MEETING REPORT

EVD Network and Coordination Group annual meeting

Stockholm, 4–5 December 2013

Summary

The first ECDC EVD Programme meeting was held in Stockholm on 4–5 December 2013. The meeting was an important milestone for setting-up a dedicated network of representatives from EU/EEA Member States to interact on emerging and vector-borne diseases. The meeting was held back-to-back with the first joint meeting of the Scientific Network for Risk Assessment in Animal Health and Welfare (AHAW) and the Task Force on Zoonoses Data Collection (TFZDC) of the European Food Safety Agency (EFSA), 5–6 December 2013.

The overall aim of network meetings is to advise ECDC on particular diseases or disease group surveillance; disease prevention and control; technical, epidemiological or scientific aspects of contagious diseases at the EU level; and to improve networking of national and international experts in various disciplines.

The designated participating experts from EU Member States and enlargement countries discussed: (i) governing structures and procedures regarding the ECDC EVD network of National Focal Points in the context of the 'one coordinating competent body' approach; (ii) priorities and types of activities (surveillance, risk assessment, prediction tools, recommendations, guidelines) in the EVD Programme and the Strategic Multi-Annual Programme; and (iii) data collection on EVDs at the EU level.

Country representatives participated in discussions on proposed new case definitions for dengue and chikungunya, on the feasibility of data collection for the 'place of infection' of cases, and on future surveillance data collection for EVDs: indicator based (TESSy data) versus event based (media monitoring).

Suggested citation: European Centre for Disease Prevention and Control. EVD Network and Coordination Group annual meeting – Meeting report, Stockholm, 4–5 December 2013. Stockholm: ECDC; 2014.

Stockholm, May 2014

1 Background

The Founding Regulation[1] establishing the European Centre for Disease Prevention and Control (ECDC) gives ECDC a mandate to strengthen the capacity of the European Union for the prevention and control of infectious diseases. ECDC gathers surveillance data on 52 communicable diseases and conditions, using the European Surveillance System (TESSy). The Centre undertakes this work in collaboration with the Member States and, for some diseases, with the WHO Regional Office for Europe. Under its mandate, ECDC was given the responsibility for coordinating and operating new and already established EU surveillance networks.

Since 2005, the coordination of the dedicated surveillance networks has been progressively transferred to ECDC. In total, 16 of the 17 pre-ECDC public health networks in Europe had been transferred to ECDC by the end of 2011.

The Programme for Emerging and Vector-borne Diseases (EVD), one of eight disease programmes at ECDC, covers notifiable diseases such as hantavirus infection, Q fever, viral haemorrhagic fevers, yellow fever, tick-borne encephalitis, malaria, rabies, plague, West Nile fever, chikungunya, and non-notifiable diseases such as Lyme borreliosis and new/emerging infectious threats.

The EVD Programme has recently set up a dedicated network of EU/EEA Member State representatives to interact on emerging and vector-borne diseases. A first step, initiated in March 2013, consisted of the nomination of National Focal Points (NFPs) for EVD in the EU/EEA Member States through the 'one coordinating competent body' approach. In parallel, ECDC appointed an interim coordination group of multidisciplinary experts from different countries, who will help to coordinate the network during the first year. The general role of the EVD network is to advise the EVD Programme on disease surveillance, disease prevention and control, and the technical, epidemiological or scientific aspects of emerging and vector-borne diseases.

2 Objectives of the meeting

This first meeting of the EVD Network and Coordination Group aimed to set up a network, define the network structure, and plan activities for 2014. The specific objectives for this meeting were:

- to introduce the EVD team, present the EVD Disease Programme and its outsourced networks;
- to explain the organisation and the role of the EVD network and to have an exchange on expectations regarding the functioning and role of network;
- to illustrate ECDC's disease specific work in areas of surveillance, monitoring, assessment, prevention and control through a case study
- to collect participants' views on the Programme's approaches and come up with ways to improve interaction with Member States;
- to inform on the present results and issues of EVD surveillance at the EU level and review methods for future data collection(including surveillance objectives and input from Member States); and
- to define a roadmap for the future of the network.

Programme

See Annex 1 for the detailed programme.

Participants

Invited meeting participants were the National Focal Points for EVD from EU/EEA Member States, the interim coordination group for EVD, and designated national experts from EU enlargement countries (as observers). A total number of 43 participants were invited, and 34 attended the meeting. A representative from the WHO Regional Office for Europe also attended.

See Annex 2 for the detailed list of participants.

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

3 EVD Network and Coordination Group annual meeting

After a short introduction to welcome the participants and outline the objectives of the meeting, a tour de table was proposed (name, country, organisation, areas of expertise, areas of special interest, experience in emerging and vector-borne diseases). It became obvious that expertise varied widely, but most of the participants stated some involvement in EVDs.

3.1 EVD network

Network structure

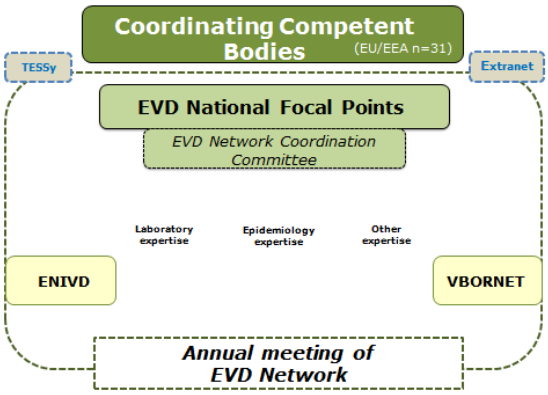
Piotr Kramarz, ECDC, head of the Disease Programme Section in the Office of Chief Scientist, presented the general ECDC structure for networks of representatives. According to the 'one coordinating competent body (CCB)' approach, each Member State nominates one National Coordinator (NC) who is in charge of high-level relational and coordinating interactions between ECDC and the coordinating competent body of a Member State.

The NC can nominate National Focal Points (NFPs) who are in charge of strategic and overarching interactions related to a specific disease group or public health function. The NC (and NFPs) can also delegate technical and operational interactions related to specific areas within the domains of a disease group or public health function to Operational Contact Points (OCPs).

The Disease Network consists of NFPs, OCPs and a Disease Network Coordinating Committee (DNCC). The DNCC is composed of 6 to 10 members elected among the network members and can also include external observers (see Annex 3). A list of NFPs and their main responsibilities can be found in Annex 3.

Current agreements are that OCPs are nominated for epidemiology, microbiology and TESSy interactions (see Annex 3 for responsibilities). Other specific domains vary according to Disease Programme; for EVD, these could concern entomology, environment or wildlife, but the decision to nominate OCPs has to be taken by the network. The EVD network structure is shown in Figure 1. Areas in white are not yet defined.

Figure 1: EVD network scheme



The EVD Programme relies on two other networks which are run by a consortium as part of an outsourced project: ENIVD (a laboratory network) and VBORNET (a network of public health entomologists); see presentations below. The main and disease-specific responsibilities of the NFP, the main responsibilities of the OCPs (if any), and the communication procedures between ECDC and the NC/NFPs are summarised in Annex 3.

Working group discussion 1: Implications of, and expectations for, EVD network interactions

The aim of the first discussion round was to collect expectations regarding the DP network structure, composition and development, according to the needs of the Member States/NFPs and ECDC.

Next it was discussed which complimentary functions should be covered by OCPs. OCPs for TESSy/IT-related matters are currently registered in the Customer Relation Management tool (CRM) of ECDC. It was discussed whether specific OCPs would be needed for specific disease groups and other areas such as laboratories, epidemiology, entomology, veterinary science, prevention and control, preparedness, communication, or training.

As there is no limit to the numbers of OCPs, countries are free to decide whether these functions should be carried out by the NFPs or additional OCPs. It was acknowledged that many NFPs handle a multitude of EVD functions – sometimes in addition to their responsibilities for other disease programmes. At the same time, there are people in the Member States who are more experienced and qualified in the field of EVDs, but as their field of expertise is often highly specific, the network could balloon to an excessive number of experts. It was therefore agreed that ECDC should identify in which areas additional OCPs are necessary. Also, ECDC could contact NFPs and ask them to nominate ad hoc experts if needed. Ideally, NFPs should consider creating a directory of qualified experts for specific tasks.

It was pointed out that the next Disease Network Coordination Committee (DNCC) should be selected from among the network members and elected by them. DNCC composition should reflect the available expertise; gender distribution; and the balance between eastern/western, northern/southern, and large/small countries. The meeting participants were asked for expressions of interest, so that ECDC could prepare a candidate list. The DNCC should meet once a year, conduct two or three annual teleconferences with the EVD team, help with the agenda for the annual meeting, and give a presentation about their activities at the next annual network meeting. It was also explained that the DNCC was not an official representative of the network. Also, other scientists should be included in the DNCC to broaden the scope of expertise. The composition, selection/election procedures, and the main responsibilities of the DNCC are summarised in Annex 3.

3.2 EVD Programme and activities

ECDC and EVD

Hervé Zeller, ECDC, head of the EVD Programme, presented the various ECDC/EVD activities. ECDC has five main domains of activity: (i) Epidemic intelligence, which consists of threat monitoring (media and other sources of information) and handling the Early Warning and Response System (EWRS) (confidential communication platform between EU ministries of health); (ii) EU-level disease surveillance through data collection from Member States in The European Surveillance System (TESSy) on 52 notifiable diseases or conditions; (iii) scientific advice based on expert consultations and procurements for research work; (iv) technical assistance and training for Member States and EU candidate countries; and (v) communication to the professional and scientific community, and, to a certain degree, to the general public. ECDC's activities focus on risk detection/monitoring and assessment and exclude risk management.

The EVD Programme deals with mosquito-borne diseases (West Nile fever, dengue, chikungunya, malaria, yellow fever), tick-borne diseases (tick-borne encephalitis, Lyme borreliosis, rickettsiosis, Crimean-Congo haemorrhagic fever), sandfly-borne diseases (leishmaniasis, sandfly fevers), other non-food-borne zoonoses (Q fever, rabies, plague, hantavirus infections, arenaviruses, filoviruses, Rift Valley fever, etc.)

The EVD Programme's main objectives are:

- to improve the surveillance of vector-borne diseases and their vectors;
- to gather evidence on transmission and epidemiology of vector-borne diseases;
- to contribute to the early response to emerging threats by providing laboratory support, expertise and training; and
- to enhance the capacity to monitor and respond to changing transmission patterns of vector-borne diseases in the EU.

Programme activities cover the production of surveillance reports, the development of risk assessments and prediction tools, guidance on disease diagnosis/detection and vector surveillance, and updated information on vector and pathogen distribution.

Recent activities included making tick-borne encephalitis a notifiable disease in the EU, the production of distribution maps of West Nile fever cases (updated weekly), country visits to Madeira (dengue outbreak

assessment) and Greece (locally acquired malaria and West Nile fever cases; joint visit with WHO), and the laboratory response to MERS CoV. A new ECDC European Environment and Epidemiology (E3) geoportal was recently launched, which provides access to environmental, land-use, demographic, and socio-economic data.

The strategic multiannual plan 2014–2020 for EVD is summarised in Table 1.

Table 1: Strategic multi-annual plan 2014–2020 for the EVD Programme

Disease	Surveillance basic	Surveillance enhanced, combined (animal/ vector data)	Surveillance real-time	Risk assessment/ prediction tools (maps, algorithms, models, etc.)	Recommendations/ guidelines/guidance on disease detection, prevention and control	Evaluation of prevention and control measures	Vector distribution
Chikungunya	2014–2015		2016–2020	X		X	X
Dengue	2014–2015		2016–2020	X		X	X
Hantavirus infection	2014–2015			2016–2017	2018–2019		
Leishmaniasis (not reportable)	2014–2015	2016–2020		2018–2019			X
Lyme borreliosis (not reportable)	2016–2019				2014–2015	2018–2019	
Malaria		X		X			X
Q fever	X						
Rabies, viral haemorrhagic fevers, Yellow fever	X						
Tick-borne encephalitis	2014–2015	2016–2019		2016–2019	2018–2019		X
West Nile fever		2016–2019	X				

Networks outsourced by EVD

EVD collaboration with external stakeholders takes place at several level, for example contacts with professional networks, EU-funded research projects, other European agencies, ad hoc nominated experts for specific topics, an ECDC-funded network of public health entomologists (VBORNET, www.vbornet.eu) and an ECDC-funded network of laboratories specialised in the diagnosis of exotic and emerging viral diseases (ENIVD, www.enivd.de).

VBORNET (European Network for Arthropod Vector Surveillance for Human Public Health, 2009–2014) was presented by Jolyon Medlock, public health entomologist at Public Health England. The objectives of the project consortium are to:

- establish a network of medical entomologists and public health officials and a system to support vector databases;
- provide ad hoc technical support to ECDC through provision of vector factsheets and risk assessments, and assist in field missions;
- produce and update vector distribution maps; and
- develop a public health framework towards the integrated monitoring and surveillance of vector-borne diseases in Europe.

Covered vector species are ticks, sandflies, and invasive and native mosquitoes.

ENIVD, the European Network for Viral Imported Diseases, was presented by Matthias Niedrig, Robert Koch Institute, Germany. ENIVD was established in 1995 and has members all over Europe. Its main activities are to:

- support ECDC in providing ad hoc outbreak support and outbreak preparedness documents related to laboratory diagnostics;
- assist Member States in detecting, investigating and responding to outbreak-prone diseases as well as imported, rare and unknown agents;

- conduct external quality assessment studies; and
- offer advice and support for technical improvements and organise short technical courses.

Case study West Nile fever

Laurence Marrama-Rakotoarivony, ECDC, Response Section, Surveillance and Response Unit, presented the Programme's activities on West Nile fever.

To support response activities, outputs have to be timely and surveillance should be easily accessible and user-friendly. For West Nile fever (WNF) for example, timely reporting of human cases is required so blood safety measures can be initiated. Following recommendations from the Member States, ECDC launched a project to improve the efficiency and timeliness of WNF surveillance in Europe in 2011. The WNF mapping tool monitors the spatial distribution of WNF human cases reported in the European Union and neighbouring countries. Epidemic intelligence methods are used to collect data from 63 countries. Weekly outputs (maps, tables and conclusions) are published on the ECDC website during the transmission season. Between 2011 and 2013, ECDC published a total of 84 maps[2]. In 2013, cases were reported one month earlier than in 2012 and two months earlier than in 2011. A comparison of the geographic extension since 2010 has shown that new areas were affected each year. Increased awareness has certainly played a role in earlier reporting. The tool offers policymakers, public health officers, epidemiologists and the general public a 'situation awareness platform' for WNF. In the future, ECDC plans to automatise this approach and expand it to other diseases. The approach allows compliance with blood donation regulations, short-term risk assessments (outbreaks) and long-term risk assessments (trends).

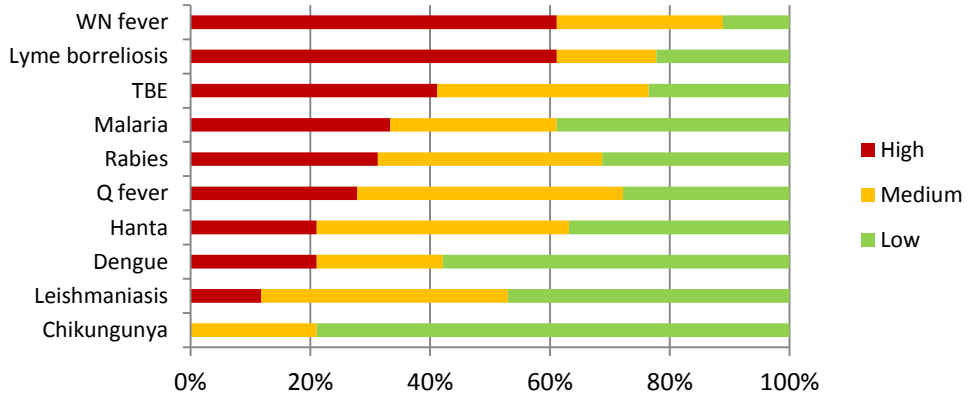
Working group discussion 2: EVD Programme activities

The aim of this workshop was to collect the participants' views on the Programme's surveillance, monitoring, assessment, prevention and control activities. It was suggested to focus on proposals which added EU value to the activities. Participants were split into three groups. Answers were collected through a template table which contained EVDs and proposed fields of activity. The discussion largely centred around prioritisation of diseases. Lyme borreliosis, tick-borne encephalitis, West Nile fever, dengue and rabies were selected as a 'top priority' twice, while West Nile fever and rabies received one vote as 'number-two priority'; dengue, tick-borne encephalitis and Lyme borreliosis received one vote each as 'number-three priority'. Hantavirus infections and Q fever were mentioned consistently as 'priority two'. Chikungunya, malaria and leishmaniasis were prioritised differently across the three groups.

A detailed analysis based on the questionnaires distributed at the meeting is presented in Tables 2. Nineteen countries provided useable information. Table 2a shows prioritisation of all those 19 countries: West Nile fever, Lyme borreliosis and tick-borne encephalitis (TBE) were ranked the highest. In Tables 2b (northern Europe) and 2c (southern Europe), countries were grouped according to geographical position: in the north, Lyme borreliosis and tick-borne encephalitis had a higher priority; and in the south, public health attention focused on West Nile fever and malaria.

Table 2a–c: Prioritisation of EVDs by countries participating in the EVD network meeting (n=19)

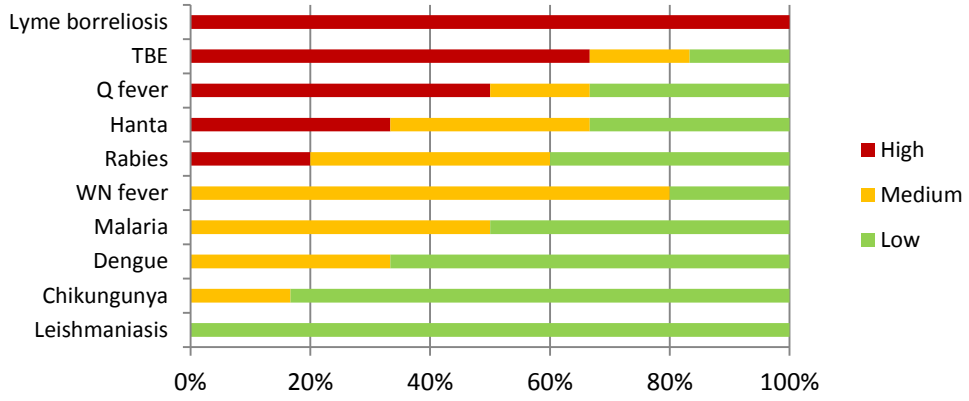
Table 2a: Prioritisation of EVDs by countries participating in the EVD network meeting



(n=19: AL, AT, BA, BE, BG, DK, FI, GR, HR, IE, IT, LT, ME, MK, PT, SE, SI, TR and UK)

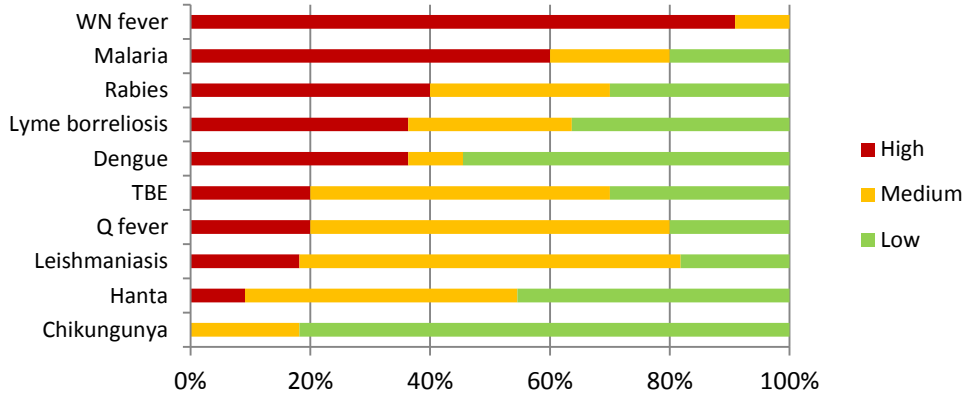
[2] http://www.ecdc.europa.eu/en/healthtopics/west_nile_fever/West-Nile-fever-maps/Pages/index.aspx

Table 2b: Prioritisation of EVDs by northern countries participating in the EVD network meeting



(n=6: DK, FI, IE, LT, SE and UK)

Table 2c: Prioritisation of EVDs by southern countries participating in the EVD network meeting



(n=11: AL, BA, BG, GR, HR, IT, ME, MK, PT, SI and TR)

It was commented that it was ECDC's role to coordinate surveillance, map disease and vector occurrences, disseminate information from other countries, and provide guidance/support on all aspects of these complex diseases. Global chikungunya and dengue monitoring was considered useful because it provides information which Member States use to refine their preparedness for emerging diseases (whether or not to develop vector/reservoir surveillance), issue travel advice, and set up a deferral policy for blood donors. Participants said that advice/guidelines on vector control for mosquitoes would be appreciated. Also, funding of active vector surveillance (distribution and activity periods) and research on the prevalence of pathogens in vectors was considered important. Meeting participants valued the distribution maps of West Nile fever cases and suggested similar maps for dengue and chikungunya. It was suggested that the West Nile fever case definition should be revised to adapt it to the changing disease situation. Surveillance of non-notifiable diseases could be done through various approaches, including cross-sectional surveys and web-based voluntary reporting (e.g. of tick bites). For Lyme borreliosis and leishmaniasis, standardised case definitions could be developed and used across Europe. It was also suggested that tularaemia should be added to the list of EVDs.

3.3 EVD surveillance activities

Surveillance framework for emerging and vector-borne diseases and results of 2012 data collection

Isabelle Devaux, ECDC, Epidemiological Methods Section, Surveillance and Response Unit, presented the ECDC framework for the surveillance of communicable diseases. It is defined in the strategic multi-annual programme 2014–20, the ECDC long-term surveillance strategy[3] and by Decision No 1082/2013/EU of the European Parliament and of the Council of 22 October 2013 on serious cross-border threats to health[4]. For each of the nine emerging and vector-borne diseases/conditions reported to ECDC, standards for surveillance have been defined, including case definitions[5], surveillance objectives and a meta-dataset with detailed specification of variables, their definitions and coding systems. EVDs reported are malaria, plague, Q fever, rabies, tick-borne encephalitis, smallpox, West Nile fever, yellow fever, and viral haemorrhagic fevers (currently including dengue, chikungunya, hantavirus infections, arenavirus infections (e.g. Lassa fever), Crimean-Congo haemorrhagic fever , Ebola or Marburg fevers, Rift Valley fever).

The EVD general surveillance objectives are:

- to monitor trends over time and geographical distribution, especially those susceptible to environmental changes;
- to monitor the importation, local transmission and establishment of exotic, emerging and re-emerging infectious diseases to the EU;
- to monitor the geographical distribution of vectors of public health importance in Europe in order to identify potential transmission areas/periods; and
- to monitor global travel-related health threats to assess the risk and prevent transmission of EVDs in the EU.

Variables collected for EVDs include a common as well as a specific set of variables based on the disease-specific surveillance objectives in order to allow the enhanced analysis of pathogen characteristics, disease burden or vaccine effectiveness.

One important change for the 2014 data collection (collecting 2013 data) is the request to report the most useful time and place information on cases. Therefore, countries are asked to report (by decreasing preference): (i) date of onset, (hospitalisation), diagnosis, or notification; and (ii) place of infection, residence, or notification. 2013 data collection for EVDs is scheduled for June 2014. Real-time data collection for West Nile fever will be carried out for the first time during the 2014 season.

Eva Warns-Petit, ECDC, EVD Programme, Office of Chief Scientist, presented the results of the 2012 EVD surveillance data collection (EU level). Data quality was assessed by checking data completeness for each variable (number of countries reporting and proportion of cases for which information is present) by country. For example, the average number of countries reporting hantavirus infection is 13 (range 6–20), and average completeness is 69% (range 1.9%–99.9%). Data analyses is carried out for all reportable diseases and includes a description of the surveillance systems, the number of cases/crude rates by country and year, the notification rate by age group/gender, and the monthly distribution of reported case numbers. Enhanced data analyses are conducted for some diseases, e.g. malaria pathogens and the origin of imported cases for rabies. Details are then published in the Annual Epidemiological Report.

Spatial analysis was illustrated by presenting maps which showed the tick-borne encephalitis notification rate by country and the place of infection/place of residence/place of notification. Limitations were pointed out, for example 'national data' versus 'data collected at the local level'. A more advanced temporal analysis was also presented, including a close look at certain limitations ('date of onset' versus 'date used for statistics'). Results are published either in dedicated reports or journal articles. Event-based surveillance encompasses monitoring of media-related events or unusual occurrences/patterns related by national public health institutes and is carried out by ECDC in parallel to data collection.

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[3] European Centre for Disease Prevention and Control. Long-term surveillance strategy 2014–2020. Stockholm: ECDC; 2013. Available from: http://www.ecdc.europa.eu/en/publications/publications/long-term-surveillance-strategy-2014-2020.pdf

[4] Decision No 1082/2013/EU of the European Parliament and of the Council of 22 October 2013 on serious cross-border threats to health and repealing Decision No 2119/98/EC. Available from: http://ec.europa.eu/health/preparedness_response/docs/decision_serious_crossborder_threats_22102013_en.pdf

[5] Commission implementing decision of 8 August 2012 amending Decision 2002/253/EC laying down case definitions for reporting communicable diseases to the Community network under Decision No 2119/98/EC of the European Parliament and of the Council (2012/506/EU). Available from: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:262:0001:0057:EN:PDF

Working group discussion 3: Future data collections

The working group discussed how to improve EVD surveillance at the EU level and how EU value could be added.

The first group discussed the proposed new case definitions for dengue and chikungunya. Two proposals for new case definitions – the result of an expert consultation in 2012 – had already been sent out before the meeting, with a request for a vote on the proposals.

The vote was a tie between the two proposals. It became apparent that it is possible to confuse the EU case definitions for case reporting with the algorithms for case finding used by clinicians in the field to detect cases and prescribe laboratory tests. It was suggested that in addition to the finalisation of the EU case definitions, ECDC should also coordinate the development of algorithms for case finding. The Member States will be in charge of the actual development work. Algorithms should:

- include specific symptoms for dengue and chikungunya, indicating severity to ensure that tests will target the right patients;
- take into account the performance limitations of current laboratory methods (to limit false positive/false negative results, etc.); and
- assess the actual risk in the particular country (presence of the vector, imported cases, travelling, etc.).

Also, imported and autochthonous cases should be clearly distinguished. The criteria (including epidemiological links) might be different for an imported/isolated autochthonous case and a local outbreak. It was therefore proposed that an outbreak situation should be defined and taken into account in the case definitions for dengue and chikungunya. This outbreak situation should include a defined spatial area and a fixed period of time.

The second group discussed the importance of recording the place of infection (e.g. for TBE, for which infection hotspots are local) and the problems encountered by Member States when they try to supply this information. The first data collection, which included the 'place of infection' variable, demonstrated that for this variable information was either missing or the quality of the variables varied significantly from country to country. Only five countries represented in the discussion group could provide information on the place of infection, and in some countries the level of precision at NUTS3 raised confidentiality issues. ECDC pointed out that 'place of infection' would be preferable, but 'place of residency' could be a used as a proxy. 'Place of residency' should be supplied in all instances where 'place of infection' is not available or applicable. If both variables are not available, 'place of notification' is required.

The third group examined the individual EVDs and discussed whether surveillance should be event-based (media/source monitoring) and/or indicator-based (data collection through TESSy), including real-time surveillance. Present definitions and rationales for event/indicator-based surveillance are summarised in Table 3.

Table 3: Criteria characterising various types of surveillance carried out at ECDC and example EVDs

Disease	Indicator-based, notification	Indicator-based, real time	Event-based, disease specific	Event-based, not disease specific
Frequency of reporting	Annually		Real-time	Not defined
Disease specific	Confirmed			Not characterised
Reporting process	Structured			Not structured
Reported in the EU	Yes	Yes	Global (travel-related)	Global
Source of information; platform	TESSy	TESSy	EI monitoring, EWRS, EPIS	EWRS, IHR, notifications
Feedback	AER, etc.	Weekly maps	Daily (DRT), weekly (CDTR)	Immediate response
Examples	Q fever, tick-borne encephalitis	West Nile fever	Dengue	Schmallenberg

Participants of the group were then asked to indicate their choices for surveillance, which are summarised in Table 4.

Table 4: Votes of discussion group participants on recommended surveillance types; + signs indicate positive votes

Disease	Indicator-based, notification (AER type)	Indicator-based, real time (locally acquired cases)	Event-based, disease specific (epidemic intelligence)	Event-based, not disease specific (epidemic intelligence)
Rabies	++		++++ (locally acquired)	
Dengue/chikungunya	+++++++++	++ (locally acquired)	+++++++++ (globally and locally acquired)	
Smallpox/plague/SARS			+++++++++	
West Nile fever	+++++++++	++++++++	+++++++	
Q fever	+++++++++		+++++++	
Malaria	+++++++++		++++++++ (locally acquired)	
Crimean-Congo haemorrhagic fever	+++	+++	+++++++++ (locally acquired)	
Rift Valley fever/yellow fever/Lassa fever/ Ebola/Marburg disease			+++++++++	
Hantavirus infection	+++++++++		++++	
Tularaemia	++++++++		++++	
Tick-borne encephalitis	++++++++		++++	
Unknown				+

It became apparent that: (i) indicator-based (annual reporting) and event-based surveillance should be continued for rabies, Q fever, malaria, hantavirus infections and tick-borne encephalitis; (ii) real-time reporting should be added for dengue, chikungunya and Crimean-Congo haemorrhagic fever; and (iii) event-based surveillance should be used for Rift Valley fever, yellow fever, Lassa fever, Ebola/Marburg disease, plague, and smallpox.

Presentation of the project on 'Spatial and temporal trends of Lyme borreliosis in the EU and surveillance perspectives'

Wim Van Bortel, ECDC, Response Section, Surveillance and Response Unit, presented the EVD Programme's surveillance activity related to Lyme borreliosis. Lyme borreliosis is one of the most prevalent vector-borne diseases in Europe: about 85 000 cases of Lyme borreliosis are reported annually across Europe through various surveillance systems and its incidence is seemingly increasing in some areas of the EU. However, these numbers are to be considered with caution due to specific difficulties in diagnosis and case definition and the lack of a centralised reporting system for Lyme borreliosis in Europe.

Since 2010, ECDC has organised three expert consultations on tick-borne diseases. Two consultations focussed on case definitions and surveillance of Lyme borreliosis and tick-borne encephalitis[6]. The consultation held in October 2013 reviewed the laboratory testing of Lyme borreliosis.

In addition, the following activities were developed by ECDC to support Members States regarding tick-borne diseases and obtain a better knowledge on Lyme borreliosis in particular:

- Communication toolkit on tick-borne diseases (see ECDC website).
- 'Epidemiologic situation analysis of Lyme borreliosis in the European Union' (2010–2011). Report only available for internal use.
- 'Critical appraisal of the reliability of laboratory test for Lyme borreliosis in the EU' (2012–2013). Final report is expected in 2014.
- VBORNET (2009–2014): Providing three-monthly updates of the known distribution of *Ixodes ricinus* in the EU.

[6] November 2010 report available from: http://ecdc.europa.eu/en/publications/Publications/1102_MER_Tickborne_2010.pdf; November 2011 report available from: http://ecdc.europa.eu/en/publications/Publications/Tick-borne-diseases-meeting-report.pdf

- 'Spatial and temporal trends of Lyme borreliosis in the EU and surveillance perspectives' (2013–2015, ongoing).

The latter project aims to: (1) assess the spatial and temporal trends of Lyme borreliosis incidence in humans, and pathogen infection in vectors and reservoir hosts; (2) develop a knowledge-driven risk map for human Lyme borreliosis for the EU/EEA; and (3) propose a roadmap towards a feasible surveillance of Lyme borreliosis incidence at EU/EEA level.

The project will search for data on human Lyme borreliosis and *Borrelia* infections in vectors and reservoir hosts in the literature (both peer-reviewed and in reports). To cross-validate the database built from the systematic literature search with other sources of human Lyme borreliosis data, the EVD Programme is looking for countries that would be willing to contribute to the project by sharing data on Lyme borreliosis, or for other means of temporary data collection.

3.4 Roadmap for the network, 2014

The final session of the EVD network meeting was spent to discuss future activities. The core long-term activities are defined by the terms of reference of the National Focal Points (see Annex 3). Short-term actions for 2014 were summarised: collect and share information on expertise available in the network; nominate/elect a network coordination committee; review disease priorities and proposed actions (Member States) so they can be integrated into the 2015 work plan and beyond; enhance explanations for time and space data collection rationale; change case definitions for dengue and chikungunya; further develop surveillance types for some EVDs.

It was also discussed how many NFP general meetings should be held and if it was possible to hold them back to back with EFSA network meetings or the meetings of the Food- and Waterborne Disease Programme.

Participants were also asked if they were interested in dedicating more time to a specific topic or disease during the next network meeting. As an alternative, smaller and more focused meetings/web conferences on specific topics were suggested. Selected nominated experts from both the human and veterinary health sectors could attend these meetings.

Annex 1. Programme

Day 1	Wednesday, 4 December 2013	Proposed speaker
08:10	Bus transportation from Hotel Solna Park Inn to ECDC	
08:30–08:55	Registration	
09:00–09:10	Welcome and meeting objectives	Hervé Zeller
09:10–09:45	Tour de table	
09:45–10:45	**EVD Programme** Presentation of EVD Programme : projects and activities; strategic multi-annual work plan 2014–2017; ENIVD[7] and VBORNET[8] networks	Hervé Zeller, Wim Van Bortel, Matthias Niedrig, Jolyon Medlock
10:45–11:15	Coffee break Reimbursement of expenses – Missions and Meetings representative will be on site to collect reimbursement forms and answer questions.	
11:15–11:45	**EVD network** Presentation of the ECDC network structure; expectations of ECDC from DP network	Piotr Kramarz
11:45–11:55	ECDC Expert Directory and Declaration of Interests	Rodrigo Filipe
11:55–12:45	Discussion: Implications and expectations for EVD network interactions	Interim coordination group
12:45–14:00	Lunch	
14:00–14:15	Wrap-up of discussion on network expectations	Hervé Zeller
14:15–14:30	**EVD Programme** Case study West Nile fever Presentation of surveillance, monitoring, assessment …	EVD team
14:30–15:30	Workshop: collect participants' views on the programme's surveillance, monitoring, assessment, prevention, control…, activities; and best way to improve interaction with Member States	Meeting rooms: Auditorium, 335, 435
15:30–16:00	Coffee break	
16:00–17:00	Feedback from working groups on programme activities and interactions with Member States	Hervé Zeller
17:15	Bus transportation from ECDC to Hotel Solna Park Inn	

[7] European Network of Viral Imported Diseases (ENIVD): expert laboratory network for early detection, surveillance and epidemic preparedness and support to emerging or re-emerging and vector-borne threats in Europe

[8] VBORNET: European network for arthropod vector surveillance for human public health

Day 2	Thursday, 5 December 2013	Proposed speaker
08:20	Bus transportation from Hotel Solna Park Inn to ECDC	
08:40–08:55	Registration	
09:00–09:30	**EVD Surveillance** Presentation of results of EVD surveillance at EU level: highlight the strengths, weaknesses and gaps	Isabelle Devaux, Eva Warns-Petit
09:30–10:15	Group discussions on future data collections: • Surveillance objectives and strategy proposal for dengue and chikungunya • Place of infection (e.g. TBE): a real challenge to Member States? • Event-based and/or indicator-based (including real-time) surveillance for which diseases?	Meeting rooms: Auditorium, 335, 435
10:15–10:45	Coffee break Reimbursement of expenses – Missions and Meetings representative will be on site to collect reimbursement forms and answer questions.	
10:45–11:15	Feedback from group discussions on future data collections	Group rapporteurs
11:15–11:30	Presentation of the project on 'Spatial and temporal trends of Lyme borreliosis in the EU and surveillance perspectives'	Wim Van Bortel
11:30–12:00	Discussion on a roadmap for the network 2014	Hervé Zeller
12:00–13:15	Lunch	
13:15–13:30	**Joint session with ECDC-EVD DP network and EFSA-AHAW network and the EFSA Task Force on Zoonoses Data Collection** Welcome and meeting objectives	Johan Giesecke/ Hervé Zeller, Andrea Gervelmeyer
13:30–14:15	Tour de table (name, Member State, affiliation)	
14:15 –14:30	Presentation of EVD network, EFSA Scientific Network for Risk Assessment in Animal Health and Welfare Presentation of EFSA Task Force on Zoonoses Data Collection	Hervé Zeller, Andrea Gervelmeyer Frank Boelaert
14:30–15:00	ECDC–EFSA collaboration: agencies' mandates, past joint activities, position paper (= interaction at EU level and proposal for future actions)	EFSA, ECDC
15:00–15:30	Coffee break	
15:30–16:30	UK and Sweden – Examples from animal health–public health collaboration within Member States (15 minutes each, followed by discussion)	UK, Sweden
16:30–16:45	Project for common database on vectors	Wim van Bortel
16:45–17:00	Extranet platform for communication for networks (demo)	Cristian Avram
17:00–17:15	Activities on non-foodborne zoonoses data collection	Frank Boelaert
17:45	Bus transportation from ECDC to Hotel Solna Park Inn	

Day 3	Friday, 6 December 2014	Proposed speaker
08:20	Bus transportation from Hotel Solna Park Inn to ECDC	
08:40–08:55	Registration	
09:00–10:15	Group discussions on contributions and future plans for the joint networks activities Proposed topics: • Livestock, wildlife and pet surveillance for non-foodborne zoonotic diseases • Surveillance of humans exposed to animals (livestock, wildlife) • Information exchange at national and EU level	Meeting rooms: Auditorium, 335, 435
10:15–10:45	Coffee break Reimbursement of expenses – Missions and Meetings representative will be on site to collect reimbursement forms and answer questions.	
10:45–11:30	Feedback from group discussions on joint network activity	
11:30–12:30	Roadmap for ECDC and EFSA networks	
12:30–13:30	Lunch	
13:45	Bus transportation from ECDC	

Annex 2. List of participants

	ECDC Emerging and Vectorborne Diseases Network	Interim Coordination Group
Austria		Norbert Nowotny
		University of Veterinary Medicine Vienna
Belgium	Javiera Rebolledo	
	Scientific Institute of Public Health	
Bulgaria	Nikolay Kalvatchev	
	National Centre of Infectious and Parasitic Diseases	
Croatia	Iva Pem Novosel	
	Croatian National Institute of Public Health	
Czech Republic	Bohumír Križ	
	National Institute of Public Health	
Denmark	Peter Henrik Andersen	
	Statens Serum Institut	
Estonia	Irina Golovljova	
	National Institute for Health Development	
Finland	Markku Kuusi	
	National Institute for Health and Welfare	
France	Henriette de Valk	Henriette de Valk
	Institut de Veille Sanitaire	Institut de Veille Sanitaire
Germany	Mirko Faber	Matthias Niedrig
	Robert Koch Institut	Robert Koch Institut
Greece	Danai Pervanidou	
	Hellenic Centre for Disease Control and Prevention	
Hungary	Katalin Krisztalovics	
	National Centre for Epidemiology	
Ireland	Paul Mckeown	
	Health Protection Surveillance Centre	
Italy	Caterina Rizzo	Fortunato Paolo D'Ancona
	Istituto Superiore di Sanità	Istituto Superiore di Sanità
Lithuania	Milda Žygutienė	
	Centre for Communicable Diseases and AIDS	
Luxembourg	Pierre Weicherding	
	Inspection Sanitaire, Direction de la Santé	
Netherlands	Wilfrid van Pelt	
	National Institute for Public Health and the Environment (RIVM)	
Norway	Line Vold	
	Norwegian Institute of Public Health	
Poland	Malgorzata Sadkowska-Todys	
	National Institute of Public Health, National Institute of Hygiene	
Portugal	Paula Vasconcelos	
	Directorate General of Health	
Slovakia	Monika Musilova	
	Regional Public Health Authority	
Slovenia	Maja Sočan	
	National Institute of Public Health	
Sweden	Marika Hjertqvist	
	Swedish Institute for Communicable Disease Control	
United Kingdom	Dilys Morgan	Jolyon Medlock
	Public Health England	Public Health England

European Centre for Disease Prevention and Control: Bertrand Sudre, Céline Gossner, Cornelia Adlhoch, Eva Warns-Petit, Hervé Zeller, Isabelle Devaux, Laurence Marrama, Phillip Zucs, Piotr Kramarz, Wim Van Bortel

World Health Organization, Regional Office for Europe: Mikhail Ejov

Observers

Albania: Eugena Tomini, Institute of Public Health of Albania

Bosnia and Herzegovina: Jovan Zivkovic, Public Health Institute of Republic of Srpska

Montenegro: Igor Galic, Institute of Public Health

The former Yugoslav Republic of Macedonia: Kristina Stavridis, Institute for Public Health of the Republic of Macedonia

Serbia: Bojana Grgic, Institute of Public Health of Serbia 'Dr Milan Jovanovic Batut'

Turkey: Seher Topluoglu, Turkish Public Health Institute, Ministry of Health

Annex 3. National Focal Points and communication pathways

Disease-group NFPs

- Antimicrobial resistance
- Antimicrobial consumption
- Healthcare-associated infections
- Emerging and vector-borne diseases
- Influenza and other respiratory diseases
- Food- and waterborne diseases and zoonoses
- Legionellosis
- Transmissible spongiform encephalopathy (TSE)
- HIV/AIDS, STI and hepatitis B/C
- Tuberculosis
- Vaccine-preventable diseases

Public health function NFPs

- Communication
- Microbiology
- Preparedness and response
- Training scientific advice coordination
- Surveillance
- Threat detection, EWRS and IHR

Main NFP responsibilities (extracted from the Terms of Reference for NFPs)

The NFPs for the disease groups are nominated by the National Coordinator (NC) of the Coordinating Competent Body (CCB). By delegation of the NC, the NFP is responsible for overseeing interactions between ECDC and the EU/EEA Member State regarding the activities related to the disease group.

General responsibilities (same for all NFPs): Contribute/feedback/input to disease group on

- Development/revisions of ECDC strategies
- Development of the ECDC annual work programme priorities
- Technical advice on specific project proposals
- Provide available information about the Member State's current situation and status of activities/capacities and national programmes
- Identification of EU/EEA Member State's needs for strengthening capacity
- Strategic advice and suggestions to ECDC regarding further development of networks
- Advise ECDC on any ad hoc issues
- Oversee all other interactions between ECDC and the EU/EEA Member States concerning unresolved issues
- Participate in ECDC activities
- Participate in ECDC consultations
- Assist in building awareness and disseminating information
- Liaise with ECDC contact points on matters related to ECDC country visits
- Liaise with ECDC contact points on country's requests

Specific responsibilities related to the disease work

- Provide information about the current epidemiological situation
- Participate in consultations of ECDC scientific advice/science-based preventive guidance
- Suggest experts for ECDC external expert panels

Main OCP responsibilities (extracted from the Terms of Reference of the OCPs)

If delegated by the NC (as decided by each country), OCPs are responsible for overseeing interactions between ECDC and the EU/EEA Member States regarding the specific activities they are in charge of in a specific disease network.

Responsibilities of disease-specific OCPs for epidemiology[9]

- Review ECDC draft surveillance reports and contribute to the interpretation of surveillance results
- Inform ECDC about data sources and surveillance systems
- Oversee implementation of TESSy metadata changes at national level
- Collaborate closely with epidemiology OCPs from other Member States
- Otherwise interact with ECDC on issues related to surveillance and control of specific pathogens/diseases as appropriate in a national context

Responsibilities of disease-specific OCPs for microbiology[10]

- Provide information about the current status of laboratory capacities for the specific disease/disease group and keep it up to date
- When available and legally possible, ensure flow of national laboratory surveillance data to OCP for TESSy interactions for upload to TESSy
  – or –
  Ensure upload of national laboratory data to TESSy according to permissions by NC, and/or NFP (when available and legally possible)
- Encourage participation of the national reference centre (or laboratory with equivalent function) in external quality assessment schemes sponsored by ECDC
- Collaborate closely with microbiology OCPs from other countries as specified by ECDC grant or service contracts, as required
- Otherwise interact with ECDC on issues related to the microbiology of specific pathogens as appropriate in a national context

Composition, selection and election of a DNCC

A DNCC will consist of a maximum of 10 experts selected from, and representing, the disease network, including the OCPs and NFPs for the disease or disease group in question, to mirror the broad scope of activities to be addressed by the DNCC.

Ideally, in selecting the composition of a DNCC, there should be a balance between functional expertise (i.e. between epidemiologists and microbiologists, prevention specialists, scientific input, behavioural science) as well as gender and geography.

ECDC will formally appoint the members of the DNCC following an election by the disease network members. The network members, when electing the DNCC members, should consider the composition and eligibility criteria listed above. The DNCC will select and appoint a Chair (and Deputy Chair, if considered necessary) from among its members.

The DNCC may also agree (by majority) to include as observers individuals from other organisations with a significant role in the prevention and control of the disease-specific area covered by the ECDC DP.

The initial appointment of members will be three years.

Main DNCC responsibilities (extracted from the Terms of Reference of the DNCC)

Advise the ECDC Disease Programme with respect to: surveillance, prevention and control or any other technical, epidemiological or scientific aspects.

The main tasks of the DNCC are to:

- provide advice on the implementation of the ECDC strategic multiannual programme (SMAP) and ECDC annual DP work plans;
- provide rapid advice to ECDC as needed;
- discuss priorities in the future activities of the ECDC DPs with respect to prevention and control, including surveillance, guidance, training, capacity building and other aspects;
- serve as a link between the disease-specific NFPs and disease-specific OCPs and ECDC DPs;
- contribute to the identification of Member States' needs in terms of strengthening capacity in the area of the DP.

[9] Listed in ECDC Contact Management Repository (CRM) per pathogen as 'Surveillance expert epidemiology' or antimicrobial resistance/healthcare associated infections.

[10] Listed in CRM per pathogen as 'Surveillance expert microbiology'.

More specifically, DNCCs provide support to the following:

- Review selected technical reports and guidance documents produced by the ECDC DP
- Review the DP objectives and multiannual strategies and annual work plans
- Contribute to the agenda of the regular meetings of the DP network (including identifying topics; key note speakers, working group sessions and others)
- Review the methodologies of DP-specific data collections, data presentation and interpretation of surveillance results
- Review the effectiveness of surveillance systems and analytical tools for surveillance within the domain of the DP and make suggestions for improvement
- Review the disease-specific laboratory surveillance activities and foster the integration with epidemiological surveillance
- Review the need for specific working groups and task forces which would report to the Coordination Committee on specific issues (i.e. guidance; surveillance methods or variables)
- Closely liaise with any other ECDC Coordination Committees, DPs or working groups that may be set up to work on technical issues

Communication procedures and pathways

Extract of internal procedure ECDC relations with CCBs:

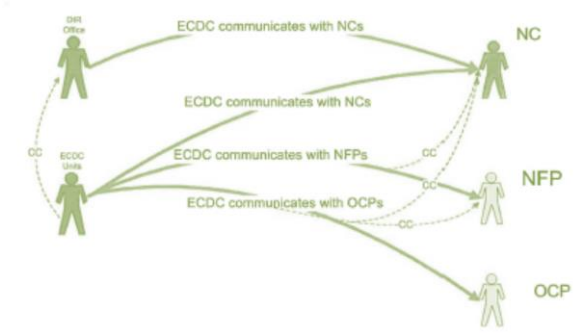
As outlined in the CCB implementation document, official interactions between ECDC and the CCBs will principally take place at three levels:

- High-level relational and coordination interactions between ECDC and the CCBs will be at the level of the NCs
- Strategic and overarching interactions related to a specific disease group or public health function will be at the level of the NFPs
- Technical and operational interactions related to specific areas within the domains of a disease group or public health function will be at the level of the OCPs

For each disease group, the NFPs and the OCPs constitute the ECDC Disease Networks.

Each network will be supported by a specific ECDC extranet.

Communication via formatted email:



Note: Person-to-person mail exchanges or telephone conversations are by no means discouraged. If it can be reasonably assumed that the exchange is of general interest to CCB or ECDC, it should be communicated as stated above.