cine is prioritized for populations at high risk, including the elderly. During 1997-2002, other reasons for nonvaccination were cited more often than reduced availability of vaccine. The most common reasons for nonvaccination were lack of knowledge about the need for vaccination and misconceptions about influenza vaccination and disease or side effects. These reasons remain important modifiers of elderly Medicare beneficiaries’ behavior and can be further addressed through communications about influenza vaccination. Evidence-based strategies should be developed and used to (1) educate the public and vaccination providers regarding the benefit of influenza vaccine for the elderly and (2) address concerns about the safety and efficacy of the vaccine.

**References**

9 available

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**Update:**

**Influenza Activity—United States and Worldwide, May-October 2004**

**MMWR. 2004;53:993-995**

**During May-October 2004, influenza A (H3N2) viruses circulated worldwide and were associated with mild-to-moderate levels of disease activity. Influenza A (H1N1)* and B viruses were reported less frequently. In North America, isolates of influenza A (H3N2), A (H1N1), and B were identified sporadically. This report summarizes influenza activity in the United States and worldwide during May-October 2004.† Influenza activity in North America typically peaks during December-March.¹**

**United States**

Until recently, in the United States, national influenza surveillance was conducted by four systems that operated during October-May. One of these systems consists of approximately 1,000 sentinel health-care providers, who regularly report data to CDC on patient visits for influenza-like illness (ILI). In addition, during 2004, approximately 350 sentinel providers continued to submit weekly reports during May-September. A second system consists of approximately 120 U.S.-based World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories; these laboratories report the number of respiratory specimens tested and the number and types of influenza viruses identified throughout the year.

For the 2004-05 influenza season, CDC has added two new surveillance systems: one that tracks naturally reported pediatric deaths associated with laboratory-confirmed influenza infections and another that tracks hospitalizations associated with laboratory-confirmed influenza infections in children aged <18 years. The latter system, which will continue at a minimum of nine sites through CDC’s Emerging Infections Program, augments CDC’s ongoing surveillance at the three National Vaccine Surveillance Network sites of children aged <5 years hospitalized with fever or respiratory illness.

During 1997-2002, other reasons for nonvaccination were cited more often than reduced availability of vaccine. The most common reasons for nonvaccination were lack of knowledge about the need for vaccination and misconceptions about influenza vaccination and disease or side effects. These reasons remain important modifiers of elderly Medicare beneficiaries’ behavior and can be further addressed through communications about influenza vaccination. Evidence-based strategies should be developed and used to (1) educate the public and vaccination providers regarding the benefit of influenza vaccine for the elderly and (2) address concerns about the safety and efficacy of the vaccine.

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24 from North America (including 10 from the United States), one from Africa, and one from Oceania) were collected and characterized antigenically. A total of 208 (88.1%) were A/Fujian/411/02-like and similar to A/Wyoming/03/2003, the A (H3N2) component of the 2004-05 influenza vaccine; 28 (11.9%) had reduced titers to A/Wyoming/03/2003. The eight influenza A (H1N1) viruses (one from Canada, three from Hong Kong, two from Singapore, and two from the United Kingdom) collected during May-September and characterized antigenically at CDC were similar to A/New Caledonia/20/99, the A (H1N1) component of the 2003-04 influenza vaccine.

Influenza B viruses circulating worldwide can be divided into two antigenically distinct lineages: B/Yamagata/16/88 and B/Victoria/2/87. Before 1991, B/Victoria lineage viruses circulated worldwide; from late 1991 to early 2001, no viruses of the B/Victoria lineage were identified outside Asia. However, since March 2001, B/Victoria-lineage viruses have been identified in many countries outside Asia, including the United States. Viruses of the B/Yamagata lineage began circulating worldwide in 1990 and continue to be identified. The type-B component of the 2004-05 influenza vaccine (B/Shanghai/361/2002-like) belongs to the B/Yamagata lineage. Of the 73 influenza B isolates collected during May-September and characterized antigenically at CDC, 54 belonged to the B/Yamagata lineage, and 19 belonged to the B/Victoria lineage.

Of the B/Yamagata lineage viruses, 50 (92.6%) were B/Shanghai/361/2002-like, and four (7.4%) had reduced titers to B/Shanghai/361/2002. Twenty-one of the B/Yamagata lineage viruses were from North America (including 16 from the United States), 25 were from South America, five were from Asia, two were from Oceania, and one was from Europe.

**Human Infections with Avian Influenza A (H5N1) Viruses**

Since December 2003, nine countries (Cambodia, China, Indonesia, Japan, Laos, Malaysia, South Korea, Thailand, and Vietnam) have reported outbreaks of avian influenza A (H5N1) infection affecting poultry and, in some countries, other animals. As of October 25, a total of 44 laboratory-confirmed cases of avian influenza A (H5N1) virus infection in humans had been reported in Vietnam and Thailand in 2004. Of these 44 patients, 32 died. The cases occurred in association with recurring H5N1 outbreaks among poultry in those countries.

Four human H5N1 cases occurred in Vietnam (three in children and one in a young adult) during July-September. In Thailand, four cases occurred in September and one case in October. The cases were associated with severe respiratory illness, with persons requiring hospitalization; all but one patient died. The cumulative case-fatality proportion for confirmed H5N1 cases since January 2004 is 73% (Vietnam: 27 cases, 20 deaths; Thailand: 17 cases, 12 deaths).

**CDC Editorial Note:** During May-October 2004, influenza A (H3N2) viruses were the most frequently reported virus subtype worldwide; however, influenza A (H1N1) and influenza B viruses also circulated. At this time, neither the influenza virus subtype that will predominate in the United States nor the severity and timing of the 2004-05 season can be predicted.

The ongoing widespread epizootic of highly pathogenic H5N1 viruses in Asia remains a major concern. Since December 2003, nine Asian countries have reported H5N1 poultry outbreaks, with human cases reported from two of these countries. No evidence of sustained person-to-person transmission has been identified to date, although a probable instance of limited person-to-person transmission in a family cluster was identified recently in Thailand. CDC continues to recommend enhanced surveillance for suspected H5N1 cases among travelers with severe unexplained respiratory illness returning from H5N1-affected countries. Additional information about avian influenza is available at http://www.phppo.cdc.gov/han/archives/viewmsgsv.asp?alertnum=00209.

Influenza surveillance reports for the United States are published weekly during October-May, and are available through CDC’s voice (telephone, 888-232-3228) and fax (telephone, 888-232-3299, document number 361100) information systems and at http://www.cdc.gov/flu/weekly/fluactivity.htm. Additional information about influenza viruses, influenza surveillance, and the influenza vaccine is available at http://www.cdc.gov/flu.

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**REFERENCES**


*Includes both the A (H1N1) and A (H1N2) influenza virus types. Although H1N2 viruses have not been identified since February 2004, not all isolated H1 viruses have been tested for the subtype of their neuraminidase. Thus, this subtype might continue to circulate in some parts of the world. Influenza A (H1N2) viruses appear to have resulted from reassortment of the genes of the circulating influenza A (H1N1) and A (H3N2) subtypes. Because the hemagglutinin proteins of the A (H1N2) viruses are similar to those of the circulating A (H1N1) viruses, and the neuraminidase proteins are similar to the circulating A (H3N2) viruses, the 2004-05 influenza vaccine should provide protection against A (H1N2) viruses.

†As of October 16, 2004.