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Introduction

In the European Union, countries do not have an equal capacity to respond to PH events affecting them nor to contribute to a coordinated European response to PH threats. The founding regulation¹ establishing the European Centre for Disease Prevention and Control (ECDC) gives ECDC a clear mandate to strengthening the capacity of the EU for the prevention and control of infectious diseases. Accordingly, in collaboration with the European Programme for Intervention Epidemiology Training (EPIET), ECDC has drafted a training policy document for strengthening the European capacity in intervention epidemiology covering the period 2006 to 2010.

The main goal of ECDC training activities is to develop human resources in the field of intervention epidemiology. This will be done with a dual perspective: meeting the regional and national specific needs of EU member states and contributing, through training, to harmonize approaches and methods for coordinated interventions against PH threats in EU. The ECDC training policy seeks to help to develop a European network of public health epidemiologists with an EU perspective, common objectives and common methods. Trained epidemiologists will represent an essential component of the EU-ECDC response capacity to public health threats, both in Europe and internationally.

The specific objectives of a training policy in intervention epidemiology for Europe are:

- To identify gaps in required epidemiological knowledge, skills and practices at MS and EU level
- To identify groups of PH professionals to be trained in epidemiology
- To identify / develop relevant training methods and tools
- To secure adequate financial and human resources
- To organise regular training activities
- To evaluate regularly the impact of the ECDC training programme
- To review and adapt regularly the training policy

The Training Policy Document has been presented and endorsed by the AF in September 2005.

Scope and purpose

The main objective of this country consultation is to review and implement the ECDC training policy in intervention epidemiology in the EU, with the goal of strengthening the capacity of response to epidemics in the EU as well as reinforcing collaboration with international counterparts.

Specific objectives of this meeting are:

- Initiate a training needs assessment and a resource inventory in each Member State
- Review and implement the training strategic plan
- Prioritize actions to be implemented in 2006-2007

¹ Regulation 851/2004 of the European Parliament and of the Council



Objective 1: initiate a training needs assessment in each Member State

European countries are using different approaches to develop human resources in intervention epidemiology. While some countries have embarked in implementing field epidemiology training programmes (FETP) based on a 2 year tutored assignment of epidemiologists (Germany, Spain, France and Italy), other have privileged shorter in-service training of their workforce. Extensive training material and resources exist in Europe, but are not equally distributed and available in the different languages of the Union.

Therefore, there is a need to inventory existing resources and identify gaps needing to be addressed in priority. In particular, there are specificities in the new Member States and in countries with decentralized public health administrations and public health systems which need to be considered.

Objective 2: define a strategic plan for the implementation of the training policy

In the draft presented to the Advisory Forum on 30th September 2005, a tentative Plan of Action for the period 2006-2010 is included.

Training activities proposed to achieve the objectives of the ECDC training policy include:

- Integration of EPIET in the ECDC and further development
- Organization of courses and assistance in the development of national or regional FETPs in different countries, to meet country specific needs, contributing to creating a cadre of well trained epidemiologists in EU sharing the same methods of work. ECDC could support the development of new FETPs both financially and in terms of human resources needed. Senior EU epidemiologists from another EU country could be sent for 2 to 4 years in a country launching such programmes.
- Residential face to face courses at ECDC and in member states. According to language requirements those short courses could be offered to participants from all EU nations and beyond. Many such short courses in field epidemiology have already been developed by the various National PH institutes in EU, the FETPs and EPIET.
- Design and sharing of training materials that reflect lessons learnt in PH in EU and worldwide and be based on current national, EU, and international practical examples.
- Distance learning, organized from the ECDC training department or subcontracted when needed, could involve collaboration with universities and be recognized by an official diploma.
- Activities to receive a professional accreditation/recognition of field epidemiologists in EU
- Development of links with all the MS, universities, PH Schools, and international training networks (TEPHINET), etc

The ECDC training policy represents a basis fulfilling the goal of strengthening the EU capacity in intervention epidemiology.

Objective 3: prioritize actions to be developed in 2006

The training policy document covers a 5 year period, from 2006 to 2010. However, it is important to identify areas requiring priority actions in 2006, given the anticipated human and financial resources of the ECDC. Therefore, it was necessary to conduct a prioritization exercise, which will identify those activities that are pre-requisites for the further actions.



Process

The consultation consisted of presentations by relevant experts in training in intervention epidemiology from the Member States and ECDC on approaches currently implemented as well as working group sessions, constituted by 10 to 12 participants each, to discuss: (1) training needs assessment, (2) training resources inventory, (3) training priorities for the MS in 2006-2007 and (4) training priorities for the EU (2006-2007).

The forms designed for scoring priorities in the working groups were perceived as adequate for a quantitative analysis.

In the plenary session, the need of defining "Field Epidemiology" and "Intervention Epidemiology" was raised. Both terms are used as synonyms in the Training Policy document but they may have slightly different meanings. According to the US CDC, "Field epidemiology is the practice or application of epidemiology to control and prevent health problems" but there is not a unique and agreed definition.

There was an agreement on the Field Epidemiology tasks in the group, mainly: surveillance, outbreak investigations, applied research, data management & analysis, communication, public health leadership / coordination, decision making and teaching.

It will be necessary to review in the future if the needs assessment should be focused in the specific needs for rapid response to infectious diseases or should have a broader focus, including for example environmental hazards, for the concept of Integrated Public Health Response.

There is an urgent need of identifying in the EU both: "training capacity for increasing the response capacity" and vice versa "response capacity for identifying suitable trainers", as the main source of facilitators in intervention epidemiology are the National Institutes of Public Health in the MS.

Training needs assessment

No formal needs assessment on training in intervention epidemiology has been done in the Member States. However, there are several experiences of "informal and unstructured assessment" to design training strategies in countries and in international organizations like the World Health Organization (WHO) that could be taken as reference.

A more structured needs assessment in the Member States would be welcomed, based on a protocol including qualitative and quantitative techniques.

It is recommended to define indicators to include in the assessment and facilitate the description of situations, i.e. number of epidemiologists per population. It is suggested as an advisable measure to investigate the long term needs in training assessing the age distribution of epidemiologists employed or in training now, so as to define a long term training plan.

The tool designed for the Evaluation of pandemic preparedness plans in the EU² is considered an efficient model.

² http://www.ecdc.eu.int/Influenza/Assessment_Tool.php



It is suggested to conduct the needs assessment by interaction with MS through visits, rather than with a large EU transversal survey. These external visits can have the added value of increasing awareness about the importance of developing capacity in intervention epidemiology among decision makers in the countries.

Public health officials already working should be considered as an important target group to train.

A link must be done between the needs assessment and the resource inventory. There should be a classification of minimum level needs and “luxury” needs.

It is encouraged to create a task force on training in the framework of the Advisory Forum.

There is agreement on the need of defining core competencies for field epidemiologists, as a preliminary step to the Training Needs Assessment process. As a complementary action, it is necessary to develop a skill assessment tool for epidemiologists. The EPIET document for the self-assessment of acquired skills of fellows during training and the competencies in the portfolio of Public Health Training in the European Union can be good references to consider.

It was stressed the need of a task-oriented training taking into account the specificities of the various MS.

It is anticipated that there will be groups of countries with similar needs that can lead to a similar training strategy.

The international and European legal framework (i.e. International Health Regulations, EU zoonoses directive) must be considered to set the training priorities.

There is a high consensus for the need of setting standards for accreditation. It was recommended to agree with all MS an EU accreditation mechanism for field epidemiologists, based on competencies more than on academic qualification.

Several countries suggested identifying models or examples of good practice to take as a reference, studying what works well and what doesn't in field epidemiology. To have an EU model or standard would make easier the assessment and contribute to identifying gaps. Some participants gave the example of the requirements in the vacancy notices. Nevertheless, a single set of standards may not fit all MS and may be politically sensitive.

Resources Inventory

A bottom-line approach for creating the resources inventory, from the MS to the ECDC, is recommended.

Translation of training material should be done to improve the access to all, and if possible these translations must be done by people in the countries, experts in each field.

It is suggested the need of creating at least two “shopping lists” for member states: (1) training materials and methods, (2) human resources for training.

It was discussed the complexity of maintaining/updating databases with all the detailed information and on the other hand, the necessary quality control or assurance of available resources.



Training priorities for Member States (2006-2007)

Scoring of Activities

The score proposed for the prioritization of activities during the period 2006-2007 in the Member States was:

- 3 = High priority for 2006 - 2007
- 2 = Priority for 2006 - 2007
- 1 = To consider, but not a priority for 2006 - 2007
- 0 = Not to consider (please, justify under comment)

The scoring of activities to be prioritized during the period 2006-2007 in the Member States yielded the following results (average value in brackets):

- Organise short residential courses at national level (2.3)
- Develop training material based on MS examples (2.2)
- Develop training schemes and methods (1.8)
- Develop and offer distant learning covering the topics presented in the next section (1.5)
- Assist in setting-up national FETPs (1.2)

The priority is to organize short residential courses at national level, especially for the senior epidemiologists/PH officials (advanced courses).

The interest for the activity of setting up new national FETPs had a relatively low score and for all the MS as a whole it cannot be considered a priority for the period 2006-2007. If international organizations and external participants were included, the total score was 1.3 compared to 1.2 when considering only the MS scores.

For this reason, we compared the score given by the group of countries that have already an FETP or a similar training in PH (France, Germany, Italy, Spain, UK and Norway) to the rest of countries, excluding the international organizations or non MS participants. The average score for those countries with an FETP was 1.48 compared to 1.1 for those without it. The average score for countries of the "Europe of the 15" was 1.45 compared to 1.27, for the countries that accessed the EU in 2004. The average score for larger countries was 1.35 compared to 1.15 for smaller countries (considering the cut-off in 10 million inhabitants).

Considering the discussion about the expansion of the EPIET and the needs of supporting national FETPs, a new model for training "in their country" and "in their jobs" was suggested, including the participation in European level theoretical courses. This was considered an intermediate solution to avoid brain drain and the expensive costs of supporting the training of one fellow in the EPIET abroad. The advantages of separating the fellow from the routine job were highlighted: need of having protected time for training and learning by doing in a different environment.

The adaptation of training material to national needs was considered a priority, both in the language and in the context meaning.



Topics for courses

Advocacy for field epidemiology training should be done, according to the participants. Following the score defined above, the average for activities given by all the participants (44 forms) were:

- Principles of outbreak investigation and response (2.7)
- Coordination of response to national crisis (2.4)
- Training of trainers (2.4)
- Analytical tools for surveillance data (2.3)
- Principles of epidemiological surveillance (2.3)

The three-week introductory course on Field Epidemiology was considered one priority by several MS. Identifying needs in groups of neighbouring countries would make possible organizing training courses together.

The course about train-the-trainers was among the topics considered critical because of the clear advantage of the snowball effect.

Courses on principles of outbreak investigation and response were highlighted as a priority.

Several experts recommended including the topic of report writing, especially for the modules of outbreak investigation and response. Accordingly, risk communication is suggested as a relevant topic.

Interdisciplinary courses were considered a priority, for example: (1) courses for microbiologists and epidemiologists and (2) animal health and public health surveillance officers.

It was considered necessary to give short courses on epidemiology to microbiologists and vice versa.

It was highlighted the need to train in the International Health Regulations (IHR) and use them for advocacy

Training priorities for European Union (2006-2007)

There is an added value of development of a needs assessment framework (even self-assessment) and providing potential training materials for local use. It will be needed to consider what TEPHINET has already produced.

The objective of strengthening EU capacity was re-phrased, stressing the need of “developing / encouraging training that will build competencies for response to infectious diseases within the MS”.

Sharing expertise and lessons learnt in the EU is important as the Centre will be integrating the activities of the various surveillance networks in near future.

Agreement and establishment of core competencies for field epidemiology and accreditation process was emphasized again in this section, as in the MS priorities. It is recommended promoting the development of the ASPHER (network of Schools of Public Health), accreditation and curricula in field epidemiology.



Scoring of Activities

The score proposed for the prioritization of activities during the period 2006-2007 in the European Union was the same proposed for MS:

- 3 = High priority for 2006 - 2007
- 2 = Priority for 2006 - 2007
- 1 = To consider, but not a priority for 2006 - 2007
- 0 = Not to consider (please, justify under comment)

The scoring of activities to be prioritized during the period 2006-2007 in the European Union gave the following results (average value in brackets):

- Training modules with EU added value: Coordination of international outbreaks (2.5)
- EU manual on intervention epidemiology (2.3)
- Make available training material and programme on the ECDC web site (2.3)
- Expanding EPIET (2.0)
- Advanced workshops for senior epidemiologists (2.0)

Expanding the EPIET is a priority but a wide range of options should be considered. It was proposed a model of "EPIET in the country of origin", to guarantee that the graduates would stay later in their country and avoid "brain drain" and to ensure the theoretical part of the modules. The EPIET was defined as "too expensive" by some experts. The model of Germany and EpiNorth are presented as alternate approaches.

The objective of promoting the acquisition of shared knowledge and skills among European epidemiologists has been re-phrased as "speaking the same language".

Translation of materials into national languages was recommended. It should be done in MS by field epidemiologists. Adaptation to different contexts is suggested too.

It was suggested that ECDC should organize the training modules that may be relevant for an EU added value.

Exchanging of senior epidemiologists was considered "interesting but not very feasible", "time consuming". It was suggested to reduce the time for stages to periods of one to six months. It is considered necessary to keep updated the senior's training.



Topics for courses

Some ideas for training to be included in the priorities for the EU in 2006-2007 included:

- Qualitative methods in epidemiology
- Research methodologies: evidence based practices
- International risk communication
- Scientific English
- Data for decision making
- Chair of telephone conferences

International issues were highlighted: there was a repeated interest in courses about EU regulations and IHR: legal aspects of interventions/infectious diseases, as GOARN (WHO Global Outbreak Alert and Response Network) type management

Other priorities

Distance learning is considered a growing need for some participants, giving a high value to the availability of materials and schedules on the ECDC website.

An annual scientific conference for intervention epidemiology in EU is necessary and could “take over” the EPIET scientific seminar. As EUPHA has a section on infectious diseases, the possibility of joining them is suggested by one expert. An EU workshop on advanced epidemiology gathering senior epidemiologists is considered a top priority as ECDC will incorporate the DSN’s networks.

The development of a manual or textbook on theoretical and practical aspects of field epidemiology and collection of training materials for self-learning by the ECDC are suggested by some experts. Participation of MS is encouraged for this activity as well as for producing an EU glossary of terms in intervention epidemiology.

Conclusions

- Core competencies of field epidemiologists should be defined.
- Accreditation of training in intervention epidemiology if achieved can facilitate the mobility of epidemiologists in Europe. It is linked to the quality assurance of different projects like EPIET and national FETPs and it implies the use of a common language among European epidemiologists.
- Models of good practice in some MS can be useful as reference for other countries in similar circumstances.
- It is recommended to conduct a need assessment in the MS, applying a protocol designed with qualitative and quantitative techniques by scheduled country visits.
- A new model for training “in their country” and “in their jobs”, completed with the participation in European level theoretical courses was suggested by some MS.
- It is expected that ECDC organizes the modules with an EU added value, as for example those on coordination of international outbreaks.



- An introductory course on intervention epidemiology as well as courses on outbreak investigation and train-the-trainers are among the first priorities for the MS in 2006-2007.
- The development of an EU manual on intervention epidemiology and the availability of training materials in the ECDC web site are among the first priorities stated for the EU in 2006-2007.

Next steps

Expected outputs of this consultation and further steps to be supported by the ECDC include:

- A protocol for needs assessment in the European Union;
- A protocol for the inventory of training resources in the European Union;
- A list of priority areas requiring strengthening for 2006-2007;
- A revised training policy document taking into account the views of the Member States;
- An implementation plan including a time frame and quantified objectives: list of prioritized activities to be implemented by ECDC in 2006-2007
 - In support to Member States;
 - For strengthening EU capacity.



Annex 1: Programme

Day 1 – Wednesday, 30 November	
13:30–14:00	Registration
14:00–15:00	Opening (ECDC Director, Zsuzsanna Jakab; Head of Unit of Preparedness and Response, Denis Coulombier; EPIET consultant, Alain Moren)
15:00–15:30	Coffee break
15:30–17:00	Session 1: Working groups <ul style="list-style-type: none"> – design of a protocol for needs assessment in intervention epidemiology training – resource inventory; contents and process for data collection
Day 2 – Thursday, 1 December	
09:00–10:30	Session 2: Priorities for the Member States (2006-2007) Presentations chaired by Arnold Bosman: <ul style="list-style-type: none"> – The Italian FETP: PROFEA, Nancy Binkin – UK public health medicine training programme, Natasha Crowcroft – Role of the university in intervention epidemiology training, François Dabis – Training projects in Poland, Pawel Stefanoff – FETP in Germany, Gerard Krause
10:30–11:00	Coffee break
11:00–12:30	Working group: discussion of priorities for the Member States (60 minutes) and scoring priorities (30 minutes)
12:30–14:00	Lunch
14:00–15:30	Session 3: Priorities for the European Union (2006-2007) chaired by Paul McKeown <ul style="list-style-type: none"> – Distance learning for MPH in UK, James Stuart – EPIET: lessons learnt, Preben Aavitsland – WHO - GOARN training, Dominique Legros – WHO strategy for training in the context of the IHR, Stefano Lazzari – WHO-EURO intervention epidemiology courses targeting MS with specific needs, Olaf Horstick
15:30–16:00	Coffee break
16:00–17:30	Working groups: discussion of priorities for the European Union (60 minutes) and scoring priorities (30 minutes)



Day 3 – Friday, 2 December	
09:00–10:30	<p>Session 4: Global perspective in intervention epidemiology training, chaired by Nancy Binkin</p> <ul style="list-style-type: none"> – EPIET Alumni Network: building the network of intervention epidemiologists in Europe, Susan Hahné – Process of European accreditation of learning by doing training programmes: example of Spain, Ferran Martínez Navarro – Sub-regional initiative: EPINORTH, Kuulo Kutsar – Place of international networks in field epidemiology training (quality improvement assurance of FETPs): TEPHINET, Dionisio Herrera – International summer school of infectious disease epidemiology and M Sc programme of epidemiology in Germany, Alexander Krämer
10:30–11:00	Break
11:00–12:00	Discussion on global perspective
12:00–12:30	Conclusions of the consultation, Denis Coulombier



Annex 2: Participant list

Name	Organisation	Country
Preben Aavitsland	Norwegian Institute of Public Health	Norway
Yvonne Andersson	Swedish Institute for Infectious Disease Control	Sweden
Kvetoslava Benusova	National Public Health Institute	Slovakia
Nancy Binkin	Instituto Superiore di Sanita	Italy
Arnold Bosman	EPIET Coordinator	The Netherlands
Haraldur Briem	Directorate of Health	Iceland
Girts Brigis	Department of Public Health and Epidemiology, Riga Stradins University	Latvia
Chris De Laet	Scientific Institute of Public Health	Belgium
Irina Dontsenko	Health Protection Inspectorate	Estonia
Henrik Friis	School of PH University of Copenhagen	Denmark
Andrew Gauci Amato	Malta Medical School	Malta
Roman Chlibek	Faculty of Military Health Sciences, University of Defense	Czech Republic
Dioniso Herrera	Instituto de Salud Carlos III	Spain & EPI South
Michal Ilnicki		Poland
Paul McKeown	Health Protection Surveillance Centre	Ireland
Tanya Melillo	Department of Public Health	Malta
Alain Moren	Epiet Coordinator	France
Teresa Paixao	National Institute of Health	Portugal
Ada Hocevar Grom	Institute of Public Health	Slovenia
Agnes Ratalics	Department of International and European Affairs	Hungary
Alexander Krämer	EUPHA	Denmark
Annicka Linde	Institute of Infectious Diseases	Sweden
Dominique Legros	WHO- Geneva	Switzerland
Fernando Martinez Navarro	Instituto de Salud Carlos III	Spain
Francois Dabis	Bordeaux University	France
Georgia Spala	Hellenic Centre for Infectious Diseases Control	Greece
Gerard Krause	Robert Koch Institute	Germany
Henriette De Valk	Institut de Veille Sanitaire	France
Irina Lucenko	Department of Epidemiological Surveillance of Infectious Diseases	Latvia
James Stuart	Health Protection Agency South-West	United Kingdom
Jeanette De Boer	Netherlands School for Public and Occupational Health	The Netherlands
Kuulo Kutsar	Health Protection Inspectorate	Estonia
Margareta Slacikova	National Public Health Institute	Slovakia
Ana Maria Corriera	National Institute of Health	Portugal



Name	Organisation	Country
Marta Melles	Johan Béla" National Center for Epidemiology	Hungary
Martin Wahl	Department of Communicable Disease Control, Göteborg	Sweden
Mike Catchpole	EPIET Steering Committee	United Kingdom
Natasha Crowcroft	Health Protection Agency/CFI	United Kingdom
Olga Kalakoutas	Medical and Public Health Services, MoH	Cyprus
Outi Lyytikäinen	National Public Health Institute	Finland
Pawel Stefanoff	National Institute of Hygiene	Poland
Reinhard Strauss	DG Public Health	Austria
Stefano Lazzari	WHO-Lyon	
Susan Cowan	Statens Serum Institut	Denmark
Susan Hahné	Rijksinstituut voor Volksgezondheid en Milieu	The Netherlands
Takis Panagiotopoulos	Hellenic Centre for Infectious Diseases Control	Greece
Vladmir Prikazsky	National Institute of Public Health, Centre of Epidemiology and Microbiology	Czech Republic
Olaf Horstick	WHO-EURO	



Annex 3: Needs assessment, working group session document

Objective of the needs assessment

- To identify gaps in required epidemiological knowledge, skills and practices at MS level
- To identify groups of PH professionals to be trained in epidemiology
- To identify / develop relevant training methods and tools

Scope of the needs assessment

- Which level?
 - o National,
 - o Regional
 - o Peripheral needs
- Which targets?
 - o Intervention epidemiology specialists
 - o General epidemiologists
 - o Public health officers
 - o Health care specialists (clinicians)
 - o General practitioners
 - o Others (veterinarians, microbiologists...)
- Which field of public health?
 - o Surveillance
 - o Response
 - o Risk communication
 - o Management, leadership
 - o Information technology
 - o Statistics
- Which type of needs and training approaches to address them?
 - o Knowledge (distance learning, residential courses, pre-service academic training...)
 - o Skills (learning by doing, case studies...)
 - o Practices (exchange programmes, participation in outbreak investigations...)

Methodology for the needs assessment

- Who does the assessment?
 - o Internal: Member State vs. external contribution (visits...)
- How to conduct the assessment?
 - o Through questionnaires
 - o Through interviews with key informant
 - o Combination of both
 - o Use of indicators
- How to monitor the assessment process?
 - o Working group
 - o Follow-up meeting

Timeline, next step...

- Finalize the protocol
- Circulate and validate
- Pilot test
- Conduct the assessment
- Meeting to review findings and further develop the strategy



Annex 4: Resources inventory in intervention epidemiology training in Europe, working group document

Objective of the resource inventory

- Inventory training resources in intervention epidemiology in Europe which can be mobilized for the implementation of the ECDC training strategy

Existing inventories in intervention epidemiology training?

Which inventory should ECDC coordinate?

- Inventory of institutions involved in training?
 - Surveillance and control institutes
 - Universities
 - Public health schools (national and regional)
 - Other institutions
- Inventory of experts in intervention epidemiology training?
 - Experts in intervention epidemiology involved in training activities
 - Experts in training methodology, curriculum designers...
 - Facilitators in FETP training programmes
 - Supervisors of FETP fellows
 - Fellows who went through a FETP/EPIET programme
- Inventory of training programmes?
 - Short courses vs. long courses
 - Residential vs. distance learning
 - Academic recognition or not
 - Target of the training programme
- Inventory of training material
 - Websites devoted to intervention epidemiology training
 - Published papers on training in intervention epidemiology
 - Intervention epidemiology manuals
 - Case-studies
 - Lectures/presentation
 - Self-learning materials (CD-ROM, Web...)
- Inventory of requirements for intervention epidemiologists
 - Required skills to get an epidemiologist job, as stated on vacancy notices

Scope of the resource inventory

- Which level?
- International
- European
- National
- Regional
- Which field of public health?
- Surveillance
- Response
- Risk communication
- Management, leadership
- Information technology
- Statistics



Methodology for the inventory

- Who does the inventory?
 - o Role of ECDC, MS, national institutes
- How to conduct the inventory?
 - o Through questionnaires for each inventory
 - o Opportunity to document indicators (see proposed indicators)
- How to monitor the assessment process?
 - o Working group
 - o Follow-up meeting
- This contact will be done by whom?
- Role of ECDC?
- Role of PH institutes?
- What can be the product?
- Web site ECDC can include this inventory

Timeline, next step...

- Finalize the protocol
- Circulate and validate
- Conduct the inventory

Proposed indicators that could be collected during the inventory

- Number of national, sub-national and local service (non-academic) institutes/units that provide hosting for trainees, and total hosting capacity
- Number of national, sub-national and local service (non-academic) institutes/units that run their own short training courses for internal and/or external participants, and capacity (number of courses, number of participants)
- Number of national, sub-national and local service (non-academic) institutes/units that run their own modular training programmes for external participants, and capacity (type and number of courses, number of participants)
- Number of academic institutes that run post-graduate degree courses, and capacity (type and number of courses, number of participants)
- Number of academic institutes that run short (modular) courses, and capacity (type and number of courses, number of participants)
- Statistical/epidemiological software used in majority of academic and service departments
- Computer/software skills training facilities (number, capacity)
- Number and type of outbreaks managed by service departments at different administrative levels (national, regional, local)
- Average annual number of research projects undertaken by academic and service departments that can host trainees



Annex 5: Training priorities for Member States, workgroup session documents

Country: _____ Institution: _____

The following table describes objectives and activities of the training programme proposed at member state level for the period 2006-2007.

1. Can you grade the activities listed in term of priorities for 2006 – 2007?

The score proposed is:

3 = High priority for 2006 - 2007

2 = Priority for 2006 - 2007

1 = To consider, but not a priority for 2006 - 2007

0 = Not to consider (please, justify under comment)

Objectives	Activities	Score	Comment
Identify training needs for epidemiologists	Conduct a need assessment survey.		
	Develop training schemes and methods		
	Develop training material based on MS examples (interactive cases studies, videos, CD Rom)		
Strengthen epidemiological knowledge for senior and junior epidemiologists	Organize short residential courses at national level		
	Develop and offer distant learning covering the topics presented in the next section.		
Promote the acquisition of practical skills	Assist in setting-up national field epidemiology training programmes (FETPs)		
Other, specify:			



2. Please, grade the following topics to be covered in training, following the same score as for the previous section.

Courses on public health and epidemiological methods	Score
Principles of epidemiological surveillance	
Analytical tools for surveillance data	
Principles of outbreak investigation and response	
Computer tools for outbreak investigation	
Data management	
Geographic information systems	
Multivariable analysis	
Vaccinology	
Other, specify:	
Other, specify:	
Global score	



Courses with a critical importance regarding ECDC added value and coordination	Score
Coordination of response to national crisis	
Management	
Training of trainers	
Communication (public, media, health authorities, scientific community)	
Joint training microbiologists / epidemiologists	
Joint training veterinarians / epidemiologists	
Other joint training, specify:	
Other, specify:	
Other, specify:	
Other, specify:	
Global score	



Annex 6: Training priorities at European level, workgroup session documents

Country: _____ Institution: _____

The response to public health threats in EU requires training European epidemiologists with similar methods of work allowing for an optimal coordination. The following table describes objectives, training activities, to be developed at EU level during the period 2006-2010, which have a specific EU added value.

1. Can you grade the activities listed in term of priorities for 2006 – 2007?

The score proposed is:

- 3 = High priority for 2006 - 2007
- 2 = Priority for 2006 - 2007
- 1 = To consider, but not a priority for 2006 - 2007
- 0 = Not to consider (please, justify under comment)

Objectives	Score	Comment
To promote the acquisition of shared knowledge and skills among European epidemiologists		
To promote collaboration with other disciplines, i.e. microbiologists		
To promote collaboration between epidemiologists of different EU member states.		
To share expertise and lessons learnt in EU		
To strengthen EU capacity		
To support trainers in MS by providing them with training materials		
Improve the capacity and skills for management and coordination among the senior epidemiologists		

2. Can you grade the activities listed in term of priorities for 2006-2007?

Objectives	Activities	Score	Comments
To promote the acquisition of shared knowledge and skills among European epidemiologists	Identifying training human resources having an EU dimension.		
	Expanding the European programme for intervention epidemiology training (EPIET)		
To promote collaboration with other disciplines, i.e. microbiologists	Developing a joint training programme for microbiologists and epidemiologists		
To promote collaboration between epidemiologists of different EU member states.	Exchanging senior epidemiologists in EU for periods from three months to two years, assigned to EU national surveillance institutes or to ECDC		
To share expertise and lessons learnt in EU	Regular virtual (Internet) scientific seminars coordinated by ECDC (Monthly then weekly)		
	Annual scientific conference for intervention epidemiologists in EU.		
	EU workshop on advanced epidemiology gathering senior epidemiologists at ECDC or elsewhere in EU.		
To strengthen EU capacity	Organise short modules and courses (face to face or distance learning), targeted at public health professionals of various levels of the PH system in EU		



3. Considering the general objective of supporting trainers in the Member States, grade the following activities.

Objectives	Activities	Score	Comments
Improve the capacity and skills for management and coordination among the senior epidemiologists	Organizing training modules with a particular importance regarding EU added value: <ul style="list-style-type: none"> - Public Health leadership - Coordination of response to international crisis - Management - Communication (with the Public, the media, the authorities and the scientific community) - Training of trainers 		
	Develop an electronic and printed EU manual on intervention epidemiology translated in all EU languages through a partnership (EPIET, national institutes, DSNs, ECDC, reference laboratories, WHO etc.).		
Support trainers in MS by providing them with training materials	Make available training material and schedules on the ECDC web site		
	Promote the translation of training materials in EU languages		
	Collect materials for self-learning		

4. Please, add any activities that you would consider important (to be scored with 2 or 3 points) and comment on reasons for their inclusion.