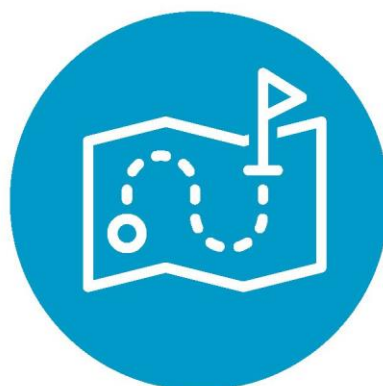


Workshop Report

Joint Risk Assessment Operational Tool for Zoonotic Diseases in Ukraine

29–31 August 2023
Ivano-Frankivsk region, Ukraine





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Abstract

Following a Joint External Evaluation of implementation of the International Health Regulations in Ukraine, a workshop was arranged that led to the identification of 10 priority zoonotic diseases. Representatives from a number of key stakeholders, including government ministries, nongovernmental organizations and veterinary services, then attended a 3-day follow-up event, which resulted in next steps being agreed for undertaking future Joint Risk Assessments in Ukraine. This report details the workshop process and outcomes.

Keywords

One Health
Concept
Public health
Assessment
Risk

Document number: WHO/EURO:2023-8214-47982-71039

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Abbreviations

CO	Country Office
FAO	Food and Agriculture Organization of the United Nations
IHR	International Health Regulations
JEE	Joint External Evaluation
JRA	Joint Risk Assessment
JRA OT	Joint Risk Assessment Operational Tool
MoAPF	Ministry of Agrarian Policy and Food
MoH	Ministry of Health
NGO	nongovernmental organization
PHC	Public Health Centre
SSRILDVSE	State Scientific Research Institute on Laboratory Diagnostic and Veterinary and Sanitary Expertise
SSUFSCP	State Service of Ukraine on Food Safety and Consumer Protection
UNEP	United Nations Environment Programme
WOAH	World Organization for Animal Health

Executive summary

A 2021 Joint External Evaluation (JEE) of Ukraine's implementation of the International Health Regulations (IHR) recommended implementation of One Health and all-hazards approaches across ministries, sectors and stakeholders. Furthermore, a recently adopted Law of Ukraine on the Public Health System introduced a comprehensive One Health approach that should lead to better communication between the health service, the veterinary service and food safety authorities.

In March 2023, Ukraine conducted a One Health zoonotic disease prioritization workshop and prioritized 10 zoonotic diseases using the multisectoral One Health approach. A Joint Risk Assessment (JRA) Operational Tool (JRA OT) workshop then proved pivotal in offering a 10-step approach to creating a system for conducting qualitative JRAs for the prioritized zoonotic diseases.

The JRA OT workshop brought together representatives of key national One Health stakeholders, including the Ministry of Health (MoH), Ministry of Agrarian Policy and Food (MoAPF), the Public Health Centre (PHC) of the MoH, the State Service of Ukraine on Food Safety and Consumer Protection (SSUFSCP), scientific research institutions, nongovernmental organizations (NGOs) and veterinary faculties. The engagement of these sectors epitomized the inclusive spirit of the One Health approach.

The 3-day workshop was preceded by a coordination meeting for national facilitators from the MoAPF, the PHC and the SSUFSCP, and co-facilitated by a team from WHO headquarters, WHO European Region and the WHO Country Office (CO) in Ukraine.

The workshop resulted in agreement on next steps necessary to conducting JRAs in Ukraine using the One Health approach. Actions proposed by the attending groups included strengthening the political will and institutional set-up for conducting JRAs; strengthening the legal framework for conducting JRAs; providing training and education to key staff on the JRA methodology; establishing and formalizing a multisectoral One Health coordination mechanism; and preparing a register of trained JRA experts.

Background

In 2021 Ukraine underwent a JEE to assess its IHR core capacities. The JEE team recognized the Ukrainian Government's commitment and leadership in building effective public health and security systems. However, the JEE findings highlighted the need to review, update and streamline legislation and guidelines for zoonotic diseases in the areas of human and animal health and food safety. It was recommended that this process should align with national priorities, enhanced multisectoral operations, international guidelines and the Ukraine–European Union Association Agreement. Disparate surveillance systems for zoonotic diseases across various sectors should be reviewed, with a long-term goal of developing an interoperable information system/platform for automated exchange between laboratories and surveillance systems. Immediate actions were agreed to be necessary to improve information-sharing and cooperation across sectors.

The JEE report advised implementing One Health and all-hazards approaches across government, sectors and ministries. Cross-sectoral collaboration is needed for risk assessment and reporting, as well as the development and implementation of Standard Operating Procedures at all levels and sectors. The JEE report suggested planning multisectoral exercises for risk assessment and reporting, organizing regular intersectoral meetings for information exchange and joint assessments, addressing training needs (veterinary and public health professionals), and developing One Health programmes to improve collaboration.

Furthermore, the recently adopted Law of Ukraine on the Public Health System introduces a comprehensive One Health approach that should lead to better communication between the health service, the veterinary service and food safety authorities. It also has a clear provision to develop and operate the exchange of information on cases of infectious diseases common to animals and humans between the agencies and institutions of veterinary medicine and public health institutions.

Multidisciplinary and multisectoral collaboration in accordance with the One Health approach is necessary for the effective preparedness for, detection and assessment of, and response to emerging and endemic zoonoses and other health threats at the human-animal-environment interface, including zoonotic diseases, antimicrobial resistance and food safety. Activities to identify, assess, manage and reduce risks from zoonotic diseases benefit from coordination and collaboration between ministries and other agencies responsible for various aspects of human health, animal health and the environment.

Sector-specific risk assessments are important for the human health, animal health and environment sectors to manage risks within their sectoral context, perspectives, priorities and mandates – for example, whether additional hospital beds are needed or whether to tighten control on animal movement. These sector-specific assessments are essential and should take place for all zoonotic disease events and threats.

However, for health concerns at the human-animal-environment interface, multiple sectors and disciplines must work together. This applies to risk assessments and in relation to preparedness surveillance, response and many other aspects of national health systems. Bringing together national information and expertise from all relevant sectors for the joint assessment of health risks from zoonotic disease allows all sectors, acting together, to evaluate fully, understand and manage shared risks at the human-animal-environment interface with coordinated risk-management interventions.

In March 2023 Ukraine conducted a One Health zoonotic disease prioritization workshop. Participants prioritized a list of 10 zoonotic diseases of greatest concern using a multisectoral One Health approach, with equal input from representatives of human and animal (domestic and wildlife) health sectors and other relevant partners.

The JRA OT workshop was a follow-up that offered decision-makers and technical experts from key national stakeholders a 10-step approach to conducting qualitative joint risk assessments for prioritized zoonotic diseases. Results of the JRA process in Ukraine can be used to support policy development, communication,

risk mitigation, and improved planning and preparedness for outbreaks of zoonotic diseases, contributing to health security at the sub-national and national level.

Methodology

The JRA process is divided into four modules and 10 steps (Fig. 1).

Fig. 1. JRA modules and steps

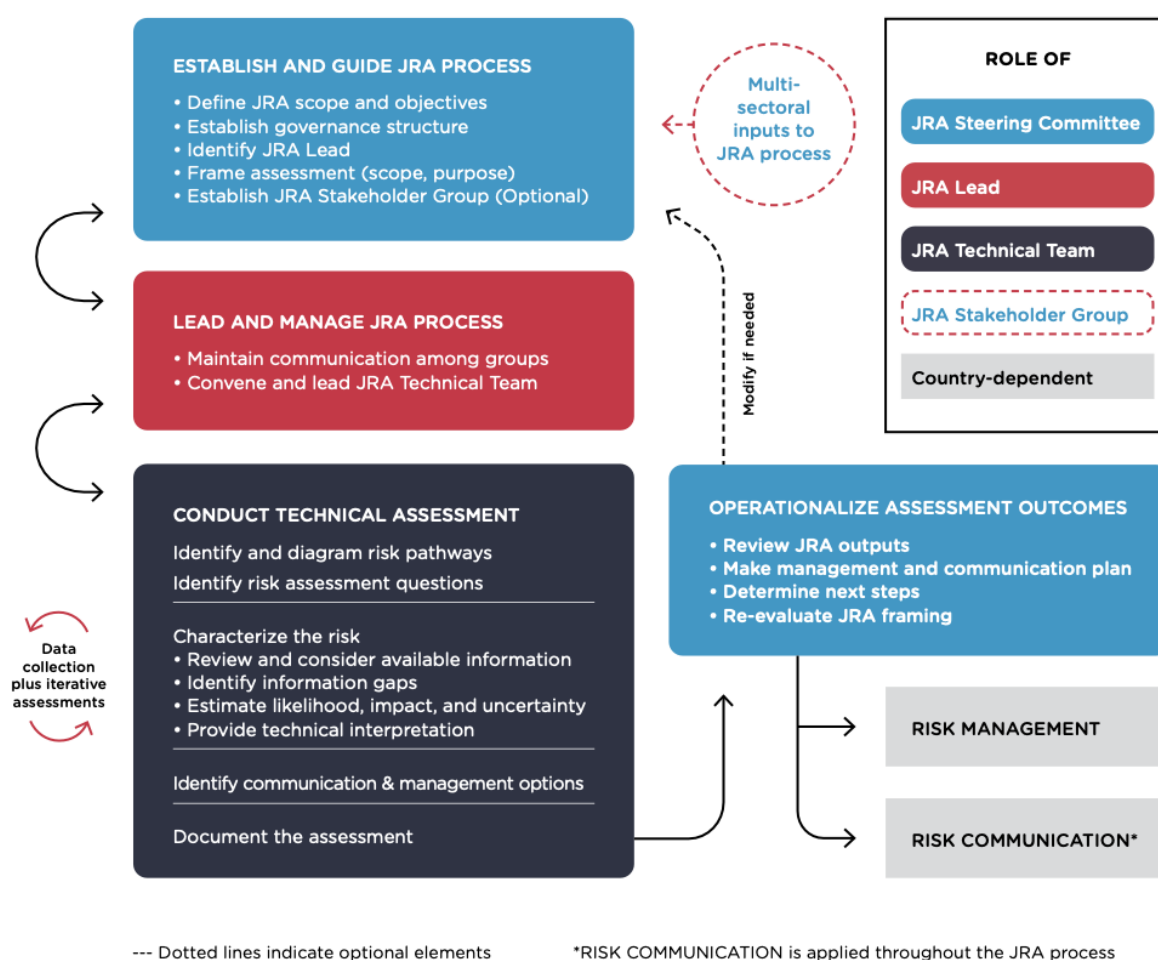
Required steps are shown in red; recommended steps in black



Risk comprises two components: likelihood (probability) and impact (consequences), and each element includes a measure of uncertainty. The risk assessment considers likelihood, impact and associated uncertainty for one or more risk-assessment questions associated with a specific event or hazard.

This JRA is a qualitative risk assessment. It is possible to conduct it rapidly, without the need for large quantities of validated quantitative data or specialized mathematical skills. The JRA process is shown in the Fig 2.

Fig. 2. Tasks and flow of the iterative JRA process



Joint Risk Assessment Operational Tool implementation

An online coordination meeting with national facilitators took place before the JRA OT workshop and it was agreed that four prioritized zoonotic diseases would be considered at the JRA workshop: anthrax, tularemia, rabies, salmonellosis.

On 28 August 2023, a meeting with four national facilitators from the MoAPF, the PHC and the SSUFSCP was held to plan for the JRA OT workshop and to go through the workshop materials.

There were 40 participants at the workshop, representing key One Health national stakeholders:

- the MoH;
- the MoAPF;
- the PHC;
- the SSUFSCP (national and regional levels);
- the State Scientific Research Institute on Laboratory Diagnostic and Veterinary and Sanitary Expertise (SSRILDVSE);
- the One Health Institute NGO; and
- the Veterinary Faculty of Bila Tserkva National Agrarian University.

The workshop followed a stepwise approach, presenting four modules followed by practical group work and use of the JRA OT (the workshop agenda is shown in Annex 1). After a short introduction to the JRA concept and tool, and the risk framing completed by the national facilitators, participants were split into four groups. Each group had equal representation from animal and public health sectors and dealt with one of the selected priority zoonotic diseases (anthrax, tularemia, rabies, salmonellosis). The groups were asked to start by drafting the risk pathways for their priority zoonoses, including all possible routes of transmission of the selected diseases.

Once the risk pathways were agreed, the groups formulated one or two risk assessment questions based on the most significant routes of infection (Annex 2). They then characterized the likelihood and impact and assigned uncertainties for each of the risk questions (Annex 3). At the end of the workshop, the groups presented the results of their risk assessments and proposed different risk-management options, including risk-communication activities, for consideration by risk managers in their respective ministries and agencies as well as collectively. The groups also identified needs for information and data necessary to support the risk assessments.

Next steps and conclusions

After the groups presented their JRAs, they were asked to discuss next steps for completing the four preliminary risk assessments conducted during the workshop, as well as broader aspects and actions that could be taken to institutionalize and strengthen JRAs in Ukraine.

Some commonalities in the actions proposed by the groups were to:

- strengthen the political will and institutional setup for conducting JRAs;
- strengthen the legal framework for conducting JRAs;
- conduct JRAs for all prioritized zoonotic diseases;
- provide training and education to key staff on the JRA methodology;
- establish and formalize a multisectoral One Health coordination mechanism; and
- prepare a register of trained JRA experts.

During the final plenary discussion, workshop participants (listed in Annex 4) suggested formalizing a steering committee of high-level government representatives to strengthen multisectoral coordination for One Health issues and to establish an intersectoral working group. This would consist of technical staff responsible for addressing health issues at the animal-human-environment interface and would conduct JRAs for other priority zoonotic diseases as identified during the earlier zoonotic disease prioritization workshop. The support of WHO and other quadripartite partners (the Food and Agriculture Organization of the United Nations (FAO), the United Nations Environment Programme (UNEP) and the World Organization for Animal Health (WOAH)) may be needed for this.

Annex 1. Workshop agenda

AGENDA

Workshop on joint risk assessment (JRA) for zoonotic diseases for Ukraine

August 28–31 2023

Radisson Blu Resort, Yaremche city, Ivano-Frankivsk region, Ukraine

Facilitator training JRA Day 0 – Monday, 28 August 2023

Time	Agenda item	In-country facilitator
10.00–10.15	<ul style="list-style-type: none"> • Introductions • Hand out printed materials 	Peter HOEJSKOV Dilys MORGAN
10.15–11.15	<ul style="list-style-type: none"> • Module 0: Principles of JRA, context and development of the tool, piloting process 17 mins • Discussion and questions • Introduction to the role of national facilitators in the JRA Workshop 	
11.15–11.45	<i>Coffee break</i>	
11.45–12.15	<ul style="list-style-type: none"> • Module 1: Setting up the JRA 13 mins • Discussion and questions 	
12.15–13.00	<ul style="list-style-type: none"> • Module 2: Risk framing 7 mins • Presentation of the framework of the country assessment 10 mins • Risk framing discussion/presentation • Discussion and questions 	
13.00–14.00	<i>Lunch</i>	
14.00–15.00	<ul style="list-style-type: none"> • Module 3A: Conducting the JRA: risk pathways 11 mins • Discussion and questions 	
15.00–15.30	<i>Coffee break</i>	
15.30–16.30	<ul style="list-style-type: none"> • Module 3B: Conducting the JRA: risk questions, risk characterization 15 mins • Discussion and questions 	
16.30–17.30	<ul style="list-style-type: none"> • Module 4: Technical interpretation, management and communication options, report, operationalization 7 mins • Discussion and questions 	
17.30–18.00	<ul style="list-style-type: none"> • Highlight key points from Day 0 • Direct facilitators to lead 4–6 groups/breakout rooms (fewer than 10 people – multisectoral participants per group if possible, potentially based on region) • Preparation for the next day: assign notetakers for each group, presentation makers, and group leads/presenters • Closing • Facilitators' planning meeting 30 mins 	WHO, FAO

JRA Day 1 – Tuesday, 29 August 2023

Time	Agenda Item	Facilitators in training
9.00–9.30	<ul style="list-style-type: none"> Welcome and introduction to JRA workshop: <ul style="list-style-type: none"> WHO CO in Ukraine Guillaume SIMONIAN (online) WHO Regional Office for Europe Peter HOEJSKOV FAO 	Peter HOEJSKOV Olena KURIATA
9.30–10.30	<ul style="list-style-type: none"> Module 0: Principles of JRA, context and development of the tool, piloting process 17 mins Discussion and questions 	Peter HOEJSKOV, WHO Regional Office for Europe
10.30–10.45	<ul style="list-style-type: none"> Sharing of JRA PowerPoint templates and report templates, dividing participants into groups 	
10.45–11.15	<i>Coffee break, group photo</i>	
11.15–11.45	<ul style="list-style-type: none"> Module 1: Setting up the JRA 13 mins Discussion and questions 	Nataliia AKULSHYNA, PHC
11.45–12.30	<ul style="list-style-type: none"> Module 2: Risk-framing 7 mins Presentation of the framework of the country assessment 10 mins x 2 RF discussion/presentation of RF Discussion and questions 	Svitlana SHLAPATSKA, SSUFSCP
12.30–13.30	<i>Lunch</i>	
13.30–14.30	<ul style="list-style-type: none"> Module 3A: Conducting the JRA: risk pathways 11 mins Module 3B: Conducting the JRA: risk questions, risk characterization 15 mins Discussion and questions 	Lina TOLSTOVA, PHC
14.30–15.00	<i>Coffee break</i>	
15.00–16.30	<ul style="list-style-type: none"> Group work for Module 3A: Risk pathways 	All national facilitators
16.30–17.30	<ul style="list-style-type: none"> Highlight key points from Day 1 Preparation for next day Closing 	Peter HOEJSKOV Dilys MORGAN

JRA Day 2 – Wednesday, 30 August 2023

Time	Agenda item	Facilitators in training
9.00–9.30	<ul style="list-style-type: none"> • Welcome and introduction to JRA Workshop Day 2 • Review of JRA Modules and Steps, recap of Day 1 and risk assessment questions 	Lina TOLSTOVA, Public Health Center
9.30–10.30	<ul style="list-style-type: none"> • Report out on risk pathways • Discussion and questions 	Lina TOLSTOVA, Public Health Center
10.30–11.00	<i>Coffee break</i>	
11.00–12.30	<ul style="list-style-type: none"> • Brief review of Module 3B: Conducting the JRA: risk questions, risk characterization 15 mins • Discussion and questions • Group work for Module 3B: Risk questions, risk characterization 	<p>Brief overview – Svitlana SHLAPATSKA, SSUFSCP</p> <p>Group work – all national facilitators</p>
12.30–13.30	<i>Lunch</i>	
13.30–14.30	<ul style="list-style-type: none"> • Group work (continued) for Module 3B: Risk questions, risk characterization 	All national facilitators
14.30–15.00	<i>Coffee break</i>	
15.30–16.30	<ul style="list-style-type: none"> • Module 4: Technical interpretation, management and communication options, report, operationalization 7 mins • Discussion and questions • Group work continued as needed for Module 3B and Module 4 	Volodymyr ZASKSLETA, MoAPF
16.30–17.00	<ul style="list-style-type: none"> • Highlight key points from Day 2 • Preparation for next-day report outs to the Steering Committee • Closing 	<p>Peter HOEJSKOV</p> <p>Dilys MORGAN</p>

JRA Day 3 – Thursday, 31 August 2023

Time	Agenda Item	National facilitators in training
9.00–9.30	<ul style="list-style-type: none"> • Welcome and introduction to JRA Workshop Day 3 • Brief review of the JRA process and work accomplished on Days 1 and 2 	
9.30–10.30	<ul style="list-style-type: none"> • Group work to finalise JRA report and group presentations 	All national facilitators
10.30–11.00	<i>Coffee break</i>	
11.00–12:30	<ul style="list-style-type: none"> • Facilitated discussion on next steps for JRA in country. Key points noted for the Steering Committee report out after lunch 	All national facilitators
12.30–13.30	<i>Lunch</i>	
13.30–15.00	<ul style="list-style-type: none"> • Group presentations for Steering Committee - Question and answer session • Report out to Steering Committee 	All national facilitators
15.00–15.30	<i>Coffee break</i>	
15.30–16.30	<ul style="list-style-type: none"> • Closing remarks from WHO: <ul style="list-style-type: none"> - Jarno HABICHT, WHO representative in Ukraine (physical) - Peter HOEJSKOV, WHO EURO • Closing remarks from national stakeholders 	

Annex 2. Risk questions

Disease/facilitator	Team	Risk questions
Rabies/ Nataliia AKULSHYNA	Head – Ivan VASKIV Secretary – Iryna KYSLIAK Olena NESTOTSKA Oleksandra HLUZD Ihor HUZAR Liudmyla STASENKO	1. What is the likelihood and impact of human infection with rabies virus as a result of contact with a wild animal in rural Ukraine in the next 6 months? 2. What is the likelihood and impact of human infection with rabies virus as a result of contact with domestic animals in the population of Ukraine in the next 6 months?
Tularemia/ Lina TOLSTOVA	Head – Anton FABISH Secretary – Vitalii UKHOVSKYI Anton HERYLOVYCH Valentyna MITINA Taras TSARENKO Vitalii MARTYNIUK	1. What is the likelihood and impact of tularemia infection of workers at the grain storage in the Volyn region in September–October 2023? 2. What is the likelihood and impact of mass infection of the military contingent of the Ukrainian defence forces in the south of Zaporizhzhia region in the autumn of 2023 as a result of the use of biological weapons with delivery of the tularemia pathogen through infected mouse-like rodents?
Salmonellosis/ Svitlana SHLAPATSKA	Head – Oleksiy KLYMENOK Secretary – Alina KOVALCHUK Roman MATVIICHUK Halyna ROMANKO Yuliia KHYZHNA Nataliia KURIATA	1. What is the likelihood and impact of human outbreaks of <i>S. Typhimurium</i> in the UK following consumption of products made from fresh poultry meat exported from Ukraine under the current salmonellosis control system in Ukraine over the next 3 years? 2. What is the probability and impact of human outbreaks caused by <i>S. Enteritidis</i> in Ukraine due to consumption of raw eggs under the current salmonellosis control system in Ukraine over the next 3 years?
Anthrax/ Volodymyr ZASKALETA	Head – Mykola TIBEZH Secretary – Vasyl YATSYNYK Valentyna LEVCHENKO Oksana BILONYK Dmytro BOHACH Tamara MOSHAK	1. What is the likelihood and impact of anthrax cases among people and animals as a result of the explosion of the Kakhovka hydroelectric power plant dam in the flooded areas of Kherson, Mykolaiv and Odesa regions, as well as the drained areas of Kherson, Dnipro and Zaporizhzhia regions, within 6 months? 2. What is the probability and impact of anthrax cases among humans and animals as a result of hostilities related to the armed aggression of the Russian Federation in the settlements of Sumy, Chernihiv, Kyiv, Kharkiv, Zaporizhzhia, Dnipro, Luhansk, Donetsk, Mykolaiv and Kherson regions within 6 months?

Annex 3. Risk characterization

Probability of occurrence	Level of probability uncertainty	Impact assessment	Level of impact uncertainty	Graphical representation of estimates																														
Rabies																																		
What is the likelihood and impact of human infection with rabies virus as a result of contact with a wild animal in rural Ukraine in the next 6 months?																																		
Moderate	Low	Moderate	Low	<table> <tr> <td>Висока</td><td></td><td></td><td></td><td></td></tr> <tr> <td>Помірна</td><td></td><td></td><td></td><td></td></tr> <tr> <td>Низька</td><td></td><td></td><td></td><td></td></tr> <tr> <td>Незначна</td><td></td><td></td><td></td><td></td></tr> <tr> <td></td><td>Нехтовно малий</td><td>Незначний</td><td>Помірний</td><td>Тяжкий</td></tr> <tr> <td colspan="5">Вплив</td></tr> </table>	Висока					Помірна					Низька					Незначна						Нехтовно малий	Незначний	Помірний	Тяжкий	Вплив				
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Вплив																																		

Annex 4. Registered participants

No	Name	Role	Organisation/affiliation
1	Nataliia AKULSHYNA	National facilitator	Public Health Center
2	Vitalii BASHYNSKYI	Advisor	FAO
3	Oksana BILONYK	Participant	Public Health Center
4	Dmytro BOHACH	Participant	MoAPF
5	Anton FABISH	Participant	Public Health Center
6	Volodymyr GEMBROVICH	Interpreter	Contracting
7	Anton HERYLOVYCH	Advisor	NGO One Health Institute
8	Oleksandra HLUZD	Participant	Public Health Center
9	Peter HOJESKOV	Facilitator	WHO Regional Office for Europe
10	Oleksandr HRYNZOVSKYI	Observer/note-taker	WHO Country Office in Ukraine
11	Ihor HUZAR	Participant	Regional SSUFSCP
12	Yuliia KHYZHNA	Participant	Public Health Center
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Document number: WHO/EURO:2023-8214-47982-71039

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