



ECDC PUBLIC HEALTH TRAINING SECTION

Catalogue of ECDC training courses for Public Health professionals in EU/EEA and enlargement countries (2014-2015)

Introduction

According to its Founding Regulation, ECDC *shall, as appropriate, support and coordinate training programmes in order to assist Member States and the Commission to have sufficient number of trained specialists, in particular in epidemiological surveillance and field investigations, and to have a capability to define health measures to control disease outbreaks.*

From Consultations with Member States to discuss the ECDC Work Plan on training and further strategy it was concluded that short courses for continuous professional development of epidemiologists and other public health professionals in the Member States have high added value, allowing networking and exchange of experience.

Priorities highlighted, also during country visits for training resources and needs assessment, include: Introduction to Intervention Epidemiology, Outbreak Investigation, Risk Assessment, Public Health Surveillance and Risk Communication.

The ECDC Training Programme for Professional Development in Applied Epidemiology responds to these expectations and includes seven courses organised by the Public Health Training Section, described in this Catalogue. Courses organised by ECDC Disease Programmes, Microbiology Coordination and other teams are also included here.

Some of the [ECDC core competencies for public health epidemiologists](#) working in the area of communicable disease surveillance and response in the European Union are addressed by the short courses, and mapped in the catalogue. ECDC has also developed Core Competencies for the [EUPHEM Programme](#) and for the [Infection Control and Hospital Hygiene Professionals](#). These lists are a reference to guide curricula and support countries when building Public Health Capacity.

The selection of participants involves the ECDC Coordinating Competent Bodies and the National Focal Points for Training. Depending on the topic, other National Focal Points are also invited to contribute to the selection.

ECDC applies for accreditation of each individual course by the European Council of Continuing Medical Education (EACCME). For more information: www.eaccme.eu

All courses are delivered in English.

This Calendar presents courses tentatively planned for 2014 and 2015. Their organisation will depend on budget availability and requests from the Member States and enlargement countries. You can share your suggestions with us by contacting ECDC.Courses@ecdc.europa.eu

Public Health Training Section of ECDC

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Calendar (tentative)

2014			
Course	Location	Month	Target audience/seats
Diagnostics and public health surveillance, prevention and control of food- and waterborne parasites (Jointly organised by ECDC and WHO-GFN)	ECDC, Stockholm	12-14 March Second half of the year (tentative)	Multidisciplinary audience: public health epidemiology, public health microbiology, human medicine and veterinary medicine (3-4 seats per country)
Evidence-based principles and methods in health care and public health	To be confirmed (TBC)	May (4 days) Sept (4 days)	ECDC stakeholders and ECDC experts involved in the development and provision of risk assessments and guidance, or responsible for the commissioning of systematic reviews and guidance.
ECDC Summer School 2014 - Induction workshop - Technical workshops	ECDC, Stockholm	9-12 June	EPIET/EUPHEM Supervisors, Member State experts in Vaccine Preventable Diseases, ECDC Experts and MediPIET
ESCMID ECDC Observers	Stockholm	1-5 Sept	As a Collaborative Centre of the European Society for Clinical Microbiology and Infectious Diseases (ESCMID), ECDC offers to host ten Observers during 2014. This initiative targets professionals within the field of clinical microbiology and infectious diseases, who have an interest in public health. This initiative is open to full members of ESCMID. More details on the observer-ships and application procedure can be found at www.escmid.org
Epidemiological methods in Healthcare Associated Infections surveillance and surveys	London	September	National/regional network surveillance coordinators and experienced infection control professionals (doctors/ nurses/ surveillance officers) with responsibility for surveillance in healthcare settings. (20-30 seats)
Control of Multidrug-Resistant Microorganisms (MDRO) in Health Care Settings	TBC	October	Healthcare professionals with current or future responsibility for prevention and control of healthcare –associated infections, working at national or sub-national level. (20-30 seats). It has a blended format (self-learning module and a three- day workshop)

Outbreak investigation principles and computer tools	Veyrier du Lac, France	October	Epidemiologists working in public health administration in EU/EEA countries, proposed by the ECDC Coordinating Competent Body. (20-30 seats)
Sharing best practices in Epidemic Intelligence and Risk Assessment among members of European Neighbourhood Policy Instrument (ENPI) project and EpiSouth Network	Stockholm	November	Professionals with public health background who have an interest in getting familiar with the tools, standards and practices adopted at technical level for the fight against communicable diseases in the EU. There are eight seats for ENPI project countries and 26 seats for EpiSouth focal points
Training through exchange visits for food- and waterborne diseases, zoonoses, and Legionnaires' disease	Several sites	January - December	<p>This is an exchange programme open to Member States (MS) technical experts working on diseases covered by the Food and Waterborne Diseases and zoonoses (FWD) programme of ECDC at national, regional or local level. The list of diseases is available at: http://ecdc.europa.eu/en/healthtopics/Pages/health_topics_disease_group.aspx</p> <p>Up to six seats will be available in 2014 as a pilot. Participants will be selected through a Call for Expression of Interest (CEI) to be published in 2014.</p>

2015 (Tentative)			
Course	Location	Month	Target audience/seats
Diagnostics and public health surveillance, prevention and control of food- and waterborne parasites (Jointly organised by ECDC and WHO-GFN)	Stockholm	Spring	Multidisciplinary audience: public health epidemiology, public health microbiology, human medicine and veterinary medicine (3-4 seats per country)
Epidemiological aspects of Vaccine Preventable Diseases - Train the trainers	TBC	February	Midcareer and senior public health professionals/epidemiologists (20-30 seats)
Introduction to field epidemiology	TBC	April	Midcareer and senior public health professionals/epidemiologists (20-30 seats)
Outbreak investigation – microbiological and epidemiological aspects	TBC	June	Midcareer and senior public health professionals: Epidemiologists and microbiologists (20-30 seats)
ECDC Summer School 2015 - Induction workshop - Technical workshops	ECDC	Second week of June	EPIET/EUPHEM Supervisors and Experts from ECDC Disease Networks, ECDC and MediPIET

Management and logistics in outbreak investigation	TBC	October	(20-30 seats)
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Courses of the ECDC Training Programme for professional development in applied epidemiology

ECDC is establishing a Training Programme for Professional Development in Applied Epidemiology in order to consolidate the offer of short courses with a multiannual perspective. Most courses have two components (self-learning modules and face-to-face training).

The goal of this programme is to support career development through continuing education (life-long-learning) for European public health professionals and to create a platform for strengthening technical, teaching and mentoring skills.

Public health officials responsible for capacity building activities in their country have priority. Supervisors of the European Programme for Intervention Epidemiology Training (EPIET) may benefit from this support.

This Training Programme for Professional Development in Applied Epidemiology is composed of the following seven courses, covered in the first pages of the Catalogue:

- Rapid Assessment in Complex Public Health Emergencies
- Introduction to Intervention epidemiology
- Principles and computer tools for outbreak investigation
- Management and logistics of outbreak investigation
- Microbiological and epidemiological aspects of public health surveillance and outbreak investigation
- Principles of public health surveillance and time series analysis
- ECDC Summer School – Train the trainers in applied epidemiology and public health microbiology

These are complemented by access to training materials, a senior exchange training programme (SETP) and the creation of communities of practice.

1. Public Health

Rapid Assessment in Complex Public Health Emergencies	
Scheduled for	2015 (Tentative)
Previous editions	28 Oct-1 Nov 2013, Veyrier du Lac, France
Target Group	Public health microbiologists and epidemiologists, working at the national or at the sub-national level in the EU, EEA/EFTA countries and EU enlargement countries
Prerequisites	See target audience
Learning Objectives	Complex emergencies occur after natural or man-made disasters and create profound disturbance in society, including impact on health. This course aims to prepare epidemiologists to contribute to the multidisciplinary and international response to such complex emergencies, and to apply their epidemiological skills to serve public health interventions.
Content	<p>In 2010, Haiti experienced two major disasters. A massive earthquake affecting more than 3,000,000 people (1/3 of the country) in January was followed, ten months later, by a very large cholera epidemic. The international response involved an important number of partners and activities.</p> <p>This unfortunate series of events appeared to provide an interesting frame for a case study that could include most of the elements required by epidemiologists going on a complex emergency setting mission. The one-week training of rapid assessment in complex emergency settings uses this Haiti story.</p> <p>Participants will be given the chance to simulate going on three different missions:</p> <ul style="list-style-type: none"> • Initial rapid assessment after the earthquake with OCHA • Setting up of a cholera surveillance system as a GOARN coordinator • Retrospective mortality survey with Epicentre <p>In addition to these main activities, participants are asked to think about real-life situations all throughout week, including managerial, social mobilization, communication and security issues.</p>
Duration	5 days
Methods	Participants are divided in three teams of 6-8 participants and the teams remain the same throughout the course. The teaching methods will associate interactive case studies based on real crisis interventions.
Competencies to be acquired	From the list of ECDC core competencies for public health epidemiologists working in the area of communicable disease surveillance and response in the European Union, the domains addressed are: Domain 1.1.1.: Public health science Domain 1.1.2.: Public health policy

2. Introduction to Intervention Epidemiology

Introduction to Intervention Epidemiology	
Scheduled for	2015 (Tentative)
Previous editions	2 <i>Into Epi</i> Courses delivered in Veyrier, France
Target Group	Epidemiologists working in the public health administration of the 28 MS and the EEA/EFTA countries, proposed by the ECDC competent bodies
Prerequisites	Epidemiologists with short experience in field epidemiology at national or sub-national level in the EU/EEA countries; good command of English
Learning Objectives	<p>The goal is to strengthen participant common understanding of epidemiological concepts of surveillance and outbreak investigation and control activities. A further objective is to share training approaches and expertise with new trainers.</p> <p>Knowledge objectives include:</p> <ul style="list-style-type: none"> • Elements of descriptive epidemiology: person, time, space; • Epidemiological concepts: indicators, measures and causal inference; • Principles of surveillance: concepts, design, surveillance data analysis and surveillance evaluation; • Outbreak investigations: theoretical aspect, practical issues, study concepts, questionnaire design, sampling theory, choice of reference group and operational aspects of outbreak investigation; • Analytical epidemiology: study design, bias, confounding, selection of a reference group, cohort vs. case-control, controlling confounders and study design; • Advanced methods: stratification and multivariate analysis, matching and logistic regression, alternative designs; • Information about ECDC, IHR, epidemic intelligence. <p>Skills to be acquired involve learning how to:</p> <ul style="list-style-type: none"> • Describe event of epidemiological relevance; • Use of indicators and measures in surveillance; • Design, analyse and evaluate surveillance - basics; • Define objectives of an outbreak investigation; • Generate an hypothesis for the source, vehicle, risk factors; • Create a case definition for outbreak investigation; • Choose the type of study design for the analytical investigation after having conducted the epidemiological descriptive study; • Design a questionnaire and data entry form for the epidemiological study; • Enter, validate and analyse outbreak investigation data; • Create epidemic curves and work with dates and times; • Get acquainted with sampling methods in a analytical study; • Interpret the data from cohort and (matched) case-control studies, including stratified and multivariable analysis; • Epidemiological survey: steps, questionnaires, means of data entry, sampling techniques; • Communication of information – surveillance, outbreak investigation, survey, presentation, publication, critical review. <p>Training the trainers objective: To get acquainted with facilitation of training sessions for Public Health professionals</p>
Content	Basic epidemiology concepts, principles of surveillance, outbreak investigation and analytical epidemiological methods, Descriptive epidemiology (person, space and time) module, applied to surveillance and outbreak situations; Study design in analytic epidemiology module; Data collection in epidemiological survey and outbreak investigation; Data analysis; Report (communication) writing
Duration	70 hours over 2 weeks (10 days face to face)

Methods	Blended format (self-learning module to be done by participants one month in advance and three-day face to face workshop) The course will combine theoretical lectures and exercises using case studies and computer sessions.
Competencies to be acquired	In the list of ECDC core competencies for public health epidemiologists working in the area of communicable disease surveillance and response in the European Union, the domains addressed are: 1.2.2. Public health surveillance 1.2.3. Outbreak investigation 1.2.4. Epidemiological studies 2.1.2. Inferential statistics 2.1.3. Sampling 2.2.2. Statistical and other data analysis 2.3.2. Written communication 2.3.3. Oral communication

3. Outbreak Investigation

Outbreak Investigation Principles and Computer Tools	
Scheduled for	Oct 2014 (tentative), Veyrier du Lac, France
Previous editions	5 Regional modules (1 in Madrid- National School of Health, Instituto de Salud Carlos III, ISCIII; 2 in Amsterdam - Netherlands School of Public and Occupational Health and 2 in Debrecen University, Faculty of Public Health) - Editions (2007, 2008, 2009) 25-28 February 2013, Veyrier du Lac, France
Target Group	Epidemiologists working in the public health administration of the 28 MS EU/EEA countries, proposed by the ECDC Coordinating Competent Body
Prerequisites	Epidemiologists, working at the national or at the sub-national level in the EU/EEA countries and proposed by their countries; Good command in English
Learning Objectives	<p>The objective of is to strengthen participant knowledge and skills related to the investigation of communicable disease outbreaks affecting their country.</p> <p>Knowledge objectives include:</p> <ul style="list-style-type: none"> • Elements of descriptive epidemiology: person, time, space; • Analytical epidemiology: case-control studies, cohort studies, stratification and multivariate analysis, bias, selection of a reference group, controlling confounders and study design; • Operational aspects of an outbreak investigation: composition of the team, preparation, logistic, field activities; • Use of complementary investigations (microbiological, food, environment, etc). <p>Skills to be acquired involve learning how to:</p> <ul style="list-style-type: none"> • Create a case definition and adjust it along the investigation if needed; • Define objectives of an outbreak investigation; • Design a questionnaire for the descriptive epidemiological study; • Create epidemic curves and work with dates and times in Epi Info and Excel; • Choose different types of maps depending on the data; • Choose the type of study design for the analytical investigation after having conducted the epidemiological descriptive study; • Generate an hypothesis for the source, vehicle, risk factors; • Randomly select controls in a case-control study; • Interpret the data from cohort and (matched) case-control studies, including stratified and multivariable analysis. This interpretation should be in terms of statistical significance and strength of the association; • Produce a report of the outbreak study, interpreting results of the various analyses.

Content	<p>The curriculum for the module should include at least:</p> <ul style="list-style-type: none"> • Components of an outbreak investigation; • Descriptive epidemiology (person, space and time), applied to outbreak situations; • Study design in analytic epidemiology, applied to outbreak situations; • Data collection; • Data analysis and • Report writing
Duration	5 full days
Methods	<p>Blended format (self-learning module to be done by participant one month in advance and three day face to face workshop)</p> <p>The teaching methods for the face to face workshop associate formal presentations, case studies and practical sessions on software tools used in outbreak investigations: EPIDATA (http://www.epidata.dk/) and MS-Excel.</p>
Competencies to be acquired	<p>Competencies to be acquired should enable participants, at the end of the training, to conduct the following activities independently:</p> <ul style="list-style-type: none"> • Plan and conduct a descriptive study of an outbreak investigation: create epidemic curves, line-listing and summary tables of person characteristics and maps with distribution of cases (spot maps or incidence maps); • Choose between different designs to conduct an analytical epidemiological investigation of an outbreak; • Communicate the results of an outbreak investigation. <p>From the list of ECDC core competencies for public health epidemiologists working in the area of communicable disease surveillance and response in the European Union, the domain covered is 1.2.3 Outbreak investigation: Competencies 25 to 30.</p>

Microbiological and Epidemiological Aspects of Outbreak Investigation	
Scheduled for	June 2015 (tentative)
Previous editions	23- 29 June 2008, Bilthoven, The Netherlands 8-12 June 2009, Bilthoven, The Netherlands
Target Group	Mid-career microbiologists and epidemiologists, proposed in pairs by each country's ECDC Coordinating Competent Body
Prerequisites	Involved, or potentially involved, in outbreak investigation at national and regional levels in the public health administration; good command of English
Learning Objectives	<p>The goal is improving communication between laboratory specialists and epidemiologists, with the long term vision of creating an integrated laboratory-field epidemiology network for outbreak detection, investigation and response.</p> <p>Knowledge objectives include understanding of:</p> <ul style="list-style-type: none"> • Roles/needs of/for the partners from the laboratory and the epidemiology in outbreak detection and response as a member of the outbreak team; • Concepts of virology, bacteriology, immunology related to the different test formats; • Use and limitation of laboratory tests; • Sampling strategies for disease surveillance and outbreak detection and control; • Biosafety issues in laboratories and shipment of infectious material; • Importance of information sharing and communication during outbreaks; • Surveillance systems (syndromic and laboratory based). <p>Skills to be acquired involve learning how to:</p> <ul style="list-style-type: none"> • Interpret surveillance data and laboratory results during an outbreak investigation and advice on prevention and control strategies; • Use a laboratory information system to monitor epidemiological data • Recognise common laboratory challenges/errors and their impact on outbreak response • Set up basic epidemiological and laboratory databases for different purposes (surveillance and outbreak response) • Communicate laboratory and epidemiological data/results: write a joint report • Competencies to be acquired should enable participants, at the end of the training, to conduct the following activities independently: • Interpret the diagnostic and epidemiological significance of reports from laboratory tests • Be familiar with different methods for diagnosis and typing, including molecular tests • Communicate effectively with the laboratory team
Content	<p>The curriculum will include:</p> <ul style="list-style-type: none"> • Communication, roles and responsibilities of epidemiologists in outbreak detection, investigation and response; • Interpretation of laboratory tests (including molecular typing) • Integrated laboratory-epidemiology surveillance
Duration	21 hours over 3 days
Methods	The teaching methods for the course associate: formal presentations, interactive case studies based on real outbreak investigations, and presentations from participants and working groups.
Competencies to be acquired	In the list of ECDC core competencies for public health epidemiologists working in the area of communicable disease surveillance and response in the European Union: Domain 1.2.3 Outbreak investigation: Competencies 25 to 30 Domain 1.2.6. Laboratory issues: Competencies 36 to 38

Management and Logistics in Outbreak Investigation	
Scheduled for	2015 (tentative)
Previous editions	October 2006 in Sigtuna, Sweden; January 2007 in Sigtuna, Sweden; April 2008 in Rimbo, Sweden; June 2008 in Veyrier du Lac, France; April 2009 in Barcelona, Spain; May-June 2009, Brussels, Belgium
Target Group	Epidemiologists working in the public health administration of the MS and the EEA/EFTA countries, proposed by the ECDC competent bodies of response
Prerequisites	Good knowledge and experience in outbreak investigation, preferably also in coordination of field investigations. The course is intended for epidemiologists that will have the opportunity to lead outbreak investigation teams both in their own country and at the EU level. Good command of English
Learning Objectives	<p>The objective of this course is to strengthen participant knowledge and skills related to the management/coordination of a team for the investigation of a communicable disease outbreak affecting their country or at the EU level.</p> <p>Knowledge objectives should include:</p> <ul style="list-style-type: none"> • Multidisciplinary aspects of outbreak investigation and team composition • Logistics in an outbreak investigation • Methods for rapid and evidence-based decision making, including situational analysis and priority setting • Selection of best adapted means of communication according to the purpose • Ensure implementation and follow up of a decision <p>Skills to be acquired involve learning how to, in the context of an outbreak investigation:</p> <ul style="list-style-type: none"> • Chair meetings (face-to-face, video and teleconference) • Address the media • Ensure the functioning of an efficient team • Assign and supervise tasks • Achieve rapid team building and collective intelligence • Negotiate and handle conflict • Identify and handle stress
Content	<p>The curriculum will include:</p> <ul style="list-style-type: none"> • Decision making • Communication • Team management • Operational and logistic aspects of outbreak investigation
Duration	35 hours over 5 days
Methods	<p>The teaching methods associate:</p> <ul style="list-style-type: none"> • Formal presentations on topics. They will represent not more than 20% of the total time dedicated. Each presentation will last 30 minutes or less; • Interactive case studies based on real outbreak investigation; • Presentations from participants and working groups.

<p>Competencies to be acquired</p>	<p>Competencies to be acquired should enable participants, at the end of the training, to conduct the following activities:</p> <ul style="list-style-type: none"> • Planning and use of resources (plan, prioritise and schedule tasks in a project; monitor progress and quality against specific targets, adjust schedules and make changes if necessary; manage available resources (staff, time, budget, etc) effectively; conduct epidemiological activities within the financial and operational planning context; prepare an activity report) • Team building and negotiation be an effective team member, adopting the role needed to contribute constructively to the accomplishment of tasks by the group (including leadership) and • Promote collaborations, partnerships and team building to accomplish epidemiology programme objectives and develop community partnerships to support epidemiological investigations and mutually identify those interests that are shared, opposed or different from the other party's to achieve good collaborations and conflict management) <p>In the list of ECDC core competencies for public health epidemiologists working in the area of communicable disease surveillance and response in the European Union: Domain 2.4. Management: Competencies 64 to 72 Domain 1.2.3 Outbreak investigation: Competencies 25 to 30</p>
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4. Public Health Surveillance

Time Series Analysis - Principles of Surveillance	
Scheduled for	2015 (tentative)
Previous editions	21-25 April 2008, Veyrier du Lac, France; 4-8 May 2009, Santorini, Greece
Target Group	Epidemiologists who are involved at any level of the public health administration in the analysis of surveillance data with the objective of detecting aberrations which may reflect a change in frequency of occurrence requiring public health action
Prerequisites	Basic knowledge of statistics and mathematics is required, comprehension of basic linear regression techniques is an advantage. A basic knowledge of STATA commands is required. Good command of English
Learning Objectives	<p>The objective of this course is to strengthen participant knowledge and skills related to the public health surveillance and times series analysis, with the objective of detecting aberrations which may reflect a change in frequency of occurrence requiring public health action</p> <p>Knowledge objectives should include understanding:</p> <ul style="list-style-type: none"> • The principles of public health surveillance and data quality • Methods for evaluation of surveillance systems • The different components of a Time Series • The methods for modelling Time Series <p>Skills to be acquired involve learning how to:</p> <ul style="list-style-type: none"> • To identify the key attributes of a surveillance system • Design a plan to evaluate a surveillance system • To identify the needs of TS analysis • To interpret the results of a TS analysis
Content	<p>The curriculum includes:</p> <ul style="list-style-type: none"> • Data quality • Evaluation of surveillance systems • Laws on surveillance and reporting of communicable diseases at national, EU level and globally (International Health Regulations) • Time series analysis (Objectives, definitions, software, descriptive techniques, stationary process, filtering, smoothing, regression techniques, Time Series models (Linear Models, Autoregressive Models) and forecasting
Duration	3 days (face to face workshop)
Methods	Blended format (self-learning module to be done by participant one month in advance and three day face to face workshop). The teaching methods for the face to face workshops associate formal presentations, case studies and practical sessions on software tools
Competencies to be acquired	<p>Competencies to be acquired should enable participants, at the end of the training, to conduct the following activities independently:</p> <ul style="list-style-type: none"> • Perform descriptive analysis of surveillance data • Interpret disease and public health events trends from time series analysis • Identify key findings from surveillance data analysis and draw conclusions • Evaluate surveillance systems • Recognise the need to set up a new surveillance system <p>Domain 1.2.2. Public Health Surveillance: Competencies 19 and 20 – from the list of ECDC core competencies for public health epidemiologists working in the area of communicable disease surveillance and response in the European Union</p>

5. Training and Mentoring

ECDC Summer School 2014 – Train the trainer on Applied Epidemiology and Public Health Microbiology	
Date, venue	9-12 June 2014; at ECDC premises
Target Group	<p>Professionals with public health background who have an interest in mentoring and training junior professionals. This includes:</p> <ul style="list-style-type: none"> • 15 seats for Supervisors of EPIET and EUPHEM fellowships (main supervisor, co-supervisors and those for specific projects) • 15 seats for ECDC experts • 15 seats for Member State experts in Vaccine Preventable Diseases • 15 seats for professionals establishing MediPIET
Prerequisites	Education and expertise in prevention and control of communicable diseases; experience and/or willingness to train junior professionals. Willing/planning to suggest and supervise projects with an EU dimension to EPIET or EUPHEM fellows
Learning Objectives	The goals are: (1) sharing experience and views on supervision, coaching and creating collaborations between PH microbiologists and epidemiologists, and other relevant experts in prevention and control of communicable diseases, and (2) bring the ECDC core activities and the fellowship network closer together, enhancing competencies for supervision also among the ECDC experts, having in mind projects of EPIET and EUPHEM fellows that have an EU dimension and can be supervised by them.
Trainers	ECDC Experts from PHT Section and other Units, including Scientific Coordinators of EPIET and EUPHEM
Methods	<p>Participative methods will be used including: peer learning, problem-based solving, role play, group discussions, case studies, etc. Before the Summer School participants will receive the full agenda and recommendations for readings.</p> <p>One day workshops run in parallel and are led by EPIET Coordinators and other ECDC experts from different Units.</p>
Content	<p>The Summer School is composed of a series of parallel workshops, and includes:</p> <ol style="list-style-type: none"> 1. <u>Induction workshop for supervisors</u> <ol style="list-style-type: none"> 1.1. Mentoring, didactics and management 1.2. Acquisition and Assessment of Skills and Competencies 1.3. How to develop interactive case studies 1.4. Scientific review: Surveillance projects and operational research 1.5. Scientific writing: The argument matrix and abstract writing 2. <u>Technical workshops</u> <ol style="list-style-type: none"> 2.1. From Evidence to Action in Public Health 2.2. Ethics in Public health practice 2.3. Preparedness (exchange of experience) 2.4. Economic assessment in public health 2.5. Vaccine immunology 2.6. Introduction to STATA 2.7. External panel on Core Competencies (CC) on Vaccine Preventable Diseases and Immunization (VPD&I) – only by appointment

<p>Competencies to be acquired</p>	<p>Participants -are expected to strengthening their competences in:</p> <ul style="list-style-type: none"> • Supervision/mentoring on the job • Applied epidemiology (risk assessment, laboratory issues, outbreak investigation, epidemiological studies, public health surveillance) • Public health microbiology (risk assessment, outbreak investigation, public health surveillance) • Communication • Management • Training (Didactics) <p>Competency Domains 1, 2, 4, 5, 6, 8, 9, 14, 16, 17, 22, 23 and the Area of Ethics – from –ECDC core competencies for Public Health Epidemiologists and Public Health Microbiologists working in the areas of communicable disease surveillance and response in the EU.</p>
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**Courses and activities with ECDC Disease
Programmes, Microbiology Coordination and
other teams**

6. Antimicrobial Resistance and Healthcare-Associated Infections

Control of Multidrug-Resistant Microorganisms in Healthcare Settings	
Scheduled for	October 2014 (tentative)
Previous editions	-
Target Group	The target audience includes healthcare professionals with responsibility for the prevention and control of healthcare-associated infections (HAIs). Typically, these are mid-career professionals involved in programmes to prevent HAIs at hospital level.
Prerequisites	Field experts (infection control/hospital hygiene specialists) working in the public health administration in the 28 EU Member States, Iceland and Norway, proposed by the Coordinating Competent Bodies.
Learning Objectives	<p>- To offer a flexible and dynamic programme to strengthen the capacity in EU Member States, Iceland and Norway, for the control of HAIs caused by multidrug-resistant microorganisms (MDROs) in acute healthcare settings and to promote the broadest possible implementation of appropriate methods.</p> <p>- To facilitate team building between colleagues with similar responsibilities in control of nosocomial spread of MDROs in EU Member States, Iceland and Norway, and at ECDC, and to share training approaches knowledge and best practices with expert leaders in the field.</p> <p>- A further objective is to share training approaches and expertise with new trainers.</p> <p>The knowledge objectives include:</p> <ol style="list-style-type: none"> 1. Understanding the most significant mechanisms of antibiotic resistance in healthcare-associated microorganisms and their accurate detection by appropriate diagnostic and confirmation methods; 2. Understanding the global epidemiology and mechanisms of transmission of MDROs in hospital settings; 3. Understanding the risk factors for development, acquisition and infection with MDROs including host, environment and therapeutic factors; 4. Short reminder of the principles of antibiotic stewardship interventions designed to reduce the emergence and spread of MDROs in acute care settings. <p>The skills to be acquired are:</p> <ul style="list-style-type: none"> • Ability to develop and adapt a local microbiological surveillance and early warning system for monitoring epidemiologically important MDROs and inform control actions; • Understanding the principles and ability to develop, implement and evaluate a system of patient isolation and other precautions to prevent cross-transmission, in healthcare settings.

<p>Content</p>	<p>Session 1: Introduction to programme, and consolidation of pre-programme materials</p> <ul style="list-style-type: none"> - Introduction to MDRO education programme - Consolidation and review of microbiological and epidemiological perspectives <p>Session 2: Laboratory investigations</p> <ul style="list-style-type: none"> - Identification and antimicrobial susceptibility testing - Good laboratory practice <p>Session 3 Antibiotic stewardship</p> <ul style="list-style-type: none"> - Antibiotic policies - Measures for improvement of prescribing <p>Session 4 Infection control</p> <ul style="list-style-type: none"> - Principles and evidence-based practice - Effective infection control interventions <p>Session 5: Surveillance</p> <p>Session 6: Application to practice</p> <ul style="list-style-type: none"> - Application of interventions to control MDROs in healthcare settings - Transparent reporting of outbreaks and interventions <p>Session 7: Evaluation</p>
<p>Duration</p>	<p>3 days</p>
<p>Methods</p>	<p>The programme will be delivered by blended learning, with 21 direct contact teaching hours (i.e., as a three-day residential training course) complemented by a pre-programme CD-ROM resource, which will contain all pre-programme reading and teaching materials, to be made available and accessed by participants prior to programme attendance. For completion of the programme, the students will be required to have used the CD-ROM.</p>
<p>Competencies to be acquired</p>	<p>The competencies to be acquired should enable participants, at the end of the training, to independently conduct the following activities:</p> <ul style="list-style-type: none"> • Identification and antimicrobial susceptibility testing, and good laboratory practice; • Antibiotic stewardship and antibiotic policies; • Measures for improvement of antibiotic prescribing; • Measures for improvement of antibiotic prescribing; • Principles and evidence-based practice of infection control; • Effective infection control interventions; • Surveillance; • Application of interventions to control MDROs in healthcare settings; • Transparent reporting of outbreaks and interventions.

Epidemiological Methods in Healthcare-Associated Infections Surveillance and Surveys	
Scheduled for	Sept 2014
Previous editions	None
Target Group	<p>The target audience includes healthcare professionals involved in the PPS at the national, hospital and alternatively at regional level and performing HAI surveillance and the PPS on routine basis.</p> <p>Because of the additional focus of the course following feedback from the previous courses and from the HAI-Net Coordination Group, preference will be given to members of the national or regional HAI surveillance/PPS coordination teams in view of implementing elements of the course in their countries in preparation of the second EU-wide PPS of 2016-2017.</p>
Aims	<p>Surveillance of infection within the population receiving healthcare is a key function of the prevention and control of infection. Those working in the field should be familiar with the underpinning principles of epidemiology, approaches to study design and the principles of data analysis related to healthcare associated infections (HAI). Knowledge of the key issues for undertaking and analysing data from point prevalence surveys (PPS) of HCAI and antibiotic usage is essential to support their implementation and use the results to inform and improve infection control practice.</p> <p>The overarching aim of this course is to build capacity and a competent workforce with skills in HAI epidemiology.</p>
Learning Objectives	<p>The course aims that participants become familiar with training materials and approach, in order to organise courses in their countries with the following objectives:</p> <ul style="list-style-type: none"> • develop an understanding of epidemiological methods related to HCAI and their limitations • understand the importance of bias, confounding and temporality in the design and interpretation of epidemiological studies • learn how to plan and implement PPS • develop skills in using EpiData for data entry and questionnaire design • learn pertinent statistical analyses using EpiData • develop skills in analysing, interpreting and reporting findings from PPS
Duration	5 day course
Methods	The course includes lectures, practical exercises and group discussions. There will be a directed self-study in advance of the course. Participants will also be provided with a bibliography of set readings with additional references to widen and deepen understanding after the course.

Competencies to be acquired	<p>On successful completion of this course the participant will be able to implement a course that covers the following competencies:</p> <ol style="list-style-type: none"> 1. define an appropriate study population and different measures of disease occurrence relevant to epidemiological studies 2. choose an appropriate study design for answering an epidemiological study question in a hospital setting and appreciate their limitations 3. design a questionnaire for the collection of data required to address the study question 4. appreciate the aims, objectives and associated methodology of PPS and their limitations 5. enter and manipulate data, and undertake simple analyses of epidemiological data including PPS data in EpiData 6. understand bias and how to minimise it in designing studies 7. understand confounding and how to allow for it 8. understand the key issues in sampling strategy and hypothesis testing in relation to HCAI studies 9. analyse and interpret results of epidemiological studies and identify the need for more complex analyses 10. export EU PPS data from HELICS-Win to EpiData 11. implement methods to measure the validity and reliability of PPS data on HCAI 12. interpret and communicate effectively results from a PPS in HAI 13. plan and implement PPS locally 14. plan and implement other HAI surveillance locally
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7. Food and waterborne diseases and zoonoses, including Legionnaires' disease

Legionnaires' disease: Risk Assessment and Outbreak Investigation	
Scheduled for	Second Quarter of 2014 (If budget available)
Previous editions	June 2011 (London) October 2012 (London) 25-28 February 2013, Budapest - for EU/EEA Member States December 2013, Zagreb - for EU enlargement countries and Croatia
Target Group	Multidisciplinary: public health professionals involved in the prevention and control of Legionnaires' disease, in the three disciplines: public health microbiology, epidemiology and environmental health/inspections
Learning Objectives	The goal of this training is to strengthen the participants' knowledge and skills in order to improve the collaboration and communication among the different disciplines (microbiology, environmental health and epidemiology) involved in a Legionnaires' disease outbreak investigation and control.
Content	Clinical, epidemiological and environmental aspects of Legionnaires' disease, water systems and control measures, diagnostics, principles of outbreak investigation in different settings (community, travel-related and nosocomial outbreaks), risk assessment and communication.
Duration	3,5 days

Methods	The course incorporates different teaching methods: short presentations, group work, risk assessments using photographic material and field visits to understand potential sources of outbreaks (e.g. cooling tower, spa pool and water systems).
Competencies to be acquired	From ECDC core competencies for Public Health Epidemiologists working in the areas of communicable disease surveillance and response in the EU, the domains covered are: 1.1.1. Public health science 1.2.1. Risk assessment 1.2.2. Public health surveillance 1.2.3. Outbreak investigation 1.2.4. Epidemiological studies 1.2.6. Laboratory issues 2.3.1. Risk communication

Diagnosics and Public Health Surveillance, Prevention and Control of Food- and Waterborne Parasites - Jointly organised by WHO GFN/ECDC	
Scheduled for	12-14 March 2014, Stockholm Second half of 2014 (Tentative)
Target Group	Multidisciplinary: public health microbiology/parasitology, public health epidemiology, human and veterinary medicine
Prerequisites	Educational background in a discipline where parasitology of foodborne diseases is a relevant aspect; experience in this field and possibility to disseminate the information (i.e. training others)
Learning Objectives	Acquire knowledge and skills on <ul style="list-style-type: none"> • Differential diagnosis and public health aspects of <ul style="list-style-type: none"> ○ Protozoa: Giardiasis, Cryptosporidiosis, Toxoplasmosis. ○ Nematoda: Trichinella ○ Cestoda: Echinococcus granulosus, Echinococcus multilocularis • Advanced methods for microscopic diagnosis • Molecular diagnosis of intestinal protozoa
Content	Clinical, Diagnostic and Public Health Aspects of Foodborne and Intestinal Parasitic Infections, including: <ul style="list-style-type: none"> • Pathogen description of priority parasites and lifecycle; short description of the human disease, epidemiology and surveillance in humans and control programmes in animals (This should cover the human, veterinary and food sectors). • Diagnosis, including all steps: microscopy, species and genotype characterization as well as serology • Management option considerations (these will have diverse veterinary or environmental contributions): <ul style="list-style-type: none"> ○ Surveillance ○ Prevention (treatment in animals where appropriate) ○ Control (including EU control programmes in animals to prevent spread) ○ Elimination
Duration	3 days

Methods	<p>The first edition in February 2014 is a pilot and consists of a pre-workshop assignment and a face to face workshop.</p> <p>The next editions are planned with a blended format i.e. a combination of eLearning for the introductory aspects with face-to-face lab, epidemiology and integrated sessions in the classroom, followed by a post-training implementation project.</p> <p>Methods include demos and practical exercises on new diagnostic methods, combined with working group discussions.</p> <p>The dissemination and use of training materials at national and sub-national level is encouraged.</p>
Competencies to be acquired	<p>From the ECDC core competencies for Public Health Epidemiologists working in the areas of communicable disease surveillance and response in the EU, the domains: 4. Public health surveillance, 1.2.5. Infectious diseases, 1.2.6. Laboratory issues</p>

Epidemiological and Microbiological Investigation of *L. monocytogenes* clusters – Joint pilot workshop EFSA/ECDC/EURL

Scheduled for	2015 (Tentative)
Previous editions	12-13 March 2013, Paris, France
Target Group	<p>Multidisciplinary groups of four experts per each participating country covering the following areas: public health epidemiology, public health microbiology, food safety and food microbiology.</p> <p>Seats for 12 participants from three different EU/EEA Member States.</p> <p>Selection is done by ECDC FWD Disease Programme, EFSA and the EURL, through invitation letters to EFSA's Task Force on Zoonoses Data Collection, ECDC's Food- and Waterborne Diseases and Zoonoses network and the network of National Reference Laboratories for <i>L. monocytogenes</i>.</p>
Prerequisites	<p>Expert from a national level public health laboratory with skills to perform or supervise PFGE typing of <i>Listeria monocytogenes</i> isolates.</p> <p>Expert from a national reference laboratory for food with skills to perform or supervise PFGE typing of <i>Listeria monocytogenes</i> isolates</p> <p>Expert in public health epidemiology and with an interest in listeriosis</p> <p>Expert in food safety and with an interest in <i>Listeria monocytogenes</i> in foods</p>
Learning Objectives	<p>The aim is to strengthen multidisciplinary collaboration in detection, investigation, and reporting of <i>L. monocytogenes</i> outbreaks.</p> <p>The pilot training workshop on epidemiological and microbiological investigation of <i>L. monocytogenes</i> clusters uses molecular typing data (PFGE) as a clustering tool.</p>

Content	<p>Current activities by the different EU PH stakeholders:</p> <ul style="list-style-type: none"> • Update on activities related to foodborne outbreak investigations - EC • Updates on surveillance of listeriosis, <i>Listeria monocytogenes</i> and launch of molecular surveillance pilot - ECDC • <i>Listeria</i> baseline food survey, data collection and plans for molecular typing data collection - EFSA • Lm molecular typing database development and external quality assessment support - EURL <p>Perspectives about the disease:</p> <ul style="list-style-type: none"> • Listeriosis in humans and <i>Listeria monocytogenes</i> as a food safety problem • Listeriosis in humans, clinicians view • <i>Listeria monocytogenes</i> - food hygiene problem in food processing industry <p>Investigations of <i>Listeria monocytogenes</i> outbreaks and clusters (country presentations)</p> <p>Introduction to cluster analysis</p> <ul style="list-style-type: none"> • PFGE typing of Lm and quality assessment (EURL) • Introduction of the ELiTE study (ECDC) • Cluster analysis and introduction of cluster analysis plan (ECDC) <p>Need for additional descriptive analyses; useful variables to be covered in the ELiTE study; and need for additional comparisons</p> <p>Specific aspects in classification and reporting of listeriosis foodborne outbreaks (EFSA)</p>
Duration	2 days
Methods	<p>The training workshop is eminently practical.</p> <p>There will be presentations, and participants will - in working groups - practice cluster analysis and receive orientation to the tasks and study questions of the ELiTE study; Afterwards, participants will present group results and discussions on major findings.</p>
Competencies to be acquired	<p>Competencies to be acquired should enable participants, at the end of the training, to conduct the following activities independently:</p> <ul style="list-style-type: none"> • Defining and identifying clusters; • Selection of clusters for further analysis; • Descriptive analysis of clusters; • Statistical comparisons.

8. Vaccine Preventable Diseases

Epidemiological Methods applied to Vaccine Preventable Diseases- Train the trainers	
Scheduled for	2015 (tentative)
Previous editions	Epidemiological aspects of vaccination 14-18 April 2008, Bilthoven, The Netherlands 20-24 April 2009 Helsinki, Finland 21-23 February 2012, Florence, Italy (Train the trainers)
Target Group	Epidemiologists/public health experts from EU member states (MS) and EEA, who are involved in surveillance of vaccine preventable diseases and immunisation issues in their regular activities at national or regional level.
Prerequisites	Minimum work experience of two years in this field and good command of English
Learning Objectives	The objective of this course is to give an overview of the main aspects of vaccination issues in public health and strengthen participant knowledge and skills related to epidemiological methods applied to vaccine preventable diseases, including public health surveillance, outbreak investigation and epidemiological studies, strengthening participant knowledge and skills related to the investigation of communicable disease outbreak affecting their country. Knowledge objectives should include: <ul style="list-style-type: none"> • European and global VPD networks and disease control targets • Basic concepts of public health surveillance and special aspects relevant for VPD • Vaccine coverage monitoring/surveillance • Outbreak investigation applied to VPD Skills to be acquired involve learning how to: <ul style="list-style-type: none"> • Apply the epidemiological concepts of clinical vaccine trial design including vaccine efficacy • Evaluate vaccination programmes • Conduct surveillance of vaccine preventable diseases, • Estimate vaccine uptake, • Evaluate vaccine safety and vaccine effectiveness, • Conduct sero-epidemiology studies and vaccine effectiveness • Conduct outbreak investigation of VPD
Content	The curriculum for the workshop should include <ul style="list-style-type: none"> • Surveillance of Vaccine Preventable Diseases (VPD) • Surveillance of vaccine coverage in a VPD • Outbreak investigation of a VPD • Surveillance of adverse events • Evaluation of Immunization programs • Communication to the population
Duration	21 hours over 3 days
Methods	Lectures, case studies, group discussions and practices to design lesson plans.
Competencies to be acquired	Competencies to be acquired should enable participants to: <ul style="list-style-type: none"> • Conduct surveillance of vaccine preventable diseases • Conduct an outbreak investigation of a vaccine preventable disease • Conduct sero-epidemiology studies <p>From ECDC core competencies for Public Health Epidemiologists in the area of communicable disease surveillance and response in the EU, the domains: 4. Public health surveillance, 5. Outbreak investigation, and 6. Epidemiological studies</p>

9. Sexually transmitted infections

Laboratory Diagnostics and Susceptibility Testing for Gonorrhoea	
Scheduled for	TBC
Previous editions	2012, 2011, September 2013, in London
Target Group	Microbiologists and laboratory experts from EU/EEA member states working in the field of sexually transmitted infections, particularly gonorrhoea or who are considering developing <i>N. gonorrhoeae</i> susceptibility testing in their laboratories or joining the European Gonococcal Antimicrobial Surveillance Programme.
Prerequisites	See Target
Learning Objectives	The course objectives are to give participants a good working knowledge and understanding of <i>N. gonorrhoeae</i> diagnostics, culture, identification and susceptibility testing.
Content	Isolation and identification of <i>N. gonorrhoeae</i> Antimicrobial resistance in gonorrhoea – mechanisms and detection Surveillance of gonococcal antimicrobial resistance Susceptibility testing of <i>N. gonorrhoeae</i> Use of NAATS for GC testing Molecular typing of <i>N. gonorrhoeae</i> Microscopy for STIs European STI Surveillance
Duration	Three days
Methods	Combination of lectures and laboratory bench work
Competencies to be acquired	<ul style="list-style-type: none"> • Surveillance of gonorrhoea and antimicrobial resistance • Laboratory management • Microbiology knowledge • Specimen collection • Specimen transportation • Laboratory Methods • Molecular Methods

10. Communication

Development, Implementation and Evaluation of Prudent Antibiotic Use Campaigns	
Scheduled for	2015 (Tentative)
Previous editions	The first edition was in July 2013, Stockholm
Target Group	This course targets a multidisciplinary audience comprising health professionals, such as infectious disease specialists, microbiologists and pharmacists, as well as communication experts and press officers responsible for the design and implementation of the European Antibiotic Awareness Day (EAAD) campaigns at national levels in the EU/EEA Member States and EU enlargement countries.
Prerequisites	See target audience
Learning Objectives	<p>The course will provide appropriate learning opportunities so that the participants can acquire knowledge on:</p> <ul style="list-style-type: none"> • Basic concepts regarding BCC (behaviour change communication) campaigns, including theoretical underpinnings and planning frameworks; • Key elements of a social marketing plan for development of BCC campaigns on prudent antibiotic use; • Strategies to overcome implementation barriers related to resources limitations (budget, time and staff constraints); • Basic concepts on monitoring and evaluation methods and tools. <p>Skills related to</p> <ul style="list-style-type: none"> • Stepwise design and implementation of a social marketing plan for a BCC campaign on prudent antibiotic use, including but yet not limited to market research (formative research and segmentation) and marketing mix formulation (product, price, place, promotion); • Stepwise planning for monitoring and evaluation of a BCC campaign on prudent antibiotic use.
Content	<p>The main domains of the course are:</p> <ul style="list-style-type: none"> • Health communication approaches, more specifically BCC, focusing on prudent antibiotic use campaigns; • Monitoring and evaluation, with emphasis on prudent antibiotic use campaigns.
Duration	2,5 days
Methods	<p>The course includes three parts:</p> <p>A pre-course package</p> <p>A 2,5-day face-to-face course divided into three modules:</p> <p>Module 1: Introduction to development of campaigns on prudent antibiotic use</p> <p>Module 2: Implementation and process-evaluation of campaigns on prudent antibiotic use</p> <p>Module 3: Development of outcome/impact indicators for campaigns on prudent antibiotic use</p> <p>A post-course package</p>

Competencies to be acquired	<p>Learning outcomes are classified according to Bigg's structure of the observed learning outcomes (SOLO) taxonomy: (Level 1) uni-structural, (Level 2) multi-structural, (Level 3) relational, and (Level 4) extended abstract.</p> <p>At the end of this course, the participants will be able to:</p> <ul style="list-style-type: none">• Understand and explain the rationale, key elements and steps required to develop a behaviour change communication campaign focusing on prudent antibiotic use (SOLO-Level 2);• Understand and apply basic social marketing concepts in the development, implementation and evaluation of behaviour change communication campaigns focusing on prudent antibiotic use (SOLO-Level 2);• Design and implement a site-specific behaviour change communication campaign focusing on prudent antibiotic use (SOLO-Level 3);• Understand and explain the different monitoring and evaluation conceptual approaches and frameworks (SOLO-Level 2);• Identify and select appropriate indicators, methods and tools to monitor and evaluate behaviour change communication campaigns focusing on prudent antibiotic use (SOLO-Level 3);• Design and implement a monitoring and evaluation work plan for a site-specific behaviour change communication campaign focusing on prudent antibiotic use (SOLO-Level 3).
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Risk Communication in the Prevention and Control of Communicable Diseases. Focus: measles	
Scheduled for	TBC
Previous editions	January 2013 (Pilot training for ECDC Experts) September 2013 - Tallin, Estonia
Target Group	Public health programme managers and practitioners involved in the prevention and control of communicable disease threats on regional, national and/or local level.
Prerequisites	Expertise in monitoring and evaluation of public health programmes (e.g. addressing specific groups and populations); involvement in health education and health promotion programmes at national and/or local levels; possibility/ability to apply risk communication concepts, principles and approaches to the prevention and control of communicable disease at national and/or local levels; interest in health-related behavioural and social science.
Learning Objectives	The central aim of the training is to improve participants' understanding of and action capacities related to different ways of addressing risk communication challenges and to develop the capacities to understand, analyse and apply risk communication concepts, principles and approaches to the prevention and control of communicable disease threats on regional, national and/or local levels.
Content	<ul style="list-style-type: none"> • Risk communication concepts (Introduction to risk communication) • Applying concepts in everyday professional/ institutional practice • Risk perception and behaviour • Using risk communication concepts to reframe approaches to measles vaccination challenges
Duration	2 days
Methods	<p>The training course is structured to help participants reflect on various concepts and a strategy related to risk communication. It offers a forum to test innovative approaches and engages participants in an active learning process rather than the provision of oversimplified "how-to communicate" bullet points and lists of "universally" easy to apply tricks.</p> <p>The course puts an emphasis on addressing continuous infectious risk communication challenges e.g. vaccination and multi-drug resistance rather than working exclusively on outbreak scenarios and early communication to prepare for these outbreaks and other health crises.</p> <p>The course using discussion, lectures, case studies, work on concrete scenarios, group assignments.</p>
Competencies to be acquired	<p>This training aims to help workshop participants to think differently about risk communication by introducing them to new ways to:</p> <ul style="list-style-type: none"> • Analyse a variety of risk communication approaches and concepts • Understand and reflect on the implications of these approaches and concepts for addressing public health challenges, in particular measles vaccination • Apply these approaches to their own daily practice

11. Public Health Microbiology

ESCMID ECDC Observers	
Scheduled for	1-5 September 2014 (tentative)
Previous editions	September 2013
Target Group	As a Collaborative Centre of the European Society for Clinical Microbiology and Infectious Diseases (ESCMID), ECDC offers to host ten Observers during 2014. This initiative targets professionals within the field of clinical microbiology and infectious diseases, who have an interest in public health. This initiative is open to full members of ESCMID. More details on the observer-ships and application procedure can be found at www.escmid.org
Learning Objectives	<p>The main objectives of a one-week visit are:</p> <ul style="list-style-type: none"> • to provide the ESCMID Observers with a good understanding of the European public health roles and responsibilities of ECDC in supporting infectious disease prevention and control and the interplay with expert and competent bodies in the Member States; • to become acquainted with EU surveillance and epidemic intelligence systems; • to be informed about ECDC's Public Health Microbiology Programme; • to initiate contact with ECDC's disease-specific experts; • to receive an overview of projects of relevance to their work and find an opportunity for possible collaborations.
Content	<p>Day 1: General introduction to ECDC, including an overview of the EU institutions with functions in communicable disease prevention and control, presentation of ECDC's mandate and the way it operates; Brief introduction of the ESCMID Observers – invited to present their own country and institution, professional background and interests; area of work and research activities and their expectations of the visit; Information about the core functions of Centre, including highlights of recent projects and on-going work; Visit to ECDC's Round Table – cross-disciplinary daily review of most recent epidemic intelligence information on potential threats to human health; Presentation of the joint vision of the European Commission and ECDC on human pathogen laboratories and the Centre's Public Health Microbiology programme, with focus on initiatives relevant to the background of the ESCMID Observers (harmonised antimicrobial resistance monitoring, molecular surveillance, etc.); Discussions on the topics of the day</p> <p>Day 2: Presentation of ECDC's Disease programmes and thematic discussions; Antimicrobial Resistance and Healthcare-associated Infections, Emerging and Vector-borne Diseases, Food- and Waterborne Diseases and Zoonoses, Influenza, Sexually Transmitted Infections, including HIV and Blood-borne Viruses, Tuberculosis Programme, Vaccine Preventable Diseases, Scientific advice, health inequalities and migrant health</p> <p>Day 3 – Day 5: Selected topics / projects; Presentations by ESCMID Observers on their current professional activities and projects; Presentations by EUPHEM fellows; Stay at specific sections/units and discussions with ECDC experts on specific topics or projects depending on the interest of the ESCMID Observers; The visit will conclude with an interactive session to exchange personal reflections and suggestions for future Observer's visits and other areas of academic – public health collaborations.</p>
Duration	5 days
Methods	Interactive presentations, multi-disciplinary discussions, visits of different units/sections at the Centre, selected technical discussions depending on the area of interest

12. Training through Exchange visits

Training through Exchange Visits: for Food- and Waterborne diseases, zoonoses, and Legionnaires' disease	
Scheduled for	January-December 2014
Previous edition	No previous edition
Target group	<p>Open to all Member States (MS) technical experts working on one or more of the diseases covered by the Food and Waterborne Diseases and zoonoses (FWD) programme of ECDC, Legionnaires' disease included, at the national, regional or local level. The list of diseases is available at ECDC website (http://ecdc.europa.eu/en/healthtopics/Pages/health_topics_disease_group.aspx).</p> <p>Participants will be selected through a Call for Expression of Interest (CEI) to be published in 2014.</p>
Prerequisites	Professional profiles of applicants may include: epidemiologist, microbiologist, laboratory technician, quality assurance expert or any other public health expert fulfilling the national interest for capability building
Learning Objectives	<p>The goals are:</p> <ul style="list-style-type: none"> • Create an opportunity for PH experts to familiarise themselves with working methods of other EU countries and promote sharing of good practices; • Foster mutual learning, networking and trust among colleagues within the EU; • Improve MSs national, regional or local capacity and competence in the specific area targeted by the training; • Support the European dimension in PH cooperation and training. <p>The knowledge objectives include:</p> <ul style="list-style-type: none"> • Understanding principles and technical challenges in performing selected diagnostic method/s for the diseases; • Diagnostic methods (detection, confirmation, and further characterisation) currently available for diagnostics; • Understanding Quality Assurance principles and processes in a laboratory, including accreditation; • Understanding the multidisciplinary dimension of Legionnaires' disease outbreak investigation, management and prevention. <p>The skill objectives should promote the national competence through:</p> <ul style="list-style-type: none"> • Improved ability to carry out selected diagnostic and characterisation technique/s, including molecular typing methodologies; • Ability to develop and/or implement a quality assurance system in the laboratory, supporting the activities towards accreditation; • Ability to perform investigations in a Legionnaires' disease outbreak situation.
Content	<p>The topics to be covered include:</p> <ul style="list-style-type: none"> • Diagnostics, confirmation and further characterisation; • Quality assurance in a laboratory; • Outbreak investigation and management.
Duration	One to two weeks per exchange visit
Number	A maximum of six exchange visits will be funded in 2014.

<p>Methods</p>	<p>Twinning training entails the exchange of professionals between laboratories and/or institutions across EU based on mutual agreements. Single experts, or <i>exchangees</i>, will spend an exchange period in a selected <i>hosting site</i> on an on-the-job training.</p> <p>The selection of participants (<i>exchangees</i> and hosting sites) will be done by mean of an open Call for Expression of Interest published by ECDC. The CEI will contain details on the training topic/s and on the requirements for the participants and hosting sites.</p> <p>Member States shall provide national coordination in responding to the CEI. The applicants (<i>exchangees</i>' and/or hosting sites) shall identify a specific topic/area of training within the scope of the CEI. The <i>exchangees</i> shall in addition identify a need/gap at local and/or national level to be addressed through the training. The applications will be assessed against a set of pre-defined criteria published in the call.</p> <p>Each country may propose one participant per each exchange visit.</p> <p>Each <i>exchangee</i> expert goes to one <i>hosting site</i> in a MS. Each exchange is organised around one or more specific topic/s. The <i>exchangee</i> is expected to cascade newly gained knowledge to his/hers colleagues in his/her home country after the exchange period. To this aim, the <i>exchangee</i> will be requested to write a short report including an action plan to disseminate the knowledge and recommend areas of improvement.</p>
<p>Competencies to be acquired</p>	<p>Competencies to be acquired should enable the participants, at the end of the training, to conduct the following activities:</p> <ul style="list-style-type: none"> • perform selected diagnostic technique/s for FWD; • develop and/or implement a quality assurance system; and • perform multidisciplinary investigations in a Legionnaires' disease outbreak situation.

13. Evidence-Based Public Health

Evidence-Based Principles and Methods in Health Care and Public Health	
Scheduled for	4 days in May 2014 (20 seats) 4 days in September 2014 (20 seats)
Previous editions	None
Target Group	The training is especially recommended to ECDC staff and ECDC stakeholders involved in the development and provision of risk assessments and guidance, or responsible for the commissioning of systematic reviews and guidance.
Prerequisites	Some basic epidemiological knowledge is helpful to fully benefit from the training.
Learning Objectives	The main objectives are: <ul style="list-style-type: none"> • To understand the principles of evidence-based health care and public health; • To get to know and apply the main tools.
Content	Evidence-based decision-making in the era of public participation Systematic review and meta-analysis How to get started and develop a review protocol Search techniques and sources of evidence Critical appraisal of evidence Levels of evidence and strength of recommendations Available software tools How to commission a systematic review
Duration	4-day course
Methods	A mix of lectures and hands-on training using real life examples. Over the four days, the participants will work in small groups on all the steps of a systematic review and meta-analysis and present their results on the last course day.
Competencies to be acquired	The participants will gain the theoretical knowledge and basic practical skills necessary to start using evidence-based principles and methods in their daily work.

14. Epidemic Intelligence and Risk Assessment

Sharing best practices in Epidemic Intelligence and Risk Assessment among members of ENPI project and EpiSouth Network	
Date, venue	November 2014; on ECDC premises
Target Group	<p>Professionals with public health background who have an interest in getting familiar with the tools, standards and practices adopted at technical level for the fight against communicable diseases in the EU. This includes:</p> <ul style="list-style-type: none"> • 8 seats for ENPI project countries • 26 seats for EpiSouth focal points
Prerequisites	Members of the European Neighbourhood and Partnership Instrument countries (ENPI) and EpiSouth Focal points.
Learning Objectives	<p>The goal is to share best practices on epidemic intelligence and risk assessment among the experts in prevention and control of communicable diseases.</p> <p>The outcome of this workshop is anticipated to be to foster and encourage contacts and exchanges of best practices at technical levels between experts from EU Member States, ECDC, ENPI countries and EpiSouth Focal Points;</p>
Trainers	ECDC Experts from SRS Unit and PHC Unit
Duration	2 days
Methods	<p>Participative methods will be used including: peer learning, discussions etc.</p> <p>The different participants will be requested to present the best practices for epidemic intelligence and risk assessment in their own country. Before the workshop the participants will receive the full agenda. The workshop will be facilitated by ECDC experts in epidemic intelligence and response.</p>
Content	<p>ECDC experts will introduce the participants to the ECDC methods and tools for epidemic intelligence and risk assessment.</p> <p>The course is composed of a series of best practices of different surveillance activities presented by the participants on the below topics:</p> <ul style="list-style-type: none"> • Monitoring of cases of West Nile virus • Malaria surveillance • Detecting Crimean-Congo haemorrhagic fever cases • Assessing the risk of public health threats by importation of quickly spreading, novel or eradicated diseases. <p>(Under development)</p>

<p>Competencies to be acquired</p>	<p>Participants are expected to strengthening their competences in:</p> <ul style="list-style-type: none"> • Using an EPIS platform • Risk assessment and public health surveillance • Applying of learned methods in a national setting <p>Competencies 13, 14 and 15 under the Competency Domain 1.2.1 Risk Assessment in the Area of Applied Epidemiology– from ECDC core competencies for Public Health Epidemiologists and Public Health Epidemiologists working in the areas of communicable disease surveillance and response in the EU.</p>
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