National Bridging Workshop on the International Health Regulations (IHR) and the Performance of Veterinary Services (PVS) Pathway

22-24 November 2022
Aqua Safari Resort, Ada, Ghana

Organized by the Ministry of Health, Veterinary Services Directorate of the Ministry of Food and Agriculture, WHO, WOAH, FAO, and technical and financial partners

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ABBREVIATIONS & ACRONYMS

AAR	After Action Review
AH	Animal Health
AI	Avian Influenza
AMR	Antimicrobial Resistance
CDC	Centers for Disease Control and Prevention (USA)
CCM	Chemicals Control and Management
CME	Country Monitoring and Evaluation, WHO Health Emergency programme
EOC	Emergency Operating Center
FAO	Food and Agriculture Organization of the United Nations
FP	Focal Point
GHSA	Global Health Security Agenda
GHS	Ghana Health Service
HQ	Headquarters
HPCO	Health Promotion/Communication Officer
IAEA	International Atomic Energy Agency
IATA	International Air Transport Association
IHR	International Health Regulations (2005)
ISO	International Organization for Standardization
IT	Information Technologies
JEE	Joint External Evaluation
KCCR	Kumasi Centre for Collaborative Research in tropical Medicine
MESTI	Ministry of Environment, Science, Technology and Innovation
MEF	Monitoring and Evaluation Framework
MOH	Ministry of Health
MMDAs	Metropolitan, Municipal and District Assemblies
MoFA	Ministry of Food and Agriculture
MOU	Memorandum of Understanding
NAPHS	National Action Plan for Health Security
NADMO	National Disaster Management Organization
NMIMR	Noguchi Memorial Institute for Medical Research
OH	One Health
OHTWG	One Health Technical Working Group
PH	Public Health
PVS	Performance of Veterinary Services
RCCE	Risk Communication and Community Engagement
SBCC	Social and Behavioural Change Communication
SLMTA	Strengthening Laboratory Management towards Accreditation
SOPs	Standard Operating Procedures
SPAR	States Parties Annual Reporting
ToRs	Terms of References
TOT	Training of trainers
TWG	Technical Working Group
VSD	Veterinary Service DIrectorate

USAID	United States Agency for International Development
WAHO	West African Health Organisation
WHO	World Health Organization
WOAH	World Organisation for Animal Health

INTRODUCTION

BACKGROUND

The World Health Organization (WHO), the World Organisation for Animal Health (WOAH, founded as OIE) and the Food and Agriculture Organization of the United Nations (FAO), have been active promoters and implementers of an intersectoral collaborative approach between institutions and systems to prevent, detect, and control diseases among animals and humans. The WHO, and the WOAH are responsible for proposing standards and guidance for the public health and animal health sectors respectively. They have developed various frameworks, tools, and guidance materials to strengthen capacities at the national, regional, and global levels.

The WHO Member States adopted a legally binding instrument, the International Health Regulations (IHR, 2005), for the prevention and control of events that may constitute a public health emergency of international concern. Through these regulations, countries are required to develop, strengthen, and maintain minimum national core public health capacities to detect, assess, notify and respond to public health threats and as such, should implement plans of action to develop and ensure that the core capacities required by the IHR are present and functioning throughout their territories. Various assessment and monitoring tools have been developed by WHO such as the IHR Monitoring and Evaluation Framework (MEF), which includes *inter alia* the Annual Reporting Questionnaire for Monitoring Progress and the Joint External Evaluation (JEE) Tool.

The WOAH is the intergovernmental organization responsible for developing standards, guidelines, and recommendations for animal health and zoonoses; these are laid down in the WOAH Terrestrial and Aquatic Animal Codes and Manuals. In order to achieve the sustainable improvement of national Veterinary Services' compliance with these standards, on the quality of Veterinary Services, the WOAH has developed the Performance of Veterinary Services (PVS) Pathway, which is composed of a range of tools to assist countries to objectively assess and address the main weaknesses of their Veterinary Services.

These support tools shift away from externally driven, short-term, emergency response type 'vertical' approaches addressing only specific diseases, and contribute to a more sustainable, long term 'horizontal' strengthening of public and animal health systems. The WHO IHR-MEF and the WOAH PVS Pathway approaches enable countries to determine strengths and weaknesses in their respective functions and activities and promote prioritization and pathways for improvement. The result is better alignment of capacity building approaches and strategies at country level between the human and animal health sectors. Furthermore, they engage countries in a routine monitoring and follow up mechanism on their overall level of performance and help to determine their needs for compliance with internationally adopted references and standards.

To strengthen the collaboration between animal and human health sectors and improve compliance to the international standards and regulations, the WHO and WOAH jointly developed a methodology in a workshop format referred to as the IHR-PVS National Bridging Workshop. The IHR-PVS National Bridging Workshop methodology has been tested in over 40 countries. It enables countries to explore possible overlapping areas in their PVS and IHR capacity frameworks. The workshops are conducted over three days, bringing together 60 to 90 national stakeholders from animal and human health sectors and other relevant sectors such as environment and wildlife, to evaluate the existing synergies between these frameworks, identify collaboration gaps and develop a joint national roadmap to improve intersectoral collaboration. A structured approach using user-friendly materials enables the identification of synergies, reviews gaps and defines the operational strategies to be used by policy makers for concerted corrective measures and strategic investments in national action plans for improved health security.

IHR – PVS NATIONAL BRIDGING WORKSHOPS

OBJECTIVES OF THE WORKSHOP AND EXPECTED OUTCOMES

The IHR-PVS NBWs focus on the following strategic objectives:

- **Brainstorming:** discuss the outcomes of IHR and PVS Pathway country assessments and identify ways to use the outputs;
- **Advancing One Health**: improve dialogue, coordination and collaboration between animal and human health sectors to strategically plan areas for joint actions and a synergistic approach;
- **Building Sustainable Networks:** contribute to strengthening the inter-sectoral collaboration through improved understanding of respective roles and mandates;
- **Strategic planning**: inform planning and investments (including the National Action Plan for Health Security) based on the structured and agreed identification of needs and options for improvement.

Expected **outcomes** of the workshop include:

1. Increased awareness and understanding on the IHR (2005) and the role of WHO, the mandate of the WOAH, the IHR MEF and the WOAH PVS Pathway, their differences and connections.
2. Understanding of the contribution of the Veterinary Services in the implementation of the IHR (2005) and how the results of the PVS Pathway and IHR MEF can be used to explore **strategic planning** and capacity building needs.
3. A **diagnosis** of current **strengths and weaknesses of the collaboration** between the animal health and public health services.
4. Identification of practical steps and activities for the development and implementation of **joint national roadmap** to strengthen collaboration and coordination.

IHR-PVS NATIONAL BRIDGING WORKSHOP IN GHANA

Prior to the IHR-PVS NBW in Ghana, the following assessments were in place:

- Initial PVS evaluation conducted in 2008
- PVS Evaluation Follow-Up mission conducted on 31 October -to 11 November 2016
- PVS Gap Analysis mission conducted on 8 to 18 August 2011
- a Joint External Evaluation (JEE) mission conducted on February 6 to 10, 2017

State Party Self-Assessment Annual Reporting (SPAR) conducted in 2021

REPORT ON THE SESSIONS

The National Bridging Workshop (NBW) on the International Health Regulations (IHR) and the WOAH Performance of Veterinary Services (PVS) Pathway was held in Aqua Safari Resort, Ada on 22 to 24 November 2022. The workshop was attended by 73 national experts from the Ministry of Health, Minister of Food and Agriculture, and Livestock and Veterinary Services and other sectors including Environmental Protection Agency (EPA), Ministry of Fisheries and Aquaculture Development, Public Health Unit of Ghana Armed Forces, School of Veterinary Medicine, Animal Research Institute, CSIR, Ghana Coalition of NGOs in Health with representatives from the central, regional and district levels (Attendance list on Annex 2). The workshop was also attended by representatives of the World Health Organization (WHO), World Organisation for Animal Health (WOAH), and the UK Health Security Agency (UKHSA) and the Foreign, Commonwealth & Development Office (FCDO) British High Commission. The agenda of the Workshop is available at Annex 1. .

The workshop used an interactive methodology entailing case studies, videos, and facilitation tools. Each participant was provided with a copy of the *Participant Handbook,* which comprised of all necessary information such as the objectives of the workshop, instructions for working groups, expected outcomes of each session etc. Sessions were structured in a step-by-step process as follows:

OPENING SESSION

As mutually agreed by participants, following the prayer and introduction of participants, the Moderator (Dr Benita Anderson, Veterinary Services Directorate of the Ministry of Food and Agriculture) called representatives from NADMO, WOAH, WHO, FAO, FCDO and Development Partners to give their opening remarks.

Despite the progress made to advance the One Health approach in Ghana, the opening remarks provided by Dr Yaw Fenteng-Danso, Head of the Epidemiology Unit of the Veterinary Services Directorate, Mr Seji SAJI Deputy Director-General at NADMO (https://www.nadmo.gov.gh/), Dr Lillian Wambua OH Officer WOAH, Kenya, Dr Guracha Guyo, Team Lead, Health Emergency, WHO, Ghana, Mr Ndiaga Gueye, FAO Country Representative, Officer-in-Charge, and Dr Uzoamaka Gilpin, Head of Health at the FCDO/ British High Commission and Chair of Development Partners highlighted the need to improve communication, collaboration, capacity building and coordination to address national health challenges at the human-animal-environment interface. They also outlined the importance of this generic NBW, which provides an opportunity to jointly develop a roadmap that can be implemented to strengthen preparedness to mitigate

and manage risk of endemic, emerging and re-emerging zoonotic diseases and other health events at the human-animal-environment interface.

The work was officially opened by Dr Franklin Asiedu-Beko, Chair of OH TWG and Director of Public Health, Ghana. Dr Asiedu-Beko, reminded the participants and partners about the substantial progress made to establish the One Health Technical Working Group, and to develop the AMR national action plan etc. However, he also requests the active support from One Health stakeholder, who have clearly outlined their continuous commitment for support in their remarkable opening speeches.

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THURSDAY, NOVEMBER 24, 2022 GHANAIAN Times

'Relevant stakeholders must work to achieve Sustainable Development Goals'

BY BENEDICTA GYIMAAH FOLLEY

THE Director Public Health, Ghana Health Service (GHS), Dr Franklin Asiedu-Bekoe has emphasised the need for all relevant stakeholders to work collectively to achieve the Sustainable Development Goals (SDGs) on health. He said with the rapid growth in population, globalisation and environmental degradation, health threats had become more complex and that solutions could not be found by one sector alone.

Dr Asiedu-Bekoe was speaking at the opening of the International Health Regulations (IHR) Performance of Veterinary Service National Bridging Workshop in Accra yesterday.

The four-day workshop is expected to increase awareness and understanding on the IHR, provide an opportunity to human and animal health services of hosting countries and build on the assessment conducted in the human health and animal health sectors respectively.

It is being organised by Food and Agriculture Organisation (FAO) of the United Nations (UN), World Health Organisation (WHO), World Organisation for Animal Health (WOAH) and the National Disaster Management Organisation (NADMO).

"That is why the One Health approach leverages the idea that problems impacting human health, terrestrial and aquatic animals, plants and the environment can be effectively resolved through improved coordination, communication and collaborative actions across disciplines," he said.

"One Health is an integrated approach for preventing and mitigating health threats at the Animal-Human-Plant-Environment interfaces to achieve public health, food and nutrition security, sustainable ecosystems and fair trade facilitation," he stated.

Dr Yaw Fenteng-Danso, Head of the Epidemiology Unit of the Veterinary Services Directorate said "the country has come a long way as far as the One Health Approach is concerned. We are now ready to move from the concept to One Health Implementation."

Dr Lillian Wambua, a representative from WOAH, said her organisation was committed to the One Health policy, which had aptly been defined as "an integrated, unifying approach that aims to sustainably balance and optimise the health of people, animals and ecosystems

• The participants after the opening ceremony

https://www.ghanaiantimes.com.gh/relevant-stakeholders-must-work-to-achieve-sustainable-development-goals/

SESSION 1: THE ONE HEALTH CONCEPT AND NATIONAL PERSPECTIVES

The approach and methodology of the workshop were presented and explained to the participants, more specifically, the seven sessions were briefly described. A documentary video initiated the first technical session with a description of the One Health Concept, its history, rationale, and purpose and how it became an international paradigm. The video also introduced the workshop in the global and national context by providing high level background information on the Tripartite collaboration between WHO, WOAH and FAO, globally and at the regional for sharing responsibilities and coordinating global activities to address health risks at the animal-human-ecosystems interface

This first documentary video was followed by a presentation made by Dr. Emmanuel Cudjoe from the Veterinary Services Directorate of Ghana. Dr Cudjoe, in his presentation outlined the structure and roles of the Veterinary Services Directorate (VSD), the vision, mission and goal, structure and reporting/notification channel, and the role and responsibilities that veterinarian could play. He also described the recent successful collaborations to advance the implementation of One Health approach. The activities listed were as follow: the joint outbreak management for COVID-19, highly pathogenic avian influenza, rabies, anthrax, trypanosomiasis, and Marburg virus disease. In his presentation, Dr Cudjoe reminded the participants, that the synergism achieved through the implementation of One Health will advance health care for the 21stcentury and beyond by accelerating biomedical research discoveries, enhancing public health efficacy, expeditiously expanding the scientific knowledge base, and improving medical education and clinical care.

The second presentation was made by Dr Azumah Abdul-Tawab from the Ghana Health Service (GHS).

Following a brief description of the vision, goal, mission and organizational structure and programmes, Dr ABDUL-TAWAB praised GHS for the following success stories and best practices in term of achieving the following joint activities: Marburg virus disease outbreak investigation, management of COVID-19 outbreak, IHR Steering Committee, establishment of One Health TWG, International One Health Day celebration, data sharing on six (6) prioritized zoonotic diseases for coordination, preparedness and response activities, Stepwise Approach for Rabies Elimination (SARE), avian influenza outbreak investigation, avian influenza After Action Review (AAR), and the joint training and development of materials for the Risk Communication and Community Engagement (RCCE). However, he encouraged participants for their continuous commitment and efforts to enhance and expand existing collaboration to strengthen the Ghana Health Service to be better at anticipating zoonotic disease outbreaks so that response could be more rapid and effective.

As presented, Ghana has made good progress to set the groundwork for successful collaboration between human health, animal health sectors and environmental health sectors. Currently, collaboration between the various sectors exist at various levels address zoonotic and AMR. Substantial effort is still needed to engage the environmental health sectors, and to include more key stakeholders such as the private sectors and NGOs etc.

The second documentary video provided participants with concrete worldwide examples of intersectoral collaboration in addressing health issues at the human-animal interface, focusing on few key technical areas.

Outcomes of Session 1:

At the end of the session, the audience agreed that:

- Intersectoral collaboration between animal and human health sectors happens, but mainly during outbreaks; with a better preparedness, much more could be done at the human-animal interface.
- The two sectors have common concerns and challenges and conduct similar activities. Competencies exist and can be pooled. This needs to be organized through a collaborative approach;
- WHO, WOAH and FAO are active promoters of One Health and can provide technical assistance to countries to help enhance inter-sectoral collaboration at the central, local and technical levels.

SESSION 2: NAVIGATING THE ROAD TO ONE HEALTH – COLLABORATION GAPS

Participants were divided into five working groups of mixed participants from different levels of the health system structure (Central, Regional and District/Local). Each group was provided with one of five case study scenarios (Table 1) based on diseases relevant to the national context (avian influenza, anthrax, bovine tuberculosis, African human trypanosomiasis, and Marburg virus disease). The case studies had been developed in collaboration with national representatives.

Table 1: Scenarios used for the different case studies

Avian flu (H5N1) *(note: this case is entirely fictitious)* *Two persons were admitted at the Tema hospital, with pneumonia. Laboratory testing by RT-PCR resulted positive for H5N1 subtype of avian influenza. One of the patients is a small-scale broiler farmer who sells his birds three times a week at the Community two local live bird market. The other patient reported having visited the same market 7 days prior to disease onset and having bought four ducks.* *Massive death of wild birds was reported in the same area.*
Anthrax (note: this case is entirely fictitious) *At least 50 people from Bolgatanga who allegedly ate uninspected meat from a cow who died suddenly have been screened for anthrax. The victims, among them school children, were rushed to level-3 health care center after they developed symptoms associated with anthrax and cutaneous lesions. The owner of the animal disappeared after learning that his neighbours had fallen sick.*
Bovine Tuberculosis (note: this case is entirely fictitious) *Ten cows all belonging to a small-holder dairy farmer in a village around Sogakope showed initial symptoms of productive cough, fever, chest pain and loss of appetite. Five people from the same households consumed unpasteurized milk from an infected cow. Two of them were hospitalized and laboratory testing confirmed that they were infected by Mycobacterium tuberculosis.*
African Human Trypanosomiasis (AHT) (note: this case is entirely fictitious) *A wave of sleeping sickness cases has been reported in 3 rural villages close to Damongo. These cases have been associated with recent arrival of livestock from neighboring countries. There is a risk that the parasite also circulates in wildlife in the surrounding game park.*
Marburg Virus Disease (disclaimer: this case is entirely fictitious) Two persons were admitted at the hospital of Fomena in the Ashanti region, with suspected viral haemorrhagic symptoms. The first person is a farm hand at Takyimentia where he works. There area is surrounded by galamsey pits and presence of fruit bats. Laboratory results confirmed Marburg Virus Disease.

Using experience from previous outbreaks of zoonotic diseases, the groups discussed how they would have realistically managed these events, and evaluated the level of collaboration between the Veterinary and the Public Health Services for 15 key technical areas including: coordination at high level, coordination at local level, coordination at technical level, legislation/regulation, finance, communication with media, communication with stakeholders, field investigation, risk assessment, joint surveillance, laboratory, response, education and training, emergency funding, and human resources. These activities/areas of collaboration were represented by color-coded *technical area cards*: **green** for "good collaboration", **yellow** for "some collaboration", and **red** for "collaboration needing improvement" (Figure 1).

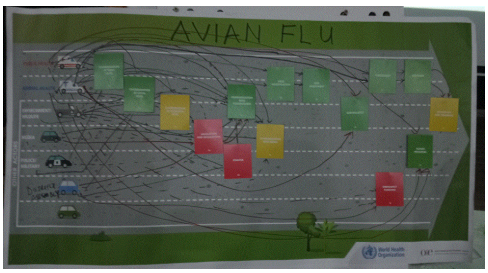


Figure 1a: Participants working on zoonotic disease outbreak management case study scenario and evaluating the level of collaboration between the sectors for 15 technical areas.

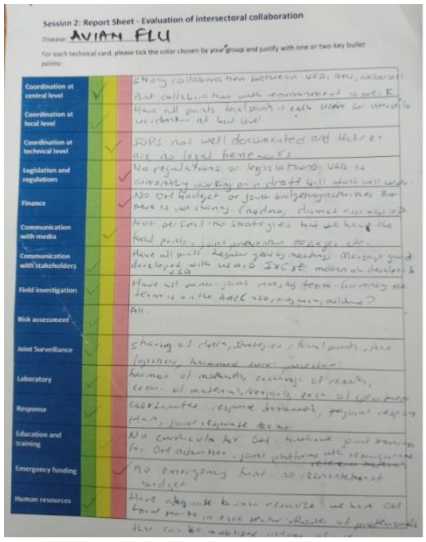


Figure 1.b: Participant used the report sheet to justify the choice of the colour coding while assessing the level of collaboration between the relevant sectors for 15 key technical areas for avian influenza case study scenario.

During an ensuing plenary session, each group presented and justified the results of their work. Output 1 summarizes the updated results from the five groups with the contributions of all the participants.
Each group also amended the report sheet to be used for road-planning accordingly (session 5).

Outcomes of Session 2:

- Areas of collaboration are identified, and joint activities discussed.
- Level of collaboration between the two sectors for 15 key technical areas is assessed.
- Strengths and weaknesses in the intersectoral collaboration are identified.

SESSION 3: BRIDGES ALONG THE ROAD TO ONE HEALTH

Documentary videos introduced the international legal frameworks followed by human health (IHR 2005) and animal health (WOAH standards) as well as the tools available to assess the country's capacities: the WHO State-Party Self-Assessment Annual Report, the JEE tools for public health services and WOHA PVS Pathway for Veterinary Services.

The differences and connections between these tools were explained. A large matrix (IHR-PVS matrix), cross-connecting the indicators of the IHR MEF (in rows) and the indicators of the PVS Evaluation (in columns) was set-up and introduced to the participants. Through an interactive approach, two representatives of working groups were invited to plot their *technical area cards* onto the matrix by matching them to their corresponding indicators (Figure 2). A plenary analysis of the outcomes showed clear gap clusters and illustrated that most gaps were not disease-specific but systemic.

Figure 2: Participants positioning (mapping) the selected technical areas cards on the IHR-PVS matrix.

The main gaps (clusters) identified were discussed and it was agreed that the rest of the workshop would focus on the following priorities technical areas:

- Coordination
- Surveillance and Field Investigation
- Education and Training
- Risk Assessment
- Communication

Other proposed key technical areas were the finance and legislation which require a long-term planning and political and leadership commitment and engagement. Therefore, it was suggested to address some of those critical issues through the One Health, multisectoral coordination mechanism.

Outcomes of Session 3:

- Understanding that tools are available to explore operational capacities in each of the sectors.
- Understanding of the contribution of the veterinary sector to the IHR.
- Understanding of the bridges between the IHR MEF and the PVS Pathway. Reviewing together the results of capacities assessment may help in identifying synergies and optimize collaboration.
- Understanding that most gaps identified are not disease-specific but systemic.
- Identification of the technical areas to focus on during the next sessions.

SESSION 4: CROSSROADS – PVS PATHWAY AND IHR MEF REPORTS

Five new working groups with representation from the five previous groups were organized for each of the priority technical areas (Figure).

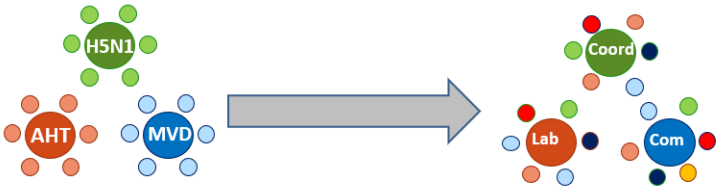


Figure 3: Generic graph illustrating the organization of working groups for Session 2-3 (left) and Session 4-5 (right)

The matrix was used to link the identified gaps to their relevant indicators in the IHR MEF and in the PVS Pathway. Each working group then opened the assessment reports (JEE, PVS Evaluation and PVS Gap Analysis) of Ghana, and extracted the main findings and recommendations relevant to their technical area (Figure 4).

Figure 4: Participants from the group working on Education and Training extracted results from the PVS Evaluation and PVS Follow-up and the JEE reports

Outcomes of Session 4:

- Good understanding of the assessment reports for both sectors, their purpose and their structure.
- Main gaps relevant to each technical area have been extracted.
- Progressive identification of systemic gaps in collaboration on One Health issues, from disease-specific gaps
- Main recommendations from existing reports have been extracted.
- A common understanding of the effort needed started to emerge.

SESSION 5: ROAD PLANNING

Using the same working groups as for the previous session, participants were asked to identify, for each technical area, up to three joint objectives to improve their collaboration. For each objective, they filled *Activity Cards*, detailing the activities, their dates of expected implementation, difficulty of implementation and the expected impact, the focal points responsible, and the implementation process (Figure 5).

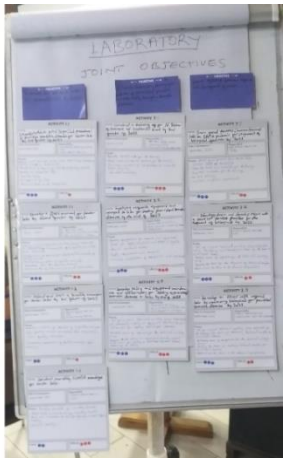


Figure 5: The group working on the technical area "Laboratory" identified three objectives and practical activities to improve the multisectoral collaboration (in particular between the human, animal and environmental health sectors) .

The difficulty (relating to the cost) of implementation and the expected impact of each activity were evaluated using red and blue stickers respectively, on a semi-quantitative scale (1 to 3).

Outcomes of Session 5:

- Clear and achievable objectives and activities were identified to improve intersectoral collaboration between the two sectors for all technical areas selected.
- For each activity, a desired completion date, focal points, required support and measurable indicators have been identified.
- The potential impact and the difficulty of implementation of all proposed activities were estimated.

SESSION 6: FINE-TUNING THE ROADMAP

The groups were given extra time to address the comments made by facilitators and to fine-tune their objectives and activities. During the World Café exercise, each group was asked to nominate a rapporteur and note taker. Each working group was provided with an empty template of the relevant roadmap for each priority technical area. Then the objectives and activities developed by each working group were projected, reviewed, and discussed in plenary. Each participant was given the opportunity to provide feedback and make suggestions on all technical areas focusing on objectives, activities, timeline, responsibility, cost, and impact (Figure 5). At the end of the cycle, working groups were requested to review their roadmaps for amendment and improvement based on the comments, and suggestions made by other participants including moderators and facilitators. Further inputs were provided by the WHO Country Representative, Dr Francis Chisaka Kasolo, and the Director of Ghana Health Services, both made substantial contributions by suggesting improvement in communication and supporting existing efforts and resources. Then the objectives and activities were fine-tuned accordingly for the final joint roadmap (Output 2).

Figure 6: World café exercise in plenary: participants are reviewing the objectives and activities developed by each technical working group.

Prioritization of Objectives

Together, participants developed the joint NBW Roadmap, made of 13 objectives and 41 activities to be implemented jointly for the management of health threats at the human-animal-environment interface. A google form with all the developed objectives was presented, and all participants were asked to vote individually using a mobile application or computer and to select five of the 13 objectives they considered to be of highest priority (as Figure 7 shows). The WHO Country Representative for Ghana, Dr Francis Kasolo and the Director for Technical Cooperation at the Ministry of Health, Dr Baffour Awuah made brief remarks on the results prioritisation, stressing the need to sustain the efforts to strengthen One Health collaboration in Ghana.

Outcomes of Session 6:

- Development of a harmonized, concrete and achievable joint Roadmap to improve the collaboration between the animal, environmental, and human health sectors in the prevention, detection, and response to zoonotic disease outbreaks.
- Buy-in and ownership of all participants who contributed to all areas of the roadmap.
- Prioritization of the objectives and activities.

SESSION 7: WAY FORWARD

Results of the prioritization vote were presented and discussed. A total of 57 of participants voted, results can be found in Output 3.

Dr Azumah Abdul-Tawab, the Focal Point from the Ghana Health Service (GHS), presented the results of the prioritization vote and way forward on how the intersectoral collaboration could be improved using the results of the IHR-PVS National Bridging Workshop.

Outcomes of Session 7:

- Linkages between the joint roadmap and Ghana's National Action Plan for Health Security.
- Linkages between the joint roadmap and Ghana's One Health Technical Working Group's activities.
- Identification of opportunities to improve collaboration in the other remaining technical areas.
- Discussion on the way forward.

CLOSING SESSION

The closing remarks were given by Dr Emmanuel CUDJO a member of the OHTWG, followed with, Dr Dilys MORGAN representing the facilitators, Dr Uzoamaka GILPIN on behalf of partners, Dr Guyo GURACHA (WHO-FAO-WOAH-UNEP Quadripartite), and Dr BAFFOUR AWUAH (Director for Technical Cooperation at the Ministry of Health and Representative of the Minister of Health at the workshop).

The speakers highlighted several issues to consider in terms of improving coordination, communication and collaboration too operationalize the One Health approach in Ghana. These included implementing the activities jointly developed during this NBW.

On behalf of the WR, Dr GURACHA reiterated the WHO-FAO-WOAH-UNEP Quadripartite full continuous commitment to support Ghana to implement the roadmap and other related activities to strengthen the country preparedness and response for health emergencies.

Dr BAFON argued that that better used be made of the roadmap to support the ongoing efforts to advance the One Health approach at central, regional, and local levels.

Workshop materials including the movies, presentations, documents of references, and results of groups' sessions were shared with all participants.

Recommendations were made toward the partners including WHO, WOAH, FAO, and UNEP.

- To continue providing the technical and financial supports to Ghana, to driving the zoonotic diseases preparedness and response agenda
- To support Ghana, to operationalize the national One Health platform, to evaluate the current One Health coordination mechanism using the Multisectoral Coordination Mechanism Operational Tool (MCM-OT) and to support the workforce development.

Government to support:

- To ensure the availability of sustainable financial support for the implementation of joint roadmap developed during this work and in future similar activities
- To promote and sustain the multisectoral, One Health approach.

WORKSHOP OUTPUTS

OUTPUT 1: ASSESSMENT OF LEVELS OF COLLABORATION FOR 15 KEY TECHNICAL AREAS

No	Technical area	Avian Influenza	Anthrax	Bovine Tuberculosis	African Human Trypanosomiasis (AHT)	Marburg Virus Disease	Score
1	**Coordination at high Level**						6
2	**Coordination at local Level**						4
3	**Coordination at technical Level**						6
4	**Legislation / Regulation**						8
5	**Finance**						9
6	**Communication w/ media**						6
7	**Communication w/ stakeholders**						5
8	**Field investigation**						5
9	**Risk assessment**						7
10	**Joint surveillance**						7
11	**Laboratory**						5
12	**Response**						5
13	**Education and training**						3
14	**Emergency funding**						10
15	**Human resources**						4

For each disease, the performance of the collaboration between the human health and the animal health sectors is color-coded: green for "good collaboration", yellow for "some collaboration", and red for "collaboration needing improvement". The score uses a semi-quantitative scale (2 points for a red card, 1 for a yellow card and 0 for a green card). Technical areas marked in bold were selected and addressed in-depth throughout the rest of the workshop.

OUTPUT 2: OBJECTIVES AND ACTIONS IDENTIFIED PER TECHNICAL AREA

Difficulty of implementation: *Low +, Moderate ++, Very difficult +++*

Impact: *Low impact +, Moderate impact ++, High impact +++*

Acronyms: *DG: Director-General; EPA: Environmental Protection Agency; GHS: Ghana Health Service; IAEA: International Atomic Energy Agency; IATA: International Air Transport Association; ISO: International Organization for Standardization; IT: Information Technology; MESTI: Ministry of Environment, Science, Technology, and Innovation; MMDAs: Metropolitan, Municipal and District Assemblies; MoFA: Ministry of Food and Agriculture; MoH: Ministry of Health; MOU: Memorandum of Understanding; NADMO: National Disaster Management Organization; OH: One Health; OHTWG: One Health Technical Working Group; RCCE: Risk Communication and Community Engagement; SBCC: Social and Behavioural Change Communication; SLMTA: Strengthening Laboratory Management towards Accreditation; SOPs: Standard Operating Procedures; TORs: Terms of Reference; TOT: Training of Trainers; TWG: technical Working Group; VSD: Veterinary Services Directorate*

Activities	Due Date	Cost	Impact	Responsible	Process
COORDINATION (ALL LEVELS)					
Objective 1: Improve co-ordination for one health at all levels					
To establish a joint inter-ministerial committee on all zoonotic diseases at national level by June 2023	June, 2023	+	+++	Director General NADMO	• The Director General of NADMO to inform the sector minister of the need to establish the committee • Write officially to request for nomination from relevant ministries to serve on the committee
Strengthen the one-health joint technical working group at national levels on all zoonotic diseases by December 2023	December, 2023	+	++	One Health Desk officer NADMO	• The One Health desk officer of NADMO to prompt the Director General of NADMO to inform all the relevant ministries to nominate members of the technical working group
Conduct quarterly meetings on all activities of the technical working group	3rd Quarter, 2023	++	++	Secretary to the committee	• Send invitation letters to all relevant stakeholders
Develop SOPs/TORs on OH coordination for addressing all zoonotic diseases at the technical level by June 2024	June, 2024	++	+++	The OH technical working group – Director General of NADMO	• The chairman of the OH technical working group will task groups to develop the SOPs and TORs
Set – up a One Health desk at the local level (NADMO) to coordinate all OH activities	December, 2023	++	+++	Director General of NADMO	• NADMO to send official letters to district NADMO Officer establishes the desk
Finalise a mapping of relevant legal and normative instruments and policies for IHR implementation	December, 2024	+++	+++	One Health desk officer of NADMO	• NADMO will coordinate the process in consultation with the Minister for Health
Advocate for the establishment of a One Health fund to cater for all OH activities	March, 2023	+++	+++	All relevant stakeholders led by NADMO	• Engage civil society organisations and the media

Activities	Due Date	Cost	Impact	Responsible	Process
SURVEILLANCE AND FIELD INVESTIGATION					
Objective 1: Formalise collaboration between Human, Animal and Environmental Health as pertains to surveillance and field investigation by December 2023					
Develop a protocol to guide the collaboration between the human, animal and environmental health for surveillance and field investigation at all levels	March, 2023	+	+++	NADMO, Director Public Health- GHS, Head of Epidemiology – VSD, Director of Environmental Health	• Organise a multisectoral technical meeting at the national level to assemble the technical working group • Identify focal persons from each sector for drafting the protocol • Define TORs for focal points and experts • Identify existing supporting documents • Draft a preliminary protocol • Conduct a meeting to validate the protocol document produced
Disseminate and monitor the implementation of the protocol at all levels	December,2023	++	+++	Regional Director of Public Health – GHS, Regional Vet – VSD, Regional Officer - MESTI	• Organise a national dissemination/ Training of Trainers for all regions • Regions to organise dissemination for districts/ TOT • Technical working group to do monitoring of regional dissemination • Regional officers to monitor dissemination and implementation at the district level
Objective 2: To strengthen Rapid Response Teams at all levels by December 2023					
Develop SOPs for joint deployment or to share responsibilities during field investigation	March,2023	+	+++	Director Public Health- GHS, Head of Epidemiology – VSD, Director of Environmental Health	• Organise a multisectoral technical meeting at the national level to assemble the technical working group • Identify focal persons from each sector for drafting the SOPs • Define TORs for focal points and experts • Identify existing supporting documents • Draft a preliminary SOP • Conduct a meeting to validate the SOPs produced
Disseminate and monitor the implementation of the SOPs at all levels and sectors	September, 2023	++	+++	Regional Director of Public Health – GHS, Regional Vet – VSD, Regional Officer - MESTI	• Organise a national dissemination/ Training of Trainers for all regions • Regions to organise dissemination for districts/ TOT • Technical working group to do monitoring of regional dissemination • Regional officers to monitor dissemination and implementation at the district level
Conduct simulation exercises to test SOPs	December,2023	++	+++	Public Health - GHS, Epidemiology	• Organise a one-day tabletop simulation exercises to test newly developed SOPs

Activities	Due Date	Cost	Impact	Responsible	Process
				- VSD, Environmental Health – Local Government	• Identify gaps in the SOPs • Amend the SOPs accordingly
Objective 3: Achieve an interoperable electronic data sharing platform between the relevant sectors for surveillance					
Develop a common IT platform that links data information systems for all relevant sectors	June, 2023	+++	+++	OTWG	• Develop TORs for IT consultants • Organise National OTWG to award a contract to an IT consultant for developing the platform • Test functionality of platform created • Training of officers on use of platform – National Training of Trainers • Training of officers on use of platform – Regional Training of Trainers • Training of officers on use of platform – District Training of Trainers
EDUCATION AND TRAINING					
Objective 1: To recruit Veterinary, Medical, Environment and Port Health officers for the 261 Metropolitan Municipal District Assemblies (MMDAs)					
To advocate for government concession for the recruitment of specialised professionals for the One Health by the end of 2023	December, 2023	+++	+++	Human resource division of Ghana Health Services (GHS) HR-Director, MoFA through the VSD HR-Director, EPA & Ministry of Environment, Science, Technology & Innovation (MESTI)	• Conduct needs assessment (with reference Public Health Workforce Strategic Plan for Ghana-2022(unpublished) • Write a justification • Present a request to MoH, MoFA and MESTI
To recruit at least three officers (Veterinary, Environmental, Medical) for the 261 MMDAs yearly for the next 5 years	December, 2027	+++	+++	HR-Directors of GHS, MoFA through VSD and EPA & MESTI	• Conduct needs assessment (with reference Public Health Workforce Strategic Plan for Ghana-2022 (unpublished). • Write a justification • Present a request to MoH, MoFA and MESTI
Objective 2: To increase enrolment in the veterinary schools					

Activities	Due Date	Cost	Impact	Responsible	Process
To enrol at least 50 students yearly per veterinary schools for the next 5years	December, 2027	+	++	Deans of veterinary schools	• Create awareness for more Senior High School graduates to choose veterinary medicine. • Conduct selection interviews
To increase faculty by at least 5 per year for the next 5 years at the veterinary schools	December, 2027	+++	+++	Deans of veterinary schools and appointments and promotion committees	• Advocate for the increase in the number of faculty • Advertisements and search • Conduct selection interviews
To increase infrastructure and other facilities at the veterinary schools in the next 2 years.	December, 2024	+++	+++	Vice chancellor of the universities	• Conduct needs assessment (with reference Public Health Workforce Strategic Plan for Ghana-2022 (unpublished). • Prioritization and approval • Procurement
Objective 3: To conduct specialized training in One Health					
To introduce one health modules into the universities (medical, veterinary & environmental schools) program/curriculum within the next 2 years.	December, 2024	+	+++	Academic board of universities	• Conduct needs assessment (with reference Public Health Workforce Strategic Plan for Ghana-2022(unpublished) in the area of emphasis • Select the needed experts to prioritize and draft document for the modules. • Incorporate the modules into the training of one health professionals • Implement the training • Assessment and reporting
To develop and organise short courses for 50 professionals in One Health for the next 5 years.	December, 2027	+	+++	Deans and school boards of universities	• Identify focal persons • Develop and give terms of reference • Draft training documents • Conduct training
To organise quarterly seminars to share One Health information to all sectors	December, 2023	+	+	National One Health Technical Working Group	• Seek for funding if necessary • Design a timetable and program • Send invitation to all stakeholders • Conduct the seminar
To advocate for funds for research in One Health	December, 2023	++	+++	National One Health Technical Working Group, Universities and Research Institutions	• Advocate for funding organisations to dedicate funds for One Health research. • Lecturers and Researchers to search for funding for One Health research. • Training on proposal writing for One health grants.
Objective 4: To establish a career advancement system for Field Epidemiology Laboratory Training Program (FELTP), Environmental, Port health & Para Vet Professionals					

Activities	Due Date	Cost	Impact	Responsible	Process
To design/devise a career advancement system by the end of 2023.	December, 2023	+	++	Human Resource Directors of GHS, EPA, MESTI & MoFA through VSD	• Conduct needs assessment (with reference Public Health Workforce Strategic Plan for Ghana-2022 (unpublished). • Present a justification (for career advancement) • Requisite training for identified gaps • Prompt placements
RISK ASSESSMENT AND COMMUNICATION					
Objective 1: To develop and strengthen the One Health Communication systems at all levels					
Produce National Communication Strategy to include all aspect of One Health by RCCE TWG by September 2023.	June, 2023	+	+++	Chairperson & Co-Chairpersons, OH RCCE TWG	• Organise a stakeholder meeting to identify and review existing strategies from the human, animal and environment sectors • Harmonise the existing strategies integrating all aspects of One Health • Develop a multi-sectoral National One Health Communication Strategy • Disseminate the National One Health Communication Strategy with stakeholders within the One Health space
Establish a multi-sectoral RCCE committees in all the 16 regions and in 50% of districts by June 2023	June, 2023	+++	+++	Chairperson & Co-Chairpersons, OH RCCE TWG	• Consultative meetings at the regional levels to identify the relevant stakeholders. • Identify modalities for the selection of beneficiary districts. • Inaugurate regional and district OH RCCE Committees
Develop and disseminate the One Health RCCE SOPs, TOR and flowcharts for PZD and other emerging diseases to relevant stakeholders within the One Health space by December 2023	September, 2023	++	+++	Chairperson & Co-Chairpersons, OH RCCE TWG	• Mobilize existing SOPs, and relevant document for review • Organize a stakeholder meeting to review the document • Update and refine SOPs, TORs, Flowcharts to reflect One Health approach • Disseminate reviewed documents
Develop a mechanism of identifying and integrating key stakeholders into the OH RCCE TWG at the national, regional and district levels by June 2023	December, 2023	+	++	Chairperson & Co-Chairpersons, OH RCCE TWG	• Identify modalities for selecting stakeholders (Private- Poultry Farmers Associations, Butchers Association, Dog breeders, and individuals) • Send out invitation letters to identified stakeholders • Solicit stakeholders' commitment and participation

Activities	Due Date	Cost	Impact	Responsible	Process
Build capacity of the One-Health team on Social Behaviour Change Communication (SBCC) at all levels	December, 2023	+	+++	Chairperson & Co-Chairpersons, OH RCCE TWG	• Train TWG at National, Regional, District level • At the community level engage with relevant stakeholders for SBCC activities to targeted people
Objective 2: To improve One Health Risk Assessment capacities at all levels					
Conduct TOT in 16 regions on Joint risk assessment for PDZs and other emerging diseases and the use of the risk assessment Tools	June, 2023	+	++	Chairperson & Co-Chairpersons, Regional and District OH RCCE TWG	• Identify and put together a team of trainers at the national levels • Prepare materials for training • Outline criteria for the selection of participants • Mobilize the relevant participants • Organize logistics for training (venue, transport, accommodation etc) • Conduct the training
Conduct step down multi-sectoral training in 50% of districts in the 16 regions for technical officers from the human health, animal health environment sector and other stakeholders	December, 2023	++	+++	Regional Coordinator, OH TWG	• Identify and put together a team of trainers at the national levels • Prepare materials for training • Outline criteria for the selection of participants • Mobilize the relevant participants • Organize logistics for training (venue, transport, accommodation etc) • Conduct the training
Conduct annual One Health/multi-sectoral risk assessment using the standardized tools in all 16 regions and 50% of the districts.	March, 2023	++	+++	Regional Coordinator, OH TWG	• Send out invitation to relevant stakeholders. • Organize meetings to assess identified health risks and hazards • Develop and disseminate risk assessment reports
LABORATORY					
Objective 1: To ensure that all laboratories attain ISO accreditation by 2024					
Develop/ update joint SOPs (laboratory procedures) for prioritized zoonotic diseases for sector labs by 3rd quarter of 2023	September, 2023	+	+++	• One health technical working group • VSD (Director Epidemiology) • Ghana Health Service (Director Public Health)	• Set up a joint technical working group responsible for developing/ updating of SOPs (for laboratory procedures • Develop terms of reference for developing /updating of SOPs • Identify the gaps in SOPs • Develop and update the SOPs • Test the SOPs • Get approval for SOPs

Activities	Due Date	Cost	Impact	Responsible	Process
				• Environmental Protection Agency (DG)	• Distribute SOPs to all stakeholders
Develop a quality management system manual for sector labs by 2nd quarter of 2023	June, 2023	++	+++	• One health technical working group • VSD (Director of Epidemiology) • Ghana Health Service Director Public Health) • Environmental Protection Agency (DG)	• Set up a joint technical working group responsible for developing/ harmonization of quality manual for sector laboratories • Develop terms of reference for developing /harmonization of quality manuals • Develop/ harmonize quality manual • Test the quality manual • Get approval for the quality manual • Distribute the quality manual to all stakeholders
Select and train a quality manager for sector labs by 3rd quarter of 2023	September, 2023	+	++	• One health technical working group • VSD (Director of Epidemiology) • Ghana Health Service (Director of Public Health) • Environmental Protection Agency (DG)	• Develop a criterion for selection of a quality manager • Select quality manager for sector labs using the criteria • Train quality manager • Competence assessment of quality manager after training
Conduct monthly Stepwise Laboratory Quality Management towards Accreditation (SLMTA) for sector labs	December, 2023	+++	++	• Ghana Health Service (Director Public Health) • VSD (Director Epidemiology) • Environmental Protection Agency (DG)	• Develop timetable for monthly SLMTA • Select mode and moderator for monthly SLMT • Send out invitation to all participants a week before meeting • Conduct meeting
Objective 2: To enhance laboratory testing for detection of priority and potential emerging diseases					
Conduct a training of 16 training of trainers at national level by 2nd quarter of 2023	June, 2023	+++	+++	• GHS (Director Public Health) • VSD (Director Epidemiology) • Environmental Protection Agency (DG)	• Develop concept note for the training • Select mode and resource persons for the training • Send out invitation to all participants a month before training • Conduct training

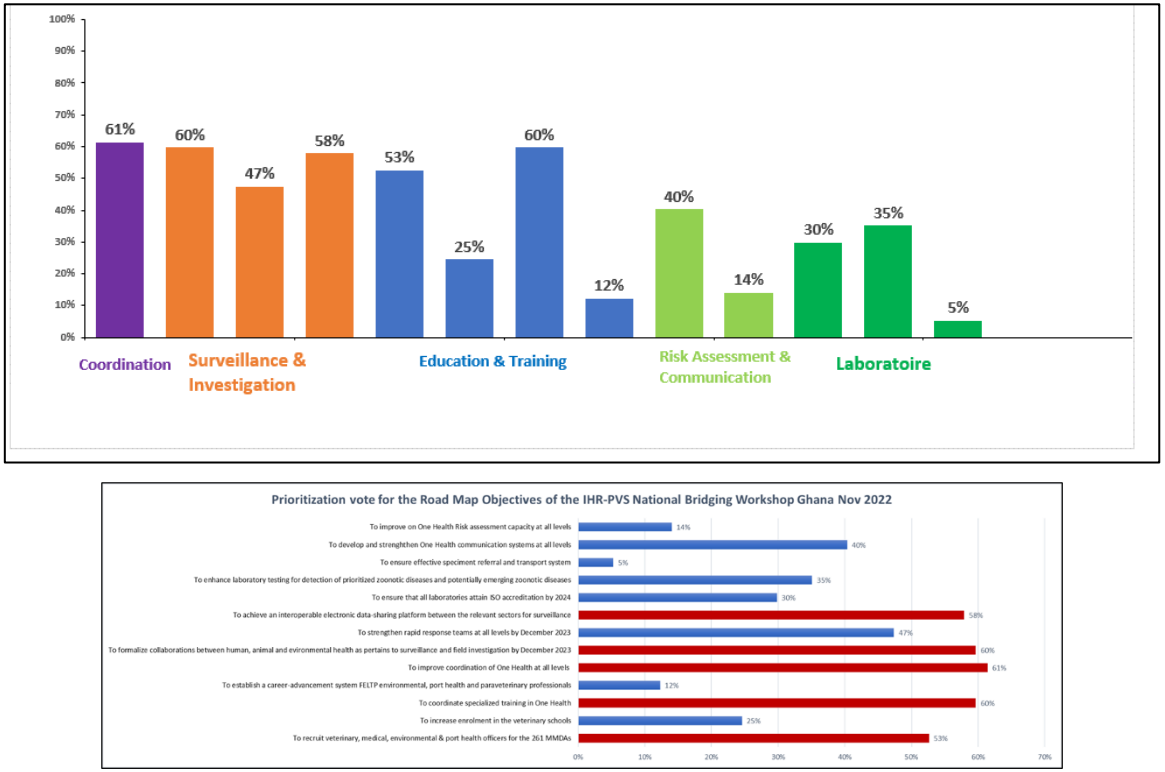
Activities	Due Date	Cost	Impact	Responsible	Process
				• International Partners (FAO and IAEA) • NMIMR/KCCR	
Supplying requisite equipment and reagents to labs for testing prioritized diseases by the end of 2023	December, 2023	+++	+++	• GHS (Director Public Health) • VSD (Director Epidemiology) • Environmental Protection Agency (DG) • Donor partners (WHO, WOAH, IAEA, FAO)	• Develop specifications for reagents and equipment • Tender for supply • Short list and select a supplier • Award contract letter • Supply equipment and reagents • Conduct validation of equipment and reagents
Develop policy on equipment maintenance and calibration for testing of prioritized diseases in labs by 2023	December, 2023	+++	+++	• GHS (Director Public Health) • VSD (Director Epidemiology) • Environmental Protection Agency (DG) • Donor partners (WHO, WOAH, IAEA, FAO)	• Set up a joint technical working group responsible for developing of a policy on equipment maintenance and calibration for testing prioritized diseases • Develop terms of reference for the technical working group • Develop the policy on equipment maintenance and calibration for testing of prioritized diseases in labs • Disseminate the policy
Objective 3: Ensure effective specimen referral and transport system by the end of 2023					
Train animal/ human lab focal persons on International Air Transport Association (IATA) protocols for shipment of biological specimen by 2023	December, 2023	++	+++	• West African ORG • FAO • WHO • NMIMR/KCCR	• Select focal persons from sector labs • Contact IATA for the training • Select the mode and modalities for the training • Send out invitation for the training • Conduct training • Conduct competent assessment
Develop a system to identify a courier service provider and develop an MOU for the shipment of biological samples	December, 2023	++	+++	• GHS (Director Public Health) • VSD (Director Epidemiology) • Environmental Protection Agency (DG)	• Set up a joint technical working group responsible for identifying and developing a MOU for the shipment of biological samples • Develop terms of reference for the technical working group • Develop the MOU for the shipment of biological samples • Disseminate the MOU to relevant stakeholders

Activities	Due Date	Cost	Impact	Responsible	Process
Develop an MOU with referral labs for receiving biological samples for prioritized diseases by 2023	December, 2023	++	+++	• GHS (Director Public Health) • VSD (Director Epidemiology) • Environmental Protection Agency (DG)	• Set up a joint technical working group responsible for developing the MOU for receiving biological samples of prioritized diseases • Develop terms of reference for the technical working group • Develop the MOU for receiving biological samples for prioritized disease • Disseminate the MOU to relevant stakeholders

NB: Participants have identified the key objectives and their corresponding activities to be conducted, to improve the collaboration between public health, veterinary, environmental and other sectors.

OUTPUT 3: PRIORITIZATION RESULTS

All participants were asked to select which five of the 13 objectives they considered as of highest priority. Total of 57 participants contributed to the vote. A total of 57 participants voted, the results were as follow: Objective 1 (Coordination at all levels-61% (35)) Objective 1 (Surveillance & Investigation -60% (34)); Objective 3 (Surveillance & Investigation- 58% (33)), Objective 1 and Objective 3 (Education & Training (53% (30), 60% (34), respectively), Objective 1 (Risk Assessment & Communication (40% (23)), Objective 2 (Laboratory – 35% (27)) were the top priorities. Participants agreed that all objectives identified are very important and related activities should be implemented as described in the **Output 2**



<u>Figure 7</u>: Prioritization of the 13 Objectives by participants to improve the coordination/collaboration to manage outbreaks of zoonotic diseases and other health related events at the human-animal-environment interface

WORKSHOP EVALUATION

A workshop evaluation questionnaire was completed by 45 participants from different sectors and levels of health system. The results as shown in Figure 7, indicate that participants from the central, regional and district levels were well represented (27%, 33% and 36%, respectively).
All respondents answered that they were "satisfied" or "fully satisfied" with the content, the structure, the facilitation, and the organization of the workshop (Tables 2-3). Furthermore, all respondents have indicated that they will recommend the workshop.

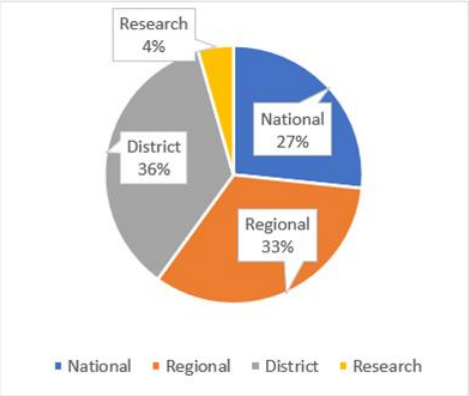


Figure 7: Answers to the questions which level; of the health structure are you from?"

Tables 2-3: Results of the evaluation of the event by participants (45 respondents)

Workshop evaluation	Satisfied' or 'Fully satisfied'	Average rating (/4)
Overall assessment	100%	3.6
Content	100%	3.8
Structure / format	100%	3.7
Facilitators	100%	3.7
Organization (venue, logistics…)	100%	3.7

Participants had to choose between 1=Highly unsatisfied – 2=Unsatisfied – 3=Satisfied – 4=Highly satisfied

Impact on	High' or 'Very High' impact	Average rating (/4)
Your technical knowledge	96%	3.6
The work of your unit	96%	3.5
AH-PH collaboration in country	93%	3.4

Participants had to select between 1=No impact at all – 2=Minor impact – 3=Significant impact – 4=Major impact

Average score for each session (/4)						
Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Session 7
3.7	3.7	3.7	3.7	3.6	3.5	3.6

APPENDIX

ANNEX 1: WORKSHOP AGENDA

DAY 1: 22nd Nov 2022	
08:30 – 09.00	Registration of participants
09.00 – 10.00	**Opening Ceremony** • Remarks by Director Public Health, Ghana Health Service (5') • Remarks by Chief Veterinary Officer, Veterinary Services Directorate (5') • Remarks by Director General, NADMO (5') • Remarks by FCDO/ British High Commission (5') • Remarks by Food and Agriculture Organization of UN (FAO) (5') • Remarks by World Organisation for Animal Health (WOAH, Founded as OIE) (5') • Remarks by World Health Organization (WHO) (5') • Introduction of participants (10') Group Picture and Coffee break (15')
10.00 – 12.00	**Session 1: Workshop Objectives and National Perspectives** The first session sets the scene by providing background information on the One Health concep and the subsequent tripartite WOAH-WHO-FAO collaboration. It is followed by comprehensive presentations from both Ministries on the national public and animal health services. A second documentary provides concrete worldwide examples of fruitful intersectoral collaboration, showing how the two sectors share a lot in terms of approaches, references and strategic views.
	• Workshop approach and methodology – PPT (10') • MOVIE 1: Tripartite One Health collaboration and vision (15') • Veterinary Services and One Health – PPT (20') • Public Health Services and One Health – PPT (20'): Dr Azumah Abdul-Tawab • MOVIE 2: Driving successful interactions - Movie (25')
Lunch (12:00-13:00)	
13.00 – 16.00	**Session 2: Navigating the road to One Health** Session 2 divides participants in working groups and provides an opportunity to work on the presented concepts. Each group will have national and regional representatives from both sectors and will focus on a fictitious emergency scenario. Using diagrammatic arrows to represent the progression of the situation, groups will identify joint activities and areas of collaboration and assess their current functionality using one of three color-coded cards (green, orange, red).
	• Presentation and organization of the working group exercise – PPT (15') • Case study - Working groups by disease (120') • Restitution (75')
Expected outcomes of Sessions 1 and 2: • *Understanding of the concept of One Health, its history, its frameworks and its benefits.* • *Understanding that a lot of areas for discussion and possible improvements do exist and can be operational - not only conceptual.*	

• *Level of collaboration between the two sectors for 16 key technical areas is assessed.* • *Collaboration gaps identified for each disease.*	
16.00 – 17.30	**Facilitators and moderators only:** Briefing Session 3-4-5 and compilation of results from Session 2

DAY 2: 23rd Nov 2022	
08.30 –11.20	**Session 3: Bridges along the road to One Health** Session 3 presents the tools from both sectors (IHR MEF, JEE, PVS) and uses an interactive approach to map activities identified earlier onto a giant IHR-PVS matrix. This process will enable to visualize the main gaps, to distinguish disease-specific vs systemic gaps and to identify which technical areas the following sessions will focus on.
	• Recap for day 1 (10') • MOVIE 3: IHR Monitoring and Evaluation Framework (25') • MOVIE 4: PVS Pathway (25') • MOVIE 5: IHR-PVS Bridging (10') • Mapping gaps on the IHR/PVS matrix (50') + Coffee break (20') • Discussion – Plenary (30')
Expected outcomes of Session 3: • *Understanding that tools are available to explore capacities in each of the sectors.* • *Understanding of the contribution of the veterinary sector to the IHR.* • *Understanding of the bridges between the IHR MEF and the PVS Pathway.* • *Identification of the technical areas to focus on during the next sessions.*	
11:20 - 13:00	**Session 4: Crossroads - IHR MEF, JEE and PVS Pathway reports** Participants will be divided into working groups by technical topic (surveillance, communication, coordination, etc.) and will explore the improvement plans already proposed in the respective assessments (IHR annual reporting, JEE, PVS Evaluation, etc.), extract relevant sections and identify what can be synergized or improved jointly.
	• Presentation and organization of the working group exercise (20') • Extract main gaps and recommendations from the PVS and IHR reports (including the JEE), in relation to gaps identified on the matrix (60')
Lunch (13:00-14:00)	
14:00 - 14:30	**Session 4 (continued)**
	• Extract main gaps and recommendations from the PVS and IHR reports (including the JEE), in relation to gaps identified on the matrix (continued, 30')
Expected outcomes of Session 4: • *Good understanding of the assessment reports, their purpose and their structure.* • *Main gaps and recommendations from existing reports have been extracted.* • *A common understanding of the effort needed starts to emerge.*	
14:30–17:15	**Session 5: Road planning** Participants will use the results obtained from the case studies and from the assessment reports to develop a realistic and achievable road-map to improve the collaboration between the sectors.
	• Presentation and organization of the working group exercise (15') • Identification of Activities (Working groups by technical topic) (150')
Expected outcomes of Session 5:	

• *Clear and achievable activities are identified to improve inter-sectoral collaboration between the two sectors for all technical areas selected.*	
17.15 – 19.00	**Facilitators only:** Compilation of results from Session 5 (drafting of the road-map) and preparation of Session 6
DAY 3: 24th Nov 2022	
9:00 - 12:00	**Session 6: Fine-tuning the Roadmap** The objective of Session 6 is to have all participants contribute to all technical areas and to consolidate the joint-road map by making sure it is harmonized, concrete and achievable. • Fine-tuning of the roadmap: Objectives and filling out of Activity cards (40') ffee break (15') • World Café (90') • Presentation of the prioritization vote (10') • Prioritization vote (during lunchtime)
Expected outcomes of Session 6: • *Harmonized, concrete and achievable roadmap.* • *Timeline, focal points, needed support and indicators have been identified for each activity.* • *The impact and the difficulty of implementation of proposed activities have been estimated.* • *Buy-in and ownership of all participants who contributed to all areas of the roadmap.* • *Prioritization of the activities.*	
12:00 - 14:00	**Session 7: Way forward** the last session, representatives from the key Ministries take over the leadership and facilitation of the workshop to discuss with participants the next steps and how the established roadmap will be implemented. kages with other mandated plans such as the National Action Plan for Health Security are discussed. This is also where any need from the country can be addressed. This will depend greatly on the current status of the country in terms of IHR-MEF and on the level of One Health capacity. • Results of the prioritization vote (15') • Integrating the action points into the IHR-MEF process (30') Next steps (75') (lead by Ministry representatives)
Expected outcomes of Session 7: • *Linkages with NAPHS.* • *Identification of immediate and practical next steps.* • *Identification of opportunities for other components of the IHR-MEF.*	
14:00 - 14:30	**Closing Session** • Evaluation of the workshop (20') • Closing ceremony (40')
Lunch (14:30-15:30)	
13.30 – 14.00	**Facilitators:** Video interview of some participants

ANNEX 2: LIST OF PARTICIPANTS FOR THE IHR-PVS NATIONAL BRIDGING WORKSHOP (NBW)

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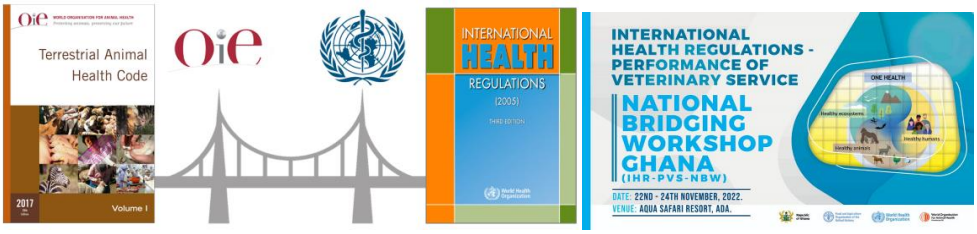
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