

Second meeting of the CCEE-Baltic States Communicable Disease Network

Report on a WHO Meeting

Portorož, Slovenia
20–22 June 2002

ABSTRACT

One of WHO's main means of creating a global system for the surveillance of disease is the development of a network of networks: linking local, regional, national and international networks of laboratories and medical or surveillance centres. With support from the WHO Regional Office for Europe, the countries of central and eastern Europe (CEE) and the Baltic states formed: 1) a communicable disease network (CEE–CDN) that proposed to establish an early warning and response system; and 2) a surveillance network to help eliminate measles. At its second meeting, the participants approved the establishment of the early warning system (after pilot testing), and recommended that all CDN countries actively participate in it and in the exchange of data on measles. They also agreed on their role in contributing to the revision of the WHO International Health Regulations, and adopted mechanisms to manage CDN and targets for its future development, including training components and evaluation standards.

Keywords

COMMUNICABLE DISEASE CONTROL
PROGRAM EVALUATION
DISEASE OUTBREAK – prevention and control
MEASLES – prevention and control
DISASTER PLANNING
SENTINEL SURVEILLANCE
INFORMATION SYSTEMS
INTERNATIONAL COOPERATION

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Preface

The surveillance of a communicable disease is fundamental for preventing and controlling it. Surveillance can be defined as the ongoing systematic collection, collation, analysis and interpretation of data and the dissemination of information to those who need to know in order that action may be taken.

Communicable disease surveillance systems are intended to provide information that alerts those responsible for protecting the health of the public to a problem, reduces uncertainty during decision-making, maximizes the efficacy of the interventions and facilitates the ongoing evaluation of interventions.

The Member States of the WHO European Region have committed themselves to preventing and controlling infectious diseases. The WHO Regional Office for Europe recommends that surveillance and rapid response capabilities be ensured to detect, contain and prevent ongoing infectious diseases as well as new and resurgent diseases in the European Region.

One of WHO's main means of creating a global surveillance system has been the development of a "network of networks" that links together existing local, regional, national and international networks of laboratories and medical or surveillance centres into a super-surveillance network.

Since December 2000, the countries of central and eastern Europe (CCEE) and the Baltic countries¹ have met and established the will to communicate surveillance data on infectious disease among the 17 country participants. To date, two specific networks have been proposed by the CCEE–Baltic collaboration: an early warning and response system and a surveillance network for measles elimination, including a weekly reporting system.

The WHO Regional Office for Europe acts as secretariat to the Network, supports the Network meetings and gives technical assistance towards realizing an Internet-based solution.

During the Expert Consultation on Harmonization of Surveillance Systems for Central and Eastern Europe held in Bucharest on 7–9 December 2000, country representatives proposed a series of actions that would contribute to the establishment of regional and cross-regional networking in areas of mutual interest. A First Meeting of the CCEE–Baltic States Communicable Disease Network was held in Prague on 7–9 June 2001. The country representatives developed recommendations and actions to be undertaken by the Working Group² with the support of the Secretariat.

The Working Group met twice (in Warsaw and in Copenhagen), to develop what was recommended by the Network, and prepared the background for the Second Meeting of the CCEE–Baltic States Communicable Disease Network. This meeting was held in Portorož, Slovenia, with the aim of:

- reviewing the report of the Working Group and approving the recommendations;
- reviewing the evaluation of the pilot phase and approving the establishment of an early warning system;
- approving the charter on rules and principles for collaboration;
- reviewing and discussing the revision of the WHO International Health Regulations (IHR);
- drawing up an action plan to identify appropriate donor agencies, including named individuals who will take the lead in preparing applications and agree on a time frame;

¹ Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia, former Yugoslav Republic of Macedonia, Turkey and Yugoslavia.

² Composed of representatives from Croatia, Czech Republic, Latvia, Poland, Romania, Slovenia and Turkey.

- adopting targets for future development, including training components and evaluation standards; and
- reviewing and approving the management mechanisms of the Network.

Those invited to the meeting were the technical experts with responsibilities in communicable disease surveillance at the national level from the CCEE and Baltic countries, who have already been nominated to represent their country in the Network meetings.

Individuals with experience of undertaking similar steps within the European Union (EU) supported the meeting with expert input.

A report on the Second and Third Meetings of the Working Group was circulated before the meeting, and technical papers and background documents were handed out at the meeting.

We would like to thank the Government of Slovenia for kindly hosting the meeting and the National Institute of Public Health of Slovenia, especially Ada Hocevar Grom, for excellent organization and technical support.

We would also like to take the opportunity to thank the Government of France, whose continuing financial and technical support is crucial for the successful implementation of this meeting, which is part of a WHO project to strengthen international surveillance of infectious diseases in Europe.

Special thanks go to Professor Christopher L.R. Bartlett, whose enthusiasm and scientific charisma has been crucial to the success of the Network, and to Professor Julius Weinberg whose technical support has been invaluable in determining the priorities for the international collaboration on surveillance and in documenting the work of the Network.

Massimo Ciotti and Bernardus Ganter
WHO Regional Office for Europe



Participants at the CCEE-Baltic States Communicable Disease Network meeting, Portoroz, Slovenia, 20–22 June 2002

1. Introduction, Chair: Bohumir Kriz

Participants were welcomed to the meeting. The chair reflected on the activity and achievements of the Working Group since the first meeting. In particular, the development of collaboration in measles surveillance and the Computerized Information System for Infectious Diseases (CISID) early warning system were noted. The Working Group had worked well and meetings had been constructive, successful and informal.

Ada Hocevar Grom welcomed participants to Slovenia on behalf of the Institute of Public Health of the Republic of Slovenia. Kuulo Kutsar was elected as meeting Chair and Professor Julius Weinberg was elected as Rapporteur.

2. Report from the Secretariat, Chair: Kuulo Kutsar

2.1 Regional Office overview, Bernardus Ganter

Bernardus Ganter thanked the Minister of Health and the Institute of Public Health of the Republic of Slovenia for hosting the meeting and for supporting the organization and coordination. He also mentioned the important financial contributions by the Ministry of Health of the Government of France to the WHO Regional Office for Europe to develop the CCEE–Baltic Network and to organize this and previous meetings.

The Regional Office had created a small group to deal with issues concerning the countries that are candidates for accession to the EU.

Following the development of the Global Fund for Tuberculosis, AIDS & Malaria and the Global Alliance for Vaccines and Immunization (GAVI), it was recognized that the Regional Office Communicable Disease Programme should concentrate on horizontal work in global health security. Pilots were developing in:

- preparedness – strengthening national systems;
- reacting to known risks (including antimicrobial resistance); and
- reacting to unknown risks – recognizing new pathogens and their spread.

The International Health Regulations (IHR) are seen as an instrument to promote global health security, creating a framework of agreement for detection and response among all WHO Member States. The new proposal for IHR is expected to go to the World Health Assembly in 2004 or 2005.

Four participants from the CCEE had attended the 3-week EPIET (European Programme for Intervention Epidemiology Training) course in Verrier du Lac, France in 2001. Plans to develop training within the CCEE–Baltic Network were to be discussed later in the meeting.

The CISID early warning system has been successfully piloted. The lessons learned should help inform the development of country level early warning systems. Links to Web pages and networks in antimicrobial resistance will be included in CISID.

Romania had completed a country assessment, and this had resulted in the production of a clear document, produced jointly by national and international experts, with a detailed plan of action and linked to fundraising from the EU Phare Programme. It was a good example of working together for WHO, the EU and countries. Other similar sources of funding could be available if ministries would recognize communicable disease surveillance as a priority and promote this at the country offices of the EU

delegations. Funding from the EU Phare, Tacis or MEDA Programmes could be used to strengthen national surveillance systems.

The Stability Pact for South Eastern Europe, including Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Romania, the former Yugoslav Republic of Macedonia and Yugoslavia, was described. This included a project for strengthening infectious disease surveillance systems in the seven countries, including training in public health and in communicable disease surveillance. Future areas of work in training, reform of communicable disease surveillance systems and HIV in vulnerable groups were planned, and early warning systems will be developed during the first technical meeting most likely in the last week of August.

During the discussion, it was suggested that information on systems and implementation be shared as national early warning systems and electronic surveillance systems were developed.

2.2 Report from the Working Group, Massimo Ciotti

The reports of the Working Group meetings were available, and there were detailed tables showing the proposed actions. Many of these were progressing well.

For measles, there had been agreement on the variables to be collected and the analyses available. This would be discussed later.

The design of the early warning system had been agreed. It was being piloted, the response had been favourable and it would be proposed that all countries participate.

Training would be discussed further later – a proposal was available.

A draft of principles for collaboration would be discussed. The main basis for working together is personal trust and shared principles.

3. Capacity-building: training in field epidemiology

3.1 Comparison of education in infectious disease epidemiology in eastern and western Europe, Jurijs Perevoscikovs

Training in infectious disease epidemiology in Latvia (which is similar to that in other countries in central and eastern Europe) was described and compared with training in western Europe.

Students entered one of a limited number of specialized institutes with long traditions and good facilities. Training was free of charge, took 6 years and resulted in a basic medical degree. There was some interaction with clinical medical training. Public health was integrated into the course from the third year. Training was centrally planned, including the number of students and distribution of specialists.

Those pursuing a career in epidemiology then undertook 3 further years of practical experience in the workplace and had to defend a thesis. There were yearly refresher courses.

The training tended to be oriented towards disease, data collection and descriptive epidemiology; it largely focused on implementing rules and orders. There was little emphasis on or understanding of analytical epidemiology.

Surveillance systems in western Europe tend to concentrate on the analytical approach – for example, the design of outbreak investigation and research protocols. There was more emphasis on communication with the public and the mass media in western Europe.

Latvia's surveillance system had been undergoing a transition recently. Surveillance had been separated from inspection; they now report to different parts of the same ministry, but the system was fairly centralized so they remain linked. The system needed to move to evaluation by need and outcome and reduce the number of conditions under surveillance.

Currently there is little local training and no systematic collaboration with international training centres. The public health schools were mainly training students in biostatistics and not modern field epidemiology. There were short-term (2–3 days) and medium-term (2 weeks) courses as part of a Baltic project. There has been a drastic loss of personnel because of loss of incentives and poor salaries. Trained individuals could move to the private sector at much higher salaries.

Data collection worked well, and clinicians could be fined for underreporting. However, reporting from non-public health laboratories was poor, as they would only report to the requesting clinician (unless there is a "dangerous disease") because of their accreditation requirements.

Solutions identified included courses to train the trainers and providing translated brief course curricula and materials, manuals and case studies. Having external advisers to the national institute develop exchange programmes and distance learning would be valuable.

During the discussion, it was pointed out that the best of both systems was needed: the data collection of the CCEE–Baltic systems and the analytical capacity of the western European tradition. Outbreaks need to be reported without fear of being held responsible for the outbreak. Individuals have been reluctant to report, as bringing bad news might mean that you are held responsible.

3.2 Discussion on training, Thomas Grein and Ada Hocevar Grom

Seven applications for the Epiet course have been received from the CCEE–Baltic countries. The organizers will try to accept as many as possible.

A proposal was circulated to extend the capacity in field epidemiology training for the CCEE–Baltic countries. Initially it is proposed that the course would target members of the CCEE–Baltic group, as many of them were involved at a senior level in national training programmes. A small group would develop the details of a programme and take a proposal to donors.

A course would be based on the current EPIET course but adapted to the needs and systems of the CCEE–Baltic countries. It would be held over 2 weeks. Ideally, the 2 weeks would be continuous, but getting a leave of absence may be difficult for individuals.

Sharing of case studies and materials between national training programmes could be promoted by placing material on the World Wide Web.

Alternative ways of developing trainers include brief (3 months) attachments for senior staff.

A questionnaire on the training course showed that there was considerable interest. Most countries would help with the organization and a number of countries were willing to host the training. The most convenient dates were in January 2003. There was a wish for help in developing case studies.

A Training Group should be established with the membership of:

- Ada Hocevar Grom
- Thomas Grein
- a member from the host country
- Adriana Pistol
- one other member (a representative from Albania?)

It was agreed that WHO would explore the options for the venue and funding. WHO can probably fund the core functions. There is funding for countries involved in the Stability Pact for South Eastern Europe. Funding needs to be found for other countries.

4. Exchange of data on measles, Richard Pebody

The key strategies in the regional strategic plan for eliminating measles and preventing congenital rubella syndrome, 2002–2007 include:

- high coverage with two doses of measles vaccine;
- a second opportunity for measles immunization;
- using supplemental measles immunization activities to target populations susceptible to rubella;
- protecting women of childbearing age; and
- strengthening surveillance systems by vigorous case investigation and laboratory confirmation.

All Member States were encouraged to develop national plans. The creation of a CCEE–Baltic measles case-based data exchange was seen as an important component of the strategy to strengthen the surveillance system.

4.1 Status of measles reporting to the WHO Regional Office for Europe, May 2002

Country	Historical	2002 (aggregate) on-line	2002 (aggregate) e-mail	Case reporting
Albania (ALB)	1996–2000	No	No	
Bosnia and Herzegovina (BIH)	No	No	No	
Bulgaria (BUL)	1996–2001	1 month	5 months	
Croatia (CRO)	2000–2001	5 months	3 months	
Czech Republic (CZH)	1993–2001	No	No	
Estonia (EST)	1996–2000	No	4 months	
Hungary (HUN)	1996–2000	No	4 months	
Latvia (LVA)	1990–1998	1 month	1 month	
Lithuania (LTA)	1996–2000	1 month	4 months	
Malta (MAT)	1996–2000	No	5 months	
Poland (POL)	1996–2001	2 months	4 months	
Romania (ROM)	1990–2000	No	4 months	2 months
Slovak Republic (SVK)	1996–2000	No	No	3 months
Slovenia (SVN)	1996–2000	No	3 months	
The former Yugoslav Republic of Macedonia (FYM)	1996–2000	No	4 months	
Turkey (TUR)	1993–2000	4 months	2 months	
Yugoslavia (YUG)	1996–2000	2 months	4 months	

Changes to reporting and outcome indicators

A number of minor variations to the CCEE–Baltic case-based reporting form were discussed. It was agreed that:

- The use of country codes should be standardized: WHO codes and ISO two-letter codes would be circulated.
- A manual for participation in the system would be developed.
- An additional variable for imported cases from the full WHO data set would be made part of CCEE–Baltic minimum data set.

Outcome and performance indicators for the measles database would be developed.

4.2 Establishment of a CCEE–Baltic case-based measles network: plan for 2002

January–June	All countries to submit historical data for 1996–2001 to WHO All countries to submit monthly aggregate data, January 2002 onwards to WHO Countries to move towards monthly case-based data
June	A coordinator based in Warsaw, Poland commences coordinating network
June–August	Pilot countries report case-based data to Warsaw by 25th of month, including zero reporting CCEE–Baltic network coordinator to undertake data cleaning and validation in close cooperation with national gatekeepers Case-based database to be e-mailed regularly to WHO for upload to CISID by CCEE–Baltic coordinator CISID to establish indicator functions Monthly CCEE–Baltic newsletter to be produced by the 10th of the month by CCEE–Baltic coordinator
September	Extend case-based reporting to all remaining 17 countries CISID to establish case-based on-line entry
October–December	Maintain functioning of network
Submission to database could be on-line to CISID or by e-mail attachment to measles@who.dk	

Some pilot countries have already started to provide case-based data to the Warsaw coordinating centre.

4.3 EUVAC-NET

The EUVAC-NET project, EU-based surveillance collaboration, was presented. It was agreed that opportunities for collaboration with EUVAC-NET could be sought.

EUVAC-NET project objectives

Creating a surveillance network for vaccine-preventable infectious diseases, starting with **measles** and **pertussis**
Operating the surveillance network with emphasis on epidemiological and laboratory surveillance methods

Proposed outcome and performance indicators

Outcome indicators	<ul style="list-style-type: none"> • Number of cases and deaths by geographical region • Number of cases and deaths by month • Number of cases and deaths by vaccination status • Distribution by outcome • Distribution by final classification
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Performance indicators	<ul style="list-style-type: none"> • % of cases with core data (age and immunization status) • % of sites reporting monthly • % of cases notified within 48 hours of onset of rash • % of cases investigated within 48 hours of notification
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4.4 The next steps

One person in each country will be identified as a gatekeeper. In addition, a “human” network will be established with regular reporting practice and liaison with the coordinator. There will be close partnership between WHO and the CCEE–Baltic coordinator and collaboration with EUVAC-NET. A questionnaire survey is planned to assess national measles surveillance systems.

5. Country reports

Reports were invited from each country on outbreaks, issues of note and the development of early warning systems.

Common themes included the development of increased responsibility and analytic capacity at the local level and the development of multiprofessional teams for outbreak control. Concerns included the need to develop better links with veterinarians.

A number of potential case studies were identified:

- psittacosis in Croatia;
- diphtheria in Latvia;
- *Salmonella* and *Campylobacter* at a wedding reception in Slovakia.

6. Information technology platform of the Network: progress report and future objectives, Clayton Hamilton

The elements of the CCEE–Baltic platform currently include:

Core functions	<p>Early warning system Monthly aggregated surveillance database for measles Case-based surveillance database for measles Measles analysis functions</p>
Network support functions	<p>Meetings and archive of reference material Network members reference</p>

The system has been changed in several ways following consultation with the Working Group.

The system has been streamlined to facilitate rapid and easy posting. The message forum screen now highlights high-priority messages, and concluded messages are archived. The message archive can be searched. The system of e-mail notification has been revised, and SMS notification is being implemented.

An email is sent automatically for each posting of a message or a reply to a message.

As agreed by the Working Group, an SMS is only sent when the priority of a message is set to “potential threat” or “definite threat”. Messages are only archived once they are concluded by the Network

moderator for the following calendar month – after this time, concluded messages and replies can be located through the archive search facility. A printing facility has been designed to display a message and all replies in one screen.

The Working Group agreed that there should be a back-up person in each participating country to monitor and post messages (requires system access and knowledge of how to use the system). The system operation and effectiveness has been tested; this outlined the need for system usage guidelines and confidentiality principles, which are being developed.

An early warning system operational guide (including a field glossary) will become available.

7. Early warning system, Massimo Ciotti

7.1 Definition and principles

The early warning system is for the timely dissemination of outbreak information leading to effective intervention measures, including investigative and containment activities. The system can also be used for information exchange.

The essential features include clear terms of reference, technical expertise and support. There should be dedicated staff for coordination and information for public health action should be generated. Participants will meet regularly and work to common data standards with scientific rigour. The Network will be used for sharing problems and solutions.

Participants in the Network early warning system would be those designated by the competent national authority. A formal letter of intent could be supplied by WHO to ministers if necessary. The members of the Network will be responsible for using the Network responsibly and deciding what should be posted on the Network. There will need to be agreement about the responsibility for undertaking action as a result of posting information.

The system components will enhance the monitoring of trends in incidence and the distribution of known infectious agents, the ability to detect routine and unusual events and the ability to respond, including investigation, containment and prevention.

Development of the system raises the possibility of conflicts, for example between:

- confidential information received by others and the need to alert one's own authorities to a problem occurring in other countries;
- the pressure for scientific publication and the need for transparency between participants; and
- the requirement to report to the Network and the responsibilities of national authorities to devise and implement measures to control outbreaks.

An agreement on operating procedures would therefore be developed. A draft had been circulated; there was broad agreement on the draft and these would be rewritten taking into account:

- experience gained during the extended pilot project in which countries would take part;
- the necessity to prepare a document largely written for the EU relevant to the CCEE–Baltic Network;
- ensuring harmonization with the revised IHR; and
- including guidelines on the events to be reported within the early warning system.

Further comments should be sent to the Secretariat.

7.2 Discussion

Several key issues were discussed.

WHO would take the lead on an international outbreak identified through the system. This would also be discussed in the context of the IHR.

The participants discussed who would take over moderation of the system. The question of whether this would continue to be through WHO or a Network member acting as the moderator will be discussed at the next meeting of the Working Group.

Any message that may be of benefit to other members of the Network can be posted, including disease alerts or information exchange. Message threads will allow the diagnosis to be revised – although the original message cannot be edited. The search function by keyword means that searching can be conducted using both original and final diagnoses.

There was some concern over the various case definitions in circulation – especially some of the EU case definitions. It was proposed that those involved in the EU case definitions be invited to a future meeting.

8. International Health Regulations, Max Hardiman

The International Health Regulations (IHR) are intended “to ensure the maximum security against the international spread of disease with a minimum interference with world traffic”.

The current IHR includes notification of yellow fever, cholera and plague. Standards are set places of international arrival and departure. The health measures routinely applied include aircraft disinfection and others and maximum measures that may be applied for yellow fever, cholera and plague. They also set standards for international health documents.

The World Health Assembly called for revision of the IHR in 1995. In 2001, the revision of the IHR was linked to the strategy for global health security. This requires effective cooperation with partners. The principles for revision include:

- detecting public health threats early and ensuring the link to an effective response;
- containing known risks – programmes focused on cholera, meningococcal disease etc.;
- responding to the unexpected – this becomes more important as early warning and communication improves (an example being the Nipah virus); and
- improving preparedness and building national and international capacity.

This requires:

- early detection of unusual events by effective national disease surveillance; and
- effective coordination of an international response.

The IHR negotiation process comprises both technical consultation, including a wide group of stakeholders such as air and sea carriers, and political negotiations involving the World Health Assembly, regional and subregional committees, countries and focal points.

The revised IHR will provide a mandate and framework that underpins the global health strategy and ensures the link between detection and response. This builds on activity already happening, such as the outbreak verification list, outbreak news site and the Global Outbreak Alert and Response Network.

8.1 Vision for IHR

Current IHR reporting results in publication in the Weekly Epidemiological Record and little else. The future vision includes IHR national focal points who will link notification to the response network, which will lead to real-time event management. National focal points need to be identified as soon as possible. They will be key people who will interface with a large number of sectors to gather and assess information and assist with verification.

The IHR will help to identify “public health emergencies of international concern”. Events and risks will be notifiable: for example, food or environmental contamination that has not yet caused a case). Unofficial information can enter the system, and verification of informal information with support for verification will be part of the system. Provisional and confidential reporting will be possible.

Templates of recommendations and measures will be developed, which should avoid unnecessary use of maximum measures. There will also be electronic publication and updates.

Criteria have been identified for public health emergencies of international concern. The basic criteria are:

- seriousness;
- unexpectedness;
- likelihood of spreading internationally;
- likelihood of resulting in restrictions to international travel and trade.

Tools have been developed to assess whether an event conforms to the basic criteria, and these have been incorporated into a flow diagram and algorithm.

Summary of proposed changes to the IHR		
	Current	Revised
Disease notification	yes	no
Health emergency notification	no	yes
Routine measures for ships, aircraft, travellers and cargo	yes	yes
Response measures	maximum or fixed	tailored
Health documents	yes	yes

8.2 Proposed timetable for action

The proposed timetable includes a non-regulatory draft to be prepared by the end of 2002, a first regulatory draft in 2003 and a final draft to WHO in 2004 or 2005. The IHR enter into force 1 year after they are adopted.

Feedback from groups included the following. The concept of reporting items of international public health concern was understood, whereas the level at which reporting should occur and when in the development of an event was less clear. The tool was considered to be helpful, but not detailed enough. Review of the documentation and the practical exercise provided some useful feedback to the IHR team.

9. National early warning systems, Denis Coulombier

Overview of the WHO Lyon Office

The WHO Communicable Disease Surveillance and Response Office in Lyon was created in February 2001.

The main functions are: 1) strengthening national laboratory capacity; and 2) developing the role of public health laboratory microbiology in surveillance and strengthening epidemiology.

Strengthening national laboratory capacity included the following. Three laboratory courses had been planned: one for laboratories in Africa undertaking AIDS investigation, one for laboratories in the Eastern Mediterranean and one for laboratories in eastern Europe. Courses were aimed at mid-career individuals from each country, virologists and bacteriologists. An 8-week course on analytical skills was followed by mentoring and two further modules. The course will develop a collaborating network of 45 laboratories and strengthen global infectious disease control.

Other roles included acting as the WHO focal point for the Field Epidemiology Training Programme (FETP), training in controlling communicable diseases in complex emergencies and developing applied research to examine the effectiveness of and methods for early warning systems.

National Early Warning Systems

The function of early warning systems is to monitor, recognize and respond to health threats. The systems need to detect and hence reduce adverse health effects. They should address both known and unknown risks. Early warning systems need to be timely and sensitive, flexible and simple, whereas programme monitoring needs to be representative and complete, with high predictive values. They therefore have very different characteristics and outputs. However early warning systems and programmatic systems can be integrated. The degree of integration needs to be determined, as full integration can be resource intensive, but lack of integration wastes opportunities for synergy.

Early warning systems can work well if adequately resourced, with effective laboratory support and good links with the primary care providers.

The WHO Lyon Office would be interested in supporting training for the CCEE–Baltic Network.

Detecting events

Nature of the event	Characteristics
Massive and sudden	Point source (such as food poisoning or meningococcal disease) Usually easy to detect within most systems
Diffuse and progressive	Slow increase over time; when do you decide to react? Good background data and more sophisticated analytical tools are needed
Sporadic and widespread	May not be recognized as geographically widespread. Especially a problem if some cases appear in other countries. Information needs to be linked

Indicators and use of indicators for early warning systems

Type of indicator	Characteristics
Indicators for system	Number of cases, case rate, proportional morbidity (of all cases), rate compared with other diseases
Thresholds for intervention	Absolute values of measles and polio: one case = alert Rate: for example, meningococcal disease or influenza Relative value: the increase over a specific time period Statistical techniques with comparison to historical distributions – various techniques are available
Operational indicators	To identify system problems

10. EU peer review process

Information exchange in the EU process of peer review of surveillance systems was discussed.

The EU teams that visited the countries were interested in:

- identifying the structure of the surveillance system, obtaining information about the legal framework and investigating plans for strategic change;
- visiting local and regional public health and clinical facilities; and
- understanding information flows and systems.

11. Management issues in the Network

The proposed next meeting of the full Network will be in Tallinn in early June 2003. The next Working Group meeting will be held in late September 2002 and will discuss early warning systems, training and the future management structure.

Bohumir Kriz was elected Chair for 3 years. The Working Group membership will remain unchanged until the Tallinn meeting in June 2003. The WHO Regional Office for Europe (Communicable Disease Surveillance and Response) will continue to serve as the Secretariat and will continue fundraising and coordination.

The decision on the new name of the Network was delegated to the Working Group, and ideas are being sought. The Network needs to consider moving to project-based funding and funding from individual countries.

12. Conclusions and recommendations

The participants reviewed and approved the following recommendations:

Early warning systems	
All countries should participate in the next phase of the early warning surveillance system	All
The pilot will be extended to September 2002	All/WHO
Letters of intent will be distributed to ministers of health in September for signing at the end of September	WHO

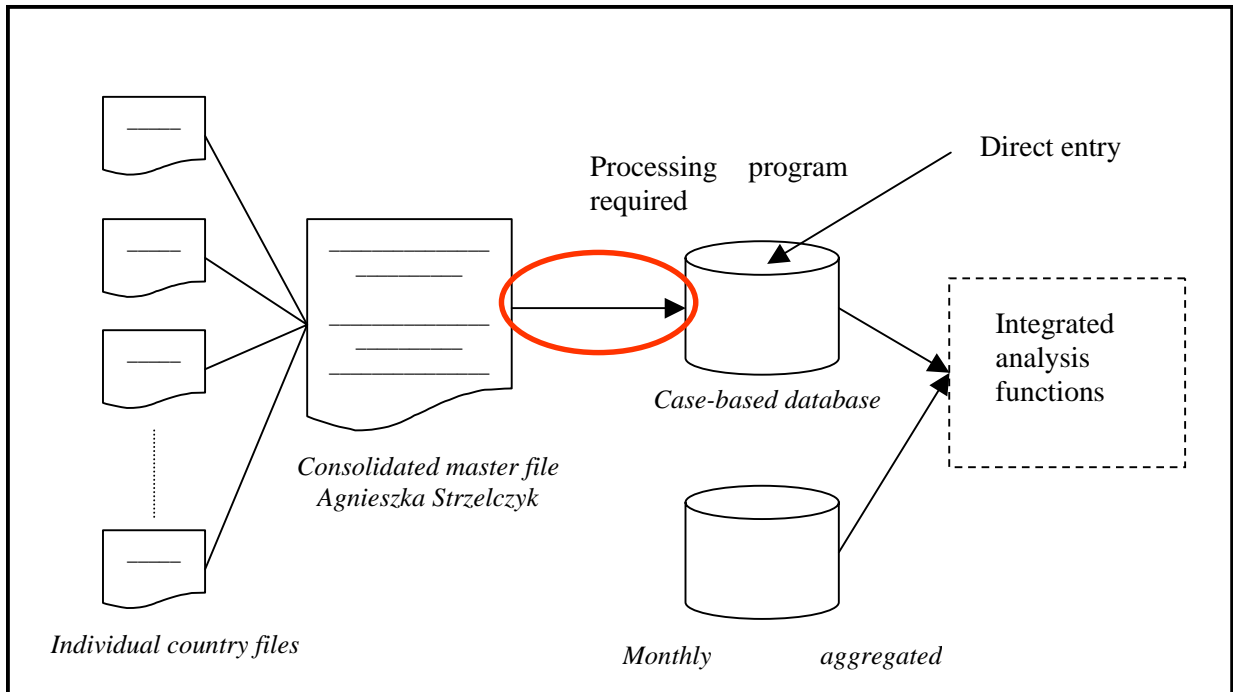
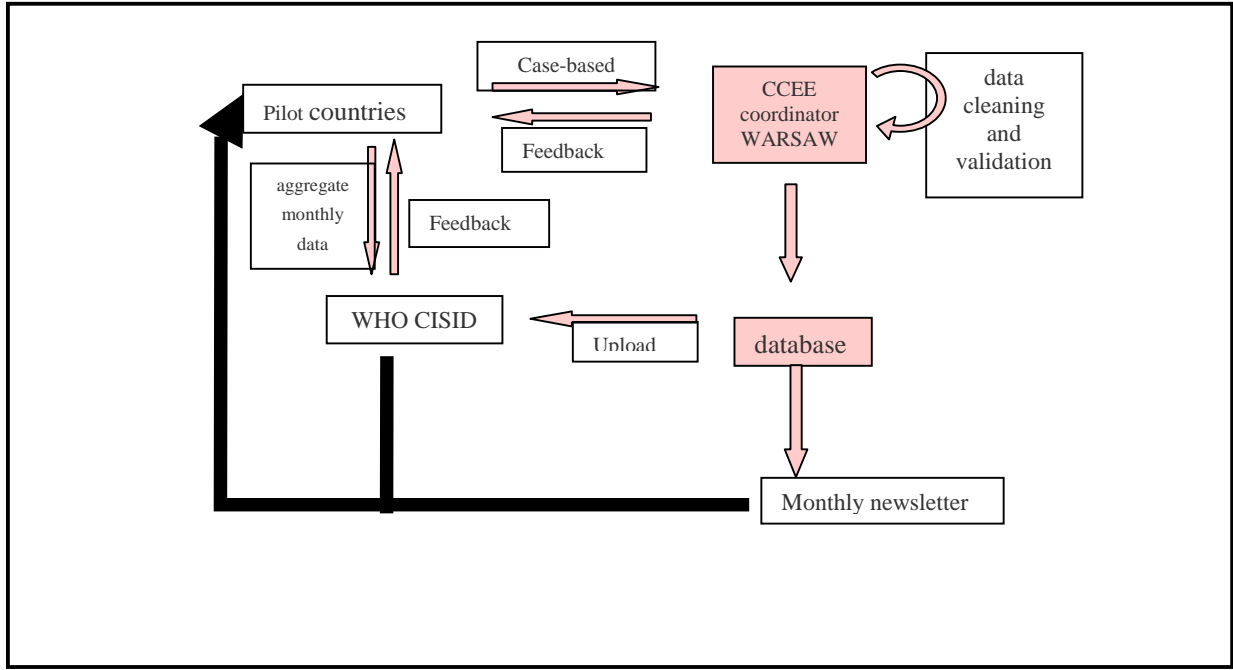
WHO will distribute passwords and access details	WHO		
The Working Group will evaluate the extended pilot project at the end of September	WG		
A document of operating procedures would be developed from the draft that had been circulated. This needed to be rewritten to address: <ul style="list-style-type: none"> • experience gained during the extended pilot • the necessity to make a document largely written for the EU relevant to the Network • ensuring harmonization with the proposed revision of the IHR • including guidelines on the types of events to be reported within the early warning system 	WHO		
Further comments should be sent to the Secretariat	All		
Countries should ensure that there is a back-up person to ensure continuous access to the early warning system. The Working Group will review the precise methods for nominating alternates. Members should be alert to the concerns of other members of the group when giving their passwords to others – alternates should only have access to the system for the period of the member's absence.	All		
As national early warning systems and electronic surveillance systems are developed, information on systems and implementation should be shared.	All		
Guidance for national early warning systems should be developed	WHO, WG		
The best features of the system in eastern Europe (data collection) and the system in western Europe (analytical approach) should be amalgamated			
The Working Group should review the moderation of the early warning system, with the aim that one of the institutes would take over moderation. WHO would seek resources	WG WHO		
Training			
A train-the-trainers course should be developed based upon the current Epiet course but adapted to the needs and systems of the CCEE–Baltic countries. It would be held over two continuous weeks.	TG		
A number of countries were willing to host the training. The most convenient dates were in January 2003.	? Croatia		
A training group should be established			
<table border="1"> <tr> <td>Members</td> <td> Ada Hocevar Grom (AHG) Thomas Grein (ThG) Adriana Pistol Member from the host country One other member (a representative from Albania?) </td> </tr> </table>	Members	Ada Hocevar Grom (AHG) Thomas Grein (ThG) Adriana Pistol Member from the host country One other member (a representative from Albania?)	Coordinator
Members	Ada Hocevar Grom (AHG) Thomas Grein (ThG) Adriana Pistol Member from the host country One other member (a representative from Albania?)		
The training group would meet in the near future	ThG/AHG		
WHO would also explore options for funding	WHO/TG		
A number of potential case studies were identified for further development, such as psittacosis in Croatia and diphtheria in Latvia	WHO		
WHO to write to ministries about training course	WHO		
Measles surveillance			
All countries should participate in submitting data to the measles database	All		
A manual for participation in the system would be developed	WHO/ PCC		
The use of country codes should be standardized. WHO codes and ISO two-letter codes would be circulated	WHO		
Outcome and performance indicators for the measles database would be developed	WHO		
On-line system for zero reporting to be developed	WHO		
The variable for imported cases from the full set would be made visible	WHO		

International Health Regulations	
National IHR focal points need to be identified as soon as possible. They are key people who will interface with a large number of sectors to gather and assess information and assist with verification	WHO IHR Team
Members of the group would act as a pilot for the IHR	All
Others	
Arrange a joint meeting with the technical members of the EU network committee to share ideas and problems	WHO/EU
A new name is being sought for the Network	All, WG
Discuss widening participation and inviting other countries as observers in the Tallinn meeting	WG

WHO = WHO Regional Office for Europe; WG = Working Group; TG = Training Group; PCC = Polish Measles Coordinating Centre

Annex 1

CURRENT (UPPERFIGURE) AND PLANNED (LOWER FIGURE)
CCEE-BALTIC STATES MEASLES DATA EXCHANGE NETWORK



Annex 2

EARLY WARNING SYSTEM FOR THE CCEE–BALTIC STATES
COMMUNICABLE DISEASES NETWORK

Principles of collaboration for an early warning system as agreed at the Second Meeting of the CCEE–Baltic States Communicable Disease Network, Portoroz, Slovenia, 20–22 June 2002

A definition

The early warning system is a tool that allows timely and accurate dissemination of public health event information leading to effective intervention measures, including investigative and containment activities.

Essential features of early warning and surveillance networks are:

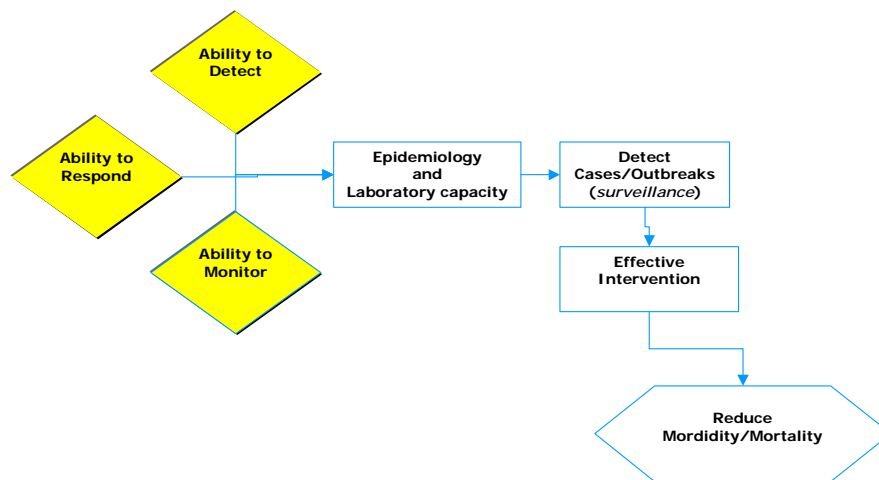
- technical expertise support;
- clear terms of reference;
- dedicated staff for coordination;
- generation of useful information for public health action;
- regular meetings of participants;
- common data standards;
- scientific rigour; and
- sharing of problems, data and solutions.

Trade-offs between general information and useful information need to be made, and certainty (accuracy and specificity) needs to be balanced with timeliness and relevance.

Development of early warning systems for disease should also include vulnerability and risk analysis, feasible response plans and strategies for effective public communication.

National early warning systems are pillars for international alert and response

Timely recognition of outbreaks requires early warning systems to detect these events before they develop into public health crises. Prompt detection requires careful monitoring by modern surveillance systems and a thorough understanding of trends in the incidence and distribution of known infectious agents. The ability to detect what is new, emerging or re-emerging depends on the capacity to identify and track the routine as well as the unusual. Good surveillance systems are needed to develop and implement rapid, effective prevention and control measures for epidemics, detecting infectious diseases before they become widespread. Like radar or early warning systems that detect events to national security, national surveillance and appropriate laboratory support are critical in effectively defending against these threats. They are the most important tools for determining which infectious diseases are emerging, causing serious public health problems, or receding.



Principles of collaboration

Collaboration between participants needs to be based on shared principles. Conflicts should be made explicit and can arise:

- between the need to keep confidential information received by others and the need to alert one's own authorities to a problem occurring in other countries;
- between pressure for scientific publication and the need for transparency between participants; and
- between the requirement to report to the Network and the responsibilities of national authorities to devise and implement outbreak control measures.

Rapid exchange of information is essential to ensure that effective measures are implemented as rapidly as possible.

Information stored in the early warning system archive should be restricted to the participants and alternates designated by the participants.

Participants

The participants in the Network are designated people in charge of a national surveillance system in a WHO Member State. The designation is requested by WHO to the official counterpart (ministry of health). The designated person signs a formal letter of intent to participate in the system, and the WHO Regional Office for Europe reserves the right to accept or refuse the designation.

Each country should designate a back-up person with full access to the early warning system. This should be arranged at the local level. The main responsibility is on the national member to ensure that they have a back-up. The back-up should have full access to the system.

Confidentiality of data

- It should not be possible to identify individuals through the exchange of information.
- Information is stored in the early warning system archive and is available to all participants.
- Information should not be passed on to third parties unless otherwise agreed upon by the participants.
- Enquiries from non-participants about the situation in a participant country should be referred directly to that country.

- Confidential documents shared through the early warning system shall remain within the Network.
- Information on another country should only be published after receiving the written permission of the participant of this other country.
- The moderator has the right to delete information that risks breaking confidentiality.
- The moderator has the right to exclude participants who misuse the information.

EU directive 95/46/EC on the protection of individuals with regard to the processing of personal data and on the free movement of such data is binding on all EU countries and should be considered by the members of the CCEE–Baltic Network.

Release of information

Information to other national surveillance institutes

Participants are not limited to the CCEE–Baltic States Communicable Disease Network. They often participate in other networks, and as such may be asked for information by others. In these instances, information gathered by the early warning system can be released to national surveillance institutes on a confidential basis on the understanding that the information is to enhance their surveillance and that it not be disseminated to a wider audience. These institutes should be aware of the restrictions on the use of this information, as stated in these principles of collaboration.

Information to the general public and concerned professions

If an event arises, Member States can provide suitable information material to the general public and shall inform them of the measures adopted.

The Secretariat and the Member States shall inform concerned professionals and the general public of any strategy agreed and shall inform them without delay when the public health threat is over.

Events to be reported within the early warning system

The members of the Network shall report without delays public health events of priority importance. Among others already considered important to the Network, those defined by the European Commission³ need to be considered for the coherence with the European communicable disease networks. These are:

1. Outbreaks of communicable diseases extending to more than one Member State of the Community.
2. Spatial or temporal clustering of cases of disease of a similar type, if pathogenic agents are a possible cause and there is a risk of propagation between Member States within the Community.
3. Spatial or temporal clustering of cases of disease of a similar type outside the Community, if pathogenic agents are a possible cause and there is a risk of propagation to the Community.
4. The appearance or resurgence of a communicable disease or an infectious agent which may require timely, coordinated Community action to contain it.

³ From Annex I of: *Commission decision of 22 December 1999 on the early warning and response system for the prevention and control of communicable diseases under Decision No 2119/98/EC of the European Parliament and of the Council (notified under document number C(1999)4016) (2000/57/EC)*.

Activation of the early warning system: priority levels and procedures for the EU and the CCEE–Baltic States Communicable Diseases Network (CCEE-CDN)

	Priority	Procedures for information	Consultation and cooperation (as decided by the European Commission)
CCEE -CDN	1. Observation and comment	Exchange of information that is meant to be of interest to the members of the Network related to public health issues or of scientific interest or concerning events other than outbreaks (such as meetings, requests for documents and exchange of data)	The early warning system moderator ensures that a thread initiated by a member through the early warning system is concluded in an informative way. Participants who initiate a thread of alert within the Network have an important reason to do so, whether information on an event is shared or it is an enquiry to other participants. In any case it is important that all participants reply as fully and as quickly as possible. Negative data on an event may be just as informative and valuable as positive data.
EU and CCEE -CDN	3. Potential threat	When information on an event or indications for such an event point to a potential public health threat, the competent public health authorities in the Member State(s)concerned shall inform their counterparts in other Member States and the Commission without delay on the nature and scope of the potential threat and the measures they intend to take themselves or in association with other concerned Member States, the Commission or other parties.	<p>Verification and evaluation</p> <p>The competent public health authorities in the Member State(s)concerned shall assess, in cooperation with the structures and/or authorities, the information collected without delay to ascertain if an event with a public health threat exists.</p> <p>Field epidemiology expertise, laboratory support, clinical and other essential expertise shall be available as technical assistance for any further investigation within Member States. The Community or individual Member States may provide them if requested by the Member State concerned. The Commission shall assist in coordinating the precautionary measures in preparing for any possible public health threat.</p> <p>The Commission may convene an extraordinary meeting of the Network committee or of experts proposed by the committee to coordinate necessary action.</p> <p>Deactivation</p> <p>If the final risk assessment concludes that no public health threat has developed, and no action or only local action is required, the competent public health authorities in each Member State concerned shall inform their counterparts in other Member States and the Commission without delay on the nature and scope of those measures they have taken or intend to take.</p> <p>In the absence of objections within three days by other Member States or the Commission, no other action for the early warning and response system is required.</p>
EU and CCEE -CDN	2. Information exchange	If information collected in one or more Member States or coming from other recognized sources suggests that an event is likely, the competent authority shall, via the network, inform their counterparts in other Member States and the Commission without delay. On receipt of this information, the competent authorities in concerned Member States shall express their opinion on whether measures by other Member States or coordinated Community actions assisted by the Commission are necessary.	<p>(1) The Commission and the concerned Member States shall ensure continuous mutual and rapid exchange of information they receive and shall keep other Member States up to date.</p> <p>(2) The competent public health authorities in the Member State(s)concerned shall assess, in cooperation with the structures and/or authorities, the information collected without delay to ascertain if an event with a public health threat exists.</p> <p>(3) The Commission may convene an extraordinary meeting of the network committee or of experts proposed by the committee to ensure the transparency and effectiveness of any eventual action.</p>

<p>EU and CCEE -CDN</p>	<p>4. Definite threat</p>	<p>If an event results in a public health threat, the competent public health authorities in the Member State(s) concerned shall inform their counterparts in other Member States and the Commission without delay on the nature and scope of the potential threat and the measures they intend to take themselves or in association with other concerned Member States, the Commission and other parties.</p>	<p>Coordination of measures The competent public health authorities in the Member State(s) concerned shall without delay inform other Member States and the Commission on the progress and results of the measures taken. The Member States and the Commission shall coordinate further measures to be taken at Community level in conformity with Articles 3 and 6 of Decision No 2119/98/EC. The Commission shall support Member States in coordinating their efforts to cope with the public health threat and to ensure protection of the population. The Commission may convene an extraordinary meeting of the Network committee or delegates nominated by the committee to coordinate action.</p> <p>Deactivation The system shall be deactivated after the agreement of the Member States concerned, who shall inform other Member States and the Commission.</p>
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Assessment of events

The Secretariat (Communicable Disease Surveillance and Response, WHO Regional Office for Europe) will ensure that all events will be assessed in terms of their potential international importance and proactively and confidentially work with countries to verify reports of outbreaks, investigate and contain them and develop recommendations on international measures to prevent their spread.⁴

The criteria used to establish international importance are:

- high morbidity and/or high mortality;
- potential to spread beyond national borders;
- potential interference with international travel or trade;
- unknown etiology;
- suspected accidental or deliberate release of biological agents;
- need for international assistance.

If a reported event matches one of the above criteria, after consultation with the members of the CCEE–Baltic States Communicable Disease Network, information on suspected outbreaks will be posted on the outbreak verification list that will be circulated to all Network member institutions. Members of the Network may be asked to verify the existence of outbreaks or to share confirmatory results with the Network. WHO, through the Global Outbreak Alert and Response Network will ensure that outbreaks of potential international importance are rapidly verified and information quickly shared within the Network.

Outbreak alert is the process by which intelligence on outbreaks of potential international importance is gathered, verified and shared with partners so that an effective response may be put in place to support the affected state(s). The Network will function as a source of information on outbreaks of potential international importance.

⁴ Mandate to take action: the 2001 World Health Assembly resolution on global health security permits WHO: 1) to use information on suspected outbreaks and epidemics other than that officially communicated by governments and 2) to proactively and confidentially work with countries to verify reports of outbreaks, investigate and contain them and develop recommendations on international measures to prevent their spread.

The process for the participation of Network partners in international responses is fair and equitable. Partners should make every effort to ensure the effective coordination of their participation in and support of outbreak response.

There is commitment to national and regional capacity-building as a follow up to international outbreak responses to improve preparedness and reduce future vulnerability to epidemic-prone diseases.

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