ABSTRACT

The following is a report of the annual WHO European Regional Influenza Surveillance Meeting, which took place in Brasov, Romania on 21-23 September 2010. It included participants from 23 Member States of the WHO European Region, as well as from organizations such as WHO, CDC, ECDC and PATH. The report outlines meeting objectives, provides a summary of presentations made, offers reports from both the Epidemiology and Virology Working Groups and finishes with conclusions about the meeting.

Keywords

INFLUENZA, HUMAN - EPIDEMIOLOGY
POPULATION SURVEILLANCE
SENTINEL SURVEILLANCE
EUROPE

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Executive Summary

The WHO Regional Office for Europe held its annual meeting for influenza surveillance on 21-23 September 2010. This meeting assembled national focal points for the epidemiological and virological surveillance of influenza from 23 Member States to review the 2009/2010 ‘pandemic’ influenza season and to discuss activities for the 2010/2011 season.

The meeting included plenary sessions with presentations on a range of topics, as well as working groups on epidemiology and virology. Parallel sessions also took place for sub-regional work in the South-Eastern European Health Network and the Newly Independent States.

Major topics addressed during the meeting included: the challenges, successes and lessons learned from pandemic (H1N1) 2009; evaluation of the EuroFlu platform and its operations, including the development of a standard methodology for establishing baseline thresholds for ILI/ARI data reporting; the status of influenza surveillance at the national level, as well as the establishment of routine surveillance for hospitalised severe acute respiratory infections; national plans for vaccination monitoring; ways to estimate the burden of influenza from surveillance data; and the tasks and criteria for WHO-recognized National Influenza Centres.

The meeting concluded with the presentation of interim vaccine recommendations for the 2010/2011 influenza season, as well as a presentation on influenza-related communications, focusing on best practices learned from pandemic (H1N1) 2009.
Introduction

The WHO Regional Office for Europe (the Regional Office), in coordination with the European Centre for Disease Prevention and Control (ECDC), collects and presents clinical, epidemiological and virological data on influenza submitted by the 53 Member States in the WHO European Region and publishes it as a weekly bulletin in English and Russian1. Each year, the Regional Office organizes a meeting for influenza surveillance focal points to exchange information and discuss new developments. During 21-23 September 2010, national focal points2 for the epidemiological and virological surveillance of influenza from 23 Member States3, all of whom have been designated by participating Member States’ health authorities, met to review the 2009/2010 ‘pandemic’ influenza season and to discuss activities for the 2010/2011 season.

1 http://www.euroflu.org/index.php
2 http://www.euroflu.org/cgi-files/wiw_members_display.cgi
3 Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Georgia, Israel, Kazakhstan, Kyrgyzstan, Montenegro, Republic of Moldova, Romania, Russian Federation, Serbia, Switzerland, Tajikistan, The former Yugoslav Republic of Macedonia, Turkey, Turkmenistan, Ukraine and Uzbekistan
Objectives of the meeting

The main objectives of the meeting were to:

- provide a situation update on pandemic (H1N1) 2009 challenges, etc.;
- review EuroFlu platform operations;
- review in detail by means of a survey the current status and operations of routine influenza surveillance at the national level in the European Region, well as discuss the rationale, critical data elements, and country-specific progress/plans on establishing routine surveillance for hospitalised severe acute respiratory infections; and
- discuss the tasks of National Influenza Centres and criteria for WHO-recognition.

Additionally, a number of specific objectives were to:

- discuss direct and indirect methods for estimating the burden of influenza from surveillance data and vital statistics;
- discuss national plans for influenza vaccination and vaccination monitoring; and
- agree on a standard methodology for establishing baselines and baseline thresholds for ILI/ARI data reported to EuroFlu.
Summary of plenary presentations
Tuesday, 21 September 2010

9:30-9:50. Dr. Adriana Pistol, Institute of Public Health, Romania

- Dr. Pistol began with a welcome on behalf of Romania, the host country, and then described Romania’s sentinel surveillance for ILI and ARI. Dr. Pistol then described Romania’s first year of experience with the implementation of hospitalised SARI surveillance, which is being implemented in five counties at twelve sentinel units. Romania is also working on estimating the burden of SARI due to influenza in their population using two methods of extrapolating data from sentinel sites.

09:50–10:10. Dr. Dinara Otorbaeva, Ministry of Public Health Surveillance, Kyrgyzstan

- In Kyrgyzstan during the pandemic season of 2009/2010, influenza A(H3N2) and influenza B circulated and then were replaced by pandemic (H1N1) 2009 in week 46/2009. Existing surveillance data suggests mortality was highest in the younger age groups, but the surveillance data appear truncated above the age of 15 and this will be a topic of evaluation during the upcoming year.

10:10-10:30. Dr. Igor Spinu, National Research Centre for Preventive Medicine, Republic of Moldova

- Priorities for influenza surveillance in the Republic of Moldova include early detection of novel viruses, laboratory and epidemiologic monitoring of trends, as well as screening for changes in the epidemiology of influenza. Details were presented about the pandemic response in the Republic of Moldova. During the 2009/2010 season, 465,000 people were vaccinated with 500,000 doses of CANTGRIP vaccine from Romania (manufacturer - Cantacuzino Institute). In addition, 280,000 people were also vaccinated with 380,000 donated vaccine doses from WHO.

11:00–11:20. Dr. Tony Mounts, WHO Global Influenza Program

- Dr. Mounts provided a review of the global experience with the 2009/2010 pandemic and an update on the 2010 influenza season in the southern hemisphere. Notably, there was no standard for reporting underlying conditions associated with severe complications of influenza. Sentinel SARI surveillance and mortality modelling are essential additions to traditional virological surveillance in order to better understand risk factors for severe disease, the viruses that cause severe disease, and to establish baselines for severe disease.

11:20–11:40. Dr. Wenqing Zhang, WHO Global Influenza Surveillance Network

- The GISN principally includes global coordination of laboratory diagnostics, laboratory surveillance and vaccine development support. The GISN continues to expand with 15 new National Influenza Centres recognized by WHO in 2009. However, there remains a need to expand the capacity to assess antiviral susceptibility to inform antiviral use policy. The GISN also needs to improve the representativeness of viruses received to reflect many regions of the world and the mild and severe spectrum of illness.

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A copy of the presentations can be requested by sending an email to influenza@euro.who.int
11:40–12:00. Dr. Caroline Brown, WHO Regional Office for Europe

- Dr. Brown presented a brief review of the 2009/2010 pandemic in the WHO European Region. Dr. Brown then presented the EuroFlu platform satisfaction survey results, which showed overall a high level of satisfaction by the readers. Suggestions to improve the Bulletin included more information on vaccines, inclusion of other respiratory viruses, more information on severe disease, more detailed non-sentinel data, better criteria for the impact indicator and simplification of virological data presentation.

12:00-12:15. Dr. Liana Martirosyan, temporary adviser to WHO/European Region Netherlands Institute of Health Services Research (NIVEL)

- Dr. Martirosyan provided an overview of reporting by Member States to Euroflu in the 2009/2010 season. This included qualitative, quantitative and virological indicators. Virological data were reported by more countries than clinical indicators. However, if clinical data were reported, they were reported more frequently and consistently on a week-to-week basis. Five countries reported sentinel SARI data and four reported their baseline thresholds for influenza activity during the 2009/2010 season.

13:30–13:50. Dr. Joshua Mott, WHO Regional Office for Europe

- Dr. Mott provided an overview of important functions of influenza surveillance. This presentation considered the inter-relationship between routine surveillance and pandemic monitoring, and also contrasted the traditional virological objectives of influenza surveillance with more recent objectives of early detection of unusual events, establishing baselines for severe respiratory disease, monitoring groups at risk of severe complications and estimating the burden of disease. Working with Member States to address gaps in each of these core components of influenza surveillance is a WHO/Europe priority for the upcoming year and future influenza seasons.

13:50–14:10. Dr. Tony Mounts, WHO Global Influenza Program

- Dr. Mounts presented ways to use routine surveillance to estimate disease burden in resource poor areas. In doing so, he described two methods of direct burden estimation: i) direct observation and extrapolation when there is a known hospital catchment population and ii) direct estimation with a less-defined catchment area. Dr. Mounts also provided a brief overview of indirect modeling methods that can be used to estimate the burden of influenza.

14:10–14:30. Dr. Tomas Vega, Consejería de Sanidad, Spain

- Dr. Vega provided an overview of the objectives of influenza modelling methods. He then described the three steps needed to implement the Moving Epidemic Method, which can be used to model a typical influenza curve. WHO and ECDC are calculating baseline thresholds for countries in the region that have enough historical data. Both
agencies will work with countries to determine the suitability of this method to be used for standard implementation.

15:30-16:30. Drs. Tony Mounts, Wenqing Zhang and Caroline Brown, WHO Global Influenza Program and WHO Regional Office for Europe

- Drs. Brown, Zhang and Mounts discussed coordination of influenza activities between the Regional Office and WHO/Headquarters. The new global platform for clinical data, FluID, was presented and the data transfer between EuroFlu and the two global platforms FluID and FluNet were described. Dr. Zhang emphasized that reporting to EuroFlu is the same as reporting to FluNet. It was also emphasized that NIC must continue to perform virus isolation and to share a selection of these with the WHO collaborating centres for reference and research on influenza.

Wednesday, 22 September 2010

09:00–09:30. Dr. Angus Nicoll, European Centre for Disease Prevention and Control

- Dr. Nicoll presented on “monitoring field vaccine effectiveness – experience from ECDC and the I-Move project”. Three methods were described for estimating vaccine effectiveness: case-control, cohort and screening methods. Taken together, ECDC observed good vaccine effectiveness overall and by age group, ranging from 40%-100% with average estimates around 70%. These findings were consistent across studies and design. These studies are intended to be used as advocacy for future vaccination campaigns to increase acceptability in health care workers and also in the current southern hemisphere winter season.

9:30–10:00. Dr. Yipu Lin, WHO Collaborating Centre at Mill Hill, London

- Dr. Lin presented on the characteristics of the pandemic (H1N1) 2009 viruses. She began with a presentation of the ecology of the influenza virus and its natural reservoirs. She then described the triple reassortant composition of the pandemic (H1N1) 2009 virus and highlighted markers for severity and antiviral resistance. The pandemic (H1N1) 2009 virus tends to preferentially bind receptors in the human lower respiratory tract, as has been observed for other swine viruses. Increased binding due to a change in the HA gene (D222G substitution) has been associated with increased virulence in some studies.

10:30 – 17:30 Working Group Sessions

- See below for detailed summaries of the Epidemiology Working Group and Virology Working Group.

Thursday, 23 September 2010

9:00–09:15. Dr. Pernille Jorgensen, WHO Regional Office for Europe

- Dr. Jorgensen provided an update of the different influenza vaccination surveys that are being undertaken in the Region. Dr. Jorgensen then concluded with an overview of the Regional Office interim recommendations on influenza vaccination for the 2010/2011
The plenary presentation by Mr. Butler was on influenza-related communications. This presentation focused on lessons learned and best practices in pandemic communication, as well as key considerations for affecting health seeking behaviours, such as vaccine uptake. Challenges that occurred with regard to communications in the pandemic included:

- widespread belief that ‘pandemic’ meant a very severe disease, rather than referring, as it does, to the geographical nature of its spread;
- an extensive focus on pre-pandemic communications only for worst case scenarios;
- complacency, which increased when pandemic (H1N1) 2009 turned out to be not as virulent as first thought – this began to undermine achievements and reduced vaccine uptake; and
- lags between when communication messages were developed and when the public needed them.

Mr. Butler then provided a lecture and interactive workshop on the basic principles of communicating risk. Where influenza vaccination is concerned, the main objectives for communications remain to create high awareness of vaccination recommendations and flu-related key messages, to foster knowledge and favourable beliefs regarding influenza vaccination recommendations, to maintain and extend confidence in influenza vaccine safety and to promote/encourage vaccination throughout the influenza season.
Report from the Epidemiology Working Group

During the Epidemiology Working Group the following topics were discussed:

1. calculation of baseline thresholds – examples of baselines estimated for a number of countries using the epidemic movement method (MEM);
2. initiation of a risk factor study to collect and report in a standard way the risk factors associated with severe complications of laboratory-confirmed influenza; and
3. completion of the regional survey on country surveillance systems.

1. Examples of baselines were estimated for a number of countries using the epidemic movement method (MEM)
   - Dr. Tamara Meerhoff presented the first results of baselines estimated for ten countries (Albania, Belarus, Israel, Kyrgyzstan, Republic of Moldova, Russian Federation, Serbia, Switzerland, Turkey, and Ukraine) using the moving epidemic method (MEM), followed by a discussion with participants. In general, countries with higher quality data had models with a better fit, i.e. the baselines predicted influenza activity in different seasons in a reliable way.
   - Since the data quality does not depend to a great degree on the type of surveillance system in a country, the MEM can be equally applied in countries with sentinel and national surveillance systems and in countries reporting both ILI and ARI consultations.
   - The countries were encouraged to report as much historical data as possible, as baselines calculated on a larger number of historical seasons predict influenza activity in a more reliable way.
   - Alternative methods of baseline calculation have been discussed, i.e. the method developed at the National Influenza Centre in St. Petersburg, Russia, as well as a method based on percentiles. Participants using these methods for estimating their baselines expressed an opinion that it would be useful to compare the baselines calculated using MEM methods with their own methods.
   - It was concluded that it is important to use the same, standardized methodology in different countries to enable reliable comparisons of influenza activity in the WHO/European Region. The MEM can help serve this purpose.
   - All participants agreed that the MEM would be uniformly used to calculate the baseline for all countries in the Region that provide at least 3 years of historical data and that this baseline would be presented in EuroFlu bulletins.

2. Initiation of a risk factor study to collect and report in a standard way the risk factors associated with severe complications of laboratory-confirmed influenza
   - One challenge throughout the pandemic was the lack of standard data collection on risk factors for severe cases of laboratory-confirmed influenza. Global assessments of risk factors have not included countries of the central and eastern portions of the WHO European Region and risk factors may be different in this portion of the region, due to differences in population demographics and the background prevalence of diseases. During the epidemiology working group, a standard data collection form was presented
and all countries were asked about the feasibility of providing aggregate data on risk factors for severe cases in a standard manner.

- It was decided that the countries will report back to the Regional Office about the feasibility of participating in this study.

- A real value of this study would also be to compare rates of underlying risk factors in severe cases to those in the general population, so the feasibility of obtaining this type of background prevalence data will also be assessed.

- The collected data will be used to perform analysis of risk factors at an aggregated level, and the resulting publication will be based on the aggregated data. This means that every country may use its data for a country-specific analysis, resulting in a separate publication in a peer-reviewed journal.

3. Completion of the regional survey regarding classification of influenza surveillance systems

- All non-EU countries of the WHO European Region received an e-mail in August 2010 with a request to complete an electronic questionnaire about the surveillance systems used in their countries. Almost all countries completed the questionnaires and sent them back to the Regional Office prior to the Brasov meeting. The completed questionnaires were reviewed by influenza staff and questions that required further clarifications were highlighted.

- During the Epidemiological Working Group, the completed questionnaires were discussed in six small groups, the questions were clarified and the final hard copies of the questionnaires were completed. The collected data will be analyzed and country surveillance profiles will be prepared.
Report from the Virology Working Group

During the Virology Working Group the following topics were discussed:

1. preliminary results of the evaluation of how preparedness aided the response of NIC to the pandemic in the WHO European Region;
2. the process of recognition by WHO of NIC in the European Region;
3. WHO guidance on selection of clinical specimens for virus isolation and sharing with the WHO collaborating centre for reference and research on influenza (WHOCC), London, United Kingdom;
4. a review of the virological data reported to EuroFlu since the start of the pandemic; and
5. a review of laboratory needs for the 2010/2011 season and support requested from WHO.

1. Preliminary results of the evaluation of how preparedness aided the response of NIC to the pandemic in the WHO European Region

The evaluation was performed in July-August 2010 by means of telephone interviews and using an interview guide (see Annex 1). Interviews were conducted with NIC from 6 countries: Estonia, The Netherlands (two labs), Republic of Moldova, Romania, Turkey (two labs) and Ukraine (two labs). The countries were formally invited to participate through their respective Ministries of Health. The interviews covered four main aspects: involvement of NIC in national and laboratory-specific pandemic preparedness planning and activities; what needed to be implemented before the pandemic; how plans were used in the response; and a reflection on what should be done differently next time. The interview also addressed the usefulness of WHO support.

The interviews were transcribed and for preliminary analysis that was presented during the meeting, common themes were identified by one person who read through all transcripts. The preliminary results were as follows.

Factors important for developing and implementing pandemic preparedness for NIC:
- Ministry of Health support
- expert input
- examples of plans from other countries
- experience with outbreaks of avian influenza
- lab equipment (PCR, BSL-2, BSL-3)
- surge capacity plan
- availability of antivirals for lab staff
- support from WHO (missions, guidance – but translation into Russian should be timely)
- support from other international organizations (World Bank and PATH)

What could have been in the plan to make it more useful?
- system for monitoring implementation of plan
- clarification of the role and function of the NIC – reference laboratory and/or diagnostic capacity, with appropriate surge capacity and other resource needs identified
- need for BSL-3 laboratory

Which pandemic preparedness activities were the most useful to your response to the pandemic?
- development of a pandemic plan
- trainings
- establishment of molecular diagnostic
Plans were made to discuss a detailed analysis and report during a one-day meeting with participating NIC in November and then to present this report at the Global NIC meeting in December.

2. The process of recognition by WHO of NIC in the European Region

All Member States of the WHO European Region have designated national influenza laboratories. Laboratories in 10 Member States are not yet formally recognized by WHO according to the global NIC terms of reference (ToR). For these countries, as well as all countries with an existing NIC, the Regional Office has developed a document describing the process and assessment for WHO-recognition and maintenance of NIC status. This was piloted in Malta in July 2010 and the outcome was presented.

Laboratories that wish to be formally recognized by WHO undergo an on-site assessment by a team consisting of Regional Office and WHO CC staff, as well as WHO headquarters staff, if available. The assessment is performed using a standardized tool (NIC Laboratory Assessment Tool; NIC-LAT) that covers influenza laboratory surveillance capacity, laboratory quality and biosafety. There is also time for discussions with the assessment team on topics important to the laboratory.

The assessment takes into account existing WHO or other accreditations and is an opportunity for laboratories to improve their capacities and obtain WHO and government support.

The assessment process piloted in Malta was deemed successful by both the assessors and the laboratory. The laboratory scored 87% on the general indicator, which is an average of all indicators and higher than the 85% required for recognition, and it was decided that WHO-recognition would be given. An additional recommendation was made, namely that virus isolation should be implemented during the 2010/2011 season. The scores obtained for the different modules are shown in the figure below.

![General Indicator 87%](image)

The tool was considered useful and some suggestions for improvement were made and incorporated. Additionally, since the assessment includes the performance of virus isolation, it

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was requested that WHO supplement the assessment with a quality assurance programme for this capacity (see section 5).

The document also describes how NIC already recognized by WHO maintain WHO recognition. It states NIC will maintain their status as long as they comply with the NIC ToR, which require:

- rapid communication with WHO on unusual events
- sharing of influenza viruses with WHO CC
- provision of data to EuroFlu and FluNet
- participation in WHO quality assurance programmes
- provision of information to WHO on laboratory quality (accreditation or use NIC assessment tool)

During the discussion on NIC ToR, the Regional Office was asked to write a letter to countries’ Ministries of Health to emphasize the need to share viruses with WHO CC and to indicate the difficulties encountered with customs in this respect (also for the shipment of proficiency panels and reagents into the country). It was also asked to provide NIC with a certificate of participation and performance in WHO EQAP. Both will be prepared.

3. WHO guidance on selection of clinical specimens for virus isolation and sharing with the WHO collaborating centre for reference and research on influenza (WHOCC), London, United Kingdom

During the pandemic, 27 Member States of the WHO European Region shipped specimens and/or virus isolates to WHO CC. The guidance has been developed to improve the representativeness of viruses shared with WHO CC for vaccine strain selection, antiviral susceptibility testing, risk assessment, etc., and timeliness. The guidance describes requirements for representativeness (geography, age, different settings and time), as well as any unusual or un-subtypable viruses/isolates and from severe cases and outbreaks. Viruses should be sent 2-4 times a year, preferably in time for the February and September vaccine strain selection meetings.

The document has been shared with the EuroFlu network and has since been published on the WHO website.

4. A review of the virological data reported to EuroFlu since the start of the pandemic

Detections reported between week 40/2009 and week 21/2010:

<table>
<thead>
<tr>
<th>Country</th>
<th>A-unsubtyped</th>
<th>Pandemic A (H1N1)</th>
<th>Seasonal A (H1N1)</th>
<th>A (H3N2)</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (100%)</td>
<td>13 990</td>
<td>157 520</td>
<td>345</td>
<td>167</td>
<td>1859</td>
</tr>
</tbody>
</table>

In addition, laboratories are requested to share any seasonal (H1N1) viruses with the WHO CC.

Laboratories were also requested to update the EuroFlu database with the results received from the WHO CC from analyses on shared viruses. Subsequently, 4 countries have submitted 95 antigenic characterisations and 69 genetic characterisations to EuroFlu.

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5. A review of laboratory needs for the 2010/2011 season and support requested from WHO

The group discussed the need for QCA programmes for virus isolation – 15 labs participated in the QCA organized by the HPA, UK, for the EU laboratory network (CNRL) in 2008. Another QCA for the CNRL was planned for late 2010 and the Regional Office arranged the participation of additional laboratories. The Regional Office will endeavour to ensure that participating labs have the necessary reagents (e.g. ferret antisera for strain characterization) and will plan well in advance in order to deal with customs issues.

Training needs were discussed and several options proposed:
- Study tours are useful to exchange experience with other labs, especially those undertaking diverse activities.
- Training can be conducted at WHO CC. NIC can contact WHO CC directly and the Regional Office can support a limited number of trainings per year.
- Where possible, training off-site at WHO CC or other reference labs should be followed by reference laboratory staff helping to set up procedures in the lab.
- A sustainable training programme should be established, coordinated between WHO and other organizations providing training (CDC, NAMRU3 etc). A proposal will be made based on the survey completed during the meeting (see Annex 1 for survey results).

Requests

Participants made a number of requests for training by completing the above-mentioned survey on training needs, an overview of which is shown in Annex 1.

Several labs have experienced difficulties in obtaining reagents. The Regional Office was requested to make recommendations on the use of quality reagents and this will be included in the letter to the Ministries of Health (see section 2).

Some laboratories have requested to receive from the WHO CC ferret antisera for virus antigenic strain characterization. This is currently being organized.

Note: This season, CDC PCR kits will be shipped directly by CDC and not from WHO. NIC requiring kits will need to write to CDC (copy WHO; pdm@euro.who.int) and sign a materials transfer agreement.

Conclusions

- National influenza laboratories played a frontline role during the pandemic and it is important to document lessons learned and to fill identified gaps.
- Reporting to EuroFlu by national influenza laboratories was overall quite complete, but some reporting gaps of data generated by the WHO CC need to be filled.
- The Regional Office has launched a standardized on-site assessment process, which will assist laboratories in identifying needs to policy makers and in improving their capacities.
- A number of laboratories requested the Regional Office provide different types of training. Consequently, the Regional Office will work on a training programme that is more sustainable.
A letter to Ministries of Health will be sent by the Regional Office, to emphasize the important role of the laboratories and to obtain support on critical issues, such as virus sharing and the need for quality reagents.
Parallel session for sub-regional work
Thursday, 23 September 2010
11:15 – 12:45

South Eastern European countries (see Annex 3 for programme)
Dr. Alina Baetel of the Cantacuzino Institute, Bucharest, a National Influenza Centre providing support to other laboratories in South Eastern European (SEE) countries, gave an overview of national and international activities. Support to three other SEE countries (Albania, Republic of Moldova and the Former Yugoslav Republic of Macedonia) has been provided, including testing of clinical specimens during the pandemic, on-site support for establishing PCR and training in virus isolation techniques. The establishment of regional laboratories for influenza surveillance is also ongoing in Romania with support from the Cantacuzino Institute. In addition, the group discussed information exchange during the pandemic through the SEE country communicable disease coordinators; these frequent exchanges were made possible due to the long-standing collaboration through the SEE Health Network. The Global Shipment Fund project for the shipment of influenza viruses to the WHO CC was described. Lastly, training needs were discussed, based on the survey that was performed during the meeting (see Annex 1 of the Report from the Virology Working Group below).

Newly Independent States (see Annex 4 for programme)
Dr. Nikito Silko described activities of FSRI SRC VB VECTOR during the pandemic, with particular reference to implementation in neighbouring countries. VECTOR performed virus detection by PCR and virus isolation on specimens received from several NIS countries during the pandemic. The sharing of these results with the originating country, as well as with WHO, was discussed, in addition to coordination of activities within the Russian Federation with the NIC in Moscow and St. Petersburg. Additionally, experience with the implementation of sentinel SARI surveillance was discussed, as well as training needs.
Annex 1: Country activities and technical assistance survey for the season 2010/2011

A review of laboratory training needs for the 2010/2011 season

<table>
<thead>
<tr>
<th>Laboratory training on:</th>
<th># of laboratories requested training</th>
<th>% of participating laboratories requested training</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Cell culture</td>
<td>10</td>
<td>71.4%</td>
</tr>
<tr>
<td>2) Molecular techniques (PCR, sequencing)</td>
<td>17</td>
<td>77.3%</td>
</tr>
<tr>
<td>3) Virus isolation and haemagglutination inhibition</td>
<td>11</td>
<td>61.1%</td>
</tr>
<tr>
<td>4) AV susceptibility testing</td>
<td>15</td>
<td>75.0%</td>
</tr>
<tr>
<td>5) Biosafety and Biosecurity</td>
<td>13</td>
<td>68.4%</td>
</tr>
<tr>
<td>6) Infectious Substances Shipping Training</td>
<td>10</td>
<td>62.5%</td>
</tr>
<tr>
<td>7) Quality assurance</td>
<td>6</td>
<td>60.0%</td>
</tr>
</tbody>
</table>

A review of WHO assistance requested for the 2010/2011 season

<table>
<thead>
<tr>
<th>WHO assistance on laboratory methods and virology</th>
<th># of laboratories requested WHO assistance</th>
<th>% of participating laboratories requested WHO assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) On site laboratory assessment</td>
<td>7</td>
<td>53.8%</td>
</tr>
<tr>
<td>2) SOPs and testing algorithms</td>
<td>12</td>
<td>70.6%</td>
</tr>
<tr>
<td>3) Biosafety</td>
<td>14</td>
<td>93.3%</td>
</tr>
<tr>
<td>4) Quality assurance</td>
<td>13</td>
<td>76.5%</td>
</tr>
<tr>
<td>5) Laboratory supplies and reagents</td>
<td>15</td>
<td>88.2%</td>
</tr>
</tbody>
</table>
WHO European regional influenza surveillance meeting
Brasov, Romania
21-23 September 2010

10 September 2010
Original: English

Provisional programme

Tuesday, 21 September 2010

08:00–09:00 Registration
09:00–09:30 Welcome (Ministry of Health in Romania; Head of WHO Office Romania; WHO EURO; Caroline Brown)
  Background, purpose and expected outcome of the meeting;
  Election of chairs and rapporteurs (WHO EURO; Caroline Brown)

Country presentations

09:30–09:50 Presentation by host country Romania (Institute of Public Health Bucharest, Adriana Pistol)
09:50–10:10 Presentation by Kyrgyzstan (Ministry of Public Health, Bishkek; Dinara Otorbaeva)
10:10–10:30 Presentation by Republic of Moldova (National Research Centre for Preventive Medicine, Chisinau; Igor Spinu)
10:30–11:00 Coffee break

Chair for the rest of day 1: Tony Mounts (WHO)

11:00–11:20 Global situation update and priorities for influenza surveillance moving forward (WHO; Tony Mounts)
11:20–11:40 WHO Global Influenza Surveillance Network (GISN) activities (WHO; Wening Zhang)
11:40–12:00 EuroFlu: Overview of the 2009/2010 season and plans for the upcoming year (WHO EURO; Caroline Brown)
12:00–12:15 EuroFlu: Reporting completeness during the 2009/2010 season (Netherlands Institute for Health Services Research (NIVEL), the Netherlands; Liana Martirosyan)
12.15-12.30 Discussion
12:30–13:30  
**Lunch**

13:30–13:50  
Back to Business—basic influenza surveillance data needs (WHO EURO; Joshua Mott)

13:50–14:10  
Direct and indirect methods of estimating burden of disease caused by influenza, and why this is important (WHO; Tony Mounts)

14:10–14:30  
Calculation of ILI epidemic threshold - The Moving Epidemic Method (Consejería de Sanidad, Spain; Tomas Vega)

14:30–15:00  
Discussion

15:00–15:30  
**Coffee break**

15:30–16:30  
Regional and global coordination of activities for the 2010/2011 season: EuroFlu, FluID and FluNet (WHO; Caroline Brown, Tony Mounts and Wenqing Zhang)

16:30–17:00  
Discussion and closure of day 1

**Evening**  
Dinner organized by WHO

**Wednesday, 22 September 2010**

**Plenary**

Chair: Rene Snacken, ECDC

09:00–09:30  
Monitoring Field Vaccine Effectiveness – experience from the ECDC and I-Move project (ECDC; Angus Nicoll)

09:30–10:00  
Characteristics of pandemic (H1N1) 2009 viruses (WHO Collaborating Centre for reference and research on influenza, NIMR, London, UK; Yipu Lin)

10:00–10:30  
**Coffee break**

**Working group session**

Chair: Diane Gross, CDC Atlanta, USA

Rapporteurs:

Pernille Jorgensen (WHO EURO) and Liana Martirosyan (NIVEL)

10:30–11:15  
**Epidemiology Working Group (introduction by Joshua Mott)**

Calculation of epidemic thresholds: examples of calculated baseline for several countries (The Radboud University Nijmegen Medical Centre, the Netherlands; Tamara Meerhoff)

11:15–12:00  
Profiles of severe disease caused by pandemic (H1N1) 2009 virus infection (Joshua Mott—introduction; Tony Mounts—overview of data collection tool and group assessment of feasibility to assess risk factors)

12:00–12:30  
Sentinel surveillance monitoring checklists: plans for release and piloting (CDC, Atlanta, USA; Diane Gross).

Sentinel surveillance training package (WHO EURO; Joshua Mott).

12:30–13:30  
**Lunch**

13:30–15:30  
Completion of regional survey to classify influenza surveillance
systems. Introduction: Joshua Mott

Participants will split into subgroups of about four countries each. Facilitators of groups: Joshua Mott and Pernille Jorgensen (WHO EURO); Liana Martirosyan (NIVEL); Tamara Meerhoff (Radboud University Nijmegen Medical Centre); Diane Gross (CDC).

Chair: YiPu Lin
Rapporteur: Dmitriy Pereyaslov and Caroline Brown (WHO EURO)

10:30–12:30 Virology Discussion Group (introduction by Caroline Brown)

Lessons learned from pandemic (H1N1) 2009: results of a multi-country evaluation among National Influenza Centres and discussion on how to fill gaps identified (WHO EURO; Caroline Brown)

WHO-recognition of National Influenza Centres: new assessment process and results from the pilot (WHO EURO; Dmitriy Pereyaslov)

12:30–13:30 Lunch

13:30–15:30 Selection of specimens for virus isolation and shipment to WHO CC: review of WHO guidance (WHO EURO)

Review of virological data reporting to EuroFlu, including data received from the WHO CC: virus characterisations, antiviral susceptibility testing and dominant virus (WHO EURO)

15:30–16:30 Coffee break/rapporteurs to summarize outcome of task groups

16:30–17:30 Reports of the working groups

Thursday, 23 September 2010

Vaccine session

Chair: Joshua Mott, WHO EURO

09:00–09:15 Ongoing vaccination surveys in the WHO European Region and vaccination recommendations for the 2010/2011 influenza season (WHO EURO; Pernille Jorgensen)

09:15–10:45 Health communications related to influenza (WHO EURO; Robb Butler)

10:45–11:15 Coffee break

11:15–12:45 Parallel session for sub-regional work:
South Eastern European countries (Annex 1)
Newly Independent States (Annex 2)

12:45–13:00 Closure of the meeting
Annex 3: Provisional Programme – Session for countries of the South-Eastern European Health Network

Provisional Programme

WHO European regional influenza surveillance meeting:
Session for countries of the South-Eastern Europe Health Network
"Strengthening surveillance and control of communicable diseases in South-Eastern Europe"
Brasov, Romania, 23 September 2010

11.15-11.20 Welcome (WHO EURO; Caroline Brown)
11.20-11.30 Update on the SEE Health Network (Dritan Ulqinaku, Institute of Public Health, Tirana, Albania)

11:30-11:45 Activities of the National Influenza Centre, Romania, during the pandemic and plans for the upcoming 2010/2011 season (Cantacuzino Institute, Bucharest, Romania; Alina Baetel)

Topics will include activities in SEE countries as well as tools and training materials

11:45-12:30 Round table discussion. Suggested topics:

- Capacity building needs
- Task groups within the EuroFlu network
- Review of the WHO European guidance of influenza surveillance in humans
- Any other issues arising from the meeting
- Conclusions and recommendations

12:30-12:50 Report conclusions and recommendations to plenary

12:50-13:00 Closure of the meeting in plenary
# Provisional Programme

**WHO European regional influenza surveillance meeting:**

Session for Newly Independent States  
Brasov, Romania, 23 September 2010

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tr>
<td>11:15–11:20</td>
<td>Welcome and selection of chair (WHO EURO; tbd)</td>
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<td>11:20–11:40</td>
<td>Activities of FSRI SRC VB VECTOR during the pandemic, with particular reference to implementation in neighbouring countries (VECTOR; Nikito Silko)</td>
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<td>11:40–12:30</td>
<td>Round table discussion. Suggested topics:</td>
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<tr>
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<td>12:30–12:50</td>
<td>Report conclusions and recommendations to plenary</td>
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ANNEX 5: LIST OF PARTICIPANTS

WHO European regional influenza surveillance meeting

Brasov, Romania, 21 - 23 September 2010

FINAL LIST OF PARTICIPANTS

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