



EID Weekly Updates:

Emerging and Reemerging Infectious Diseases, Region of the Americas

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Update on Influenza in Brazil

Brazil, 2003: Of all people receiving medical attention at sentinel centers up to Epidemiological Week (EW) 44 (to 1 November 2003), 18% of them showed signs of flu syndrome (n = 902,930). During this same period, 1,143 samples of naso-pharyngeal secretions were analyzed, of which 115 were positive: 108 (93%) for Influenza A and 7 (6.1%) for Influenza B. During EWs 29 and 30, influenza was identified in 83.3% of all samples, with Influenza A predominating.

Since 2000–2002, the strains circulating in Brazil have been A/Panama/2007/99-like H3N2 (36), A/New Caledonia/20/99 H1N1 (2), B/Hong Kong/330/2001-like (12), B/Hong Kong/1351/2002-like (3), B/Sichuan /379/99-like (3), B/Shizuoka/15/2001-like (2) and B/Beijing/243/97-like (1). The influenza strains circulating in 2003 are still being identified.

Several studies are being carried out in Brazil to evaluate the impact of the vaccination strategy adopted by the country, with PAHO collaboration. Between 1999 and 2001, priority was given to vaccinating people over 65 years of age; but as of 2002, this has been extended to people over 60, with coverage registered at 74% and 87%, respectively, for these two age groups. In one of the studies, data from the information system recording hospital admissions was used as an indicator for morbidity attributed to influenza. Preliminary results show that differences do exist among the different regions of Brazil. When comparing the number of admissions due to influenza (flu, pneumonia, and bronchitis) among the population over 65 between 1998 and 2000, hospital admissions show a 15.4% drop in the southern region and a 6.8% drop in the northern region. Trend heterogeneity can be associated to seasonal differences, since the regions have drastically different climatic conditions: the southern and southeastern regions have a temperate climate with well-defined seasons, while the northern region (belonging to the Amazon) is tropical year-round.

Source: Information from the *SIVEP_GRIPE* Listserver, Coordenação de Doenças de Transmissão Respiratória, Coordenação Geral de Vigilância de Doenças Transmissíveis, Departamento de Vigilância Epidemiológica, Secretaria de Vigilância em Saúde, Ministério da Saúde do Brasil (Respiratory Disease

Coordination, General Coordination for Communicable-Disease Surveillance, Department of Epidemiological Surveillance, Secretary for Health Surveillance, Ministry of Health, Brazil).

WHO Recommendations for the Flu Vaccine

Appendix to the Flu Virus Vaccine Composition Recommended for the 2003–2004 Season

This past 28 February 2003, WHO Publisher its recommendations on the composition of influenza virus vaccine for the 2003–2004 season in the northern hemisphere (November 2003–April 2004). Due to an insufficiency of data, the decision was made to postpone recommendations on Component A (H3N2). Since then, additional data has confirmed that, in haemoagglutinin inhibitor (IHA) tests of the most recent isolates, an ever-growing proportion differs from A/Panama/2007/99 and resembles A/Fujian/411/2002. However, since no A/Fujian/411/2002-like isolates exist in chicken embryos to use as a candidate for the vaccine, besides the many isolates that are antigenically close to A/Panama/2007/99, it is recommended that the Component A (H3N2) used in the 2003–2004 vaccines contain an A/Moscow/10/99 (H3N2)-like virus.

In summary, the vaccines used for the 2003–2004 season (winter in the northern hemisphere contain the following:

- One virus A/New Caledonia/20/99 (H1N1)-like.
- One A/Moscow/10/99 (H3N2)-like*.
- One B/Hong Kong/330/2001-like**.

* The vaccine strain most widely used is A/Panama/2007/99.

** The vaccine strains currently used include B/Shandong/7/97, B/Hong Kong/330/2001, and B/Hong Kong/1434/2002.

Source: World Health Organization (WHO) (2003) [Recommended Composition of Influenza Virus Vaccines for Use in the 2003–2004 Influenza Season](#). *Weekly Epidemiological Record / Relevé épidémiologique hebdomadaire* (WER/REH) 78 (9): 58-64.

For the 2004 flu season in the southern hemisphere (from May to October), it is recommended that the vaccines used contain the following:

- One A/New Caledonia/20/99(H1N1)-like virus.
- One A/Fujian/411/2002(H3N2)-like*.
- One B/Hong Kong/330/2001-like**

* A/Kumamoto/102/2002 and A/Wyoming/3/2003 are A/Fujian/411/2002-like viruses cultivated in eggs.

** The viruses currently being used in vaccines are B/Shandong/7/97, B/Hong Kong/330/2001, and B/Hong Kong/1434/2002. The B/Brisbane/32/2002 virus is also available as a vaccine virus.

Source: World Health Organization (WHO) (2003) [Recommendations for Influenza Vaccine Composition](#).

Lancet Article on Influenza

K.G Nicholson, J.M. Wood & M. Zambon (2003) [Influenza](#). *Lancet* 362: 1733-1745: In its last issue, *Lancet* published an article on influenza that emphasizes the progress made in human and animal surveillance, as well as new approaches to vaccination and the growing use of vaccines and antivirals to combat annual flu outbreaks, and how these are essential for reducing the global cost of the influenza pandemic.

Source: K.G Nicholson, J.M. Wood & M. Zambon (2003) [Influenza](#). *Lancet* 362: 1733-1745.

Training in West Nile Virus (WNV) Surveillance and Diagnostics in Argentina

Pergamino Argentina, 17-22 November 2003: A third training workshop on Surveillance and Diagnosis of West Nile Virus (WNV) was held, promoted by PAHO with support from the Centers for Disease Control and Prevention of the United States (CDC) and the Instituto Nacional de Enfermedades Virales Humanas (National Institute for Human Viral Diseases) "Dr. Julio Maiztegui" in Argentina (the latter two are both PAHO/WHO Collaborating Centers).

The workshop involved the participation of 38 professionals from the areas of epidemiology, vector control and surveillance, zoonoses surveillance, and the diagnosis of viral diseases. Participants came from Argentina, Bolivia, Brazil, Chile, Ecuador, Paraguay, Peru, Uruguay and Venezuela.

The workshop was divided into two modules. The laboratory module stressed the diagnosis of human infections by means of the immuno-enzymatic IgM test and detecting WNV in clinical material from both humans and animals. Participants also had a chance to practice the the immuno-enzymatic test used to diagnose WNV in persons having had a previous flavivirus infection. Finally, there was a presentation on the techniques used to isolate the virus and on the serological neutralization test to reduce plaque in cell cultures.

The second module was aimed at investigating outbreaks. It consisted of an evaluation of the spread of the virus among wild birds, domestic animals, and humans. Techniques were also practiced for capturing insects, classifying mosquitoes, necropsy in birds, and in providing rapid antigenic detection tests for WNV in mosquitoes and birds.

Finally, a simulation was carried out on investigating a WNV outbreak, putting into practice the knowledge acquired during the workshop.

The participants returned to their country with recombinant antigen for serologically diagnosing of WNV, reagents for detecting of WNV antigens in mosquitoes and dead birds, traps for capturing mosquitoes, and mist-type nets for

capturing wild birds.

By the end of the workshop, participants from all the countries in the Region had been trained to identify and respond to eventual outbreaks arising from the introduction of West Nile Virus.

Source: PAHO Disease Prevention and Control, Communicable Disease Unit (DPC/CD).