



## EDITORIAL

The 20th edition of ESWI's Influenza Bulletin is published on the eve of the Second European Influenza Conference in Malta. The conference, of course, covers all relevant scientific disciplines and focuses on new and state-of-the-art developments in the influenza field. The Organising Committee has gone to great lengths to have new and unpublished data presented at the meeting. Yet, in many ways, the conference is not a traditional scientific congress, as its concept has been designed to maximise the return in terms of communication. First of all, based on the irrefutable fact that the fight against the impact of influenza on society is a responsibility shared by many different parties, government representatives and opinion leaders in healthcare have been invited to attend tailor-made sessions. Obviously, the development of pandemic preparedness plans is the responsibility of national European governments. However, few countries have their plans ready, one of the possible reasons being that information about influenza is not always straightforward and relevant to governmental authorities. Healthcare workers are therefore confronted with a multitude of confusing messages. However, they are a patient's first point of contact and hence they need to know every detail concerning the disease. The dissemination of clear and unambiguous

information to these groups is therefore one of the main objectives of ESWI's Second European Influenza Conference. Secondly, proceedings of the conference will be available in a new format. A special issue of *Vaccine* will include reports of the government and healthcare sessions, a section for young scientists, 'traditional' reviews and selected scientific hot topics. In this way, the proceedings will prove an excellent communication tool to mark the conference as an event.

Thanks to the excellent conference programme, the collaboration of renowned chairpersons and speakers, the innovative conference concept and the World Health Organization's explicit appreciation, the Second European Influenza Conference promises to be a successful and very valuable influenza meeting. At the same time, it will be a milestone in the history of ESWI. In the months preceding the conference, ESWI members and advisers have rethought the organisation's policy plan in order to be able to face the challenges in an expanding and culturally changing Europe. From 14 September 2005 onwards, ESWI actions and activities will all fit in the framework of the new strategic objective, which is 'To reduce the impact of epidemic and pandemic

influenza in the European population by identifying and communicating with stakeholders and by facilitating interactions between them'.

A.D.M.E. OSTERHAUS  
*Chair, ESWI*

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## APACI: MISSION AND OBJECTIVES

The Asia-Pacific Advisory Committee on Influenza (APACI) was established in early 2002 to address issues relating to influenza awareness education and the poorly understood impact of the disease in Asia. While influenza awareness programmes were

established in Australasia during the 1990s, few other countries in the Asia-Pacific region had influenza control guidelines or policies, or were routinely using the influenza vaccine. It became clear that a coordinated approach to the promotion of influenza awareness was

needed in this region. APACI's membership includes members, associate members, sponsors and advisers. Members and associate members are influenza researchers, public

*(Continued on page 2)*

health officials and infectious disease experts from countries in the Asia-Pacific region. Original member countries included Hong Kong, New Zealand, Australia, China, South Korea, Malaysia, Taiwan, Singapore, Thailand and the Philippines. India and Indonesia joined in 2004, and Vietnam in 2005. The committee is a joint initiative, supported by four pharmaceutical companies: Sanofi Pasteur, Chiron Vaccines, GlaxoSmithKline and Roche (from 2005) and is coordinated by a professional secretariat.

### Mission statement

To promote influenza awareness in the Asia-Pacific region, with the intent to improve the prevention and control of influenza.

### Objectives

- 1) To identify and develop activities that complement the World Health Organization (WHO) Global Agenda on Influenza Surveillance and Control.
- 2) To assist in the development of country-specific public awareness programmes.
- 3) To promote influenza awareness among healthcare professionals in the region.
- 4) To provide educational resources to support influenza awareness activities.
- 5) To assist in the process of establishing or reviewing country-specific recommendations for influenza prevention and control.
- 6) To facilitate the timely access to, and supply of, influenza vaccines and antiviral agents.

### APACI activities

The activities of the APACI are aligned with, and supplemental to, the WHO's activities for the global control of influenza. Two APACI meetings are held each year, each time in a different Asian country. Advisers, often members of the WHO Global Influenza Programme, are invited to contribute current information on various aspects of influenza and to participate in Committee discussion and planning, which also includes country-specific discussions and the spawning of 'local APACI' organisations. A recent success of this approach has been the formation of The Influenza Foundation of Thailand in August 2004. At the Foundation's second meeting in Chiang Mai in March 2005, the development of human influenza immunisation guidelines for Thailand were initiated.

Whenever possible, APACI meetings are held in association with an International or National Conference. At the April 2004 APACI meeting held in the Philippines, the *APACI Consensus Statement on Paediatric Influenza Immunisation* was presented at a plenary session within the 41st Annual Convention of the Philippine Pediatric Society.

Communication within the region is facilitated by the newsletter entitled *Influenza: Asian Focus*, which is published twice each year. *Influenza: Asian Focus* carries articles by APACI members and advisers with the objective of providing timely information on influenza-related activities in Asia. APACI resources will be more widely available later

in 2005 when APACI goes online with the establishment of a website ([www.apaciflu.com](http://www.apaciflu.com)). *Influenza: Asian Focus* will be available electronically on the site, together with an APACI slide kit and other educational resources to support influenza awareness activities.

In the future, APACI intends to further develop its communication strategy, providing influenza-related information for the general public, the media, primary healthcare physicians and infectious disease specialists in the Asia-Pacific region.

### Acknowledgements

Members of the Asia-Pacific Advisory Committee on Influenza (APACI): Chan P (Hong Kong, China), Jennings LC (Chair: New Zealand), Gatchalian S (Philippines), Huang LM (Taiwan), Isahak I (Malaysia), Ling AE (Vice-Chair: Singapore), Kim WJ (Korea), Kartasasmita C (Indonesia), Thongcharoen P (Thailand), Smith D (Australia), Villa L (Philippines), Wang JR (Taiwan), Xiao D (China), Kant L (India), Hanh N (Vietnam).

L.C. JENNINGS for APACI  
 Canterbury Health Laboratories.  
 Christchurch Hospital  
 Christchurch, New Zealand

## ANNUAL INFLUENZA VACCINATION: 'HOSKINS' PARADOX', MATHEMATICAL ARTEFACT, AND REAL BENEFITS

In 1979, Hoskins *et al.* published a statement, which has caused considerable controversy ever since: '... annual revaccination with inactivated influenza-A vaccine confers no long-term advantage' [1]. The statement was based on clinical observations in a semi-closed community of 375 adolescent boarding school pupils followed for a couple of years (with or without annual vaccination; vaccine allocation not at random) until an outbreak of the A/Victoria/3/75 (H3N2) strain in the 1975/76 winter season.

In that season, boys who had neither received any vaccine nor developed influenza in previous seasons had the same incidence of influenza (i.e., laboratory-confirmed influenza-like illness [ILI]) as those boys who had received one of the various vaccination regimens during the preceding years. However, the boys in the 'multi-vaccination' groups were not consistently vaccinated every year (their vaccination regimens showed unexplained gaps) and there was no 'first-time vaccination' group for comparison.

Moreover, in the autumn preceding the A/Victoria outbreak, the vaccine that the immunised boys received contained older influenza A strains, which did not offer optimal protection against A/Victoria.

Thus, Hoskins' Paradox is essentially a problem of vaccine mismatch and inconsistent study design [2,3]. Even if it was a true phenomenon, it would refer to fairly harmless respiratory infections in otherwise healthy adolescents and would warrant confirmation

in the chronically ill and the elderly, who may develop life-threatening conditions after influenza infection. But subsequent studies utilising appropriate design and without vaccine mismatch could not reproduce Hoskins' Paradox in large numbers of vaccinees of various age classes (see Table).

In serological and field trials, the effect of repeated vaccination was not unfavourable: pooled protection rates in multiple and first-time vaccination groups were virtually the same. Endpoints in these studies were either induction of a protective antibody level or influenza morbidity (as in the Hoskins study). However, when a more relevant endpoint was regarded, such as mortality in the elderly, then repeated vaccination turned out to be significantly more favourable than first-time vaccination.

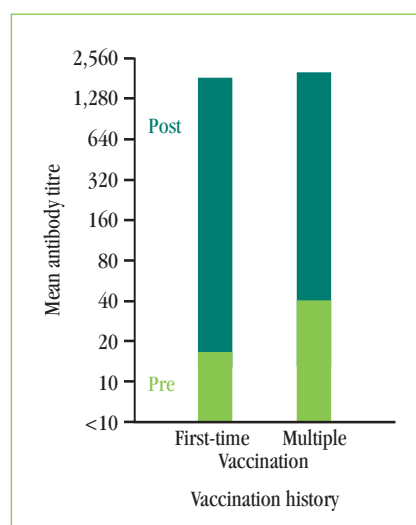
In other words, in contrast with Hoskins' Paradox, repeated annual vaccination does not impair vaccine-induced protection from influenza morbidity. It is even particularly beneficial to the elderly by increasing protection from fatal influenza.

Why then is Hoskins' Paradox still an issue in clinical, particularly serological, studies? Possibly, misinterpretation of the mathematical relationship between pre and post-vaccination titres and vaccination history plays a role. In serological vaccination trials, the primary endpoint is the post-vaccination mean antibody titre as a surrogate marker of vaccine-induced clinical protection. Subjects with a history of previous vaccinations usually show higher prevaccination titres than those vaccinated for the first time, while both groups typically produce similar post-vaccination titres [7] (see Figure).

Consequently, the mean titre increase is smaller in the multiple than in the first-time vaccination group. When prevaccination titres and vaccination history are independently included in a mathematical model to explain post-vaccination titres, then prevaccination titres will seem to contribute 'positively' to post-vaccination titres, and vaccination history 'negatively'. This model will interpret multiple vaccination as an inhibiting factor for antibody induction, and authors have indeed linked this finding to Hoskins' Paradox, although Hoskins *et al.* describe a field study with clinical influenza as endpoint. Moreover, prevaccination titres and vaccination history are not independent from each other: in the multiple vaccination

Source	Study design	Population	No. of subjects	Kind of vaccine-induced protection	Protection rate difference*
Hoskins [1]	Field trial, not randomised	Healthy adolescents	375	Protection from laboratory-confirmed ILL	Not given
Beyer [4]	Meta-analysis of serological trials	All ages, various settings	12,341	Reaching protective antibody titre	±0
Beyer [4]	Meta-analysis of field trials	All ages, various settings	5,117	Protection from laboratory-confirmed ILL	±0
Voordouw [5]	Cohort study	Community-dwelling elderly	26,071	Protection from all-cause death	+14%
Ahmed [6]	Case-control study	Clients of general practitioners, mostly elderly	1,092	Protection from influenza death	+66%

\*Protection rate in multiple vaccinees minus protection rate in first-time vaccinees



group, a smaller titre increase is compensated for by higher prevaccination titre. The 'negative' influence of multiple vaccination therefore amounts to a mathematical artefact, without any clinical meaning.

In conclusion, Hoskins' Paradox cannot be substantiated and confirmed, therefore the paper of Hoskins *et al.* should not be used to discourage the policy of annual influenza vaccination. Evidence strongly suggests that annual vaccination is beneficial to people at risk and should be advocated.

W.E.P. BEYER  
National Influenza Centre  
Department of Virology  
Erasmus Medical Centre  
Rotterdam  
The Netherlands

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## US INFLUENZA VACCINE SUPPLY 2004–2005

### Vaccine shortage announced

In early October 2004 it was announced that 46–48 million doses of Chiron's influenza vaccine would not be available for US distribution. This represented close to a 50% reduction in the vaccine supply for the 2004–2005 season and posed a serious challenge for health officials. Aventis, the only remaining manufacturer of the standard parenteral influenza vaccine, had approximately 54 million doses available. In addition, there were 1–2 million doses of FluMist Nasal Spray available from Wyeth. Expanded populations targeted for influenza vaccination had increased the anticipated demand for influenza vaccination doses from 87 million in the previous year to 100 million.

### The response

The Centers for Disease Control and Prevention (CDC) convened the Advisory Committee on Immunization Practices to prioritise the recommendations based on the limited vaccine supply. Targeted risk groups initially included:

- Children aged 6–23 months.
- People aged  $\geq 65$  years.
- People aged  $\geq 2$  years with underlying chronic diseases, including heart and lung, kidney, blood disorders or a weakened immune system (including those with HIV/AIDS).
- Women who may be pregnant during the influenza season.
- People in nursing homes or other chronic care facilities.
- People aged 2–18 taking chronic aspirin therapy.
- Healthcare workers providing direct patient care.
- People taking care of babies under 6 months old.

Continued availability of the vaccine in January led to inclusion at that time of:

- Caregivers and household contacts of high-risk people in the community.
- People aged 50–64 years old.

Prior to the announcement of the vaccine shortage, about half of the available Aventis vaccine had already been shipped to

distribution points. Following the announcement, the CDC worked closely with Aventis to distribute the remaining 22.4 million doses to high priority vaccine providers (hospitals, long-term care facilities and providers of care to young children) and areas throughout the country where the shortage was greatest.

The plan depended on cooperation from lower-risk individuals to forgo vaccination. Practical steps to prevent influenza were advised and included avoiding close contact with people who were ill, keeping distance from others when ill, including staying at home from work or school, frequent hand washing and covering the mouth when sneezing or coughing. Recommendations were also provided regarding the use of antiviral drugs for both seasonal prophylaxis in high-risk groups and treatment of influenza illness regardless of vaccination status.

Since 2001, there has been a 728% increase in investments to improve influenza prophylaxis strategies, from \$39.3 million in 2001 to \$283.1 million proposed for 2005. Investments in new influenza vaccines and antivirals included increased funding for the CDC, the National Institutes of Health Research and Development, and Food and Drug Administration (FDA) research and licensing. A new strategic initiative directed a portion of this budget toward stockpiling of antiviral drugs and influenza vaccine. The FDA has estimated that there are enough doses of antiviral drugs (rimantadine and oseltamivir) to treat nearly 4 million people through the influenza season. Price gouging and inappropriate distribution of available supplies of vaccine and antivirals were strictly prohibited.

The Centers for Medicare & Medicaid Services (CMS) have more than doubled the reimbursement rates for the vaccine and its administration since 2000. This will ensure affordability for the patients and make it cost-effective for providers to administer the vaccine.

### The outcome for the 2004–2005 influenza season

Announcements of the vaccine shortage led to long queues of concerned people, mostly the

elderly, who were often unable to access vaccine from their primary care physicians. Press releases encouraged people to continue to consult their physicians to determine availability of vaccine in their area. By January, efforts to vaccinate those defined as most vulnerable were reported to be 75% successful.

Widespread influenza-like illness in New York State in December raised concerns of a second year of early influenza activity. However, a more typical year was eventually observed. Influenza activity did not peak until February and mortality rates rose to 8.8% for 2 weeks, just above the epidemic threshold of 8.2%, and only 16 paediatric deaths were reported. Influenza A caused 83% of illnesses (ranging from 90–93% on the East coast to 60% in Pacific coast regions) and 17% were due to influenza B. Virtually all of the influenza A isolates were of the H3N2 subtype (99.7%); 47% of isolates were antigenically similar to A/Wyoming/3/2003, the A/Fujian/411/2002-like (H3N2) component of the 2004–2005 influenza vaccine, and 53% were a drifted variant of the influenza A/H3N2 vaccine strain. Most of the influenza B isolates were similar to the influenza B component of the 2004–2005 influenza vaccine.

Targeting the influenza vaccination to all people aged  $\geq 65$  years, and specific high-risk populations including children aged 6–23 months, appears to have been effective. A/H3N2 circulating strains were predominant and typically 90% of influenza-related deaths would occur in older people. In this year of reduced vaccine availability, and despite the predominance of the A/H3N2 strain, death rates rose to just above the epidemic threshold for only 2 weeks. This suggests that a targeted vaccine strategy that includes older adults is effective for minimising serious morbidity and mortality due to influenza.

### Addressing the vaccine supply issues

In 1994 there were five manufacturers of injectable influenza vaccine including Wyeth, Evans (now part of Chiron), Connaught (now part of Aventis), Parke Davis and Lederle. Only two manufacturers, Sanofi Pasteur and Chiron, currently supply the US. The high

risks of vaccine production, unpredictable consumer demands, low profit margins and inadequate liability protection are reasons cited for the loss of vaccine manufacturers.

Health and Human Services (HHS) received \$50 million of a requested \$100 million to develop new cell-culture technology as an alternative to cumbersome egg-based vaccine production and to provide year-round availability of eggs to accommodate potential

surges in vaccine needs. In addition, HHS released its draft Pandemic Influenza Response and Preparedness Plan, a coordinated national strategy to prepare for and respond to an influenza pandemic.

This vaccine shortage demonstrated the challenges of an unexpected increase in demand for influenza vaccine. In particular, the vulnerability of having only two vaccine manufacturers and depending on egg-based

technology for vaccine production was exposed. Despite the challenges, the response was effective and supports the current strategies for vaccinating high-risk populations to minimise the impact of influenza.

J.E. McELHANEY  
*Center for Immunotherapy of Cancer and Infectious Diseases*  
*University of Connecticut Health Center*  
*Connecticut, US*

## SECOND EUROPEAN INFLUENZA CONFERENCE

### Science

The Second European Influenza Conference, to take place from 11–14 September 2005, has a major focus on science and an emphasis on new work. Like its predecessor, this second meeting offers scientists a full programme of oral presentations, posters and satellite symposia.

### Government representatives and opinion leaders in healthcare

Beyond science is the public health burden of epidemic influenza, and the potentially devastating impact of pandemic influenza. Scientific information and communication among scientists, policy makers, and healthcare professionals already helps to reduce significantly the burden of influenza and strides have been taken in pandemic planning, but more can be done. Thus, in addition to the traditional scientific content, the conference has tracks for government representatives and opinion leaders in healthcare work. Sessions in these additional tracks cover a broad area, from an introduction to influenza and the danger of the virus, to

pandemic preparedness and the economic impact of influenza on society. The aim is to inform, educate and raise awareness with the new target groups. In addition to these separate conference tracks, there are also sessions that link science, government policy and healthcare work.

### Young scientists

As part of its ongoing commitment to young scientists ESWI will again provide funding for at least 20 young scientists to attend the meeting. The funding will come from the ESWI Claude Hannoun Young Scientist Fund, which has been named in honour of Professor Claude Hannoun, ESWI's founding chairman and perennial champion of young scientists. Conference attendees have also been given the opportunity to support young scientists by paying an optional additional €100 on top of their registration fee. This amount is used to fund young scientists beyond the 20 paid for by ESWI.

At the conference, Claude Hannoun will present an award for the best poster by a young scientist and on the final day of the meeting eight young scientists will be given the floor to present their work in a plenary session

chaired by Alan Hay. Six of these will be young scientists who have submitted abstracts to the conference, and two will be the ESWI young scientist prize winners for the best presentations at the ESWI-sponsored third orthomyxovirus meeting which was held this July at Queens' College, Cambridge in the UK.

### Conference proceedings – a special issue of *Vaccine*

The conference proceedings will be published as a peer-reviewed special issue of the journal *Vaccine*. The deadline to submit a manuscript to the special issue is 21 October 2005, and the publication date is March 2006. The special issue will also consist of invited mini-reviews, a special section for young scientists and invited articles covering the conference tracks for government representatives and opinion leaders in healthcare. This special issue of *Vaccine* promises to be a valuable collection for all of the stakeholders in influenza research and public health.

D.J. SMITH  
*Department of Zoology*  
*University of Cambridge*  
*UK*

## INFLUENZA LABORATORY TRAINING COURSE

I spent a week in June sitting on a hard stool learning fundamental methods for the detection, classification and serology of influenza viruses. Along with 14 others, I attended ESWI's Influenza Laboratory Training Course

at the Erasmus Medical Centre in Rotterdam, The Netherlands.

The course is designed to provide a fundamental level of understanding of influenza

laboratory practice. It is pitched at an introductory level, making it possible for people with widely varying backgrounds to

*(Continued on page 6)*

participate and not be completely overwhelmed. The participants were mainly a mixture of molecular biologists and lab technicians, most with quite a good prior knowledge of influenza, and some with mature lab skills. In my case, as a computer scientist who had not held a pipette for more than 20 years, the course was quite challenging and a lot of fun.

Due to the large number of participants, we worked only with vaccine strains, and did everything in an open lab at the bench. Apart from the obvious safety advantages, this allowed for easy interaction and teaching. We were closely attended by an excellent team of lab technicians, who were always at hand to answer questions, and to prevent us from making serious mistakes. There was a good balance of experts to students, at least 1:4 and sometimes as high as 1:2, including senior scientists.

The practical side of the course ranged over topics such as virus culture in MDCK cells, performing a commercial influenza test (Directigen), direct immunofluorescence assay, examination of the cytopathic effect of the virus on MDCK cells, RNA isolation, TAQMAN, polymerase chain reaction (PCR) and the haemagglutination inhibition (HI) test. In all these subjects, we were provided with the laboratory protocol and ample materials. The experiments were thoughtfully designed to give students every chance of successful outcomes. This was important because at the end, you walked away knowing that you could perform these procedures yourself, and not with a frustrating sense of having done something incorrectly but not knowing what. Some of the procedures, such as the HI test, involve many steps, taken over 2 days, so there was plenty of opportunity for error. Like the perfect shop assistant who knows when to leave you alone and when to step in to help, the Erasmus technicians were adept at letting us do everything ourselves, but somehow still being there at precisely the right moment to tap you on the shoulder as you were inexplicably about to pour your samples into the liquid waste. Inevitably, students already practised in lab techniques, especially for influenza, found some of the course too simple.

Along with the practical training, we were also given video presentations of techniques, such as the virus neutralisation assay, that

were too time consuming for a short introductory course. Each day also had a 1-hour presentation of some aspect of influenza research. The presentations included collection and transport of specimens, laboratory diagnosis of influenza, quantitative real time PCR and TAQMAN, the pandemic influenza threat, surveillance of influenza in wild birds, antigenic cartography based on HI assay data, and sequence analysis techniques and tools. The presentations were clear and engaging, with speakers including the head of the virology department at Erasmus, a commercial CEO, and a senior graduate student studying avian influenza.

From talking to other students, it was clear that everyone was there for a different, and usually quite specific, reason. In my case I was most interested to learn more about the practical details of the HI assay. I work with HI assay data, but before the course I had only theoretical knowledge of how the assay is performed and the sorts of problems that are encountered in trying to perform it accurately. The assay itself involves many steps, each of which must be performed with care. We prepared seven antisera and eight virus samples. After the preliminary haemagglutination assay, calculating 4 HAU, performing many rounds of pipetting 96-well plates with PBS, virus samples, antisera, and turkey erythrocytes, taking flasks back and forth from incubation, back titration, and, finally, considering whether plate wells contained agglutinated erythrocytes or not, we finished with our very own HI table of antisera

dilutions and could readily identify influenza H1, B, and various variants of H3. I also finished with an appreciation for the people (and, in some cases, robots) that perform the thousands of HI assays done annually to support the WHO influenza surveillance programme.

Many thanks and credit to Guus Rimmelzwaan and Ab Osterhaus, and of course to ESWI, for putting the course together and designing it in a way that accommodated our wide range of backgrounds. This wasn't a simple challenge, and I felt the balance of materials and expectation was very well thought out, as was the design and pacing of the experimental work. Theo Bestebroer and his team of lab technicians did a great job, always in good humour, despite the many ways I found to not understand basic instructions or to do things properly. Together, all these people spent weeks thinking about and organising the course, and then the full week itself in giving it.

This is not the kind of opportunity that comes along every day; I am happy to have taken so much away from the course and strongly encourage others to participate the next time.

T. JONES  
*University of Cambridge*  
UK



# ESWI'S COLLABORATION WITH NATIONAL INFLUENZA NETWORKS

In 2003, ESWI started the development of national influenza networks in Germany, Poland and Sweden. The idea for these networks is to support and strengthen national public health activities, and by collaborating with them, ESWI wants to maximise the effectiveness of promotional activities for the prevention and control of influenza. Since then, considerable progress has been made in the fight against influenza on a national level and, very importantly, valuable experience has been gathered with a view to the development of influenza networks.

## The process-oriented approach

Using a process-oriented approach, leading people in the influenza field were invited to profoundly analyse the existing situation and to detect possible limitations and gaps. In the next phase, possible ways to improve the situation were debated in a joint process. This approach worked successfully as it incited national stakeholders to cooperate and to take personal initiatives. The approach is based on a consensus model, with a focus on group efforts and input, to develop a broadly advocated situation analysis and action plan. Additionally, this approach stimulates the members' sense of belonging to a group, which, in turn, helps to establish a dynamic, autonomous national influenza network. At the same time, the network is given time and space to debate, to gain new insights, to overcome resistance and reluctance. In other words, the process-oriented approach requires investment in time and manpower, both by the network members and ESWI. Still, it is the best way to draw up an action plan that gets the entire network's approval and support. These network action plans serve as the basis of all future network activities.

## Actions and achievements

In 2004, the networks initiated, coordinated and facilitated activities listed in the action plans, with ESWI playing a supporting and catalytic role.

### 1. Germany

In March 2004, Dr Peter Wutzler, a member of the German influenza network, invited ESWI to participate in the 2nd German

Influenza Congress and to present a proposal for a contribution. It is important to note that the organising committee had taken up ESWI's suggestion to invite representatives of German health insurance companies and other stakeholders. At the Congress in September 2004, Dr Szucs, ESWI member, and Professor Kossow, former President of the German General Practitioners (GP) Organisation and German influenza network member, chaired the round table with health insurance companies. Moreover, ESWI was given the opportunity to address the plenary in the opening speech, ESWI members supported various sessions with their international expertise, and ESWI financially contributed to the presence of Dr Nichol, renowned expert on socio-economics. ESWI's highly appreciated contribution to the 2nd German Influenza Congress was the pinnacle of a gradually growing collaboration between ESWI and the German influenza network. In autumn 2004, Dr Haas agreed to join ESWI as an adviser, thus making official ESWI's collaboration with the renowned Robert Koch Institute, a key player in the German influenza field.

### 2. Poland

The compilation and publication of influenza guidelines for GPs had been suggested as an important, concrete point of action at the Warsaw 2003 workshop. Therefore, in September 2004, Dr Windak, GP and member of the Polish Influenza Network, presented a proposal for such a project together with an implementation plan, with a timeline and budget.

On 30 November 2004, a well-balanced delegation of Polish stakeholders in the influenza field (GPs, scientists, government members) met in Warsaw and decided to implement the influenza guidelines for GPs according to Dr Windak's proposal and to conduct a health economics study in Poland. ESWI's liaison member for industry, Dr Palache, agreed to investigate the opportunities of local network funding by a partnership of companies/sponsors.

The Board of Directors officially decided to financially support the Polish guidelines project for a total amount of €20,000 in 2005 and 2006.

### 3. Sweden

All 21 Swedish counties have their own health policies, including recommendations and reimbursement policies, etc. Chief Medical Officers are in charge of a county's health policy, and vaccination uptake surveys show remarkable differences between the counties. Efforts to change the situation have so far been in vain. On 1 February 2005, the Swedish Influenza Network members gathered at a crucial meeting, aiming to increase uniformity in the influenza vaccination monitoring system, to encourage collaboration between the Chief Medical Officers and to gain a better insight into the Swedish vaccination rate.

The collaboration with the Swedish Influenza Network in particular, has been very successful. It shows that ESWI's careful strategic and political approach to work at a national level is feasible and can be very effective.

## Main lessons learnt

1. Personal contacts and permanent communication between ESWI and leading individuals and institutes within a specific country are crucial to forge a powerful and dynamic influenza network.
2. All three countries show a remarkable gap in communication between GP organisations and other stakeholders. GPs, being those closest to the patients, often require and demand official guidelines for routine measures, access to data and statistics and information on the benefits of vaccination and reimbursement. ESWI therefore invited leading GPs from all three countries to participate at the Network Representatives Meeting on 16 December 2004.
3. The World Health Organization's (WHO) support is crucial, especially in the early stages of the process, to set the political scene. WHO-ESWI collaboration is an effective tool to make things happen in line with the WHO's global agenda on influenza.
4. ESWI's understanding of the network members' characteristics, competences, personal goals and mutual relationships is crucial to make the collaboration successful.

### CALENDAR OF EVENTS

Date/Venue	Title	Organiser/Sekretariat
3-7 September 2005 Kos Island, Greece	11th Conference of the European Society of General Practice/Family Medicine	Raoul Merkouris 21 N. Kountourioti Street (5th floor) 54625 - Thessaloniki Greece Tel: +30 2310 550048 Fax: +30 2310 539995 E-mail: elegeia@woncaeuropa2005.org
11-14 September 2005 St Julians, Malta	The Second European Influenza Conference	Link Inc Tolstraat 9 2000 Antwerp Belgium Tel: +32 3 232 93 42 Fax: +32 3 232 17 04 E-mail: info@linkinc.be
3-5 October 2005 Lyon, France	World Vaccine Congress	Noreen Meehan Conference Manager Terrapinn Level 2, Suite B 100 Hatton Garden London, EC1N 8NX UK Tel: +44 (0)207 827 5984 Fax: +44 (0)207 242 1508 E-mail: noreen.meehan@terrapinn.com
13-16 October 2005 Istanbul, Turkey	Sixth Congress of the International Federation of Infection Control	Topkon Turizm Ltd Zuhtu Pasa Mah Rifat Bey Sokak No 24 PK 34724 Kalamis-Kadikoy Istanbul Tel: +90 216 330 90 20 Fax: +90 216 330 90 05 E-mail: congress@topkon.com
27-30 October 2005 Madrid, Spain	Viral Vaccine Meeting 2005	The Macrae Group 230 East 79th Street Suite 8E New York, NY 10021 USA Tel: +1 212 988 7732 Fax: +1 212 717 1222 E-mail: TheMacraeGroup@comcast.net
15-17 December 2005 Seattle, USA	21st Annual Infectious Disease Conference	Jeri L Sackett Providence Everett Medical Center 1321 Colby Avenue PO Box 1147 Everett, WA 98206-1147 USA Tel: +1 425 261 3690 Fax: +1 425 261 3695 E-mail: jeri.sackett@providence.org
19-22 March 2006 Atlanta, USA	Biennial International Conference on Emerging Infectious Diseases	ICEID 2006 American Society of Microbiology 1752 N Street, NW Washington, DC 20036-2904 USA Tel: +1 202 942 9330 Fax: +1 202 942 9340 E-mail: iceid@asmusa.org
1-4 April 2006 Nice, France	16th European Congress of Clinical Microbiology and Infectious Diseases	16th ECCMID c/o AKM Congress Service PO Box CH-4005 Basel Switzerland Tel: +41 61 686 77 11 Fax: +41 61 686 77 88 E-mail: info@akm.ch

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Victoria Mill, Windmill Street, Macclesfield, Cheshire SK11 7HQ, UK

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### INFLUENZA BULLETIN

If you want to be put on the mailing list, please contact:

### ESWI MANAGEMENT

David De Pooter, c/o Link Inc,  
Tolstraat 9, 2000 Antwerp, Belgium

Tel: + 32 32 32 93 42

Fax: + 32 32 32 17 04

E-mail: info@linkinc.be

ESWI website: [www.eswi.org](http://www.eswi.org)