MEETING REPORT
TRAINING STRATEGY FOR INTERVENTION EPIDEMIOLOGY IN THE EUROPEAN UNION
Stockholm, 11–12 September 2007
TABLE OF CONTENTS

1. Background .................................................................................................................................. 2
   First ECDC consultation with the Member States, December 2005 .................................................... 2
   Partnerships ..................................................................................................................................... 3
   ECDC activities in capacity building through training, 2007 .............................................................. 3
2. Scope and purpose of a Second ECDC consultation with the Member States in 2007 ................. 4
3. Methodology .................................................................................................................................. 5
   Challenges to strengthening EU capacity ......................................................................................... 6
   Training strategies in the Member States .......................................................................................... 6
   Role of professional associations ...................................................................................................... 6
   Counterparts in Member States and international organisations ....................................................... 6
   ECDC training strategy .................................................................................................................. 6
   Continuation of short courses ........................................................................................................ 7
   Priority areas and domains for which training must be organised .................................................. 7
   Core competencies in intervention epidemiology ............................................................................. 8
   Inventory of training resources and needs assessment ....................................................................... 8
   EPIET programme review ............................................................................................................ 8
   Potential targets to be trained ........................................................................................................ 8
   Models for training in intervention epidemiology: national FETPs versus EPIET ......................... 9
   FETP-EPIET versus short courses .................................................................................................. 9
   Innovative approaches for training in intervention epidemiology .................................................. 10
   Distance learning .......................................................................................................................... 10
   Internships at ECDC ..................................................................................................................... 11
4. Conclusions .................................................................................................................................. 11
5. Recommendations ....................................................................................................................... 12
6. Feedback ....................................................................................................................................... 12
7. Next steps ..................................................................................................................................... 12
8. Annex 1: Agenda of the consultation ............................................................................................ 13
   Annex 2: Models to meet the training needs of the Member States and the European Union (Working
group paper) ..................................................................................................................................... 13
   Annex 3: List of participants ........................................................................................................... 16
1. BACKGROUND

The founding regulation\(^1\) establishing the European Centre for Disease Prevention and Control (ECDC) gives ECDC a clear mandate to strengthen the capacity of the EU to both prevent and control infectious diseases.

One of the main goals of ECDC training activities is to develop human resources in the field of intervention epidemiology — an essential component of ECDC’s and the Member States’ work aimed at increasing response capacities towards public health threats, both in Europe and internationally.

For this reason, the priority target audience when organising ECDC training activities are the so-called ‘intervention epidemiologists’ working in public health — specifically in two areas: surveillance and response to acute health threats, mainly communicable diseases.

‘Applied’ and ‘field’ epidemiology are internationally recognised terms, representing the same concept of ‘intervention’ and will therefore be used synonymously.

In 2005, ECDC — in collaboration with the European Programme for Intervention Epidemiology Training (EPIET) — wrote a training policy document for capacity building in this area, covering the time period from 2006 to 2010. The training policy was presented to the Advisory Forum (AF) in September 2005 and discussed in a first consultation with the Member States in December 2005.

The two main objectives of this training strategy are (1) to meet the regional and national specific training needs of EU Member States and (2) to contribute, through training, to the harmonisation of approaches and methods for coordinated public health interventions in the EU.

The implementation of the training strategy started immediately following the recommendations from the 2005 consultation.

The ECDC training strategy has been reviewed and updated on different occasions, for example in ECDC’s Strategic Multiannual Programme (SMP). The Advisory Forum (AF) receives periodic updates on the progress of all training activities. Also, ECDC consults the Forum for guidance on technical and operational aspects. Adequate financial and human resources for organising regular training activities are allocated and reflected in the Preparedness and Response Unit’s corresponding annual work plans.

---

First ECDC consultation with the Member States, December 2005

---

After the first ECDC consultation with the Member States, held from 30 November to 1 December 2005, it was concluded that ECDC training activities in 2006/2007 should include the following priorities:

- definition of core competencies for field epidemiologists;
- accreditation of training in intervention epidemiology in order to facilitate the mobility of epidemiologists in Europe;
- exchange of good practice models between Member States;
- training needs assessments in the Member States, including a protocol integrating qualitative and quantitative techniques (for scheduled country visits);
- a new model for training epidemiologists ‘in the country’ and ‘on the job’, augmented by courses in theory and research methods at the European level (as suggested by some Member States);
- ECDC training modules with an EU added value, e.g. a module on the coordination of international outbreaks;
- courses on outbreak investigation;
- introductory courses on intervention epidemiology;
- ‘train the trainers’ seminars/modules;
- development of an EU manual on intervention epidemiology; and the availability of training materials on the ECDC web site.

**Partnerships**

One of the main strategies of ECDC is to develop a network of institutions involved in training in order to increase the response capacity against infectious diseases.

Important partnerships include: the national public health institutes in the EU and EEA/EFTA countries, EpiNorth, EpiSouth, WHO/Europe, WHO-HQ, ASPHER, TEPHINET and WHO Glob-Salm-Surv, among others.

**ECDC activities in capacity building through training, 2007**

During the consultation, ECDC presented the main steps it had taken in 2007 to implement its training strategy.

Meetings with experts were conducted to support curriculum design for short training modules on managerial skills for outbreak investigation teams and to facilitate the identification of core competencies for intervention epidemiology in the EU.

Training resources and needs assessments were conducted for the EU and for Member States in order to regularly evaluate the training impact of ECDC’s work programme and to update the programme whenever new needs were identified. An ECDC team developed a protocol and a needs assessment tool (questionnaire), both of which were used during country visits. European, national and sub-national needs were considered. ECDC recommended tailored training schemes and methods, adapted to specific country needs. Poland, Hungary and Latvia were visited in 2007. Portugal and Romania are scheduled for 2008.
For training resources and needs assessment during country visits, a checklist of core competencies for intervention epidemiologists (a part of the ECDC set of assessment tools) is used to identify areas where more training is needed.

The EPIET programme supports the Member States by providing funding, trainers and materials. EPIET was integrated into ECDC on 1st November 2007. A review and an expansion of the programme is planned.

Achieving synergies between EPIET and national field epidemiology training programmes is important. ECDC promotes a network of programmes, trainers, trainees and public health institutes. The recruitment of EPIET coordinators through framework partnership agreements with four national public health institutes is an important step in this direction.

More national field epidemiology training programmes may be needed. ECDC would like to support the establishment of such programmes in countries that request them and that demonstrate suitable conditions for their development and sustainability. Country visits for assessing the feasibility of developing a national Field Epidemiology Training Programme (FETP) can be organised upon request.

Training activities with European added value are organised regularly:

- a second edition of a one-week module on managerial skills for outbreak investigation teams was organised in 2007;
- a series of regional courses on the technical aspects of communicable disease outbreak investigations was conducted in 2007. These five modules were taught in EU and EEA countries; a total of 137 epidemiologists in the area of infectious disease response was trained.

Other short courses are planned through framework contracts. They will be conducted in 2008:

- ‘epidemiological aspects of vaccination’;
- ‘time series analysis: descriptive methods and introduction to modelling and forecasting’; and
- joint training on ‘epidemiological and microbiological aspects of outbreak investigation’.

2. SCOPE AND PURPOSE OF A SECOND ECDC CONSULTATION WITH THE MEMBER STATES IN 2007

All 27 countries of the European Union, the EEA countries (Iceland, Liechtenstein and Norway) were invited to this consultation. Invitations were extended to the Member States’ competent bodies for training and other important partners, such as WHO/Europe, the members of the EPIET Steering Committee, the EPIET Alumni Network (EAN), the respective national field epidemiology programmes in the EU, the Training Programmes in Epidemiology and Public Health Interventions Network (Tephinet), EUPHA and ASPHER.
The goal of the meeting was to review the implementation of the ECDC training strategy in intervention epidemiology in the EU and update it, while simultaneously reinforcing collaboration with the Member States and international counterparts. ECDC training priorities for 2008 were also defined during this consultation.

Specific objectives of this meeting were:

● to present a first proposal on core competencies for intervention epidemiology in the European Union;
● to discuss and identify gaps in required epidemiological knowledge, skills and practices in Member States and at the EU level; and
● to discuss and identify appropriate training models to meet the needs of the EU and its Member States, while taking into account different methods and tools tailored to specific groups.

3. METHODOLOGY

Representatives of the Member States, partner organisations and ECDC gave several presentations on currently implemented approaches; for each of the three objectives, a working group was held.

A special session was dedicated to training models. An interactive and provocative presentation was used to illustrate the pros and cons of promoting the development of national Field Epidemiology Training Programmes (FETPs) and EPIET. Two senior epidemiologists with a wealth of experience in these areas played the roles of ‘supporter’ and ‘critic’ of these two programmes. The aim of the debate was twofold:

● to pit two-year ‘learning by doing’ programmes (FETPs and EPIET) against short training courses; and
● to directly compare national FETPs to EPIET.

This presentation spawned a lively discussion, both in the plenary session and in the subsequent working groups, when participants were asked to analyse the needs of the EU and its Member States, particularly when taking into account the duration of a state’s membership in the EU, its size, its administrative structure and other potentially relevant factors. Also mentioned were approaches and models that could be beneficial for meeting the specific needs in the Member States (see working group paper in annex 2).
4. TOPICS DISCUSSED

Challenges to strengthening EU capacity

In order to build capacity in the EU, simply increasing training resources is not the only answer. It is necessary, for example, to raise awareness about the role of epidemiology in public health systems and to promote the sharing of experience and best practices among Member States.

Structural problems — low salaries, limited or non-existent career progression, unattractive positions in epidemiology in the public health system — usually represent major obstacles for capacity building.

Simulation exercises were suggested as an effective way to train experts.

Countries have very different needs, depending on factors such as 'large/small' or 'recent/old Member State'. The level of centralisation and heterogeneity in a country (administration, language, skills) is also a determining factor.

Training strategies in the Member States

It was recommended that every Member State should have a training strategy for intervention epidemiologists. ECDC could play an advocacy role, requesting and reviewing the consistency of these strategies, providing advice and support as needed.

Role of professional associations

The need for a strong professional body or professional organisation in Europe, covering all levels — from the local to the international — was emphasised. EUPHA has a section on infectious disease epidemiology and could play this role. EAN was also mentioned, but could be too small a group as it includes only graduates from EPIET and European FETPs.

Counterparts in Member States and international organisations

Coordination between WHO and the EC will be crucial when ensuring synergies and avoiding the duplication of efforts. A memorandum of understanding was suggested. The importance of the contributions of public health institutes for the organisation of ECDC training activities was emphasised.

ECDC training strategy

It was recommended that the ECDC training strategy and the training work plan reflect a balance between training needs in the Member States and at the EU level. It was acknowledged that short courses and FETPs mainly contribute to training needs at the Member State level, while EPIET addresses the EU level.
Also, there is the need to gather, assess and disseminate training resources for Member States.

**Continuation of short courses**

There was agreement from the Member States to continue organising the short modules that are now in place through framework contracts after open calls for tender: (1) outbreak investigation; (2) managerial skills for coordinators of outbreak assistance teams; (3) microbiological and epidemiological aspects of outbreak investigation (joint course); (4) times series analysis; and (5) epidemiological aspects of vaccination.

Experience gathered through the network of facilitators in EPIET and the FETPs is considered very valuable.

The three-week introductory course on intervention epidemiology — like the one organised by EPIET every autumn — is considered a priority for 2008. It is very important to meet the demand from external participants and to train supervisors in the different countries.

Regional training creates an added value: it addresses regional needs, makes use of regional resources, promotes the constitution of a network of facilitators with a common language, and at the same time contributes to increased preparedness, so threats affecting neighbouring countries can be responded to appropriately.

**Priority areas and domains for which training must be organised**

Among the different 26 intervention epidemiology domains that were presented and discussed in the working groups, the following training topics were given priority:

- public health surveillance;
- outbreak investigation;
- risk assessment;
- risk communication;
- public health policy;
- statistical and other data analysis; and
- train the trainers.

In the context of the implementation of the Revised International Health Regulations, Annex 1 (WHO, IHR 2005), laboratory training, detection and assessment of threats, logistics and communication are considered priorities in capacity building. Additionally, epidemic intelligence training is needed. Nevertheless, a thorough discussion on capacity building activities for the implementation of the IHR was referred to upcoming Advisory Forum meetings. It was suggested that ECDC could liaise with WHO to jointly map out standard operating procedures (SOPs) and plan training activities, such as how to use the algorithm/decision tree in annex 2 of the IHR.
Core competencies in intervention epidemiology

Some countries lack a registered group of ‘field epidemiologists’. Nevertheless, it was agreed that the term could be used as a synonym for ‘applied’ or ‘intervention epidemiologists’. It was suggested that the context should be narrowed to ‘acute public health threats’.

A list of 85 core competencies in intervention epidemiology (for intermediate-level experts), classified into 26 different domains and eight areas was presented at the meeting.

Only a very small subset of proposed core competencies scored a low approval rating. As was pointed out at the meeting, some of these competencies might still make it into the final list of core competencies if an agreement can be reached to merge these competencies into a more general term, or change their level of detail. It was also noted that areas like behavioural research or infectious diseases had not been included in the list.

It was agreed that this list could be considered the first practical set of competencies to guide both need assessments and design of training materials during the short- and mid-term work plans of ECDC.

All agreed that the list was not binding. It may be periodically updated to reflect different priorities when used for training needs assessments in different countries.

Inventory of training resources and needs assessment

A survey in all EU Member States was suggested, with the objective of measuring epidemiological capacity and creating an inventory of training resources. The pilot assessment tool, which focuses on areas, domains and core competencies in applied infectious disease epidemiology, will be instrumental in gauging training needs and in pointing out how to increase capacity.

Country visits will be conducted as requested in order to provide support for assessments, but only if there is a clear added value.

EPIET programme review

An evaluation of EPIET was conducted in 1999. With the recent integration of the programme into ECDC, now is a good time to initiate a new programme review process, keeping in mind aspects such as: (1) the necessary continuous quality improvement of the programme, (2) its efficiency, and (3) the assessment of needs for its expansion.

The synergies between the programme and ECDC can be enhanced by the rotation of fellows at ECDC and by keeping in mind the fellows’ potential role as liaison officers at the Member States’ public health institutes.

Potential targets to be trained

Microbiologists and clinicians could be included in EPIET training activities — and also under ECDC’s general training strategy — thus reaching out to new target groups. Public health officials, veterinarians, public health nurses and statisticians, among others, need to be
considered as the first line of defence in response to health threats, and surveillance activities often rely on these professionals to maintain full system functionality.

Training different target groups also creates challenges: it is imperative to find and employ creative methodologies when addressing different audiences.

**Models for training in intervention epidemiology: national FETPs versus EPIET**

The national FETPs are sustained by national funding and usually have sites at the national and sometimes at the regional levels. Fellows are trained in their own countries. In Europe, examples of currently operational programmes include France, Germany, Italy, Norway and Spain. The programmes in Germany and Norway share modules and scientific coordination with EPIET.

EPIET, on the other hand, is a European programme that trains its fellows in sites different from those in their home countries. The funding is partly national and partly from the EU. The working language is English.

National FETPs are a good strategy when it comes to increasing capacity in the Member States, since all activities can be tailored to a country’s specific characteristics, resources and needs. Also, trainees sometimes prefer national programmes: they often fit a trainee’s personal situation better, and there are no foreign language requirements.

What can be done to promote the employment of EPIET graduates in their home countries after they have completed their training abroad? In some countries, this appears to be problematic. Proposed solutions include: (1) establishing a contract that stipulates a fellow’s return to his or her own country for a for at least some time immediately following graduation (feasible only if the home country contributed to the salary); (2) promoting the creation of incentives that will motivate graduates to return to their countries, preferably by creating positions that require the skills acquired during the training. In this context, it is important to mention that in order to get selected as an EPIET fellow, factors such as motivation, experience in the country of origin, recommendations from home countries, and related factors are crucial.

Epidemiologists who graduated from EPIET are considered ideally suited for jobs at ECDC. EPIET can also serve as a springboard for professionals interested in working within an international or European context.

**FETP-EPIET versus short courses**

Two-year programmes have a long-lasting impact and allow the countries to train a cadre of epidemiologists. If trained as trainers, these epidemiologists also create a snowball effect, potentially reaching thousands of people. On the other hand, reaching a critical mass is very time consuming, and the impact may be lower if only a few epidemiologists are trained.

With short courses, many participants may be involved but the training is more superficial. Emphasis will be more on knowledge training than on enhancing practical skills, since the
supervised ‘learning by doing’ element — actively improving skills under close supervision — is not available in short courses.

In general, two-year ‘learning by doing’ programmes are considered more suitable for bigger countries. With ‘train the trainers’ projects, cascade training could be a highly efficient approach for national training initiatives in intervention epidemiology, reaching both the regional and the local levels. Direct training with short modules was considered more appropriate for smaller countries.

**Innovative approaches for training in intervention epidemiology**

During the consultation, several ideas concerning training approaches and models were suggested:

- **model 1**: first year at European/international level; second year in home country;
- **model 2**: multi-country FETP, with a consultant starting the programme and subsequent supervision from the distance (well-suited for smaller countries);
- **model 3**: ‘on the job training’ in the country of origin, salaries paid by Member States, participation in training courses in other Member States.
  - from an administrative point of view, it would be easier to pay trainees in-country salaries because their training is comparable to a full-time job;
  - in-country training can have advantages for trainees that have family ties or other private reasons that prevent them from leaving their own country for training purposes — this is especially important in smaller countries with less epidemiological capacity in terms of human resources;
  - it is crucial to define clear objectives and make sure that professionals have the option to do an epidemiological study or participate in outbreak missions for their research, usually at the local or regional level.

EPIET, in conjunction with the public health institutes, could organise courses similar to those that are already taught in several countries. There may be differences in capacity or training resources (i.e. public health schools).

In order to make training activities more efficient and to train more people, training models should be discussed thoroughly with the different countries. Again, it is recommended to take into account the language skills of a target group (e.g. trainees) as an important factor before deciding on a particular model or approach.

Promoting an academic degree (‘Master in Field Epidemiology’) was mentioned as instrumental for accreditation purposes.

**Distance learning**

Distance learning in a structured, goal-oriented way — as opposed to simply providing a collection of training materials — was mentioned as an area where ECDC should be more active.

Distance learning is more suitable for the acquisition of knowledge and less helpful when it comes to the improvement of practical skills. It should address epidemiologists already
working in public health who need continuing education. For example, epidemiologists at the local levels would benefit more, considering how difficult it can be for them to get access to national or international courses. In addition, their proximity to the field could facilitate the immediate application of the newly acquired knowledge.

It was suggested that ECDC should start conducting short courses at all levels, e.g. one-week modules over a timeframe of two to three years, using a distance-learning approach. If possible, modules should be conducted in all EU languages. Materials would originally be developed in English, and then translated into different languages. A link to the EU training manual on field epidemiology was supported.

Accreditation of these distance learning activities would be helpful, as this would provide not only an incentive for the national public health institutes, but also an advantage for the trainees’ professional development.

**Internships at ECDC**

Short-term internships and stays at ECDC were considered a valuable model for staff training in the Member States. Potential areas are epidemic intelligence and all activities in connection with the implementation of IHR.

Exchanges of epidemiologists among public health institutes also look promising, but the procurement aspects can be complex and still need to be explored.

5. **CONCLUSIONS**

- ECDC’s training strategy has been discussed and updated; the main conclusion is that no substantial changes are necessary: both EPIET/FETPs and shorter courses are needed.
- Fellows and programme graduates should promote the ‘train the trainers’ approach by becoming trainers themselves. Not only technical aspects are important, but also skills in didactic techniques for adult education.
- A regional approach is needed in the future when organising courses on outbreak investigation (e.g. a three-week introductory course on intervention epidemiology). EpiNorth, currently funded by ECDC, is considered a good model. Synergies may be explored with EpiSouth (funded by the European Commission).
- A library of screened training materials in English and translations into EU languages, done in collaboration with the Member States, could be created, maintained and posted on the ECDC website. Epidemiologists that choose continuing education could be provided with modules or complete sets of training materials that use multimedia technology: text could also be accompanied by slides or delivered as a podcast.
- Inventory of training resources and needs assessment. Apart from training materials, participating institutions and installed training programmes, an inventory of curricula is essential. Country visits can be organised — with ECDC support — when requested, in order to conduct self-assessments.
A first consolidated version of a list of core competencies will soon be tested in the field; this will bring to an end the process of identifying core competencies in intervention epidemiology. The list is available from the ECDC website, and its use by epidemiologists is encouraged.

New areas recommended to ECDC for the organisation of training activities include: risk assessment, revised IHR (2005).

6. RECOMMENDATIONS

- A systematic survey in all the Member States (situation analysis regarding training needs) was considered a priority, in addition to country visits, ideally upon specific requests by Member States.
- For advocacy purposes, it is suggested that ECDC should request access to the individual Member States’ training strategies. Promoting the development and exchange of information on training strategies in Member States can be a good way of removing structural obstacles to training.
- Panels or expert working groups on training in intervention epidemiology from Member States representing different targets could be convened for specific discussions.
- Between consultations, it will be useful to organise teleconferences with the competent bodies on training and with expert groups from Member States in order to update the ECDC training strategy.
- Mechanisms to increase the participation of experts in training on intervention epidemiology from Member States in relevant ECDC activities should be consolidated. Particular attention should be given to public health institutes, EPIET, and FETP collaborators.
- Strengthening the collaboration with other institutions (WHO, European Commission, universities, and specialisation programmes) was suggested to reach consistency.

7. FEEDBACK

Preliminary conclusions of this consultation were presented during the 11th ECDC Advisory Forum (13–14 September 2007).

8. NEXT STEPS

The goal for 2008 is to consolidate the current situation and strategy. Activities to be conducted in the short term include:

- continued organisation and funding of short courses;
- planning an EPIET programme review; and
- consultations with the Member States every 12 or 18 months.
ANNEX 1: AGENDA OF THE CONSULTATION

Day 1: Tuesday, 11 September 2007
09:00 – 09:15    Presentation of the meeting, introduction of participants, Zsuzsanna Jakab and Denis Coulombier
09:15 – 10:15    Background summary of activities in 2006 and challenges for 2007, Denis Coulombier
10:15 – 10:30    Update on EPIET, Arnold Bosman
10:30 – 11:00    Coffee break
11:00 – 11:45    Core competencies for field epidemiologists, Carmen Varela
11:45 – 12:00    Short introduction to training resources and needs: ECDC assessment tool and visits, Carmen Varela (cancelled — delay in agenda)
12:00 – 12:30    Capacity building activities in the framework of WHO IHR, David Mencer, Peter Kreidl
12:30 – 13:30    Lunch
13:30 – 14:30    Debate in plenary session: Pros and cons of FETP, Preben Aavitsland and Gerard Krause
14:30 – 16:30    Three parallel working groups: Models to meet the training needs of the Member States and the EU

Day 2: Wednesday, 12 September 2007
09:00 – 10:30    Three parallel working groups: Models to meet the training needs of the Member States and the EU (continued)
10:30 – 11:00    Coffee break
11:00 – 12:00    Feedback from the three working groups
12:00 – 12:30    Summary of the meeting, Denis Coulombier

ANNEX 2: MODELS TO MEET THE TRAINING NEEDS OF THE MEMBER STATES AND THE EUROPEAN UNION (WORKING GROUP PAPER)

Introduction

Diversity is an important value in the European Union, and this diversity is also reflected in the different countries’ capacities to respond to infectious diseases.

Factors like a country’s population, economy, administrative public health structure, or date of accession to the EU can affect its level of field epidemiology resources and needs.

The need for both highly-trained entry-level as well as mid-level intervention epidemiologists should be taken into account when deciding which training models will best meet a country’s needs. Thus, we may want to consider a balance between academic, post-graduate or other applied training programmes, including learning groups, exchanges of epidemiologists between institutes, distance learning, etc.
Objectives
With the goal of updating its training strategy, ECDC would like to ask participants from Member States to address the following objectives during this consultation:

- identify common EU training needs in intervention epidemiology;
- identify specific needs of countries; and
- propose training models that ECDC can support so identified needs will be addressed.

Methods
- group brainstorming with Member States and ECDC facilitators and participants;
- feedback in plenary session (short working group presentations).

Background documents
- excerpts from ECDC Strategic Multiannual Programme (target 5: training strategy);
- list of core competencies for public health epidemiologists in the EU, to be presented to the Advisory Forum (14, 15 Sept);
- capacity building through training, to be presented to the Advisory Forum (14, 15 Sept).

Work sheet
1. Please identify and discuss the challenges that we face when trying to strengthen the EU's capacity in intervention epidemiology. Consider specific types of countries: 'large/small', 'recent/old Member State', varying levels of human and structural capacity in intervention epidemiology or training resources, and other important factors you think might influence the development of training capacity (please identify the factors). (30 minutes)

2. From the 26 intervention epidemiology domains below, please identify and discuss the top 5 to 10 that you think most EU countries should develop as training priorities. (30 minutes)

(To be filled out by the group's spokesperson, once a consensus has been reached.)

<table>
<thead>
<tr>
<th>Area</th>
<th>Domain</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public health</td>
<td>1. Public health science</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Public health policy</td>
<td></td>
</tr>
<tr>
<td>Applied epidemiology</td>
<td>3. Risk assessment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Public health surveillance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Outbreak investigation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Epidemiological studies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Laboratory issues</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. Public health guidance</td>
<td></td>
</tr>
<tr>
<td>Biostatistics</td>
<td>9. Probability</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10. Inferential statistics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11. Sampling</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12. Mathematical modelling</td>
<td></td>
</tr>
<tr>
<td>Applied informatics</td>
<td>13. Internet</td>
<td></td>
</tr>
</tbody>
</table>
3. Considering the specific factors that your group identified in Question 1 and the intervention epidemiology areas in Question 2, please suggest and discuss priority training needs for specific types of countries. (30 minutes)

4. Which training models do you recommend for the specific training needs identified in Question 3? Please suggest specific advantages and challenges for training various target audiences (junior or mid-level epidemiologists; national or local level; etc). (Day 1: 16:00–16:30; day 2: 9:00–10:00)

Examples:
- academic training;
- pre-graduates (bachelor’s degree);
- post-graduates (master’s degree, PhD, etc.)
- continuing education;
- one-day workshops;
- one-week residential courses for specific targets;
- joint short courses (multiple audiences);
- two-year programmes, ‘learning by doing’ programmes (EPIET, FETPs, hybrid models);
- on the job training (duration?);
- stays at ECDC;
- stays at other institutes;
- exchange programmes between institutes;
- regional (multi-country) training activities;
- distance learning (web-based, CD-ROM with case studies, etc.); and
- learning groups: web-based forum.

The spokesperson of each group is invited to collect comments and prepare four slides on day 2 (10:00–10:30), to be presented during the plenary session (11:00–12:00).

Each working group has ten minutes for presentation and ten minutes for discussion.
### ANNEX 3: LIST OF PARTICIPANTS

<table>
<thead>
<tr>
<th>Name</th>
<th>Role/Position</th>
<th>Organization/Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preben Aavitsland</td>
<td>EPIET Steering Committee, Norway</td>
<td>Meirion Evans</td>
</tr>
<tr>
<td>Yvonne Andersson</td>
<td>Chief Epidemiolog, Chef för Zoonossektoener</td>
<td>Anastasia Foteinea-Pantazopoulou</td>
</tr>
<tr>
<td>Binkin Nancy</td>
<td>Italian FETP</td>
<td>Tatjana Frelih</td>
</tr>
<tr>
<td>Jose Luis Castanheira</td>
<td>EPIET Steering Committee, Portugal</td>
<td>Ruth Gelletlie</td>
</tr>
<tr>
<td>Mike Catchpole</td>
<td>Health Protection Agency (HPA), London, UK</td>
<td>Susan Hahné</td>
</tr>
<tr>
<td>Jeanette de Boer</td>
<td>Training consultant, Dutch Centre for Infectious Disease Control, The Netherlands</td>
<td>Brigitte Helynck</td>
</tr>
<tr>
<td>Martin Donaghy</td>
<td>EPIET Steering Committee, Health Protection Scotland, Glasgow, Scotland, UK</td>
<td>Olga Kalakouta</td>
</tr>
<tr>
<td>Germaine Hanquet</td>
<td>EPIET Steering Committee, Belgium</td>
<td>Franz Karcher</td>
</tr>
<tr>
<td>Patrick Hau</td>
<td>Direction de la Santé, Luxembourg</td>
<td>Jan Kazar</td>
</tr>
<tr>
<td>Dionisio Herrera</td>
<td>Spanish FETP, EPIET Steering Committee, Spain</td>
<td>Kuulo Kutsar</td>
</tr>
<tr>
<td>Ada Hocevar Grom</td>
<td>EPIET Steering Committee, Slovenia</td>
<td>Birgitta Lesko</td>
</tr>
<tr>
<td>Jenny Kourea-Kremastinou</td>
<td>School of Public Health, Greece</td>
<td>Outi Lyytikäinen</td>
</tr>
<tr>
<td>Gérard Krause</td>
<td>Chairman EPIET Steering Committee, RKI, Germany</td>
<td>Tanya Melillo Fenech</td>
</tr>
<tr>
<td>David Mercer</td>
<td>WHO/Europe</td>
<td>Marta Mellés</td>
</tr>
<tr>
<td>Robert Muchl</td>
<td>Federal Ministry of Health, Family and Youth, Austria</td>
<td>Darina O'Flanagan</td>
</tr>
<tr>
<td>Richard Pebody</td>
<td>EPIET Coordinator, United Kingdom</td>
<td>Emilian Popovici</td>
</tr>
<tr>
<td>Juris Pervosovskikov</td>
<td>EPIET Steering Committee and State Agency 'Public Health Agency' (PHA), Latvia</td>
<td>Roman Prymula</td>
</tr>
<tr>
<td>Vladimir Prikazsky</td>
<td>EPIET Steering Committee, Czech Republic</td>
<td>Pawel Stefanoff</td>
</tr>
<tr>
<td>Viviane Bremer</td>
<td>EPIET Coordinator, Germany</td>
<td>Maris Taube</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marta Valenciano</td>
</tr>
</tbody>
</table>

---

Meeting Report | Stockholm, 11–12 September 2007

Training strategy for intervention epidemiology in the European Union