



# SHARP

Strengthened International HeAlth  
Regulations & Preparedness in the EU

# **International Health Regulations Inventory of Related Training Work Package 8 Task 8.1.2**

## **September 2023**

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## 1. Executive Summary

The International Health Regulations (IHR) core capacities are those required to detect, assess, notify and report events, and respond to public health risks and emergencies of national and international concern, as stipulated in Articles 5 and 13, and Annex 1, of this Regulations.

This document includes an inventory of existing IHR related training activities and materials available. The training inventory includes different areas such as: points of entry, risk communication, chemical events, biosafety and biosecurity, national health emergency framework, surveillance, human resources, preparedness and response, risk assessment, antimicrobial resistance, case management capacity for IHR relevant hazards and pathogen genomics/whole genome sequencing use for outbreak investigations.

Information was retrieved from different International Organizations, such as the World Health Organization (WHO), the European Centre for Disease Prevention and Control (ECDC) or the United States Centers for Disease Control (CDC). Information was also collected from European Union (EU) projects and Joint Actions related to the control of cross-border health threats and the IHR. Among these, it is worth highlighting the following ones: Healthy Gateways Joint Action (Joint Action for preparedness and action at ports, airports, and ground crossings), MediPIET (Mediterranean and Black Sea field epidemiology training programme network) and EpiSouth Plus (the network for the control of public health threats in the Mediterranean Region and South East Europe). Moreover, training information from THEPHINET (training programme in Epidemiology and Public Health Interventions Network) and the Association of Schools of Public Health in the European Region (ASPHER) was included.

National training materials were retrieved only from a few JA partners.

Information on specific courses, included in this document, shows the offer in September 2023, it has to be considered that the courses catalogues are updated regularly.

The document is structured into different sections:

Training courses

Simulations exercises

Fellowships

Survey to the JA partners on available training materials and training activities

## 2. Training courses

### a. World Health Organization

#### OpenWHO

<https://openwho.org>

OpenWHO is an online learning platform, free open access, developed by the World Health Organization (WHO) to address a wide range of public health topics. It was launched in 2017. It is designed to enhance the global response to health emergencies and offers self-paced multilingual courses adapted from WHO's scientific and operational guidance.

The platform allows to select courses by channel, language, proficiency levels (advance, basic and intermediate) and keywords from a list. At the moment of this report (September 2023) the topics that can be selected from the channel are: COVID-19, ready for response, one health, antimicrobial resistance, chemical and biological deliberate events, outbreaks, preparing for pandemics, etc. Currently, several courses related to Mpox have been included.

The Ready4Response course series is the first course on OpenWHO that has received "Continuing Professional Development" (CPD) accreditation. The Ready4Response course series was created to train health workers and responders currently working, or interested in working, in national health emergency response.

Courses are free, after registration for an account on OpenWHO. There is a monthly newsletter, registered users receive by email the courses that are offered every month.

#### Health Security Learning Platform (HSLP)

<https://extranet.who.int/hslp/training>

HSLP is an online learning program that is intended to help enhance the knowledge on specific issues related to the implementation of the IHR 2005. The course categories are: IHR, IHR monitoring and evaluation framework, one health, laboratory, event management at points of entry, community engagement, mass gatherings, integrated disease surveillance and response (IDSR)

The platform gives information on each course: the target audience, the time to dedicate, the language and whether they provide a certificate of completion. Some courses are available only in English, others in English, French, Russian and Spanish and for some courses there are additional languages.

## b. European Centre for Disease Prevention and Control (ECDC)

<https://www.ecdc.europa.eu/en/training>

**ECDC Virtual Academy (EVA)** is an education platform that collaborates with training network organizations within the EU and beyond. The training is in the domain of disease prevention and control. Self-paced training like e-learning courses and video lectures are available to everyone at any time for free. In addition to self-paced training, ECDC organizes instructor-led training events with limited seats. For these, National Focal Points in each EU Member State support ECDC in identifying the participants who can most benefit from instructor-led training events.

The trainers are selected from expert networks such as ECDC fellowship program for epidemiologists (EPIET) or microbiologists (EUPHEM) or the ECDC Disease Specific Networks, as well as from ECDC National Focal Points for Training and partner organizations such as ASPHER, (MEDIPIET and TEPHINET).

To enroll in the courses, it is necessary to log in to EVA. The platform has a competencies self-assessment tool to identify the strongest competencies and areas for development of the trainee. A certificate for formal recognition of the accomplishment is issued when finishing the course.

The catalogue of the training activities is categorized in three areas: open, restricted or fellowship.

The thematic areas of the courses are disease-specific/disease-related, preparedness and response, communication in Public Health, antimicrobial resistance and healthcare associated-infections, data collection and analysis, scientific methods, microbiology and bioinformatics, and prevention.

In the platform you can find the description of the course, the audience, the duration, the objectives and the type of participation whether is open or restricted.

ECDC offers **continuous professional development (CPD)** aimed to meet the institutional needs of the Coordinating Competent Bodies of Member States to sustain a workforce that is sufficiently skilled to effectively address cross-border health threats. Some of these courses are self-paced and available online at any time. Others are only for invited participants and not open for public enrolment. CPD includes Professional Exchanges of senior public health experts from Member States, they will also be offered in 2023. This training format is based on exchange visits and aims at providing bilateral learning opportunities.

In the ECDC webpage it is possible to find training information through the training and tools section that is organized in: training programmes, surveillance and outbreak tools (EpiPulse - the European surveillance portal for infectious diseases, ECDC geoportal, epitweetr tool and

other tools), preparedness prevention and control tools and communication materials that includes videos, communication toolkits, infographics, and posters and brochures.

There is a library of training material in EVA, items in this library are packages of training materials to be used by facilitators to organize training activities. Currently it includes one case study, nine course packages, two lectures and one workshop recording and 13 simulation exercises.

**Trainings organized under the EU Initiative on Health Security.** ECDC offers tailor-made trainings for national experts from partner countries on epidemic intelligence (EI), risk assessment, preparedness and response.

The ongoing assessments of the preparedness and response capacities in the partner countries have resulted in the development of a general training programme for 2023 that will remain responsive to the needs identified through continuous dialogue between ECDC and the partner countries.

**External courses.** ECDC and ASPHER are setting up a network of schools of public health to work on competencies and co-develop curricula and training materials. Courses provided by partner schools of public health based on ECDC/ASPHER-agreed competencies and curricula will count as a continuous professional development programme course. Topics to be covered by external courses could include public health informatics, public health law, public health policy and leadership, among others.

## c. Healthy Gateways Joint Action

<https://www.healthygateways.eu/Core-work-packages/Training>

The Joint Action Preparedness and action at points of entry (ports, airports, and ground crossings) with acronym HEALTHY GATEWAYS, funded by the EU, was launched in 2018 and finished in 2021. A total of 38 authorities from 28 European countries and Taiwan CDC participated in the HEALTHY GATEWAYS Joint Action consortium.

The aim of the Joint Action was to support cooperation and coordinated action of Member States to improve their preparedness and response capacities at points of entry, in preventing and combating cross-border health threats from the transport sector.

Within this Joint Action a web-based training resources catalogue for points of entry, including international, EU and national training courses was developed and it is publicly available. It is an electronically searchable catalogue, where interested parties can find training resources for points of entry.

## d. EpiSouth Plus

<http://www.episouthnetwork.org/content/deliverable-7-capacity-building-training-materials-workshop-sessions-and-simulation-exercise#overlay-context=content/deliverable-7-capacity-building-training-materials-workshop-sessions-and-simulation-exercise>

The EpiSouth Plus project (the network for the control of public health threats in the Mediterranean Region and South East Europe), from 2010 to 2013, aimed at increasing the health security in the Mediterranean Region by enhancing the preparedness to, and improve the detection of, public health threats at national/regional level in the framework of the IHR implementation.

Work Package (WP) 5 of this project shifts the focus from training on communicable disease epidemiology to capacity building in generic preparedness and risk management. Training materials from the different workshops and courses carried out in this WP are available in the webpage. Those workshops and courses were the following:

- Workshop on Public Health Preparedness and Response & Training Session on Spatial Analysis of Surveillance Data.
- Workshop on Public Health Preparedness and Response & Training Session on Risk Assessment.
- Training on Outbreak Investigation and Spatial Analysis of Surveillance Data: Cluster Data Analysis - First course.
- Training on Outbreak Investigation and Spatial Analysis of Surveillance Data: Cluster Data Analysis - Second course.

## e. Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET)

<https://www.tephinet.org/training>

Formed in 1997, TEPHINET is a professional network of 81 field epidemiology training programs (FETPs), including those with laboratory and veterinary components, working across more than 100 countries. Their mission is to empower and mobilize a competent field epidemiology workforce to serve all people through standardized training, experiential learning, training program quality improvement, mentoring, and knowledge exchanges in order to connect epidemiologists better, faster, and with quality across the globe.

The TEPHINET webpage offers courses from WHO, CDC, ECDC, Kaya (global learning platform of the Humanitarian Leadership Academy), FutureLearn, Coursera, EMPHNET, TEPHINET and other institutions or groups. Some courses are available in different languages.



Training content in the THEPHINET webpage:

- Training specific to COVID-19.
- Training Related to Researching and Managing Emerging Infectious Disease Epidemics.
- Trainings Specific to COVID-19 Vaccinations. This section includes both self-guided and instructor-led online courses and microlearning.
- Webinars: This section includes recorded webinars from organizational partners on specific topics such as N-95 usage, psychological first aid and risk communications, among others.
- Training Materials & Job Aids: This section includes materials that may be accessed and used by trainers and end users, including simulation exercise, handbook, and B-roll video.

## **f. U.S. Centers for Disease Control and Prevention (CDC)**

<https://www.cdc.gov/training/learning/index.html>

As the nation's health protection agency, US CDC saves lives and protects people from health, safety, and security threats.

CDC Learning Connection help public health and healthcare professionals stay informed about quality trainings from CDC, other federal agencies, and federally funded partners. Each month, CDC feature trainings on this website and promote them via a newsletter, social media, and partner outreach.

Courses are online and they can be selected by any word. For some of the courses a certificate of completion is issued.

Training and Continuing Education Online (TCEO) is a system that provides access to CDC educational activities for continuing education (CE). Using TCEO is possible to search for CE opportunities, to complete course evaluations and post tests and receive CE certificates.

Moreover, through the CDC webpage it is possible to find additional websites that offer learning opportunities developed by CDC, CDC partners, and other federal agencies.

## **g. Johns Hopkins Bloomberg School of Public Health**

<https://publichealth.jhu.edu/>

The Bloomberg School, the largest public health school in the world, works to keep millions around the world safe from illness and injury by pioneering new research, deploying knowledge in the field, and educating tomorrow's public health leaders.

### **Master of Public Health**

It can be taken on campus, fully online, or a mix of the two. The program offers 12 different concentration-area choices, and options for full-time study to be completed in just 11 months or part-time study.

The Master prepares students to become leading public health professionals capable of addressing current global health problems with multidisciplinary, evidence-based approaches.

### **Professional training**

Online Professional Training in Epidemiology for Health Managers, an online program that is designed for public health professionals from Latin America and Spain. Participants complete coursework as professional education, not for academic credit, and tackle real public health problems. The duration of the course is 9 months. The program is conducted entirely in Spanish and participants apply for admission.

## **h. Emory University**

<https://www.sph.emory.edu/>

Emory University is located in Atlanta, United States of America, is one of the world's leading research universities. Its mission is to create, preserve, teach and apply knowledge in the service of humanity.

### **Communicating During Global Emergencies**

<https://www.coursera.org/learn/communicating-during-global-emergencies/#syllabus>

In collaboration with the Rollins School of Public Health and the CDC's Division of Global Health Protection, Emergency Response, and Recovery Branch, this course introduces basic concepts and principles of communicating during a global crisis or emergency.

It is an online course with a duration of 8 hours. It is delivered in English, with subtitles in different languages.

## **i. PREPARE**

<https://www.prepare-europe.eu>

Platform for European Preparedness Against (Re) Emerging Epidemics (PREPARE) is a clinical research network established with support of the European Union funding running from 2014 to 2019. The aim of PREPARE was to harmonise large-scale clinical research studies on infectious diseases, prepared to rapidly respond to any severe infectious disease outbreak, providing real-time evidence for clinical management of patients and for informing public health responses.

The Virtual Learning Platform (PREPARE-European Respiratory Society) display several presentations:

<https://prepare.ersnet.org/home.aspx>

- COVID-19.
- Reaching out: A meeting to advance clinical research preparedness for infectious disease outbreaks.
- PREPAREing for (Re-)Emerging Arbovirus Infections in Europe, Bucharest 2018.
- Solving ethical, administrative, regulatory and logistical problems in implementing clinical trials during severe infectious disease outbreaks from the PREPARE meeting in 2017.

## **j. MediLabSecure**

<https://www.medilabsecure.com/index.php/educational-videos>

The MediLabSecure project, funded by EU through the Chemical Biological Radiological and Nuclear (CBRN) excellence initiative, aims to strengthen a network of laboratories and health institutions to prevent vector-borne diseases in 22 countries around the Mediterranean, Balkans, Black Sea, Maghreb and Sahel regions. Enhancing preparedness and response capacities to vector-borne diseases by promoting a One Health approach is the core of MediLabSecure project.

Some educational videos, conceived by INIA (Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria), IRD (French National Research Institute for Sustainable Development) ISS (Istituto Superiore di Sanità) and Institut Pasteur, present the key role of

Human virology, Animal virology, Medical entomology and Public Health in the fight against vector-borne diseases. They were in English and French.

### 3. Simulation exercises

A Simulation Exercise (SimEx) simulates an emergency situation to which a described or simulated response is made. The purpose of a simulation exercise is to validate and enhance preparedness and response plans, procedures and systems for all hazards and capabilities. Simulation exercises can be divided on discussion-based exercises (orientation exercise and table-top exercise) and operation-based exercises (drill, functional/command post exercise and full-scale exercise).

#### a. World Health Organization

<https://www.who.int/emergencies/operations/simulation-exercises>

Simulation exercises have been identified as a key voluntary instrument in the validation of core capacities under the “Implementation of the International Health Regulations.

The Simulation Exercise Toolbox includes the following:

#### COVID-19 Simulation Exercises Packages.

- COVID-19 vaccine drill package.
- The Table Top Exercises (TTX) packages consist of different elements including: Power Point presentations to support the facilitation of the exercise and its subsequent debriefings; a Participants’ Guide and a Facilitators’ Guide to explain what is expected from the different people involved in the preparation and running of the exercise; and a set of reference documents and technical guidance on COVID-19. The TTX are available in Arabic, Chinese, English, French, Russian and Spanish, and most of them also in Portuguese.
  - Supply chain and communication strategies. Related to COVID-19 vaccines.
  - Regulatory and safety issues. Related to COVID-19 vaccines.
  - Public Health and Social Measures (PHSM).
  - Urban. to discuss critical issues in urban environments as the pandemic develops into an established infectious disease that may have periods of increased spread and number of persons affected.
  - Point of Entry (PoE).
  - Health facility and Infection Prevention and Control.
  - Generic COVID-19 table top exercise.

## **Table Top Exercise (TTX) Templates.**

## **Drill (DR) Templates.**

## **Functional Exercise (FX) Templates.**

## **Field/Full Scale Exercise (FSX) Templates.**

## **Exercise Planning Tool.**

Moreover, WHO offers a Simulation Exercise Online Training to introduce students to the terminology, concepts and principles of simulation exercise management in line with the WHO Simulation Exercise Management Manual.

Several Simulation Exercises have been conducted with the countries that are not available in the webpage, but it is possible to know the date and the country where they took place.

## **b. European Centre for Disease Prevention and Control**

<https://eva.ecdc.europa.eu/course/index.php?categoryid=35>

The ECDC Simulation Exercises are Scenarios, Injects, Master list of Events and some background material to understand the context for which the exercises were created. The objective is that these materials can be reused as a basis for customized exercises at national or sub-national level in the EU Member States.

### **Table top Exercises**

<https://eva.ecdc.europa.eu/course/index.php?categoryid=37>

Scenarios, Injects, Master list of Events and some background material to understand the context for which the exercises were created. The objective is that these materials can be reused as a basis for customized exercises at national or sub-national level in the EU Member States.

- [Philadelphia 2022.](#)

The aim of this off-the-shelf exercise is to aid EU Member States, European Economic Area (EEA) and Enlargement countries to review, rehearse, and enhance their preparedness and response to an outbreak of Legionnaires' disease.

- Bulgaria Dengue 2016, (available soon).

The aim of this exercise was: To exercise the public health emergency preparedness of the participating countries to a major outbreak of mosquito-borne viral disease, of both national and international dimensions.

- Rome 2018.

The overarching aim of this Exercise was to explore the response to the emergence of a novel strain of a difficult-to-treat, pandrug-resistant bacterium in a healthcare setting, with the potential threat for a cross-border spread.

- Orange Circle 2009.

The aim of Exercise Orange Circle was to explore procedures and functions regarding early detection, assessment and communication associated with events related to a Vaccine Preventable Disease (VPD) or immunisation programmes.

- Blue Triangle 2008.

The overarching aim of Exercise Blue Triangle was to test the standard operating procedures for the response to a food and waterborne disease threat at an EU level.

- Red Wing. 2007.

Exercise Red Wing was created to explore draft procedures for contact tracing of passengers proposed by the working group of the Health Security Committee. (Standard operating procedure for passenger tracing in a case of a potential exposure to a communicable disease occurring in a Member State of the European Union after an international flight”).

## Functional Exercises

<https://eva.ecdc.europa.eu/course/index.php?categoryid=38>

Scenarios, Injects, Master list of Events and some background material to understand the context for which the exercises were created. The objective is that these materials can be reused as a basis for customized exercises at national or sub-national level in the EU Member States.

- Artemis. 2013.

The aim of the Exercise was to provide ECDC staff with the opportunity to use and implement the Public Health Emergency Operational Plan (PHEOP) and to test supporting documents, tools and templates.

- **Beaivi. 2012.**

The aim of the Exercise was to test the Public Health Emergency Operation Plan (PHEOP) management system (including the intranet and supporting documents) in order to evaluate and refine it.

- **Black Trapezium. 2010.**

The aim of the Exercise was to test, evaluate and refine the use of EPIS (now EpiPulse) as a communication platform tool. Focussing on the Food and Waterborne Disease (FWD) Network the exercise tested its use for the detection, assessment, response and communication of a FWD health threat with EU and international dimension.

- **Purple Octagon. 2009.**

The overarching aim of the Exercise was to explore ECDC's ability to communicate about early detection and risk assessment, with Member States (MS) and international partners in a public health event at a mass gathering.

- **Green Field. 2008.**

The overarching aim of Exercise Green Field was to test, evaluate and refine standard operating procedures in response to an emerging and escalating Public Health Emergency (PHE) involving EU Member States (MS). (This exercise was conducted after an internal exercise that took place in 2007 where the ECDC Emergency Operations Centre (EOC) facilities and Public Health Operations Plan were tested).

- **Brown Lagoon. 2007.**

Exercise Brown Lagoon was an ECDC initiative designed to provide an opportunity to review and practice internal procedures and systems to deal with major public health events.

## c. EpiSouth Plus

<http://www.episouthnetwork.org/content/episouth-plus-nautilus-simulation-exercise-2-3-october-2013>

- **EpiSouth Plus "Nautilus" Simulation Exercise. 2-3 October 2013.**

The "Nautilus" SE simulated a public health event of international concern affecting several EpiSouth countries, with possibility of spread all over the Mediterranean basin and even further. The scenario used for the SE was an outbreak of Severe Acute Respiratory Syndrome (SARS).

The purpose of the Exercise is to test the functioning of the generic national Emergency Preparedness and Response Plans, assess the availability and use of existing Emergency Preparedness Plans and the common procedures within EpiSouth Region. The Simulation Exercise (SE) titled “Nautilus Exercise” was conducted over a two-day period. The international institutions (WHO, DG SANCO C3 and ECDC) were involved in all stages of the SE design and implementation. The Exercise was performed in English.

## d. Healthy Gateways

<https://www.healthygateways.eu/Core-work-packages/Training>

The following table-top/simulation exercises were conducted for the Joint Action at EU, national and local levels, however they are not available in the webpage:

TABLE-TOP/SIMULATION EXERCISES AT NATIONAL LEVEL						
Topic	Objective	Number	Location	Target Group	Partner responsible for:	
					Material development	Implementation
Multisectorial table-top/simulation exercise at National level	Assist competent authorities/organizations at national level define their roles in responding to public health events occurring on conveyances or at PoE	Number of multi sectorial table top /simulation exercise at National level dependent on national needs and priorities of countries	In each Joint Action country	Public and private sectors, national agencies, national authorities, local health and other sectors involved in event management at local/national levels	NIPH-NIH-PL, NVSC-LT, RIVM-NL	Each Joint Action country implementing at national level

*NIPH-NIH-PL: National Institute of Public Health – National Institute of Hygiene. Poland.*

*NVSC-LT: National Public Health Centre. Lithuania.*

*RIVM-NL: National Institute for Public Health and the Environment.*



TABLE-TOP/SIMULATION EXERCISES AT LOCAL LEVEL				
Topic	Objective	Number	Location	Target Group
Public health event at port	Number of exercises (ports) dependent on national needs and priorities of countries	Designated ports in countries that conduct based on national need/priorities	UTH-EL, RIVM-NL	Local authorities at each country
Public health event at airport	Number of exercises (airports) dependent on national needs and priorities of countries	Designated airports, in countries that conduct based on national need/priorities	UKE-DE, FOHM-SE, RIVM-NL	Local authorities at each country

*UTH-EL: University of Thessaly. Greece.*

*RIVM-NL: National Institute for Public Health and the Environment.*

*UKE-DE: University Medical Centre Hamburg-Eppendorf. Germany.*

*FOHM-SE: Public Health Agency of Sweden.*

## 4. Fellowships

### k. EPIET/EUPHEM

<https://www.ecdc.europa.eu/en/epiet-euphem>

The ECDC Fellowship Programme is a two-year competency-based training with two paths: the field epidemiology path (EPIET) and the public health microbiology path (EUPHEM).

After the two-year training, EPIET and EUPHEM graduates are considered experts in applying epidemiological or microbiological methods to provide evidence to guide public health interventions for communicable disease prevention and control.

## l. **MediPIET**

<https://www.ecdc.europa.eu/en/training-and-tools/training-programmes/fellowships/medi Piet>

The Mediterranean and Black Sea Programme for Intervention Epidemiology Training (MediPIET) aims to enhance health security in the Mediterranean and the Black Sea region by supporting capacity building for prevention and control of natural or man-made threats to health posed by communicable diseases through the implementation of: a long-term regional Field Epidemiology Training Programme (FETP), Training of Trainers activities (ToTs), annual scientific event and other networking and capacity building activities.

Since mid-2021, MediPIET is implemented by ECDC as a part of the EU Initiative on Health Security.

## m. **TEPHINET**

<https://www.tephinet.org/>

Formed in 1997, Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET) is a professional network of 81 field epidemiology training programs (FETPs), including those with laboratory and veterinary components, working across more than 100 countries. TEPHINET works to ensure that every country in the world has the applied epidemiology capacities needed to protect and promote the health of its own population. We do this by developing, connecting, and mobilizing a global workforce to strengthen public health systems and advance health security.

TEPHICconnect is TEPHINET's online and mobile networking platform built exclusively for alumni of field epidemiology training programs from all countries and program levels.

## n. **ASPHER**

<https://www.aspher.org/>

The Association of Schools of Public Health in the European Region (ASPHER) is the key independent European organisation dedicated to strengthening the role of public health by improving education and training of public health professionals for both practice and research.

The main functions of the Association are:

- To support the professionalization of the public health workforce in Europe, whilst respecting the diversity of national and regional contexts in which each school of public health operates.
- To sustain capacity building in public health, so that it balances with national and European population health challenges and threats, and is supported by best standards of public health education and training, scientific research, and practice.

## **ASPHER fellowship program**

<https://www.aspher.org/fellowship-programme.html>

This programme is being created to support master, doctoral and postdoctoral fellows in order to assist them in fulfilling their greater vision of how they wish to progress and develop in their career, as it relates to public health practice and research. The fellowship is for one year.

## **European Master in Public Health**

<https://www.aspher.org/httpswww-aspher-orgeuropubhealth-plus.html>

Eight European universities collaborate to deliver Europubhealth+, an innovative, integrated 2-year Master course for students wishing to engage in a public health career. Europubhealth+ has been recognized as an Erasmus Mundus Joint Master Degree of Excellence and supported by the Erasmus+ programme of the European Union since 2006. The Master is in up to three languages: English, Spanish or French.

## **o. Robert Koch Institute**

### **Postgraduate Training for Applied Epidemiology (PAE) at the RKI**

[https://www.rki.de/EN/Content/Institute/DepartmentsUnits/InfDiseaseEpidem/Epidemiology\\_Training\\_Programme.html](https://www.rki.de/EN/Content/Institute/DepartmentsUnits/InfDiseaseEpidem/Epidemiology_Training_Programme.html)

Since 1996 the Robert Koch Institute provides the Postgraduate Training for Applied Epidemiology (PAE). The programme aims to train scientists in the field of infectious disease epidemiology and places a particular focus on applying epidemiological methods for the prevention and control of infectious diseases when working in the German public health service (ÖGD).

Basic requirements for applying to the PAE are:

- University degree in human medicine (in justified individual cases also similar careers)
- Knowledge in the field of public health and/ or epidemiological methods
- Professional experience of at least one year in a field that is relevant for the PAE training (e.g. clinical work, experience with the ÖGD, infection research)
- Experience with standard software programmes (MS-Office, statistical software)
- Excellent knowledge of German and English

## p. **Erasmus Mundus Joint Master Degree in Public Health in Disasters**

<https://publichealthdisasters.eu/>

The Erasmus Mundus Joint Master Degree in Public Health in Disasters (EMJMDPHID) is a joint university educational programme organized by the Unit for Research in Emergency and Disaster of the University of Oviedo (Spain), the Centre for Research on Health Care in Disasters of the Karolinska Institutet (Sweden) and the Department of Primary Care and Population Health of the University of Nicosia (Cyprus) designed to deliver high quality education and training in the field of Public Health in disaster situations. The programme is sponsored by the European Union and also involves associated universities and institutions around the world.

## 5. Survey

A Survey amongst partners on available training materials and training activities related to IHR on their institutions was carried out in May 2023. The survey was sent to 26 countries that are partners of the JA. Seven countries (27%) answered the survey.

These is the information provided through the survey by country, considering that two institutions from Germany reply to the survey:

### a. **Finnish Institute for Health and Welfare, Finland (THL)**

#### **Outbreak investigation course**

<https://thl.fi/fi/web/infektioaudit-ja-rokotukset/audit-ja-torjunta/epidemioiden-selvitys-ja-ilmoittaminen/elintarvike-ja-vesivalitteiset-epidemiati/elintarvike-ja-vesivalitteisten-epidemioiden-selvityskurssi>

- Delivered by: Finnish Institute for Health and Welfare (THL), Food Safety Authority, Defence Forces and University of Helsinki
- Format: Partly online and partly on-site
- Language: Finnish

## Biosafety and biosecurity training

<https://thl.fi/fi/web/infektiotaudit-ja-rokotukset/taudit-ja-torjunta/bioturva/bioturvakoulutukset>

- Delivered by: Finnish Institute for Health and Welfare (THL)
- Format: Partly online and partly on-site
- Language: Finnish and some years in English

## Biothreat detection and mitigation measures

[https://www.pelastusopisto.fi/kurssi/2023/Biologisten\\_uhkatilanteiden\\_havainnointi\\_2023/](https://www.pelastusopisto.fi/kurssi/2023/Biologisten_uhkatilanteiden_havainnointi_2023/)

- Delivered by: Finnish Institute for Health and Welfare (THL) and Emergency Services College
- Format: On-site
- Language: Finnish

## b. Robert Koch Institute, Germany (RKI)

### E-Learning IHR

[https://www.rki.de/DE/Content/Infekt/IGV/IHR\\_rest/e-learning.html](https://www.rki.de/DE/Content/Infekt/IGV/IHR_rest/e-learning.html)

- Delivered by: RKI
- Format: Online. Password restricted access
- Language: English
- General objective: Introduction to the IHR
- Target group: participants of the IHR Summer School

### E-Learning IHR

<https://www.rki.de/DE/Content/Infekt/IGV/Einfuehrung/e-learning.html>

- Delivered by: RKI
- Format: Online. Password restricted access
- Language: German
- General objective: Introduction to the IHR
- Target group: Public Health Authorities in Germany

### IHR website

[https://www.rki.de/DE/Content/Infekt/IGV/igv\\_node.html](https://www.rki.de/DE/Content/Infekt/IGV/igv_node.html)

- Delivered by: RKI
- Format: Online. Password restricted access
- Language: German
- General objective: Introduction to the IHR. Contains a generic PowerPoint presentation regarding IHR and IHR implementation in Germany
- Target group: Public Health Authorities in Germany and public

## **IHR summer school**

[https://www.rki.de/DE/Content/Service/Veranstaltungen/IHR\\_Summerschool\\_inhalt.html](https://www.rki.de/DE/Content/Service/Veranstaltungen/IHR_Summerschool_inhalt.html)

- Delivered by: RKI
- Format: On-site, in Berlin
- Language: English
- General objective: Introduction to the IHR. One-week in-depth training on the basics and core components of the IHR, communication and notification under the IHR and the IHR Monitoring and Evaluation Framework (MEF), including practical exercises and (e.g. to points of entry), training concept is currently under revision, therefore there will be no summer school in 2023
- Target group: Public Health specialists from Global Health Preparedness Programme (GHPP) partner countries (in recent years alternately from African countries and Balkan countries).

## **Regular course on the IHR for public health officers and hygiene inspectors**

- Delivered by: RKI
- Format: Online.
- Language: German
- General objective: Introduction to the IHR for the workforce at local and federal state level. Introduction to core components of the IHR, IHR MEF, Notification and communication under the IHR
- Target group: public health officers and hygiene inspectors

## **Crisis management course**

- Delivered by: RKI
- Format: On-site in Berlin

- Language: German
- General objective: familiarize participants with theory and practice of crisis management. Course contains sessions on key aspects of the IHR
- Target group: public Health officials from local and state level

## **c. Novel and Emerging Infectious Diseases (Federal Research Institute for Animal Health (FLI)- Insel Riems) from Germany**

No IHR training available.

## **d. WHO IHR national focal point Latvia**

There is no developed training materials for IHR related matters. In daily routine and as well for new colleagues they used training materials developed by WHO (available online).

## **e. Norwegian Institute of Public Health, Norway**

The following training initiatives are not regular training.

### **Public Health Surveillance Workshop**

- Delivered by: Serbia, Portugal and Norway
- Format: Onsite. Lisbon July 2023
- Language: English
- General objective: Public health surveillance in perspective of lessons learned from COVID-19. Presentations and case study

### **Biosafety and biosecurity, diagnostic algorithms and best practice - online module**

- Delivered by: Norway
- Format: Online May 2021
- Language: English
- General objective: Digital training course with focus on work in biosafety level 3 containment laboratory.

## **f. Ministry of Health Portugal**

### **Biosafety in a microbiology laboratory**

- Delivered by: Ministry of Health Portugal annually

## Transport of infectious substances

- Delivered by: Ministry of Health Portugal annually

## Diagnoses of Mpox

- Delivered by: Ministry of Health Portugal in 2023 on request of African countries

## g. National Institute of Public Health Slovenia and Communicable Diseases Centre Slovenia

No IHR training available.

## h. Spanish Public Health Institute Carlos III (ISCIII), Spain

### Public Health Master

<https://sigade.isciii.es/publico/Actual/VerCurso.asp?ID=1&CodProp=4371&CodEd=4470>

- Delivered by: ISCIII
- Format: Online and on-site in Madrid
- Language: Spanish
- General objective: Provides the knowledge, skills and attitudes corresponding to the areas of knowledge of public health, including outbreak investigation
- Target audience: People with a university degree

### Microbiology Applied to Public Health Master

<https://www.uah.es/es/estudios/Microbiologia-aplicada-a-la-Salud-Publica-e-Investigacion-en-Enfermedades-Infeciosas/>

- Delivered by: University of Alcalá and ISCIII
- Format: On-site in Madrid
- Language: Spanish and English for some activities
- Target audience: People with a university degree on Medicine, Pharmacy, Biology, Health Biology, Chemistry and Veterinary.



## 6. Abbreviations

ASPHER	Association of Schools of Public Health in the European Region
CBRN	Chemical Biological Radiological and Nuclear
CDC	Centers for Disease Control
CE	Continuing Education
CPD	Continuing Professional Development
DR	Drill
ECDC	European Centre for Disease Prevention and Control
EEA	Economic European Area
EOC	Emergency Operations Centre
EPIET	ECDC Fellowship Program for Epidemiologists
EpiPulse	The European Surveillance Portal for Infectious Diseases
EU	European Union
EUPHEM	ECDC Fellowship Program for Microbiologists
EVA	ECDC Virtual Academy
FETP	Field Epidemiology Training Program
FLI	Federal Research Institute for Animal Health
FSX	Field/Full Scale Exercise
FWD	Food and Waterborne Diseases
FX	Functional Exercise
HSLP	Health Security Learning Platform
IDSR	Integrated Disease Surveillance and Response
IHR	International Health Regulation
INIA	Instituto Nacional de Investigación y Tecnología
IRD	French National Research Institute for Sustainable Development
ISS	Istituto Superiore di Sanità
MediPIET	Mediterranean and Black Sea field epidemiology training programme network
MS	Member State
ÖGD	German Public Health Service

PHEOP	Public Health Emergency Operational Plan
PHSM	Public Health and Social Measures
PoE	Point of Entry
SARS	Severe Acute Respiratory Syndrome
TCEO	Training and Continuing Education Online
TEPHINET	Training Programs in Epidemiology and Public Health Interventions Network
ToTs	Training of Trainers Activities
TTX	Table Top Exercise
WHO	World Health Organization

**25/09/2023**