



Workshop on Resource Mapping and Multisectoral Partnership Coordination for the Implementation of the National Action Plan for Health Security.



25 – 27 August 2021
Golden Gate Hotel, Paynesville, Monrovia.

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ACRONYMS AND ABBREVIATIONS

AAR	After Action Reviews
AMR	Antimicrobial Resistance
EPRP	Emergency Preparedness and Response Plans
FAO	Food and Agriculture Organization
FETP	Field Epidemiology Training Program
GHSA	Global Health Security Agenda
GOHi	Global One Health initiative
IHR (2005)	International Health Regulations (2005)
JEE	Joint External Evaluation
MEF	Monitoring and Evaluation Framework
NAPHS	National Action Plan for Health Security
NPHIL	National Public Health Institute of Liberia
PEPFAR	President's Emergency Plan for AIDS Relief
PHEM	Public Health Emergency Management
PHEOC	Public Health Emergency Operations Centres
REDISSE	Regional Disease Surveillance Systems Enhancement
REMAP	Resource Mapping and Impact Analysis on Health Security Investment tool
SimEx	Simulation Exercises
SOP	Standard Operating Procedures
SPAR	States Parties Self-Assessment Annual Reporting
SPH	Strategic Partnership for IHR and Health Security
USAID	United States Agency for International Development
US-CDC	United States Centers for Disease Control and Prevention
VRAM	Vulnerability, Risk Assessment and Mapping
WHO	World Health Organization
WHO-AFRO	WHO Regional Office for Africa

EXECUTIVE SUMMARY

Following a national review of the implementation progress and challenges of the National Action Plan for Health Security (NAPHS) of Liberia, the Ministry of Health (MOH) and the National Public Health Institute of Liberia (NPHIL), with support from the World Health Organization (WHO) conducted a three-day resource mapping and partner coordination exercise to accelerate the NAPHS implementation.

The face to face The face-to-face workshop, was held from August 25-27 in Monrovia-Liberia using the resource mapping (REMAP) tool and process developed by WHO under strict observance of COVID-19



Dr Zabulon Yoti-WR-ai

protocols, and brought together over 65 participants including representatives from line ministries: Ministry of Health, Ministry of Agriculture, Ministry of National Defense, 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. The tool mapped the health security projects and resources thus allowed the one health platform ministries, agencies, policymakers and partners and partners to identify gaps and mobilize more resources for implementation of the NAPHS.

Dr. Zabulon Yoti, WHO Acting Representative in Liberia, commended the MOH and NPHIL for ensuring a mechanism that enables all partners to work together to discuss priorities and identify synergies, areas for multisectoral coordination, and collaboration. “What we are looking at here is not only for the Ministry of Health but threats and solutions to threats beyond the health sector and no one individual

partner can support the country alone” he said.

The exercise resulted in the mapping of more than \$78 million in health security interventions in the country, and the identification of key technical areas with committed resources. The mapping, with WHO support, is for evidence-based dialogue between government and partners in addressing gaps, needs, and strengthening collaboration for preparedness.



Hon. Min. Dr W. Jallah

Speaking during the closing ceremony, the Honorable Minister of Health, Dr. Wilhelmina Jallah, commended the resource mapping effort and spoke on the importance of partnership. She noted the progress made in country’s capacities to detect and respond since the 2014-2015 Ebola outbreak, adding that Liberia “has the capability to bring together partners to mount a strong response as evidenced with the COVID-19 pandemic.”

The exercise resulted in mapping of 171 health security activities and investments of 23 partners and government organizations who have ongoing projects throughout Liberia.

The data analyzed showed that partner interventions at the national and subnational levels are heavily weighted toward laboratory, surveillance and immunization with less support in areas including antimicrobial resistance, biosafety and biosecurity and national legislation. Resource mapping is an ongoing process, with an invitation to other partners to also share information and become involved for a coordinated multisectoral approach to strengthening preparedness in Liberia.

The Multisectoral Engagement for Health Security (MHS) Unit at WHO Headquarters supported the exercise in close collaboration with the WHO Regional Office for Africa (AFRO) and the Country Office (CO) with the support of World bank REDISSE project.

INTRODUCTION

The Republic of Liberia is situated on the west coast of Africa and borders Guinea, Sierra Leone and Côte d'Ivoire. Liberia has 15 counties. Monrovia, the capital, is in Montserrado County, and the country has an estimated population of about 4.9 million. Prior to the Ebola Virus Disease (EVD) outbreak in mid-2014 that took thousands of lives and devastated the economy, Liberia was experiencing a period of rapid economic growth at an estimated 8.1 percent (Central Bank of Liberia Annual Report, 2013). The impacts of the EVD outbreak in the country spread far beyond the capacity of the health system culminating in a multidimensional socio-economic crisis, exposing entrenched vulnerabilities in the delivery of essential services.

In the wake of the EVD outbreak, Liberia has shown leadership in health security to improve its capacities to prevent, detect and respond to health emergencies. In July 2016, Liberia conducted a self-assessment of the International Health Regulations (IHR, 2005) core capacities using the WHO assessment tool followed by the Joint External Evaluation (JEE) from 5-9 September of the same year. Liberia was the first country in West Africa and the fourth in the African Region to conduct the JEE.

A multi-sectoral team of experts from Liberia and an External Assessment Team objectively assessed all the 19 technical areas using the IHR JEE tool. The assessment team then participated in a facilitated discussion to reach a consensus on Liberia's current strengths, areas which needed strengthening and priority actions. Based on available evidence, each technical area was then awarded a final score.

Following the JEE report, the Ministry of Health (MOH) and the National Public Health Institute of Liberia (NPHIL) with the support of partners undertook several initiatives to address some of the identified gaps and weaknesses. In June 2017, the Government of Liberia started the process of developing the National Action Plan for Health Security (NAPHS) based on the JEE recommendations. The process was led by the NPHIL and the MOH and involved key government sectors and partners, resulting in the creation of the 5-year NAPHS (2018-2022) with 19 key technical areas under four core categories; Prevent, Detect, Respond, and Other IHR-related hazards and Points of Entry (PoE).

The COVID-19 pandemic slowed the implementation of NAPHS in Liberia, as in other countries throughout the world. Seeking to accelerate implementation of the NAPHS, the Liberia Ministry of Health (MoH), with support from WHO and partners, held a workshop from 16 to 18 August 2021 to review the implementation progress and challenges of the NAPHS. This was followed by the workshop on resource mapping and multisectoral partnerships for the implementation of the NAPHS, which was held at the Golden Gate Hotel in Monrovia from August 25-27, 2021.

Following the JEE report, the MOH and the NPHIL with the support of partners undertook several initiatives to address some of the identified gaps and weaknesses with subsequent development of the NAPHS in 2017. On August 16 – 18 2021, the Ministry of Health (MoH), with support from the World Health Organization conducted a three-day workshop to review the implementation progress and

challenges of the NAPHS since its development. However, implementing NAPHS requires identifying gaps and needs, mobilizing financial and technical resources (domestic and external) and monitoring and evaluation of progress. Thus the resource mapping exercise is critical to identifying support for the successful implementation of the NAPHS.

The WHO REMAP toolkit is a country owned tool that links national priorities for health security with available and potential resources (financial and technical); maps the health security related-investments and activities in the country to identify needs and gaps in implementing country health security plans; maps and highlights potential areas of collaboration between the government and partners to facilitate joint planning and implementation of health security preparedness; and creates a strategic partnership for the implementation of national priority activities.

This resource mapping will facilitate multisectoral coordination by mapping health security-related investments in the country allowing policymakers, donors, and partners to see where the gaps exist and where more investment of financial and technical resources is needed. It highlights potential areas of collaboration to facilitate joint planning, coordination, and evaluation in implementing health security preparedness; fostering dialogue between the country and existing and potential partners to create a strategic partnership for NAPHS implementation in Liberia.

The country will use the results of this exercise to track and monitor the implementation of the NAPHS in Liberia.

RESOURCE MAPPING (REMAP) TOOL AND PROCESS

The workshop employed the WHO resource mapping (REMAP) tool and process to support the NAPHS of Liberia. NAPHS implementation requires identifying country gaps and needs, mobilizing financial and technical resources (domestic and external) and monitoring and evaluation of national plans.

The REMAP tool is used to map the health security projects and interventions in the country — through financial or technical assistance — allowing policymakers and partners to see where the gaps exist and where more investment of resources is needed. This provides valuable information for the country and for partners, supporting alignment and harmonization of efforts.

Resource mapping is based on multisectorality and inclusivity through which different government ministries and partners are involved with WHO support in mapping the health security resources, investments and activities in the country, identifying needs, gaps, overlaps and potential areas of collaboration between the government and partners in implementation of the NAPHS.

The tool identifies whether partners are mostly supporting certain technical areas of the NAPHS plan with little support for other pillars, or whether a vulnerable geographic region is not receiving needed support. The data reduces duplication of stakeholder efforts, enhances coordination for sustainable preparedness, and is designed to promote dialogue between the country and partners for establishment of a partnership for implementation of the NAPHS.

The REMAP tool features a dashboard with visualization of country progress in implementing the NAPHS, along with clickable buttons that bring the user to different pages within the tool that display

information such as partner and project details, country and partner funding, and updates regarding the performance in implementation of national priority actions within the plan.

Countries use the tool to monitor the progress in implementing their national health security plans and to measure the effectiveness of allocations for public health preparedness and health security activities. The country controls the resource mapping process and maintains ownership of the data, while WHO provides guidance and technical support that includes adapting the tool for the national context. Countries have ownership of their health security through resource mapping, using the process to improve donor coordination, multisectoral approaches to health emergency preparedness, and new strategic partnerships for strengthening IHR capacities and building resilient health systems.

The WHO Multisectoral Engagement for Health Security (MHS) Unit, working closely with the WHO Regional Office for Africa and the WHO Country Office in Liberia, provided technical support through resource mapping in an effort to scale up multisectoral preparedness, accelerate implementation of IHR (2005), and contribute to the global strategic priority in the WHO General Programme of Work (GPW 13) of 1 billion more people better protected from health emergencies.

OBJECTIVES

The workshop aimed to:

- Provide better visibility of available and potential resources for health security to accelerate the implementation of the NAPHS.
- Facilitate the sharing of information between the country, partners, and donors, including data on partner investments and activities, on country needs, gaps and on the effectiveness of funds allocated to preparedness activities in public health and health security.
- Encourage collaboration and synergies through the harmonization of the efforts of the country, donors, and partners to prepare the strengthening of national capacities for prevention, detection, and response as well as public health.
- Provide the country with evidence-based information to measure the effectiveness of investments, as well as for the allocation and distribution of resources needed to strengthen health security

REPORT ON SESSIONS

The face-to-face workshop was held under strict observance of COVID-19 protocols and brought together over 65 participants including representatives from line ministries: Ministry of Health, Ministry of Agriculture, Ministry of National Defense, Ministry of Labor, the Expanded Programme on Immunization (EPI), the Environmental Protection Agency of Liberia (EPA), National Public Health Institute of Liberia (NPHIL), County Health Officers, and experts from partners, including FAO, World Bank, US-CDC, USAID, IRC, GIZ, JICA, AFENET, and WHO. The main activities carried out in the workshop were:

- Status of implementation of NAPHS activities reviewed
- Technical Needs for Assistance Identified
- Mapping of resources to support NAPHS implementation and multisectoral collaboration

OPENING SESSIONS

The opening of the workshop included plenary sessions on development and governance of the Liberia NAPHS, an overview of national priorities for health security, and partner presentations on their role in implementing health security actions. These were followed by small group work sessions on the REMAP tool and process.

Mr. Chea Sanford Wesseh, the Honorable minister for vital statistics welcomed the workshop participants and appreciated the various institutions, partners and WHO team for their support towards the resource mapping exercise.



Hon. Assistant Min. C. Wesseh



Mr Sean Cockerham-WHO-HQ

Mr. Sean Cockerham from WHO HQ noted that Liberia is one of the first countries that participated in the JEE reviews, and 3 years later the country is monitoring and evaluating its NAPHS implementation and conducting resource mapping to support the NAPHS implementation.



Mr. Kwuakuan D.M Yealue-MoH

Mr. Kwuakuan D. M. Yealue, II of MoH presented the introductory session of the workshop including the objectives, development and governance of the NAPHS overview of national priorities for health security and the methodology of the workshop. In his concluding statement, he emphasized that exercise would provide the country with evidence-based information to measure the effectiveness of investments, as well as for the allocation and distribution of resources needed to strengthen health security. Lastly, he encouraged the partners and all stakeholders to support the government's efforts to support the NAPHS activities implementation at national and sub national levels.

The workshop was attended by 65 participants (Annex 3) including representatives from line ministries: Ministry of Health, Ministry of Agriculture, Ministry of National Defense, Ministry of Defense, Ministry of Labor, EPI, EPA, NPHIL, and experts from partners, including FAO, World Bank, US-CDC, USAID, IRC, Last Mile Health, IOM, AFENET, and WHO. The meeting was done in observance of COVID-19 SOPs.

LIBERIA JOURNEY FROM JEE TO NAPHS

Liberia was one of the first countries in West Africa and the fourth in the African region to conduct the JEE. The JEE evaluated Liberia's capacities in four categories: prevent, detect, respond, and other related hazards/points of entry. In this assessment Liberia's preparedness capacity and capabilities was put at 46% during the conduct of JEE in 2016.

Eleven (22.9%) of the 48 Indicators assessed were rated green (Demonstrated/Sustainable Capacity), 26 (54.2%) Yellow, (Limited/Developed Capacity), and 11 (22.9%) Red (No Capacity). Using the JEE recommendations, Liberia developed and launched its NAPHS in 2017.

The Liberia NAPHS is a five (5)-year plan (2018 – 2022) comprising of 19 key technical areas under four core categories; Prevent, Detect, Respond, and Other IHR-related hazards and Points of Entry (PoE). The plan aligns all health security interventions currently implemented through the GHSA, REDISSE, IDSR and other initiatives through the One Health approach.

The 5-year cost to implement the plan is **US\$ 154,948,676**. Table 1 below summarizes the cost drivers of the NAPHS in Liberia.

CORE COMPONENT	COST DRIVERS	ESTIMATED COST IN US \$
Prevent	<ul style="list-style-type: none"> Food Safety Zoonotic diseases IHR Coordination, Communication and Advocacy 	24,771,843
Detect	<ul style="list-style-type: none"> Workforce development Real time surveillance National Laboratory system 	101,108,705
Respond	<ul style="list-style-type: none"> Preparedness Linking public health and security authorities Risk Communication 	21,141,244
Other IHR-Related Hazards and POEs	<ul style="list-style-type: none"> Chemical events Radiation emergencies 	7,370,885
Estimated Total		154,948,676

Table 1: Main Cost Drivers of the NAPHS in Liberia

Since the NAPHS development in 2017, the country has conducted two reviews of its implementation progress: in 2019 and 2021. During the mid-term review in 2019 Liberia objectively scored itself at 48%, while the recently concluded review (table 2 below) showed; 123 Summary actions; 610 activities across 19 technical areas, 18% of planned activities completed, 30% of planned activities in progress. And 52% of planned activities not started. Of these 90% of planned activities are in 3 technical areas (food safety, medical countermeasures, radiation and chemical events).

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

Table 2: Liberia NAPHS Implementation Status.

SOME PARTNERS UPDATES

WHO

The mission of the WHO in Liberia is to promote the attainment of the highest possible level of health by all people in Liberia.; with 3 strategic priorities: i) advancing universal health coverage, ii) addressing health emergencies, iii) promoting healthier populations. This work is funded by WHO regional office, headquarters, Member states and partners.



Dr Monday Julius Rude -WHO

Dr. Monday Julius, the WHO Health Emergencies -Liberia Technical Lead presented the role of the WHO in supporting health security implementation in Liberia.

- **WHO provides technical, financial, and logistical assistance** for preparedness, prevention, detection/investigation (including laboratory support) and response to outbreaks of diseases, conditions and events as well as mitigation of risks from high to low threat infectious hazards while strengthening IHR (2005) core capacities; Additionally, WHO support operational readiness plans (emergency preparedness and contingency plans) for specific threats (including COVID-19, VHF's etc.); vulnerabilities and risks assessment as well as quality data management to inform public health interventions and monitoring response actions.
- **Regular Coordination;** Support to one health coordination framework, Technical working groups, engagement with partners for demonstration of Clear Added Value for Public Health interventions while working with NPHIL/MoH; facilitating coordination to avoid fragmentation, duplication and ensuring harmonization and alignment of

programmes.

- **Health Systems Strengthening (HSS)** based on the Primary Health Care approach strengthening delivery of essential health services and resilience of the health system; support for IPC; diagnostic capacities as well as supporting efforts for access to affordable essential health products and services.
- **Emergency Preparedness.** Support for RRTs reorganization in the context of one health and their capacity building, simulation exercises, prepositioning of essential supplies for IPC, Laboratory specimen's collection and packaging, contingency plans, IDSR, eIDSR, CEBS and Health Emergency Information (quality data generation and management)
- **Health Security focus areas for technical and strategic support:** Strengthen systems capacity to prepare, prevent, detect, and respond to outbreak and other emergencies; stewardship for AMR and IPC; public health workforce capacity in education and training for resilience; institutional capacity for policy, strategic planning and policy dialogue; operational research, scientific communication and knowledge exchange.
- **Prevention:** Support is provided for VPDs surveillance and vaccination under the EPI program.

US-CDC

Dr. Denise Allen Roth of the US-CDC highlighted that the organization supports five (5) key technical areas through 8 agencies including MOH/NPHIL, AFENET, JHPIEGO, Riders for Health, Association of Public Health Laboratories (APHL), and WHO, as illustrated in figure 1 below.

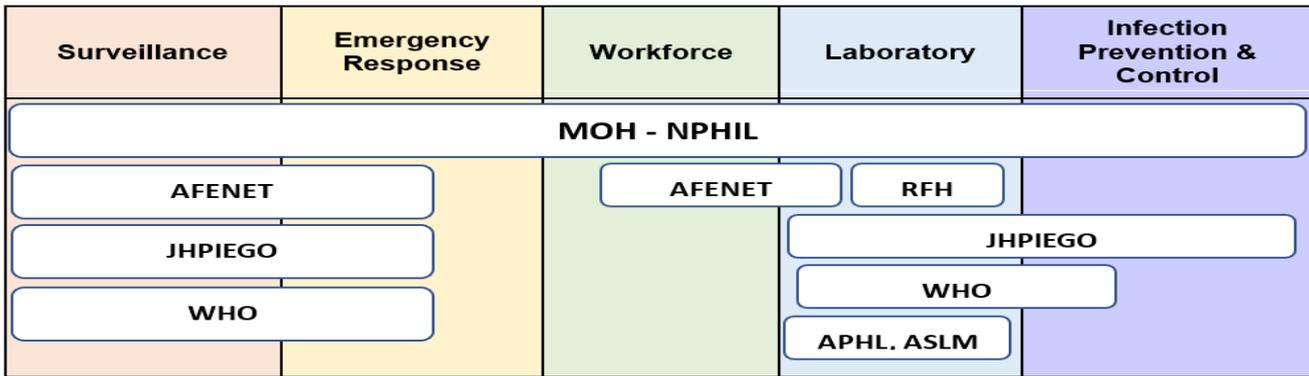


Figure 1: US-CDC Resource Portfolio in Liberia

- Surveillance:** CDC provides technical and financial support for surveillance officers at national, county and district levels to conduct surveillance activities for reportable diseases and outbreaks
- Emergency Response:** the organization provides financial and technical support for outbreak emergency management, operation of County emergency operation centers, and Rapid response team programs
- Workforce:** Financial and technical support for conducting Frontline, Intermediate, and Executive Field Epidemiology Training Program
- Laboratory:** Financial and technical support for consumables, advanced diagnostic training, and analysis of Acute Febrile Illness surveillance and sero-survey for demographic health survey; provides technical support training and conduct training to biomedical engineers on biosafety cabinet evaluation; and Supports Riders for Health to maintain and operationalize national network of sample collection and transport
- Infection Prevention & Control:** Technical and financial support for assessing priority health facilities, developing remediation plans, and providing supportive supervision and mentorship
- Other technical support:** Additionally, the organization provides other technical support from Headquarters for polio eradication, malaria, information systems, border health (POEs) and viral special pathogens such as Ebola, Marburg, Lassa Fever.



Dr Allen Denise -US CDC

USAID

Dr. Fatima Soud, the Senior Advisor on Global Health Security Agenda highlighted six technical areas under the NAPHS that USAID supports through FAO/ECTAD costing up to US \$ 800,000. These include legislature and policy, animal health surveillance; POEs, Antimicrobial resistance, workforce development and Biosafety and Biosecurity.

- USAID provides approximately US \$ 1million to stop spillover by supporting zoonotic pathogen surveillance, Lassa fever and rabies through Tufts University.
- Supports Community Event Based Surveillance through IRC with four main objectives; Improved OH surveillance coordination at the national and subnational level (county-district-community) to pick on “alerts” or triggers; Enhanced integration of surveillance activities and epidemic preparedness in community health; Improved community level data collection, reporting and use through robust supervision and mentorship of Community Health Assistants/Volunteers (CHA/CHV/

CAHWs); and Strengthening structures for community engagement, communication and risk messages to reduce health risks through preparedness and prevention efforts.

- Through Breakthrough Action, a John Hopkins initiative to carry out a cohesive and coordinated approach reflecting best practices for integrated Social Behavioral Change (SBC) programs, USAID focuses on health priorities, working with stakeholders on identified SBC needs and complementarity; utilization of theory-informed and evidence-driven programming that will inform on risk communication and community engagement to lessen the impact of infectious diseases; and materials development on eight priority zoonotic diseases, as well as lessons learned from the impact of COVID-19 on the One Health platform. This will be used to form risk communication and community engagement (RCCE) messages to guide implementation of activities at the national and subnational levels in the country.
- USAID supports Infectious Disease Detection and Surveillance by; strengthening diagnostic networks which are critical to achieving the GHSA goal of disease detection; capacity building to conduct surveillance of priority pathogens; and building capacity of AMR sentinel surveillance sites.
- In the fight against COVID-19, USAID is supporting COVID-19 specimen collection and transport, technical assistance, procurement of essential equipment and supplies, and vaccine roll out.

RESOURCE MAPPING WORK SESSIONS

Mr. Sean Cockerham, of the WHO Multisectoral Engagement for Health Security (MHS) Unit provided workshop participants with an introduction to the REMAP tool. Mr. Cockerham explained the tool can be used, for example, to identify whether partners are mostly supporting one area such as laboratory systems with little support for another area like zoonosis activities. Member States, partners and donors can use this information to make investment decisions. The Excel-based tool can also be used to track implementation of the NAPHS.

The tool includes a dashboard for visualizing aspects such as partner support, funding, ongoing progress in the strengthening of IHR (2005) core capacities, and the completion of prioritized activities. Figure 2:



A Snapshot of the Monitoring tool for IHR in Liberia

The WHO REMAP toolkit is a country owned tool that links national priorities for health security with available and potential resources (financial and technical); maps the health security related-investments and activities in the country to identify needs and gaps in implementing country health security plans; maps and highlights potential areas of collaboration between the government and partners to facilitate joint planning and implementation of health security preparedness; creating a strategic partnership for the implementation of national priority activities in Liberia.

In his remarks he emphasized that implementing NAPHS requires identifying gaps and needs, mobilizing financial and technical resources (domestic and external) and monitoring and evaluation of progress. Using examples from Namibia, and Cote d'ivoire, he showed the participants how they can use the tool to identify technical needs for assistance using the REMAP tool.

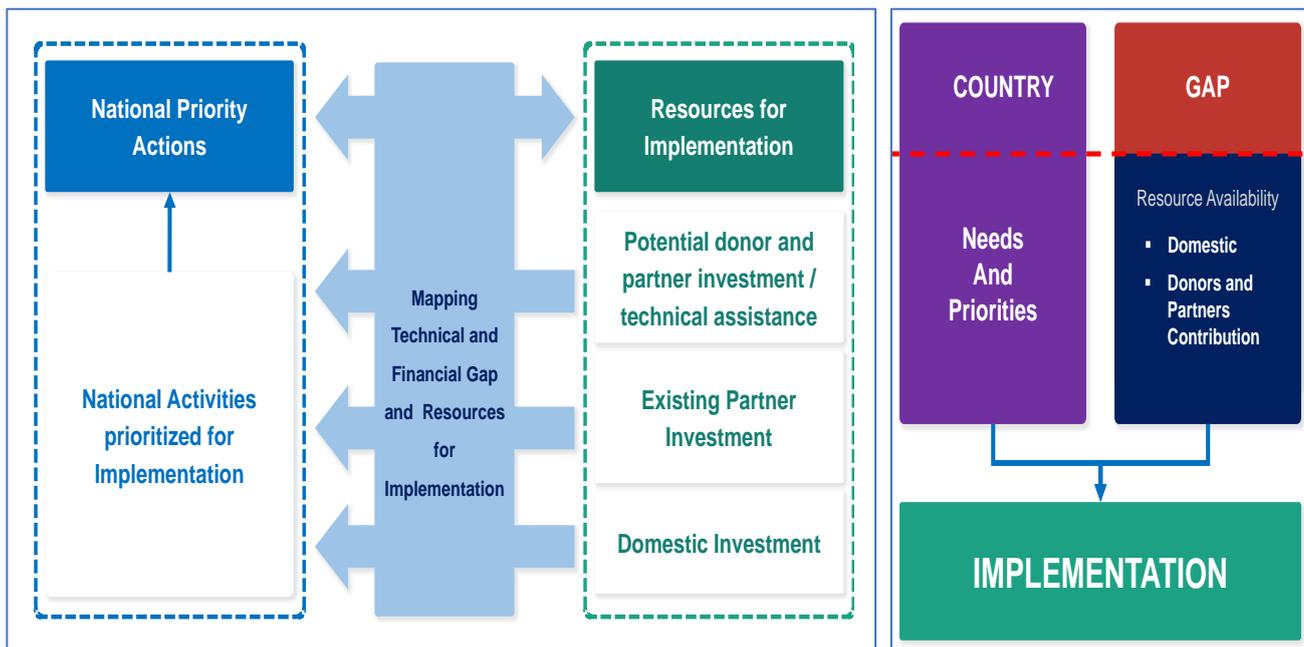


Figure 3: Resource Mapping approach

Methodology

Group discussions in plenary were the core of the workshop. Participants were divided into four groups in the categories of: Prevent, Detect, Respond and Other IHR-related Hazards and Points of Entry; and provided with two data sheets per core component. The groups used the resource mapping tool to identify the partners and resources working in support of those activities.

Technical area leads and partners populated the sheets based on the standard instructions by selected facilitators (see workshop agenda in annex 2). Thematically linked technical areas were discussed with the relevant set of multi-sectoral stakeholders. At the end of each day, the groups presented an overview of the results.

The tool is meant to be continually updated, with the resource mapping workshop just the beginning of the process.

The workshop participants in the four working groups (Prevent, Detect, Respond and other IHR) were asked to use the tool to update progress in NAPHS implementation using the completed M & E

framework from the just concluded NAPHS evaluation workshop and to identify specific NAPHS activities that required technical assistance, as well as to identify the ongoing health security investments and activities in Liberia, both from partners and the government.

This included providing details such as how far along the project has progressed, the start and



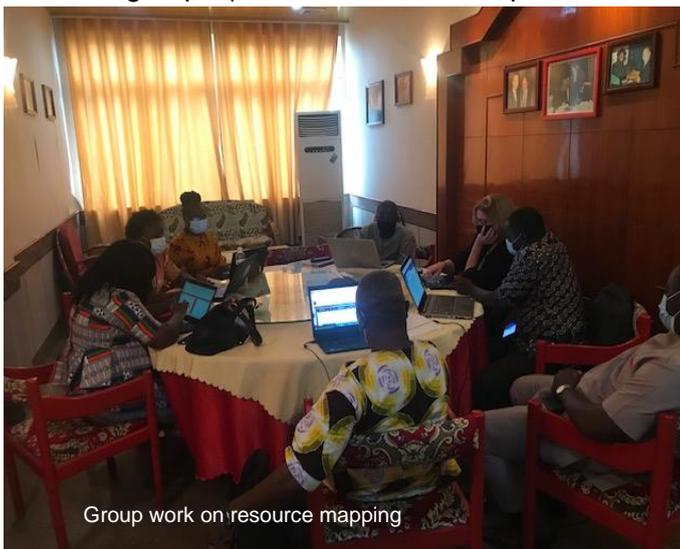
projected end dates, funding amount (if known), geographic area and main technical area supported. The objective was to use the information from participants to map the donor and partner landscape in Liberia through the REMAP tool. Often health security investments and activities in countries are not well documented and the resource mapping is meant to foster dialogue between the government and partners on financial and technical assistance, facilitating collaboration and synergies through harmonization of country, donor and partner health security efforts.

The working groups, which included facilitators and rapporteurs, met throughout the afternoon of the first day of the workshop and the second day, with additional work to complete the data collection sheets on the third day.

RESULTS

Mr. Sean Cockerham, (WHO-HQ) presented the preliminary results from the four different working groups for data visualization of the partner and donor landscape in Liberia. The government and partners will continue with the mapping exercise after the workshop.

The four groups (Prevent, Detect, Respond and other IHR) presented the results of their work, noting



that this is initial mapping and not all the partners participated in the workshop. The mapping will be updated with additional partners invited to also share information for a coordinated multisectoral approach to strengthening IHR (2005) capacities in Liberia.

The working group efforts on the first day of the workshop to identify needs for technical assistance for implementation of specific NAPHS activities were designed to support Liberia through the identification and matching of partners that can support. This support can be facilitated through the partner matching function in the WHO Strategic Partnership for Health

Security and Emergency Preparedness (SPH) Portal <https://extranet.who.int/sph/home> as well as through the Global Strategic Preparedness Network (GSPN), which WHO is establishing as a network

of Member States, multisectoral partners, public health institutions, international organizations and others to facilitate the provision of technical assistance to countries.

Mr. Wloti Se, (NAPHS focal person at NPHIL) and Hon. C. Wesseh moderated the plenary sessions. Through the workshop, participants identified a range of specific activities that require technical assistance (human resource expert support) for implementation, the full list is included in the REMAP dashboard with key examples below:

- Support to develop contingency plans for Yellow fever, Marburg, Dengue
- SOPs for the integration and coordination of One Health Platform
- Development of SIMEX SOPs and tools
- Food Safety Training (livestock officers, surveillance officers, meat inspectors etc.)
- Development of food safety laboratory quality management program
- Needs Assessment at Points of Entry
- Training for port health staff in vector control
- Capacity building for One Health desk officers and IHR focal points in each ministry
- Development and validation of legislation on the use of antimicrobial agents



The working groups also mapped health security investments and activities throughout the country. WHO MHS combined the results from the four different working groups for data visualization of the partner and donor landscape in Liberia.

The data showed that the mapped interventions in Liberia are heavily weighted toward laboratory, surveillance and immunization with less support in areas including antimicrobial resistance, biosafety and biosecurity and national legislation. The process resulted in the mapping of 171 interventions in the country representing more than \$78 million. Charts below provide summary information on the mapping with greater details within the REMAP dashboard.

- **Number of health security interventions and investment by technical area**

- 128 Interventions have been mapped so far with the largest majority in the laboratory and points of entry technical areas, and fewer interventions identified in the reporting, risk communication, preparedness, and workforce development.
- A total amount of \$ **\$78,466,953** was mapped (figure 3 below). Investments are heavily weighted towards the laboratory, surveillance, and immunization with very little support in the areas of radiation, chemical events, legislation, and antimicrobial resistance (AMR).

KEY FINDINGS

Number of health security interventions and investment by technical areas

One hundred seventy-one (171) Interventions have been mapped so far with the largest majority in the laboratory and points of entry technical areas, and fewer interventions identified in the reporting, risk communication, preparedness, and workforce development.

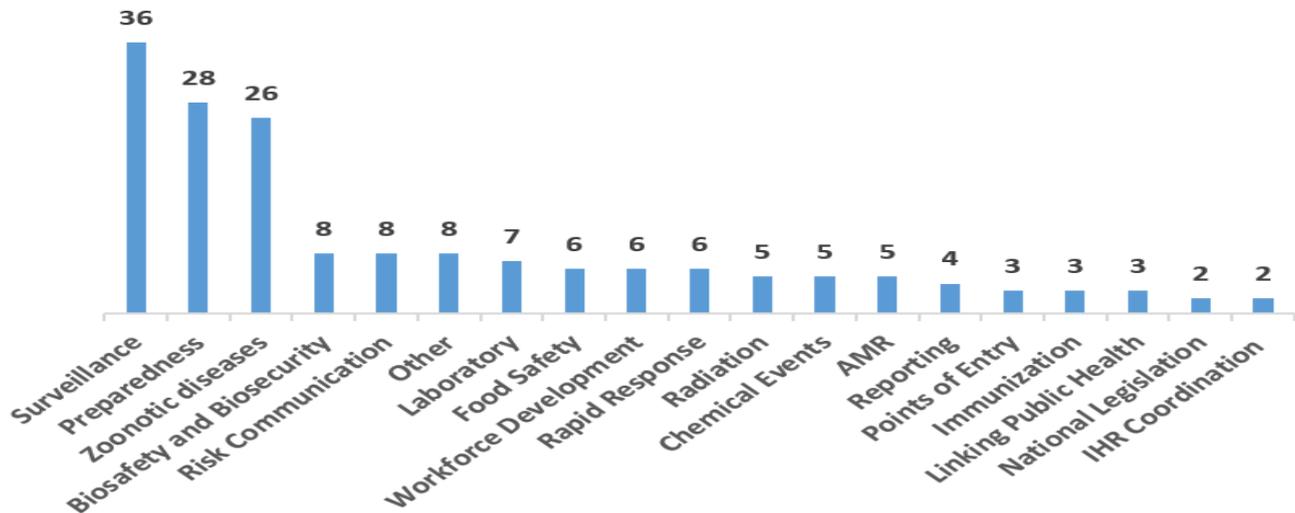


Figure 1: Number of health security interventions and investment by technical area mapped in Liberia

Investment amounts of Partner and Government Health Security Interventions by Technical Area Mapped in the Resource Mapping

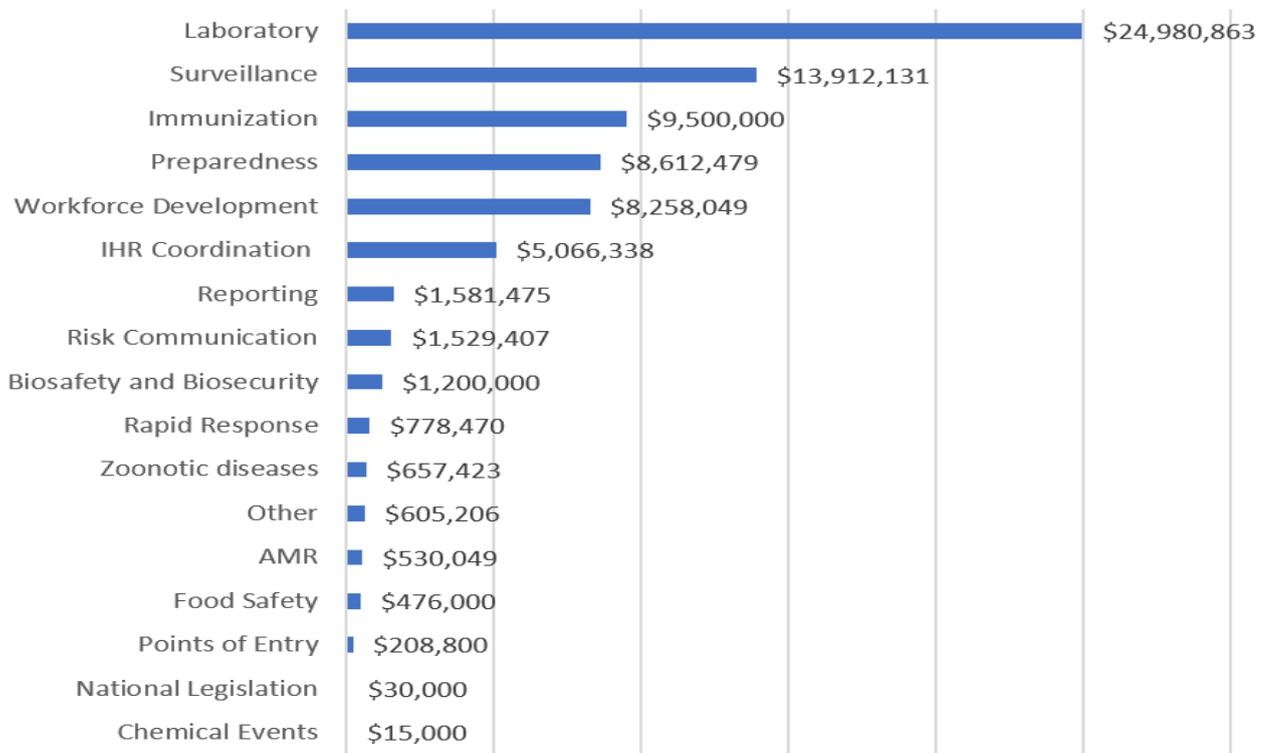


Figure 5: Health Security Interventions by Technical Area Mapped in the Resource Mapping

The investments or interventions of the mapped **\$ 78,466,953** are heavily weighted towards the laboratory, surveillance, and immunization with very little support in the areas of radiation, chemical events, legislation, and antimicrobial resistance (AMR).

The resource mapping identified some key technical area gaps between the costs identified in the country NAPHS and the amount of health security investment support that has been mapped to this point, particularly in the technical areas of surveillance, workforce development, linking public health and security authorities, and risk communications, with the amounts shown below.

- **NAPHS Surveillance Costs: \$34,678,870**
- **Mapped Surveillance Investments: \$13,912,130**
- **NAPHS Workforce Development Costs: \$39,948,620**
- **Mapped Workforce Development Investments: \$8,258,049**
- **NAPHS Linking Public Health and Security Authorities Costs: \$5,881,900**
- **Linking Public Health and Security Authorities Investments:** The mapping did not result in the identification of specific investments for linking public health, although 3 activities were identified for which the workshop participants were not aware of specific investment amounts.
- **NAPHS Risk Communication Costs: \$4,509,051**
- **Mapped Risk Communications Investments: \$1,529,407**

Amount of investment mapped by each of the Partners and the State during the resource mapping for total of \$ 78,466,953

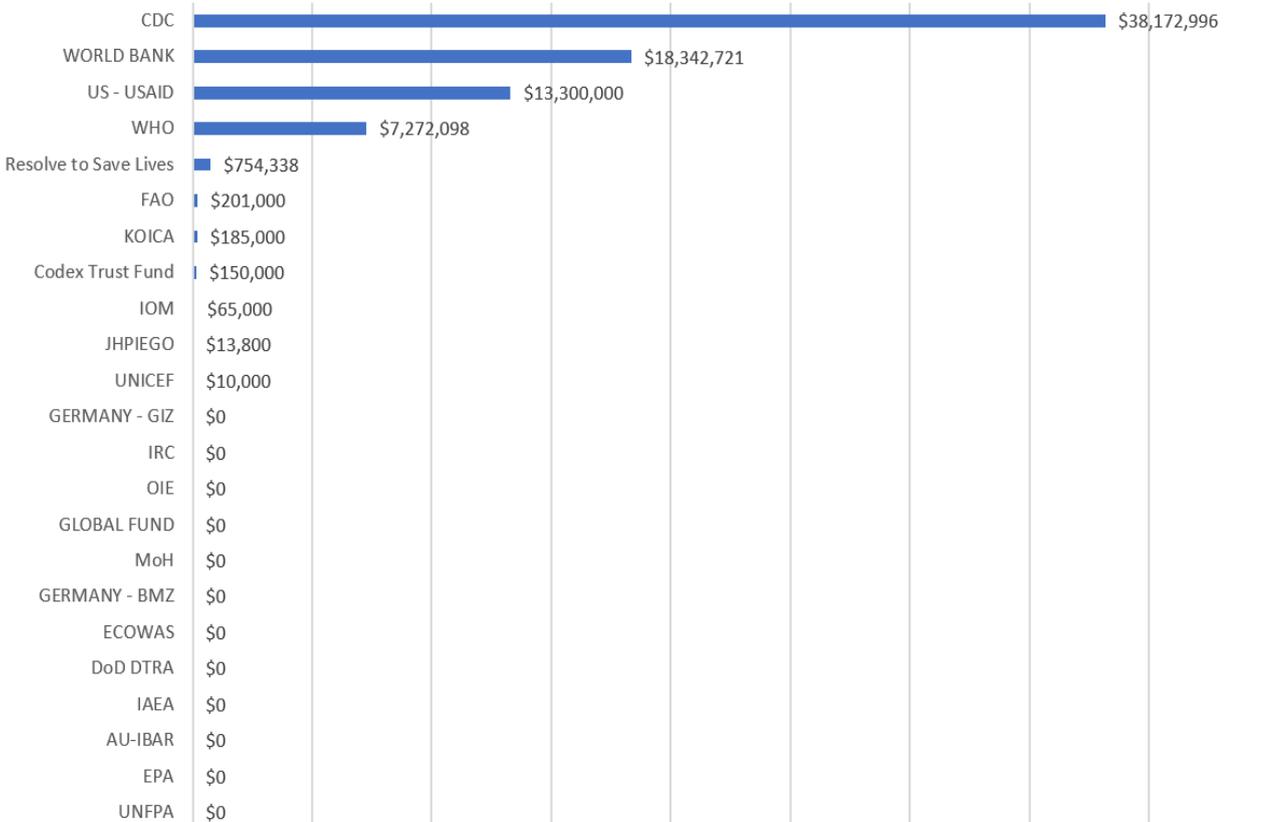


Figure 6: investment mapped by each of the Partners

Number of health security interventions by 23 partners and government organizations mapped

23 Partners were identified providing both technical and financial assistance in the different technical areas at both national and sub-national levels as shown in figure 5 below

The resource mapping further demonstrated support of specific partners for health security in Liberia, with the bulk of the mapped support coming from US CDC, World Bank, USAID and WHO. The charts below show the number of activities and investment amounts mapped for each partner. Note that if zero dollars are listed next to the name of a partner in the chart showing the amount of investment, it means that the partner was identified during the mapping as engaging in health security activities in Liberia but has not provided specific amounts.

Follow-up is recommended with these partners to capture fuller details on their health security investment support in Liberia.

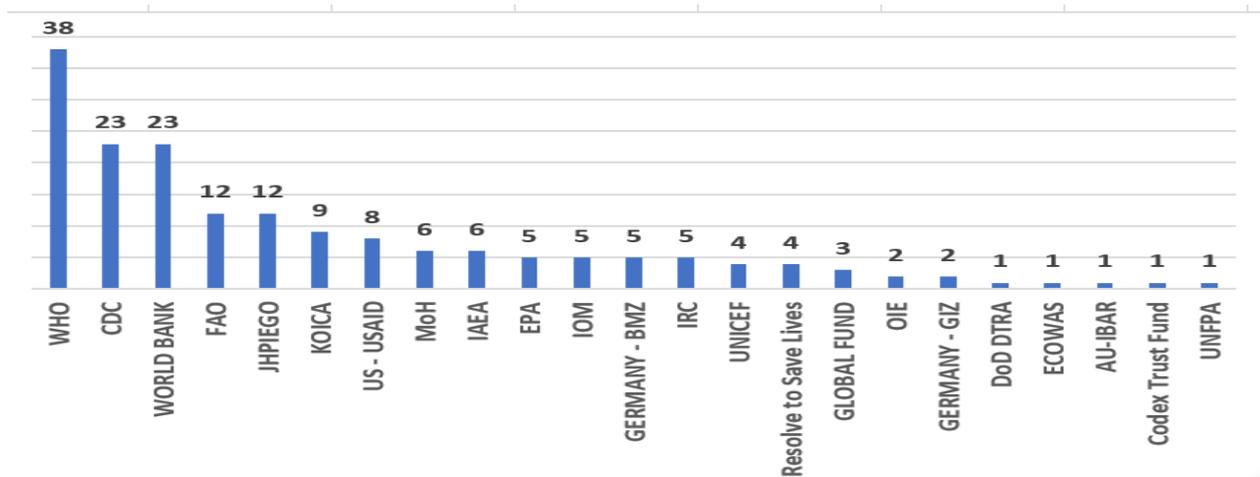


Figure 7: Health security interventions mapped by partners

Number of health security interventions and investment by geographical area

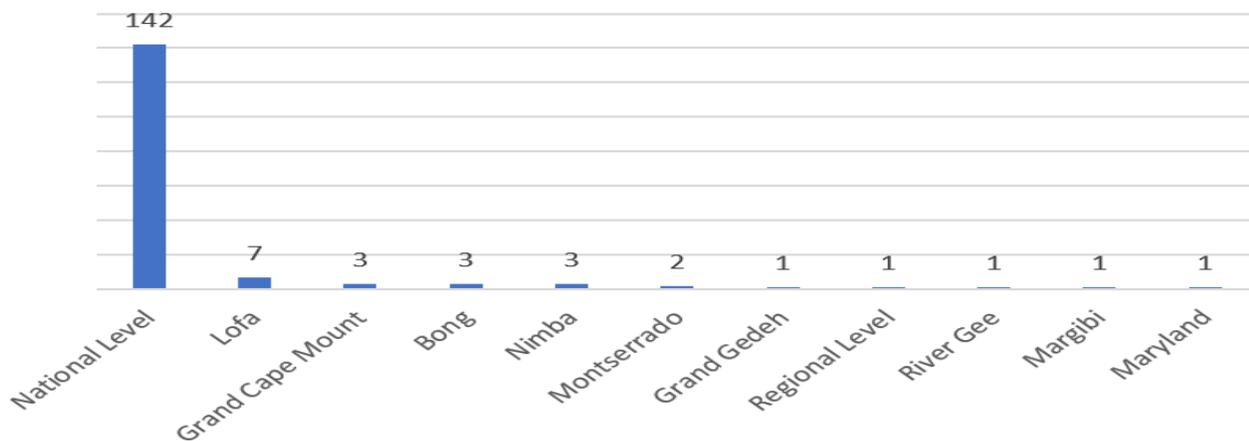


Figure 8: Health security interventions mapped by geographical area.

The distribution of interventions as well resources is largely skewed towards the national level with a few interventions in 9 of the 15 counties in Liberia (figure 4 below).

The investment amount mapped by national level and county



Figure 9: Health security interventions mapped by national and subnational levels

The updated REMAP dashboard will be presented to the Ministry of Health, the WHO Regional Office for Africa and the WHO Country Office. The dashboard contains the detailed data collected in Liberia, including information about each partner activity and investment such as the timeline, specific description, contribution amounts in local currency and U.S. dollars, the beneficiaries of the support, the geographical area receiving the support, whether the support is in the form of financial, technical, or in-kind assistance, and what technical areas is being supported.

Pages within the REMAP dashboard include filters allowing users to see all activities and investments sorted by the partner or pillar chosen, including charts, graphs and other visualizations of the partner and donor landscape. REMAP is meant to be a living tool and follow-up discussions with partners and donors is encouraged to update and continue the resource mapping process, including discussing the results and identifying areas of collaboration for filling gaps and strengthening preparedness.

CLOSING SESSION

The workshop concluded with a closing ceremony that included speakers from the Ministry of Health, and partners: WHO, CDC, USAID, IOM, Embassy of Ireland, GIZ among others.

Hon. Wilhelmina Jallah, the Minister of Health thanked the WHO, US-CDC, USAID, IRC, and other partners for the commendable support to the government of Liberia. Looking back from the time of the Ebola outbreak, she noted that Liberia now has the capacity to detect and respond timely to any threat entering the country, and the capability to bring together partners to amount a strong response as

evidenced with the COVID-19 pandemic. She cautioned the different sectors to be prepared as mapping resources may not always go as planned and should take into consideration “value for money”.

The acting WHO Representative Dr. Yoti Zabulon commended the government for ensuring that there is a mechanism that enables all partners to work together to discuss priorities, identify strengths, areas for multisectoral coordination, and collaboration. ‘What we are looking at here is not only for the Ministry of Health but threats and solutions to threats beyond the health sector and no one individual partner can support the country alone’ he said. Since the JEE exercise 5 years ago, the country was able to conduct its midterm review followed by the monitoring and evaluation exercise last week.

He commended the government for keeping on track despite the COVID-19 pandemic and for the demonstrated capacity to contain threats at their source with zero secondary chains of transmission. Additionally, he thanked the REDISSE project that has supported the sustenance of capacity in the country post-Ebola.

Dr. Theresa Kanter from US-CDC noted that the country has made some robust accomplishments and progress in the JEE scores however there is less documentation. She therefore encouraged documentation of the good work that they are doing and committed CDC’s availability to support the government to document. In her words the real value of this work lies in how the government has responded to COVID-19 outbreak and hopes that the efforts to strengthen, detect, prevent, and respond capabilities will further continue for Liberia.

Dr. Fatima Soud highlighted that there was a lot of good work that was planned in 2019 which was hampered by the COVID-19 pandemic with diversion of funds to the response. However, she reaffirmed USAID’s commitment to use the results from this exercise to plan and advance the 5 technical areas supported by USAID.

Other partners GIZ, IOM, IRC, REDISSE project and Embassy of Ireland also pledged their continued support to the government in the key technical areas supported by their organizations.

RECOMMENDATIONS

- Government of Liberia, WHO and its partners: Use REMAP data to accelerate collaboration to mobilize resources for the implementation of priority activities of the National Health Security Action Plan (NAPHS)
- Government of Liberia: Discuss with WHO the possibility of mobilizing technical assistance through the Global Strategic Preparedness Network (GSPN) for the implementation of the priority activities of the NAPHS
- Government of Liberia: Use the resource mapping tool to monitor the progress of the NAPHS and analyze the impact and discuss the results during regular meetings.

- The WHO will assist the government to periodically update the resource mapping at the national and subnational levels.

NEXT STEPS

- Country team (MoH, NPHIL and WHO) to follow up with partners to complete the mapping ;
- WHO will train national focal points in the use and updating of the REMAP tool;
- The country should share the mapping with technical and financial partners to collect information on their level of resources for the NAPHS
- The country should update the tool with WHO support to capture information from other partners;
- REMAP data will be validated and published on the WHO Strategic Partnership Portal (SPH Portal), which will be used for information sharing and as a platform for collaboration and advocacy to advance the implementation of the NAPHS of Liberia. <https://extranet.who.int/sph>

ANNEXES

ANNEX 1: MEETING IN PHOTOS



WHO team (Dr Mrs. Ojo, Dr Sean, Dr Monday and WR-ai Dr Yoti with Hon.Dr W. Jallah Minister for health



WR-ai Dr Yoti with Hon.Dr W. Jallah Minister for health arriving for the workshop



Participants group photo



Dr Monday, Hon C. Wesseh and Dr Yoti consult Hon. Dr W. Jallah Minister for health

Workshop facilitators with WR-ai Dr Yoti and Hon. Dr W. Jallah Minister for health



Workshop closing ceremony- attended by World bank representative at the workshop, US-CDC Dr. Kanter Theresa, Hon. Dr W. Jallah Minister for health Dr Fatma-USAID and Dr Yoti-WR-ai



Plenary session



Hon. Dr. W. Jallah Minister for health



Dr Theresa Kanter US CDC



WR-ai Dr Yoti



Dr Sean and Dr Monday debrief to WR-ai



Hon. Minister W. Jallah makes a presentation



Dr Sean, Dr Yoti, Hon Minister Dr Jallah, Dr Fatma, Mr. Kwakuan and Dr Theresa Kanter

ANNEX 2: WORKSHOP AGENDA

Time	Programme Description
8.30 – 9.30	Registration and Breakfast
9.30 – 10.30	<p>Welcome and Opening Remarks</p> <p>Master of Ceremonies: Yilaa Wloti Se</p> <ul style="list-style-type: none"> • Dr. Yoti Zabulon, Acting WR • Dr. Rachel Idowu, Country Director, US-CDC • Dr. Jessica Healey, USAID • Hon. Jane MaCauley, Director General of NPHIL • Dr. Wilhemina Jallah, Minister of Health
10.30 – 10.45	<p>Introductory Session</p> <ul style="list-style-type: none"> • Objectives of the workshop • Development and governance of the National Action Plan for Health Security • Overview of national priorities for health security <p>Presenter: Kwuakuan Yealue</p>
10.45 – 11.00	Group photograph + Coffee break
11.00 – 12.30	<p>Partners role in implementing health security actions</p> <p><i>In this session, each partner will present the existing and future initiatives that could contribute to country capacity in implementing their national priorities.</i></p> <p>Moderator: Dr. Patrick Kpayan, Deputy Director General, NPHIL</p> <p>Presenters:</p> <ul style="list-style-type: none"> • WHO • US-CDC • USAID • FAO • World Bank • REDISSE
	Walk-in Tea Break
12.30 – 1.00	<p>Introduction of Resource Mapping Tool</p> <p>Moderator: Chea Sanford Wesseh</p> <p>Presenters:</p> <ul style="list-style-type: none"> • WHO • Q&A
1:00 – 2:00	Lunch

Time	Programme Description
2.00 – 4.30	<p data-bbox="396 233 570 268">Group Work</p> <p data-bbox="396 275 1481 489"><i>Workshop participants will be divided up into four groups (Prevent, Detect, Respond and Other IHR) based on their expertise. The participants, with the aid of a facilitator and a rapporteur, will complete the resource mapping data input sheets identifying the partner and government health security activities at national and sub national level in each of the technical areas (Financial, Technical Assistance and in-kind contribution).</i></p> <p data-bbox="396 533 634 569">Moderator: WHO</p> <p data-bbox="396 575 537 611">PREVENT</p> <ul data-bbox="444 617 1159 821" style="list-style-type: none"> • National Legislation, Policy and Financing • IHR Coordination, Communication and Advocacy • Anti-microbial Resistance (AMR) • Preparedness • Zoonoses <p data-bbox="396 869 984 905">Facilitator: Thomas Nagbe & Eddie Farngalo</p> <p data-bbox="396 911 1029 947">Rapporteur: Diana Smith and Atty. James Jallah</p> <p data-bbox="396 953 516 989">DETECT</p> <ul data-bbox="444 995 862 1199" style="list-style-type: none"> • National Laboratory System • Real Time Surveillance • Reporting • Workforce Development • Biosafety and Biosecurity <p data-bbox="396 1247 1029 1283">Facilitator: Fahn Taweh & Adventus N. Mianah</p> <p data-bbox="396 1289 1214 1325">Rapporteur: James Beyan/Victor Kiatamba & Roseline George</p> <p data-bbox="396 1331 542 1367">RESPOND</p> <ul data-bbox="444 1373 1208 1535" style="list-style-type: none"> • Emergency Operations Centres • Linking Public Health & Security Authorities • Medical Countermeasures and Personnel Deployment • Risk Communication <p data-bbox="396 1583 1122 1619">Facilitator: Abraham Nyenswah & Major Joseph Kowo</p> <p data-bbox="396 1625 1013 1661">Rapporteur: Geraldine George and John Harris</p> <p data-bbox="396 1667 802 1703">Other IHR all Hazard capacity</p> <ul data-bbox="444 1709 797 1871" style="list-style-type: none"> • Point of Entries (PoEs) • Chemical Events • Radiation Emergencies • Food Safety

Time	Programme Description
	Facilitator: Levi Piah & Amos Gborie Rapporteur: Phebe Jackson Thomas
4.30 – 5.00	Results of Group Work Discussion The facilitator and rapporteur of each group will summarize the results of their group discussion
5:00 – 5:30	Announcements and End of Day 1
Day 2: August 26, 2021	
8:30 – 9:30	Registration and Breakfast
9:30 – 1:00	Group Work Continued <i>Workshop participants will continue on working in the four groups (Prevent, Detect, Respond and Other IHR) to map the partner and government activities in the country.</i>
10:30 – 11:00	Coffee and Tea Break
1:00 – 2:00	Lunch
2:00 – 4:00	Group Work Continued
4:00 – 5:00	Results of Group Work Discussion The facilitator and rapporteur of each group will summarize the results of their group discussion
5:00 – 5:30	Announcements and End of Day 1
Day 3 August 27, 2021	
8:30 – 9:30	Registration and Breakfast
9.30 – 10:00	Presentation of the Resource Mapping Dashboard <i>WHO will present the Resource Mapping Dashboard for the country based on the results of the group work. The dashboard visualizes the alignment of resources with the prioritized activities identified in the National Action Plan for Health Security (NAPHS)</i> Q and A
10.00 – 11.00	Plenary draft of the priority activities list, mapped with the identified resources and gap <i>In this session the Government will present the consolidated input from working group discussion of the draft of national priority activities with the identified gaps and resources as the basis for future financing mechanism for health security.</i> Moderator: WHO

Time	Programme Description
	<p>Presenters:</p> <ul style="list-style-type: none"> • Government • Working Group Facilitators/Rapporteurs <p>Q and A</p>
10.30 – 11.00	Walk in Coffee and Tea Break
11.00 – 12.00	<p>Discussion of Technical Needs for Assistance identified through the resource mapping</p> <p><i>In this session the Government will present the consolidated input from working group discussion of technical needs for assistance in implementing NAPHS activities, discussing with participants which of the needs for assistance are highest priority.</i></p> <p>Moderator: WHO</p> <p>Presenters:</p> <ul style="list-style-type: none"> • NPHIL • Working Group Facilitators/Rapporteurs
12.00 – 1.00	<p>Partner Coordination Meeting (by invitation)</p> <p><i>A high-level coordination meeting will be held with government leaders and representatives of partner and donor organizations. The meeting will discuss the results of the resource mapping exercise, including the identified gaps and needs for NAPHS implementation.</i></p>
1.00 – 1.30	<p><i>Presentation and adoption of conclusions and recommendations and definition of next steps</i></p> <p><i>Chea Sanford Wesseh</i></p>
13.10 – 13.30	<p>Closing Remarks</p> <ul style="list-style-type: none"> • WHO • MOH • NPHIL
End of Workshop and Lunch	

ANNEX 3: LIST OF PARTICIPANTS

Government Agencies

Hon. Min. Wilhemina Jallah, MOH
Hon. Assistant Min. C. Sanford Wesseh, MOH
Diana G. Smith, MOH
Kwuakuan D. M. Yealue, II, MOH
James O. Beyan, MOH
Chester Smith, MOH
Amadu Sheriff, MOH
Geraldine George, MOH
James K.Z. Jallah, MOH
John T. Harris, MOH
Sawie Francis Jlaka, MOH
Sonpon B. Sieh, MOH/NPHIL
Mathew M. Flomo, PIU/MOH
Geeton Gayflor, VR
Levi Piah, EPA
Solomon T. George, MOA
Watta Anthony, MOA
Nicholas N. C. Blidi, EPI-MOH
Alex Korkolea, CMS
Avenus Koryon; EPA
Hon. Jane MaCauley, DG, NPHIL
Julius Gilayeneh, NPHIL
Thomas B. Nagbe, NPHIL
Amos J. Gborie, NPHIL
Yilaa Wloti Se, NPHIL
Phebe J. Thomas, NPHIL
Nathan D. Dovillie, NPHIL
Fahn Taweh, NPHIL
Sonnice Koryon; MOA
Emmanuel Dwalu, NPHIL
Victoria S. Mulbah, NPHIL

Roseline George, NPHIL
Nathaniel Dovillie, NPHIL
Tolbert Regina, EPA
Louisa K. Cassell, NPHIL

Partner Agencies

Mercy D. Blyden, GIZ
Augustine Koryon, GIZ
Maame Amo-Addae, AFENET
Mildred B. Harris, AFROHUN STOPS
Danny Al-Dean, Last Mile Health
Siaka Tucker, PLAN International
Anny Dammood, PIH
K.Tendra T. Gueh, IRC
Chisaka, REDISSE
Mohammed Diallo, IOM
Marthaline M. Doe, IOM
Kate O'Donnell, Embassy of Ireland
Musu Deshield Mitchell, UNICEF
Fatima Soud, USAID
Ibrahim G. Ahmed, FAO
Theresa Kanter, US-CDC
Denise Allen, US-CDC
Phiona Nakyeyune, WCO
Tamba S. Alpha, WCO
Gertrude J. Mulbah, WCO
Mohammed Kromah, WHO
Julius Monday Rude, WCO
Sean Cockerham, WHO-HQ
Yoti Zabulon, WR ai
Olubunmi Ojo, WHO-Consultant