





ECDC MEETING REPORT

ECDC Train-the-trainer workshop for Western Balkans on raising awareness for the prevention of Legionnaires' disease associated with touristic accommodation sites

13–14 September 2022, Podgorica, Montenegro



1 Background

One of the key objectives of the European Legionnaires' disease Surveillance Network (ELDSNet) Travel-associated Legionnaires' disease (TALD) surveillance scheme is to reduce possible *Legionella* risks at accommodation sites through the detection of TALD clusters and formulating response strategies to them. The national public health authorities responding to the ELDSNet notification alerts implement control and prevention measures.

With the aim of raising awareness for *Legionella* risks, in 2017, ECDC published <u>an awareness leaflet directed at the managers of accommodation sites</u>. This leaflet is available to the public (and subsequently hotel managers) on the ECDC website in 28 languages. It aims to provide basic technical and scientific information about *Legionella* risks but does not replace country-specific guidelines or relevant legislation on prevention and control in such settings.

1.1 EU candidate countries and potential candidates: ELDSNet participation

European Union (EU) candidate countries (Albania, Moldova, North Macedonia, Montenegro, Serbia, Türkiye) and potential candidates (Bosnia and Herzegovina, Kosovo¹) are the focus of the technical assistance provided by ECDC for non-EU/EEA countries since 2008. In March 2015, ECDC invited EU candidate countries and potential candidates to nominate national experts to participate in the ELDSNet TALD surveillance activities.

Nominated contact points directly receive TALD cluster notifications through the Epidemic Intelligence Information System (EPIS) ELDSNet platform. They may also submit summary reports of actions taken to investigate the associated accommodation site(s) following cluster notifications, using ELDSNet summary Forms A and B.

In October 2015, a workshop was held in Stockholm for Western Balkans and Türkiye to provide a practical training for national experts (in Legionnaires' disease surveillance) on surveillance of TALD, timely detection and immediate notification of clusters through the EPIS ELDSNet platform, and risk assessment at accommodation sites. However, this workshop did not cover the implementation of prevention measures and communication with the owners of accommodations to raise awareness of *Legionella* and its prevention.

1.2 Scope and purpose of the workshop

The **overall aim** of the ECDC Train-the-trainer (ToT) workshop was providing practical training and support to national experts from Western Balkans in raising awareness for the prevention of *Legionella* and risks for Legionnaires' disease, among accommodation sites in their respective countries.

The workshop included training materials and covered relevant topics that would enable the experts to deliver a half-day information seminar in their country's language and legislative settings.

The **specific objectives** of the workshop were to allow the participants to:

- review, get familiarised with, and comment on training materials addressed at accommodation owners on the prevention of *Legionella*, in particular, about:
 - understanding risk sources and available control measures for Legionella associated with accommodation sites
 - discussing technical limitations in the investigation and prevention of Legionella in accommodation sites
- become confident with the materials being presented, and to use them in training local teams in their countries;
- structure a plan to implement half-day information seminars in their own countries;
- exchange information between participants on country-specific experiences of working towards prevention of Legionnaires' disease associated with tourist accommodations.

1.2.1 Information seminar for accommodation site owners

The materials aimed to prepare national experts to deliver information seminars of 4–6 hours (including lectures and Q&A sessions) for hotel managers and owners of accommodation sites. These seminars would:

- raise awareness about Legionella and Legionnaires' disease as a possible risk related to commercial accommodation establishments;
- explain national Legionnaires' disease surveillance, ELDSNet TALD surveillance and subsequent actions related to surveillance protocols by national and local authorities;

 $^{^{1}}$ This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo Declaration of Independence.

- elucidate the context of specific responsibilities and investigations undertaken when *Legionella* cases are reported, according to national legislation and public health system;
- explain steps in risk assessments, taking samples and the interpretation of laboratory results;
- emphasise monitoring and prevention actions (similar to the <u>leaflet</u>).

1.2.2 Participants

The target audience of this workshop was national experts from Western Balkans with expertise in the following areas:

- Legionnaires' disease epidemiology (preferably nominated for ECDC EPIS ELDSNet access);
- environmental sampling, laboratory testing or control of Legionella bacteria;
- communication, training, prevention or awareness-creation activities;
- the implementation of local/regional-level action in responding to Legionella cases/outbreaks or site investigations.

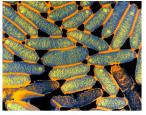
Twenty-six national experts from Western Balkans (three from Albania, four from Bosnia and Herzegovina, four from Kosovo², seven from Montenegro, four from Serbia, and four from North Macedonia) actively participated in the ToT workshop as per agenda. Two external experts (from Spain and Greece) facilitated the workshop, sharing experiences from TALD surveillance and accommodation site assessments in EU Member State settings. The final agenda and the list of participants are available in Annex 1 and Annex 2 of this meeting report.

2 Content

2.1 Training materials and presentations

The training modules included both presentations and case studies. The materials led to shorter presentations and facilitation guides which were intended for adaptation in delivering information seminars in each country.

The <u>ECDC Virtual Academy (EVA)</u> was used to store all course materials including the materials for information seminars. These were shared with the participants for reference and use in the future. EVA was also used for a preworkshop activity: an introduction survey, including information about the epidemiological situation in the country and for suggesting different readings before the workshop. Finally, the platform was used to conduct the final evaluation of the workshop and to generate the certificate of completion.





Train-the-trainer workshop for Western Balkans on raising awareness for prevention of Legionnaires' disease associated to touristic accommodation sites

The workshop aims to support Enlargement countries in raising awareness on the risks and prevention measures of Legionnaires' disease in the tourism sector for commercial accommodation sites. This train-the-trainers workshop will provide a practical training for national experts working on Legionnaires' disease and will enable the participants to facilitate and deliver an information seminar in their country's language and legislative setting.

© Course Announcements

© Discussion forum

© Scope and purpose of the ToT

© Agenda

Workshop photos

Folder 1

Participants' e-mails

File 1

Pre-workshop activities

Welcome to the pre-workshop activities.

We will ask you to introduce yourself as well as your experience. We will also suggest some preparatory reading and we will ask you as well to collect some information prior to the workshop. All this work should take you at the most 1 hour and you can work at your own pace. The deadline is September 12 in the morning.

Let us get started!

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→ Pre-workshop activities

Day 1- Tuesday 13 September

Here you can find the course content for Day 1 of this workshop as well as the power points for the group work and the material for the case study.

• Learning module 1: Legionnnaires' disease and risk factors for Legionella associated with commercial accommodation sites

€7Documents - module 1

• Learning module 2: Epidemiology of Legionnaires' disease in Europe

Documents - module 2

• Learning module 3: European surveillance for travel associated Legionnaires' disease

Documents - module 3

• Case study: A recurrent hotel

Documents - case study

→ Day 1- Tuesday 13 September

Useful links -

Day 2 - Wednesday 14 September -

Day 2 - Wednesday 14 September

Here you can find the course content for Day 2 of this workshop

• Learning module 4: Legionella Risk Assessments in commercial accommodation sites

€7 Documents - module 4

• Group work: Preparing an information seminar by relevant authorities in Western Balkans and Turkey for touristic accommodation site managers/owners for prevention of Legionella

Documents - group work

→ Day 2 - Wednesday 14 September

Training Material for Half-day Information Seminar

Useful links

♥EU/EEA surveillance case definition for Legionnaires' disease

Directive (EU) 2020/2184 of the European Parliament and of the Council of 16 December 2020 on the quality of water intended for human consumption

Orinking Water Directive

■Useful links

Evaluation and certificate -

Training Material for Half-day Information Seminar

As you know, one of the objectives of this workshop is to support you in the preparation of a half-day information seminar in your own country.

ECDC has prepared for you a set of slides that you can use for that seminar. This set is based on the content that was presented to you during the workshop but has been adapted to suit a general information for a half-day information seminar. The seminar has been structured around 4 sessions. For each one of them you will find a facilitator guide with a space for you to add your comments as well as a power point presentation that can be used as a support. You can adapt and use all this materials along you cite the original source.

Please find below facilitator's guides and the power point you can use and/or adpat.

Facilitator's guide- general introduction to the seminar

M Guide to introduction to the seminar

Session 1: Raise awareness about Legionella/Legionnaires' disease as a possible risk related to such establishments.

Seminar session 1: PPT+ facilitator guide

Session 2: Explain national LD surveillance, ELDSNet TALD surveillance and the subsequent actions related to surveillance schemes by national and local competent authorities (facilitator guide and power point).

Seminar session 2: PPT+ facilitator guide

Session 3: Basis for prevention and risk assessments in commercial accommodation sites (facilitator quide and power point)

Seminar session 3: PPT+ facilitator guide

Session 4: Basis for Legionella prevention in a commercial accommodation site and the 15-point plan (facilitator guide and power point).

Seminar session 4: PPT+ facilitator guide

Resources that could be distributed to the participants to the seminar

 $\textcircled{\textbf{}} \textbf{Leaflet for managers of tourist accommodation on how to reduce the risk of Legionnaires' disease}$

ESGLI European Technical Guidelines

2.2 Discussion and learnings: EU/EEA and the specific experiences of a Member State

2.2.1 Risk factors for *Legionella* associated with commercial accommodation sites and EU/EEA surveillance systems for Legionnaires' disease

During the first day of the workshop, the participants learnt to describe the following aspects of Legionnaires' disease:

- the aetiology;
- chain of infection;
- diagnosis;
- individual risk factors;
- clinical aspects;

- the bacteria, *Legionella* and its ecology;
- the most critical risk factors associated with *Legionella* proliferation and dissemination;
- the basic principles for *Legionella* prevention in the different water systems commonly found in commercial accommodation sites:
- the risk, main sources and the control measures for Legionella associated with commercial accommodation sites.

ECDC introduced Legionnaires' disease, presented the EU/EEA surveillance methodology for Legionnaires' disease (LD), explained the travel-associated surveillance scheme (TALD), and described the main epidemiological trends for LD.

Participants were introduced to a water safety plan (WSP) to ensure the safety of the water in the system, through the use of risk assessment and risk management plans as well as steps to assess compliance with the 15-point plan.

During the session on *Legionella* risk assessments in commercial accommodation sites, the experts from Western Balkans learnt about:

- the concept of qualitative risk assessments in the context of Legionella investigations;
- the specific tools that may be necessary for conducting *Legionella* site risk assessments (LRA);
- the basic structures and operational procedures of the most common water systems associated with Legionella infections in accommodation sites, such as domestic water systems, cooling towers and spa pools;
- the technical limitations in the investigation and prevention of Legionella in accommodation sites.

2.2.2 The experience of Greece in organising educational workshops on Legionella prevention for managers of touristic accommodation sites

The expert from Greece provided an overview of the surveillance and response system in Greece for Legionnaires' disease cases and outbreaks, and current epidemiology. The session also covered the process of case detection by surveillance reported to ELDSNet, and adoption of response measures on receiving notifications of TALD-associated accommodation sites.

Several actions have been undertaken to tackle Legionnaires' disease situations in Greece, including:

- guidelines for healthcare professionals for early recognition of LD, prompt diagnosis, timely management, and notification:
- dissemination of information materials to hotels/tourist accommodation associations;
- risk assessments/environmental sampling in a representative number of hotels in other touristic areas of Greece by regional public health authorities;
- organising training workshops for hotel managers/owners in 2018 (mainly in Corfu and some other islands in collaboration with regional public health authorities at the beginning of the next tourist season).

The workshops and trainings organised by Greece were then described in further details, to provide an insight into the challenges and successes of this approach.

The aim of this educational endeavour was to raise awareness regarding *Legionella* prevention, with hotel managers/owners as the target audience. Methods and materials included oral presentations and the ELDSNet/ECDC checklist on LD prevention. Five three-hour workshops were organised in different cities in the three most-affected island regions in Greece.

The agenda of these workshops addressed the following aspects:

- Legionnaires' disease, clinical key facts and modes of transmission;
- Epidemiological surveillance of Legionnaires' disease;
- Legal framework regarding Legionnaires' disease prevention in Greece;
- Prevention measures in hotel settings;
- Environmental and laboratory investigation procedures regarding Legionnaires' disease in hotel settings.

The main steps in preparing educational workshops for managers of touristic accommodations in Greece, included the following imperatives:

- Identify key stakeholders and involve a large cross-section of relevant people in educational activities.
- Describe gaps in knowledge and determine educational needs for the target population.
- Create tailored educational materials in collaboration with stakeholders.
- Select appropriate modules of learning.
- Select convenient venues and time.
- Promote events and invite all stakeholders to participate in them.
- Provide motivations for learning and participating in activities.
- Evaluate educational activities on an ongoing basis.
- Organise a multisectoral training team involving local and national representatives.

There were various learnings from organising these workshops, which included:

- Active involvement of leaders and representatives from the local communities increased participation.
- Providing certifications of attendance and 'thank-you' letters for trainers worked as motivation.
- Providing free information leaflets during the workshop as a take-home message was beneficial.

- Networking after the workshops was effective for future cooperation.
- Press releases and promotion of the workshop via e-mails and web pages is vital.
- Timely planning and organising workshops before the start of touristic season is essential.

The outcome of these educational workshops was the observed decrease in TALD cases in two out of the three island regions in Greece the following year.

The primary challenges faced in the organisation of the workshops included:

- Coordination between and within teams, as well as creation of a well-organised programme requires time and communication skills.
- Venue selection with easy access and technical support is important.
- Disagreements and local conflicts between stakeholders require attention.
- Central organising by one main organisation with authority, often creates roadblocks.

2.2.3 Group work on preparing a half-day information seminar for the tourism sector on prevention of *Legionella* in commercial accommodation sites

Participants were divided into groups per country to discuss and prepare a half-day information seminar – based on the materials provided in the workshop – for the tourism sector in that specific country, to prevent *Legionella* in commercial accommodation sites.

The discussion focused on key preparatory questions:

- Who is your target audience?
- Who will organise and conduct the seminar?
- Where: in what geographical location and institution will the seminar(s) take place?
- When would the seminar be planned?
- What would be the duration of the seminar?
- What would be the mode of delivery most useful for a specific country online or in-person?
- What kind of adaptations to the material are needed? Do the materials need to be translated?
- What kind of resources (human, logistic, cost, etc.) would be needed to facilitate the seminar?
- Which are the next steps to be considered in organising the seminar?

After the group activity, the participants wanted to organise follow-up activities as well. Some commented, as a potential challenge, the lack of relevant country regulations on *Legionella* prevention. However, in general it was accepted that the information seminars could be of interest and participants seemed committed to organise them in their respective countries.

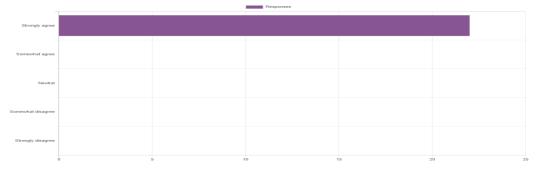
ECDC offered to organise a post-workshop activity in which all country representatives would participate to share their experiences on organising the information seminars or progresses that they made with LD prevention activities in their country.

3 Conclusions and evaluation of ECDC workshop

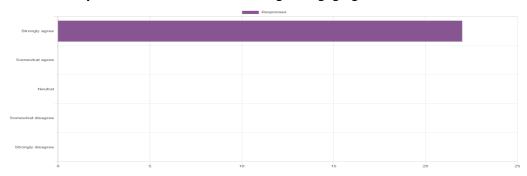
The workshop achieved all its objectives, and the attendees were very engaged and active. The participants provided direct feedback at the end of the workshop that they were content and satisfied with all aspects of the workshop and training.

Through the online EVA platform, 22 out of 26 participants submitted their anonymous evaluations. The results are provided below. The high scores were in line with the preliminary feedback given at the workshop.

The workshop is relevant to my organisation/personal objective/expectation. N=22



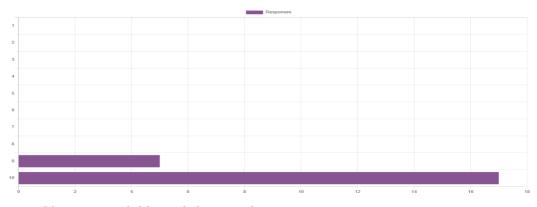
The workshop was delivered in an interesting or engaging manner. N=22



It was easy to follow and understand the facilitators. N=21



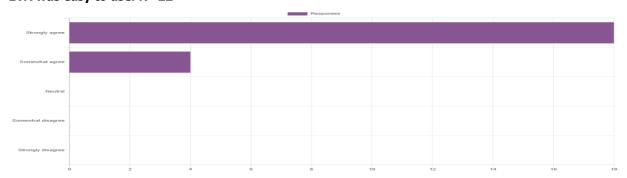
How would you rank this workshop overall? (10 is the highest score) N=22



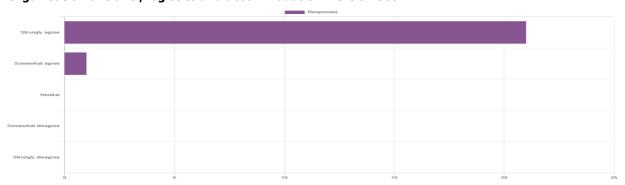
I would recommend this workshop to others N=22



EVA was easy to use. N=22



Organisation of travel, logistics and accommodation were smooth. N=22



Annex 1. Agenda

Day 0: Monday, 12 September 2022

Arrival of participants

Day 1: Tuesday, 13 September 2022

08:30 REG	ISTRATION	Hotel Hilton Podgorica Crna Gora
		Learning objectives
09:00-09:15	Opening and introduction Agné Bajoriniené, International Relations Officer, EICS, ECDC Lara Payne Hallström, Principal Expert Respiratory Diseases, Legionnaires' disease, DPR, ECDC	
09:15-09:30	Roadmap for the workshop and practicalities Lara Payne Hallström, ECDC	To introduce the workshop and the participants
09:30–10:45	Learning module 1 – Legionnaires' disease and risk factors for Legionella associated with accommodation sites (2 ppt) Session 1: Lara Payne Hallström, ECDC Session 2: Sebastian Crespi, Spain	 To acquire the essential knowledge on Legionnaires' disease: aetiology, chain of infection, diagnosis, individual risk factors, clinical aspects; To acquire the essential knowledge of the bacteria, Legionella and its ecology; To identify the most critical risk factors associated with Legionella proliferation in the water systems: temperature, nutrients, biofilms, stagnation and aerosols.
10:45 - 11:15	Coffee/tea break	Network with other participants and trainers
11:15–11:40	Learning module 2: Surveillance of travel-associated cases of Legionnaires' disease in Europe Teija Korhonen, Expert Outbreak Response, DPR, ECDC	To understand the surveillance of travel-associated Legionnaires' disease coordinated under ELDSNet
11:40–12:10	Surveillance and outbreak investigation Elissavet Mouratidou, Greece (presentation)	To share lessons learnt and experiences from a EU Member State (Greece)
12:10-12:30	Plenary discussion: Incidents of Legionnaires' disease in participants' own country and lessons learnt Sebastian Crespi (facilitated the reflection based on Western Balkans' experiences)	To share learnings and experiences from participants; To discuss the lessons learnt from the different incidents, including:
12:30-13:30	Group photo and Lunch	Network with other participants and trainers
13:30–14:00	Continued plenary discussion Sebastian Crespi	Lessons learnt from Legionnaires' disease outbreaks
14:00–1500	Learning module 3: Assessing compliance with the 15-point plan Sebastian Crespi	 To describe the basic requirements cited in the 15-point plan document; To identify the different basic aspects that should be assessed for compliance with the 15-point plan.
15:00-15:30	Coffee break	Network with other participants and trainers
15:30–17:00	Case study: A recurrent hotel (ppt and exercise) Sebastian Crespi	To discuss: the principles of environmental outbreak investigation; associated legal aspects; the importance of involving relevant authorities;

		 the resources and specific expertise to support risk assessment and control.
17:00–17:15	Evaluation day 1 and wrap-up	
	Jeanine Pommier, Group Leader Continuous Professional Development, PHF, ECDC	
19:00	Dinner hosted by ECDC	

Day 2: Wednesday, 14 September 2022

		Learning objectives
09:00-10:00	Learning module 4: Principles and practicalities of <i>Legionella</i> risk assessment Sebastian Crespi	 To understand the concept of qualitative risk assessment; To understand the basic structure and operation of the most common water systems associated with <i>Legionella</i> infection in commercial accommodation sites: domestic water systems, cooling towers and jacuzzies; To be aware of the specific tools that may be necessary for conducting <i>Legionella</i> risk assessments.
10:00-10:45	Group work: Preparing an information seminar for manager/owners of touristic accommodation sites, for the prevention of Legionella – Experiences of an EU Member State	To make participants familiar with the proposed training materials and discussing the practicalities of the seminars
	Elissavet Mouratidou, Greece	
10:45-11:15	Coffee/tea break	Network with other participants and trainers
11:15–12:00	Group work continued: discussion in groups of country representatives Jeanine Pommier, ECDC All facilitators – one per country	 To be prepared to organise and lead the information seminars for site managers; To adapt the materials according national regulations and specificities.
12:00–12:30	Final activity/group feedback Sebastian Crespi Lara Payne Hallström, ECDC	To inform the group of the relevant adaptations necessary for their respective countries.
12:30–12:45	Evaluation day 2 and wrap-up of workshop Lara Payne Hallström, Jeanine Pommier, Teija Korhonen, ECDC Sebastian Crespi	
12:45–13:00	Closing and final remarks Agné Bajoriniené, International Relations Officer, EICS, ECDC	
13:00 - 14:00	Lunch	Network with other participants and trainers
14:00 – 16:00	Practical site visit to facilities (two hours on-site)	

Day 3: Thursday, 15 September 2022

Departure of participants

Annex 2. List of participants

Country	Name	Affiliation
Albania	Dr. Adela Vasili	MD, Epidemiologist, National Communicable Diseases Surveillance Centre, Epidemiology and Control of Infectious Diseases Department,
		National Institute of Public Health of Albania
	Dr. Aida Demo	Microbiologist, National Institute of Public Health of Albania
	Dr. Lindita Molla	PhD in public health, expert on water and food safety, head of Department for Evaluation and Treatment of Risks in Public Health, National Institute of Public Health of Albania
Bosnia and Herzegovina	Dr. Bojan Djukarić	Specialist in microbiology, Department of Microbiology, Public Health Institute of the Republic of Srpska
	Dr. Borka Kotur	MD, Specialist in hygiene, Public Health Institute of the Republic of Srpska
	Dr. Daniel Maestro	Head of Department for Food and Water Microbiological Analysis, Public Health Institute of Federation of Bosnia and Herzegovina
	Dr. Mia Blažević	Epidemiologist, Institute for Public Health of FB&H
Kosovo ³	Dr. Albiona Rashiti	Epidemiologist, National Institute of Public Health of Kosovo
	Dr. Arsim Kurti	Microbiologist, National Institute of Public Health of Kosovo
	Dr. Burbuqe Nushi-Latifi	Coordinator, Centre for Drinking Water Monitoring, Department of Human Ecology, National Institute of Public Health of Kosovo
	Dr. Florie Miftari Basholli	Public health specialist, National Institute of Public Health of Kosovo
Montenegro	Dr. Božidarka Rakočević	MD, PhD, Epidemiologist, Institute for Public Health of Montenegro
	Dr. Ivana Joksimović	Specialist in hygiene, Institute for Public Health of Montenegro
	Dr. Karolina Hajdukovic	Epidemiologist, MD, Institute for Public Health of Montenegro
	Dr. Ljubica Terić	Specialist in microbiology and parasitology, Centre for Medical Microbiology, Department of Sanitary Microbiology, Institute for Public Health of Montenegro
	Dr. Slađana Zgradić	Epidemiologist, Community Health Center Herceg Novi
	Dr. Tatjana Lalovic	Epidemiologist, JZU DZ Kotor
	Dr. Zorica Đorđević	Specialist in hygiene, Institute for Public Health of Montenegro
North Macedonia	Dr. Aleksandra Petrova	Researcher, MD with specialisation in hygiene and environmental health, Department of Water Safety and Environmental Sanitation, Institute of Public Health of the Republic of North Macedonia

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Country	Name	Affiliation
	Dr. Dugagjin Osmani	Head of Microbiology Department Institute for Public Health of Republic of North Macedonia
	Dr. Elizabeta Coneva	Head of Department of Microbiology for Food and Drug Safety, Institute of Public Health of North Macedonia
	Dr. Gordana Kuzmanovska	Epidemiologist, Head of the Sector for Control and Monitoring of Communicable Diseases, Institute for Public Health of the Republic of North Macedonia
Serbia	Dr. Dragana Dimitrijevic	Epidemiologist, Head of Department of Epidemiological Surveillance, Institute of Public Health of Serbia
	Dr. Marina Radovanovic	MD, Microbiologist Institute of Public Health of Serbia Dr. Milan Jovanovic Batut
	Dr. Milica Jovanovic	MD, PhD, Microbiologist Department of Microbiology, Clinical Centre of Serbia
	Dr. Slavica Maris	Epidemiologist, Centre for Diseases Control and Prevention, Belgrade City Institute for Public Health Protection

Facilitators

	Name	Affiliation
Greece	Elissavet Mouratidou	National Public Health Organization
Spain	Sebastian Crespi	Biolinea
ECDC	Agne Bajoriniene	International Relations Officer, EICS, ECDC
	Jeanine Pommier	Group Leader Continuous Professional Development, PHF, ECDC
	Lara Payne Hallström	Principal Expert Respiratory Diseases, Legionnaires' disease, DPR, ECDC
	Teija Korhonen	Expert Outbreak Response, DPR, ECDC