



# Influenza

INFORMATION AND NEWS ON INFLUENZA

## EDITORIAL

In fulfilling its mission, ESWI has always considered one of its major tasks to support, co-organise and participate in World Health Organization (WHO) activities seeking the control of influenza. The meeting in Tokyo in June 2000 of a group of WHO-affiliated, leading international influenza experts was a good example. It resulted in the first global recommendations for the prevention of annually recurring influenza with inactivated vaccines and other preventative measures, including live attenuated vaccines and antiviral agents. Similar to the WHO's 'pandemic preparedness plan', in which ESWI played a major role, the global recommendations were prepared to assist national public health authorities to plan or update programmes for influenza prevention and to provide advice for various organisations participating in influenza control programmes. At the Tokyo meeting it was also realised that, although the current WHO network for the surveillance of influenza is unique and a good example for the surveillance of other infectious diseases, it needs even broader participation. This is especially true for developing countries, where influenza is not often considered among the health priorities, but their participation should be further encouraged. Of course ESWI activities will mainly focus on Europe, where there is still much work to be done. However, sharing the ESWI experience and encouraging fledgling influenza surveillance groups to participate in ESWI activities will be mutually beneficial.

The growing awareness of influenza as an annually recurring problem and also

a pandemic threat, was probably best illustrated by the unprecedented success of the ESWI-organised 'Options for the Control of Influenza IV' meeting that took place in Crete in September 2000. With the participation of more than 900 scientists, it brought together the virtually entire influenza research community and presentations covered all basic and applied research on influenza at the level of the virus, the host and the community. At the meeting, the first ESWI research grant was awarded to Dr T. Heikkinen, for research on 'The burden of influenza in children'. This initiative is now followed by a new call by ESWI for scientific project proposals to be initiated in 2001.

The most important reasons for the growing interest in influenza are probably increased awareness following the 1997 pandemic threat of the 'chicken flu' in Hong Kong, and the advent of neuraminidase inhibitors as a new generation of rationally designed influenza-specific antiviral agents. The latter provide a welcome adjunct to preventative vaccination. The introduction of these new drugs not only raised public and scientific discussions about their future role in the combat against influenza, but also significantly boosted existing influenza awareness campaigns. ESWI's important role in increasing awareness and debate has focused on participation, stimulation and provision of, whenever possible, the appropriate scientific background information and advice. In doing this, ESWI hopes to keep the problem of influenza in the public and scientific limelight to maintain interest in the disease.

With the increasing number of activities and the growing number of sponsors, an important issue for ESWI in the coming year is to extend the group of ESWI members. This is to obtain an even wider representation of scientists from all relevant areas of research into and treatment of influenza. Steps are currently being taken to make this happen.

A.D.M.E. Osterhaus  
Chair, ESWI

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## INFLUENZA VACCINE STRAINS FOR THE 2001–2002 SEASON

Twice a year, the WHO convenes a meeting of influenza experts to make recommendations for influenza vaccine composition. The recommendations are made in February for Northern Hemisphere vaccines and in September for Southern Hemisphere vaccines. The following report is a summary of the data reviewed by the WHO at the February 2001 meeting [1].

### Influenza activity October 2000–February 2001

Influenza A (H1N1) viruses circulated widely and were associated with outbreaks in the Northern Hemisphere. Most isolates were antigenically similar to the previous vaccine strain, A/New Caledonia/20/99.

Influenza A (H3N2) viruses were isolated sporadically in several countries. Most of the strains were antigenically similar to A/Moscow/10/99 and the previous vaccine strain A/Panama/2007/99.

Influenza B viruses also circulated widely. Most isolates could be distinguished from the previous Northern Hemisphere vaccine strain B/Yamanashi/166/98 and were antigenically similar to B/Sichuan/379/99.

### Vaccine studies

Vaccines containing A/New Caledonia/20/99 (H1N1), A/Panama/2007/99 (H3N2) and B/Yamanashi/166/98 strains stimulated satisfactory antibody responses to recent influenza A (H1N1) and A (H3N2) strains, but antibody responses to B/Sichuan/379/99-like strains were lower in titre and frequency than responses to the influenza B vaccine strain.

### Vaccine composition

The WHO recommended that the following influenza strains are included in Northern Hemisphere vaccines for use in 2001–2002:

- an A/New Caledonia/20/99 (H1N1)-like strain

- an A/Moscow/10/99 (H3N2)-like strain\*
- a B/Sichuan/379/99-like strain.†

As usual, vaccine strain composition is subject to approval by national or regional authorities.

J.M. Wood

National Institute for Biological Standards and Control  
Potters Bar, UK

\* A/Panama/2007/99 is a widely used A/Moscow/10/99-like vaccine strain

† B/Johannesburg/5/99 and B/Victoria/504/2000 are B/Sichuan/379/99-like viruses, which have been used for vaccine production

### Reference

1. Recommended composition of influenza virus vaccine for use in the 2001–2002 season. *Wkly Epidemiol Rec* 2001; 76: 49–56.

## ESWI TRAINING COURSE ON LABORATORY METHODS FOR INFLUENZA DIAGNOSIS

The first ESWI training course on basic laboratory methods for influenza diagnosis took place from 17–21 July 2000 at the Pasteur Institute in Paris. A total of 17 participants from national influenza centres in a variety of European countries attended the course, nine of whom were awarded an ESWI scholarship. These included participants from Norway, Iceland, Belgium, Slovak Republic, Czech Republic, Poland, Bulgaria, Romania, Republic of Belarus, Ukraine, Latvia, Spain, Italy, Yugoslavia, Croatia and Tunisia.

The aim of the course was to provide a practical overview of basic laboratory methods and their role in influenza surveillance in national influenza centres and corresponding influenza diagnostic laboratories. Practical sessions included rapid detection methods (ELISA and immunofluorescence), isolation of influenza virus both in embryonated

eggs and in Madin Darby canine kidney (MDCK) cells, methods of virus titration (haemagglutination, limiting dilution and plaque assays) and identification of influenza virus by the haemagglutination inhibition (HI) test. For serological analyses, HI tests, microneutralisation tests and immunoglobulin IgG or IgM detection by ELISA were performed.

The course also included a series of lectures given by ESWI members and WHO representatives. Topics included basic aspects of virus structure and replication, evolution and ecology of influenza viruses as well as topics relating to the disease, immune response to influenza and its control using vaccines or antiviral agents. Also, a large section was dedicated to aspects of influenza surveillance, including global influenza surveillance and pandemic planning.

Despite a very tight and intensive schedule the mood of the course was

extremely positive. It provided a unique opportunity to compare and discuss the variety of surveillance systems, approaches and methodologies in use in different countries. Material was provided to help participants implement new methods, for instance, virus isolation, in their laboratories. The course also allowed the development of new connections between different influenza surveillance networks, exemplified by the fact that several participants subsequently joined the Eurogrog network.

Based on this first course, it is hoped that support from ESWI will enable other courses either on basic or more advanced methods of influenza diagnosis to be organised in the future.

S. van der Werf  
l'Institut Pasteur  
Paris, France

## THE 'TEACHING IMMUNIZATION FOR MEDICAL EDUCATION (TIME)' PROJECT

As part of national initiatives to improve provision of immunisation in the US, the 'Teaching Immunization for Medical Education (TIME)' project was undertaken in the 1990s through a co-operative agreement between the Centers for Disease Control and Prevention (CDC), the Association of Teachers of Preventive Medicine (ATPM) and several academic health centres. Interactive, case-based learning materials specific to major childhood and adult diseases preventable by vaccination, including influenza, were developed, field-tested, and disseminated under the auspices of the ATPM.

A panel of educators, clinicians and influenza experts developed a set of influenza learning objectives and used these as a guide to develop cases, scenarios and reading resources to facilitate student self-directed learning. Many types of scenario were developed, each accompanied by points relating to influenza and its prevention, as well as barriers to and opportunities for the appropriate delivery of influenza vaccine. The scenarios specifically involve patients and populations requiring influenza vaccination in a variety of

familiar settings, including office practice, hospital and nursing home. Learning objectives focus on the clinical and epidemiological impact of influenza, effectiveness of influenza vaccination, indications or contraindications for influenza vaccination, and strategies to enhance the use of vaccination. Reading resources for faculty and student use include the current comprehensive Recommendations for Influenza Prevention and Control from the US Public Health Service Advisory Committee on Immunization Practices (ACIP) and selected published articles.

The materials have been formatted in two case-based modes for students and house officers (namely the Problem Based Learning and Multistation Clinical Teaching Scenarios) as well as a self-instruction format for clinician continuing medical education. Student materials have been adapted for use in a variety of large and small teaching group situations in preclinical and clinical courses.

Field testing of the case-based teaching materials involving 101 medical students and 104 house officers documented a

significant ( $p < 0.01$ ) increase in knowledge and attitude regarding influenza and its prevention among both groups. Faculty users gave the material consistently strong evaluation ratings.

W.H. Barker

Chairman, Professional Advisory Board for TIME project  
University of Rochester (NY) School of Medicine, USA

### References

1. Barker W, Brugliera P, Strikas R, editors. Immunization in Medical Education Project. *Am J Prev Med* 1994; 10 (Suppl 1): 1–94.
2. Zimmerman RK, Barker WH, Strikas RA, et al. Developing curricula to promote preventive medicine skills: the Teaching Immunization for Medical Education (TIME) Project. *JAMA* 1997; 278: 705–711.

(Information on TIME project materials, including influenza modules, is available at the ATPM website, <http://www.atpm.org>)

## THE FUTURE OF INFLUENZA BULLETIN: RESULTS OF A QUESTIONNAIRE

ESWI added a questionnaire to the most recent issue of *Influenza* bulletin to enquire whether readers would prefer to continue to receive the printed version of the bulletin or simply a notice to inform them of when the newest version is available on the ESWI website.

Fifty-three percent of readers think it would be sufficient to be informed whenever a new issue of the bulletin becomes available on the ESWI website. In the extra comments received, many readers noted that an e-mail message would suffice while some wanted to know if they would be able to print the bulletin from the internet and if previous issues would remain on the site for a long time. At present, it is possible to print pages of the bulletin from the internet. Another suggestion

was to insert a contents table on the internet version of the bulletin, so that readers could immediately go to articles of interest. Such a contents table is already present on our website. Readers also noted that the bulletin would be distributed faster in this manner.

Fewer (44%) readers would still prefer to receive a printed version of the bulletin. Not all countries have the appropriate equipment or personal computers to gain access to the internet, or would find it more convenient to receive the printed version because several people in their company or institution read it. Another interesting remark was that there is already too much information on the internet, and that they might forget to read the bulletin if it was only available there.

The ESWI Executive Committee examined all results (unfortunately, 3% of the votes were unclear) and decided to

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continue to send out the printed version of the bulletin. In addition, all bulletins, including previous issues, can be found on the ESWI website at [www.eswi.org](http://www.eswi.org) for the present time.

We would like to thank our readers for the great response to our questionnaire.

## OPTIONS FOR THE CONTROL OF INFLUENZA IV: CONFERENCE REPORT

The 'Options for the Control of Influenza IV' meeting opened on September 23 at the Royal Knossos Hotel in Hersonissos, Crete. This was a continuation of the series started in 1985 at Keystone, Colorado, USA, followed by Options II in Courchevel, France in 1992 and Options III in Cairns, Australia in 1996. The meeting took ESWI's Organising and Scientific Committees 4 years to prepare, with assistance from Biomedica, Paris.

Previous meetings were instrumental in bringing together influenza scientists and public health decision-makers from all over the world to share their latest information and ideas with peers. This has clearly contributed to many positive developments in this field. The Options IV meeting was attended by over 1200 people, including 966 active participants, plus around 200 delegates and staff from exhibiting and sponsoring companies.

The 4 years prior to the Options IV meeting was an active period in the field of influenza. During this time, surveillance networks were extended, additional evidence was demonstrated for the usefulness and cost effectiveness of vaccines, new data were collected on the structure of influenza virus components using modern techniques, including the determination of several gene sequences from the 1918 'Spanish' influenza pandemic virus. Also, a new class of specific antiviral drugs was introduced and there was a narrow escape from a new H5N1 pandemic in Hong Kong in 1997. All these aspects were presented, commented upon and discussed at length during the Crete meeting, along with many other topics concerning basic research in molecular biology, immunology, applied research and public health.

Influenza surveillance efforts by the WHO, initiated 50 years ago, have resulted in an improved status of the Global Influenza Surveillance System, the presentation of the recent 'WHO plan for influenza pandemic' and the first formal 'WHO global

recommendations for the prevention of influenza'. Other pursuits include plans for stimulating international activities in the field of influenza.

WHO global recommendations for the prevention of influenza are designed to help countries adapt their own policies to their economic situations and technical abilities. These recommendations have the limited goal of reducing the incidence of severe clinical forms of disease and premature deaths, and follow

*Previous meetings were instrumental in bringing together influenza scientists and public health decision-makers . . .*

the principle that vaccination cannot prevent the appearance and development of epidemics. The recommendations deal with presently available, inactivated vaccines and describe their composition, standardisation, and policy for use under several conditions to provide optimal efficacy and safety. Specific recommendations exist for countries with vaccine action plans (the so-called classical high-risk policy) and others for countries or populations without a specific programme, for instance developing countries, residents in institutions, national priorities, vulnerable subjects such as refugees, pilgrims and those in situations of natural disasters. These recommendations have been published in Vaccine and WHO bulletin.

The objectives of the WHO guidelines for the 'pandemic preparedness plan' are to reduce the spread of disease, lessen its impact and prevent panic in the population. It is recognised that a pandemic is possible at any time since the precursor donor viruses are present in birds that exist in close proximity to people. Early detection of new recombinants as well as their evaluation in terms of potential danger is now possible. Being prepared to activate multidisciplinary international and

national pandemic plans is essential and examples of such plans in New Zealand, Singapore and the US were presented. Increased knowledge of viral structure and biology are also essential to provide further medicines and protocols for the prevention and treatment of disease. These recommendations can be viewed on the WHO internet site ([www.WHO.int/emc-documents/influenza/whocdscsredc991c.html](http://www.WHO.int/emc-documents/influenza/whocdscsredc991c.html)).

Many contributions were devoted to currently available vaccines as well as those in development. A large number described the results of attempts to improve on the efficacy of current vaccines using various adjuvants (oil emulsions, liposomes and bacterial toxins). Other interesting presentations discussed results of trials involving novel, live attenuated vaccines, which are already licensed in some countries. The organisation of emergency production of vaccines and the difficulties that might be encountered in the timely response to a pandemic were also described and discussed.

Several other sessions were devoted to the recent introduction of a new class of antiviral agents, the anti-neuraminidase compounds. The main issues of these presentations were the evaluation of curative and prophylactic efficacies of these drugs in different individuals, e.g. the elderly, children and high-risk patients. Also discussed were the strict conditions of their use, such as in identified influenza epidemics and in the early treatment of disease; and the risks and potential mechanisms of acquired viral resistance to these agents.

A number of satellite symposia took place around the main meeting, and were organised by different groups or companies, and an exhibition gave the opportunity for data on antiviral products to be presented.

The Options IV meeting was slightly different from others in the series due to a greater participation of pharmaceutical companies. The field of influenza has

broadened through the introduction of new anti-influenza drugs and extension of vaccination procedures, stimulating new scientific efforts to improve and renew vaccine principles. Although this evolution has important scientific and commercial consequences, the distribution and balance of topics between pure, fundamental research and the broad field of therapeutic or prophylactic investigation must be carefully controlled in future meetings to maintain the interest of influenza scientists and public health decision-makers.

Daily reports of the conference were made available both locally and remotely the following morning on ESWI's internet site. Reports can still

be viewed on [www.eswi.org/events/options.html](http://www.eswi.org/events/options.html). Summaries of posters were distributed at the meeting with

*. . . influenza continues to plague mankind and the threat of a pandemic is ever present.*

the abstract book. Elsevier will publish full proceedings of plenary sessions and workshops in the form of a 700-page book. This will be sent to all participants before spring 2001.

As stated in the introduction to the Crete meeting, regardless of our

progress during the 20th century, influenza continues to plague mankind and the threat of a pandemic is ever present. It is imperative that we continue our research in this field and apply our findings to disease prevention and control.

The next conference in the series is expected to be held in 2004, possibly in Japan. Influenza scientists will certainly work hard until then to collect more results, contributing to new developments and the goal of minimising the impact of influenza in the new millennium.

C. Hannoun  
ESWI Editorial Board

## 100 YEARS OF INFLUENZA: ILLUSTRATING UK ACTIVITY IN THE 20TH CENTURY

Although influenza pandemics have been described over many centuries, it is only in the 20th century that tools have been available to monitor the impact of this disease. Influenza virus activity occurs every winter in the UK, as it does in many other countries. The characteristics of the viruses, however, differ each year and vary with respect to the extent of disease spread, clinical severity and epidemiological impact.

Influenza virus activity and its impact are monitored in the UK using a range of clinical, epidemiological and virological indices. A comparison is regularly made with equivalent data in previous years. Some of these data (such as weekly mortality figures) span 100 years or more. Other data such as laboratory reports of influenza virus infections, or weekly estimates of consultation rates with general practitioners for influenza-like illnesses, are available from the mid-20th century. Modern computer databases make it possible to collate these data and provide a flexible tool for their analysis.

The concept of a 'frieze' was developed as a way of displaying the various indices of influenza activity over time.

The opportunity to turn the concept into a reality was provided by an

invitation to display such a frieze at the 'Options for the Control of Influenza IV' conference in Crete in September 2000. To develop the frieze, an enthusiastic team was assembled at the PHLS Colindale (London) campus from the staff of the National Influenza Laboratory of the PHLS Central Public Health Laboratory and the Respiratory Division of the Communicable Disease Surveillance Centre. New ideas were generated within the team and additional, unique historical material was kindly supplied by colleagues involved in influenza research.

A final format of a poster, 12 metres long and 1 metre high, with 12 individual panels providing graphical and photographic continuity of data was eventually settled upon.

Each influenza activity is put into context listing references for seminal scientific advances in influenza virology, epidemiology and control; statements of national policy on control and prevention of influenza; and contemporary press cuttings to give an insight to the response of the public and press to influenza epidemics.

Illustrated information includes an introduction to surveillance of influenza prior to 1918 and a chronicle of

influenza activity in the UK during the century. Also included is the future potential of recent developments in general medicine and the study of influenza in particular, for better diagnosis, treatment, prevention and control of this major public health problem.

We have been greatly encouraged by the enthusiasm displayed for the frieze from all quarters of the influenza world. As a result, we are now exploring ways of making the frieze and the detailed information contained in it, more widely accessible as a visual and historical resource.

J.M. Watson, M. Zambon  
on behalf of a PHLS team  
London, UK

### Acknowledgements

A special thanks to all members of the PHLS team who contributed ideas and much time to putting the poster together, and to Jon White of the PHLS Medical Illustration Department for his superb work. We are grateful to all our colleagues who contributed material and to ESWI for financial support towards materials and copyright fees.

## THE BURDEN OF INFLUENZA IN CHILDREN

Several studies have indicated that incidence rates of influenza are highest in children, with transmission occurring easily because of close contact in day care centres and schools. Compared with adults, the extent and duration of viral shedding are more prominent in children, who are considered the main disseminators of influenza viruses in the community. Acute otitis media and pneumonia are the most common bacterial complications of influenza in children, but occasionally more severe manifestations such as encephalitis, severe viral pneumonia, or myocarditis are seen.

Little information is currently available on the total burden of influenza in children. Although excess hospitalisation rates have been demonstrated during influenza epidemics, hospitalised children represent only a small proportion of the total impact that influenza has on children in the community. The vast majority of children with influenza are treated as outpatients who may not even be seen by a physician, and will not be diagnosed with influenza. These undiagnosed cases may account for the majority of the total impact of influenza on children, including direct and indirect costs to families and society. For example, a recent report indicated that each single attack of acute otitis media costs \$228, and the average annual cost of otitis media is \$1040 for every child below the age of 2.

It is debatable whether children should be routinely vaccinated against influenza since the cost-effectiveness of a potential intervention introduced on a large scale must be demonstrated. In this respect, a limitation of many studies investigating the impact of influenza is that conclusions are based on epidemiological surveillance data rather than individual viral aetiology. Even during influenza epidemics, several other viruses – most importantly respiratory syncytial viruses (RSV) – also circulate in the community. Consequently, there remains considerable uncertainty whether influenza is responsible for all the excess morbidity attributed to it.

The current project was designed to provide a substantial amount of new convincing evidence for the total burden of influenza in children. The work is a collaboration between the Department of Pediatrics of Turku University Hospital and the Department of Virology at the city's university. The project consists of two separate studies:

- 1) a retrospective analysis of excess child outpatient visits, hospitalisations, and day care absenteeism due to influenza during 1980–1999, and
- 2) a prospective cohort study of approximately 1600 children throughout a winter season, including frequent clinical examinations and determination of the viral aetiology of each infectious episode.

The retrospective study will provide epidemiological evidence for the impact of influenza. Compared with many previous studies in which conclusions were hampered by cocirculation of RSV, the main strength of this study is the alternating 2-year pattern of RSV epidemics

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in Finland, which allows determination of the effect of influenza alone. Data on study outcomes will be derived from the largest paediatric group practice and main health care centres in Turku, day care authorities in the city, and Turku University Hospital.

The design of the prospective study is unique in that it involves a large, pre-enrolled cohort of normal children in different age groups who will be carefully followed during the whole respiratory season. The study is being carried out at the Department of Pediatrics, Turku University Hospital, where a separate ambulatory clinic has been set up. During each episode of respiratory

infection, children will be examined in the clinic. Study physicians will give special attention to diagnosing acute otitis media and other bacterial complications. Children will be re-examined until signs and symptoms of the infection are resolved. During each episode of respiratory infection, a nasopharyngeal specimen is obtained to determine the viral aetiology of the infection. Specimens are subjected to extensive viral diagnostic methods, including culture, antigen detection, and polymerase chain reaction (PCR)-based assays. In addition, parents will complete daily symptom cards containing detailed questions on the child's symptoms, symptoms of other family members, and absences of the child or any other family member from day care, school or work.

The prospective study was started at the beginning of the respiratory season in early October 2000. A total of 1595 children (approximately 500 children in each of three age groups: <3 years, 3–6 years, and 7–12 years) were enrolled. The study will continue throughout the winter season and is scheduled to finish at the end of May 2001.

The prospective study will allow a direct link to be made between any clinical or economic outcome with a particular respiratory virus. The study will provide reliable population-based data on the rates of symptomatic influenza infection and associated complications, antibiotic use, hospitalisation rates, and absenteeism from day care or school due to influenza. Pharmacoeconomic data can be generated from this information, which are essential for developing effective strategies to decrease the burden of influenza in the community.

The study is funded in part by ESWI and we are very grateful for their invaluable support.

**T. Heikkinen**  
Department of Pediatrics  
Turku University Hospital  
Turku, Finland

## WHO RECOMMENDATIONS FOR THE PREVENTION OF INFLUENZA

WHO recommendations for the prevention of influenza were prepared to assist national public health authorities to plan or update annual programmes for influenza prevention and provide advice to organisations participating in control programmes. These were published in the *Wkly Epidemiol Rec* 2000; 75: 281–288 and are available at <http://www.who.int/wer/pdf/2000/wer7535.pdf>.

The primary objective is to reduce the incidence of severe illness and premature deaths in those at increased risk of severe disease and consequently reduce the need for specialised health care services and pharmaceutical supplies.

### Use of inactivated vaccines

Many national programmes for the control of priority diseases are based upon reliable data on the seasonal occurrence of influenza, its impact and effectiveness of influenza control measures. In such countries, the following groups are usually targeted for vaccination:

- residents of institutions for the elderly or the disabled
- elderly non-institutionalised individuals with one or more of the following chronic conditions – chronic cardiovascular, pulmonary, metabolic or renal disease or who are immunocompromised
- adults and children aged >6 months in the community who have chronic cardiovascular, pulmonary, metabolic or renal disease, or who are immunocompromised
- those who are above a nationally defined age limit (usually >65 years) irrespective of their medical risk status
- other groups defined on the basis of national data.

Also targeted are those with regular, frequent contact with high-risk persons such as:

- health care workers
- household contacts.

Not all countries, however, have extensive knowledge of influenza, or the

resources to implement a high level of preventative measures. In such cases, priority should be given to residents of institutions for the elderly and disabled. As resources become available, countries should sequentially add other groups, as listed above, but modified according to national priorities.

Antiviral agents should not replace vaccines as the primary preventative measure against influenza, but may be recommended in some situations as an adjunct to vaccination.

Separate national recommendations for response to influenza pandemics are needed. However, annual recommendations for the prevention of influenza will provide a foundation for national pandemic planning efforts and improve the co-ordination of responses to a pandemic.

**D. Lavanchy**  
Communicable Diseases Surveillance and Response (CSR), WHO, Geneva, Switzerland

## A EUROPEAN INFLUENZA SOCIETY: RESULTS OF A SURVEY

Following discussions over many years among ESWI members, it was decided to canvass the wider opinion of an influenza society – an independent scientific organisation based in Europe with members working on any aspect of influenza.

The overall aim of the society would be to contribute to reducing the morbidity and mortality resulting from influenza. The role of other respiratory viruses in an influenza society was also investigated. Although a European society is initially proposed, such a society should be truly global in outlook, eventually merging with groups elsewhere to form a global society.

A questionnaire was distributed to those who work in Europe and who attended the 'Options for the Control of Influenza IV' meeting, which was held in Crete in September 2000. The

questionnaire was completed by 54 people.

Of the responders, 85% believed there was a need for such a society. While only 39% believed the society's viability would be to cover influenza alone, 65% thought other respiratory viruses could be included. Most (80%) believed that the society should be open to all those working in the field of influenza in Europe.

Three-quarters felt that the society should organise regular scientific meetings, that it should act as a focus for communication and collaboration for all those working on influenza and that it should promote research into influenza prevention and control. About two-thirds of responders thought it should establish a bulletin or scientific journal and develop standard guidance on influenza prevention and control.

The very positive response has encouraged ESWI to take steps toward proposing the development of a European Influenza Society. Membership to the society would be open to all, including those outside Europe. Influenza would be retained as a major focus of its activities but would also include all other respiratory viral infections. Once a detailed proposal has been agreed, the society will be launched with every effort to involve all those concerned with influenza work in Europe and elsewhere.

If you are interested in contributing to the development of the society, please contact the ESWI secretariat via the ESWI e-mail address. A copy of the questionnaire and the results are available on request from the ESWI secretariat.

**J.M. Watson**  
on behalf of the members of ESWI

## CALENDAR OF EVENTS

DATE/VENUE	TITLE	ORGANISER/SECRETARIAT
1-4 April 2001 Istanbul, Turkey	11th European Congress of Clinical Microbiology and Infectious Diseases	AKM AG Clarastrasse 57 P.O. Box CH-4005 Basel, Switzerland Tel: +41 61 686 77 77 Fax: +41 61 686 77 88
25-26 April 2001 London, UK	The Origin and Control of Pandemic Influenza	Royal Society 6 Carlton House Terrace London, SW1Y 5AG UK Tel: +44 207 839 5561 Fax: +44 207 930 2170
27-31 May 2001 Innsbruck, Austria	7th Conference of the International Society of Travel Medicine	Department of Infectious Diseases and Tropical Medicine Section of International Health Mrs Karine Imbert Georgenstrasse 5 D-80799 Munich, Germany Tel: +49 89 2180 3830 Fax: +49 89 3360 38
2-5 September 2001 Lahti, Finland	5th Annual Meeting of the European Society for Clinical Virology	Carl-Henrik von Bonsdorff Haartman Institute Department of Virology P.O. Box 21, FIN-00014 Helsinki, Finland Tel: +358 9 1912 6506 Fax: +358 9 1912 6491
5-12 September 2001 Leuven, Belgium	7th European Workshop on Virus Evolution and Molecular Epidemiology	Anne-Mieke Vandamme AIDS Research Unit Rega Institute and University Hospitals Minderbroedersstraat 10 B-3000 Leuven Belgium Tel: +32 16 332160 Fax: +32 16 332131
30 September- 3 October 2001 Segovia, Spain	RSV after 45 years	Centro Nacional De Biologia Fundamental Crta. Majadahonda-Pozuelo Km 2, 28220-Majadahonda Madrid, Spain Tel: +34 91 509 7941 Fax: +34 91 509 7919
30 November- 2 December 2001 Curacao, Antilles	IV International Symposium on Respiratory Viral Infections	The Macrae Group 230 East 79th Street Suite 8E New York, NY 10021 USA Tel: +1 212 988 7732 Fax: +1 212 717 1222

### INFLUENZA BULLETIN

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Potters Bar, UK

#### SENIOR MEMBERS

Professor C. Hannoun  
Montrouge, France

Professor G.J. Ligthart  
Amsterdam, The Netherlands

Professor C. Scholtissek  
Giessen, Germany

Dr B. Tůmová  
Prague, Czech Republic

#### ADVISERS

Dr A.P. Kendal  
Atlanta, USA

Dr D. Lavanchy  
Geneva, Switzerland

Dr A.M. Palache  
Weesp, The Netherlands