Centers for Disease Control and Prevention

Influenza Summary Update
(for the week ending May 6, 2000--Week 18)

The following information may be quoted:

Synopsis: During week 18 (April 30 through May 6), 1% of specimens tested by WHO and NREVSS laboratories for influenza were positive. State and territorial epidemiologists from 10 states reported sporadic influenza activity; none reported widespread or regional activity. The proportion of patient visits to sentinel physicians for influenza-like illness was within baseline levels of 0% to 3% in the United States overall and in all 9 surveillance regions. The proportion of deaths attributed to pneumonia and influenza was 7.3%. This percentage is above the epidemic threshold for week 18.

During the current season, the overall national percentage of respiratory specimens positive for influenza peaked at 33% during week 51. During the previous 3 years (1996-97, 1997-98, and 1998-99), the peak percentages of respiratory specimens testing positive for influenza viruses ranged from 28% to 34%. For this season, the percentage of overall patient visits for influenza-like illness peaked at 6% during week 52. During the previous 3 years, the peak percentages for such visits ranged between 5% and 7%. The proportion of deaths attributed to pneumonia and influenza (P&I) peaked at 11.2% during week 3. During the previous 3 years, P&I mortality levels peaked between 8.8% and 9.1%. This season's P&I figures must be interpreted with caution because important changes have taken place in this year's case definition that may be contributing to higher estimates of P&I mortality than in previous years.

Influenza Strains Contained in the 2000-2001 Vaccine: The trivalent influenza vaccine prepared for the 2000-2001 season will include A/New Caledonia/20/99-like (H1N1), A/Moscow/10/99-like (H3N2), and B/Beijing/184/93-like antigens. For the A/Moscow/10/99-like (H3N2) antigen, U.S. manufacturers will use the antigenically equivalent A/Panama/2007/99 (H3N2) virus and for the B/Beijing/184/93-like antigen, they will use the antigenically equivalent B/Yamanashi/166/98 virus; these viruses will be used because of their growth properties and because they are representative of currently circulating A (H3N2) and B viruses.

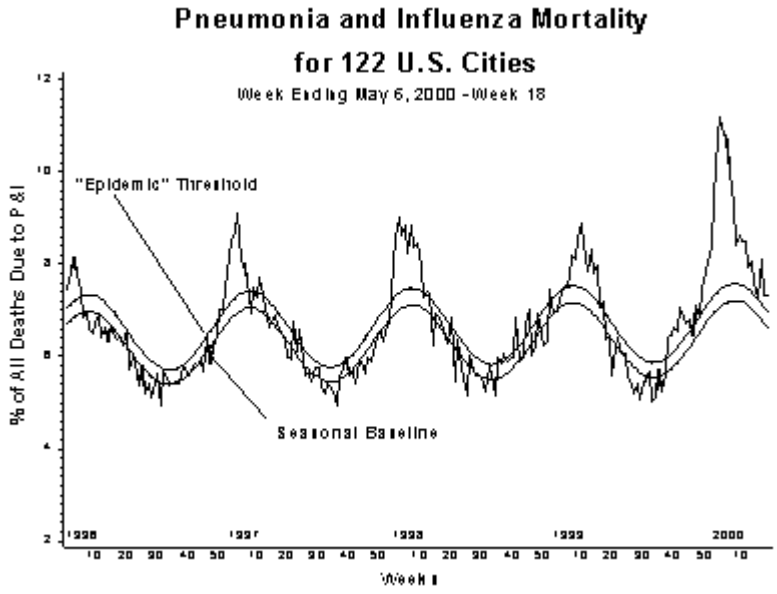
U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) Collaborating Laboratory Reports*: During week 18, WHO and NREVSS laboratories tested 272 specimens for influenza viruses and 2 (1%) were positive. Both isolates were influenza B viruses.

Since October 3, WHO and NREVSS laboratories have tested a total of 90,159 respiratory specimens for influenza viruses, and 13,644 (15%) were positive. Of the positive results, 13,575 (99.5%) were influenza type A and 69 (0.5%) were influenza type B. Of the 13,575 influenza A viruses, 3,750 (28%) have been subtyped and 3,627 (97%) were A(H3N2) and 123 (3%) were A(H1N1). Influenza A(H1N1) viruses have been reported by WHO and NREVSS laboratories from all regions. Of the 123 influenza A(H1N1) viruses reported, 109 (89%) have been identified since the beginning of February.

Antigenic Characterization of Viral Isolates: CDC has antigenically characterized 610 influenza viruses received from U.S. laboratories since October 1. Of the 501 influenza A(H3N2) viruses tested, 486 (97%) were similar to the vaccine strain A/Sydney/05/97 and 15 (3%) showed somewhat reduced titers to ferret antisera produced against A/Sydney/05/97. All 28 of the influenza B viruses antigenically characterized were similar to B/Beijing/184/93, which is represented in the current vaccine by B/Yamanashi/166/98. Of the 81 influenza A(H1N1) viruses antigenically characterized, 1 was similar to A/Beijing/262/95, the H1N1 component of the current vaccine, 26 were similar to A/Bayern/07/95, and 54 were more closely related to the antigenic variant A/New Caledonia/20/99. A/Bayern/07/95-like

viruses are antigenically distinct from the A/Beijing/262/95-like viruses; however, the A/Beijing/262/95 vaccine strain produces high titers of antibody that cross-react with A/Bayern/07/95-like viruses.

Pneumonia and Influenza Mortality*: During week 18, the proportion of deaths due to pneumonia and influenza as reported by the vital statistics offices of 122 U.S. cities was 7.3%. This percentage is above the epidemic threshold of 7.0% for week 18. The percentage of pneumonia and influenza deaths has exceeded threshold values for this time of year for 32 of the past 33 weeks. Whether this increase in the percentage of pneumonia and influenza deaths is due to influenza activity, respiratory illness due to some other pathogen, or reporting changes in the 122 Cities Mortality Reporting System is unknown. However, because these changes include a revision of the reporting case definition, the current increase in pneumonia and influenza mortality should be interpreted with caution.



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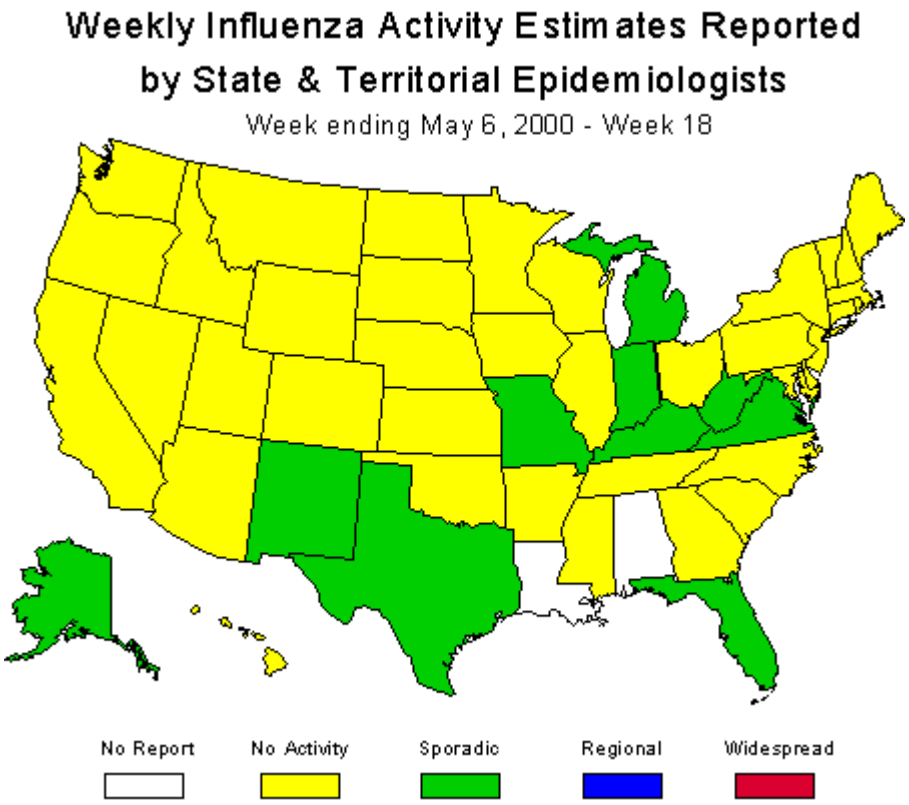
Influenza Activity as Assessed by State and Territorial Epidemiologists:** During week 18, influenza activity was reported as sporadic in 10 states. Thirty-eight states reported no influenza activity and 2 states did not report. No state reported regional or widespread activity.



Influenza Morbidity Reports from U.S. Sentinel Physicians*: During week 18, 1% of patient visits to U.S. sentinel physicians were due to influenza-like illness (ILI). The percentage of ILI was within baseline levels of 0% to 3% in all 9 surveillance regions.

*Reporting is incomplete for this week, so numbers and percentages may change as more reports are received.

**Influenza activity is defined as influenza-like illness and/or culture-confirmed influenza.

Report prepared: May 12, 2000

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