



MEETING REPORT

Workshop on training capacity, resources and needs assessment for the EU candidate countries and potential candidates

Stockholm, 5–6 September 2011

ECDC MEETING REPORT

**Workshop on training capacity, resources
and needs assessment for the EU
candidate countries and potential
candidates**

Stockholm, 5–6 September 2011



Suggested citation: European Centre for Disease Prevention and Control. Workshop on training capacity, resources and needs assessment for the EU candidate countries and potential candidates. Stockholm: ECDC; 2012.

Stockholm, March 2012

ISBN 978-92-9193-338-9

doi 10.2900/26832

© European Centre for Disease Prevention and Control, 2012

Reproduction is authorised, provided the source is acknowledged.

Contents

Abbreviations	iv
Background	1
Discussion	2
Training needs assessment tools used in country visits: review, group discussions and feedback	2
Country perspective: training capacity and resources in EU enlargement countries	3
Expected areas of ECDC assistance for meeting training needs of countries	4
Action planning per country for 2012: group work	5
Conclusion	6
Annex 1. Meeting agenda	7
ECDC workshop on training capacity, resources and needs assessment for the EU candidate countries and potential candidates	7
Annex 2. List of participants	9
Annex 3. Presentations	10
Core competencies in field epidemiology, public health microbiology and infection control	10
ECDC collaboration with the Association of Schools of Public Health in the European Region (ASPHER) with a focus on public health capacity development in EU candidate countries and potential candidates	11
ECDC portfolio of courses for senior public health professionals	11
Field epidemiology manual (FEM) wiki	12
Country presentations	12
Albania	12
Bosnia and Herzegovina	13
Kosovo	13
Serbia	13
Croatia	13
Montenegro	13
The former Yugoslav Republic of Macedonia	14
Turkey	14
Annex 4. Assessment tool (questionnaire): Capacity and training resources in public health epidemiology for communicable disease surveillance and response	15
Training needs in intervention/field epidemiology	19

Abbreviations

ASPHER	Association of Schools of Public Health in the European Region
CDC	United States Centers for Disease Control and Prevention
CSTE	Council of State and Territorial Epidemiologists
ECDC	European Centre for Disease Prevention and Control
EPIET	European Programme for Intervention Epidemiology Training
EUPHEM	European Programme for Public Health Microbiology
FEM wiki	Field Epidemiology Manual wiki
FETPs	Field Epidemiology Training Programmes
IHR	International Health Regulations
IPA	Instrument for Pre-Accession
IPSE	Improving Patient Safety in Europe
TAIEX	Technical Assistance and Information Exchange instrument
TEPHINET	Training Programmes in Epidemiology and Public Health Interventions Inc
WHO	World Health Organization

Background

The Founding Regulation¹ establishing the European Centre for Disease Prevention and Control (ECDC) lays down the foundation for ECDC collaboration with non-EU countries and their participation in ECDC work. The ongoing technical cooperation activities for the EU candidate countries and potential candidates² inter alia support preparation of counterparts in these countries to participate in ECDC initiatives aimed at national public health capacity building in communicable disease surveillance and control.

Different approaches to develop human resources in intervention epidemiology are possible. The key training initiatives of ECDC include: the European Programme for Intervention Epidemiology Training (EPIET), the European Programme for Public Health Microbiology (EUPHEM), the organisation of courses, the design and exchange of training materials, supporting the development of national and regional Field Epidemiology Training Programmes (FETPs), and the development of links with universities, public health schools and international training networks. While some countries (Germany, Spain, France and Italy) have embarked on implementing FETPs based on a two-year tutored assignment of epidemiologists, others have privileged shorter in-service training of their workforce or longer postgraduate programmes legally bound to professions.

Following its mandate to support strengthening national public health capacities in the area of communicable disease surveillance and control,¹ ECDC organised this workshop on training capacity, resources and needs assessment for the EU candidate countries and potential candidates. The workshop was funded by ECDC from its ECDC-Instrument for Pre-Accession (IPA) project/Directorate-General for Enlargement grant³, and was jointly implemented by the Country Cooperation Section (Director's Office) and the Public Health Training Section (Public Health Capacity and Communication Unit).

The vision was 'giving a good insight into the ECDC training strategy and providing a platform for discussion and exchange of experience among countries'.

The overall goal of this country consultation was to map training resources and identify gaps in the required knowledge, skills and practices in EU candidate countries and potential candidates. Specific objectives of the meeting were:

- Initiate a training resources mapping in each country
- Identify training needs and priorities
- Draft action plans per country for 2012 (national strategies for capacity building) in synergy with the ECDC training strategy

The expected output of the consultation was a list of prioritised activities for the EU candidate countries and potential candidates in 2012 and an implementation plan including a time frame and potential partnerships.

An agenda of the workshop can be found in Annex 1. Sixteen representatives⁴ from all eight IPA beneficiary countries participated (two representatives from each country).

'Investing in human capacity building has the highest return on investment'
Marc Sprenger, ECDC Director

¹ Regulation (EC) No 851/2004 of the European Parliament and of the Council of 21 April 2004 establishing a European centre for disease prevention and control. Available at: http://www.ecdc.europa.eu/en/aboutus/Key%20Documents/0404_KD_Regulation_establishing_ECDC.pdf

² EU candidate countries: Croatia, Montenegro, the former Yugoslav Republic of Macedonia, Turkey; Potential candidates: Albania, Bosnia and Herzegovina, Serbia and Kosovo (This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence).

³ Contract number 2009/202-963

⁴ See Annex 2

Discussion

The meeting was opened by the ECDC Director Marc Sprenger, who welcomed and introduced the participants to core ECDC values and activities before opening the floor for a roundtable introduction where participants shared their background in public health and expectations of the workshop. Collaboration, networking and sharing experiences were repeatedly mentioned by participants as expected outcomes of the meeting alongside:

- Improving teaching in field epidemiology and public health microbiology
- Learning about human resources development in the area of communicable diseases
- Receiving input on how to reform the epidemiology training system in the country
- Filling the existing gaps in training
- Initiating and/or strengthening joint activities in human resources development and exploring opportunities for training accreditation

Karl Ekdahl, Head of the Public Health Capacity and Communication Unit at ECDC, informed workshop participants that the meeting sought to provide them with a useful set of tools and ideas for application at country level. This entailed collecting inputs to be considered for further ECDC collaboration and introducing initiatives to support countries in capacity building through training in 2012. A new organisation of ECDC, including the portfolio of the Public Health Capacity and Communication Unit was also explained, highlighting the public health capacity framework to be presented to ECDC's Management Board in November 2011. More specifically, Alena Petrakova, Head of the Country Cooperation Section in the Director's Office, presented the agenda of the meeting within the overall framework of ECDC's work with EU enlargement countries. She briefly introduced joint ECDC and Commission efforts to develop a tool to assess; the capacity development, surveillance, preparedness and response, and health governance in the field of communicable diseases in EU enlargement countries.

Training needs assessment tools used in country visits: review, group discussions and feedback

ECDC presented core competencies in field epidemiology, public health microbiology and infection control, as well as the ECDC collaboration with The Association of Schools of Public Health in the European Region (ASPHER) with a focus on public health capacity development in EU candidate countries and potential candidates.⁵ Following this, assessment tools developed by ECDC and used for country visits on training resources and needs assessment were reviewed by participants. For the questionnaire on capacity and training resources in field epidemiology, a scenario of a country visit from ECDC was provided, and the following questions proposed:

- Is the questionnaire appropriate?
- Are there questions that you would rephrase?
- Are there any aspects missing?
- Would it be possible to administer it at sub-national level? Any changes suggested?

A training strategy for capacity building in field epidemiology was developed by ECDC in 2005. This strategy was discussed in consultations with EU Member States and reviewed accordingly on an annual basis to inform ECDC work plans. ECDC seeks to promote the use of sound evidence-based methods by countries, when designing and implementing national strategies for capacity building.

The structure and tasks of the working groups were explained and supporting material was provided. Each working group had one country representative and one of the participants was asked to report back to the group. The general feedback from the two working groups can be summarised as follows:

- Terms used need to be clearly defined and clarified (e.g. epidemiologist, public health system, public health epidemiology); it is important to define the word referring to the profession.
 - The term 'public health epidemiology' was not supported, due to potential confusion between the two different disciplines or professions.
 - Field epidemiology is preferred over epidemiology, to make clear that it is different from clinical epidemiology.
 - The use of the term 'communicable disease field epidemiology' was suggested.
 - 'Public health system' is preferred to 'public health administration', to avoid reducing the scope to the offices of public health services. For example, both private and public hospitals and clinicians have roles in public health (e.g. nosocomial outbreaks, reporting to surveillance systems, etc).
 - As epidemiological work is also done by other specialists (hygienists, social workers, nurses, etc.), epidemiology education/training should work to address these professions as well.

⁵ For a detailed description of the presentations see Annex 3

- It is also necessary to conduct a mapping of the epidemiologists in an academic context.
- Specific comments and suggestions on how the questions in the assessment tool should be edited and what should be added or clarified were also given. Concerns about the need for political support (budget and governmental) were raised.

Education systems are different for different countries. In many countries a medical background is required to enter a specialisation in public health or epidemiology, but in others (e.g. Albania) they are only beginning to offer bachelors' degrees in public health, so it is not always a requirement.

Diversity in public health systems and different labels with different definitions were highlighted. For the purpose of ECDC regarding capacity building support, these labels and the specific names of the professions may be less of a focus than the functions (e.g. outbreak investigation). Countries could define who carries out the different tasks and the specific skills needed. It was emphasised that what is important is that the competence is there even though the various tasks may be given to different professionals. Other professionals, not only medical doctors in health care, but also nurses should also be trained in field epidemiology. For example, general practitioners are responsible for reporting infectious diseases and health promotion, together with nurses, pharmacists, etc. The need for decision makers to acquire and/or refresh their epidemiology knowledge was also discussed. Training the trainers to raise knowledge in a cost-effective way was considered necessary.

Regarding the form/table to assess training needs,⁶ simplifying the tool was suggested, including methods used under the relevant target audience and adding a scoring system per domain (1–5, in increasing order of importance); while at the same time adding a reference to the complete list to the list of domains. In addition, environmental issues should also be added to the domain and training needs lists.

A questionnaire and training needs form that was updated, after consideration of comments from participants in the meeting is included in Annex 4 of this meeting report.

Country perspective: training capacity and resources in EU enlargement countries

Participants presented their national situation in training capacity and resources in the field of communicable disease surveillance and control and had an opportunity in a guided way to discuss similarities and differences in their national experiences. The training needs assessment done in Albania was of particular interest to the participants in their discussion and the use of a questionnaire based on a framework from the United States Centers for Disease Control and Prevention (CDC) was also mentioned. The CDC core competencies in applied epidemiology were used in the training needs assessment. The possibility of sharing their tool and the final report with ECDC and the rest of the participants was discussed. These were translated from English with the assistance of Montreal University in Canada and are available to share with other countries who may be interested.

'Everybody is protecting patients but nobody is protecting the physicians'

Croatia on the need for training on public health communication

The need for evidence-based methods in training and the advocacy of such methods was also discussed and highlighted the need for ministries of health and public health institutes to work together for better results. Advocacy with policy makers is necessary as ministries of health are not always fully aware of the needs for field epidemiology and scientific evidence.

The need for motivational factors for professionals and students to undertake training in the area of communicable diseases and pursue a career in this area was highlighted. The high level of ambiguity as to how much capacity is needed was mentioned and it was recognised that there is a need for comparable indicators and effective application of capacity building tools.

The possibility for senior experts to join the European Programme for Intervention Epidemiology Training (EPIET) introductory course was discussed. It was seen as most useful for those countries that have already performed a training needs analysis.

All attending experts were encouraged to use training materials from ECDC courses and disseminate them in their countries; these materials could be translated by the countries into their national languages and then freely used in training initiatives. Albania organises a similar course and was willing to share the materials used in it.

The information given by the countries to ECDC was very useful in terms of better understanding the possibilities for support and areas for joint work. The typical career track of specialists trained in the courses presented was

⁶ See Annex 4

discussed and it was discovered that in most of the countries these graduates go on to undertake strictly medical or more administrative positions.

The need for training on health communication was discussed and recognised by all of the participants. Effective communication with the public on communicable disease issues was recognised as further complicated by a lack of awareness of its importance as well as a lack of human and financial resources. Additionally, the importance of good coordination of communication messages and of timely communication between the different levels of governing institutions was highlighted and it was concluded that training on public health communication for all professionals in the area needs to take into account different institutional levels.

Expected areas of ECDC assistance for meeting training needs of countries

Participants were invited to discuss specific areas where ECDC assistance was required and to reflect on the output that was envisioned by the working group session dedicated to action planning per country. Questions addressed included:

- Do the tools (re. training needs in intervention/field epidemiology table with areas and domains) cover the main domains? What is not covered and how can we identify/address these? Do we need to develop similar tools for other topics?
- Considering the different experiences from the countries, are they complementary? Would it be useful to consider specific regional activities?
- Could one country contribute with activities they have already developed, so that other countries may also benefit from this knowledge?

Turkey explained that it is currently developing a strategy to strengthen capacity in communicable disease epidemiology. Training strategies by country are relevant because structures and needs differ as well as the definition of what an epidemiologist is. More specific needs were stated as:

- Mapping competencies and skills.
- Description of the calibre of the current public health workforce, as well as their performance. The International Health Regulations⁷ could be used as guidance but do not specify number of experts needed for an outbreak investigation.
- Indicators need to be developed as any reform needs to be linked to action plans and indicators.
- Defining the career path of professionals when planning training programmes.

Depending on specific needs, different models are possible, including combinations of face-face, e-learning, Field Epidemiology Training Programme, etc. Training could also involve a structured evaluation of public health events, drawing lessons learnt, sharing experiences, learning by doing, peer review, etc.

Montenegro expressed the need to target senior epidemiologists with regional courses in a common language.

the former Yugoslav Republic of Macedonia conducted a recent evaluation of human resources in health at all levels. They found that there are epidemiologists in hygiene and social medicine close to retirement which will create a problem in the next five years, as there is no interest from students to enter into a public health career. They valued the opportunity of drafting action plans at the meeting to present them later to the Ministry of Health. Train the trainers was also suggested.

Croatia also supported train the trainers, yet the unwillingness of some experts to learn is a barrier. A possible solution may be making attendance required at courses for epidemiologists. Croatia agreed with the advantages of blended training (combination of distance learning and face-face) and recommended the start-up of a web forum for networking. An extranet forum could be an option. Staff with mid-level education (statistics, programmers in public health institutes) could also be a target for training in public health.

Albania has had an evaluation but has not developed an action plan. Their system was evaluated according to the International Health Regulations. It was suggested that analysing public health events and monthly and weekly meetings with epidemiologists could be a good option.

Bosnia & Herzegovina highlighted a gap in infection control and public health microbiology.

Turkey expressed interest in knowing more about the training needs assessment done by Albania. Regarding advocacy, policy makers should give good opportunities for those that wish to work in this field. The assessment tool should include references to competencies and curricula. Training in communicable disease surveillance and

⁷World Health Organization, International Health Regulations (2005) <http://www.who.int/ihr/9789241596664/en/index.html>

response should also cover other professionals in addition to medical doctors. These activities are related to International Health Regulation activities.

Albania suggests testing the curricula against the core competencies. In addition a similar exercise is necessary for public health microbiology and infection control; as well as other fields such as public health informatics.

The assessment of training needs in infection control conducted in Europe in 2010 with the participation of Croatia and Turkey can be a good model to follow for other areas. In addition, translations of available training materials (in English) by experts in the countries could be a good resource for cascade training.

Action planning per country for 2012: group work

Participants were offered the opportunity to draft action plans for future national activities in this area (national strategies for capacity building) in synergy with the ECDC training strategy. Country representatives were invited to work in pairs of experts (by country) to analyse their specific priorities. Examples of these included:

- Increase motivation of doctors and young professionals to enter a career in epidemiology (problem due to the retirement of epidemiologists, lack of career attractiveness) through:
 - EU recognition of specialisation, analysis of the curriculum, review of this by ECDC, final report, proposing amendments if needed
 - development of new programme for specialisation
 - open new posts, provide new provisions on obligations of employment of epidemiologists
- Train the trainers: increasing capacity and skills to provide relevant training for target audiences, assistance from ECDC for national and regional-level courses, needed, and support from government.
- Multi-country/regional network for surveillance and response to communicable diseases: specialists from different disciplines, recruitment of appropriate number of staff, infection control teams in the hospitals, primary care level and hospitals
- Establishment of the FETP curriculum based on agreed core competencies: National workshops to revise public health services based on competencies, quality assurance with support from ECDC, training programmes in epidemiology and public health interventions Inc (TEPHINET), Canadian Field Epidemiology Programme and CDC. Areas of priority include international mentors in capacity development and training in applied epidemiology
- Maintain a good staff rate (e.g. one field epidemiologist per 40,000 population).
- Harmonise the training curriculum with EPIET/candidate countries, keeping some that are specific.
- Education of other professions including mid-level staff (e.g. IT staff) in public health.
- FETP institutionalisation. The first step is to define the career plan, and this is followed by training courses. The infrastructure should be there in order to motivate, attract, and retain people. Distance learning and networking is also important, as well as sharing activities and prioritisation.
- Advocacy to increase political commitment was suggested as a possible part of the action plan. Some decision makers don't see the need for evidence-based public health and professional societies could act as catalysts for capacity building efforts.

Conclusion

This workshop helped to set ECDC's 2011–2013 work priorities and budget planning for the EU enlargement countries. It was the starting point of a long-term collaboration for capacity development on communicable diseases in the EU enlargement countries. The real value was perceived to be in gathering together and sharing views whilst having an opportunity to look across borders and identify and prioritise shared needs since those would have a greater impact. At the same time the action plans should be country specific and could help ECDC's planning of effective actions in the region. The process starts with identifying needs and priorities, before looking at what ECDC and other countries and partners can provide prior to planning concrete actions.

In general, this consultation was perceived by ECDC and participants as a useful exchange of experiences and tools. The opportunity to identify priorities and explore/draw up action plans for particular topics on capacity building was particularly appreciated. The relevance of information exchange was highlighted and EU candidate countries and potential candidates also expect to be informed about future training activities addressing the EU Member States.

The report of this workshop may be used to support prioritisation of activities for the next ECDC-IPA project (2012–2013) from the European Commission that is addressing beneficiaries from EU enlargement countries. ECDC is listening to the needs of the EU candidate countries and potential candidates and may identify financial resources/instruments from various sources (e.g. Technical Assistance and Information Exchange instrument TAIEX) to meet these needs. Countries are also encouraged to identify their needs as well as potential sources for funding.

The meeting represented a unique opportunity to have the assessment tools reviewed by participants and then updated.

Suggestions for next steps identified in the workshop include:

- introductory course (EPIET or Into-Epi) on applied epidemiology, with an expression of interest by country experts to join this activity either as participants or as facilitators;
- country visits for training needs assessment; action plans could be further developed in discussions during these visits. Albania, Croatia, Serbia, The former Yugoslav Republic of Macedonia all expressed interest;
- in-country workshops: ECDC participants and/or speakers could be sent if needed;
- virtual workspace such as an extranet to share documents, plans and exchange experiences;
- regional/multi-country workshops for specific topics if there are common needs and goals among several countries;
- visit public health institutes in different countries to understand how early warning activities or surveillance works;
- exchange of trainers under the twinning model: mentoring in core competencies/training and support from other EPIET facilitators and supervisors (supported by ECDC and in collaboration with TAIEX);
- follow up of the conclusions and next steps agreed during this ECDC workshop within the region;
- the existing informal network for detection of outbreaks among several countries could be consolidated and linked to training activities;
- train the trainers (cascade) should be promoted.



Annex 1. Meeting agenda

ECDC workshop on training capacity, resources and needs assessment for the EU candidate countries and potential candidates

Monday, 5 September 2011	
9:00 – 9:15	Opening and welcome by ECDC Director. <i>Marc Sprenger, ECDC Director</i>
9:15 – 9:45	Opening and welcome. Introduction and objectives of the meeting including the mandate of ECDC in capacity strengthening, ECDC's strategy and the introduction of participants. <i>Karl Ekdahl, Head of Public Health Capacity and Communication Unit</i> <i>Alena Petrakova, Head of Country Cooperation, Director's Office</i>
9:45 – 10:30	Presentations: <i>Core competencies in field epidemiology, core competencies in mentoring: Carmen Varela Santos, Senior Expert, PH training section</i> <i>Core competencies in public health microbiology: Vladimir Prikazsky, PH training section</i> <i>Core competencies in infection control: Vladimir Prikazsky, Expert, PH training section</i>
10:30 – 10:45	<i>Coffee/Tea Break</i>
10:45 – 11:15	ECDC Collaboration with ASPHER with a focus on public health capacity development in EU candidate countries and potential candidates. <i>Alena Petrakova, Head of Country Cooperation, Director's Office</i>
11:15 – 12:15	Training needs assessment tools used in country visits: Review and group discussions (<i>Carmen Varela and Vladimir Prikazsky</i>)
12:15 – 13:15	<i>Lunch break</i>
13:15 – 14:15	Training needs assessment tools used in country visits (cont.): Plenary session, summarise the results of the group discussions: <i>moderator Agne Bajoriniene</i>
14:15 – 15:00	Presentation of ECDC portfolio of courses for senior public health professionals: <i>Arnold Bosman, Head of Public Health Training section, Vladimir Prikazsky, Carmen Varela, PH Training section</i>
15:00 – 15:15	<i>Coffee/Tea Break</i>
15:15 – 16:15	Presentations by countries: Training capacity and resources in EU potential candidates: <i>moderator Piotr Wysocki, Public Health Development Section</i> <ul style="list-style-type: none"> • Albania • Bosnia and Herzegovina • Kosovo*⁸ • Serbia
16:15 – 16:45	Discussion

⁸ This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Tuesday, 6 September 2011

9:00 – 10:00	Presentations by countries (cont.): Training capacity and resources in EU candidate countries: <i>moderator Piotr Wysocki, Public Health Development Section</i> <ul style="list-style-type: none"> • Croatia • Montenegro • the former Yugoslav Republic of Macedonia • Turkey
10:00 – 10:30	Discussion
10:30 – 10:45	<i>Coffee/Tea Break</i>
10:45 – 12:15	Plenary discussion: Where do you expect that ECDC can help? <i>Moderators: Arnold Bosman, Head of Public Health Training section and Alena Petrakova, Head of Country Cooperation</i>
12:15 – 13:15	<i>Lunch break</i>
13:15 – 13:45	Presentation on general action planning: <i>Liliya Todorova-Janssens, Expert PH Training section</i>
13:45 – 15:15	Discussion in working groups: Drawing up action plans per country for 2012 <i>Work on action plan for each EU Candidate Country and Potential Candidate</i> <i>Facilitators: Liliya Todorova-Janssens, Piotr Wysocki, Agne Bajoriniene, Carmen Varela</i>
15:15 – 15:30	<i>Coffee/Tea Break</i>
15:30 – 17:00	Conclusions and next steps for collaboration. <i>Moderators: Arnold Bosman, Head of Public Health Training section and Alena Petrakova, Head of Country Cooperation</i>

Annex 2. List of participants

Country	Name	Affiliation
Albania	Alban Ylli	Health Policy and continuous education Unit Institute of Public Health
	Silvia Bino	Epidemiology and Control of Infectious Diseases Department (IHR focal point Albania) Institute of Public Health
Bosnia and Herzegovina	Dalibor Pejović	Ministry of Civil Affairs Bosnia and Herzegovina
	Dijana Štrkić	Public Health Institute Republika Srpska
Croatia	Bernard Kaic	Infectious Diseases Epidemiology Service Croatian National Institute of Public Health
	Nataša Antoljak	Assistant professor specialist in Epidemiology Croatian National Institute of Public Health
Kosovo	Isme Humolli	Epidemiology Department National Institute of Public Health
	Pashk Buzhala	Department of Public Health Ministry of Health
Montenegro	Jadranka Lakićević	Ass. Minister of Health Ministry of Health
	Dragan Laušević	Institute of Public Health
Serbia	Marija Jevtic	Assistant Minister Ministry of Health
	Zorana Gledovic	School of Medicine University of Belgrade
The former Yugoslav Republic of Macedonia	Biljana Celevska	Department for European Integration Ministry of Health
	Suzana Manevska	Department for Preventive Healthcare Ministry of Health
Turkey	Nihal Babalioğlu	General Directorate of Primary Health Care Services Ministry of Health
	Bahadır Sucakli	General Directorate of Primary Health Care Services Ministry of Health
ECDC	Alena Petrakova	Head of Section Country Cooperation Section Director's Office
	Arnold Bosman	Head of Section Public Health Training section Public Health Capacity and Communication Unit
	Carmen Varela Santos	Senior Expert Public Health Training section Public Health Capacity and Communication Unit
	Liliya Todorova-Janssens	Expert for Training and Capacity Building Public Health Training section Public Health Capacity and Communication Unit
	Vladimir Prikazsky	Expert for Training and Capacity Building Public Health Training section Public Health Capacity and Communication Unit
	Piotr Wysocki	Expert Public Health Development Section Public Health Capacity and Communication Unit
	Agnè Bajorinienė	Country Relations Officer Country Cooperation Section Director's Office
	Bogusław Suski	Country Relations Officer Country Cooperation Section Director's Office
	Polya Rosin	Scientific Officer Microbiology Coordination Section Resource Management and Coordination Unit
	Aftab Jasir	Expert for Training and Capacity Building Public Health Training section Public Health Capacity and Communication Unit

Annex 3. Presentations

Core competencies in field epidemiology, public health microbiology and infection control

The ECDC development processes of core competencies for different public health disciplines (field epidemiology, public health microbiology and infection control) were presented.

Carmen Varela Santos reviewed the process and scope of development of the ECDC list of core competencies for field epidemiology and explained the definition of competence and the possible uses of such a list by: employers (recruitment/vacancy notices, appraisal exercises for career development, knowledge gaps that professionals have which need to be targeted by training), trainers (as reference to curriculum development and instructional design), and trainees to better assess their skills and in accreditation processes. She explained that ECDC is not an accreditation body but is in the process of setting up collaborations with the respective European bodies (e.g. for accreditation of short courses for continuous medical education).

Portugal has already started to use this work in the recognition of field epidemiologists in the public health system. After translating the list of core competencies into Portuguese, a ministerial regulation was issued to define the intervention epidemiologist, taking the EU list as a point of reference. The core competencies in field epidemiology are being translated into all 23 EU languages to assist Member States in their endorsement. Addressing the usefulness of publishing them in a scientific journal in the countries was also discussed.

Vladimir Prikazsky highlighted that public health microbiology is cross-cutting all activities in ECDC and therefore the work on developing the core competencies for ECDC's training in this area (EUPHEM) is done jointly with experts across the Centre and with ECDC's National Microbiology Focal Points (Member States experts). The programme aims at strengthening surveillance and control of communicable diseases but also the network of public health microbiology experts. Vladimir gave a comprehensive overview of the scope which includes seven domains of core competencies: public health microbiology management; applied microbiology and laboratory investigations; epidemiological investigations (surveillance and outbreak investigation); bio-risk and bio-safety management; quality management; research in applied public health microbiology; and teaching and pedagogical skills.

Vladimir explained that the core competencies in infection control were developed in the frame of the programme IPSE (Improving Patient Safety in Europe), and produced a document on European core curriculum in infection control and hospital hygiene. He reviewed the main targets, which included the preparation of the core competencies, their endorsement and the agreement on a strategy for their implementation. The main content of this document with regards to the areas of competence and tasks were presented and the cooperation with ECDC's disease programme on antimicrobial resistance and healthcare-associated infections was highlighted.

The production of public health guidance as part of the core competencies in applied epidemiology was questioned in the plenary discussion due to its more common relevance at national levels. While production of guidelines may be conducted mainly at central levels, risk assessment and scientific advice related to public health events is necessary at all levels and therefore considered a core competence. A question was raised about whether there already are experts who have all the EUPHEM core competencies and if those are covered by other existing medical specialisations. It was mentioned that there are already four EUPHEM graduates who have been trained under this framework of core competencies (further developed during the pilot phase of the first cohorts). The eligibility criteria for the programme were also discussed and it was highlighted that although holding a university degree is required, the training is not restricted to medical microbiologists.

ECDC collaboration with the Association of Schools of Public Health in the European Region (ASPHER) with a focus on public health capacity development in EU candidate countries and potential candidates

Alena Petrakova, Head of Country Cooperation, Director's Office, presented an overview of ECDC's role in international cooperation which focused on EU Member States as the first step and strengthening collaboration with EU enlargement countries as a second step in line with ECDC's mission (ECDC Founding Regulation, article 30). The work with candidate and potential candidate countries follows the policy on collaboration with 'third countries' approved by ECDC's Management Board⁹. The next step is to identify work priorities and suitable financial tools. An overview of ECDC's strategic partners was presented and it was highlighted that the Centre operates the 'one team' work ethic, working closely with Member States, the Commission, World Health Organization and other international organisations.

The Association of Schools of Public Health in the European Region (ASPHER) was introduced as a key ECDC partner in this area. It offers a platform for the development of common strategies for training and a suitable network of EU Member States and non-Member States. In February at an ASPHER-ECDC meeting the areas of potential collaboration were reviewed. Among these were (1) training, consultancy, research; (2) exchange of faculty and PhD students; (3) development and dissemination of information sheets, publications etc. which might be useful for schools of public health; (4) how to pursue an accreditation process for ECDC training and courses; (5) possible contribution of ECDC to the journal of 'Public Health Reviews'; (6) sharing of training materials (Field Epidemiology Manual wiki via ASPHER network), and ECDC technical reports for students in public health institutes; (6) joint ASPHER and ECDC meetings to find synergies between the two institutions; (7) Global Health Alliance, supported by The Lancet and via ASPHER to organise joint meetings; (8) ASPHER to share information and knowledge with ECDC; (9) public health advocacy and communication working group co-chaired by ECDC; (10) preparing joint workshops for European public health conferences.

As a first example of joint activities the agenda for the European Public Health Alliance conference was presented with the joint workshop 'Application of e-tools in public health capacity strengthening, training, advocacy and communication' highlighted. The conference will take place on the 10-12 of November 2011 in Copenhagen, Denmark.

ECDC portfolio of courses for senior public health professionals

Arnold Bosman, Head of the Public Health Training section, explained how the ECDC field epidemiology core competencies fit into the EPIET two-year training. The new Member State-track of EPIET, where fellows undergo training in their country of origin was explained as a variation from the EU-track where fellows must be trained in a different EU country.

In addition to the two-year programmes EPIET and EUPHEM, ECDC conducts short courses for continuous medical education. Most of these courses have one-week duration and cover outbreak investigation, microbiology and epidemiology aspects, managerial skills, etc. They can be seen as refresher courses for senior staff as well as intensive courses for junior staff. A three-week course in intervention epidemiology could also be offered. A third set of activities offered include developing teaching/training resources and online learning tools. Training materials from joint work with ECDC's disease programmes can be shared, including material on point prevalence studies.

It was stressed that the portfolio of courses is a result of mapping which has been done previously and/or offered by ECDC, meaning the actual availability of the courses would be subject to priority and budget negotiations. A few examples of training activities given included training on analytical skills in applied epidemiology which was done following a request by the Ministry of Health in the Czech Republic, inviting regional epidemiologists that had previously attended ECDC courses on outbreak investigation. Some participants indicated interest in a similar course. The participants also mentioned that there would be a higher interest in short-term courses due to human resources constraints.

The possibility of accrediting the courses provided by the countries relating to the content of those offered by ECDC was discussed. There is no such mechanism in place now but this could be possible for some courses in the future now that the core competencies (e.g. field epidemiology) are in place. The first step in this process would be to identify national courses that offer the same core competencies.

⁹ Minutes of the twentieth meeting of the ECDC management board, ECDC Management Board.
http://ecdc.europa.eu/en/aboutus/organisation/mb/MB%20%20Meeting%20Minutes/1103_MB_minutes.pdf

Whether countries can participate in each others' courses was also discussed and a few national courses accredited by international organisations were briefly mentioned. A good example was an initiative from Portugal in organising a course in ethics, translating training material into English and offering it to ECDC, Member States and partners for use and participation.

The idea of ECDC organising an introductory course on applied epidemiology for EU candidate countries and potential candidates was expressed. The possibility of having joint courses with participants from the EU and enlargement countries was briefly discussed and it was agreed that there would be further discussions on this topic during the workshop to be held 8–9 September 2011.

Other topics discussed were: country visits to support training needs assessment or to provide technical support, collaboration with disease programmes and their networks and inviting participants from both managerial and the technical level.

Field epidemiology manual (FEM) wiki

After participants expressed their interest in the field epidemiology manual wiki (FEM wiki), Vladimir Prikazsky demonstrated how to navigate, add information, edit, etc. ECDC welcomed the dissemination of information about this tool as well as translations into different languages. The FEM wiki is accessible for everyone upon individual registration, with the only limitations being in introducing new chapters which is the role of the editorial board. Participants were informed about the access to 11 case studies and 40 EPIET introductory course lectures on the ECDC website.

Country presentations

Participants were invited to present their national situation in training capacity and resources in the field of communicable disease surveillance and control. The following questions guided the discussion on country experiences:

- What is the legal framework for public health capacity development?
- In terms of the current situation and with a view to improving the country's capacity in field epidemiology, public health microbiology and infection control:
 - which training activities have been developed so far?
 - who is responsible for organising the abovementioned training activities in your country?
 - what is the format (face-to-face, distance learning, etc.), methodology and duration of the abovementioned training activities?
- What barriers or challenges in your country could you name that need to be tackled to further strengthen national public health capacities?
- Has your country participated in International Health Regulations training organised by the WHO? Please specify, including institution involved.

During this session, which was moderated by Piotr Wysocki, from the Public Health Development Section, four countries gave presentations on their national training capacities and resources. A brief summary of key issues presented can be found below.

Albania

Starting with a review of the legal framework and institutional organisation for education, continuous education and training, an overview of the current public health and communicable disease education and training was presented.

While public health surveillance or outbreak investigation is not covered in the curriculum for undergraduate studies for medicine, the public health master's degree programme covers this topic and 33% of the lectures in other undergraduate studies focus on these areas as well.

The country also offers two-week training courses based on previous EPIET and Council of State and Territorial Epidemiologists (CSTE)/CDC applied epidemiology core competencies as a collaboration with CDC. In addition, epidemiology information training, data analysis (one week), sample collection (three days), infection control (three months), professional and scientific masters, medical epidemiology and post-control studies and International Health Regulations training (in collaboration with WHO, one month course) are also provided. The methodology used includes face-to-face and on the job training, adult learning methods, case studies and field practice. In Albania attending the introductory course is mandatory for epidemiologists that start working in public health institutions.

The country had performed training needs assessment analysis and priority setting. The Institute of Public Health is the specific coordinating body for training.

Among the barriers and challenges was the lack of integration as a programme and the need for standards for public health, field and environmental epidemiology, and infection control. Assistance from ECDC to review their courses would therefore be welcomed. Accreditation, not ECDC, but standards for FETPs are needed from TEPHINET for example. The need of re-organising the public health services and career advice for public health trainees was also recognised.

Bosnia and Herzegovina

An overview of the governmental structure and legal framework was given. The country is currently implementing the Instrument for Pre-Accession Assistance 2007 project, the objectives of which were outlined. It was highlighted that the project includes several study tours, workshops and trainings. Three Global Fund grants (AIDS, TB, malaria) are also being implemented. Focal points for IHR are continuously trained. Among the barriers and challenges were the weak and fragmented surveillance and healthcare systems as well as data collection issues in the public health sector. Training for decision making was presented. Continuing education programmes exist for clinicians.

Kosovo

An overview of the country profile, the legal framework of public health activities and training courses offered was given. The National Institute of Health is obliged to organise post-graduate studies and training (surveillance, investigation and response, case management, prevention and control of vaccine-preventable diseases and immunisation, development of protocols). Training along IHR programmes is in place. Among the challenges are, budget limitations for the organisation for continuous training on communicable disease prevention and the need to strengthen coordination between the medical faculty, Ministry of Health and other ministries was also mentioned.

Serbia

The legal framework and existing international collaborations in the area of training were presented. It was highlighted that the country covers 70 communicable diseases with mandatory notification, and reports case-based data for 64 diseases. The National Institute of Public Health is the regulatory institution for training and links the Ministry of Health, the district Institutes of Public Health as well as international partners such as WHO. The functions and activities of this institute were reviewed alongside the training courses offered (including e-learning on health management and applied epidemiology as part of the Master's degree in public health) and IHR training initiatives. Among the challenges and barriers identified were the lack of data exchange between laboratories and district Institutes of Public Health as well as the very high number of diseases reported which led to a long reporting time and a delay in the public health response. No national guidelines for data analysis and outbreak investigation exist. More information can be found at www.batut.org.rs

Croatia

The legal framework and organisational structure was briefly presented. Specialisation training in the field of communicable diseases is offered in: epidemiology for medical doctors, public health medicine specialisation, microbiology for medical doctors, infectology and internal medicine. The curriculum of these specialisations was presented as well as the core competencies acquired after successful completion. Post-graduate courses on other topics and for other professionals (e.g. nurses, dentist), some offered in English were also presented. Among the barriers were disagreements between decision makers and epidemiology training specialists as well as the lack of practical knowledge in epidemiology and interest in practising it after the training.

Montenegro

The legal framework for training, regular refresher training, licensing regulation and renewal of license were all presented. A new regulation on the reporting of communicable diseases and epidemics, hospital infection and epidemiological investigation has been issued. Every seven years physicians need to renew their licences. There is no available specialisation in Montenegro so they need to go to Serbia for specialisation. The Centre for Disease Prevention and Control belongs to the National Institute of Public Health which organises face to face refresher courses (surveillance, etc) that last one to five days. There are several training activities in the area of surveillance of communicable diseases on mandatory reporting, of vaccine-preventable diseases and immunisation in practice. The main challenges faced are: lack of human resources, lack of national guidelines for data analysis and outbreak investigation and lack of funding for training activities. IHR training is in place and the south-eastern European health network is deemed as very active for the detection of public health threats.

The former Yugoslav Republic of Macedonia

An overview of the network of health organisations and a summary of the recent public health system reform was presented. A new law on health protection is now being drafted and ten Centres for Public Health and one Institute for Public Health in Skopje now exist. The health education system offers undergraduate training, internships, specialisation, licensing and practice. Courses can be organised by national institutions and/or international partners. The current situation with regards to numbers of specialists with epidemiology training, microbiology and infectious diseases was shown. Barriers and challenges mentioned were lack of financial resources for; simulation exercises for management of epidemics, pandemics, surveillance, International Standardisation Organisation certification for medical laboratories, training on antimicrobial resistance, implementation of molecular methods in microbiology, and training in implementation of IHR.

Turkey

The legal framework for training and key organisations involved in organising training in the area of communicable diseases was presented. Microbiology training is given by the National Public Health Institute as well as by certain state hospitals. E-learning (e.g. in epidemiology) is offered by the Ministry of Health along with training in infection control which is organised by the Ministry via collaborations with WHO, ECDC, Spanish FETP and local universities.

Training activities in public health microbiology and IHR training were also presented. It was highlighted that in the area of epidemiology, practical application is also needed alongside lectures. Equally important is the need to find motivating factors to keep graduates working in this area. Other challenges included the organisational structure, legal framework and resources. These challenges will be addressed during phase III of the reconstruction of the Ministry of Health, including the early warning and response unit and the institutionalisation of the FETP.

Annex 4. Assessment tool (questionnaire): Capacity and training resources in public health epidemiology for communicable disease surveillance and response

To be sent to national training contact point some weeks before ECDC visit, this questionnaire has two sections:

- Capacity in epidemiology in the public health system
- Inventory of training resources in public health epidemiology

Please, fill in this questionnaire and use it as a reference for the training needs assessment visit of the ECDC team

- Country
- Name
- Institution
- Date __/__/__

Capacity in epidemiology in the public health system

For the purposes of this questionnaire, we suggest the definition of communicable disease field epidemiologist presented in the report of the expert meeting for the development of core competencies of epidemiology in the area of communicable disease surveillance and response:

"The epidemiologist that applies the science of epidemiology to the prevention and control of public health problems and works in intervention and response activities"

1.1. Background and education titles of communicable disease field epidemiologists

- Is there a title of communicable disease field epidemiologist in the country?
 - Yes /No
- If yes, please indicate if it is:
 - Graduate /Post-graduate /Both

1.2. What is the more common educational background of epidemiologists?

- Physicians
- Bachelor´s degree (University title)
- Others, please describe

1.3. Recruitment: How do the communicable disease field epidemiologists in the country access their jobs? Please mark more than one if applicable.

- Specialised training
- Experience on-job
- Open competition for access to public position
 - Please explain _____

1.4. Epidemiologists currently working in the public health system in the country

- How many communicable disease field epidemiologists are currently working at the national level?

- How many communicable disease field epidemiologists are currently working in the sub-national level, next administrative division? _____
- Please estimate the number of epidemiologists per 100.000 habitants in total:
- Please, estimate the number of epidemiologists per 100.000 habitants in the different levels:
 - national _____
 - sub-national (e.g. districts) _____
 - local _____

1.5. Does the country have graduates from national Field Epidemiology training programmes?

- Yes /No

(The ECDC core competencies are reference in Europe for these programmes, accessible at

http://ecdc.europa.eu/en/publications/Publications/0801_TED_Core_Competencies_for_Public_Health_Epidemiologists.pdf)

- If yes, how many as of the date of filling in this questionnaire?

1.6. How many communicable disease field epidemiologists are currently undergoing training?**1.7. Epidemiologists by age/experience**

- Number of epidemiologists with more than 10 years of experience (approximate percentage over total) _____()
- Number of epidemiologists with 5 to 10 years of experience (approximate percentage over total) _____()
- Number of epidemiologists with less than 5 years of experience (approximate percentage over total) _____()

1.8. Continuous training (refresher courses)

- Do the epidemiologists receive training as part of their professional development?
– Yes /No
- If yes, which percentage approximately has undergone training during the last year?
- Is it a requirement in your institute?
- Is it required for accreditation or certification of professionals?

1.9. Is there any ongoing plan for reforming the public health system in the country?

- Yes /No
- If yes, has it any impact in the education or training of epidemiologists?
- Yes /No

Please explain

1.10. Is there a professional association of epidemiology in the country?

- Yes /No
- If yes, please give its name and explain if it has any role in the education or training of epidemiologists?

1.11. Is there a scientific association of epidemiology in the country?

- Yes /No
- If yes, please give its name and explain if it has any role in the education or training of epidemiologists?

Inventory of training resources**2.1. Institutions**

- Does the national institute of public health organise courses for the communicable disease field epidemiologists of the national level? Yes /No
- And for the regional level? Yes /No
- Does the regional institute of public health organise courses for the communicable disease field epidemiologists of the national level? Yes /No
- Does the country run a two-year learning by doing programme, with components of outbreak investigation and public health surveillance, deployed in the national institute of public health surveillance or in a regional homologous body? Yes /No

(The ECDC core competencies are reference in Europe for these programmes, Accessible at

http://ecdc.europa.eu/en/publications/Publications/0801_TED_Core_Competencies_for_Public_Health_Epidemiologists.pdf)

- If yes, please give the name of the director of this two-year programme and her/his organization.
- Name _____
- Institution _____
- Is the programme a member of the Training Programs in Epidemiology and Public Health Interventions NETWORK (TEPHINET) www.tephinet.org ?
- Yes /No

- Are there national or regional Schools of Public Health that give training in communicable disease field epidemiology? Yes /No
 - If yes, please give the name of the School, the institution and the city.

Name	Institution	City

- Are there Universities that give a title in communicable disease field epidemiology? Yes /No
 - Yes /No
- If yes, please enumerate them and give more details:

Name of University/Faculty	Graduate/Post graduate title	City

- Is there a specialization in communicable disease field epidemiology for medical doctors? Yes /No
- If yes please give the name of the institution that organizes it. _____

2.2. Models or programmes for training of communicable disease field epidemiologists

2.2.1. Short courses

- Please give examples of topics covered by short courses organised by the public health institute. Please specify their length and frequency with which they are organised

Name of the course	Duration (days)	Frequency

- Please give examples of topics covered by short courses organised by the public health school. Please specify their length and frequency with which they are organised

Name of the course	Duration	Frequency

- Please give examples of topics covered by short courses organised by other institutions

Name of the course	Organising institution	Duration	Frequency

2.2.2. Distance learning

- Please give examples of topics covered by distance learning organized by the institute

Name of the course	Duration	Frequency

- Please give examples of topics covered by distance learning organised by the public health school

Name of the course	Duration	Frequency

- Please give examples of topics covered by distance learning organised by other institutions

Name of the course & organising institution	Duration	Frequency

2.2.3. Other training programmes and institutions

- Please give examples of other training programmes and institutions involved in training in communicable disease field epidemiology
 - Training programme _____
 - Institution _____
 - Training programme _____
 - Institution _____
 - Training programme _____
 - Institution _____

2.3. Experts in training in communicable disease field epidemiology

- Has the country sent a national to the European Programme for Intervention Epidemiology Training (EPIET)? Yes /No
- If yes, how many as of the date of filling in this questionnaire? ____
- If not, would you consider it in the future? Yes /No

2.4. Is the country conducting any project on training under international or European funding?

- Yes /No
 - **Please, explain**

3. Other

Please, feel free to comment on this questionnaire and mention other aspects that you consider relevant for this assessment of resources in training and that are not already covered.

Training needs in intervention/field epidemiology

Please score (low priority=1, medium=2, high priority=3) the domains for which you think that epidemiologists in the public health system of your country need training, and identify the target audience and method. In addition, please discuss if needs at the national level are different than at the district or local level. Legend for method: A=Academic; R=Refresher courses (one-week, three-week); E=E-learning; FETP= two year learning by doing Field Epidemiology Training Programme

Area	Domain	Yes/No	Scoring and method, by target audience. Please mark one or more:								
			Junior staff (<5 years)		Mid-career (5-10 years experience)		Senior epidemiologists (>10 years)		Managers with epidemiology background		
			Score	Method	Score	Method	Score	Method	Score	Method	
Public health	1. Public health science										
	2. Public health policy										
Applied Epidemiology	3. Risk assessment										
	4. Public health surveillance										
	5. Outbreak investigation										
	6. Epidemiological studies										
	7. Infectious diseases										
	8. Laboratory issues										
	9. Public health guidance										
Biostatistics	10. Probability										
	11. Inferential statistics										
	12. Sampling										
Applied Informatics	13. Internet										
	14. Statistical and other data analysis										
	15. Editing and presentations										
Communication	16. Risk communication										
	17. Written communication										
	18. Oral communication										
	19. Use of new technologies										
Management	20. Planning and use of resources										
	21. Team building and negotiation										
Capacity development	22. Mentorship										
	23. Training										
Ethics	24. Protection of individuals										
	25. Confidentiality										
	26. Conflicts of interests										