

Influenza Summary Update (for the week ending February 19, 2000--Week 7)

The following information may be quoted:

Synopsis: During week 7 (February 13 through February 19), 16% of specimens tested by WHO and NREVSS laboratories for influenza were positive. The state epidemiologist from 1 state reported widespread influenza activity, and 11 from other states reported regional influenza 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 9.3%. This percentage is above the epidemic threshold for week 7.

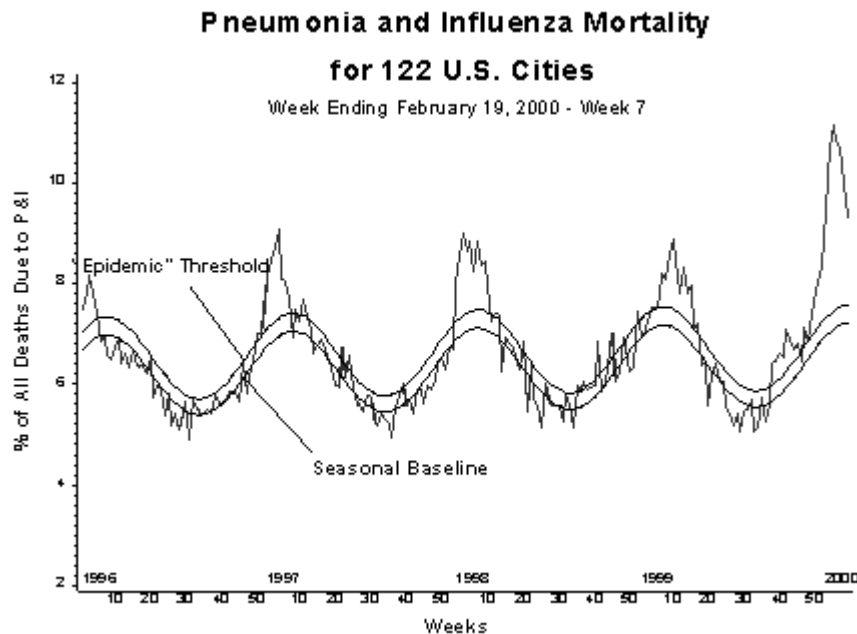
During the current season, the overall national percentage of respiratory specimens positive for influenza peaked at 33% during week 51. During the previous 3 years (1996-97, 1997-98, and 1998-99), the peak percentages of respiratory specimens testing positive for influenza viruses ranged from 28% to 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) appears to have peaked at 11.2% during week 3. During the previous 3 years, P&I mortality levels peaked between 8.8% and 9.1%. The current 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.

U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) Collaborating Laboratory Reports*: During week 7, WHO and NREVSS laboratories tested 843 specimens for influenza viruses and 134 (16%) were positive. Fifty-one were influenza A(H3N2) viruses, 8 were influenza A(H1N1) viruses, 71 were untyped influenza A viruses, and 4 were influenza B viruses. In 4 regions (East South Central, Mid-Atlantic, New England, and South Atlantic), 20% or more of specimens tested over the past 3 weeks (weeks 5 through 7) were positive for influenza (range 20% to 22%). In the 5 other regions, the percentage of specimens testing positive for influenza ranged from 3% to 13% during the past 3 weeks.

Since October 3, WHO and NREVSS laboratories have tested a total of 69,859 respiratory specimens for influenza viruses, and 12,348 (18%) were positive. Of the positive results, 12,322 (99.8%) were influenza type A and 26 (0.2%) were influenza type B. Of the 12,322 influenza A viruses, 3,185 (26%) have been subtyped and 3,154 (99%) were A(H3N2) and 31 (1%) were A(H1N1). Of the 31 influenza A(H1N1) viruses, 22 were reported in the past 3 weeks.

Antigenic Characterization of Viral Isolates: CDC has antigenically characterized 368 influenza viruses received from U.S. laboratories since October 1. Of the 359 influenza A(H3N2) viruses tested, 336 (94%) were similar to the vaccine strain A/Sydney/05/97 and 23 (6%) showed somewhat reduced titers to ferret antisera produced against A/Sydney/05/97. All 4 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 5 influenza A(H1N1) viruses antigenically characterized, 1 was similar to A/Beijing/262/95, the H1N1 component of the current vaccine, 1 was similar to A/Bayern/07/95, and 3 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 7, the proportion of deaths due to pneumonia and influenza as reported by the vital statistics offices of 122 U.S. cities was 9.3%. This percentage is above the epidemic threshold of 7.6% for week 7. The percentage of pneumonia and influenza deaths has exceeded threshold values for this time of year for 21 of the past 22 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.



Influenza Activity as Assessed by State and Territorial Epidemiologists:** During week 7, influenza activity was reported as widespread in Pennsylvania and regional in 11 states (Alabama, Arizona, Indiana, Louisiana, Maryland, Massachusetts, New York, Ohio, Tennessee, Utah, and Virginia). Sporadic influenza activity was reported in 34 states. Three states reported no influenza activity, and 1 state did not report.

