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WEEKLY REPORT

Update: Influenza Activity — United States, 1999–2000 Season

Influenza activity in the United States increased substantially during mid-December 1999 and appears to have peaked during the weeks ending December 25 (week 51) through January 15 (week 2). Predominant viruses isolated this season have been influenza type A(H3N2) viruses, antigenically similar to the viruses that have predominated since the 1997–98 influenza season and were well matched to this season's vaccine. This report summarizes influenza activity in the United States during October 3, 1999–February 26, 2000*, and compares the current season with the five previous seasons.

For the week ending February 26 (week 8), 1% of overall patient visits to U.S. sentinel physicians were for influenza-like illness (ILI)†. During October 3–February 26, the percentage of patient visits for ILI peaked at 6% during the week ending January 1 (week 52). During the five influenza seasons from 1994–95 through 1998–99, peak percentages of patient visits to sentinel physicians for ILI ranged from 5% to 7%. The weeks with the highest percentage of patient visits for ILI ranged from week 50 to week 7.

For the week ending February 26, one state epidemiologist reported widespread§ activity, and 10 reported regional activity. During October 3–February 26, the highest combined number of reports of either widespread or regional influenza activity by state and territorial epidemiologists was 44 during the week ending January 15 (week 2). During the previous five influenza seasons, the highest total numbers of state and territorial epidemiologists reporting either widespread or regional influenza activity during any week during each of the seasons ranged from 25 to 46. The weeks with the highest number of reports of widespread or regional activity ranged from week 1 to week 10.

The percentage of total deaths attributed to pneumonia and influenza (P&I) in the 122 Cities Mortality Reporting System (MRS) was 8.6% for the week ending February 26. This was above the epidemic threshold¶ of 7.6% for that week. During Octo-

*The four components of the influenza surveillance system have been described (*1*).
† Defined as temperature ≥100 F (≥37.8 C) plus cough or sore throat.
§ Levels of influenza activity are 1) *no activity*; 2) *sporadic*—sporadically occurring ILI or culture-confirmed influenza with no outbreaks detected; 3) *regional*—outbreaks of ILI or culture-confirmed influenza in counties with a combined population of <50% of the state's population; and 4) *widespread*—outbreaks of ILI or culture-confirmed influenza in counties with a combined population of ≥50% of the state's population.
¶ The epidemic threshold is 1.645 standard deviations above the seasonal baseline. The expected seasonal baseline is projected using a robust regression procedure in which a periodic regression model is applied to observed percentages of deaths from P&I since 1983.

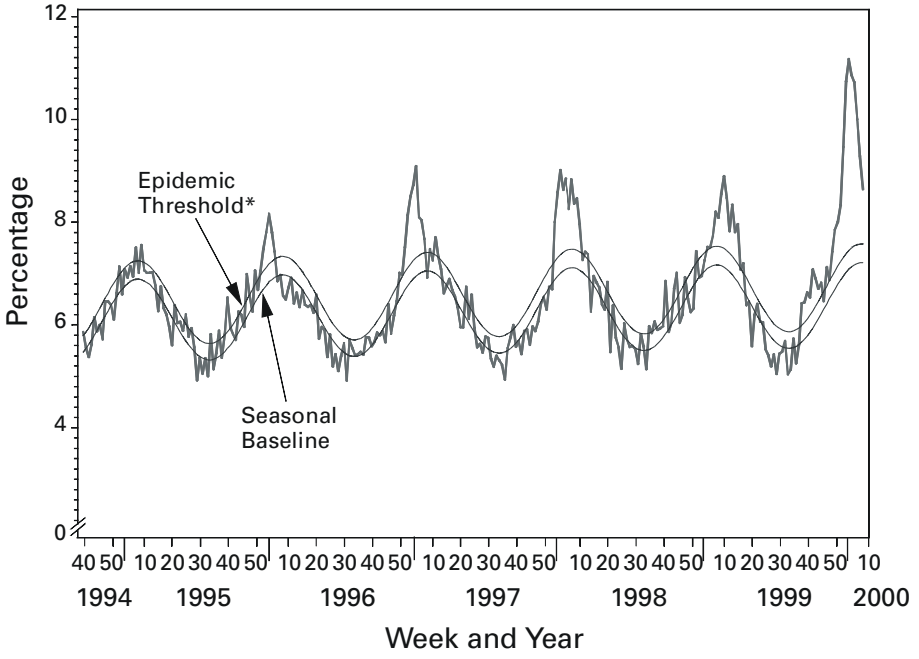
Influenza Activity — Continued

ber 3–February 26, the percentage of deaths attributed to P&I peaked at 11.2% during the week ending January 22 (week 3) (Figure 1). During the previous five influenza seasons, peak percentages of deaths attributed to P&I in the 122 Cities MRS ranged from 7.6% to 9.1%. The weeks with peak percentages of deaths attributed to P&I ranged from week 3 to week 10. This season, P&I mortality has been above the epidemic threshold for 20 of the 21 weeks during October 3–February 26.

Since the week ending October 3, the World Health Organization collaborating laboratories and the National Respiratory and Enteric Virus Surveillance System laboratories in the United States have tested 73,576 respiratory specimens for influenza viruses; 12,651 (17%) tested positive. For the week ending February 26, of 1118 specimens tested for influenza virus, 111 (10%) tested positive. During October 3–February 26, the highest percentage of specimens testing positive for influenza viruses was 33% during the week ending December 25 (week 51). During the previous five influenza seasons, peak percentages of specimens testing positive for influenza viruses ranged from 19% to 34%. The weeks with peak percentages of specimens testing positive ranged from week 51 to week 6.

Of the 12,651 positive specimens reported since October 3, 12,622 (99.8%) were type A, and 29 (0.2%) were type B. Of the 3310 influenza A viruses subtyped as of February 26, 3266 (99%) were H3N2 viruses, and 44 (1%) were H1N1 viruses. CDC has

FIGURE 1. Percentage of mortality attributable to pneumonia and influenza (P&I) in 122 cities, by week of report — United States, 1994–2000



*The epidemic threshold is 1.645 standard deviations above the seasonal baseline. The expected seasonal baseline is projected using a robust regression procedure in which a periodic regression model is applied to observed percentages of deaths from P&I since 1983.

Influenza Activity — Continued

characterized antigenically 380 influenza viruses received from U.S. laboratories since October 3. Of the 359 antigenically characterized influenza A (H3N2) viruses, 336 (94%) were similar to the vaccine strain A/Sydney/05/97, and 23 (6%) showed somewhat reduced titers to ferret antisera produced against the A/Sydney/05/97 virus. This is the third consecutive winter that the influenza A/Sydney/05/97-like viruses have predominated in the United States and worldwide. All four of the antigenically characterized U.S. influenza type B viruses were similar to the B/Beijing/184/93-like virus that is represented in the current vaccine by the B/Yamanashi/166/98 virus. Of the 17 antigenically characterized influenza A(H1N1) viruses, one was similar to the vaccine strain A/Beijing/262/95, eight were similar to the A/Bayern/07/95 virus, and eight were related more closely to the antigenic variant A/New Caledonia/20/99. A/Bayern/07/95-like viruses are distinct antigenically from the A/Beijing/262/95-like viruses; however, the A/Beijing/262/95 vaccine strain produces high titers of antibodies that cross-react with A/Bayern/07/95-like viruses.

Reported by: Participating state and territorial epidemiologists and state public health laboratory directors. World Health Organization collaborating laboratories. National Respiratory and Enteric Virus Surveillance System laboratories. Sentinel Physicians Influenza Surveillance System. Surveillance Systems Br, Div of Public Health Surveillance and Informatics, Epidemiology Program Office; Mortality Statistics Br, Div of Vital Statistics, National Center for Health Statistics; WHO Collaborating Center for Reference and Research on Influenza, Respiratory and Enteric Virus Br, and Influenza Br, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases, CDC.

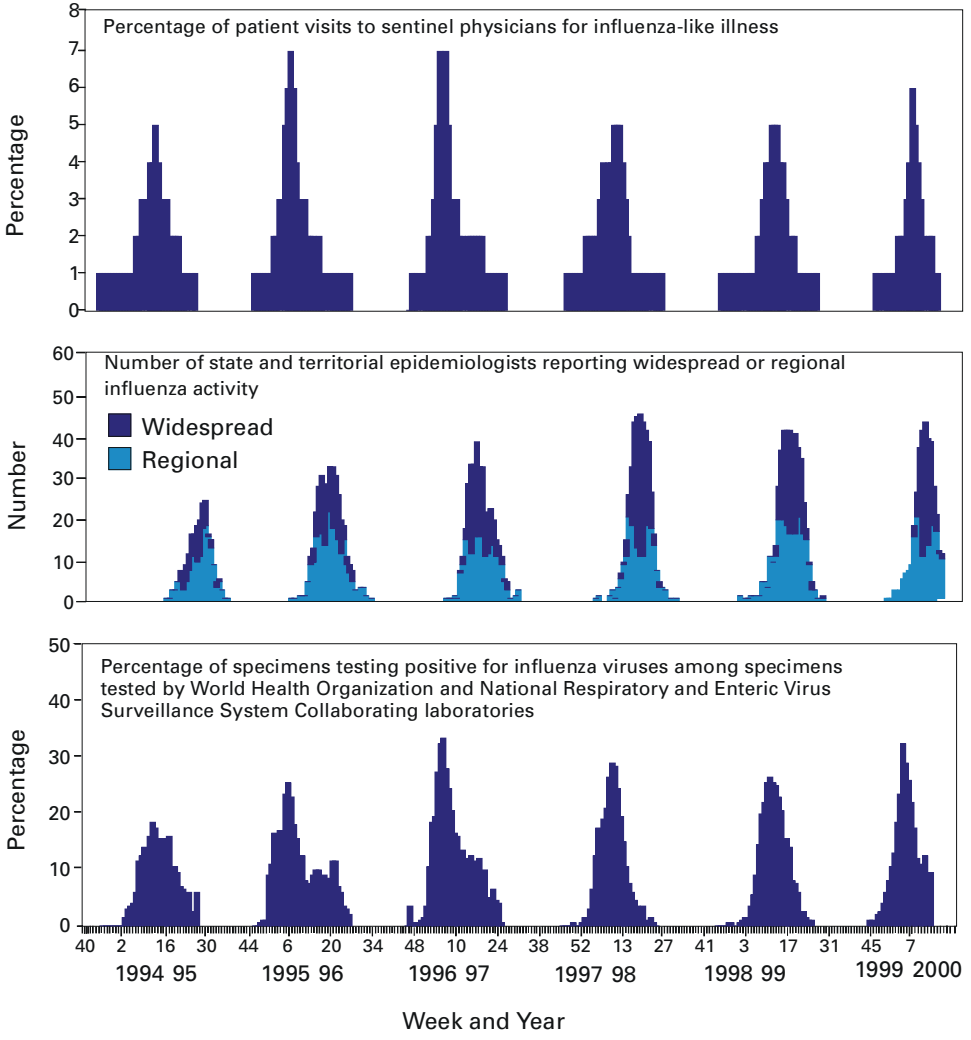
Editorial Note: During the 1999–2000 season, influenza A/Sydney/05/97 (H3N2)-like viruses have predominated, with peak activity occurring during weeks 51–2. Peak activity for this season occurred approximately 4–6 weeks earlier than peak activity during the 1994–95, 1997–98, and 1998–99 influenza seasons but at approximately the same time as the 1995–96 and 1996–97 seasons. Nationally, influenza activity appears to be decreasing. This season's peak percentage of patient visits to sentinel physicians for ILI, peak percentage of respiratory specimens testing positive for influenza viruses, and peak number of state and territorial epidemiologists reporting either widespread or regional influenza activity have been within the range seen during the previous five seasons (Figure 2). However, the peak percentage of deaths attributed to P&I in the 122 Cities MRS has been higher than levels seen during the previous five seasons.

The 122 Cities MRS is a voluntary mortality reporting system that provides weekly data throughout the year to estimate the percentage of total deaths attributed to P&I. Factors that affect the percentage of P&I deaths estimated by the 122 Cities MRS include 1) the incidence of influenza in the population, 2) the level of pre-existing immunity to circulating viruses in the general population (as a result of previous natural infection or influenza vaccination), 3) the virulence of circulating influenza viruses, 4) the proportion of the population with conditions placing them at high risk for complications and death attributable to influenza, 5) the incidence and virulence of other respiratory pathogens, and 6) methodologic factors (*2,3*). The specific combination of factors contributing to the increased percentage of deaths attributed to P&I this season is not clear; however, one contributing factor has been a change in the P&I case definition for the 122 Cities MRS (*1*).

Before the 1999–2000 season, vital statistics offices participating in the 122 Cities MRS were asked to report a death as a P&I death when pneumonia was listed in part I of the death certificate or when influenza was listed anywhere on the death certificate (part I or part II). However, this case definition did not allow P&I mortality cases to be identified

Influenza Activity — Continued

FIGURE 2. Results of three influenza surveillance systems*, by week and year — United States, 1994–2000



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Influenza Activity — Continued

easily in computerized mortality systems, and an evaluation of the 122 Cities MRS conducted in 1999 showed that the case definition was not used consistently by all cities (CDC, unpublished data, 1999). Some large cities reported P&I deaths on the basis of underlying causes of death (CDC, unpublished data, 1999). In addition, in January 1999, CDC's National Center for Health Statistics (NCHS) implemented the *International Statistical Classification of Diseases and Related Public Health Problems, 10th Revision* (ICD-10) (*1*). Coding rules for the underlying cause of death for pneumonia in ICD-10 substantially differ from those in *International Classification of Diseases, Ninth Revision* (ICD-9) (*4*). Among cities that reported P&I deaths using underlying causes of death coded according to ICD-10, a substantial decrease in the number of reported P&I deaths was seen in the second week of January 1999 compared with the previous week (CDC, unpublished data, 1999).

In response to inconsistent use of the old case definition and the impact of the change from ICD-9 to ICD-10 on reporting to the 122 Cities MRS in some cities, CDC modified the 122 Cities MRS case definition for reporting P&I deaths for the 1999–2000 season. Cities were asked to report a death as a P&I death when either pneumonia or influenza was listed anywhere on the death certificate (*2*). The new case definition is simpler and more compatible with computerized mortality systems. Many cities have implemented the new 122 Cities MRS P&I case definition; some cities continue to use underlying cause of death data coded according to ICD-10 for reporting to the 122 Cities MRS. For cities using the new reporting case definition, the number of P&I deaths reported to the 122 Cities MRS would have been expected to increase.

The effect of the concurrent ICD-9 to ICD-10 change and reporting case definition change is unclear. To clarify the impact of these changes, CDC will continue to analyze data from the 122 Cities MRS and will compare the data with vital statistics data from the NCHS. In addition, CDC will continue to examine other possible causes of the increased P&I mortality reported to the 122 Cities MRS this season. The increased P&I mortality reported this season must be interpreted with caution because influenza activity levels detected by the other three influenza surveillance systems this season have been similar to those seen during the previous five seasons.

Influenza surveillance data collected by CDC are updated weekly from October through May. Summary reports are available through CDC's voice information system, telephone (888) 232-3228, fax (888) 232-3299 (request document number 361100), or through CDC's National Center for Infectious Diseases, Division of Viral and Rickettsial Diseases, Influenza Branch World-Wide Web site, http://www.cdc.gov/ncidod/diseases/flu/weekly.htm.

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Update: Surveillance for West Nile Virus in Overwintering Mosquitoes — New York, 2000

Following the 1999 West Nile encephalitis outbreak in New York, guidelines were developed to direct surveillance, prevention, and control efforts in the eastern United States (*1*). As recommended in the guidelines, the New York City and New York state departments of health developed comprehensive West Nile virus (WNV) surveillance and control programs, which included collecting overwintering *Culex* mosquitoes to determine whether WNV might persist throughout the winter and initiate a zoonotic transmission cycle in the spring of 2000. As part of this surveillance effort, adult *Culex* mosquitoes were collected from structures in New York City during January–February 2000 to determine whether overwintering mosquitoes were infected with WNV. This report summarizes the results of this analysis, which documented WNV RNA in some mosquito pools.

Mosquitoes were sought from sites within the city's storm and sanitary sewer system, historic sites at Fort Totten in northeastern Queens, hangars and other locations at the abandoned Flushing Airport, and utility rooms under the Whitestone Bridge and under municipal swimming pools. Collection sites were selected based on location of WNV-infected humans and mosquitoes during the 1999 outbreak (*2*). Mosquitoes were pooled and then tested for the presence of WNV using vero cell plaque assay (*3*) and a fluorogenic real-time polymerase chain reaction (PCR) assay (TaqMan™, Perkin-Elmer Biosystems, Foster City, California*) that focused on three different primer pairs: the envelope protein and the NS-1 and NS-5 regions (*4*).

No pools produced live virus isolates in the plaque assay. However, three of the 67 pools containing *Culex* spp. mosquitoes, all of which were collected from Fort Totten, reproducibly demonstrated low but detectable levels of WNV RNA.

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Editorial Note: The standard technique for detecting virus in mosquitoes is the cell culture plaque assay, which detects only live virus. The real-time PCR technique was first used to detect WNV RNA in mosquitoes in the outbreak investigation during September–November 1999, and produced results consistent with those obtained by plaque assay (CDC, unpublished data, 1999). This experimental assay is highly sensitive for detecting the nucleic acids of pathogens and represents a novel approach for detecting and quantifying viruses.

In the positive pools described in this report, the intensity of the TaqMan signal was in the range consistent with approximately one plaque forming unit (vero cell plaque assay equivalent) according to a standard curve generated in the assay. The ability to detect WNV RNA in the absence of infectious viral particles might be because 1) the virus titer in the overwintering mosquito may be near or below the detectable limits of the plaque assay method; 2) the virus may be noninfectious because of biologic changes in overwintering mosquitoes; 3) the virus may have been killed during the collection and processing of specimens; 4) noninfectious viral RNA may persist in the mosquitoes; or

*The use of trade names is for identification only and does not imply endorsement by CDC or the U.S. Department of Health and Human Services.

West Nile Virus — Continued

5) the results were false positives. Attempts to isolate virus from these pools are continuing using other isolation systems.

It is unknown whether WNV will persist in the New York area. Overwintering mosquitoes were difficult to locate, and intact WNV has not been identified. Three fourths of all specimens were obtained from the Fort Totten site. Surveillance of overwintering mosquitoes will continue.

WNV can be transmitted from parent to offspring mosquitoes (*5*), and this vertical transmission has been documented in field populations of *Culex univittatus* in Kenya (*6*). The role of vertical transmission in the maintenance cycles of this virus is uncertain. A related flavivirus (St. Louis encephalitis virus) may persist through the winter in vertically infected, diapausing *Culex* mosquitoes, but it is probably a rare occurrence if it occurs in nature (*7*).

The findings in this report demonstrate the value of continued vigilance in detecting the re-emergence of WNV. Counties where WNV transmission occurred in 1999 should monitor closely for WNV and conduct mosquito-control activities in the spring to reduce the potential for recurrence and amplification of WNV. Mosquito-control activities include reducing the number of mosquito breeding sites, particularly around homes and suburban and urban areas, and applying larvicide to *Culex* larval habitats early.

In December 1999, CDC announced availability of funds to support WNV surveillance, prevention, and control programs. The 19 state and local health departments eligible to apply for these funds represent areas where WNV transmission already has occurred or where transmission would be more likely to occur based on bird migration patterns. The focus of these cooperative agreements enables state and local health departments to increase surveillance activities and enhance laboratory capacity for detecting WNV and other arboviruses. In 2000, surveillance activities will be focused on determining whether WNV survived the winter and, if so, to ascertain its geographic distribution along the Atlantic and Gulf coasts.

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Update: Pulmonary Hemorrhage/Hemosiderosis Among Infants — Cleveland, Ohio, 1993–1996

A review within CDC and by outside experts of an investigation of acute pulmonary hemorrhage/hemosiderosis in infants has identified shortcomings in the implementation and reporting of the investigation described in *MMWR* (*1,2*) and detailed in other scientific publications authored, in part, by CDC personnel (*3–5*). The reviews led CDC to conclude that a possible association between acute pulmonary hemorrhage/hemosiderosis in infants and exposure to molds, specifically *Stachybotrys chartarum*, commonly referred to by its synonym *Stachybotrys atra*, was not proven. This report describes the specific findings of these internal and external reviews.

Background

In December 1994 and January 1997, articles in *MMWR* described a cluster of 10* infants from Cleveland, Ohio, with acute idiopathic pulmonary hemorrhage, also referred to as pulmonary hemosiderosis (*1,2*). The children resided in seven contiguous postal tracts and had had one or more hemorrhagic episodes, resulting in one death, during January 1993–December 1994. Preliminary results of a CDC case-control study (*2*) indicated that hemorrhage was associated with 1) major household water damage during the 6 months before illness and 2) increased levels of measurable household fungi, including the toxin-producing mold *S. chartarum* (syn. *S. atra*).

These findings and the observation that tricothecene mycotoxins were produced in the laboratory by some *S. chartarum* isolates recovered from the homes of study subjects have been published and referenced in peer-reviewed scientific literature (*3–9*). The hypothesis from the findings of the investigation was that infant pulmonary hemorrhage may be caused by exposure to potent mycotoxins produced by *S. chartarum* or other fungi growing in moist household environments (*4,5*). The findings also were cited in environmental health guidelines (*10,11*), congressional testimony (*12*), and the popular media (*13–16*), and have been debated among industrial hygienists and other occupational and environmental health scientists (*17–21*). Despite caution that "further research is needed to determine...causal[*ity*] (*4*)," the findings have influenced closure of public buildings, cleanup and remediation, and litigation (*16,22–28*).

In June 1997, a CDC scientific task force, in a review of the agency's response to the problem, advised the CDC director that concerns about the role of *S. chartarum* in pulmonary hemorrhage needed to be addressed. In response, CDC convened a multidisciplinary internal group of senior scientists (working group) and sought the individual opinions of outside experts. The working group and the outside experts conducted separate reviews of the Cleveland investigation. The working group reviewed background literature, internal CDC documents, and published CDC reports; examined the data set; and interviewed the principal investigators. The external experts reviewed relevant literature, including internal CDC documents and the working group report, and invited additional consultants to address specific topics. The working group and the external consultants each concluded that further work is needed to better describe the clinical problem, its public health impact, and the factors that put infants at risk (*29,30*).

*The first report (*1*) described eight infants identified through November 1994. Two additional infants, identified in December 1994, were added to the original study.

Pulmonary Hemorrhage — Continued

Case Identification

The reviewers had concerns about the characterization of the clinical problem as "hemosiderosis." The acute presentation in all 10 cases, the narrow age distribution (6 weeks to 6 months), and the absence of iron deficiency suggest that the illness described in the cluster of cases in Cleveland (*1,3*) is clinically distinct from idiopathic pulmonary hemosiderosis (IPH), the condition to which this cluster was linked (*31*). Hemosiderosis (i.e., hemosiderin-laden macrophages in the interstitium and alveolar spaces of the lung) is a pathologic finding indicative of pulmonary bleeding of any type, not a unique characteristic of a specific disease, etiology, or pathophysiologic process (*32,33*). Therefore, in referring to the cluster of cases in Cleveland, the working group defined that cluster as AIPH in infants. From the limited clinical and historic information available to the reviewers on cases added to the Cleveland series since the original cluster (D. Dearborn, Case Western Reserve Department of Pediatrics, personal communication, September 1999), the external consultants concluded that some of these additional cases (*6*), including several identified in a retrospective review of sudden infant death syndrome cases (*2*), do not conform to the clinical patterns of cases in the original cluster. Both groups of reviewers recognized limitations that precluded drawing conclusions about clinical or etiologic ties to IPH.

Association of Household AIPH with Water Damage and Fungi

Both groups of reviewers concluded that the available evidence does not substantiate the reported epidemiologic associations—between household water damage and AIPH (*3*) or between household fungi and AIPH (*4*)—or any inferences regarding causality. The interpretation of water damage and its association with AIPH was considered to have been hampered by the limited descriptive information, by the lack of standard criteria for water damage, and by the absence of a standard protocol for inspecting and recording information from home to home. Similarly, assessment of exposure to fungi or mycotoxin also was difficult to interpret because the methods did not distinguish between contamination and clinically meaningful exposure. No isolates or serologic evidence of exposure to fungi or mycotoxin were obtained in individual case-infants.

Evaluation of Analysis Methods

Three factors, considered together, contributed to the groups' conclusions that *S. chartarum* was not clearly associated with AIPH:

1. The working group found that the reported odds ratio (OR) of 9.8 for a change of 10 colony-forming units (CFU) per m^3 (*4*) was statistically unstable and potentially inflated. The estimate was very sensitive to at least three influential steps or strategies in the analysis. First, the mean airborne *S. chartarum* concentrations (CFU/m^3) for each household were calculated incorrectly. Substituting the corrected means reduced the OR by 44% to 5.5. Second, the mean *S. chartarum* value (CFU/m^3) was imputed in one case home.[†] The sample was collected many months after sampling in the other case homes and, along with all other household samples collected at the same time, produced unusually heavy growth of non-*Stachybotrys* fungi, suggesting important differences in sampling technique, laboratory

[†] An imputed value, 4 CFU/m^3 (half the limit of detection divided by the number of plates), was used because colonies were detected on one or more of the plates, but were too few to count on the final platings and, therefore, recorded in the laboratory record as 0 CFU/m^3.

Pulmonary Hemorrhage — Continued

procedure, or environmental conditions at the time of the sampling. Exclusion of this household from the analysis[§] and correcting the means reduced the OR to 1.9. Third, matching on age in a small data set created an unstable OR. Subject age would not be expected to influence concurrent measurements of airborne fungi and did not correlate with the mean *S. chartarum* CFU/m^3. Therefore, the strategy to match cases and controls based on age was unnecessary and potentially misleading. Analysis without the matching variable reduced the OR from 9.8 to 1.5.

2. Although the methods specified that sampling be done in a blinded manner (*4*), one investigator correctly inferred the identity of many case homes and wanted to be certain to identify culturable fungi in these homes if they were present. As a result, the investigator collected twice the number of air samples from case homes as were collected from control homes. In addition, investigators used aggressive, nonstandardized methods to generate artificial aerosols for sampling (e.g., vacuuming carpets and pounding on furnace ducts and furniture [*4*]), increasing the potential for differential exposure assessments of cases and controls if sampling were conducted in an unblinded manner.
3. Among homes classified as water damaged, the presence of any culturable airborne *S. chartarum* was identified in similar percentages of case and control homes (four of eight compared with three of seven) (CDC, unpublished data, February 1997). Although the numbers were small, this provided little evidence of a difference in the presence of airborne *S. chartarum* between water-damaged case and control homes. If the classifications of water damage were correct, this would suggest that water damage, or an unrecognized correlate of water damage, may be confounding any perceived association with *S. chartarum*.

Overall, the reviewers concluded that on the basis of these limitations the evidence from these studies was not of sufficient quality to support an association between *S. chartarum* and AIPH. In addition, the reviewers noted that evidence from other sources supporting a causal role of *S. chartarum* in AIPH is limited. First, AIPH is not consistent with historic accounts of animal and human illness caused by *S. chartarum* or related toxigenic fungi. Second, clusters of AIPH have not been reported in other flood-prone areas where growth of *S. chartarum* or other toxigenic fungi might be favored. Third, the mold-disease association observed in the Cleveland investigation was not observed in the investigation of a similar cluster in Chicago (*34*; CDC, unpublished data, May 1997).

Reported by: Office of the Director, CDC.

Editorial Note: On the basis of the findings and conclusions in the reports of the CDC internal working group and the individual opinions of the external consultants, CDC advises that conclusions regarding the possible association between cases of pulmonary hemorrhage/hemosiderosis in infants in Cleveland and household water damage or exposure to *S. chartarum* are not substantiated adequately by the scientific evidence produced in the CDC investigation (*2–4*). Serious shortcomings in the collection, analysis, and reporting of data resulted in inflated measures of association and restricted

[§] The working group's reported reanalysis used the value originally coded in the laboratory record (0 CFU/m^3). The result was identical to that obtained by excluding the household from the analysis.

Pulmonary Hemorrhage — Continued

interpretation of the reports. The associations should be considered not proven; the etiology of AIPH is unresolved.

As a result of the reviews, CDC will implement the following:

1. CDC will continue to investigate cases of AIPH in infants, particularly when clusters of cases can be identified.
2. CDC will continue to consider possible associations between AIPH and many possible etiologies, including household water damage or exposure to environmental hydrophilic fungi/molds such as *S. chartarum*. Standardized protocols will be recommended for data collection and environmental assessment.
3. CDC will assist in implementation of surveillance for individual cases or clusters of cases of AIPH in infants.
4. In collaboration with pediatric pulmonary specialists and with state and local health officials, a consistent standard surveillance case definition will be developed for reporting.
5. As part of future CDC investigations, CDC will enhance sampling and laboratory analytic methods to improve assessment of environmental exposures to molds/fungi.

Copies of the report of the working group and a synthesis prepared by CDC of the reports individually submitted by the external experts can be accessed at http://www.cdc.gov/od/ads, then click on "Pulmonary Hemorrhage/Hemosiderosis Among Infants."

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Notice to Readers

Updated Guidelines for the Use of Rifabutin or Rifampin for the Treatment and Prevention of Tuberculosis Among HIV-Infected Patients Taking Protease Inhibitors or Nonnucleoside Reverse Transcriptase Inhibitors

A previously published report provided guidelines for managing the pharmacologic interactions that can result when patients receive protease inhibitors and nonnucleoside reverse transcriptase inhibitors (NNRTIs) for treatment of human immunodeficiency virus (HIV) infection together with rifamycins for the treatment of tuberculosis (TB) (*1*). Protease inhibitors and NNRTIs are antiretroviral agents that are substrates that may inhibit or induce cytochrome P-450 isoenzymes (CYP450). Rifamycins are antituberculosis agents that induce CYP450 and may decrease substantially blood levels of the antiretroviral drugs. The pharmacologic interactions are called "drug-drug" because, in addition to the effect rifamycins have on protease inhibitors and NNRTIs, the antiretroviral agents may affect the blood levels of rifamycins. This notice presents updated data pertaining to drug-drug interactions between these agents and recommendations for their use from a group of CDC scientists and outside expert consultants (*1*).

The other class of antiretroviral agents available in the United States—nucleoside reverse transcriptase inhibitors (NRTIs) (zidovudine, didanosine, zalcitabine, stavudine, lamivudine, and the new drug abacavir [*2*])—are not metabolized by CYP450. Concurrent use of NRTIs and rifamycins is not contraindicated and does not require dose adjustments.

Drug regimens that include rifabutin instead of rifampin previously were suggested as the preferable alternative for the treatment of active TB among patients taking protease inhibitors or NNRTIs (*1*). The use of rifampin to treat active TB was specifically contraindicated for patients who take any of the protease inhibitors or NNRTIs, and the use of rifabutin was contraindicated for patients taking the protease inhibitor ritonavir or the NNRTI delavirdine. New data indicate that rifampin can be used for the treatment of active TB in three situations: 1) in a patient whose antiretroviral regimen includes the NNRTI efavirenz (*3*) and two NRTIs; 2) in a patient whose antiretroviral regimen includes the protease inhibitor ritonavir (*4*) and one or more NRTIs; or 3) in a patient whose antiretroviral regimen includes the combination of two protease inhibitors (*5*) (ritonavir and either saquinavir hard-gel capsule [HGC] or saquinavir soft-gel capsule [SGC]) (Table 1). In addition, the updated guidelines recommend substantially reducing the dose of rifabutin (150 mg two or three times per week) when it is administered to patients taking ritonavir (*6*) (with or without saquinavir HGC or saquinavir SGC) and increasing the dose of rifabutin (either 450 mg or 600 mg daily or 600 mg two or three times per week) when rifabutin is used concurrently with efavirenz (Table 1) (*7*).

Of the available protease inhibitors, ritonavir has the highest potency in inhibiting CYP450 (*1*). The inhibition of this pathway increases plasma concentrations of other coadministered protease inhibitors, an interaction exploited in different combinations (e.g., ritonavir at low doses [400 mg twice per day] in combination with saquinavir [400 mg twice per day] substantially increases blood levels of saquinavir) (*8*). For patients treated with two protease inhibitors, the complexity of drug interactions is amplified, and

TABLE 1. Recommendations for coadministering different antiretroviral drugs with the antimycobacterial drugs rifabutin and rifampin — United States, 2000

Antiretroviral	Use in combination with rifabutin	Use in combination with rifampin	Comments
Saquinavir*			
Hard-gel capsules (HGC)	Possibly†, if antiretroviral regimen also includes ritonavir	Possibly, if antiretroviral regimen also includes ritonavir	Coadministration of saquinavir SGC with usual-dose rifabutin (300 mg daily or two or three times per week) is a possibility. However, the pharmacokinetic data and clinical experience for this combination are limited.
Soft-gel capsules (SGC)	Probably§	Possibly, if antiretroviral regimen also includes ritonavir	The combination of saquinavir SGC or saquinavir HGC and ritonavir, coadministered with 1) usual-dose rifampin (600 mg daily or two or three times per week), or 2) reduced-dose rifabutin (150 mg two or three times per week) is a possibility. However, the pharmacokinetic data and clinical experience for these combinations are limited.
			Coadministration of saquinavir HGC or saquinavir SGC with rifampin (in the absence of ritonavir) is not recommended because rifampin markedly decreases concentrations of saquinavir.
Ritonavir	Probably	Probably	If the combination of ritonavir and rifabutin is used, then a substantially reduced-dose rifabutin regimen (150 mg two or three times per week) is recommended.
			Coadministration of ritonavir with usual-dose rifampin (600 mg daily or two or three times per week) is a possibility, though pharmacokinetic data and clinical experience are limited.
Indinavir	Yes	No	There is limited, but favorable, clinical experience with coadministration of indinavir¶ with a reduced daily dose of rifabutin (150 mg) or with the usual dose of rifabutin (300 mg two or three times per week).
			Coadministration of indinavir with rifampin is not recommended because rifampin markedly decreases concentrations of indinavir.
Nelfinavir	Yes	No	There is limited, but favorable, clinical experience with coadministration of nelfinavir** with a reduced daily dose of rifabutin (150 mg) or with the usual dose of rifabutin (300 mg two or three times per week).
			Coadministration of nelfinavir with rifampin is not recommended because rifampin markedly decreases concentrations of nelfinavir.

Amprenavir	Yes	No	Coadministration of amprenavir with a reduced daily dose of rifabutin (150 mg) or with the usual dose of rifabutin (300 mg two or three times per week) is a possibility, but there is no published clinical experience. Coadministration of amprenavir with rifampin is not recommended because rifampin markedly decreases concentrations of amprenavir.
Nevirapine	Yes	Possibly	Coadministration of nevirapine with usual-dose rifabutin (300 mg daily or two or three times per week) is a possibility based on pharmacokinetic study data. However, there is no published clinical experience for this combination. Data are insufficient to assess whether dose adjustments are necessary when rifampin is coadministered with nevirapine. Therefore, rifampin and nevirapine should be used only in combination if clearly indicated and with careful monitoring.
Delavirdine	No	No	Contraindicated because of the marked decrease in concentrations of delavirdine when administered with either rifabutin or rifampin.
Efavirenz	Probably	Probably	Coadministration of efavirenz with increased-dose rifabutin (450 mg or 600 mg daily, or 600 mg two or three times per week) is a possibility, though there is no published clinical experience. Coadministration of efavirenz[††] with usual-dose rifampin (600 mg daily or two or three times per week) is a possibility, though there is no published clinical experience.

* Usual recommended doses are 400 mg two times per day for each of these protease inhibitors and 400 mg of ritonavir.
[†] Despite limited data and clinical experience, the use of this combination is potentially successful.
[§] Based on available data and clinical experience, the successful use of this combination is likely.
[¶] Usual recommended dose is 800 mg every 8 hours. Some experts recommend increasing the indinavir dose to 1000 mg every 8 hours if indinavir is used in combination with rifabutin.
** Usual recommended dose is 750 mg three times per day or 1250 mg twice daily. Some experts recommend increasing the nelfinavir dose to 1000 mg if the three-times-per-day dosing is used and nelfinavir is used in combination with rifabutin.
[††] Usual recommended dose is 600 mg daily. Some experts recommend increasing the efavirenz dose to 800 mg daily if efavirenz is used in combination with rifampin.

Notice to Readers — Continued

recommendations about dose modifications are difficult when rifamycins also are administered. However, if ritonavir (taken in doses ranging from 100 mg to 600 mg twice per day) is combined with any other protease inhibitor for HIV therapy, and the administration of rifabutin also becomes necessary, the need to use substantially reduced doses of rifabutin (150 mg two or three times per week) is certain. In comparison, for a patient who is undergoing treatment with saquinavir SGC (a relatively weak CYP450 inhibitor [*1*]) and two NRTIs, the usual dosage (300 mg daily or two or three times per week) of rifabutin should not be decreased (*9*). When both an inhibitor and an inducer of CYP450 are used with rifamycins (e.g., a protease inhibitor in combination with a NNRTI), a different complex interaction occurs and the appropriate drug-dose adjustments necessary to ensure optimum levels of both antiretroviral drugs and rifamycins are unknown.

Alternatively, for patients undergoing therapy with complex combinations of protease inhibitors or NNRTIs, the use of antituberculosis regimens containing no rifamycins can be considered. Isoniazid does not have an interactive effect with either the protease inhibitors or NNRTIs, and the use of a 9-month regimen of isoniazid is recommended as the preferred option for treatment for latent *Mycobacterium tuberculosis* infection (LTBI) (*10*). However, 2-month regimens of a rifamycin and pyrazinamide also are recommended for LTBI therapy (*10*). If these regimen options are chosen for HIV-infected patients with LTBI, the drug-drug interactions and dose adjustments for antiretroviral drugs and rifamycins apply. However, for HIV-infected patients with active TB, use of a treatment regimen that does not contain a rifamycin, although possible, may be suboptimal and usually is not recommended.

The management of HIV-infected patients taking protease inhibitors or NNRTIs and undergoing treatment for active TB with rifabutin or rifampin should be directed by, or conducted in consultation with, a physician with experience in the care of patients with these two diseases. This care should include close attention to the possibility of TB treatment failure, antiretroviral treatment failure, paradoxical reactions of TB, unique and synergistic side effects for all drugs used, and drug toxicities associated with increased serum concentrations of rifamycins.

Copies of these guidelines are available from CDC's National Center for HIV, STD, and TB Prevention, 1600 Clifton Road, N.E., Mailstop E-06, Atlanta, GA 30333, or from the CDC World-Wide Web site, http://www.cdc.gov/nchstp/tb.

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Errata: Vol. 49, No. 8

In the article "Monitoring Hospital-Acquired Infections to Promote Patient Safety—United States, 1990–1999," the data reported in Table 1 on page 151 were incorrect. Table 1 represents data from the National Nosocomial Infection Surveillance (NNIS) system for 1992–1999. The correct data for 1997–1999 are on page 190.

In the article "Corporate Action to Reduce Air Pollution—Atlanta, Georgia, 1998–1999," on page 154 in the second paragraph there is a reference to Table 2. There was no Table 2 for that article.

TABLE 1. Device-associated infection rates, by type of device and type of intensive care unit (ICU) — National Nosocomial Infection Surveillance system, United States, 1997–1999

ICU/Type of infection	No. units	Total no. of days patient in ICU	Device days*	DU†	Device-associated infection rates					
					Mean	Percentiles				
						10th	25th	50th	75th	90th
Coronary		377,242								
Catheter-associated urinary tract infection§	79		192,226	0.51	5.6	0.9	2.6	4.5	8.1	12.3
Central line-associated bloodstream infection¶	79		118,914	0.32	4.3	0.0	1.8	3.9	5.9	9.1
Ventilator-associated pneumonia**	78		83,735	0.22	7.6	1.0	3.9	7.1	10.5	14.8
Medical (nonsurgical)		651,356								
Catheter-associated urinary tract infection	107		483,209	0.74	6.5	2.0	3.6	6.1	8.3	10.6
Central line-associated bloodstream infection	108		337,722	0.52	6.1	1.6	3.7	5.7	7.6	10.1
Ventilator-associated pneumonia	107		322,825	0.50	6.6	1.9	3.3	6.3	8.2	12.2
Pediatric		318,629								
Catheter-associated urinary tract infection	55		103,505	0.32	4.9	0.0	2.0	4.7	6.6	8.6
Central line-associated bloodstream infection	56		145,532	0.46	7.7	1.5	3.7	6.8	9.5	12.1
Ventilator-associated pneumonia	56		142,475	0.45	5.0	0.2	1.6	3.7	7.9	11.3
Surgical		665,638								
Catheter-associated urinary tract infection	122		566,054	0.85	5.0	1.5	2.8	4.4	6.9	10.1
Central line-associated bloodstream infection	122		444,040	0.67	5.4	1.1	2.3	4.9	6.9	9.9
Ventilator-associated pneumonia	120		319,627	0.48	13.0	5.2	7.3	11.3	14.9	23.6

* Number of days a urinary catheter, central line, or ventilator was used by all patients.

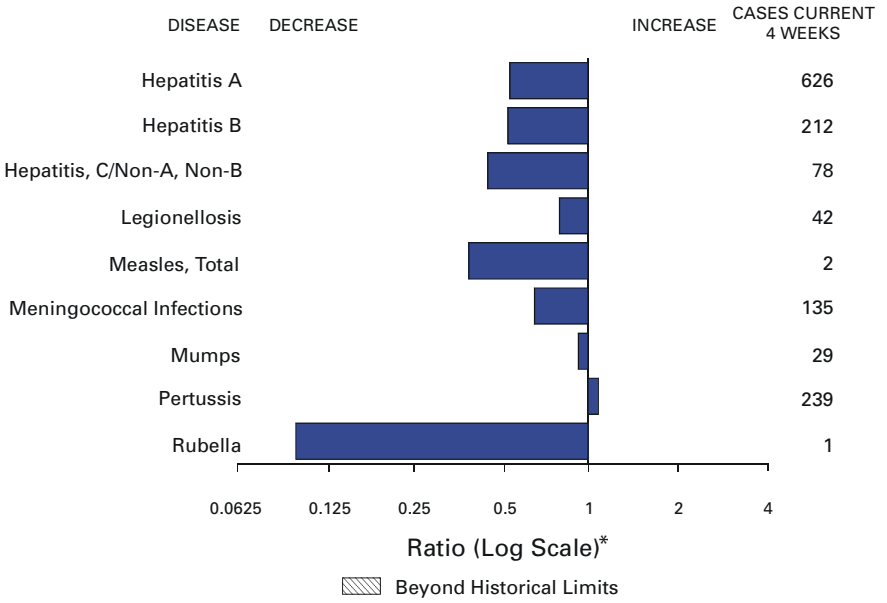
† Device utilization ratio (device days divided by total number of days patient was in ICU).

§ Number of urinary catheter-associated urinary tract infections divided by number of days a urinary catheter was used multiplied by 1000.

¶ Number of central line-associated bloodstream infections divided by number of days a central line was used multiplied by 1000.

** Number of ventilator-associated cases of pneumonia divided by number of days a mechanical ventilator was used multiplied by 1000.

FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending March 4, 2000, with historical data — United States



*Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary — provisional cases of selected notifiable diseases, United States, cumulative, week ending March 4, 2000 (9th Week)

	Cum. 2000		Cum. 2000
Anthrax	-	HIV infection, pediatric*§	34
Brucellosis*	3	Plague	2
Cholera	-	Poliomyelitis, paralytic	-
Congenital rubella syndrome	1	Psittacosis*	1
Cyclosporiasis*	2	Rabies, human	-
Diphtheria	-	Rocky Mountain spotted fever (RMSF)	22
Encephalitis: California* serogroup viral	1	Streptococcal disease, invasive Group A	486
eastern equine*	-	Streptococcal toxic-shock syndrome*	20
St. Louis*	-	Syphilis, congenital¶	-
western equine*	-	Tetanus	2
Ehrlichiosis human granulocytic (HGE)*	12	Toxic-shock syndrome	24
human monocytic (HME)*	1	Trichinosis	1
Hansen Disease*	6	Typhoid fever	46
Hantavirus pulmonary syndrome*†.	-	Yellow fever	-
Hemolytic uremic syndrome, post-diarrheal*	8		

-: no reported cases
*Not notifiable in all states.
† Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).
§ Updated monthly from reports to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), last update February 27, 2000.
¶ Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending March 4, 2000, and March 5, 1999 (9th Week)

Reporting Area	AIDS		Chlamydia§		Cryptosporidiosis		*Escherichia coli* O157:H7*			
							NETSS		PHLIS	
	Cum. 2000†	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	6,288	6,945	74,379	113,160	151	235	209	184	88	139
NEW ENGLAND	511	352	3,680	3,616	6	10	16	29	15	28
Maine	6	5	221	124	1	1	1	1	1	-
N.H.	5	13	133	181	-	1	3	1	3	1
Vt.	1	4	88	85	4	1	1	1	2	-
Mass.	370	238	1,506	1,535	-	6	5	17	3	14
R.I.	17	20	370	375	1	-	-	-	-	1
Conn.	112	72	1,362	1,316	-	1	6	9	6	12
MID. ATLANTIC	1,592	1,492	890	13,399	15	43	23	11	-	2
Upstate N.Y.	65	76	N	N	8	17	23	8	-	-
N.Y. City	986	835	-	6,540	4	21	-	1	-	1
N.J.	387	370	516	2,139	-	1	-	2	-	1
Pa.	154	211	374	4,720	3	4	N	N	-	-
E.N. CENTRAL	590	489	14,000	18,105	17	45	22	35	6	22
Ohio	92	97	3,184	5,992	11	6	8	20	3	7
Ind.	56	52	2,044	1,897	3	3	2	6	1	7
Ill.	353	231	3,701	4,633	-	6	8	4	-	3
Mich.	67	81	3,759	3,494	3	5	4	5	1	2
Wis.	22	28	1,312	2,089	-	25	N	N	1	3
W.N. CENTRAL	151	161	4,115	7,151	8	19	56	34	26	27
Minn.	32	28	996	1,354	-	10	10	10	10	11
Iowa	10	13	547	342	1	1	9	5	4	2
Mo.	70	84	902	3,266	3	4	30	2	8	2
N. Dak.	-	3	-	161	1	-	2	2	1	1
S. Dak.	2	3	298	370	1	1	-	-	-	-
Nebr.	7	10	465	666	2	1	2	3	2	11
Kans.	30	20	907	992	-	2	3	12	1	-
S. ATLANTIC	1,531	1,832	14,181	24,118	22	30	20	17	13	10
Del.	26	31	500	524	-	-	-	1	-	-
Md.	153	252	971	2,289	1	4	5	1	1	-
D.C.	112	69	507	N	-	3	-	-	U	U
Va.	115	102	2,001	2,484	-	-	4	5	4	2
W. Va.	6	14	219	411	-	-	1	-	1	1
N.C.	75	125	3,187	3,953	3	1	6	3	1	3
S.C.	156	128	669	4,376	-	-	-	1	-	1
Ga.	183	207	2,523	4,878	12	21	2	1	3	U
Fla.	705	904	3,604	5,203	6	1	2	5	3	3
E.S. CENTRAL	281	300	7,180	7,267	6	2	10	15	4	5
Ky.	37	37	1,455	1,251	-	1	4	5	U	U
Tenn.	105	130	1,809	2,463	-	1	5	6	4	2
Ala.	92	69	2,169	2,501	6	-	1	2	-	2
Miss.	47	64	1,747	1,052	-	-	-	2	-	1
W.S. CENTRAL	542	980	12,517	14,427	5	15	8	7	11	10
Ark.	20	34	554	862	1	-	2	2	1	2
La.	92	67	2,232	1,436	-	12	-	3	6	2
Okla.	16	19	1,265	1,488	1	1	3	1	3	-
Tex.	414	860	8,466	10,641	3	2	3	1	1	6
MOUNTAIN	213	207	3,470	5,930	9	22	22	12	4	10
Mont.	3	3	-	208	-	1	5	-	-	-
Idaho	3	5	64	326	1	2	3	-	-	2
Wyo.	1	-	133	135	1	-	2	1	-	1
Colo.	52	56	602	1,230	1	2	7	3	1	1
N. Mex.	26	9	334	903	1	10	-	1	-	-
Ariz.	56	86	1,407	2,260	2	7	3	3	2	1
Utah	28	27	387	318	3	N	1	4	1	4
Nev.	44	21	543	550	-	-	1	-	-	1
PACIFIC	877	1,132	14,346	19,147	63	49	32	24	9	25
Wash.	102	58	2,247	2,133	N	N	3	1	3	9
Oreg.	22	32	454	954	1	3	3	10	3	8
Calif.	727	1,021	11,402	15,195	62	46	23	13	-	8
Alaska	-	5	243	317	-	-	-	-	-	-
Hawaii	26	16	-	548	-	-	3	-	3	-
Guam	9	1	-	85	-	-	N	N	U	U
P.R.	153	215	142	U	-	-	-	1	U	U
V.I.	6	3	-	U	-	U	-	U	U	U
Amer. Samoa	-	-	-	U	-	U	-	U	U	U
C.N.M.I.	-	-	-	U	-	U	-	U	U	U

N: Not notifiable U: Unavailable -: no reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands

* Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

† Updated monthly from reports to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, last update February 27, 2000.

§ Chlamydia refers to genital infections caused by *C. trachomatis*. Totals reported to the Division of STD Prevention, NCHSTP.

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending March 4, 2000, and March 5, 1999 (9th Week)

Reporting Area	Gonorrhea		Hepatitis C/NA,NB		Legionellosis		Lyme Disease	
	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	47,528	62,629	301	590	92	153	476	746
NEW ENGLAND	1,132	1,301	-	2	5	11	60	153
Maine	12	9	-	-	2	2	-	1
N.H.	13	15	-	-	1	1	15	-
Vt.	4	11	-	1	-	3	-	-
Mass.	431	514	-	1	1	2	38	72
R.I.	87	98	-	-	-	1	-	-
Conn.	585	654	-	-	1	2	7	80
MID. ATLANTIC	1,212	7,561	3	21	15	40	335	429
Upstate N.Y.	648	806	3	11	6	8	115	85
N.Y. City	-	3,216	-	-	-	7	2	15
N.J.	302	1,280	-	-	-	5	-	100
Pa.	262	2,259	-	10	9	20	218	229
E.N. CENTRAL	8,749	10,859	48	316	27	47	2	25
Ohio	1,837	2,881	-	-	16	14	2	8
Ind.	931	1,173	-	-	3	1	-	-
Ill.	2,179	3,343	3	6	1	10	-	1
Mich.	2,987	2,519	45	91	6	13	-	1
Wis.	815	943	-	219	1	9	U	15
W.N. CENTRAL	1,455	3,499	43	39	4	4	13	9
Minn.	404	520	-	-	1	-	2	1
Iowa	121	144	-	-	1	2	-	2
Mo.	367	2,112	38	34	2	1	3	2
N. Dak.	-	9	-	-	-	-	-	1
S. Dak.	45	30	-	-	-	-	-	-
Nebr.	141	301	1	1	-	1	-	-
Kans.	377	383	4	4	-	-	8	3
S. ATLANTIC	10,795	19,133	11	36	21	18	48	91
Del.	260	302	-	-	1	2	1	4
Md.	455	2,839	2	18	6	2	37	74
D.C.	427	1,310	-	-	-	-	-	1
Va.	1,446	2,009	-	6	3	2	1	-
W. Va.	50	115	1	2	N	N	3	1
N.C.	3,097	3,540	5	8	2	4	4	11
S.C.	574	2,150	-	1	2	4	-	-
Ga.	1,810	3,171	-	1	-	-	-	-
Fla.	2,676	3,697	3	-	7	4	2	-
E.S. CENTRAL	5,277	6,121	51	41	2	9	-	11
Ky.	611	667	5	5	-	5	-	-
Tenn.	1,469	2,016	15	22	1	4	-	3
Ala.	1,817	2,267	3	1	1	-	-	5
Miss.	1,380	1,171	28	13	-	-	-	3
W.S. CENTRAL	14,591	8,163	68	62	-	1	-	-
Ark.	319	408	1	2	-	-	-	-
La.	9,531	1,453	31	47	-	1	-	-
Okla.	594	785	-	1	-	-	-	-
Tex.	4,147	5,517	36	12	-	-	-	-
MOUNTAIN	1,420	1,706	46	46	8	12	1	1
Mont.	-	3	-	4	-	-	-	-
Idaho	4	23	-	4	1	-	-	-
Wyo.	12	6	31	17	-	-	-	-
Colo.	648	372	7	4	4	1	-	-
N. Mex.	62	180	4	6	-	1	-	1
Ariz.	440	853	4	10	-	1	1	-
Utah	52	34	-	1	3	5	-	-
Nev.	202	235	-	-	-	4	-	-
PACIFIC	2,897	4,286	31	27	10	11	17	27
Wash.	411	367	3	2	2	2	-	-
Oreg.	56	141	7	3	N	N	1	1
Calif.	2,401	3,620	21	22	8	9	16	26
Alaska	29	62	-	-	-	-	-	-
Hawaii	-	96	-	-	-	-	N	N
Guam	-	15	-	-	-	-	-	-
P.R.	30	54	1	-	-	-	N	N
V.I.	-	U	-	U	-	U	-	U
Amer. Samoa	-	U	-	U	-	U	-	U
C.N.M.I.	-	U	-	U	-	U	-	U

N: Not notifiable U: Unavailable - : no reported cases

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending March 4, 2000, and March 5, 1999 (9th Week)

Reporting Area	Malaria		Rabies, Animal		Salmonellosis*			
					NETSS		PHLIS	
	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	111	201	581	794	3,255	4,188	1,814	3,848
NEW ENGLAND	-	3	68	114	210	226	202	240
Maine	-	-	16	19	25	23	9	13
N.H.	-	-	2	5	14	3	8	11
Vt.	-	-	4	18	5	10	3	10
Mass.	-	3	25	33	125	133	132	129
R.I.	-	-	-	10	4	10	12	21
Conn.	-	-	21	29	37	47	38	56
MID. ATLANTIC	12	62	126	170	291	647	193	478
Upstate N.Y.	7	12	100	108	77	115	24	144
N.Y. City	2	30	U	U	114	208	169	195
N.J.	-	15	14	37	-	161	-	135
Pa.	3	5	12	25	100	163	-	4
E.N. CENTRAL	7	23	2	1	430	654	235	563
Ohio	2	2	2	-	140	148	70	114
Ind.	-	4	-	-	45	34	44	40
Ill.	2	9	-	-	134	198	-	205
Mich.	3	5	-	1	71	162	88	143
Wis.	-	3	-	-	40	112	33	61
W.N. CENTRAL	4	7	53	114	197	228	142	257
Minn.	2	-	18	15	42	53	42	92
Iowa	-	2	7	16	17	30	11	28
Mo.	-	5	2	5	65	57	44	73
N. Dak.	-	-	8	15	2	1	10	11
S. Dak.	-	-	7	29	7	7	11	13
Nebr.	1	-	-	1	26	18	7	17
Kans.	1	-	11	33	38	62	17	23
S. ATLANTIC	34	47	251	277	564	741	367	695
Del.	-	-	10	3	8	15	7	13
Md.	18	18	47	73	103	91	73	84
D.C.	-	5	-	-	-	16	U	U
Va.	11	7	67	61	66	84	50	90
W. Va.	-	1	18	15	20	13	12	19
N.C.	4	3	52	62	132	170	67	141
S.C.	-	-	14	11	55	38	41	53
Ga.	-	5	28	28	67	147	117	205
Fla.	1	8	15	24	113	167	-	90
E.S. CENTRAL	4	5	23	39	163	264	89	166
Ky.	1	1	4	12	19	57	16	36
Tenn.	-	2	16	18	40	75	47	75
Ala.	3	2	3	9	70	77	23	47
Miss.	-	-	-	-	34	55	3	8
W.S. CENTRAL	1	9	8	14	192	297	238	396
Ark.	-	1	-	-	31	41	22	35
La.	1	6	-	-	24	46	68	59
Okla.	-	1	8	14	23	32	18	14
Tex.	-	1	-	-	114	178	130	288
MOUNTAIN	8	10	27	20	296	294	210	285
Mont.	-	1	9	8	11	3	-	1
Idaho	-	1	-	-	21	10	-	15
Wyo.	-	-	14	5	6	2	-	5
Colo.	4	3	-	1	59	84	58	84
N. Mex.	-	1	1	-	30	31	21	39
Ariz.	2	3	3	6	90	100	93	82
Utah	2	1	-	-	49	34	38	38
Nev.	-	-	-	-	30	30	-	21
PACIFIC	41	35	23	45	912	837	138	768
Wash.	2	2	-	-	32	34	59	109
Oreg.	4	6	-	-	42	65	49	86
Calif.	35	24	17	42	787	678	-	514
Alaska	-	-	6	3	12	6	2	4
Hawaii	-	3	-	-	39	54	28	55
Guam	-	-	-	-	-	13	U	U
P.R.	-	-	6	7	10	57	U	U
V.I.	-	U	-	U	-	U	U	U
Amer. Samoa	-	U	-	U	-	U	U	U
C.N.M.I.	-	U	-	U	-	U	U	U

N: Not notifiable U: Unavailable -: no reported cases

*Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending March 4, 2000, and March 5, 1999 (9th Week)

Reporting Area	Shigellosis* NETSS Cum. 2000	Shigellosis* NETSS Cum. 1999	Shigellosis* PHLIS Cum. 2000	Shigellosis* PHLIS Cum. 1999	Syphilis (Primary & Secondary) Cum. 2000	Syphilis (Primary & Secondary) Cum. 1999	Tuberculosis Cum. 2000	Tuberculosis Cum. 1999†
UNITED STATES	1,961	2,136	780	1,175	1,135	1,188	1,050	1,870
NEW ENGLAND	45	46	37	54	11	12	32	42
Maine	2	1	-	-	-	-	-	1
N.H.	1	2	1	5	-	-	1	-
Vt.	1	1	-	3	-	1	-	-
Mass.	30	34	27	33	9	7	25	12
R.I.	5	4	4	6	1	1	2	15
Conn.	6	4	5	7	1	3	4	14
MID. ATLANTIC	103	162	54	103	11	44	202	296
Upstate N.Y.	58	34	3	18	-	6	14	14
N.Y. City	32	55	50	44	6	18	123	149
N.J.	-	45	1	41	2	13	59	74
Pa.	13	28	-	-	3	7	6	59
E.N. CENTRAL	312	400	104	179	174	170	126	182
Ohio	20	141	4	13	10	18	19	55
Ind.	49	15	9	8	81	40	6	14
Ill.	94	148	-	142	48	79	89	78
Mich.	141	44	88	3	23	26	6	25
Wis.	8	52	3	13	12	7	6	10
W.N. CENTRAL	134	106	71	91	15	51	64	59
Minn.	35	14	32	19	2	2	24	31
Iowa	19	2	14	3	6	1	7	-
Mo.	62	70	18	60	5	44	27	22
N. Dak.	-	-	-	1	-	-	-	-
S. Dak.	1	-	-	-	-	-	3	2
Nebr.	12	8	4	4	1	1	2	1
Kans.	5	12	3	4	1	3	1	3
S. ATLANTIC	159	303	41	62	268	450	156	238
Del.	-	5	-	1	1	1	-	4
Md.	18	18	4	5	51	90	22	32
D.C.	-	11	U	U	14	33	-	8
Va.	12	13	12	5	20	31	-	17
W. Va.	1	3	1	1	1	1	7	7
N.C.	13	45	5	11	84	113	26	45
S.C.	3	18	1	6	11	41	18	64
Ga.	15	33	3	12	36	76	56	57
Fla.	97	157	15	21	50	64	27	4
E.S. CENTRAL	89	274	52	165	134	213	70	113
Ky.	20	22	10	19	8	23	-	10
Tenn.	44	204	39	137	88	97	21	40
Ala.	7	28	1	9	21	59	49	53
Miss.	18	20	2	-	17	34	-	10
W.S. CENTRAL	164	332	173	400	442	171	17	328
Ark.	38	27	-	19	9	19	12	14
La.	18	23	23	22	351	18	-	U
Okla.	9	79	4	18	31	46	5	12
Tex.	99	203	146	341	51	88	-	302
MOUNTAIN	183	138	46	71	27	30	53	48
Mont.	-	3	-	-	-	-	-	-
Idaho	22	2	-	1	-	-	-	-
Wyo.	1	2	-	1	-	-	-	-
Colo.	24	30	12	20	3	-	6	U
N. Mex.	22	13	12	6	3	-	12	7
Ariz.	70	72	17	31	19	30	15	17
Utah	5	10	5	10	-	-	5	10
Nev.	39	6	-	2	2	-	15	14
PACIFIC	772	375	202	50	53	47	330	564
Wash.	141	10	162	27	8	5	33	22
Oreg.	70	8	35	11	1	1	-	17
Calif.	550	345	-	-	44	40	282	491
Alaska	2	-	-	-	-	-	3	6
Hawaii	9	12	5	12	-	1	12	28
Guam	-	2	U	U	-	-	-	-
P.R.	1	6	U	U	20	43	-	-
V.I.	-	U	U	U	-	U	-	U
Amer. Samoa	-	U	U	U	-	U	-	U
C.N.M.I.	-	U	U	U	-	U	-	U

N: Not notifiable U: Unavailable -: no reported cases

*Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

†Cumulative reports of provisional tuberculosis cases for 1999 are unavailable ("U") for some areas using the Tuberculosis Information System (TIMS).

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending March 4, 2000, and March 5, 1999 (9th Week)

Reporting Area	*H. influenzae*, invasive		Hepatitis (Viral), by type				Measles (Rubeola)					
			A		B		Indigenous		Imported*		Total	
	Cum. 2000†	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	2000	Cum. 2000	2000	Cum. 2000	Cum. 2000	Cum. 1999
UNITED STATES	176	221	1,849	2,933	677	894	-	3	-	-	3	20
NEW ENGLAND	12	16	32	36	6	25	-	-	-	-	-	1
Maine	-	1	1	2	1	-	-	-	-	-	-	-
N.H.	2	2	7	4	3	2	-	-	-	-	-	1
Vt.	2	3	2	-	2	-	-	-	-	-	-	-
Mass.	8	9	9	14	-	11	-	-	-	-	-	-
R.I.	-	-	-	-	-	2	-	-	-	-	-	-
Conn.	-	1	13	16	-	10	-	-	-	-	-	-
MID. ATLANTIC	23	35	84	192	65	138	-	-	-	-	-	-
Upstate N.Y.	13	14	46	43	11	23	-	-	-	-	-	-
N.Y. City	5	9	38	59	54	40	-	-	-	-	-	-
N.J.	4	11	-	27	-	21	-	-	-	-	-	-
Pa.	1	1	-	63	-	54	-	-	-	-	-	-
E.N. CENTRAL	19	31	214	696	85	89	-	3	-	-	3	-
Ohio	11	13	73	123	21	20	-	2	-	-	2	-
Ind.	3	1	3	12	1	4	-	-	-	-	-	-
Ill.	2	15	41	145	-	-	-	-	-	-	-	-
Mich.	3	2	92	402	63	59	-	1	-	-	1	-
Wis.	-	-	5	14	-	6	-	-	-	-	-	-
W.N. CENTRAL	6	16	215	159	42	50	-	-	-	-	-	-
Minn.	-	4	18	4	-	3	-	-	-	-	-	-
Iowa	-	3	21	20	7	8	-	-	-	-	-	-
Mo.	2	3	119	101	22	26	-	-	-	-	-	-
N. Dak.	1	-	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	1	-	-	1	-	-	-	-	-	-	-
Nebr.	1	1	8	16	4	8	-	-	-	-	-	-
Kans.	2	4	49	18	8	5	-	-	-	-	-	-
S. ATLANTIC	49	43	187	216	121	126	-	-	-	-	-	-
Del.	-	-	-	-	-	-	-	-	-	-	-	-
Md.	18	19	24	73	21	38	-	-	-	-	-	-
D.C.	-	-	-	11	-	4	-	-	-	-	-	-
Va.	11	2	33	14	25	8	-	-	-	-	-	-
W. Va.	1	1	19	1	-	-	-	-	-	-	-	-
N.C.	3	5	49	25	45	39	-	-	-	-	-	-
S.C.	1	2	3	1	1	16	-	-	-	-	-	-
Ga.	14	10	18	69	2	15	-	-	-	-	-	-
Fla.	1	4	41	22	27	6	U	-	U	-	-	-
E.S. CENTRAL	8	15	68	83	45	82	-	-	-	-	-	-
Ky.	3	3	2	15	2	6	-	-	-	-	-	-
Tenn.	3	5	21	35	28	42	-	-	-	-	-	-
Ala.	2	5	14	21	5	17	-	-	-	-	-	-
Miss.	-	2	31	12	10	17	-	-	-	-	-	-
W.S. CENTRAL	13	17	282	429	35	91	-	-	-	-	-	2
Ark.	-	-	30	6	8	10	-	-	-	-	-	-
La.	2	6	8	31	17	34	-	-	-	-	-	-
Okla.	11	9	59	103	10	17	-	-	-	-	-	-
Tex.	-	2	185	289	-	30	-	-	-	-	-	2
MOUNTAIN	26	27	130	304	60	79	-	-	-	-	-	-
Mont.	-	1	1	3	2	1	-	-	-	-	-	-
Idaho	1	1	6	8	3	4	-	-	-	-	-	-
Wyo.	-	1	2	1	-	-	-	-	-	-	-	-
Colo.	9	1	36	60	18	15	-	-	-	-	-	-
N. Mex.	8	6	17	5	13	25	-	-	-	-	-	-
Ariz.	7	14	50	183	19	17	-	-	-	-	-	-
Utah	1	3	9	15	2	7	-	-	-	-	-	-
Nev.	-	-	9	29	3	10	-	-	-	-	-	-
PACIFIC	20	21	637	818	218	214	-	-	-	-	-	17
Wash.	2	-	29	49	6	2	-	-	-	-	-	2
Oreg.	4	8	37	45	13	13	-	-	-	-	-	8
Calif.	4	12	568	721	196	192	-	-	-	-	-	7
Alaska	1	1	3	2	2	4	-	-	-	-	-	-
Hawaii	9	-	-	1	1	3	-	-	-	-	-	-
Guam	-	-	-	2	-	2	-	-	-	-	-	-
P.R.	-	-	15	12	8	18	-	-	-	-	-	-
V.I.	-	U	-	U	-	U	U	-	U	-	-	U
Amer. Samoa	-	U	-	U	-	U	U	-	U	-	-	U
C.N.M.I.	-	U	-	U	-	U	U	-	U	-	-	U

N: Not notifiable U: Unavailable - : no reported cases

*For imported measles, cases include only those resulting from importation from other countries.

†Of 44 cases among children aged <5 years, serotype was reported for 18 and of those, 3 were type b.

TABLE III. (Cont'd) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending March 4, 2000, and March 5, 1999 (9th Week)

Reporting Area	Meningococcal Disease		Mumps			Pertussis			Rubella		
	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999
UNITED STATES	410	470	3	64	71	73	597	789	-	5	3
NEW ENGLAND	25	25	-	-	3	9	135	100	-	1	1
Maine	2	3	-	-	-	-	7	-	-	-	-
N.H.	-	3	-	-	1	5	34	17	-	1	-
Vt.	1	2	-	-	-	1	42	9	-	-	-
Mass.	16	16	-	-	2	-	44	72	-	-	1
R.I.	-	1	-	-	-	2	6	-	-	-	-
Conn.	6	-	-	-	-	1	2	2	-	-	-
MID. ATLANTIC	32	52	-	3	9	19	53	90	-	-	-
Upstate N.Y.	8	8	-	1	2	8	32	55	-	-	-
N.Y. City	8	20	-	-	3	-	-	10	-	-	-
N.J.	8	13	-	-	-	-	-	2	-	-	-
Pa.	8	11	-	2	4	11	21	23	-	-	-
E.N. CENTRAL	49	72	1	6	7	9	122	94	-	-	-
Ohio	13	26	-	3	2	6	108	56	-	-	-
Ind.	14	6	-	-	-	2	5	4	-	-	-
Ill.	4	26	-	1	2	-	5	10	-	-	-
Mich.	14	8	1	2	3	1	4	12	-	-	-
Wis.	4	6	-	-	-	-	-	12	-	-	-
W.N. CENTRAL	43	58	-	10	2	1	21	28	-	3	-
Minn.	1	11	-	-	-	-	7	-	-	-	-
Iowa	8	9	-	3	2	-	6	5	-	-	-
Mo.	29	21	-	1	-	-	2	6	-	-	-
N. Dak.	1	-	-	-	-	1	1	-	-	-	-
S. Dak.	2	4	-	-	-	-	1	1	-	-	-
Nebr.	1	3	-	4	-	-	-	1	-	-	-
Kans.	1	10	-	2	-	-	4	15	-	3	-
S. ATLANTIC	75	60	1	8	9	5	43	50	-	-	-
Del.	-	1	-	-	-	1	1	-	-	-	-
Md.	5	12	1	2	2	-	13	21	-	-	-
D.C.	-	1	-	-	1	-	-	-	-	-	-
Va.	12	5	-	1	2	2	3	7	-	-	-
W. Va.	1	1	-	-	-	-	-	-	-	-	-
N.C.	14	8	-	2	1	-	15	18	-	-	-
S.C.	6	11	-	3	2	-	9	4	-	-	-
Ga.	17	14	-	-	-	2	2	-	-	-	-
Fla.	20	7	U	-	1	U	-	-	U	-	-
E.S. CENTRAL	19	39	-	1	1	-	12	20	-	-	-
Ky.	4	8	-	-	-	-	7	4	-	-	-
Tenn.	7	13	-	-	-	-	1	9	-	-	-
Ala.	7	11	-	1	1	-	4	6	-	-	-
Miss.	1	7	-	-	-	-	-	1	-	-	-
W.S. CENTRAL	21	44	-	-	12	-	3	25	-	-	2
Ark.	2	8	-	-	-	-	3	2	-	-	-
La.	12	23	-	-	2	-	-	2	-	-	-
Okla.	7	11	-	-	1	-	-	3	-	-	-
Tex.	-	2	-	-	9	-	-	18	-	-	2
MOUNTAIN	22	49	-	3	5	16	153	160	-	1	-
Mont.	-	-	-	-	-	-	1	-	-	-	-
Idaho	2	6	-	-	-	1	24	71	-	-	-
Wyo.	-	2	-	-	-	-	-	1	-	-	-
Colo.	7	14	-	-	2	13	82	27	-	-	-
N. Mex.	4	7	-	1	N	2	27	7	-	-	-
Ariz.	6	15	-	-	-	-	14	34	-	-	-
Utah	3	3	-	-	2	-	4	18	-	1	-
Nev.	-	2	-	2	1	-	1	2	-	-	-
PACIFIC	124	71	1	33	23	14	55	222	-	-	-
Wash.	6	10	1	1	-	6	19	22	-	-	-
Oreg.	13	17	N	N	N	-	13	3	-	-	-
Calif.	102	37	-	31	18	7	20	188	-	-	-
Alaska	1	3	-	-	1	-	2	1	-	-	-
Hawaii	2	4	-	1	4	1	1	8	-	-	-
Guam	-	-	-	-	1	-	-	-	-	-	-
P.R.	-	2	-	-	-	-	-	-	-	-	-
V.I.	-	U	U	-	U	U	-	U	U	-	U
Amer. Samoa	-	U	U	-	U	U	-	U	U	-	U
C.N.M.I.	-	U	U	-	U	U	-	U	U	-	U

N: Not notifiable U: Unavailable - : no reported cases

TABLE IV. Deaths in 122 U.S. cities,* week ending March 4, 2000 (9th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	562	412	98	34	11	7	83
Boston, Mass.	154	110	29	8	5	2	25
Bridgeport, Conn.	23	14	6	3	-	-	4
Cambridge, Mass.	18	13	3	2	-	-	7
Fall River, Mass.	27	23	4	-	-	-	6
Hartford, Conn.	U	U	U	U	U	U	U
Lowell, Mass.	31	24	2	5	-	-	2
Lynn, Mass.	20	18	1	1	-	-	3
New Bedford, Mass.	41	30	7	3	1	-	2
New Haven, Conn.	45	37	6	-	-	2	4
Providence, R.I.	70	53	13	2	1	1	2
Somerville, Mass.	4	3	-	1	-	-	-
Springfield, Mass.	42	25	10	5	2	-	8
Waterbury, Conn.	32	24	6	2	-	-	8
Worcester, Mass.	55	38	11	2	2	2	12
MID. ATLANTIC	2,414	1,687	469	177	39	37	126
Albany, N.Y.	46	32	9	4	1	-	2
Allentown, Pa.	U	U	U	U	U	U	U
Buffalo, N.Y.	100	74	15	8	1	2	9
Camden, N.J.	41	25	9	2	-	5	2
Elizabeth, N.J.	20	20	-	-	-	-	-
Erie, Pa.§	46	35	10	1	-	-	2
Jersey City, N.J.	39	24	10	3	1	1	-
New York City, N.Y.	1,227	854	222	102	25	19	31
Newark, N.J.	U	U	U	U	U	U	U
Paterson, N.J.	19	9	8	2	-	-	2
Philadelphia, Pa.	459	290	121	36	9	3	30
Pittsburgh, Pa.§	55	40	9	5	-	1	3
Reading, Pa.	29	23	4	2	-	-	6
Rochester, N.Y.	131	98	25	5	1	2	15
Schenectady, N.Y.	23	17	5	1	-	-	1
Scranton, Pa.§	25	21	3	1	-	-	1
Syracuse, N.Y.	111	90	14	3	-	4	16
Trenton, N.J.	25	19	4	2	-	-	5
Utica, N.Y.	18	16	1	-	1	-	1
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	2,205	1,503	453	147	49	51	225
Akron, Ohio	49	37	9	2	1	-	7
Canton, Ohio	37	30	5	1	1	-	3
Chicago, Ill.	485	302	112	42	15	12	83
Cincinnati, Ohio	89	61	14	9	4	1	8
Cleveland, Ohio	154	91	40	12	7	4	6
Columbus, Ohio	215	146	44	14	6	5	18
Dayton, Ohio	145	112	25	5	1	2	10
Detroit, Mich.	187	109	54	16	5	3	16
Evansville, Ind.	58	46	10	2	-	-	5
Fort Wayne, Ind.	70	53	9	6	-	2	9
Gary, Ind.	21	11	8	1	-	1	1
Grand Rapids, Mich.	53	43	5	2	-	3	8
Indianapolis, Ind.	205	142	40	9	4	10	19
Lansing, Mich.	46	30	13	2	-	1	7
Milwaukee, Wis.	132	86	32	6	3	5	9
Peoria, Ill.	46	43	2	1	-	-	3
Rockford, Ill.	69	52	10	7	-	-	5
South Bend, Ind.	49	41	5	2	1	-	2
Toledo, Ohio	95	68	16	8	1	2	6
Youngstown, Ohio	U	U	U	U	U	U	U
W.N. CENTRAL	864	600	162	59	22	21	79
Des Moines, Iowa	101	70	21	7	1	2	13
Duluth, Minn.	55	39	9	4	3	-	3
Kansas City, Kans.	35	22	6	2	4	1	3
Kansas City, Mo.	93	67	16	7	1	2	13
Lincoln, Nebr.	32	24	3	4	-	1	6
Minneapolis, Minn.	173	132	29	5	5	2	19
Omaha, Nebr.	98	65	20	10	2	1	5
St. Louis, Mo.	104	60	29	9	2	4	-
St. Paul, Minn.	60	50	6	1	-	3	10
Wichita, Kans.	113	71	23	10	4	5	7
S. ATLANTIC	1,468	997	280	120	33	34	126
Atlanta, Ga.	U	U	U	U	U	U	U
Baltimore, Md.	276	190	50	27	6	3	39
Charlotte, N.C.	125	78	24	14	6	3	14
Jacksonville, Fla.	149	106	32	6	3	2	14
Miami, Fla.	104	82	17	5	-	-	9
Norfolk, Va.	74	52	12	6	1	3	5
Richmond, Va.	67	41	16	2	3	3	7
Savannah, Ga.	78	57	13	5	-	3	4
St. Petersburg, Fla.	58	45	8	4	-	1	3
Tampa, Fla.	209	161	29	12	4	3	24
Washington, D.C.	328	185	79	39	10	13	7
Wilmington, Del.	U	U	U	U	U	U	U
E.S. CENTRAL	966	695	175	62	19	15	106
Birmingham, Ala.	203	147	37	16	2	1	29
Chattanooga, Tenn.	80	64	11	5	-	-	14
Knoxville, Tenn.	86	65	14	4	2	1	6
Lexington, Ky.	64	45	13	1	2	3	2
Memphis, Tenn.	200	136	40	13	4	7	22
Mobile, Ala.	79	61	12	5	1	-	5
Montgomery, Ala.	64	47	8	5	4	-	7
Nashville, Tenn.	190	130	40	13	4	3	21
W.S. CENTRAL	1,536	1,017	311	123	44	41	112
Austin, Tex.	62	45	12	2	3	-	1
Baton Rouge, La.	43	19	13	7	2	2	2
Corpus Christi, Tex.	68	47	9	4	4	4	6
Dallas, Tex.	228	148	49	18	5	8	8
El Paso, Tex.	U	U	U	U	U	U	U
Ft. Worth, Tex.	126	80	27	9	4	6	6
Houston, Tex.	455	292	86	53	14	10	38
Little Rock, Ark.	84	51	21	7	3	2	3
New Orleans, La.	U	U	U	U	U	U	U
San Antonio, Tex.	269	196	57	10	4	2	33
Shreveport, La.	58	41	9	3	3	2	7
Tulsa, Okla.	143	98	28	10	2	5	8
MOUNTAIN	1,006	736	161	64	25	20	91
Albuquerque, N.M.	97	80	11	4	1	1	13
Boise, Idaho	31	20	4	3	4	-	2
Colo. Springs, Colo.	48	40	4	1	1	2	3
Denver, Colo.	126	89	18	12	3	4	18
Las Vegas, Nev.	195	138	41	12	4	-	14
Ogden, Utah	20	17	3	-	-	-	-
Phoenix, Ariz.	195	135	32	15	7	6	13
Pueblo, Colo.	32	26	5	1	-	-	2
Salt Lake City, Utah	84	61	11	6	1	5	10
Tucson, Ariz.	178	130	32	10	4	2	16
PACIFIC	2,251	1,633	402	124	51	39	216
Berkeley, Calif.	19	15	2	1	-	1	-
Fresno, Calif.	169	127	27	8	7	-	23
Glendale, Calif.	38	28	8	2	-	-	1
Honolulu, Hawaii	91	69	14	3	1	4	7
Long Beach, Calif.	79	51	17	8	2	1	12
Los Angeles, Calif.	796	577	137	52	18	12	57
Pasadena, Calif.	26	20	4	-	1	1	6
Portland, Oreg.	170	128	29	10	2	1	11
Sacramento, Calif.	163	111	34	8	5	5	20
San Diego, Calif.	201	137	37	6	9	10	22
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	189	135	39	9	5	1	23
Santa Cruz, Calif.	31	27	3	1	-	-	2
Seattle, Wash.	132	89	30	9	1	3	15
Spokane, Wash.	45	36	9	-	-	-	5
Tacoma, Wash.	102	83	12	7	-	-	12
TOTAL	13,272¶	9,280	2,511	910	293	265	1,164

U: Unavailable -:no reported cases

*Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

†Pneumonia and influenza.

§Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

¶Total includes unknown ages.

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