

FLU FOCUS

An e-magazine with information and resources on influenza in the European Region

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Flu Focus is an e-magazine published by the WHO Regional Office for Europe that covers recent developments, research, reports, materials and resources on influenza. *Flu Focus* provides updates on influenza and spotlights key features that the WHO Regional Office for Europe would like to bring to your attention. It is sent on a regular basis throughout the influenza season (week 40 - week 20 in the following year).

We hope that you will consider this e-magazine as a channel through which to share information across the Region. *Flu Focus* welcomes new knowledge and experiences in influenza responses – such as your case studies, strategic thinking, supporting material and any other relevant documentation. Please contact influenza@euro.who.int if you wish to submit something for a future issue.

This issue of *Flu Focus* will be available shortly on the WHO Regional Office for Europe website at <http://www.euro.who.int/flufocus> in both English and Russian.

Этот выпуск *Flu Focus* будет также вскоре помещен на сайте Европейского регионального бюро ВОЗ: <http://www.euro.who.int/flufocus> на английском и русском языках.

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Issue No.3 Summary

At the conclusion of the 2010/2011 influenza season, this final issue of *Flu Focus* opens with an overview of the season. It goes on to provide information about a number of topical features. These include: letters sent out from the WHO Regional Director for Europe to all Member States to highlight the work of the National Influenza Centres (NIC); a short summary of the annual influenza surveillance meeting, held jointly by WHO/Europe and ECDC, as well as a training provided for NIC staff in the shipment of infectious substances; an update to the *WHO Regional Office for Europe guidance for influenza surveillance*; the publication of recommendations for good practice in pandemic preparedness for NIC; and the final report of the IHR Review Committee. A look at upcoming events and a summary of clinical teleconferences held earlier this year are also provided. This will be the final issue of *Flu Focus* for the 2010/2011 influenza season. The e-magazine will resume circulation at the start of the 2011/2012 season.

We would like to thank the Member States, our partner organization ECDC and the many experts who contribute to the work of WHO/Europe who made this publication possible.

TOPICAL FEATURES

1. Key features of the 2010/2011 influenza season in the WHO European Region (week 40/2010-week 18/2011)

The first influenza season after the pandemic saw mainly co-circulation of the pandemic (H1N1) 2009 virus, together with influenza B, while relatively little seasonal influenza A (H3N2) was detected. The first increases in consultation rates for influenza-like illness (ILI) were reported in western countries in the Region (Spain and United Kingdom) at the end of November 2010. In some western European countries, increased influenza activity coincided with severe winter weather, respiratory syncytial virus circulation and bacterial co-infections among influenza patients, which consequently strained intensive and critical care services. For details on the clinical management of severe influenza during the 2010/2011 season, please see feature 9 in this issue.

Influenza progressed in a west to east fashion across much of Europe this season, as has been seen in previous seasons. Although some countries reported strains on critical care services, the clinical consultation rates in the community as a whole did not exceed those observed in the previous five years in 30 out of 33 countries. The highest consultation rates were observed for children age 0 to 15 years.

Pandemic influenza A (H1N1) 2009 and influenza B co-dominated in the Region. Forty-nine countries in the European Region reported sentinel virus detections from ILI and/or Acute Respiratory Infections (ARI) surveillance. Influenza A peaked in weeks 2-4 and influenza B peaked around weeks 6-7. In week 7 the dominance from influenza A shifted to influenza B. For the whole period, influenza A accounted for 60% of all positive samples. Of these viruses, 92% were subtyped; of these, 92% were pandemic A (H1) 2009 and only 8% were influenza A(H3). The relatively few influenza A (H3N2) viruses detected contrasts with North America where A(H3N2) was the dominant influenza A virus.

During the 2010/2011 season, data from 10 countries performing sentinel surveillance for Severe Acute Respiratory Infections (SARI) in hospitals that met certain criteria¹ were included in the EuroFlu bulletin for the first time, allowing comparisons between data collected from patients with severe disease (SARI) and those with mild disease (ILI/ARI). Increases in influenza activity in the ILI/ARI sentinel

¹ 1) Hospitalized patients meeting a syndromic SARI case definition are routinely monitored, tested for influenza and reported to the national level on a weekly basis from a standard and generally stable number of sentinel hospitals; and 2) There has been consistent weekly reporting of epidemiological and virological data from the sentinel SARI system to the EuroFlu surveillance platform during the 2010/2011 influenza season.

systems were accompanied by increases in SARI. The percentage of sentinel ILI/ARI specimens testing positive for influenza was very similar to sentinel SARI specimens, as was the prevalence of the different co-circulating viruses. From week 40/2010 to week 18/2011, 27% of sentinel SARI specimens tested positive for influenza. At the peak of influenza activity the percentage of positive specimens was higher and ranged between 40 and 59% in seven countries. Of the detected influenza viruses from SARI cases, 57% were influenza A and 43% were influenza B. Of the influenza A viruses, 92% were pandemic A (H1N1) and 8% were influenza A (H3N2).

SARI epidemiological data were generally consistent with virological trends. During the peak of the influenza season, the percent of sentinel SARI specimens that were positive was comparable to what was observed for ILI/ARI and a similar prevalence of influenza A versus B was seen in both SARI and ILI/ARI surveillance. In order to further define the characteristics of severe versus mild disease caused by influenza, it may be necessary to collect virological data by age group and, for SARI cases, analyse virological data for different outcomes (such as requiring only hospitalization or treatment in an intensive care unit or death). Sentinel SARI surveillance is a promising system for monitoring severe disease caused by influenza, as well as risk factors, which would provide timely data on priority groups for vaccination and other interventions to policy makers. Country-level collaborations with WHO/Europe are a priority to further improve data quality.

In addition to influenza type and subtype, countries in the European Region perform detailed analyses of influenza viruses allowing the antigenic and genetic characteristics of influenza virus strains to be monitored so that antigenic drift² can be detected in a timely manner. The antigenic and genetic characterizations performed during the 2010/2011 season showed that the circulating viruses matched well to the viruses used to produce the seasonal influenza vaccine. For the 2011/2012 northern hemisphere influenza season WHO has recommended that the same virus strains that were used during the 2010/2011 season be included in seasonal influenza vaccines³, namely:

- an A/California/7/2009 (H1N1)-like virus (the pandemic (H1N1) 2009 virus);
- an A/Perth/16/2009 (H3N2)-like virus;
- a B/Brisbane/60/2008-like virus (Victoria lineage).

2. Letter from WHO Regional Director for Europe to Member States about the work of the National Influenza Centres (NIC)

As the 2010/2011 influenza season drew to a close, the WHO Regional Director for Europe Zsuzsanna Jakab sent a letter to all Member States with a National Influenza Centre (NIC). This letter emphasized the important contribution that NICs make to influenza prevention and control within Member States. It also provided updated information about how NICs obtain and retain WHO recognition and encouraged NICs in all Member States to send more frequent shipments of viruses to WHO Collaborating Centres. The letters requested that Member States support the NICs in these shipments, through the provision of export permits and by ensuring smooth transitions through customs.

Relevant reference documents:

How to become a WHO-recognized National Influenza Centre: Guidance on the process for influenza laboratories in the WHO European Region:
<http://www.euro.who.int/en/what-we-do/health-topics/diseases-and->

² Antigenic drift is a continuous process among influenza viruses by which small genetic changes can lead to changes in the virus antigens that were used to develop seasonal influenza vaccines. This, in turn, may decrease the effectiveness of the vaccine.

³ http://www.who.int/csr/disease/influenza/recommendations_2011_12north/en/index.html

[conditions/influenza/publications/2010/how-to-become-a-who-recognized-national-influenza-centre-guidance-on-the-process-for-influenza-laboratories-in-the-who-european-region](http://www.who.int/conditions/influenza/publications/2010/how-to-become-a-who-recognized-national-influenza-centre-guidance-on-the-process-for-influenza-laboratories-in-the-who-european-region)

Terms of Reference for National Influenza Centres:
<http://www.who.int/csr/disease/influenza/TORNICs.pdf>

3. Joint WHO Regional Office for Europe/ECDC influenza surveillance meeting and training in shipment of infectious substances

On 7-9 June 2011, the WHO Regional Office for Europe (WHO/Europe) and ECDC held their first joint annual influenza surveillance meeting in Ljubljana, Slovenia. The meeting was opened by Dr Mojca Gruntar Cinc, Director-General of the Public Health Directorate of the Ministry of Health of the Republic of Slovenia. The meeting attracted more than 150 representatives from 50 European Member States, as well as invited speakers from the European Region and from the United States.

The meeting marked the first time that national focal points for influenza had gathered on a regional level since the launch of the WHO/Europe influenza surveillance platform, EuroFlu, and the 2009 pandemic. The three-day programme focused on the 2010-2011 influenza season, which was dominated by the pandemic (H1N1) 2009 virus and influenza B. Recommendations on a wide range of virological and epidemiological subjects were given, particularly with respect to models for the routine surveillance of severe disease caused by influenza. The meeting emphasized the need for WHO/Europe and ECDC to continue to closely coordinate their work in order to make optimal use of resources during a difficult economic climate and to keep seasonal and pandemic influenza high on the agenda.

In closing the meeting, Dr Caroline Brown, head of WHO/Europe's Influenza & Other Respiratory Pathogens programme, together with Professor Angus Nicoll, ECDC's Influenza Programme Head, welcomed proposals to co-organize future joint meetings and working groups to address technical issues. In the meantime, presentations and working group materials have been made available to participants and the full technical report is being prepared.

From 9 to 10 June 2011, WHO staff with IATA-certification also provided training in the shipment of infectious substances for staff from National Influenza Centres. 32 participants from 26 countries passed the test at the end of the training, which means they are certified to ship infectious substances for a 24 month period.

The materials used during the training can be accessed at:
http://www.who.int/ihr/i_s_shipping_training/en/index.html

4. Final report of the IHR Review Committee on the Functioning of the International Health Regulations (2005) in Relation to Pandemic (H1N1) 2009

The Review Committee on the Functioning of the International Health Regulations (IHR) (2005) assessed and identified lessons learned during the global response to the pandemic influenza A (H1N1) 2009 in order to help strengthen the functioning of the IHR, the ongoing global response (including the role of WHO) and preparedness for future pandemics. While operating independently, the Review Committee gathered information from the WHO Secretariat and, through a series of plenary meetings and deliberative sessions at WHO Headquarters (Geneva), developed a report on the review. The report was transmitted by the Director-General to the Sixty-fourth World Health Assembly, where delegates pledged to follow its recommendations and urged WHO to support countries to reach the necessary core capacities required for countries under the Regulations by 2012.

To read the complete text of the final report please visit:
http://apps.who.int/gb/ebwha/pdf_files/WHA64/A64_10-en.pdf

To view the resolution adopting the final report please visit:
http://apps.who.int/gb/ebwha/pdf_files/WHA64/A64_R1-en.pdf

5. Upcoming events

Joint WHO/ECDC European workshops on pandemic preparedness

In September 2011, ECDC and WHO/Europe will hold three joint workshops on pandemic preparedness. The workshops will include participants from most of the Member States in the WHO European Region. The purpose of these workshops is to provide national experts with a broad understanding of the results of the national and international pandemic evaluations and to discuss future needs for revising national pandemic plans, as well as international guidance. The workshops are a continuation of the joint pandemic preparedness activities carried out by ECDC and the WHO Regional Office for Europe in the past few years.

SURVEILLANCE AND LABORATORY

6. EuroFlu bulletin update (week 23, 2011)

Influenza activity in Europe is at out-of-season levels

Influenza activity is at out-of-season levels throughout the European Region. None of the samples collected from sentinel sources was positive for influenza virus. From non-sentinel sources, only two countries (the Russian Federation and the United Kingdom (England)) reported influenza-positive samples, indicating minimal influenza activity in the Region. The viruses characterized to date are similar to those recommended as components of influenza vaccines for use in the 2011-2012 northern hemisphere influenza season.

For more detailed information, please see www.euroflu.org and <http://www.ecdc.europa.eu/en/activities/surveillance/eisn/pages/index.aspx>

7. Updated guidance for influenza surveillance

Recent international mandates and the global experiences with pandemic (H1N1) 2009 virus in human populations call for strengthening influenza surveillance to better target seasonal influenza control programs, to monitor severe disease and to support pandemic preparedness. In order to help surveillance systems in Member States achieve these goals, WHO/Europe has updated the *WHO Regional Office for Europe guidance for influenza surveillance in humans*, originally released in August 2009.

All chapters of the guidance document have been updated to draw on Member State experiences in sentinel surveillance during the past two influenza seasons and pandemic (H1N1) 2009. Several other areas of the document have been strengthened based on a survey of Member States' perspectives on the original document that was undertaken at the WHO/Europe annual surveillance meeting held in Brasov, Romania from 21 to 23 September 2010.

WHO/Europe will continue to work with Member States to identify best practices in influenza surveillance. As they are identified, these concepts will be incorporated into future updates of this document.

For the complete, updated text please visit: <http://www.euro.who.int/en/what-we-do/health-topics/communicable-diseases/influenza/publications/2009/who-regional-office-for-europe-guidance-for-sentinel-influenza-surveillance-in-humans>

Note: The updated Russian translation will also be available at this page, as soon as it is finalized.

PREPAREDNESS AND RESPONSE

8. Clinical Management of Influenza A (H1N1) 2009: the European experience during the 2010/2011 influenza season

During the 2010/2011 northern hemisphere influenza season, severe cases of influenza A (H1N1) 2009 virus infection and related co-morbidities posed clinical management challenges to physicians and healthcare facilities in some countries in the European Region.

In January and February 2011, WHO/Europe held a series of four multi-country clinical teleconferences, organized jointly with ECDC and with support from the Health Protection Agency, United Kingdom. The aim of these teleconferences was to support Member States experiencing critical care service strains in addressing these issues and to facilitate the exchange of information on the clinical management of patients with severe disease due to influenza A (H1N1) 2009, in order to help countries yet to experience increased influenza activity to prepare. Two of the teleconferences provided translation into Russian and clinicians from the majority of WHO/European Member States participated.

During the conference calls, clinicians, clinical experts and public health specialists from a range of health care systems, organizations and research institutes in Germany, Ireland, Spain and the United Kingdom presented their respective experiences with management and information gathering on severe cases. Following these presentations, the Health Protection Agency led question and answer (Q&A) sessions, drawing from questions submitted by participants, which allowed clinicians to discuss and review a series of topics related to case management.

Issues faced by clinicians were related to:

- 1) the use of antiviral, antimicrobial and other supportive drugs;
- 2) the clinical management of specific risk groups (children, pregnant women);
- 3) the use of oxygen therapy in (H1N1) infected patients;
- 4) the use of critical care techniques for the management of influenza A (H1N1) 2009 cases and bacterial infection related co-morbidities;
- 5) measures for infection control; and
- 6) vaccination of pregnant women and other high risk groups.

Participants considered the experience and knowledge shared during these teleconferences very useful. The information derived from the Q&A sessions will therefore be used to inform WHO clinical guideline development in the future. In preparation for the upcoming 2011/2012 influenza season, or during the season as needed, the organization of additional clinical teleconferences will be considered.

We would like to thank all the clinicians and other experts who participated in the conference calls for their valuable contributions.

9. Recommendations for good practice in pandemic preparedness for National Influenza Centres

To assist Member States with the revision of their pandemic plans with respect to laboratory activities after the 2009 influenza H1N1 pandemic, WHO/Europe performed an evaluation of the usefulness of pandemic plans and preparedness activities undertaken by laboratory networks and WHO in the response to the pandemic. Using a systematic approach, National Influenza Centres in six Member

States were interviewed by telephone. Six major themes considered essential to pandemic preparedness for laboratories were identified: communication; coordination/collaboration; capacity; adaptation; leadership; and support. Key issues and recommendations for good practice in pandemic preparedness for National Influenza Centres and WHO were subsequently identified.

WHO/Europe has now published an evaluation report with these recommendations.

The full evaluation can be accessed at the following link:

<http://www.euro.who.int/en/what-we-do/health-topics/communicable-diseases/influenza/publications/2011/recommendations-for-good-practice-in-pandemic-preparedness-for-national-influenza-centres>

OTHER

10. Useful links and resources:

WHO/Europe influenza website

<http://www.euro.who.int/influenza>

WHO/Europe Vaccine-preventable diseases and immunization

<http://www.euro.who.int/vaccine>

WHO headquarters Immunization, vaccines and biologicals

<http://www.who.int/immunization/en/>

WHO headquarters influenza site

<http://www.who.int/csr/disease/influenza/en/>

European Centre for Disease Prevention and Control (ECDC) influenza site

<http://www.ecdc.europa.eu/en/healthtopics/influenza/Pages/index.aspx>

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