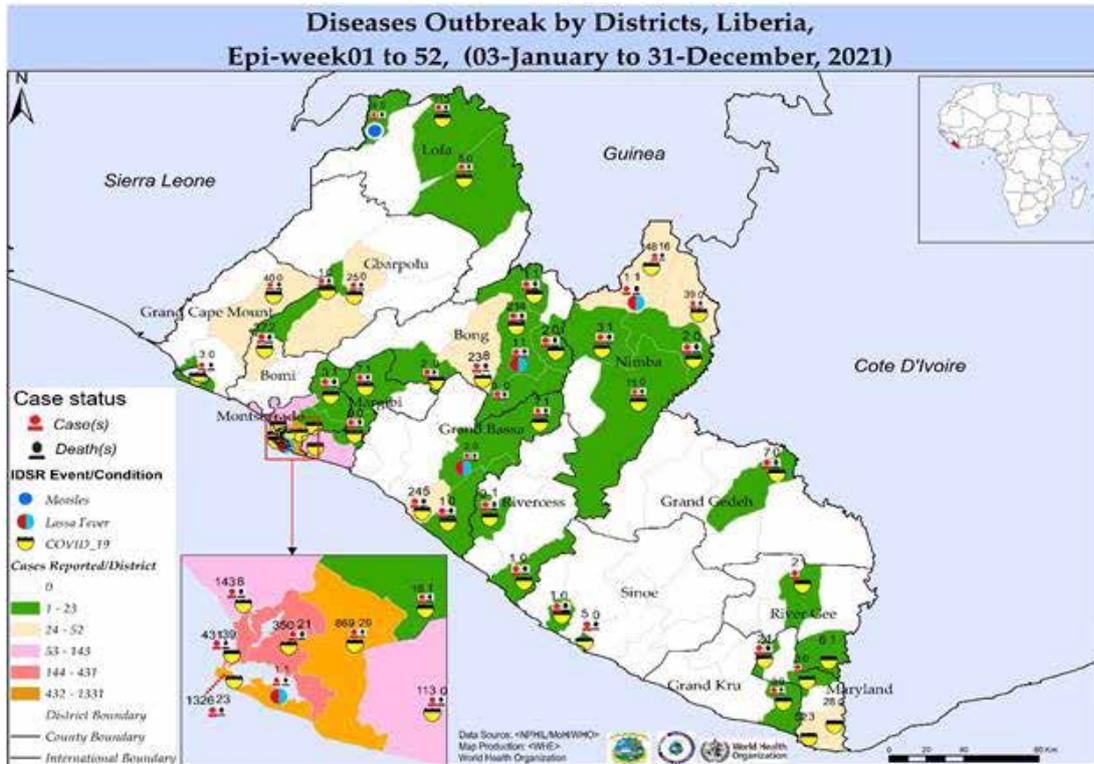
The IDSR performance indicators for 2021 recorded 78% case notification within 24hrs a 2% decrease compared to last year despite the disruption of services caused by COVID-19, 93% of the cases reported investigated, suspected cases with laboratory samples collected increased from 68% to 72%, completeness and timeliness of reporting was 99% respectively, while community case detection and notification decreased from 26% to 22% mainly as a result of inadequate operational support to Community Health Workers.

Improved the timely case-based investigation and reporting including COVID-19 from 80% to 94% as a result of disseminating 10,000 copies of IDSR reporting tools and 1500 Community event-based surveillance job aids and mentorship of 347 health facility surveillance focal persons. National Food Safety Guidelines and Regulations were developed that strengthened the capacity to timely detect, investigate, respond and report food events. As a result four (04) food borne events were reported.



Participants of Training of Trainers workshop on Integrated Disease Surveillance (IDSR), Monrovia, 14-19 December 2021. © WHO Liberia

Figure 17: Diseases Outbreak by Districts, Liberia, Epi-week 01 to 52



WHO supported the investigation and response to 42 disease outbreaks, in all the 15 counties with 95.2% outbreaks investigated and responded to within 48 hours. The most frequent being COVID-19, while the others are measles, Lassa fever and Shigellosis.

Table 4: Disease outbreak investigation and response.

Disease / Event	Frequency	Number of Outbreaks with Investigation Reports	Duration Between Notification and response		
			≤2 days	3 days	> 7 days
Lassa Fever	22	20	19	3	0
Measles	18	16	16	1	1
Shigellosis	1	1	1	0	0
COVID-19	1	1	1	0	0
Total	42	38 (80.4%)	49 (92.5%)	4 (3.8%)	2 (3.8%)



Trainers on country capacity in IDSR for detection of acute public health events. ©WHO Liberia

Strengthened the country capacity in IDSR for detection of acute public health events with pandemic potential and to monitor disease control measures on a real time with the introduction of Epidemic Intelligence from Open Sources (EIOS) national ToT training context of one health of 40 participants from MOH, NPHIL, MoA, Ministry of Defense, AFENET, WHO country office and was facilitated by EIOS experts from WHO AFRO who in turn rolled out the training to 138 sub national surveillance officers. The training enabled the Liberia Ministry of Health and NPHIL to become part of the global EIOS initiative, and therefore part of the growing network of experts engaged in public health intelligence globally.

The trainers cascaded the training to 138 sub national level participants (county, district, and zonal surveillance officers).

Strengthened Emergency Preparedness and Response (EPR)

A national vulnerability risk assessment and mapping for priority hazards was implemented in all 15 counties leading to the identification of 33 hazards of which 12 were prioritized and profiled (COVID-19, Lassa fever, Meningitis, Ebola, Floods, Rabies, Measles, Cholera, Acute bloody diarrhea (shigellosis), chemical spills (cyanide, Arsenic, lead, Mercury), yellow fever and fire).



Supported EVD preparedness and readiness activities in the 3 counties bordering Guinea (Lofa Bong and Nimba) with 200 thermos cans, 50 POE ledgers, 1,000 EVD case definition, 1,000 case-based reporting tools, 10,000 EVD specimen's collection, packaging and

transportation materials, IPC supplies (8 drums of chlorine and 68,000 pairs of gloves) and EVD case management training for 200 frontline health workers which led to timely reporting and investigation of 394 alerts, of which none was positive for EVD.

Oxygen production scale up

WHO supported the assessment and development of costed oxygen scale plan that was used for advocacy and resource mobilization

for procurement of 5 new plants and upgrading of 3 plants. **WHO has offered to procure 1 Pressure Swing Adsorption (PSA) Oxygen Plant and a second one with support from USAID funds.**



Figure 18: Countrywide oxygen supply plan.

✓ **8 plants**

○ **5 new ones**

○ **3 for upgrading**

✓ **Accessibility considerations (Hard to reach areas)**



A total of 290 Rapid Response Team (RRT) members' capacity was built to conduct timely detection, verification, investigation, isolation, and response to COVID-19 cases in three counties (Bong, Lofa and Nimba).

Strengthened Laboratory Capacity

WHO-Liberia procured and donated assorted laboratory reagents, supplies, and consumables to the government resulting in strengthening of

laboratory capacity for COVID-19 response and enhance national preparedness for other public health events in the Country.: Items procured include:



Table 5: List of items procured

No.	Items Description	Quantity of Tests
1	GeneXpert cartridges for SARS-CoV-2	10,000 test
2	Taqpath COVID-19 CE-IVD test	15,000 tests
3	BIO Sensor Ag RDT	2,250 tests
4	Disposable sampler	7,000 pcs
5	QIAamp Viral RNA Mini Kit	580 reactions
6	SARBECOV E-gene Plus	6,528 tests
7	Fluorescent RT-PCR Detection Kit	20 kits
8	Flip top micro-centrifuge tubes (1.5 mL), clear	225,000 pcs
9	Multiplex master mix	12,000 reactions
10	Super Script III Platinum one step QRT PCR system	2,250 reactions
11	Extractors	11 kits
12	Ethanol alcohol, absolute, bottle of 500 mL	50 bottles
13	GeneXpert (4 modules) PCR machines	2 sets
14	Influenza/COVID-19 Multiplex PCR Detection kit	15,360
15	Yellow fever test kits	1 kit
16	Assorted blood transfusion and blood safety supplies & consumables	2,000 tests

A total of 20 National Reference Laboratory (NRL) staff were trained by WHO on quality testing services for COVID-19 and data management, improving the quality of COVID-19 diagnosis in Liberia. Additionally 30 Laboratory staff were trained on Gene-Xpert machines operations, biosafety, and biosecurity measures in line with standard COVID-19 testing protocol.

Laboratory capacity to test for COVID-19 using PCR was rapidly developed by WHO through prepositioning of reagents, supplies and consumables including antigen rapid diagnostic test within 6 laboratories (JFD, Phebe, UN Clinic, US Embassy, PREVAIL and AMI). This has expanded their molecular testing laboratory network from 1 to 7 laboratories in 2021 as well as capacity to test for COVID-19.

WHO provided over 10, 000 Antigen Rapid Standard Operating Procedures (SOPs) and protocol for VOC molecular surveillance in Liberia were developed. WHO supported the training of 12 NRL staff on the interpretative software for COVID-19 testing using the Taqpath platform,

8 staff on COVID-19 Variants of Concern surveillance, 8 on Infectious Substance Shipment, 26 trained on the operational procedures of GeneXpert machines and biosafety/biosecurity measures in line with integration of COVID-19 testing.

Measles

WHO supported the response to the Measles outbreaks by providing reagents and sample collection kits which contributed to a total of 435 suspected cases reported of which 301 were

tested with 56 confirmed leading to instituting timely response measures. Quarterly and bi-annually external quality assurance (EQA) for 10% negative samples was implemented.

Cholera

In line with the End Cholera 2030 target, WHO donated 1000 Cholera Lab Kits and over 3,000 sample collection kits for prioritized 6 hotspot counties according to the National Two-year Cholera Contingency Plan. These materials will strengthen laboratory capacity for diagnosis

and collection of over 3,000 suspected Cholera samples over the next one-year period. From January to December 2021, 293 suspected Cholera cases have been reported, 19 tested with zero confirmed.

Table 6: List of items procured for Cholera lab kits

Items Description	Quantity of Tests
Cholera Lab Kits	1,000 tests
Stool/faeces container, (60mL, 39 x 65mm, with screw cap and spoon, sterile, polystyrene.	3,000 pcs
Specimen collection swab, swab BD BBL Culture swab, with Cary-Blair transport media, sterile.	3,000 sets

Infection Prevention and Control (IPC)



A total of 300 clinicians and hygienists' capacity enhanced in IPC protocols for EVD preparedness, readiness, and response in Montserrado county.

Instituted national training of trainers IPC for 109 participants in two phases; trained 2501(16%) health workers (1,801 females and 700 male) from 15 counties to build capacity in COVID-19 IPC at county level.

Oriented 468 volunteers on patient triage in health facilities; mentored 154 health workers and support staff working at precautionary observation centers on IPC standards and practices, with a further 604 health workers from Montserrado, Bong, Margibi, Grand Bassa and Sinoe Counties.

160 Private and Public Health Care Facilities in Montserrado (100) and Margibi (60) counties received workplace reminders and the National IPC Guidelines (5 moments of Hand Hygiene, Respiratory Hygiene, Chain of Transmission, COVID-19 Algorithm, COVID-19 specific Personal Protective Equipment PPE donning and doffing, etc.).

175 frontline health workers from the 36 health facilities knowledge and skills in IPC was enhanced through the conduct of hands-on mentorship and coaching in order to promote compliance to standard IPC best practices and quality of care in the delivery of primary health care and COVID-19-specific care.

590/872(67%) health facilities assessed and monitored to track implementation to measure



A community disease prevention and control officer briefing community members on disease prevention measures. ©WHO Liberia

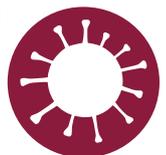
the effectiveness of the IPC programs and the adherence to IPC standards and practices at the health facilities.

475 health care workers risk exposure assessment conducted across the 15 counties to ascertain the level of risk and to contain the spread of the virus. Results shows 216 healthcare workers get infected with COVID-19 .

Improved hand hygiene compliance among health care workers in 32 hospitals across the country from 70% to 85% (5% increased).

COVID-19 Surveillance and Response

WHO Liberia Country Office continue to provide technical, financial, and logistical support to the Government, along with other partners, specifically in the areas of leadership and coordination, surveillance, Laboratory, case management and IPC among others.





A senior citizen gets vaccinated. ©WHO Liberia

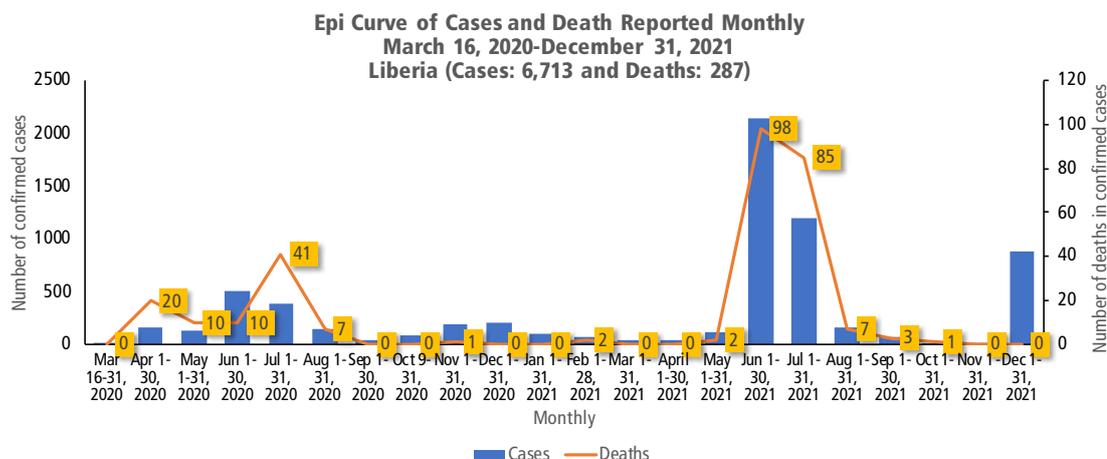


A field officer facilitating specimen collection, packaging and transport. ©WHO Liberia

The capacity of 668 frontline health workers and community health workers from 7 counties was built on COVID-19 case detection, investigation, and contacts tracing. This has

enhanced county level capacity to detect, report and investigate COVID-19 cases and contacts as part of routine IDSR immediately reportable priority diseases.

Figure 19: COVID-19 situation Report



A total of 17,841 samples were tested by antigen based rapid test kits (Ag RDTs) from the seven counties during the four rounds of enhanced surveillance of which 72 were positive.

Table 7: COVID-19 Surveillance status.

Four rounds of enhanced surveillance in 7 counties_ Summary				
S/N	County	Cumulative tests done by Ag RDTs		
		Cumulative tests done	Cumulative [-]	Cumulative [+]
1	Nimba	2,886	2,875	11
2	Montserrado	6,479	6,476	3
3	Lofa	2,813	2,794	19
6	Margibi	1,542	1,541	1
4	Grand Bassa	986	984	2
5	Bomi	985	985	0
7	Mary Land	2,150	2,114	36
Total		17,841	17,769	72

Additionally, a total of 11,128 Ivorian refugees being repatriated were tested for COVID-19 using Ag RDTs from four counties with 116 detected positive.

Table 8: COVID-19 Surveillance status from neighboring countries

Ivorian refugees testing in 4 counties_ Summary				
S/N	County	Cumulative tests done by Ag RDTs		
		Cumulative tests done	Cumulative [-]	Cumulative [+]
1	Nimba	8,317	8,252	65
2	Grand Gedeh	1,691	1,678	13
3	River Gee	675	648	27
6	Mary Land	426	415	11
Total		11,109	10,993	116

COVID-19 After Action Review (AAR) and Intra Action Reviews (IAR)

WHO technically and financially supported the IAR and AAR in all the 15 counties and national level. The recommendations guided the government on strategies to sustain the COVID-19 gains in down ward trends of the pandemic and development of the transitional plan.



COVID-19 after action reviews in 13 counties and Intra action reviews in 2 counties. ©WHO Liberia

Strengthened Capacity for Lassa fever, EVD and Marburg Detection

Lassa fever:

Lassa fever outbreak after action review was conducted for the 6 counties that were affected. The 4-day event was attended by 100 participants that included clinicians, surveillance officers, IPC focal persons, partners, hospital medical directors, county health officers, MOH, NPHIL and partners. Lessons learnt were used to finalize and launch the Country Lassa fever preparedness and contingency plan. A total of

6 outbreaks were recorded in 2021, with 133 suspected cases across the country, 133 samples were collected tested and 25 samples were laboratory confirmed, with 10 deaths (CFR 40%).

Figure 20: Epi- classification of Lassa fever cases and confirmed deaths by reporting weeks, Liberia, Epi-week 1 - 49, 2021.

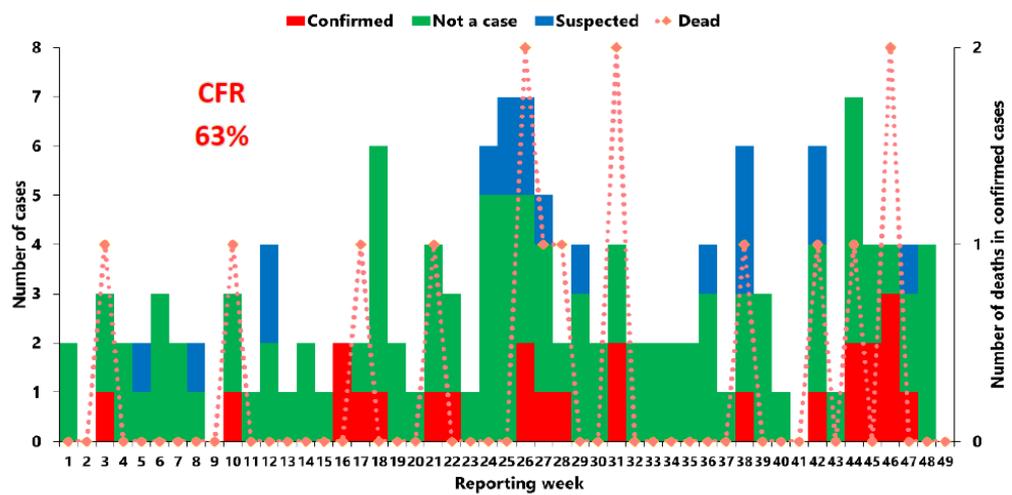
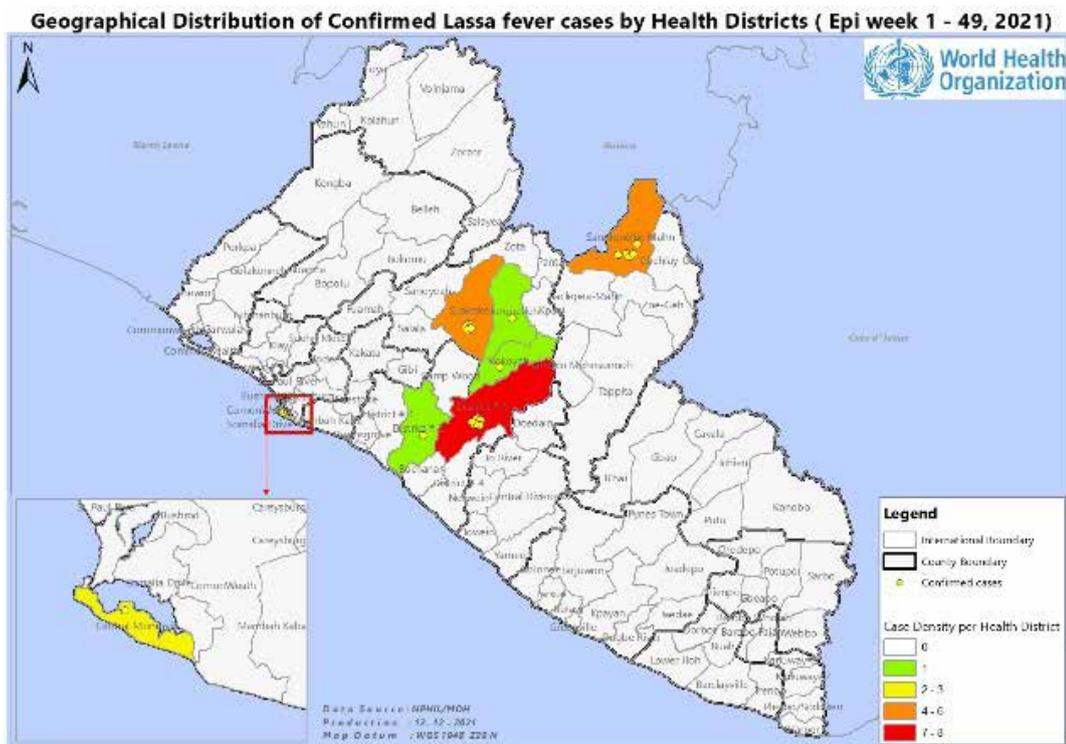


Figure 21: Geographical distribution of Lassa fever cases by health districts, Epi-week 1 - 49, 2021.



Ebola Virus Disease (EVD)

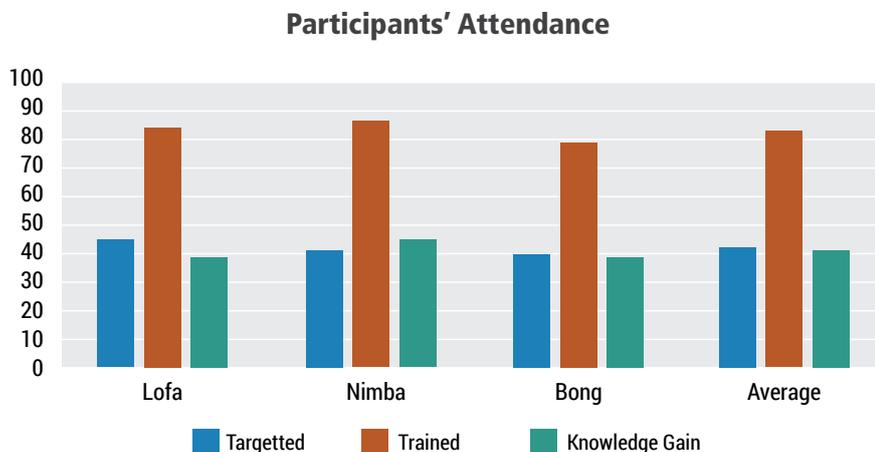
WHO procured and donated to Ministry of Health laboratory supplies and consumables that strengthened lab capacity for EVD, COVID-19, Yellow Fever, blood and blood products screening, the supplies include: cryovial (40,000 Pieces), cryobox (50 pieces), micro centrifuge machines (2 Pieces) to support preparedness and enhance early detection and confirmation.

As part of EVD/Marburg preparedness and readiness mechanism put in place, 658 joint POE staffs (immigration, police, Drug enforcement officers, port health officers, etc.) were trained on case detection and response across 42 official ground crossing points in 5 bordering counties (Bong, Grand Gedeh, Maryland, Lofa and Nimba Counties).

A total of 425 clinicians, laboratory personnel and surveillance officers' capacity built in EVD/ MVD case detection, reporting, investigation, diagnostics and case management in three counties (Bong, Lofa and Nimba). The essence of the training was to prepare the country to respond to a potential outbreak of EVD or Marburg disease.

240 clinical and non-clinical frontline health workers (40 from each of the alert counties of Lofa, Bong, Nimba and Grand Cape Mount, and 80 from Montserrado county) were trained on Case Management. These included medical doctors, physician assistants, registered nurses, midwives, nurse aides, lab aides, hygienists, and other support staff. The County Health Teams (CHTs) selected health care workers with some experienced in managing EVD cases, gained during the 2014-2016 EVD response in Liberia.

Figure 22: Analysis of participants from 3 counties trained on Quality Sample Collection and Management for EVD and other Viral Hemorrhagic Fevers, 10-20 August 2021.



Improved IHR Capacity Simulation Exercise (SimEx)

The EVD Simulation exercise was conducted in 3 priority counties bordering Guinea (Lofa Bong and Nimba Counties) plus the National Public Health Emergency Operations Center (PHEOC) as part of the preparedness exercise.

The lessons learnt were used to strengthen the country EVD outbreak readiness capacity updating the county specific and national EPR plans as well as the national multi-hazard plan.



Key stakeholders meeting post EVD SimEx: 7 May 2021. ©WHO Liberia

National Action Plan for Health Security (NAPHS)

Conducted the Liberia NAPHS implementation evaluation under the one health platform, the findings were validated at the workshop attended by 98 participants. Below is a summary of key findings. An article is on the WHO website.

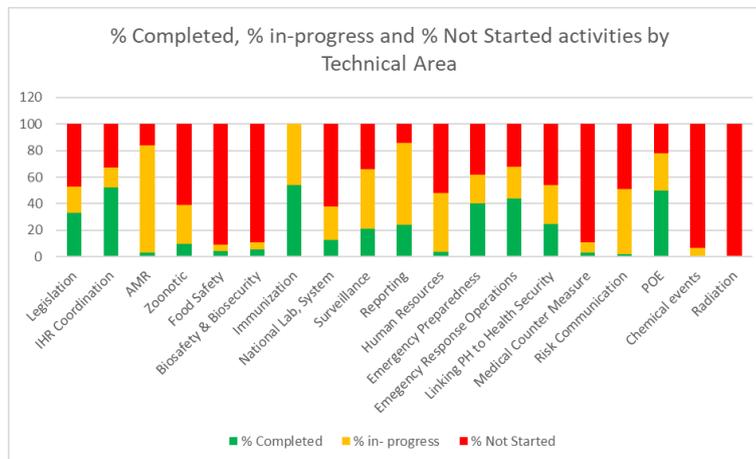
The evaluation found over 8 in 10 (85.7%) objectives have been started and are ongoing, only 2.8% of the 49 objectives and 1.6% of summary strategic activities completed (under the immunization technical area) and below 10.2% are yet to be started specifically in radiation emergencies, chemical events, medical countermeasures and biosafety and biosecurity.

Liberia has demonstrated capacity in 12 (20%) indicators: Emergency response operations, Immunization, Surveillance, Points of Entry, risk communication, and Human resources; five areas with 12 indicators have developed capacity (20%): twenty indicators have limited capacity in either all or 75% of their indicators: national legislation, antimicrobial resistance, biosafety and biosecurity, emergency preparedness, and chemical events. Two key technical areas have no capacity in any of the indicators: radiation emergencies and food safety.

Table 9: Summary of IHR technical areas performance as of June 2021

#	JEE Technical Area	Summary Activity	# of Activities	# Completed	# In Progress	# Not Started	Completed	In Progress	Not Started
1	National Legislation	5	15	8	3	4	53%	20%	27%
2	HR Coordination	3	27	16	7	4	59%	26%	15%
3	Antimicrobial Resistance	6	32	2	13	17	6%	41%	53%
4	Zoonotic	5	38	4	11	23	11%	29%	61%
5	Food Safety	6	22	1	1	20	5%	5%	91%
6	Biosafety & Biosecurity	6	18	1	1	16	6%	6%	89%
7	Immunization	7	13	9	4	0	69%	31%	0%
8	National Lab System	11	61	8	12	41	13%	20%	67%
9	Surveillance	13	67	14	28	25	21%	42%	37%
10	Reporting	7	21	5	13	3	25%	65%	15%
11	Human Resources	6	25	1	11	13	4%	44%	52%
12	Emergency Preparedness	8	50	12	18	20	24%	36%	40%
13	Emergency Response Ops.	5	25	11	6	8	44%	24%	32%
14	Linking Public Health & Security	5	24	0	19	5	0%	79%	21%
15	Medical Counter Measures	6	37	1	1	35	3%	3%	95%
16	Risk Communication	7	43	1	21	21	2%	49%	49%
17	Point of Entry	9	36	18	10	8	50%	28%	22%
18	Chemical Events	4	28	0	2	26	0%	7%	93%
	Radiation Emergencies	4	28	0	0	28	0%	0%	100%
Total		123	610	112	181	317	18%	30%	52%

Figure 23: NAPHS activities implemented status in percentage



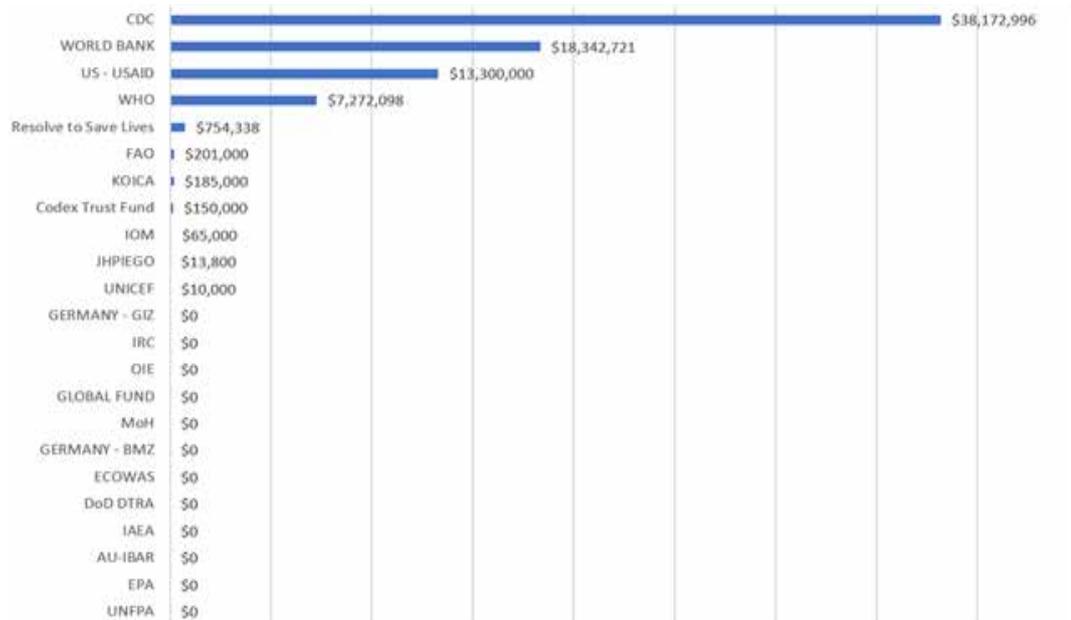
The national resource mapping for Liberia NAPHS workshop was held under strict observance of COVID-19 protocols, brought together over 65 participants including representatives from line ministries: Ministry of Health, Ministry of Agriculture, Ministry of National Défense, Ministry of Labor, the Expanded Programme on Immunization, the Environmental Protection Agency of Liberia, National Public Health Institute of Liberia, County Health Officers, and experts from partners, including FAO, World Bank, US-CDC, USAID, IRC, GIZ, JICA,

AFENET, and WHO (Country office, AFRO and HQ) in the context of one health platform.

The exercise resulted in the mapping of more than \$78 million in health security interventions in the country, and the identification of which areas are being supported. The mapping, using the WHO tool, is being used for evidence-based dialogue between government and partners on addressing gaps and needs and strengthening collaboration for preparedness and response to epidemic prone diseases, conditions, and events.

Partner and Resource Mapping for Health

Figure 24: Partner and Resource Mapping for Health



Record review and monitoring under IDSR implementation. ©WHO Liberia

Enhanced Data management

A total of 94 national and county-level surveillance officers from animal (57) and human (37) health sectors capacity built in One Health Data Quality and Improvement Management with the purpose of cascading similar knowledge to the district level.



A total of 52 early warning epidemiological bulletins were produced and shared with all stakeholders for informed public health decision making.

At total of 244 health facilities GPS coordinates were collected and updated Liberia geo-database to facilitate the Go. Data implementation for addressing the complexity of outbreak data into a single system that complements the DHIS2.

Developed, printed, and disseminated Cholera contingency plan to the 15 counties and stakeholders.

Data collection and travelers screening tools were updated and used to train 98 POE staff in five (5) counties: Bong, Lofa, Nimba, Grand Gedeh, and Maryland. The trained staff supported effective case detection and reporting for POEs.



147

Health workers trained as trainer of trainees (ToT) to roll out the IDSR at subnational level.



Supported resource mobilization for procurement of

5

new plants and upgrading of another 3.



138

sub-national surveillance officers trained and rolled out to strengthen country capacity in IDSR for detection of acute public health events with pandemic potential.



668

frontline and community health workers' capacity built on COVID-19 case detection, investigation, and contacts tracing.

Enabling Functions (Management)



The WCO Liberia Operations team, comprising Admin. and Finance, HR, Logistics and Procurement, and ICT). ©WHO Liberia

The corporate services and enabling functions comprise of the Representative's office headed by Dr Clement Peter, the Health Promotion, Communications, Programme Management Officer, External Relations Officer and the Country Support Unit (CSU).

Strengthened Leadership, Transparency, Accountability and Risk Management

In line with the pro-results values and responsive strategic operations of the transformation agenda, WHO-Liberia has ensured optimum compliance with rules and regulations, clear delegation of authority, Standard Operating Procedures (SOPs), and all other internal controls in the five clusters of the WCO. This resulted in a score of 3.72 for the Internal Control Self-Assessment performed in mid-December 2021.

Roles and responsibilities (including delegation of authority) were laid out and a well-functioning coordination mechanism through regular senior management meeting,

professional staff meeting and all staff meeting was in place to implement it. The WCO follows clear delegation of authority and lines for reporting vis-a-vis the laid down policies and Standard Operating Procedures (SOPs) in its day-to-day operations.

All actions and decisions were driven by the findings and results of our performance monitoring and assessments (SAM 1, MTR and SAM 2), country programme management and administrative reviews. Also, corrective actions were taken to address underperformance and incorporate lessons learned into all our programmes, planning, implementation.

Adopted and implemented Risk Management and internal control frameworks in the country. The WCO Compliance and Risk Management Committee reviewed and timely updated the Risk Register including collectively performing the Internal Control Self-Assessment exercise. As a way of improvement, the next biennium workplan will continue the monitoring of risk management and strengthen the capacity of all staffs on effective risk reporting.

External Partnerships and Corporate Communication

WHO's mission to promote health, keep the world safe, and serve the vulnerable requires effective, cohesive, and coordinated communications to fulfill its goal of creating a healthier future. In Liberia, the WCO adopted a strategic approach to communicate WHO information, guidance and recommendations effectively across a wide range of health issues ranging from chronic to emerging diseases and public health events. Additionally,



external partnerships have been key in ensuring mobilization of resources for implementation of programmes as well as providing accountability to donors through reports. In 2021, investments were made to meet the needs of WHO Liberia's key audiences for information, guidance, and recommendations through

the use of various communication channels. Furthermore, through teamwork and inter-cluster collaboration, donor and regular partnerships in health were maintained. This segment consolidates accomplishments made during the period under consideration.

Health Promotion

Health promotion enables individuals, families, households, and communities to realize the highest level of health and development irrespective of age, race, income, geographical location or education level.

The Health Promotion Unit supported government in the development and implementation of the National Risk Communication and Community Engagement Preparedness Response Plan.

Achievements

External Relations/Resource Mobilization



- Enhanced compliance and communication with donors through timely completion and submission of quality internal and external reports. To this effect, at least 10 donor reports were developed and submitted.
- Responded to internal and external calls for proposals, ensuring that at least 14 submissions were developed and made during the year.
- Strengthened coordination of health development partners through at least 10 Health Partners' Group meetings and various other partnership meetings to foster relations and collaboration between WHO and existing partners.

Strategic Communication

Improved WHO's presence in the country through our social media platforms by posting on health-related matters resulting 60,300 twitter impressions and 1646 reach on Facebook. Increased followers from 25 to 206 on twitter from 0 to 101 on Facebook.

- Countered misinformation on COVID-19 prevalence in Liberia through disseminating at least 322 accurate COVID-19 updates

with stakeholders including the UN Resident coordinators office on a daily basis. This information is also shared on our social media platforms with the global audience.

- Improved WCOs visibility through the production and distribution of materials including 10,000 stickers, 450 t-shirts, 150 caps and 60 jackets which are being used by office and field staff, enhancing our presence and relevance in Liberia.
- Enhanced WHO's credibility as the leader in health as a result 33 mentions of WHO related work in Liberia were picked in the local press.

Health Promotion and Risk Communication and Community Engagement (RCCE)

- Improved the knowledge and awareness of close to 100 Community Health Workers, 100 Community leaders from 10 counties on COVID-19 prevention and rumors management. This has reduced the prevalence of COVID-19 at the community level through equipping community health workers with IEC materials, complementing their efforts in educating and improving awareness of the people on how to prevent themselves from COVID-19.
- More than 2,000 radio and 24 television spots were aired IEC materials developed, disseminated and used in creating awareness and educating the general public on basic preventive measures of COVID-19 and scale up of COVID-19 vaccination.

Country Support Unit

- Operates under six (6) main units namely Finance, Procurement, Human Resource (HR) and Travel, Information Technology (IT), Logistics and Fleet Management and provide administrative support to the various programmes and field offices in the counties.
- This is under the supervision of the Operations Officer (OO) who ensures that full compliance and internal controls are applied to the daily work processes to achieve high rated Key Performance Indicators (KPIs) for the country.
- As part of the AFRO Transformational Agenda, Liberia is undergoing the Functional Review (FR) implementation. Liberia has received the final approval to implement the HR plan of the FR and this will start in 2022 in line with the FR recommendations.

Achievements

- Improved AFRO Key Performance Indicators (KPI) control effectiveness which stands at 62% and the WCO was ranked 19th out of 47 budget centers; 8 green KPIs was achieved by end of December 2021.
- The budget implementation rate at the end of the biennium is 97% at a green KPI rating. This was possible due to timely tracking of implementation with all necessary revisions done to ensure funds not utilized were transferred timely to next year to avoid loss of funds.

- Timely review of workplans further led to healthy workplans being maintained which is a good budget management practice as reflected in very low exceptions in quarterly IATI reports with access to WHO web portal by all member states.
- Improved cash management with increased use of mobile money to support the WHO Digital Finance Drive with support from the BMG Foundation. The MOH has welcomed this innovation and donors such as BMG, GAVI and Global Fund has requested that MOH chair a Digital Payment for Health Steering Committee to oversee the implementation of the mobile payments in the health sector and share experiences to help develop a roadmap for a national strategy.
- Donations were made throughout the year to support the MOH in its health priorities. Details is outlined in Annex 3.
- Successfully conducted a three days WCO retreat resulting to agreed actions for the coming year and stronger team building to support unison as well as a renewed staff association institutionalized.

Human Resource



The Regional Director has approved the Functional Review Human Resource Plan for the country office and full implementation will occur in 2021. The

WCO advocates for gender balance and fair gender distribution in its HR and women form 30% of the staff strength. Status of the staff strength for all contract categories is below:

Description	Continuous and Fixed Term Appointments	Temporary Appointments	UNV	SSA	Consultants / STOP Team Members	Totals
Staff on board	22	8	1	33	5	69
New Recruits	0	1		17	2	20
Separation / Reassignment	0	-8		-12	0	-20
Total	22	1	1	38	7	69
Male - 70%	17	0	0	24	7	48
Female - 30%	5	1	1	14	0	21

Budget and Finance

The WCO work plan implementation was managed efficiently with weekly and monthly updates shared with program and CSU staff members for follow-up actions and ensured agreed donor budget lines in approved proposals

are respected. Analysis of annual expenditures against the previous year, and high variations were duly investigated to ensure spending is within limits except for outbreaks.

Expenditure Type	2020	2021	Difference	% increase / decrease	Comments
	Utilization	Utilization			
501 - Staff Costs: LT	1,353,196	1,800,959	447,763	33%	New FR positions - ERO. PMO
502 - Staff Costs: ST	649,016	445,450	(203,566)	-31%	
503 - Staff Costs: Supplementary	11,509	6,943	(4,566)	-40%	
511 - DFC	973,785	197,985	(775,800)	-80%	Government supported more using Dis
513 - Contractual Serv, General	958,543	2,401,447	1,442,904	151%	expenditures related more to COVID response
514 - Med. Supplies, Literature	331,805	946,367	614,563	185%	expenditures related more to COVID response
515 - Equip, Veh, Furniture	43,491	152,152	108,661	250%	Expenditures related more to COVID response and procurement of 3 new vehicles
516 - Fellowships, GEA	29,109	19,866	(9,243)	-32%	One fellowship completed
517 - Training	230,264	257,023	26,760	12%	
518 - Travel	271,897	235,541	(36,356)	-13%	
519 - General Op. Costs	698,657	980,315	281,658	40%	Expenditures related more to COVID response
520 - Telecommunications	58,605	102,162	43,557	74%	Expenditures related more to COVID response

	2020	2021			
Expenditure Type	Utilization	Utilization	Difference	% increase / decrease	Comments
524 - Security Expenses	53,011	37,366	(15,645)	-30%	2020 included an outstanding payment
525 - SSA Expenses	890,983	963,025	72,043	8%	
526 - Agreements with UN and NGO	222,376		(222,376)	-100%	
527 - Direct Implementations	1,140,932	5,991,475	4,850,543	425%	Expenditures related more to COVID response
555 - Equip for third Parties	34,835	148,011	113,176	325%	Mostly related to COVID
	7,952,012	14,686,089	6,734,076		

Procurement and Logistics

The WCO processed 592 purchase orders totaling \$11,456,096, which constitute 78% of the expenditure for 2021. The WCO ensured that due



processes were followed for all procurement and were done in line with the value for money principles. A breakdown is displayed in the table below.

Contract Type	Total PO Amount	Total Number of POs
Agreement for Performance of Work	857,354	17
Consultant	222,898	13
Consultant - Emergency	10,178	1
Direct Financial Cooperation	197,000	4
Fellowship	19,122	7
General External Services	992,858	146
Goods	994,556	86
Imprest	7,076,973	288
Letter Of Agreement - Non Grant	1,085,158	30
	11,456,096	592

The WCO Liberia with support from various donors and the organization's core budget donated supplies to the MOH to support the

COVID response and other health programmes. Details of the donations made in the year is tabled under Annex 2.

KEY CHALLENGES



- i. The ongoing COVID-19 outbreak negatively impacted on the health systems and continuity of essential health services resulting in competing priorities in the health sector – WHO, MOH and other partners had to re-prioritize and repurpose resources to meet the planned targets in the biennial workplan.
- ii. Despite all the gains made by Government and partners in ensuring the availability and access of COVID-19 vaccines, availability of vaccine safety information, low public uptake (vaccine hesitancy) of the vaccine still exists.
- iii. Mobile money payment challenges especially in the mismatching of phone numbers, names and limited wallet space is leading to delays in payments. This is being minimized with prior verification of numbers and constant follow ups with payees before payment is done. Although sometimes this still challenge still persists due to very high volumes of payees.
- iv. Inadequate funding for implementation of Community Based Surveillance across the country leading to a low rate of community case detection (43%) for COVID-19 and other priority diseases in the country as compared to the national target of 80%.
- v. Inadequate first-line supportive supervision and weak coordination at the subnational level (county, District, Health facility and community) leading to persistent zero reporting of priority diseases, inconsistency, poor data quality and misdiagnosis of IDSR priority diseases.
- vi. Poor attitude, lack of commitment and accountability for implementation of IDSR guidelines.
- vii. Budget constraints to implement critical WHO technical support for operations including salaries to maintain the field presence remain a challenge leading to the closure of some field offices and frequent overlapping in program activities by the few available field staff.
- viii. Misinformation and dis-information about the COVID-19 vaccine impacted the uptake of nOPV2 thereby leading to vaccine hesitancy and/or refusal. This is being mitigated going forward through the employment of communication officer.
- ix. Limited human and financial resources to effectively implement biennial planned activities and adequately provide technical support to the Ministry of Health and the National Programs.

RECOMMENDATIONS



- Support and facilitate the implementation and monitoring of the EPHS II, National Standard Treatment Guidelines at sub national levels including community level
- Adapt the Primary Health Care framework and model and improve the generation, dissemination and use of strategic information for evidence-based decision making and planning at all levels.
- Support the implementation of selective health financing and health workforce reforms.
- Support supply chain management and diagnostic capacities to enhance antimicrobial stewardship programing including Healthcare Associated Infections (HAI) and Anti-Microbial Resistance Monitoring (AMR) surveillance systems.
- Routine programmatic supportive supervision and mentorship to frontline health workers and surveillance officers is required in promoting quality of health care, data quality, preparedness, robust disease surveillance, quality outbreaks response and preventive interventions.
- WHO should continue to provide technical guidance and support to MOH and partners at county level in areas of immunization and vaccine preventable diseases in outbreaks and responses.
- Mobilize additional resources to support MOH and other partners' efforts at county level to deliver essential and life-saving interventions to the population, including vulnerable and hard to reach populations.
- Strengthen programmatic, technical, and operational capacities at sub-national levels to improve program implementation, management and increase access to quality essential health services.
- Government and partners to ensure health facilities have appropriate physical environment with adequate water, sanitation and energy supplies and sources.
- The MOH to make available essential RMNCAH commodities and supplies for routine maternal and newborn care and the management of complications.
- MOH and partners to ensure Adolescents-friendly health service provision at service delivery points.
- Urgent need to improve referral mechanisms and oxygen availability to address health emergencies.
- Liberia has the drive and capacity to meet up with the global COVID-19 vaccination targets, however strong ownership by senior national stakeholders and strict mandates should be in-place to ensure the public is vaccinated.

LESSONS LEARNED



- The utilization of the County Health Teams, National RCCE Pillar and all relevant stakeholders in the country for sustained harmonization and alignment of Health Promotion and RCCE activities led to synergies in health promotion implementation.
- Enhanced community-system networking through awareness and sensitization renews confidence in the health system for compliance and desired health seeking practices by intended beneficiaries.
- Integration and alignment of parallel activities mitigate/ lessen budget burden and risk of competition among partners.
- Training of frontline health workers and Surveillance office in Health facilities, Communities, Points of Entry as well immigration and agricultural improves early detection and response to Human, Zoonotic and animal diseases.
- The introduction of new vaccines can be marred by fear of vaccine outcome and potential side effects and may lead to refusals and vaccine hesitancy by the population. The regulatory bodies have concerns in authorizing the importation and use of unlicensed vaccine under emergency use listing (EUL).
- Joint monitoring and evaluation of activities coordinated by WHO provided the opportunity to monitor project implementation, discuss challenges and jointly address gaps.
- The upsurge in COVID-19 cases created a high demand for COVID-19 vaccination. Liberia has the drive and capacity to meet up with the 70% global COVID-19 vaccination targets, however strong ownership by senior national stakeholders and strict mandates should be in place to ensure the public is vaccinated.

CONCLUSION



The Liberia WHO Country Office, in collaboration with the African Regional Office (AFRO) and the headquarters in Geneva (WHO HQ), maintained strong support to the Government and people of Liberia towards an improved health care sector with the capacities to deliver desired health care services and results.

WHO, other partners, including donors and government ensured a functional IMS is in place for managing, coordinating and reporting on the COVID-19 response throughout the year, harnessing local capacities and leveraging on resources for health development, both within the country and externally.

The COVID-19 Pandemic interrupted health service delivery and continuation of usual business operations, but with the foresight of planning for and using emergency business continuity strategies, coupled with technical and financial support at all levels of operations, key results were achieved over the course of the year. A few of these achievements included:

- Strengthened leadership and governance, demonstrated through support to government's ownership, steering and coordinating functions on health development and emergency response on one hand, and similarly for the UNCT led by the RCO on the other hand.
- Strong advocacy, technical and financial support for the maintenance of routine health services, health care provider skills enhancement, provision of essential drugs and medical supplies particularly for an improved covid case management capacity.
- Priority programme cluster results such as revised programme norms, standards, policies and guidelines; establishment of at least two cancer screening sites for cervical cancer, boosted by trained care givers and donation of the required equipment; a boost in the COVID-19 vaccination coverage up to 22% at the end of 2021 and introduction of new vaccines, specifically targeting vaccine derived polio virus type 2 (nOPV2); a strengthened laboratory service and platform for sustained testing including voluntary testing for COVID-19, data generation and use for evidence based decisions.
- The year under reflection provided an opportunity for the WHO Liberia Country Office (WCO) to build on its strengths, continue impactful contributions for improved access to essential health services towards UHC, work together to protect Liberia from health emergencies and collaborate with partners for improved health and wellbeing of the population. These, among other notable outcomes, were made possible through forging and working with strategic partnerships including the UNCT in support of responsive health care and development.

PRIORITY FOCUS: 2022 - 2023



1. Ensure the provision of high-quality people centered health services using the Primary Health Care Approach including in emergency situations.
2. Strengthen the health system to respond to diseases and ill health conditions, particularly nationally defined priority diseases and disease conditions, inclusive of communicable and non-communicable diseases.
3. Through health system strengthening, build capacity at all levels to address population specific health needs and barriers to equity across the life course
4. Contribute to improved national leadership and governance for health underscored by improved transparency, accountability and community empowerment.
5. Build capacity for national health accounts and reforms for UHC.
6. Support the improvement of access to essential medicines, vaccines, diagnostics and other essential commodities and equipment for primary health care provision, ensuring standards of quality, safety and efficacy of health products.
7. Build national and subnational capacity to address antimicrobial resistance through strengthened surveillance systems, laboratory capacity, infection prevention and control, awareness-raising and evidence-based policies and practices.
8. Capacities at national and subnational levels strengthened for emergency preparedness.
9. Work towards prevention of outbreaks, epidemics and pandemics at all levels.
10. Continue to support and strengthen rapid detection, investigation, reporting and response to health emergencies with a focus on enhancing and leveraging on local capacities.
11. Forge strategic partnerships and support multi sectoral platforms for addressing the social determinants of health, targeting gender equity and rights, nutrition for health and development, food security and safety, safe water and sanitation.
12. Collaborate and provide support to address the health consequences of climate change and protection of the environment, contributing to an enabling environment for health and wellbeing.
13. Strengthen data and the health information system to inform policy and deliver results
14. Continue to support strengthening of leadership, governance and partnerships including at the UNCT level.
15. With a strong country support unit, facilitate strategic priority setting, strengthen resource mobilization, improve utilization and human resource management focused on results under an internal control framework.
16. Promote and ensure compliance with PRSEAH measures for all categories of the WCO workforce, including collaborators.

ANNEX 1

List of Supplies Donated by WHO Liberia to MoH from January to December 2021.

S/N	Item Description	Program	Quantity	Date donated to MOH
1	Medical Supplies	WHE	5 packages	8-Feb-21
2	Disposable Sampler (Nasopharyngeal Swab)	WHE	115 kits	8-Feb-21
3	Foam Box (Contain Andis SARS-CoV-2 and Influenza A/B RT-Qpcr Detection test kits)	WHE	1 package	8-Feb-21
4	MEDICAL SUPPLIES	WHE	1 package	8-Feb-21
5	SARBECOV GENE PLUS EAV CONTROL MEDICAL SUPPLIES	WHE	1 package	19-Feb-21
6	PCR Reagents	WHE	3 packages	19-Mar-21
7	Dry Ice sample transportation kits	WHE	2 packages	19-Mar-21
8	Disposable Sampler	WHE	2 Pallets	23-Apr-21
9	Standard Q COVID-19 Reagent	WHE	4 packages	23-Apr-21
10	Kit, Xpress, SARS-Cov-2, 10 tests	WHE	1 package	23-Apr-21
11	Consumable and reagents as per packing list	WHE	2 packages	23-Apr-21
12	LAB Reagents	WHE	3 packages	2-Jun-21
13	Swab Kits	WHE	2 packages	16-Jun-21
14	LAB Reagents	WHE	2 packages	16-Jun-21
15	Medical Supplies	WHE	3 packages	14-Jul-21
16	Swab Kits	WHE	7 packages	27-Jul-21
17	Kit, XPRESS, SARS-COV-2, 10 TEST	WHE	1 package	27-Jun-21
18	Diagnostic Reagents Standard Q COVID 19 AG TEST	WHE	2 Pallets	27-Jun-21
19	Surgical Face Mask	WHE	462 cartons	7-Sep-21
20	Q1Aamp Viral RNA Mini Kit 250	WHE	2 packages	25-Oct-21
21	Medical Supplies: Real Star Yellow Fever Virus RT-PCR Kit 1.0	WHE	1 packages	25-Oct-21
22	Kit, Xpress, SARS-Cov-2, 10 Test Kit	WHE	4 packages	10-Dec-21
23	Diagnostics Reagents	WHE	16 packages	10-Dec-21
24	Real -Time Fluorescent RT-PCR Kit	WHE	1 package	10-Dec-21
25	RNA Extraction Kit	WHE	2 packages	10-Dec-21

S/N	Item Description	Program	Quantity	Date donated to MOH
26	Medical Supplies (Q1 Aamp Viral RNA Mini Kit 250)	WHE	1 package	10-Dec-21
27	DNA Detection Kit	WHE	1 package	10-Dec-21
28	RDT SYPHILIS 3.0 ABOIT	WHE	1 package	10-Dec-21
29	Diagnostics Reagents	WHE	4 pallets	10-Dec-21
30	medical supplies - Cardio Check PA-PTS Diagnostics (25Units 0 + Measuring tapes (40 units)	WHE	3 packages	10-Dec-21
31	Cardio Check PA-PTS Diagnostics (25Units 0 + Measuring tapes (40 units)	WHE	3 packages	10-Dec-21
32	Xpertcheck-CE-5 Kit Machine	WHE/LAB	1 package	8-Feb-2021
33	Medical Kits	WHE/LAB	3 packages	27-Jul-2021
34	Medical Equipment (CEPHEID)	WHE/LAB	4 packages	12-Aug-2021
35	GENXPRT MODULE 6 COL MB2	WHE/LAB	2 packages	12-Aug-2021
36	GENXPRT MODULE 6 COL MB2	WHE/LAB	1 package	12-Aug-2021
37	GenXpert module	WHE/LAB	2 packages	25-Oct-2021
38	GenXpert module	WHE/LAB	2 packages	25-Oct-2021
39	GeneXpert Module 6 COL MB2	WHE/LAB	2 packages	10-Dec-2021
40	Ad26.ZEBOV 0.5ml, 1x10 vp/ml,20x0.5 ml suspension	EPI/EBOLA VACCINES	1 package	12-Aug-2021
41	Ad26.ZEBOV 0.5ml, 1x10 vp/ml,20x0.5 ml suspension protocol VACS2150EBL4005	EPI/EBOLA VACCINES	1 package	12-Oct-2021
42	Gx-50 Test, Ebola, CE-50 Medical Supplies	WHE/EVD	4 packages	23-Apr-2021
43	Swab and Viral Transport Medium	WHE/EVD	9 packages	23-Apr-2021
44	Ventilator (Paediatric/Adult	WHE/EVD	21 packages	23-Apr-2021
45	Laboratory Reagent	WHE/EVD	1 package	22-Apr-2021
46	Surgical Gown	WHE/EVD	2 packages	20-May-2021
47	Q1AMP VIRAL RNA MINI KIT(250)	WHE/EVD	1 package	20-May-2021
48	PRAZIQUANTEL CESOL, 600MG TAB	NTD	5 packages	19-Mar-2021
49	MDT Anti-Leprosy Drugs	NTD	3 packages	20-May-2021
50	PRAZIQUANTEL CESOL, 600MG TAB	NTD	5 packages	25-Oct-2021
51	ALBENDAZOLE 400MG TABLETS	NTD	8 packages	10-Dec-2021

ANNEX 2

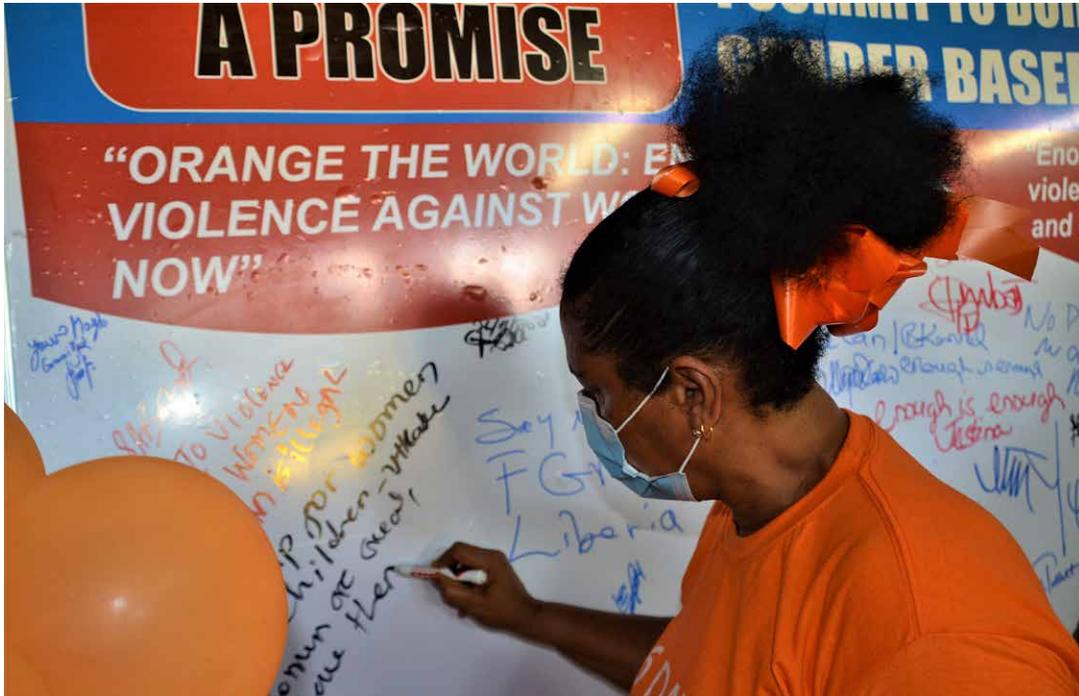
WHO Liberia at work.



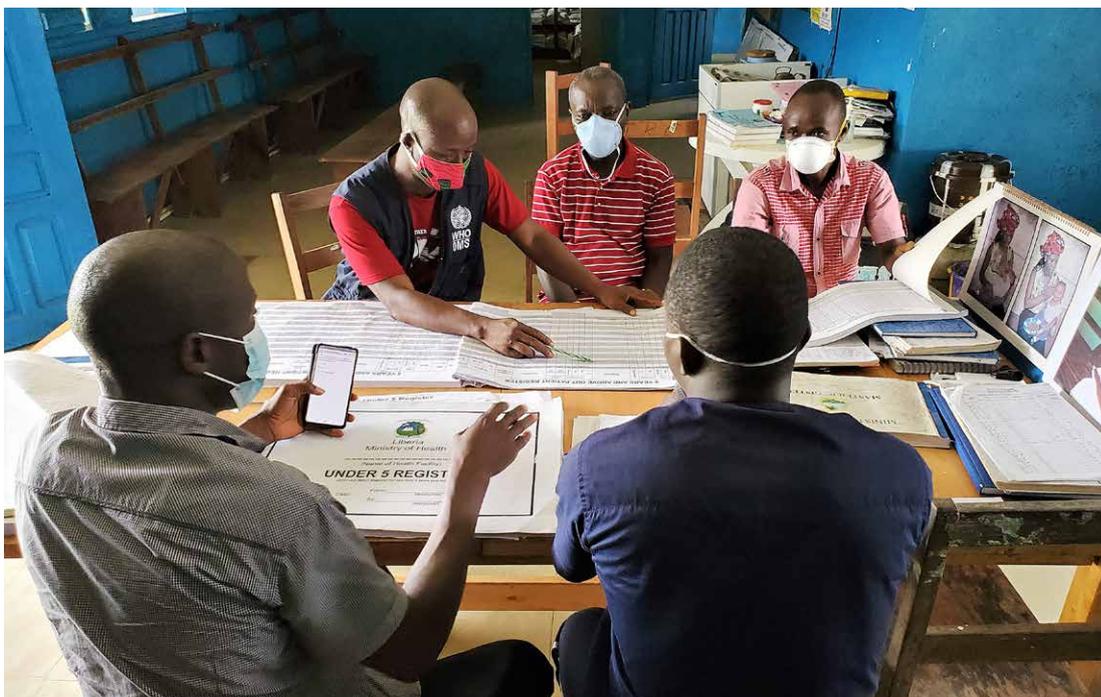
The WCO Country Representative, Dr. Clement Peter Lasuba presenting oxygen regulators to the Honorable Minister of Health, Dr. Wilhemina S. Jallah, to support the MOH scale up and improve oxygen therapy. ©WHO Liberia



WCO donates test kits and sets of equipment to MoH for COVID-19 response and infection prevention and control. ©WHO Liberia



WHO staff participates in the 16 Days of Activism Against Violence of All Forms campaign, organized by the UN Country Team, led by UN Women and the Office of the UN High Commissioner for Human Rights, 25 Nov. - 10 Dec. 2021.. ©WHO Liberia



Health facility staff with support from WHO verifying vaccination data at facility level. ©WHO Liberia



WHO staff moving COVID-19 vaccines upon arrival ©WHO Liberia



WHO facilitates the SIMEX launch in Liberia. ©WHO Liberia



A WHO Independent Monitoring team member visits a household during the nOPV vaccination campaign. ©WHO Liberia



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