World Health Organization

WORLD ORGANISATION FOR ANIMAL HEALTH

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

14 - 17 May 2019

Yerevan, Republic of Armenia

Organized by Ministry of Health, Food Safety Inspectorate, Ministry of Agriculture, WHO and OIE

With the financial support of Rospotrebnadzor, Russian Federation

Acknowledgments

The organizers of the meeting would like to express their gratitude to the authorities of Republic of Armenia for their support in the preparation and conduction of the event,

Organizers and participants would like to acknowledge Russian Federation for funding this workshop.

TABLE OF CONTENTS

ABBREVIATIONS & ACRONYMS

AI	Avian Influenza
DG	Directorate General
DTRA	Defense Threat Reduction Agency
FAO	Food and Agriculture Organization of the United Nations
FP	Focal Point
FSI	Food Safety Inspectorate
HQ	Headquarters
IHR	International Health Regulations (2005)
IT	Information technology
Marz	Administrative unit level 2 in Armenia (equivalent to oblast)
MEF	Monitoring and Evaluation Framework
NAPHS	National Action Plan for Health Security
NCDCP	National Center for Disease Control and Prevention
OIE	World Organisation for Animal Health
PH	Public Health
PVS	Performance of Veterinary Services
RRT	Rapid Response Team
SOP	Standard Operating Procedures
TOR	Terms of Reference
WHO	World Health Organization

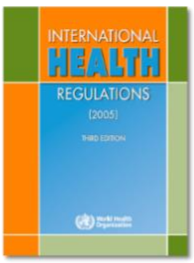
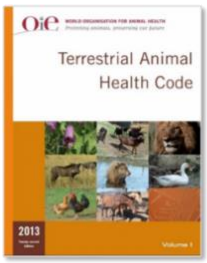
INTRODUCTION

BACKGROUND

The World Health Organization (WHO) and the World Organisation for Animal Health (OIE) are the two main international organizations responsible for proposing references and guidance for the public health and animal health sectors respectively. WHO and OIE 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. They have developed various frameworks, tools and guidance materials to strengthen capacities at the national, regional and global levels.

- 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 other assessment tool.

- The OIE is the intergovernmental organization responsible for developing standards, guidelines and recommendations for animal health and zoonoses; these are laid down in the OIE Terrestrial and Aquatic Animal Codes and Manuals. In order to achieve the sustainable improvement of national Veterinary Services' compliance with these standards, in particular on the quality of Veterinary Services, the OIE 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.

	HUMAN HEALTH	ANIMAL HEALTH
International Legal Framework	 IHR (2005)	 OIE Standards
Assessment tools for country capacities	 Annual reporting tool	 PVS Pathway

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 OIE PVS Pathway approaches enable countries to determine strengths and weaknesses in their respective functions and activities and promote prioritization and pathways for improvement. Furthermore, they engage countries in 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.

The use of the WHO IHR monitoring tools and OIE PVS Pathway results in a detailed assessment of existing weaknesses and gaps, with the better alignment of a capacity-building approach and strategies at country level between the human and animal health sectors. The two organizations have developed a workshop format (the IHR-PVS National Bridging Workshops) that enables countries to further explore possible overlapping areas addressed in their PVS and IHR capacity frameworks and develop, where relevant, appropriate bridges to facilitate coordination. A structured approach using user-friendly materials enables the identification of synergies, reviews gaps and defines the operational strategies to be used by policymakers for concerted corrective measures and strategic investments in national action plans for improved health security.

In Armenia,

- an OIE PVS Follow-up was conducted in 2018;
- an external evaluation of IHR core capacities was conducted in 2016;
- the NAPHS was initiated in 2019.

OBJECTIVES OF THE WORKSHOP AND EXPECTED OUTCOMES

The main objective of the IHR-PVS Pathway National Bridging Workshop (IHR-PVS NBW) is to provide an opportunity to the human and animal health services of hosting countries to build on the reviews of performance, gaps and discussions for improvement conducted in their respective sectors, and to explore options for improved coordination between the sectors, to jointly strengthen their preparedness for, and control of, the spread of zoonotic diseases.

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 (incl. 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 OIE, the IHRMEF and the OIE 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 next steps and activities for the development and implementation of a joint national roadmap to strengthen collaboration and coordination.

The agenda of the Workshop is available at Annex 1.

REPORT ON THE SESSIONS

From 15th to 17th May 2019, the National Bridging Workshop (NBW) on the International Health Regulations (IHR) and the OIE Performance of Veterinary Services (PVS) Pathway for the Republic of Armenia was held in Yerevan. The Workshop was hosted at the kind invitation of the Government of Armenia, with organizational support from the WHO Country Office in Armenia and the OIE Regional Representation for Europe. The Workshop was attended by 63 participants from Ministry of Health (MoH), Food Safety Inspectorate (FSI) and Ministry of Agriculture (MoA), with representatives from the Central and Provincial (Marz) levels, as well as representatives of World Health Organization (WHO), World Organisation for Animal Health (OIE). Representatives of the health development partners (Rospotrebnadzor (Russian Federation) and Defense Threat Reduction Agency (United States of America)) were also present as observers.

The workshop used an interactive methodology and a structured approach with user-friendly material, case studies, videos, and facilitation tools. All participants received a *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

Opening speeches were given by Dr Lilit Avetisyan (Deputy Director-General of the National Center for Disease Control and Prevention of the Ministry of Health), Mr Georgy Avetisyan (Head of the Food Safety Inspectorate of the Government of the Republic of Armenia), Dr Egor Zaitsev (WHO Representative to Republic of Armenia), and Mr Zalimkhan Omariev (Rospotrebnadzor, Russian Federation). The speakers highlighted the importance of the One Health approach to strengthen collaboration between Public and Animal Health sectors, the necessity of gap identification in order to progress towards better coordination and development of a roadmap to build the sustainable bridge between the two sectors. They emphasized the need to develop a comprehensive and coordinated approach, especially for the priority zoonotic diseases, needing an integrated control and surveillance. The role of the IHR-PVS National Bridging Workshop was recognized as enabling the two sectors to reinforce their policies and willingness to contribute to this joint strategy. The speaker from Russian Federation presented the objectives to financially support Armenia and other countries, and specific aims for 2019 such as research studies, strengthening epidemiology, emergency and response capacities.

SESSION 1: THE ONE HEALTH CONCEPT AND NATIONAL PERSPECTIVES

A documentary video introduced 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 collaboration between WHO, OIE, and FAO.

Presenting the status of the collaboration of Human and Animal Health sectors, Dr Liana Torosyan, Head of Infectious Diseases Epidemiology Unit of the National Center for Disease Control and Prevention (NCDCP), highlighted that both sectors face difficulties if working separately. The update of the national legislation according to the IHR requirements and under the One Health umbrella was presented. Despite the progress and number of activities focusing on priority diseases, AMR, surveillance, public awareness, conferences, trainings, exercises for all levels, the establishment of the One Health concept requires further mutual collaboration, joint implementation, and expansion to other stakeholders.

There is a need to review the legislation to enact the One Health concept in the country. In Armenia, working groups on brucellosis, anthrax, and food safety formed, however, their further operationalization is needed to strengthen capacities and establish professional and educational cooperation. MoH adapts the Tripartite Zoonoses Guide (WHO-FAO-OIE) "to establish collaboration between animal and human health sectors at the country level".

The representative of the Food Safety Inspectorate, Dr Artur Melikyan, Deputy Head of Veterinarian Inspection, gave a detailed presentation on the distribution of responsibilities for surveillance and control of diseases in veterinary and phytosanitary sectors and the progress in public awareness, training and development of guidelines.

An existing working group on disease surveillance ensures information sharing between the two sectors and joint surveillance. However, while both sectors advanced a lot in joint work on brucellosis and anthrax during the last 10 years, they also recognize needs to improve bilateral collaboration and particularly to clarify case definitions, strengthen coordination and reinforce structures and legal frameworks.

The workshop approach and methodology were explained, and the participant handbook was presented.

A second documentary video provided participants with concrete worldwide examples of intersectoral collaboration in addressing health issues at the human-animal interface.

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 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, OIE 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 both sectors and from different levels (Central and Provincial (Marz)). Groups were provided with a case study scenario (Table 1) based on diseases relevant to the local context (anthrax, avian influenza, brucellosis, echinococcosis, rabies) developed in collaboration with national representatives.

Table 1: Scenarios used for different case studies

Anthrax *(disclaimer: this incident is completely fictional)* Nine people went to the Chambarak village hospital, showing identical anthrax-like lesions. One of these patients is a worker at the village's slaughterhouse. At least 60 people who reportedly ate untested meat in the village of Chambarak were examined for anthrax. The patients were urgently referred to the primary health care center after they developed symptoms typical of cutaneous anthrax. The man who sold the untested meat disappeared, after hearing that his neighbors were sick.
Avian influenza *(disclaimer: this incident is completely fictional)*

Two people were admitted at the infectious diseases hospital in the town Arzni, with pneumonia. Laboratory testing by RT-PCR resulted positive for H5N1 subtype of avian influenza. One of the patients is a semi-commercial broiler producer who sells his birds three times a week at the local market. The other patient reported having visited the same market 7 days prior to disease onset and having bought four chickens.
Brucellosis *(disclaimer: this incident is completely fictional)* During the last month, three cows, all belonging to a small-holder dairy farmer in the village of Getashen aborted. At the time of the first two abortions, the farmer did not bother reporting the problem to his local veterinary inspector, as his farm was too far from the District Veterinary Office. However, the third abortion occurred a day before the market day and he happened to be in the town of Razdan, where he met with the district veterinarian and mentioned that three of the cows had a recently aborted their calves. The veterinarian immediately went to the farm and carried out a Milk Ring Test on the three animals which had aborted and found them all to be positive for brucellosis.
Echinococcosis *(disclaimer: this incident is completely fictional)* A farmer in the Vayots Dzor marz was taken to hospital with jaundice and abdominal pain. An ultrasound detected atypical seals in the liver, and laboratory tests confirmed that the patient was infected with *Echinococcus multilocularis*. This is the fourth case in the last two months in this area, where residents are starting to worry because local dogs are often infected with Echinococcus.
Rabies *(disclaimer: this incident is completely fictional)* A stray dog which was known to have bitten two cows and was behaving aggressively towards people was reported to have bitten some children in the same neighborhood on the outskirts of the city of Armavir. The dog was captured and chained; the Veterinary Service was informed.

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: coordination, investigation, surveillance, communication, etc. 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 1: Participants working on a case study scenario and evaluating the level of collaboration between the sectors for 15 key technical areas.

During an ensuing plenary session, each group presented and justified the results of their work. Output 1 summarizes the results from the five disease groups.

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 (Output 1).
- The main gaps in the 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 (OIE standards) as well as the tools available to assess the country's capacities such as the IHR annual reporting and the OIE 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 (Figure 2).

Through an interactive approach, working groups were invited to plot their *technical area cards* onto the matrix by matching them to their corresponding indicators. A plenary analysis of the outcome showed clear gap clusters and illustrated that most gaps were not disease-specific but systemic.

Figure 2: Mapping of the gaps by positioning the selected technical area 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 capacities:

- Priority technical area 1: Coordination at local and technical levels
- Priority technical area 2: Field investigation and response
- Priority technical area 3: Risk assessment, surveillance, and laboratories
- Priority technical area 4: Communication

'Finance' came-up as one of the technical areas needing most improvement. However, participants agreed that the audience of this workshop would not be able to provide substantial improvements in that domain. It remains nonetheless one of the major gaps to impair the efficiency of the intersectoral collaboration.

Outcomes of Session 3:

- Understanding what tools are available to explore operational capacities in each of the sectors.
- Understanding 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

New working groups with representation from all previous groups were organized for each of the four priority technical areas (Figure 3).

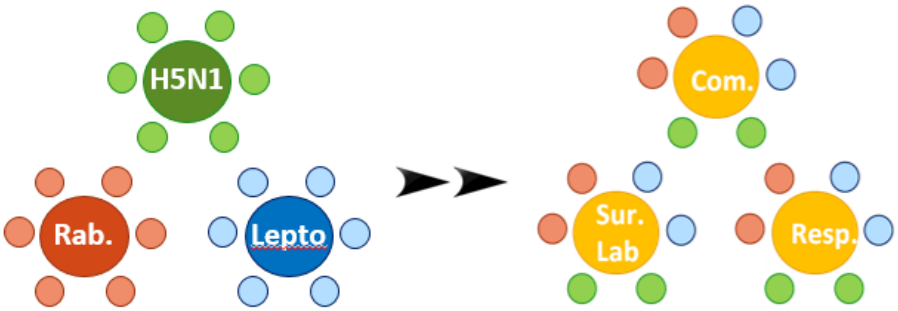


Figure 3: Generic graph describing the organization of working groups for Session 2-3 (left) and Session 4-5 (right).

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 (IHR MEF and PVS Follow-up) and extracted the main findings and recommendations relevant to their technical area(s) (Figure 4).

Figure 4: Participants use the assessments of Public and Animal Health sectors to identify relevant gaps and recommendations.

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.
- Main recommendations from existing reports have been extracted.
- A common understanding of the effort needed starts to emerge.

SESSION 5: ROAD PLANNING

Using the same working groups as for the previous session, participants were tasked to identify three to ten joint activities per group according to the group's technical area identified previously. Based on the results of the previous sessions (case study exercises, extraction from reports) and their own experience, participants brainstormed on the identification of joint activities to improve mutual collaboration between the two sectors. Participants discussed their ideas within their groups and drafted them using the flipcharts (Figure 5).

Figure 5: The group working on "Coordination" identified 2 objectives and 4 activities to improve the collaboration between the two sectors in this domain.

Outcomes of Session 5:

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

SESSION 6: FINE-TUNING THE ROAD-MAP

Using the same groups as the previous session, participants were asked to provide additional details on the activities by filling an *Activity card* for each one. The required information included the expected date of achievement, an assignment of responsibility and a detailed process of implementation. The difficulty of implementation and the expected impact of each activity were also evaluated using red and blue stickers and a semi-quantitative scale (1 to 3).

Activities that were linked were then regrouped under specific objectives identified at the next step (Figure 6).

Working groups were given more time to finalize their activities and objectives.

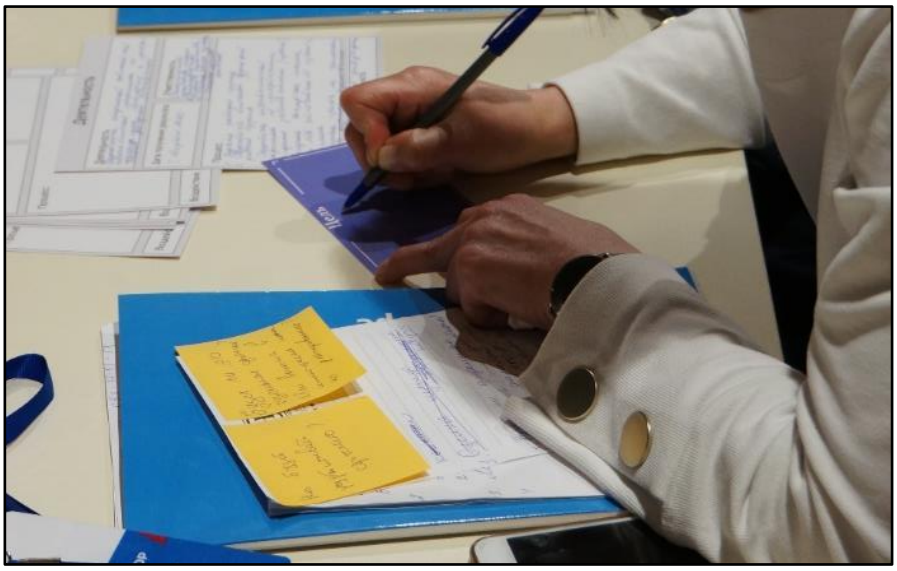


Figure 6: Participants prepare the Objective cards after the Activity cards had been filled with detailed information.

A World Café exercise was then organized to enable participants to contribute to the action points of all technical areas (Figure 7). Each group nominated a rapporteur whose duty was to summarize the results of their work to the other groups. Each group rotated between the different boards to contribute and provide feedback on all technical areas. Rotating groups had the possibility of leaving post-it notes on the objectives and activities of other groups when they felt that an amendment or a clarification was necessary.

At the end of the cycle, each group returned to their original board and the rapporteur summarized the feedback received. Groups were given 20 minutes to address changes or additions suggested by the other participants. Objectives and activities were fine-tuned accordingly, and a final plenary session was conducted to discuss the outstanding points.

Figure 7: World café exercise: the group on "Field investigation and response" is providing feedback to the rapporteur of the group on "Risk assessment, surveillance, and laboratories".

Overall, the five groups identified a total of 7 key objectives and 30 activities. The detailed results are presented in Output 2.

Prioritization of Objectives

To prioritize the objectives identified by the technical working groups, participants were invited to vote for the objectives they considered as of the highest priority. Each participant had three votes and voted using white stickers. 50 participants participated in the vote. This prioritization showed that all topics selected in the course of the workshop were crucial to strengthen intersectoral collaboration. However, improvement of communication on priority zoonoses was selected as of the highest priority for the country. Full results of the vote can be found in Output 3.

Outcomes of Session 6:

- Harmonized, concrete and achievable road-map to improve the collaboration between the animal health 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 road-map.
- Prioritization of the activities.

SESSION 7: WAY FORWARD

Results of the prioritization vote were presented and discussed.

This session gave the two sectors the opportunity to express their point of view regarding the implementation of the outcomes of the workshop.

Participants from the Ministry of Health, Food Safety Inspectorate and Ministry of Agriculture agreed on the important work done during the 3-days workshop and consider it as a fundamental and distinct chapter in the development of the strategic plan to be implemented in Armenia within the One Health concept. The Ministry of Health ensured that all activities developed in the roadmap will become part of the yet drafted NAPHS (National Action Plan for Health Security). Public health sector expressed their willingness to use the momentum and to engage the participants of the workshop and invited specialists to deeply elaborate in every detail each particular step of the proposed activities.

The Food Safety Inspectorate stressed the importance of the work plan to be a multi-sectoral process, that needs to be implemented as soon as possible, involving different stakeholders, including public ones, able to clearly address tasks defined in the workshop roadmap. It was insisted on the need for the strategy to use international, risk-oriented approaches, moving forward with the development of activities such as surveillance, control, laboratory activities, revision of the list of priority zoonoses, and communication.

Both sectors highlighted the importance of working together to progress on all these inter-related activities and to engage potential partners and donors that could be interested in specific programs, such as Rospotrebnadzor, which kindly financially supported the current workshop.

Three top priority components have been highlighted by both sectors, resulting from the gaps identified at the Workshop: risk assessment, risk communication and implementation of joint surveillance. These technical areas will be put on the agenda at the next annual multisectoral meetings organized between both sectors.

Outcomes of Session 7:

- Understanding of how the outputs of the workshop can feed into other existing plans.
- Way forward is presented and discussed.
- Ownership of the workshop results by the country.

CLOSING SESSION

Summarizing the workshop, the participants thanked the WHO and the OIE for the opportunity of constructive work to improve the communication and coordination between the Human and Animal Health, and Food Safety sectors. They recognized the methodology proved to be successful.

The WHO country office emphasized the relevance and importance of the results of this 3-days workshop in terms of the development of actions for the NAPHS, with efforts requesting the involvement of all stakeholders and insisted on the need to ensure effectiveness and avoid any duplication. WHO and OIE stressed the importance of building capacities, with intersectoral cooperation and the interest of enabling countries of the area to respond adequately to threats and emergencies. The collaboration of Armenia with WHO and OIE will be pursued, using all opportunities, such as seminars organized for common topics (zoonoses and antimicrobial resistance). Participants of the veterinary services have been encouraged to make the best possible use of the PVS report, OIE being ready to support the country with different tools to improve the performances of the veterinary services.

All the material used during the workshop, including movies, presentations, documents, references, results from the working groups and pictures were copied on a memory stick distributed to all participants.

WORKSHOP OUTPUTS

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

Technical area (cards)	Rabies	Anthrax	Avian flu	Brucellosis	Echinococcosis	Score
Finance						8
Joint surveillance						8
Coordination at technical Level						6
Field investigation						6
Risk assessment						6
Communication w/ media						5
Communication w/ stakeholders						5
Laboratory						5
Response						5
Coordination at the local Level						4
Education and training						4
Emergency funding						4
Legislation / Regulation						2
Human resources						2
Coordination at high Level						1

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 AREAS

Action	Timeline	Difficulty (1-3 scale)	Impact (1-3 scale)	Responsibility	Indicators
COORDINATION ON HIGH, LOCAL, AND TECHNICAL LEVELS					
Objective 1: Efficient intersectoral coordination on Marz[1] level in the context of One Health					
1.1 Develop and approve the decrees ensuring effective intersectoral coordination on Marz level	Q3 2019	+	+++	Ministry of Health (MoH), Food Safety Inspectorate (FSI), Ministry of Territorial Management and Development (MTMD)	1) Develop TOR for the working group (WG) 2) Create the WG to develop decrees on coordination on the Marz level (see 1.2 and 1.3) 3) WG to develop draft decree on the coordination of plans and activities related to zoonoses (within One Health) at the Marz level 4) WG to develop TOR for Marz coordination groups including meeting periodicity and responsibilities for non-sharing of information 5) WG to define the format and content of information to be shared 6) Agree and approve the decree with all relevant stakeholders
1.2 Create permanent coordination groups on Marz level	Q3 2019	++	+++	MOH, FSI, National Center on Diseases Control and Prevention (NCDCP)	1) The group will include: - epidemiologist - infectionist - marz authorities - NCDCP specialist - FSI specialist 2) Responsibilities of Marz coordination group: - analysis of the epidemiological situation - risk analysis - coordination of prevention and response measures - regular share of information about the plans and epidemiological situation - joint risk communication - support of joint information campaigns
1.3 Develop and approve the decree on the intersectoral coordination mechanism of MOH, FSI, MTMD, Ministry of Emergencies (ME) on Marz level	Q3 2019	+	+++	MOH, FSI, MTY, Ministry of Emergencies (ME)	1) Develop coordination procedures for cases/outbreaks of zoonoses on Marz level 2) Develop respective SOPs 3) Clear through and approve by joint decree

[1] Administrative unit level 2 in Armenia (equivalent to oblast)

Objective 2: Enhancement of the national level intersectoral coordination on zoonoses					
2.1 Reconsider the existing structure of the national level working group on intersectoral coordination of zoonoses in the frame of One Health	August 2019	+	++	MOH, FSI	1) Reconsider existing legislation 2) Develop TOR of the working group 3) Reconsider group membership
COMMUNICATION					
Objective 3: Creation of the system of joint communication on zoonoses					
3.1 Create a permanent joint working group on communication on the national level	Q4 2019	+	+++	MOH, Veterinary Service (VS), FSI	1) Include epidemiologist, animal health epidemiologist, press-secretaries (Public Relations units of MOH and VS), communication specialists 2) Develop TOR for the group 3) Approve by joint decree
3.2 Hire communication experts in both sectors	Q3 2019	+++	++	MOH, Veterinary Service (VS), FSI, joint working group on communication	1) Reconsider the staff structure and include position(s) of communication specialist 2) Develop ToR of communication specialist
3.3 Develop a joint communication strategy on zoonoses including public awareness, advocacy, and risk & emergency communications	Q1 2020	++	+++	Joint working group on communication	Develop the framework strategical document on joint communications: - in public awareness - advocacy - risk & emergency communications
3.4 Develop an action plan to implement the joint communication strategy (3.3)	Q2 2020	+	+++	Joint working group on communication	Develop the plan of activities in order to implement 3.3, among others: 1) Conduct needs assessments 2) Define information campaigns 3) Define regular joint press-conferences (monthly)
3.5 Develop SOPs on joint risk & emergency communication on priority zoonoses	Q3 2020	+	+++	Joint working group on communication	1) Define the list of needed SOPs 2) Define the schedule to develop SOPs 3) Develop SOPs 4) Clear developed SOPs through both sectors 5) Approve by the joint decree
3.6 Conduct cascade trainings on risk communication on the national and marz levels	Q3 2020	++	+++	Joint working group on communication	- Identify categories of specialists to be trained on the national and marz levels - Conduct the initial train-the-trainer training on joint risk communication - Conduct replica trainings on marz level
3.7 Develop and conduct joint information campaigns on priority zoonoses	2020	++	+++	Joint working group on communication	1) Define target audiences 2) Develop joint information messages for each target audience

					3) Develop effective information channels 4) Define periodicity of messaging 5) Develop information materials such as booklets, videos, etc. for each target audience 6) Identify rumor control mechanisms 7) Develop a monitoring & evaluation system to measure the efficacy of information campaigns 8) Involve medical and veterinary doctors to spread information 9) Conduct information campaigns
FIELD INVESTIGATION AND RESPONSE					
Objective 4: Enabling functional system of joint field investigation and response					
4.1 Create a national joint working group to develop legislation enabling joint field investigations and joint response on outbreaks and cases of priority zoonoses	September 2019	+	+++	MOH, VS, ME	- Define members of the working group - Develop the WG TOR - Clear with the involved sectors - Approve by the joint decree - Nominate experts from the involved sectors to the working group
4.2 Develop legislation to enable joint field investigation and joint response to the outbreaks and separate cases of priority zoonoses	Q4 2019	++	+++	Joint working group on legislation development	- Map existing legislation on the field investigation and response in both sectors - Revise / develop harmonized legislation - Clear with the involved sectors - Approve by the joint decree
4.3 Develop SOPs for joint field investigation and joint response on the outbreaks and separate cases on the local level	Q1 2020	++	+++	MOH, VS, Joint working group on legislation development	- Develop SOPs on each priority zoonosis - Clear with the involved sectors - Approve by the joint decree
4.4 Revise the membership and nominate responsible persons in the rapid response teams (RRTs) to coordinate joint field investigation and joint response on the outbreaks and separate cases	Q4 2019	+	+++	MOH, VS, FSI, ME, Joint working group on legislation development	- Include in RRTs: • 2 epidemiologists • 1 bacteriologist • 1 infectionist • 2 veterinarians • 1 epizootologist • 4 specialists from FSI, MOH, VS • 1 specialist from ME - Develop TOR for RRTs - Develop TORs for each RRT member - Approve RRT members and developed TORs by the joint decree

4.5 Develop and conduct cascade trainings for RRT specialists on the joint field investigations and joint response	Q3 2020	+++	+++	MOH, VS, Joint working group on legislation development	- Develop the training program and prepare the trainings - Nominate or develop the trainers - Develop a schedule of the national training and subsequent cascade replica trainings in Marzs - Delivery the trainings
4.6 Develop and conduct TTX to test coordination and the joint field investigation and field response on priority zoonoses	Q2 2020	++	+++	MOH, VS, Joint working group on legislation development	- Develop the concept note and materials of TTX - Nominate participants from both sectors including RRT specialists - Conduct TTXs twice a year
4.7 Develop and conduct full-scale simulation exercise to test coordination and the joint field investigation and field response on priority zoonoses	Q4 2020	+++	+++	MOH, VS, Joint working group on legislation development	- Develop the concept note and materials of FSX - Nominate participants from both sectors including RRT specialists - Conduct FSX annually
JOINT SURVEILLANCE, LABORATORY & RISK ASSESSMENT					
Objective 5: Enable effective functioning of the joint surveillance system on priority zoonoses					
5.1 Fully implement an integrated epi surveillance system	Q3 2019	+	++	MOH, Ministry of Economy (ME), FSI	- Develop a joint decree on zoonoses data subject to sharing between the sectors - Clear and approve by the involved sectors
5.2 Revise the list of priority zoonoses based on the joint risk assessment	Q1 2020	+	++	MOH, ME, FSI	- A joint working group (7.2) to revise the list of priority zoonoses - Clear and approve by the involved sectors
5.3 Develop unified reporting forms for zoonoses	Q4 2019	+	+++	MOH, ME, FSI	- Create a joint working group - Develop TOR for the working group - Develop unified reporting forms - Approve by joint decree - Implement joint reporting forms in the electronic episurveillance system (EIDSS)
5.4 Conduct joint assessment of the epi surveillance system on priority zoonoses	Q4 2020	++	+++	MOH, FSI	- Create a joint working group - Develop TOR for the working group - Develop a questionnaire - Conduct a joint assessment of the epi surveillance system - Conduct gap analysis and develop recommendations

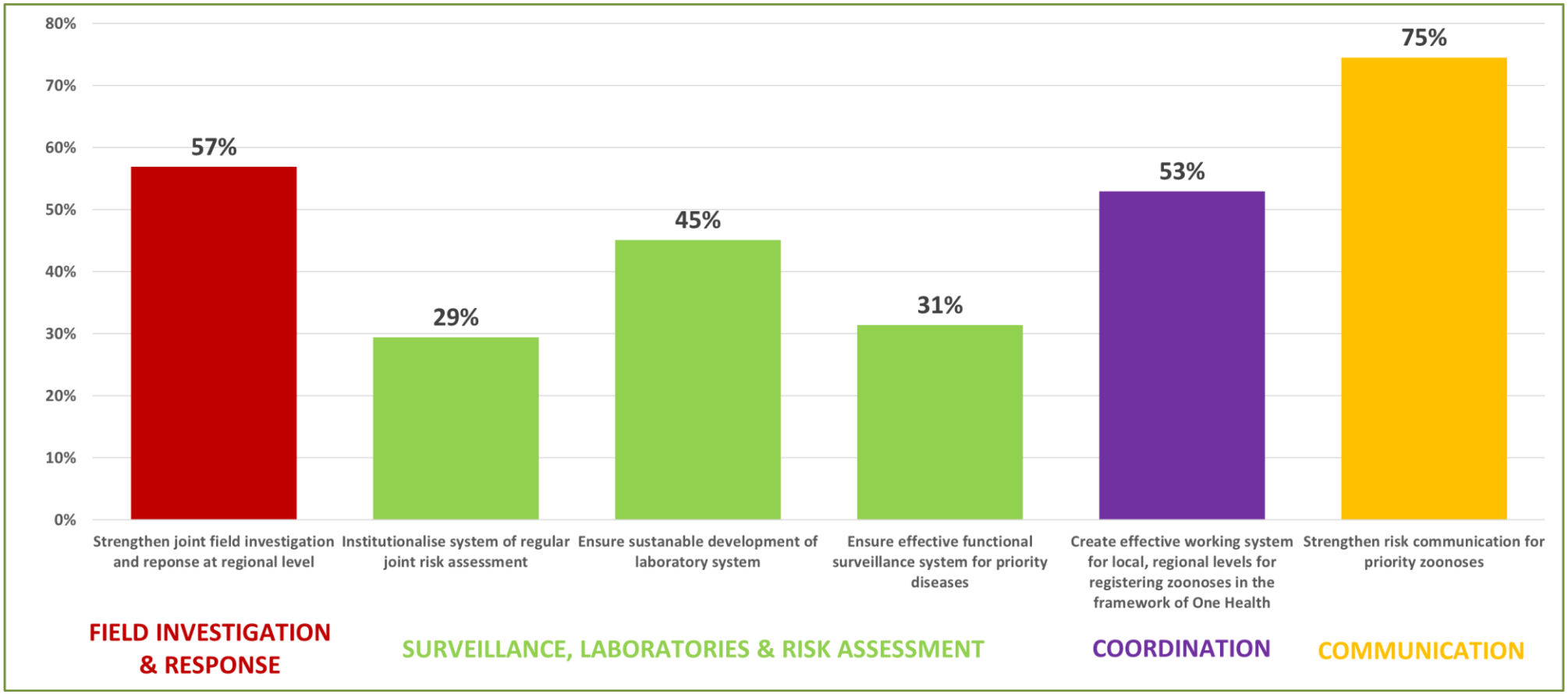
Objective 6: Enable sustainable development of the laboratory system					
6.1 Create the united laboratory system (biological, chemical, radiological)	Q4 2020	+++	+++	MOH, NCDCP, FSI, Ministry of Agriculture (MoA)	- Develop national strategy enabling sustainable mechanisms of functioning and financing of the united laboratory system - Create a roster of all laboratories - Map all laboratories - Classify laboratories according to different levels (national, marz) and by agent (bio, chem, rad) - Develop TORs and criteria for reference labs and the order of assignment in different areas - Develop the system of interactions and collaboration between laboratories
6.2 Procure referent materials on priority zoonoses and involve national laboratories into international programs of external quality assessment (Professional Testing Schemes (PTS)	Q4 2019	++	++	MOH, MoA, FSI	- Register national reference laboratories in international programs of external quality assessment (PTS) - Authorize places to store reference materials - Take part in the international PTSs - Procure referent materials needed for diagnostics and participation in PTSs
6.3 Develop a national system of priority zoonoses diagnostics quality assessment	Q4 2020	+++	+++	MOH, MoA, FSI, Technical group	- Create a technical group - Develop TOR for the technical group - Develop a national strategy of external quality assessment - Prepare sample panels - Develop software - Conduct trainings
6.4 Create a national system of quality assessment for "in vitro" laboratory test-kits	Q4 2020	++	+++	MOH, MoA, FSI, ME	- Develop and approve legislation enabling laboratories to conduct quality assessment of "in vitro" test-kits - Create the roster of such laboratories
6.5 Organize cascade trainings for service engineers operating with modern laboratory equipment	Q4 2020	+++	+++	MOH, ME, MoA, FSI	- Create a roster of service engineers in all sectors - Prepare concept note identifying scope, purpose, and objectives of trainings - Conduct trainings of service engineers from all sectors and involving engineers from manufacturers of laboratory equipment
Objective 7: Institutionalization of the regular joint risk assessment system					
7.1 Create joint committee on risk assessment on the national level	Q4 2019	+	+++	MOH, ME, FSI	- Decree to develop a joint committee - Develop TOR of the committee

					- Committee to develop the framework strategy of the joint risk assessment - Adapt the methodology of the joint risk assessment (developed by WHO, OIE, FAO, 2018)
7.2 Create technical group capable to conduct the joint risk assessment	Q4 2019	++	+++	MOH, ME, FSI	- Create a technical group by the joint decree - Develop TOR of the technical group
7.3 Conduct workshop to adapt the tool (methodology) developed by WHO/OIE/FAO on joint risk assessment	Q1 2020	+++	+++	MOH, ME, FSI	- Send a request to WHO - Nominate participants - Conduct a workshop and develop recommendations

Difficulty of implementation: *Low +, Moderate ++, Very difficult +++* ***Impact:*** *Low impact +, Moderate impact ++, High impact +++*

OUTPUT 3: PRIORITIZATION RESULTS

Participants were invited to vote for the objectives they considered as the highest priority. Each participant had three votes and voted using white stickers. 50 participants participated in the vote. This prioritization showed that all topics selected in the course of the workshop were crucial to strengthen intersectoral collaboration. However, improvement of communication on priority zoonoses was selected as of the highest priority for the country.



WORKSHOP EVALUATION

An evaluation questionnaire was completed by 51 participants (Figure 7) to collect feedback on the relevance and utility of the workshop. Overall, the participants valued the workshop as very good and worth for recommendation for other countries. All workshop components such as the content, format, facilitation, and organization gained very high scores.

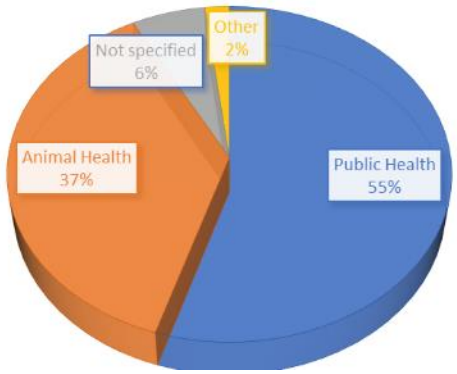


Figure 7: Answers to the question "which sector are you from?" (51 respondents)

Tables 2-5: Results of the evaluation of the event by participants (51 respondents)

Workshop evaluation	'Satisfied' or 'Fully satisfied'	Average score (/4)
Overall assessment	**100%**	**3.6**
Content	98%	3.6
Structure / Format	98%	3.6
Facilitators	100%	3.6
Organization (venue, logistics, …)	100%	3.7

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

Impact of the workshop on…	'Significant' or 'Major'	Average score (/4)
Your technical skills/knowledge	92%	3.2
The work of your unit/department	98%	3.4
The intersectoral collaboration in Armenia	88%	3.2

Participants had to choose 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
3.5	3.4	3.3	3.3	3.6	3.6	3.7

Would you recommend this workshop to other countries?	
Absolutely	78%
Probably	22%
Likely not	0%
No	0%

APPENDIX

ANNEX 1: WORKSHOP AGENDA

DAY 1	
08:30 – 09.00	Registration of participants
09.00 – 10.00	**Opening Ceremony** • Representative of the Ministries - Public Health + Agriculture (20') • Regional Representative of WHO + OIE (20') • Introduction of participants (10') • Group Picture (10') Coffee break (20')
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 concept and the subsequent tripartite OIE-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') • MOVIE 2: Driving successful interactions - Movie (25')
Lunch (12:00-13:30)	
13.30 – 17.00	**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 central and provincial 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.*	
17.00 – 18.30	**Facilitators and moderators only:** Briefing Session 3-4-5 and compilation of results from Session 2

DAY 2	
08:30 – 08:40	Feedback from day 1
08.40 –11.20	**Session 3: Bridges along the road to One Health** Session 3 presents the tools from both sectors (IHR MEF, PVS) and uses an interactiv 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 v systemic gaps and to identify which technical areas the following sessions will focu on.
	• 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 - 12:40	**Session 4: Crossroads - IHR MEF 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, 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 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, 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') • Objectives and Activities (Working groups by technical topic) (150')
Expected outcomes of Session 5: • *Clear and achievable objectives and activities are identified to improve inter-sectoral collaboration between the two sectors for all technical areas selected.* *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.	
17.15 – 19.00	**Facilitators only:** Compilation of results from Session 5 (drafting of the road-map) and preparation of Session 6
DAY 3	
09:00 – 9:10	Feedback from day 2
9:10 - 12:15	**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 road-map (90') Coffee break (15') • World Café (90') • Presentation of the prioritization vote (10') • Prioritization vote (during lunchtime)
Expected outcomes of Session 6: *Harmonized, concrete and achievable road-map.* *Buy-in and ownership of all participants who contributed to all areas of the road-map.* *Prioritization of the activities.*	
Lunch (12:15-13:30)	
13:30 - 15:30	**Session 7: Way forward** In the last session, representatives from the key Ministries take over the leadership and facilitation of the workshop to discuss with participant about the next steps and how the established roadmap will be implemented. Linkages 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.*	
15:30 - 16:30	**Closing Session** • Evaluation of the workshop (20') • Closing ceremony (40')
16.30 – 17.00	**Facilitators:** Video interview of some participants

Note: a 4-minute video explaining the different steps of the process can be viewed at the following link: www.bit.ly/NBWMethod

APPENDIX

ANNEX 2: LIST OF PARTICIPANTS

Մասնակիցների ցանկ
List of participants

Միջազգային առողջապահական կանոնները և անասնաբուժական ծառայության արդյունավետության գնահատումը կամրջող ազգային աշխատաժողով
15-17 մայիսի 2019թ., Երևան, Հայաստան

National IHR-PVS Bridging Workshop
15-17 May 2019, Yerevan, Armenia

N	Անուն, Ազգանուն Name	Կազմակերպություն, պաշտոն Organization, position	Էլ. փոստի հասցե E-mail address	Հեռախոսի համար Phone number	Ստորագրություն Signature			Համաձայնություն, որ ԱՀԿ կողմից արված լուսանկարները կարող են հրապարակվել (այո/ոչ կամ ստորագրություն համաձայնության դեպքում) Consent for sharing photos made by WHO (yes/no or signature in case of agreement)
					15.05.2019	16.05.2019	17.05.2019	
1	Եգոր Զայցև Egor Zaitsev	ԱՀԿ ներկայացուցիչ Հայաստանում WHO Representative in Armenia			—	—	—	—
2	Ջահնն Մոնտաբորդ Djahne Montabord	Կենդանիների առողջության համաշխարհային կազմակերպություն World Organisation for Animal Health	d.montabord@oie.int					
3	Մարիա Կրիստինա Դևիդ Maria Cristina David	Կենդանիների առողջության համաշխարհային կազմակերպություն World Organisation for Animal Health	c.ramirezmatus@gmail.com					
4	Զալիմխան Օմարիև Zalimkhan Omariev	Ռոսպոտրեբնադզոր, Բաժնի պետի տեղակալ, Համաճարակային հսկողության վարչություն Rospotrebnadzor, Deputy Head of Division, Department of epidemiological surveillance	OMARIEV_ZM@gsen.ru					
5	Վասիլի Եսենամանով Vasiliy Esenamanov	ԱՀԿ, տարածաշրջանային հանգուցակետ WHO, WHE, hub lead	esenamanov@who.int					
6	Արտեմ Սկրիպնիկ Artem Skrypnyk	ԱՀԿ խորհրդատու WHO Consultant						
7	Նունե Դոլյան Nune Dolyan	ԱՀԿ ՀՊ WHO CO						
8	Արտավազդ Վանյան Artavazd Vanyan	ՀՀ ԱՆ ՀՎԿԱԿ Գլխավոր տնօրեն NCDC Director General	—	—	—	—	—	—
9	Լիլիթ Ավետիսյան Lilit Avetisyan	ՀՎԿԱԿ, Գլխավոր տնօրենի տեղակալ NCDC Deputy Director General	avetisyan_0.0@yahoo.com	055536741				
10	Գաբրիել Թեփելիկյան Gabriel Tepelikyan	ԱՆ, Արտակարգ իրավիճակների և զորահավաքային բաժնի պետ MoH, Head of Emergency and mobilization unit	gabriel.tepelikyan61@mail.ru	093083669				
11	Լիանա Թորոսյան Liana Torosyan	ՀՎԿԱԿ վարակիչ հիվանդությունների համաճարակաբանության բաժնի պետ NCDC, Head of Infectious diseases epidemiology unit	liana_torosyan@mail.ru	099507883				
12	Լուսինե Պարոնյան Lusine Paronyan	ՀՎԿԱԿ փոխանցողով պայմանավորված և մակաբուծային հիվանդությունների համաճարակաբանության բաժնի պետ NCDC Head of Unit of epidemiology of transmittable and parasitic diseases	lusineparonyan@yahoo.com	09699197				
13	Կարինե Թեյմուրազյան Karine Teymurazyan	ՀՎԿԱԿ ՌԼԿ մ/6 Տնօրենի տեղակալ (բարորատոր մասով) NCDC Reference Lab, Deputy director for laboratory issues	tokaradyan@ex.ru	091-78 11-44				
14	Գայանե Մելիք-Անդրեասյան	ՀՎԿԱԿ ՌԼԿ մ/6 Տնօրենի տեղակալ (գիտական	melikandreasyan@mail.ru	091-54 91-47				

	Gayane Melik-Andreasyan	ծրագրերի կազմակերպման մասով) NCDC Reference Lab, Deputy director for educational programmes organization	091-54-94-48 melikaydzeasyan@mail.ru					
15	Էրիկ Հարությունյան Erik Harutyunyan	ՀՎԿԱԿ ՌԼԿ մ/ճ Կենսաանվտանգության և կենսապահովման հարցերով մենեջեր NCDC Reference Lab, Biosafety and livelihood manager						
16	Աշոտ Դանիելյան Ashot Danielyan	ՀՎԿԱԿ ՌԼԿ մ/ճ Որակի կառավարման հարցերով մենեջեր NCDC Reference Lab, Quality manager						
17	Հերմինե Ավետիսյան Hermine Avetisyan	ՀՎԿԱԿ «Քաղաքային կենտրոն» մ/ճ, Մանրէաբանական լաբորատորիայի վարիչ NCDC City center branch, Head of Bacteriological laboratory	hermine_avetisyan@yahoo.com					
18	Սուսաննա Նաջարյան Susanna Najaryan	ՀՎԿԱԿ «Քաղաքային կենտրոն» մ/ճ, Համաճարակաբանության բաժնի պետ NCDC City center branch, Head of Epidemiology unit	Najaryans@mail.ru	093570310				
19	Անուշ Խաչատրյան Anush Khachatryan	ՀՎԿԱԿ «Արագածոտն» մ/ճ, Մանրէաբան NCDC Aragatsotn branch, Bacteriologist		093586908				
20	Վերուշկա Թովմասյան Verushka Tovmasyan	ՀՎԿԱԿ «Արագածոտն» մ/ճ, Համաճարակաբան NCDC Aragatsotn branch, Epidemiologist		099 3800 56				
21	Մարիամ Սարգսյան Mariam Sargsyan	ՀՎԿԱԿ «Արարատ» մ/ճ, Տնօրենի տեղակալ համաճարակաբանության գծով NCDC Ararat branch, Deputy director for epidemiology issues	mariam-sarkisjan@mail.ru	0939991 60				
22	Նարինե Խաչատրյան Narine Khachatryan	ՀՎԿԱԿ «Արարատ» մ/ճ, Մանրէաբանական լաբորատորիայի վարիչ NCDC Ararat branch, Head of Bacteriological laboratory	narine.kh@mail.ru	093-32-85 58				
23	Օվսաննա Խաչատրյան Ovsanna Khachatryan	ՀՎԿԱԿ «Արմավիր» մ/ճ, Համաճարակաբան NCDC Armavir branch, Epidemiologist	K.ovsanna@mail.ru	094258010				
24	Աշխեն Այվազյան Ashkhen Ayvazyan	ՀՎԿԱԿ «Արմավիր» մ/ճ, Մանրէաբանական լաբորատորիայի վարիչ NCDC Armavir branch, Head of Bacteriological laboratory						
25	Հասմիկ Հարությունյան Hasmik Harutyunyan	ՀՎԿԱԿ «Գեղարքունիք» մ/ճ, Տնօրենի տեղակալ համաճարակաբանության գծով NCDC Gegharkunik branch, Deputy Director for epidemiology issues	gexarqunik.hvkak@mail.ru	091-67-16-08.				
26	Ռոզա Ազիզյան Roza Azizyan	ՀՎԿԱԿ «Գեղարքունիք» մ/ճ, Մանրէաբան NCDC Gegharkunik branch, Bacteriologist	roziazizyan@mail.ru	094585933				
27	Ալվարդ Բաղդասարյան Alvard Baghdasaryan	ՀՎԿԱԿ «Կոտայք» մ/ճ, Համաճարակաբան NCDC Kotayk branch, Epidemiologist	-	077-22-44-35				
28	Զարինե Մարգարյան Zarine Margaryan	ՀՎԿԱԿ «Կոտայք» մ/ճ, Մանրէաբան NCDC Kotayk branch, bacteriologist	Margaryan.Zarine@mail.ru	094202297				
29	Անահիտ Հակոբյան Anahit Hakobyan	ՀՎԿԱԿ «Լոռի» մ/ճ, Համաճարակաբան NCDC Lori branch, Epidemiologist	hvnahvanadzor@mail.ru	098045358				
30	Նելլի Առաքելյան Nelly Arakelyan	ՀՎԿԱԿ «Լոռի» մ/ճ, Մանրէաբան NCDC Lori branch, Bacteriologist	nelliarakelyan180@gmail.com	091-74-8299				
31	Արմինե Անդրյան Armine Andryan	ՀՎԿԱԿ «Շիրակ» մ/ճ, Համաճարակաբան NCDC Shirak branch, Epidemiologist	anarmine@mail.ru	094221297				
32	Հայաստան Մարտիրոսյան Hayastan Martirosyan	ՀՎԿԱԿ «Շիրակ» մ/ճ, Մանրէաբան NCDC Shirak branch, Bacteriologist		093222690				

		specialist of veterinary unit						
42	Գեորգի Ավետիսյան Georgy Avetisyan	Սննդամթերքի անվտանգության տեսչական մարմնի ղեկավար Head of Food Safety Inspection Body						
43	~~Արմեն Գալստյան~~ ~~Armen Galstyan~~ [illegible]	Սննդամթերքի անվտանգության տեսչական մարմին, Երևանի կենտրոնի երրորդ բաժնի պետ Food Safety Inspection Body, Head of 3rd Unit of Yerevan center	manuel.meliqyan@mail.ru	077344533	[signature]	[signature]	[signature]	[signature]
44	Արթուր Մելիքյան Arthur Melikyan	Սննդամթերքի անվտանգության տեսչական մարմին, Անասնաբուժության տեսչության պետի տեղակալ Food Safety Inspection Body, Deputy head of Veterinary inspectorate	arthurmelikyan@mail.ru	093-706-17	[signature]	[signature]	[signature]	[signature]
45	Հովիկ Բատիկյան Hovik Batikyan	Սննդամթերքի անվտանգության տեսչական մարմին, Անասնաբուժության տեսչության գլխավոր մասնագետ Food Safety Inspection Body, Chief specialist of Veterinary inspectorate	Hovo88-73@mail.ru	099088786	[signature]	[signature]	[signature]	[signature]
46	Արման Գևորգյան Arman Gevorgyan	«Հանրապետական անասնաբուժասանիտարական և բուսասանիտարական լաբորատոր ծառայությունների կենտրոն» ՊՈԱԿ-ի տնօրեն Republican Veterinary-Sanitary and Phytosanitary Laboratory Services Center SNCO, Director	a.k.gevorgyan@rsfs.am	091011912	[signature]	—	[signature]	[signature]
47	Արմենուհի Ավագյան Armenuhi Avagyan	«Հանրապետական անասնաբուժասանիտարական և բուսասանիտարական լաբորատոր ծառայությունների կենտրոն» ՊՈԱԿ-ի տնօրենի տեղակալ Republican Veterinary-Sanitary and Phytosanitary Laboratory			—	—	—	—

33	Ռիտա Ջհանգիրյան Rita Jhangiryan	ՀՎԿԱԿ «Սյունիք» մ/ճ, Տնօրենի տեղակալ լաբորատոր գծով NCDC Syunik branch, Deputy director for laboratory issues	ritajhangiryan@mail.ru	093169866	[signature]	[signature]	[signature]	[signature]
34	Նունե Օհանջանյան Nune Ohanjanyan	ՀՎԿԱԿ «Սյունիք» մ/ճ, Համաճարակաբան NCDC Syunik branch, Epidemiologist	nune.ohanjanyan@mail.ru	094002015	[signature]	[signature]	[signature]	[signature]
35	Գայանե Մարտիրոսյան Gayane Martirosyan	ՀՎԿԱԿ «Տավուշ» մ/ճ, Համաճարակաբան NCDC Tavush branch, Epidemiologist	gayanemartirosyan@mail.ru	093.75-66-08	[signature]	[signature]	[signature]	[signature]
36	Վարդինե Մեհրաբյան Vardine Mehrabyan	ՀՎԿԱԿ «Տավուշ» մ/ճ, Մանրէաբան NCDC Tavush branch, Bacteriologist	vardinemehrabyan@mail.ru	077132869	[signature]	[signature]	[signature]	[signature]
37	Իրինա Ալեքսանդրիդի Irina Aleksandridi	ՀՎԿԱԿ «Վայոց Ձոր» մ/ճ, Տնօրենի տեղակալ լաբորատոր գծով NCDC Vayots Dzor branch, Deputy director for laboratory issues	alegsandridi@rambler.ru	094221378 093221378	[signature]	[signature]	[signature]	[signature]
38	Բյուրեղ Ծերունյան Byuregh Tserunyan [illegible]	ՀՎԿԱԿ «Վայոց Ձոր» մ/ճ, Համաճարակաբան NCDC Vayots Dzor branch, Epidemiologist	[illegible]	093887238	[signature]	[signature]	[signature]	[signature]
39	Մելանյա Կարապետյան Melanya Karapetyan	Գյուղատնտեսության նախարարություն, Անասնաբուժության բաժնի պետ Ministry of Agriculture, Head of Veterinary unit			—	—	—	—
40	Անուշ Աբրահամյան Anush Abrahamyan	Գյուղատնտեսության նախարարություն, Անասնաբուժության բաժնի գլխավոր մասնագետ Ministry of Agriculture, Chief specialist of veterinary unit	abrahamyananna@yahoo.com	094503084	[signature]	[signature]	[signature]	[signature]
41	Տաթևիկ Սարգսյան Tatevik Sargsyan	Գյուղատնտեսության նախարարություն, Անասնաբուժության բաժնի առաջատար մասնագետ Ministry of Agriculture, Leading			—	—	—	—

		Services Center SNCO, Deputy director						
48	Պերճ Թումանյան Perch Tumanyan	«Հանրապետական անասնաբուժասանիտարական և բուսասանիտարական լաբորատոր ծառայությունների կենտրոն» ՊՈԱԿ-ի Հատուկ վտանգավոր ախտածինների ռեֆերենս լաբորատորիայի ղեկավար Republican Veterinary-Sanitary and Phytosanitary Laboratory Services Center SNCO, Head of Especially dangerous pathogens reference laboratory	tumanyanp@gmail.com	093131695				
49	Հրանտ Դանիելյան Hrant Danielyan	«Հանրապետական անասնաբուժասանիտարական և բուսասանիտարական լաբորատոր ծառայությունների կենտրոն» ՊՈԱԿ-ի Հատուկ վտանգավոր ախտածինների ռեֆերենս լաբորատորիայի ղեկավարի տեղակալ, Գճաբանական և մոլեկուլար հետազոտությունների բաժնի պետ Republican Veterinary-Sanitary and Phytosanitary Laboratory Services Center SNCO, Deputy head of Especially dangerous pathogens reference laboratory, Head of serology and molecular research unit			—	—	—	—
50	Վահան Հովհաննիսյան Vahan Hovhannisyan	«Հանրապետական անասնաբուժասանիտարական և բուսասանիտարական լաբորատոր ծառայությունների կենտրոն» ՊՈԱԿ-ի Հատուկ վտանգավոր ախտածինների ռեֆերենս լաբորատորիայի գլխավոր մասնագետ –			—	—	—	—

		Ամուշաոող Republican Veterinary-Sanitary and Phytosanitary Laboratory Services Center SNCO, Especially dangerous pathogens reference laboratory, chief specialist - sampler						
51	Սաթենիկ Խառատյան Satenik Kharatyan	"Սննդամթերքի անվտանգության դրսրսի ռիսկերի գնահատման և վերլուծության գիտական կենտրոն" ՊՈԱԿ-ի մոլեկուլար կենսաբանության և շճաբանության բաժնի վարիչ Food Safety Risk Assessment and Analysis Scientific Center SNCO, Head of Molecular biology and serology unit	satenik.kharatyan@mail.ru	091728044				
52	Արմենակ Համբարձումյան Armenak Hambardzumyan	Սննդամթերքի անվտանգության տեսչական մարմին, Արարատի մարզային կենտրոնի պետ Food Safety Inspection Body, Head of Ararat marz center	a.hambardzumyan1984@mail.ru	093-58-20-84				
53	Անդրանիկ Ներսիսյան Andranik Nersisyan	Սննդամթերքի անվտանգության տեսչական մարմին, Արարատի մարզային կենտրոնի գլխավոր մասնագետ-տեսուչ Food Safety Inspection Body, Chief specialist-inspector of Ararat marz center	andranik.n.1986@mail.ru	094-83-60-45				
54	Ալեքսան Մկրտչյան Aleksan Mkrtchyan	Սննդամթերքի անվտանգության տեսչական մարմին, Արմավիրի մարզային կենտրոնի պետ Food Safety Inspection Body, Head of Armavir marz center	aleqsan.m@mail.ru	055340018				
55	Լիլիթ Մարտիրոսյան Lilit Martirosyan	Սննդամթերքի անվտանգության տեսչական մարմին, Արմավիրի մարզային կենտրոնի գլխավոր մասնագետ-տեսուչ	lilit.martirosyan.80@mail.ru	094888161				

		Food Safety Inspection Body, Chief specialist-inspector of Armavir marz center						
56	Գևուշ Նազարյան Gevush Nazaryan	Սննդամթերքի անվտանգության տեսչական մարմին, Արագածոտնի մարզային կենտրոնի պետ Food Safety Inspection Body, Head of Aragatsotn marz center						
57	Օհան Խաչատրյան Ohan Khachatryan	Սննդամթերքի անվտանգության տեսչական մարմին, Արագածոտնի մարզային կենտրոնի գլխավոր մասնագետ-տեսուչ Food Safety Inspection Body, Chief specialist-inspector of Aragatsotn marz center						
58	Կամո Սողոյան Kamo Soghoyan	Սննդամթերքի անվտանգության տեսչական մարմին, Լոռու մարզային կենտրոնի պետ Food Safety Inspection Body, Head of Lori marz center						
59	Ռոբերտ Պողոսյան Robert Poghosyan	Սննդամթերքի անվտանգության տեսչական մարմին, Լոռու մարզային կենտրոնի գլխավոր մասնագետ-տեսուչ Food Safety Inspection Body, Chief specialist-inspector of Lori marz center						
60	Արթուր Խաչատրյան Arthur Khachatryan	Սննդամթերքի անվտանգության տեսչական մարմին, Սյունիքի մարզային կենտրոնի պետ Food Safety Inspection Body, Head of Syunik marz center						
61	Նունուֆար Խաչատրյան Nunufar Khachatryan	Սննդամթերքի անվտանգության տեսչական մարմին, Սյունիքի մարզային կենտրոնի գլխավոր մասնագետ-տեսուչ Food Safety Inspection Body, Chief specialist-inspector of						

		Syunik marz center						
62	Վասիլ Գալստյան Vasil Galstyan	Սննդամթերքի անվտանգության տեսչական մարմին, Տավուշի մարզային կենտրոնի պետ Food Safety Inspection Body, Head of Tavush marz center						
63	Արարատ Շահնազարյան Ararat Shahnazaryan	Սննդամթերքի անվտանգության տեսչական մարմին, Տավուշի մարզային կենտրոնի գլխավոր մասնագետ-տեսուչ Food Safety Inspection Body, Chief specialist-inspector of Tavush marz center						
64	Արշակ Էլիգբարյան Arshak Elizbaryan	Սննդամթերքի անվտանգության տեսչական մարմին, Գեղարքունիքի մարզային կենտրոնի պետ Food Safety Inspection Body, Head of Gegharkunik marz center						
65	Սամվել Ասլանյան Samvel Aslanyan	Սննդամթերքի անվտանգության տեսչական մարմին, Գեղարքունիքի մարզային կենտրոնի գլխավոր մասնագետ-տեսուչ Food Safety Inspection Body, Chief specialist-inspector of Gegharkunik marz center						
66	Հովիկ Ավագյան Hovik Avagyan	Սննդամթերքի անվտանգության տեսչական մարմին, Վայոց Ձորի մարզային կենտրոնի պետ Food Safety Inspection Body, Head of Vayots Dzor marz center						
67	Մեսրոպ Մելքոնյան Mesrop Melkonyan	Սննդամթերքի անվտանգության տեսչական մարմին, Վայոց Ձորի մարզային կենտրոնի գլխավոր մասնագետ-տեսուչ Food Safety Inspection Body, Chief specialist-inspector of						

		Vayots Dzor marz center						
68	Դավիթ Ղազարյան Davit Ghazaryan	Սննդամթերքի անվտանգության տեսչական մարմին, Կոտայքի մարզային կենտրոնի պետ Food Safety Inspection Body, Head of Kotayk marz center	d.ghazaryan.sis@	093004488				
69	Գուրգեն Ազիզյան Gurgen Azizyan	Սննդամթերքի անվտանգության տեսչական մարմին, Կոտայքի մարզային կենտրոնի գլխավոր մասնագետ-տեսուչ Food Safety Inspection Body, Chief specialist-inspector of Kotayk marz center	g_azizyan@mail.ru	093094904				
70	Տիգրան Եսայան Tigran Yesayan	Սննդամթերքի անվտանգության պետական ծառայության միջազգային համագործակցության վարչության պետ Food Safety Inspection Body, Head of International cooperation department	tigranyesayan@mail.ru	091722203				
71	Էլվիրա Միրզոյան Elvira Mirzoyan	Սննդամթերքի անվտանգության պետական ծառայության պետի խորհրդական Food Safety Inspection Body, Adviser to the Head						
72	Աննա Հարությունյան, Anna Harutyunyan	ԱՄՆ ՊԴ վտանգների նվազեցման գրասենյակ, նախագծերի օգնական Defense Threat Reduction Office, Project Assistant	harutyunyanas@state.gov		—			Yes.
73	Սուսաննա Եղիազարյան Susanna Yeghiazaryan	ԱՄՆ ՊԴ վտանգների նվազեցման գրասենյակ, ծրագրերի օգնական Defense Threat Reduction Office, Program Assistant	YeghiazaryanSG@state.gov	49-40-35		—	—	—
74	Հասմիկ Կարապետյան Hasmik Karapetyan	Թարգմանիչ Translator	hkarapetyan@gmail.com	091 33 78 73				Yes
75	Գայանե Սիմոնյան Gayane Simonyan	Թարգմանիչ Translator	gayanes.monyan@mail.ru	091 38 7262				Yes
	Gayane Petrosian, ret. doctor(private clinic)			093353225				—


WORLD ORGANISATION FOR ANIMAL HEALTH
Protecting animals, preserving our future
Terrestrial Animal Health Code
2017
PVS Pathway
OIE Tool for the evaluation of Performance of Veterinary Services
OIE PVS Tool
Manual of the Assessor
Volume 1
2011
INTERNATIONAL HEALTH REGULATIONS
(2005)
THIRD EDITION
World Health Organization