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Infant Botulism — New York City, 2001–2002

Infant botulism results from germination of swallowed spores of botulinum toxin–producing clostridia that colonize the large intestine temporarily. Four cases of type B infant botulism in one New York City (NYC) borough were diagnosed within a 12-month period during 2001–2002. All four patients resided in Staten Island (2000 population: 443,728). The annual incidence of infant botulism in the United States is two cases per 100,000 live births; incidence in NYC is four cases per 100,000 live births. Staten Island recorded 5,899 live births in 2000; incidence of infant botulism during this 12-month period was 68 cases per 100,000 live births. This report summarizes the investigation of these four cases; as expected with infant botulism, a common source of exposure was not identified. All four patients recovered after treatment and were discharged from local hospitals. State and local health departments should be notified promptly when infant botulism is suspected to arrange diagnostic testing.

Infant botulism is a reportable disease in NYC, and the NYC Department of Health and Mental Hygiene (DOHMH) investigates all suspected cases. Botulism should be suspected in an infant aged ≤12 months with symptoms including constipation, lethargy, poor feeding, weak cry, bulbar palsies, and failure to thrive. These symptoms might be followed by progressive weakness, impaired respiration, and sometimes death. Laboratory diagnosis of clinically suspect cases requires detection of botulinum toxin in stool or serum by using the mouse neutralization assay or the isolation of toxigenic *Clostridium botulinum* (or related toxigenic clostridia) in the feces by using enrichment culture techniques (*1*). When botulism is suspected, clinical specimens are forwarded to the DOHMH Public Health Laboratory for toxin detection. Parents or caregivers are interviewed by using a standardized questionnaire on clinical symptoms and risk factors, and the physician is interviewed or charts are abstracted for information on signs and symptoms.

Case Reports

Case 1. In June 2001, a previously healthy breast-fed infant aged 7 weeks with fever of 105° F (41° C), constipation, listlessness, poor feeding, and weak head control for 1 day was admitted to a New Jersey hospital. The infant was irritable and had sluggishly reactive pupils, altered cry, somnolence, respiratory weakness, and upper airway obstruction that necessitated mechanical ventilation for 13 days. Botulinum toxin type B was identified 8 days after illness onset in stool samples at the New Jersey Public Health and Environmental Laboratories. The family had spent time at residences in Staten Island and New Jersey before illness onset. The patient was discharged after 26 days without sequelae and recovered fully.

Case 2. In December 2001, a formula-fed infant aged 10 weeks with a history of constipation in the first month of life was admitted to a hospital after having difficulty in sucking and swallowing for 2 days. Mechanical ventilation was required for 10 days because of respiratory failure. The infant was irritable and had loss of facial expression, generalized muscle weakness, and constipation. A diagnosis of infant botulism was established 29 days after onset of symptoms by detection of toxin type B in stool enrichment cultures. The patient was treated with Botulism Immune Globulin Intravenous (human) (BIG-IV) and discharged after 20 days; the infant recovered fully.

INSIDE

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION

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Case 3. In May 2002, a previously healthy breast-fed infant aged 18 weeks had somnolence and difficulty swallowing for 1 day. The infant was admitted to a hospital and subsequently had altered cry, loss of facial expression, respiratory muscle weakness, and upper airway obstruction that necessitated mechanical ventilation for 8 days. The patient also had an intussusception without a recognizable lead point (*2*). A diagnosis of botulism was established 19 days after onset of symptoms by detection of toxin type B in stool enrichment cultures. The patient was treated with BIG-IV and discharged after 16 days; the infant recovered fully.

Case 4. In June 2002, a previously healthy infant aged 3 weeks who was both breast- and formula-fed had constipation, lethargy, and decreased appetite for 2 days; the infant was brought to a hospital for evaluation and was admitted the following day. The infant was irritable and had sluggish pupillary reflexes, difficulty swallowing, altered cry, weak sucking, and peripheral weakness. A diagnosis of botulism was established 8 days after onset of symptoms by detection of toxin type B in stool samples. The patient was treated with BIG-IV and discharged after 10 days; the infant recovered fully.

Summary of Cases

All four patients received antibiotics during hospitalization. None had ingested honey or had parents employed in occupations that might increase exposure to *C. botulinum* spores in soil and dust (e.g., construction, plumbing, and farming) (*3*). All patients had uncomplicated gestational histories and vaginal deliveries. All resided within a 6-mile radius of each other. All parents reported recent construction in their neighborhoods during the period (range: 1–31 days) before illness onset. In the fourth case, the infant's home had been remodeled since the infant was born.

On May 30, 2002, after three cases had been identified by routine passive surveillance, DOHMH alerted local physicians by broadcast facsimile and e-mail about the increased rate of infant botulism in Staten Island. Physicians were reminded to consider the diagnosis and to report suspected cases to DOHMH to request assistance with diagnostic testing. Physicians were directed to contact the California Department of Health Services (CDHS) Infant Botulism Treatment and Prevention Program about possible treatment with BIG-IV under a Food and Drug Administration (FDA)–approved protocol (*4*). All parents of patients in Staten Island were reinterviewed by using an expanded questionnaire and visited in their homes and neighborhoods to assess for possible common sources of exposure; no such source was identified.

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Editorial Note: Intestinal botulism is the most common form of human botulism in the United States (*1*), and approximately 100 cases are reported among infants in the United States annually (Box). Intestinal botulism occurs rarely in older children and adults (*2,5,6*). Intestinal botulism results from colonization and bacterial production of botulinum toxin in the colon. Swallowing ambient *C. botulinum* spores, which exist worldwide in soil and dust, has been proposed as the principal route of exposure; honey is an avoidable source of some causative spores (*4*). A common source of exposure generally is not identified; apparent clusters such as the four Staten Island cases are rare and often remain unexplained after investigations are complete (*7*). In a cluster of infant botulism cases identified previously in the mid-Atlantic region of the United States, no common source of exposure was identified (*8*).

Botulism should be suspected in previously healthy infants aged ≤12 months who are constipated and who exhibit weakness in sucking, swallowing, or crying; hypotonia; and progressive bulbar and extremity muscle weakness. Approximately half of patients require mechanical ventilation during hospitalization (*9*). Lumbar puncture and brain imaging generally yield normal results but can help differentiate among other causes of flaccid weakness. When infant botulism is suspected, local and state health departments should be notified promptly to arrange diagnostic stool testing.

The primary therapy for infant botulism is intensive care with mechanically assisted ventilation when necessary. Prompt diagnosis and treatment of infant botulism with BIG-IV might reduce the length of time needed for recovery. In a placebo-controlled trial of BIG-IV, the mean hospital stay of patients with infant botulism was reduced from 5.6 to 2.6 weeks (*4*). Therapy is guided by clinical diagnosis; to avoid delay in treatment, BIG-IV should be requested and administered without awaiting laboratory confirmation. BIG-IV can be obtained from the CDHS Infant Botulism Treatment and Prevention Program, telephone 510-540-2646. Use of BIG-IV under the FDA-approved Treatment Investigational New Drug open-label protocol requires informed parental consent and coordination with the hospital's institutional review board (IRB).

BOX. Epidemiology, diagnosis, treatment, prevention, and reporting of infant (intestinal) botulism

Epidemiology

- Intestinal botulism is the most common form of human botulism reported in the United States; approximately 100 cases are reported annually.
- The majority of cases occur among infants aged ≤6 months; intestinal botulism is seen rarely in adults.
- The majority of cases are caused by botulinum toxin types A and B.
- The case-fatality rate of hospitalized patients is <1%
- Although ingesting honey is a known risk factor, the source of spores for the majority of cases is unknown.
- Ingestion of *Clostridium botulinum* spores, which exist worldwide in the soil and dust, is believed to be the principal route of exposure.

Clinical findings

- Reporting symptoms range from constipation and mild lethargy to hypotonia and respiratory insufficiency.
- Symptoms in infants aged ≤12 months include constipation, lethargy, poor feeding, weak cry, bulbar palsies (e.g., ptosis, expressionless face, and difficulty swallowing), and failure to thrive.
- Presenting symptoms might be followed by progressive weakness, impaired respiration, and sometimes death.
- Differential diagnosis includes sepsis, dehydration, Werdnig-Hoffman disease, Guillain-Barré syndrome, myasthenia gravis, drug or toxin ingestions, metabolic disorders, and meningoencephalitis or myelitis.

Laboratory testing

- Laboratory confirmation requires detection of 1) botulinum toxin in stool or serum by using mouse neutralization assay or 2) isolation of toxigenic *C. botulinum* (or related clostridia) in the feces by using stool enrichment culture techniques.
- To avoid delay, treatment should be administered without awaiting laboratory confirmation.

Recommended treatment

- Primary therapy is supportive care with mechanically assisted ventilation when necessary.
- Prompt clinical diagnosis and treatment with Botulism Immune Globulin Intravenous (human) (BIG-IV) might reduce the recovery time. BIG-IV should be requested without awaiting laboratory confirmation.
- BIG-IV can be obtained from the California Department of Health Services, Infant Botulism Treatment and Prevention Program, telephone 510-540-2646.

Prevention and reporting

- Avoid feeding honey to infants aged ≤12 months.
- Report all cases to local and state health departments.

The license application for BIG-IV was filed with FDA in 2001; should it be licensed, IRB approval would no longer be required. Infant botulism is notifiable at the national level, and physicians should report all cases promptly to state and local health departments.

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Outbreak of Botulism Type E Associated with Eating a Beached Whale — Western Alaska, July 2002

Botulism is a neuroparalytic illness caused by toxins produced by the bacterium *Clostridium botulinum*, an obligate anaerobe found commonly in the environment. Intoxication with toxin type E is associated exclusively with eating animal foods of marine (salt or fresh water) origin. Persons who eat raw or fermented marine fish and mammals are at high risk for botulism from type E toxin. On July 17, 2002, the Alaska Division of Public Health investigated a cluster of suspected botulism cases among residents of a fishing village in Alaska. This report summarizes the findings of the outbreak investigation, which linked disease to eating raw muktuk (skin and a pink blubber layer) from a beached whale (Figure). To avoid delays in treatment, health-care providers evaluating patients suspected of having botulism should base treatment decisions on clinical findings. Public health authorities should be notified immediately about any suspected botulism case.

FIGURE. A juvenile beluga whale beached on the Alaska shoreline

Photo/Natural Resources Canada

During July 13–15, residents of a western Alaska village on the Bering Sea shore shared a meal consisting of muktuk harvested from a beached adult beluga whale found near their village. The villagers estimated that the whale had been dead for at least several weeks. They cut the whale fluke (tail) into pieces and stored them in zipper-sealed plastic bags in a refrigerator until they were eaten 1 or 2 days later. On July 17, after a physician from western Alaska reported three suspected cases of botulism among patients who had eaten the muktuk, the Alaska Section of Epidemiology began an investigation.

A case of foodborne botulism was defined as illness in a person who had eaten the muktuk and subsequently had symmetric descending flaccid paralysis of motor and autonomic nerves. Persons who ate muktuk were interviewed and examined, and their hospital records were reviewed. Serum, stool, and gastric contents from patients and leftover blubber were tested for botulinum toxin.

Of 14 persons identified who ate the muktuk, eight (57%) had an illness that met the case definition. Five of the eight patients were female; the median age was 73 years (range: 13–83 years). Symptom onset after ingestion of muktuk occurred within 36 hours in all patients (Table). Five patients were hospitalized, four received antitoxin, and two required mechanical ventilation. Three stool, three gastric fluid, and seven serum samples from the eight patients and seven samples of muktuk were tested for botulinum toxin at CDC's National Botulism Surveillance and Reference Laboratory. The diagnostic laboratory received all laboratory specimens on July 26, and results were reported on August 1. Type E toxin was detected in stool from one patient. All seven samples of muktuk were positive for type E botulinum toxin.

TABLE. Number* and percentage of patients with signs and symptoms of botulism associated with eating a beached whale — Western Alaska, July 2002

Sequelae	No.	(%)
Gastrointestinal symptoms		
Abdominal pain	5	(63)
Constipation	5	(63)
Diarrhea	4	(50)
Nausea or vomiting	7	(88)
Neurologic symptoms		
Blurred vision	5	(63)
Diplopia	1	(13)
Dry mouth	7	(88)
Dysphagia	6	(75)
Dysarthria	4	(50)
Difficulty breathing or shortness of breath	5	(63)
Other symptoms		
Throat pain	3	(38)
Dizziness	6	(75)
Neurologic signs		
Hoarse voice	5	(63)
Ptosis	2	(25)
Pupils fixed and dilated	5	(63)
Urinary retention	1	(13)
Weakness	8	(100)
Other signs		
Bradycardia†	4	(50)
Hypotension§	6	(75)

* N = 8.
† Heart rate <60 beats per minute.
§ Systolic blood pressure <100 mmHg.

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Editorial Note: This report summarizes a foodborne outbreak of botulism in a western Alaska village that resulted from residents eating muktuk contaminated with type E botulinum toxin. During 1973–1998, a total of 814 cases and an annual median of 24 cases (range: 14–94 cases) of foodborne botulism were reported to CDC (*1*); 236 (29%) of these cases occurred in Alaska (CDC, unpublished data, 2003). Although botulism is a rare disease, its presentation is distinctive (Box). Because of the epidemic potential of foodborne botulism, every case should be reported and investigated immediately.

All patients suspected of having foodborne botulism should be placed in an intensive care setting, monitored regularly for respiratory function deterioration, and provided mechanical ventilation if necessary. Prompt administration of polyvalent equine-source antitoxin can decrease the progression of paralysis and severity of illness but will not reverse existing paralysis. Botulinum antitoxin is available in the United States only through the public health system. Therefore, rapid clinical diagnosis, notification of public health authorities, and

BOX. Epidemiology, diagnosis, treatment, and prevention of foodborne botulism

Epidemiology
- Caused by eating foods contaminated with preformed toxins of *Clostridium botulinum*
- Home-canned foods and raw or fermented Alaska Native dishes commonly associated with illness
- During 1973–1998, a total of 814 cases and an annual median of 24 cases (range: 14–94 cases) of foodborne botulism reported in the United States; 236 (29%) in Alaska
- Humans affected by toxin types A, B, E, and rarely F; type E intoxication associated exclusively with eating marine animals
- Classified as a category A terrorism agent

Clinical findings
- Cranial nerve palsies
- Symmetrically descending flaccid voluntary muscle weakness possibly progressing to respiratory compromise
- Normal body temperature
- Normal sensory nerve examination findings
- Intact mental status despite groggy appearance
- Differential diagnosis includes Guillain-Barré syndrome, myasthenia gravis, stroke, drug overdose, and other entities

Laboratory findings
- Normal cerebrospinal fluid values
- Specific electromyography (EMG) findings including
  - — normal motor conduction velocities
  - — normal sensory nerve amplitudes and latencies
  - — decreased evoked muscle action potential
  - — facilitation following rapid repetitive nerve stimulation
- Standard mouse bioassay positive for toxin from clinical specimens and/or suspect food; requires up to 4 days for final results

Recommended treatment
- Prompt administration of polyvalent equine-source antitoxin
  - — can decrease the progression of paralysis and severity of illness
  - — will not reverse existing paralysis
  - — available in the United States only through the public health system
- Place suspect cases in an intensive care setting
- Monitor for respiratory function deterioration every 4 hours using forced vital capacity testing
- Provide mechanical ventilation if necessary

Prevention and control
- Boil raw or fermented Alaska Native dishes and home-canned foods ≥10 minutes before eating
- Follow recommended home-canning procedures
- Notify state health department immediately of suspected cases

timely administration of antitoxin are imperative (*2*). Laboratory confirmation of botulinum intoxication cannot be relied on in making treatment decisions because the standard test, the mouse bioassay, requires approximately 4 days for final results (*2*). In addition, the sensitivity of laboratory testing of clinical samples is low (*3,4*). In this outbreak, typed toxin was detected in only 8% of samples from patients who had definitive exposure to contaminated muktuk.

The probable mode of contamination of the whale in this outbreak was either growth and toxin secretion by *C. botulinum* present in the intestinal tract of the whale or traumatic introduction of *C. botulinum* spores into the beached whale tissue from contact with sand, rocks, and driftwood, and subsequent germination and toxin production. *C. botulinum* type E has been found in Alaska coastline soil (*5*), and outbreaks of botulism associated with eating beached marine mammals are documented (Alaska Section of Epidemiology, unpublished data, 2003). A previous report on the accumulation of *C. botulinum* toxins in the North Sea coastal food chain associated with beached whales suggested the disposal of the carcasses as a preventive measure (*6*). However, because of the impracticality of frequent scanning of the vast Alaska shoreline and high costs associated with disposal, the U.S. Fish and Wildlife Service does not remove beached mammal carcasses regularly.

Because of the epidemic potential of foodborne botulism and the status of botulinum toxins as a category A agent of terrorism, health-care providers should be familiar with the presentation of botulism. Treatment is based on clinical diagnosis, and rapid recognition and reporting of cases are the cornerstones of successful public health interventions to prevent additional illnesses. Persons should avoid eating beached marine mammal carcasses and boil raw or fermented Alaska Native dishes ≥10 minutes before eating to inactivate botulinum toxin. Additional information on botulism prevention is available at http://www.phppo.cdc.gov/phtn/botulism/alaska/alaska.asp and http://www.epi.hss.state.ak.us/pubs/botulism/bot_01.htm.

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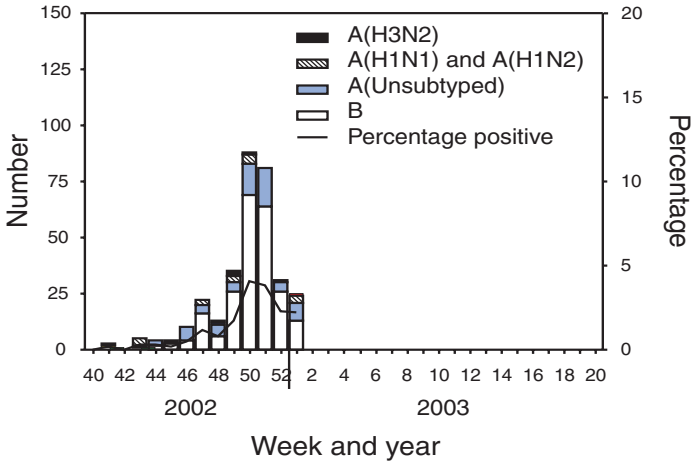
Update: Influenza Activity — United States, 2002–03 Season

Although overall influenza activity in the United States remained low from late September through early January, it is expected to increase during the coming weeks. Laboratory-confirmed influenza infections have been reported from 25 states. Influenza viruses isolated this season are antigenically well matched by this season's influenza vaccine. This report summarizes influenza activity in the United States during September 29, 2002–January 4, 2003, and updates the previous summary* (*1*).

During September 29–January 4, World Health Organization collaborating laboratories and National Respiratory and Enteric Virus Surveillance System laboratories in the United States tested 23,976 respiratory specimens for influenza viruses; 321 (1.3%) were positive. Weekly percentages of specimens testing positive for influenza ranged from 0 to 4.1% (Figure 1). During the 1999–2000, 2000–01, and 2001–02 influenza seasons, peak percentages of specimens testing positive for influenza ranged from 23% to 31% (*2*; CDC, unpublished data, 2002). During September 29–January 4, influenza viruses were reported from 25 states; nine states reported only influenza A viruses, five states reported only influenza B viruses, and 11 states reported both. Of the 321 influenza viruses identified since September 29, a total of 90 (28%) were influenza A viruses, and 231 (72%) were

* As of January 9, 2003. Reporting is incomplete.

FIGURE 1. Number* and percentage of specimens testing positive for influenza reported by World Health Organization collaborating laboratories and National Respiratory and Enteric Surveillance System laboratories, by week and year — United States, 2002–03 season†



* n = 321.
† As of January 9, 2003. Reporting is incomplete.

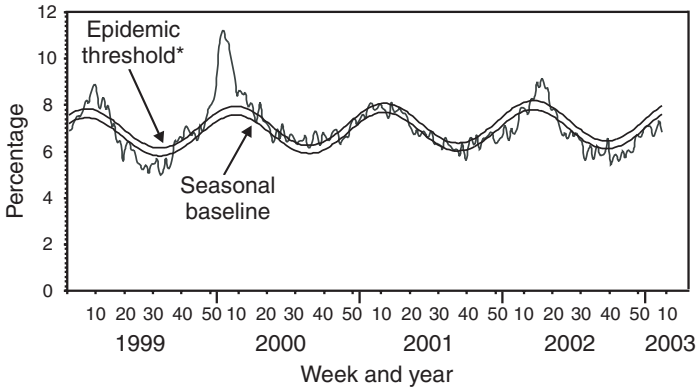
influenza B viruses. A total of 133 (58%) of the 231 influenza B viruses were identified from Texas. Of the 90 influenza A viruses, 24 (27%) have been subtyped; 18 (75%) were influenza A(H1)† viruses, and six (25%) were influenza A(H3N2) viruses.

CDC has antigenically characterized 42 influenza viruses submitted since September 29 by U.S. laboratories: 26 influenza B viruses, 12 influenza A(H1) viruses, and four influenza A(H3N2) viruses. Eleven of the influenza A(H1) viruses had the N1 neuraminidase, and one had the N2 neuraminidase. The hemagglutinin proteins of influenza A(H1N1) and A(H1N2) viruses, influenza A(H3N2) viruses, and influenza B viruses were similar antigenically to those of the corresponding vaccine strains A/New Caledonia/20/99 (H1N1), A/Panama/2007/99 (H3N2), and B/Hong Kong/330/01, respectively.

During September 29–January 4, weekly percentages of patient visits for influenza-like illness (ILI)§ reported by approximately 750 U.S. sentinel providers in 49 states ranged from 1.0% to 2.0%. During the week ending January 4, the percentage of patient visits for ILI was 2.0% (national baseline¶: 1.9%). During the 1999–2000, 2000–01, and 2001–02 influenza seasons, national weekly peak percentages of patient visits for ILI ranged from 3.2% to 5.6% (*2*; CDC, unpublished data, 2002).

Since the week ending October 5, Texas reported widespread influenza activity** for 3 weeks, and 11 states (including Texas) and New York City reported regional activity for ≥1 week. During the week ending January 4, seven states reported regional influenza activity. During the same week, 6.8% of recorded deaths in the 122 Cities Mortality Reporting System were attributed to pneumonia and influenza (P&I), which is below the epidemic threshold†† of 8.0% for that week (Figure 2). The percentage of P&I deaths has remained below the epidemic threshold for each week during September 29–January 4.

FIGURE 2. Percentage of mortality attributable to pneumonia and influenza (P&I) in 122 cities, by week and year of report — United States, 1999–2003



* The expected seasonal baseline proportion of P&I deaths reported by the 122 Cities Mortality Reporting System is projected using a robust regression procedure in which a periodic regression model is applied to the observed percentage of deaths from P&I during the previous 5 years. The epidemic threshold is 1.654 standard deviations above the seasonal baseline (*2*).

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Editorial Note: Influenza activity was low from late September to early January, except in a few states. However, testing and reporting might be limited during holiday periods, and estimates of recent activity could change as more data become available. Influenza activity is expected to increase during coming weeks. Although more influenza B viruses have been reported than influenza A viruses during the early part of the season (58% of them from Texas), more states have reported influenza A viruses than influenza B viruses. The virus types that will predominate during the remainder of the season are unpredictable. The influenza viruses that have been characterized antigenically to date have been well matched by the vaccine strains. Because vaccination is the best prevention against influenza, CDC encourages continuing vaccination efforts throughout the season, especially among persons at high risk for serious complications from influenza, healthcare workers, and contacts of persons at high risk (*3*).

Although estimates of influenza-associated mortality in the United States have increased to an estimated annual average of 36,000 deaths, attributable in part to the aging of the population, influenza-associated mortality varies substantially from year to year, depending on several factors, including the type and subtype of circulating influenza viruses (*4*). Since the

† Includes both the A(H1N1) and A(H1N2) influenza virus subtypes.
§ Temperature of ≥100.0° F (≥37.8° C) and either cough or sore throat in the absence of a known cause.
¶ The national baseline was calculated as the mean percentage of visits for ILI during noninfluenza weeks, plus two standard deviations. Wide variability in regional data precludes calculating region-specific baselines and makes it inappropriate to apply the national baseline to regional data.
** Levels of activity: 1) *no activity*, 2) *sporadic*—sporadically occurring ILI or laboratory-confirmed influenza with no outbreaks detected, 3) *regional*—outbreaks of ILI or laboratory-confirmed influenza in counties with a combined population of <50% of a state's population, and 4) *widespread*—outbreaks of ILI or laboratory-confirmed influenza in counties with a combined population of ≥50% of a state's population.
†† The expected seasonal baseline proportion of P&I deaths reported by the 122 Cities Mortality Reporting System is projected using a robust regression procedure in which a periodic regression model is applied to the observed percentage of deaths from P&I during the previous 5 years. The epidemic threshold is 1.654 standard deviations above the seasonal baseline (*2*).

1990–91 influenza season, the greatest annual mean numbers of deaths have been associated with influenza A(H3N2) viruses, followed by deaths from influenza B viruses and then influenza A(H1N1) viruses (*4*).

Antiviral medications can be useful for early treatment of influenza and as an adjunct to influenza vaccination for prevention and control (*3*). When administered within 48 hours of symptom onset, antiviral treatment of influenza can reduce the duration of illness by approximately 1 day in healthy adults (*5*). Of the four prescription antiviral medications (amantadine, rimantadine, oseltamivir, and zanamivir) that are approved for treatment of influenza A virus infections, only oseltamivir (approved for persons aged ≥1 year) and zanamivir (approved for persons aged ≥7 years) have activity against influenza B viruses. Antiviral chemoprophylaxis is approximately 70%–90% effective in preventing illness in healthy adults (*5,6*). Amantadine, rimantadine, and oseltamivir are approved for chemoprophylaxis of influenza A virus infections, but only oseltamivir is approved (for persons aged ≥13 years) for chemoprophylaxis of influenza B virus infections. Local influenza surveillance data can guide the choice of antiviral medication. Commercially available rapid influenza diagnostic tests can provide supplemental information to guide clinical management of persons with suspected influenza. However, tests differ in their ability to detect or differentiate influenza A and influenza B viruses. The sensitivity of rapid diagnostic tests is lower than viral culture, and a negative test does not exclude the diagnosis of influenza (*7,8*). An updated summary of commercially available influenza rapid diagnostic tests is available at http://www.cdc.gov/ncidod/diseases/flu/flu_dx_table. Physicians should consult the package inserts (available at http://www.fda.gov/cder/drug/antivirals/influenza/default.htm#drugs) of the antiviral drugs for information on approved age groups, dosing, and adverse effects.

Acknowledgment

This report is based on data contributed by participating state and territorial epidemiologists and state health laboratories, WHO collaborating laboratories, National Respiratory and Enteric Virus Surveillance System laboratories, U.S. Influenza Sentinel Providers Surveillance System, and Div of Public Health Surveillance and Informatics, Epidemiology Program Office, CDC.

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Notice to Readers

Request for Information About Acute Encephalopathy Cases in Children with Influenza

Since the mid-1990s, approximately 150 cases of acute encephalopathy have been reported in Japanese children with influenza virus infection (*1*). These cases have been characterized by fever and rapid onset of encephalopathy and resulted in a high frequency of neurologic sequelae and death. Most of the children have had laboratory-confirmed evidence of influenza.

To determine if a similar pattern of influenza-associated encephalopathy cases is occurring in the United States, CDC is requesting information on any case meeting certain criteria. The criteria include a person aged <18 years with altered mental status or personality change lasting >24 hours and occurring within 5 days of the onset of an acute febrile respiratory illness, laboratory or rapid diagnostic test evidence of acute influenza virus infection associated with the respiratory illness, and diagnosis of the condition in the United States.

Cases that have occurred after December 31, 1997, can be reported to Tim Uyeki (telephone 404-639-0277 or e-mail tuyeki@cdc.gov) or Jim Sejvar (telephone 404-639-4657 or e-mail zea3@cdc.gov) at CDC. The information will be used to determine if additional investigation is warranted.

Reference

1. Morishima T, Togashi T, Yokota S, et al. Encephalitis and encephalopathy associated with an influenza pandemic in Japan. Clin Infect Dis 2002;35:512–7.

Notice to Readers

Epidemiology in Action: Intermediate Methods

Emory University's Rollins School of Public Health Epidemiology/International Health Departments and CDC will cosponsor "Epidemiology in Action: Intermediate Methods" during February 24–28, 2003. The course provides additional training in applied epidemiology to those who have taken the introductory "Epidemiology in Action" or a similar introductory course in applied epidemiology. The focus of this course is aimed at strengthening the quantitative skills needed by public health practitioners working to resolve public health problems and institute control and prevention measures. The emphasis is on data analysis procedures to evaluate an exposure-disease relation involving several explanatory variables.

The course includes a review of the fundamentals of descriptive epidemiology and biostatistics, options for control of extraneous variables, stratification, matching, logistic regression, modeling strategies, survival analysis, and computer programs useful in epidemiology.

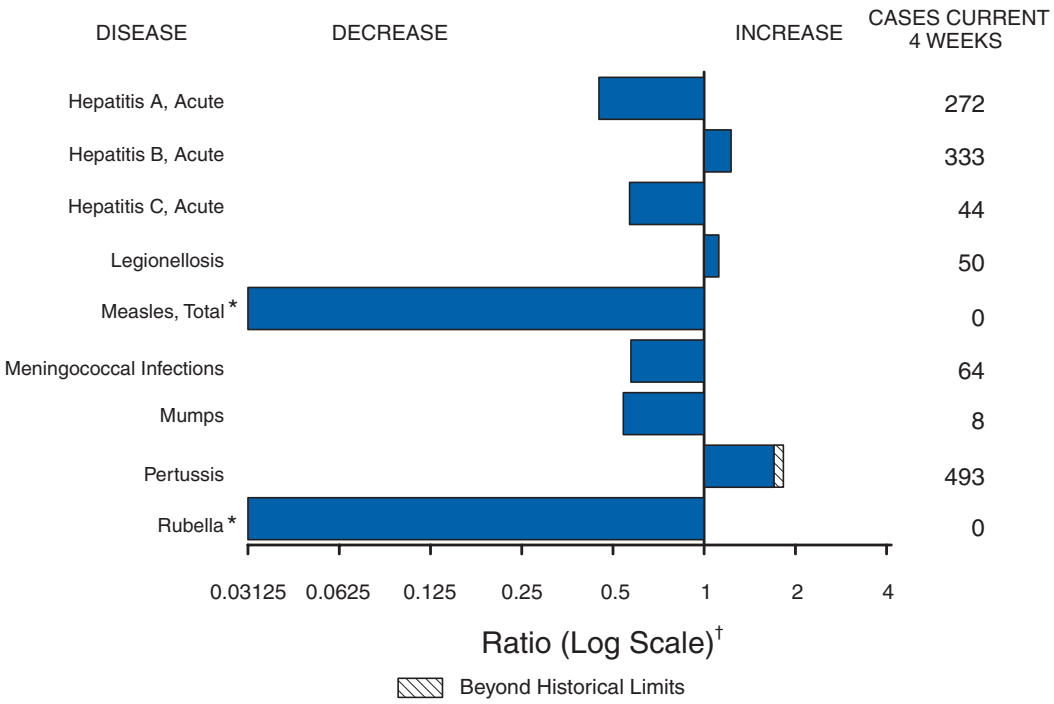
Successful completion of work in fundamentals of epidemiology and biostatistics, familiarity with use of a computer, including previous experience in Epi Info and/or SAS, is required. Participation in the introductory Epidemiology In Action course or in a similar course will satisfy the prerequisites. There is a tuition charge. Application deadline is February 1 or until filled.

Additional information and applications are available from Emory University, International Health Dept., 1518 Clifton Rd. NE, Rm. 746, Atlanta, GA 30322; telephone 404-727-3485; fax 404-727-4590; http://www.sph.emory.edu/EPICOURSES, or e-mail pvaleri@sph.emory.edu.

Erratum: Vol. 52, No. 1

In Table II, "Provisional cases of selected notifiable diseases, United States, weeks ending January 4, 2003, and January 5, 2002 (1st Week)" on page 11, cumulative (year-to-date) disease incidence data presented for AIDS 2002 were incorrect. The correct cumulative incidence data for this disease are as follows: Georgia 221, Illinois 70, Indiana 35, Iowa 4, Kansas 1, Kentucky 2, Missouri 13, New Jersey 5, Upstate New York 20, New York City 402, North Carolina 1, Ohio 46, Oregon 45, South Carolina 30, West Virginia 1, and Virgin Islands 22. Corrected data are available at http://wonder.cdc.gov/mmwr/mmwrmorb.asp.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending January 11, 2003, with historical data



* No measles or rubella cases were reported for the current 4-week period yielding a ratio for week 2 of zero (0).
† 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 of provisional cases of selected notifiable diseases, United States, cumulative, week ending January 11, 2003 (2nd Week)*

	Cum. 2003	Cum. 2002		Cum. 2003	Cum. 2002
Anthrax	-	-	Hansen disease (leprosy)†	-	1
Botulism:	-	-	Hantavirus pulmonary syndrome†	-	-
foodborne	-	1	Hemolytic uremic syndrome, postdiarrheal†	-	6
infant	-	3	HIV infection, pediatric†§	-	2
other (wound & unspecified)	-	2	Measles, total¶	-	-
Brucellosis†	-	2	Mumps	2	3
Chancroid	1	2	Plague	-	-
Cholera	-	-	Poliomyelitis, paralytic	-	-
Cyclosporiasis†	-	3	Psittacosis†	1	2
Diphtheria	-	-	Q fever†	1	1
Ehrlichiosis:	-	-	Rabies, human	-	-
human granulocytic (HGE)†	1	1	Rubella	-	-
human monocytic (HME)†	-	1	Rubella, congenital	-	1
other and unspecified	-	-	Streptococcal toxic-shock syndrome†	-	2
Encephalitis/Meningitis:	-	-	Tetanus	1	-
California serogroup viral†	-	-	Toxic-shock syndrome	-	4
eastern equine†	-	-	Trichinosis	-	-
Powassan†	-	-	Tularemia†	-	2
St. Louis†	-	-	Yellow fever	-	-
western equine†	-	-			

-: No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).
† Not notifiable in all states.
§ 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 November 24, 2002.
¶ No cases of indigenous or imported measles were reported.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending January 11, 2003, and January 12, 2002 (2nd Week)*

Reporting area	AIDS		Chlamydia†		Coccidiodomycosis		Cryptosporidiosis		Encephalitis/Meningitis West Nile	
	Cum. 2003§	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	-	898	13,447	21,736	87	38	23	70	-	-
NEW ENGLAND	-	-	508	863	-	-	1	1	-	-
Maine	-	-	52	35	N	N	-	-	-	-
N.H.	-	-	-	56	-	-	-	-	-	-
Vt.	-	-	7	17	-	-	1	-	-	-
Mass.	-	-	185	364	-	-	-	1	-	-
R.I.	-	-	105	116	-	-	-	-	-	-
Conn.	-	-	159	275	-	-	-	-	-	-
MID. ATLANTIC	-	427	28	2,248	-	-	-	6	-	-
Upstate N.Y.	-	20	25	55	-	-	-	-	-	-
N.Y. City	-	402	3	1,009	-	-	-	4	-	-
N.J.	-	5	-	421	-	-	-	-	-	-
Pa.	-	-	-	763	N	N	-	2	-	-
E.N. CENTRAL	-	151	4,186	4,328	1	-	1	19	-	-
Ohio	-	46	2,507	1,110	-	-	-	1	-	-
Ind.	-	35	595	525	N	N	-	-	-	-
Ill.	-	70	278	1,389	-	-	-	6	-	-
Mich.	-	-	599	809	1	-	1	1	-	-
Wis.	-	-	207	495	-	-	-	11	-	-
W.N. CENTRAL	-	18	616	1,284	-	-	5	4	-	-
Minn.	-	-	12	360	-	-	1	-	-	-
Iowa	-	4	18	38	N	N	1	1	-	-
Mo.	-	13	198	468	-	-	1	2	-	-
N. Dak.	-	-	4	25	N	N	-	-	-	-
S. Dak.	-	-	24	56	-	-	2	-	-	-
Nebr.	-	-	-	99	-	-	-	1	-	-
Kans.	-	1	360	238	N	N	-	-	-	-
S. ATLANTIC	-	255	3,463	3,246	-	-	11	23	-	-
Del.	-	-	111	78	N	N	-	-	-	-
Md.	-	-	465	478	-	-	1	-	-	-
D.C.	-	-	81	124	-	-	-	-	-	-
Va.	-	-	438	317	-	-	-	-	-	-
W. Va.	-	1	25	66	N	N	-	-	-	-
N.C.	-	1	808	147	-	-	-	1	-	-
S.C.	-	30	106	328	-	-	-	-	-	-
Ga.	-	221	574	139	-	-	9	19	-	-
Fla.	-	2	855	1,569	N	N	1	3	-	-
E.S. CENTRAL	-	2	740	1,546	-	-	1	-	-	-
Ky.	-	2	86	228	-	-	-	-	-	-
Tenn.	-	-	384	568	-	-	1	-	-	-
Ala.	-	-	-	466	-	-	-	-	-	-
Miss.	-	-	270	284	N	N	-	-	-	-
W.S. CENTRAL	-	-	2,615	3,596	-	-	-	3	-	-
Ark.	-	-	181	257	-	-	-	1	-	-
La.	-	-	37	456	N	N	-	-	-	-
Okla.	-	-	302	374	N	N	-	-	-	-
Tex.	-	-	2,095	2,509	-	-	-	2	-	-
MOUNTAIN	-	-	1,006	1,539	82	4	3	3	-	-
Mont.	-	-	77	62	-	-	-	-	-	-
Idaho	-	-	102	38	-	-	2	1	-	-
Wyo.	-	-	31	17	-	-	-	-	-	-
Colo.	-	-	115	492	N	N	1	-	-	-
N. Mex.	-	-	-	279	-	-	-	-	-	-
Ariz.	-	-	681	443	82	-	-	-	-	-
Utah	-	-	-	8	-	2	-	2	-	-
Nev.	-	-	-	200	-	2	-	-	-	-
PACIFIC	-	45	285	3,086	4	34	1	11	-	-
Wash.	-	-	-	469	N	N	-	U	-	-
Oreg.	-	45	-	112	-	-	-	3	-	-
Calif.	-	-	247	2,292	4	34	1	8	-	-
Alaska	-	-	34	66	-	-	-	-	-	-
Hawaii	-	-	4	147	-	-	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	27	N	N	-	-	-	-
V.I.	-	22	-	3	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	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.

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

† Chlamydia refers to genital infections caused by *C. trachomatis*.

§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update November 24, 2002.

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending January 11, 2003, and January 12, 2002 (2nd Week)*

Reporting area	*Escherichia coli*, Enterohemorrhagic (EHEC)						Giardiasis		Gonorrhea	
	O157:H7		Shiga toxin positive, serogroup non-O157		Shiga toxin positive, not serogrouped					
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	16	46	1	3	-	-	235	404	6,591	10,971
NEW ENGLAND	-	2	-	-	-	-	4	47	163	309
Maine	-	-	-	-	-	-	3	5	2	1
N.H.	-	-	-	-	-	-	-	1	-	4
Vt.	-	-	-	-	-	-	1	4	-	2
Mass.	-	-	-	-	-	-	-	35	47	145
R.I.	-	-	-	-	-	-	-	-	36	32
Conn.	-	2	-	-	-	-	-	2	78	125
MID. ATLANTIC	-	2	-	-	-	-	1	72	26	1,154
Upstate N.Y.	-	-	-	-	-	-	1	3	16	22
N.Y. City	-	-	-	-	-	-	-	36	10	472
N.J.	-	2	-	-	-	-	-	17	-	327
Pa.	N	N	-	-	-	-	-	16	-	333
E.N. CENTRAL	4	13	-	-	-	-	32	95	2,366	2,393
Ohio	1	1	-	-	-	-	20	12	1,669	660
Ind.	-	-	-	-	-	-	-	-	245	242
Ill.	-	9	-	-	-	-	-	40	130	876
Mich.	3	-	-	-	-	-	12	19	265	429
Wis.	-	3	-	-	-	-	-	24	57	186
W.N. CENTRAL	2	7	-	2	-	-	22	33	264	651
Minn.	-	1	-	2	-	-	-	-	4	117
Iowa	-	3	-	-	-	-	10	7	2	13
Mo.	2	1	N	N	N	N	8	15	142	318
N. Dak.	-	-	-	-	-	-	-	-	-	1
S. Dak.	-	-	-	-	-	-	-	1	-	10
Nebr.	-	-	-	-	-	-	-	3	-	43
Kans.	-	2	-	-	-	-	4	7	116	149
S. ATLANTIC	5	10	1	1	-	-	125	95	1,942	2,293
Del.	-	-	-	-	-	-	2	4	53	61
Md.	-	-	-	-	-	-	6	4	332	284
D.C.	-	-	-	-	-	-	-	4	55	110
Va.	-	-	-	-	-	-	-	-	219	301
W. Va.	-	-	-	-	-	-	-	-	9	27
N.C.	2	1	-	-	-	-	-	-	404	209
S.C.	-	-	-	-	-	-	-	-	87	187
Ga.	-	9	-	-	-	-	89	34	327	171
Fla.	3	-	1	1	-	-	28	49	456	943
E.S. CENTRAL	-	-	-	-	-	-	8	5	433	1,028
Ky.	-	-	-	-	-	-	-	-	61	99
Tenn.	-	-	-	-	-	-	4	-	232	392
Ala.	-	-	-	-	-	-	4	5	-	349
Miss.	-	-	-	-	-	-	-	-	140	188
W.S. CENTRAL	-	2	-	-	-	-	-	-	1,106	1,916
Ark.	-	-	-	-	-	-	-	-	134	241
La.	-	-	-	-	-	-	-	-	11	340
Okla.	-	-	-	-	-	-	-	-	126	142
Tex.	-	2	-	-	-	-	-	-	835	1,193
MOUNTAIN	2	1	-	-	-	-	25	28	231	462
Mont.	-	-	-	-	-	-	-	1	6	5
Idaho	-	-	-	-	-	-	4	1	6	1
Wyo.	-	-	-	-	-	-	2	-	2	-
Colo.	1	-	-	-	-	-	13	20	21	160
N. Mex.	-	-	-	-	-	-	-	1	-	59
Ariz.	1	-	-	-	-	-	5	-	196	161
Utah	-	-	-	-	-	-	1	-	-	-
Nev.	-	1	-	-	-	-	-	5	-	76
PACIFIC	3	9	-	-	-	-	18	29	60	765
Wash.	-	-	-	-	-	-	-	-	-	119
Oreg.	-	5	-	-	-	-	-	25	-	22
Calif.	1	4	-	-	-	-	15	-	48	590
Alaska	-	-	-	-	-	-	3	1	8	12
Hawaii	2	-	-	-	-	-	-	3	4	22
Guam	N	N	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	-	5
V.I.	-	-	-	-	-	-	-	-	-	2
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending January 11, 2003, and January 12, 2002 (2nd Week)*

Reporting area	*Haemophilus influenzae*, invasive								Hepatitis (viral, acute), by type	
	All ages		Age <5 years							
	All serotypes		Serotype B		Non-serotype B		Unknown serotype		A	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	22	62	-	-	3	6	-	-	86	299
NEW ENGLAND	1	8	-	-	-	1	-	-	1	13
Maine	-	-	-	-	-	-	-	-	-	1
N.H.	-	-	-	-	-	-	-	-	-	-
Vt.	-	-	-	-	-	-	-	-	-	-
Mass.	-	6	-	-	-	1	-	-	1	7
R.I.	-	-	-	-	-	-	-	-	-	-
Conn.	1	2	-	-	-	-	-	-	-	5
MID. ATLANTIC	-	19	-	-	-	-	-	-	-	27
Upstate N.Y.	-	5	-	-	-	-	-	-	-	-
N.Y. City	-	6	-	-	-	-	-	-	-	9
N.J.	-	6	-	-	-	-	-	-	-	8
Pa.	-	2	-	-	-	-	-	-	-	10
E.N. CENTRAL	-	16	-	-	-	1	-	-	9	31
Ohio	-	8	-	-	-	-	-	-	2	5
Ind.	-	-	-	-	-	-	-	-	-	-
Ill.	-	6	-	-	-	-	-	-	-	17
Mich.	-	-	-	-	-	-	-	-	7	5
Wis.	-	2	-	-	-	1	-	-	-	4
W.N. CENTRAL	2	-	-	-	1	-	-	-	3	16
Minn.	-	-	-	-	-	-	-	-	-	-
Iowa	-	-	-	-	-	-	-	-	2	5
Mo.	1	-	-	-	-	-	-	-	1	1
N. Dak.	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	-	-	-	-	-	-	-	1
Nebr.	-	-	-	-	-	-	-	-	-	1
Kans.	1	-	-	-	1	-	-	-	-	8
S. ATLANTIC	11	12	-	-	1	3	-	-	61	101
Del.	-	-	-	-	-	-	-	-	-	-
Md.	4	1	-	-	-	-	-	-	10	20
D.C.	-	-	-	-	-	-	-	-	-	4
Va.	-	-	-	-	-	-	-	-	-	-
W. Va.	-	-	-	-	-	-	-	-	-	-
N.C.	-	1	-	-	-	-	-	-	-	14
S.C.	-	-	-	-	-	-	-	-	-	1
Ga.	2	7	-	-	-	1	-	-	30	31
Fla.	5	3	-	-	1	2	-	-	21	31
E.S. CENTRAL	3	-	-	-	1	-	-	-	1	6
Ky.	-	-	-	-	-	-	-	-	-	1
Tenn.	1	-	-	-	-	-	-	-	-	-
Ala.	2	-	-	-	1	-	-	-	1	-
Miss.	-	-	-	-	-	-	-	-	-	5
W.S. CENTRAL	-	-	-	-	-	-	-	-	-	25
Ark.	-	-	-	-	-	-	-	-	-	1
La.	-	-	-	-	-	-	-	-	-	-
Okla.	-	-	-	-	-	-	-	-	-	-
Tex.	-	-	-	-	-	-	-	-	-	24
MOUNTAIN	4	2	-	-	-	1	-	-	7	6
Mont.	-	-	-	-	-	-	-	-	-	1
Idaho	-	-	-	-	-	-	-	-	-	-
Wyo.	-	-	-	-	-	-	-	-	-	-
Colo.	1	1	-	-	-	-	-	-	2	2
N. Mex.	-	1	-	-	-	1	-	-	2	1
Ariz.	3	-	-	-	-	-	-	-	3	-
Utah	-	-	-	-	-	-	-	-	-	-
Nev.	-	-	-	-	-	-	-	-	-	2
PACIFIC	1	5	-	-	-	-	-	-	4	74
Wash.	-	-	-	-	-	-	-	-	-	-
Oreg.	-	3	-	-	-	-	-	-	-	10
Calif.	-	-	-	-	-	-	-	-	4	64
Alaska	-	-	-	-	-	-	-	-	-	-
Hawaii	1	2	-	-	-	-	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	-	-
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending January 11, 2003, and January 12, 2002 (2nd Week)*

Reporting area	Hepatitis (viral, acute), by type				Legionellosis		Listeriosis		Lyme disease	
	B		C							
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	113	128	17	120	17	15	6	9	19	112
NEW ENGLAND	-	9	-	1	1	-	-	-	1	15
Maine	-	-	-	-	-	-	-	-	-	-
N.H.	-	-	-	-	-	-	-	-	-	-
Vt.	-	1	-	1	-	-	-	-	1	-
Mass.	-	6	-	-	-	-	-	-	-	15
R.I.	-	-	-	-	-	-	-	-	-	-
Conn.	-	2	-	-	1	-	-	-	-	-
MID. ATLANTIC	-	28	-	72	-	1	-	2	1	62
Upstate N.Y.	-	1	-	-	-	-	-	-	1	28
N.Y. City	-	14	-	-	-	-	-	1	-	-
N.J.	-	9	-	72	-	-	-	-	-	22
Pa.	-	4	-	-	-	1	-	1	-	12
E.N. CENTRAL	12	22	2	1	4	8	1	2	-	1
Ohio	6	4	-	-	1	3	1	-	-	1
Ind.	-	-	-	-	-	-	-	-	-	-
Ill.	-	2	-	-	-	-	-	-	-	-
Mich.	6	12	2	1	3	4	-	-	-	-
Wis.	-	4	-	-	-	1	-	2	U	U
W.N. CENTRAL	3	5	6	19	1	2	-	-	-	2
Minn.	-	-	-	-	-	-	-	-	-	-
Iowa	-	1	-	-	-	-	-	-	-	-
Mo.	3	2	6	19	-	1	-	-	-	2
N. Dak.	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	-	-	-	-	-	-	-	-
Nebr.	-	1	-	-	-	1	-	-	-	-
Kans.	-	1	-	-	1	-	-	-	-	-
S. ATLANTIC	84	31	7	3	11	2	3	-	15	29
Del.	-	1	-	1	-	1	-	-	-	-
Md.	1	5	-	1	2	1	-	-	8	29
D.C.	-	1	-	-	-	-	-	-	-	-
Va.	-	-	-	-	-	-	-	-	-	-
W. Va.	-	-	-	-	N	N	-	-	-	-
N.C.	2	3	1	-	1	-	1	-	3	-
S.C.	-	-	-	-	-	-	-	-	-	-
Ga.	66	11	1	-	1	-	-	-	-	-
Fla.	15	10	5	1	7	-	2	-	4	-
E.S. CENTRAL	1	6	-	3	-	-	2	-	-	-
Ky.	-	1	-	-	-	-	-	-	-	-
Tenn.	1	-	-	-	-	-	-	-	-	-
Ala.	-	-	-	-	-	-	2	-	-	-
Miss.	-	5	-	3	-	-	-	-	-	-
W.S. CENTRAL	-	2	-	16	-	1	-	1	-	2
Ark.	-	1	-	-	-	-	-	-	-	-
La.	-	1	-	-	-	-	-	-	-	-
Okla.	-	-	-	-	-	-	-	-	-	-
Tex.	-	-	-	16	-	1	-	1	-	2
MOUNTAIN	13	5	2	2	-	-	-	1	-	-
Mont.	1	-	-	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	-	-	-	-	-
Wyo.	1	1	-	1	-	-	-	-	-	-
Colo.	4	-	2	1	-	-	-	1	-	-
N. Mex.	-	1	-	-	-	-	-	-	-	-
Ariz.	7	-	-	-	-	-	-	-	-	-
Utah	-	-	-	-	-	-	-	-	-	-
Nev.	-	3	-	-	-	-	-	-	-	-
PACIFIC	-	20	-	3	-	1	-	3	2	1
Wash.	-	-	-	-	-	-	-	-	-	-
Oreg.	-	10	-	2	N	N	-	-	-	-
Calif.	-	9	-	1	-	1	-	3	2	1
Alaska	-	1	-	-	-	-	-	-	-	-
Hawaii	-	-	-	-	-	-	-	-	N	N
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	1	-	-	-	-	-	-	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending January 11, 2003, and January 12, 2002 (2nd Week)*

Reporting area	Malaria		Meningococcal disease		Pertussis		Rabies, animal		Rocky Mountain spotted fever	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	11	26	25	50	68	129	59	212	5	8
NEW ENGLAND	1	3	1	4	6	48	7	8	-	-
Maine	1	-	-	-	-	-	-	-	-	-
N.H.	-	1	-	-	-	-	-	-	-	-
Vt.	-	-	-	1	6	11	2	2	-	-
Mass.	-	2	-	3	-	34	-	2	-	-
R.I.	-	-	-	-	-	-	-	1	-	-
Conn.	-	-	1	-	-	3	5	3	-	-
MID. ATLANTIC	-	7	-	5	-	2	8	20	-	1
Upstate N.Y.	-	-	-	2	-	-	8	14	-	-
N.Y. City	-	4	-	1	-	2	-	-	-	-
N.J.	-	2	-	1	-	-	-	4	-	-
Pa.	-	1	-	1	-	-	-	2	-	1
E.N. CENTRAL	2	-	4	11	8	21	-	1	-	1
Ohio	1	-	2	8	6	4	-	-	-	1
Ind.	-	-	1	-	-	-	-	1	-	-
Ill.	-	-	-	-	-	8	-	-	-	-
Mich.	1	-	1	1	2	1	-	-	-	-
Wis.	-	-	-	2	-	8	-	-	-	-
W.N. CENTRAL	1	2	4	2	8	13	8	15	-	-
Minn.	-	-	1	-	-	-	-	-	-	-
Iowa	1	1	2	-	-	9	-	2	-	-
Mo.	-	1	1	1	5	4	-	-	-	-
N. Dak.	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	-	1	-	-	-	7	-	-
Nebr.	-	-	-	-	-	-	-	-	-	-
Kans.	-	-	-	-	3	-	8	6	-	-
S. ATLANTIC	7	3	12	8	24	3	30	27	5	6
Del.	-	-	-	-	-	1	-	-	-	-
Md.	2	1	2	-	4	2	2	10	2	1
D.C.	-	1	-	-	-	-	-	-	-	-
Va.	-	-	-	-	-	-	8	4	-	-
W. Va.	-	-	-	-	-	-	1	3	-	-
N.C.	-	1	1	1	6	-	16	10	3	5
S.C.	-	-	-	-	-	-	2	-	-	-
Ga.	1	-	1	3	13	-	-	-	-	-
Fla.	4	-	8	4	1	-	1	-	-	-
E.S. CENTRAL	-	1	3	-	2	8	1	108	-	-
Ky.	-	-	-	-	-	-	-	-	-	-
Tenn.	-	-	1	-	-	1	-	108	-	-
Ala.	-	-	2	-	2	1	1	-	-	-
Miss.	-	1	-	-	-	6	-	-	-	-
W.S. CENTRAL	-	-	-	8	-	6	1	23	-	-
Ark.	-	-	-	1	-	5	-	-	-	-
La.	-	-	-	1	-	-	-	-	-	-
Okla.	-	-	-	-	-	1	1	3	-	-
Tex.	-	-	-	6	-	-	-	20	-	-
MOUNTAIN	-	-	1	3	20	19	4	4	-	-
Mont.	-	-	-	-	-	-	1	-	-	-
Idaho	-	-	-	-	-	4	-	-	-	-
Wyo.	-	-	-	-	-	-	-	-	-	-
Colo.	-	-	-	1	10	10	-	-	-	-
N. Mex.	-	-	-	-	-	4	-	-	-	-
Ariz.	-	-	1	-	10	-	3	4	-	-
Utah	-	-	-	-	-	-	-	-	-	-
Nev.	-	-	-	2	-	1	-	-	-	-
PACIFIC	-	10	-	9	-	9	-	6	-	-
Wash.	-	-	-	-	-	-	-	-	-	-
Oreg.	-	-	-	4	-	-	-	-	-	-
Calif.	-	8	-	5	-	8	-	4	-	-
Alaska	-	-	-	-	-	-	-	2	-	-
Hawaii	-	2	-	-	-	1	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	3	-	-
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending January 11, 2003, and January 12, 2002 (2nd Week)*

Reporting area	Salmonellosis		Shigellosis		*Streptococcal* disease, invasive, group A		*Streptococcus pneumoniae*, invasive			
							Drug resistant, all ages		Age <5 years	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	462	814	480	376	55	139	67	65	-	4
NEW ENGLAND	-	38	-	8	2	7	-	-	-	1
Maine	-	3	-	-	-	2	-	-	-	-
N.H.	-	1	-	-	-	N	-	-	N	N
Vt.	-	2	-	-	1	1	-	-	-	1
Mass.	-	32	-	7	1	4	N	N	N	N
R.I.	-	-	-	-	-	-	-	-	-	-
Conn.	-	-	-	1	-	-	-	-	-	-
MID. ATLANTIC	-	98	-	25	-	22	-	2	-	-
Upstate N.Y.	-	2	-	-	-	3	-	2	-	-
N.Y. City	-	40	-	15	-	13	U	U	U	U
N.J.	-	34	-	3	-	5	N	N	N	N
Pa.	-	22	-	7	-	1	-	-	-	-
E.N. CENTRAL	24	128	14	63	14	29	-	1	-	3
Ohio	19	27	2	23	5	6	-	-	-	-
Ind.	-	-	-	-	-	-	-	1	-	-
Ill.	-	56	-	33	-	13	-	-	-	-
Mich.	5	25	12	3	9	10	-	-	N	N
Wis.	-	20	-	4	-	-	N	N	-	3
W.N. CENTRAL	22	55	12	66	5	6	13	13	-	-
Minn.	-	5	-	8	-	-	-	-	-	-
Iowa	3	10	-	6	-	-	N	N	N	N
Mo.	12	31	9	5	2	1	-	1	-	-
N. Dak.	-	-	-	-	-	-	-	-	-	-
S. Dak.	1	2	-	36	1	-	-	-	-	-
Nebr.	-	-	-	8	-	4	-	3	N	N
Kans.	6	7	3	3	2	1	13	9	N	N
S. ATLANTIC	328	197	409	78	15	39	51	45	-	-
Del.	-	-	11	2	-	-	-	-	N	N
Md.	26	22	42	9	3	N	N	N	N	N
D.C.	-	1	-	3	-	1	-	1	-	-
Va.	-	-	1	-	-	-	N	N	N	N
W. Va.	-	-	-	-	-	-	-	-	-	-
N.C.	54	27	35	9	1	5	N	N	U	U
S.C.	1	4	-	-	1	-	2	5	N	N
Ga.	145	4	185	18	3	25	19	30	N	N
Fla.	102	139	135	37	7	8	30	9	N	N
E.S. CENTRAL	39	41	21	29	1	-	1	-	-	-
Ky.	-	-	-	5	-	-	-	-	N	N
Tenn.	5	1	1	-	1	-	1	-	N	N
Ala.	30	22	19	15	-	-	-	-	N	N
Miss.	4	18	1	9	-	-	-	-	-	-
W.S. CENTRAL	6	58	3	28	1	10	-	-	-	-
Ark.	4	2	-	3	-	-	-	-	-	-
La.	-	2	-	3	-	-	-	-	-	-
Okla.	2	1	3	-	1	-	N	N	-	-
Tex.	-	53	-	22	-	10	N	N	-	-
MOUNTAIN	22	38	14	11	16	11	2	4	-	-
Mont.	1	-	-	-	-	-	-	-	-	-
Idaho	4	5	-	-	1	-	N	N	N	N
Wyo.	-	1	1	-	-	1	-	2	-	-
Colo.	10	18	3	4	8	5	-	-	-	-
N. Mex.	4	1	3	2	2	5	2	2	-	-
Ariz.	3	-	7	-	5	-	-	-	N	N
Utah	-	2	-	4	-	-	-	-	-	-
Nev.	-	11	-	1	-	-	-	-	-	-
PACIFIC	21	161	7	68	1	15	-	-	-	-
Wash.	1	-	-	-	-	-	-	-	N	N
Oreg.	-	11	-	5	N	N	N	N	N	N
Calif.	15	145	5	62	1	13	N	N	N	N
Alaska	2	2	-	1	-	-	-	-	N	N
Hawaii	3	3	2	-	-	2	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	3	-	-	N	N	-	-	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending January 11, 2003, and January 12, 2002 (2nd Week)*

Reporting area	Syphilis				Tuberculosis		Typhoid fever		Varicella (Chickenpox)
	Primary & secondary		Congenital						
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003
UNITED STATES	115	127	2	11	54	154	4	8	225
NEW ENGLAND	2	1	-	-	1	9	-	-	36
Maine	-	-	-	-	-	-	-	-	36
N.H.	-	-	-	-	-	-	-	-	-
Vt.	-	-	-	-	-	-	-	-	-
Mass.	2	-	-	-	-	-	-	-	-
R.I.	-	-	-	-	-	4	-	-	-
Conn.	-	1	-	-	1	5	-	-	-
MID. ATLANTIC	7	9	-	2	35	11	-	1	-
Upstate N.Y.	-	-	-	-	-	-	-	-	-
N.Y. City	7	5	-	1	35	-	-	1	-
N.J.	-	3	-	1	-	-	-	-	-
Pa.	-	1	-	-	-	11	-	-	-
E.N. CENTRAL	11	16	-	1	3	5	-	2	110
Ohio	1	4	-	-	1	3	-	-	8
Ind.	-	3	-	-	2	1	-	-	-
Ill.	2	8	-	1	-	1	-	-	-
Mich.	7	-	-	-	-	-	-	-	102
Wis.	1	1	-	-	-	-	-	2	-
W.N. CENTRAL	6	6	-	-	3	22	-	-	-
Minn.	-	3	-	-	-	-	-	-	-
Iowa	-	-	-	-	-	-	-	-	-
Mo.	1	2	-	-	-	18	-	-	-
N. Dak.	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	-	-	1	-	-	-	-
Nebr.	-	-	-	-	-	-	-	-	-
Kans.	5	1	-	-	2	4	-	-	-
S. ATLANTIC	45	34	2	3	-	1	1	4	79
Del.	-	-	-	-	-	-	-	-	-
Md.	5	5	-	-	-	-	1	1	-
D.C.	1	1	-	-	-	-	-	-	-
Va.	4	2	-	-	-	-	-	-	-
W. Va.	-	-	-	-	-	-	-	-	79
N.C.	4	10	-	2	-	1	-	-	-
S.C.	2	-	-	1	-	-	-	-	-
Ga.	3	4	-	-	-	-	-	-	-
Fla.	26	12	2	-	-	-	-	3	-
E.S. CENTRAL	9	17	-	1	4	12	-	-	-
Ky.	1	1	-	-	-	-	-	-	-
Tenn.	7	10	-	-	-	9	-	-	-
Ala.	1	4	-	-	4	3	-	-	-
Miss.	-	2	-	1	-	-	-	-	-
W.S. CENTRAL	23	17	-	3	-	51	-	1	-
Ark.	-	-	-	-	-	-	-	-	-
La.	-	5	-	-	-	-	-	-	-
Okla.	1	3	-	-	-	-	-	-	-
Tex.	22	9	-	3	-	51	-	1	-
MOUNTAIN	11	4	-	-	1	3	1	-	-
Mont.	-	-	-	-	-	-	-	-	-
Idaho	-	1	-	-	-	-	-	-	-
Wyo.	-	-	-	-	1	-	-	-	-
Colo.	-	-	-	-	-	-	-	-	-
N. Mex.	-	1	-	-	-	2	1	-	-
Ariz.	11	2	-	-	-	-	-	-	-
Utah	-	-	-	-	-	-	-	-	-
Nev.	-	-	-	-	-	1	-	-	-
PACIFIC	1	23	-	1	7	40	2	-	-
Wash.	-	1	-	-	4	3	-	-	-
Oreg.	-	-	-	-	1	-	-	-	-
Calif.	1	22	-	1	2	34	2	-	-
Alaska	-	-	-	-	-	1	-	-	-
Hawaii	-	-	-	-	-	2	-	-	-
Guam	-	-	-	-	-	-	-	-	-
P.R.	-	7	-	1	-	-	-	-	-
V.I.	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE III. Deaths in 122 U.S. cities,* week ending January 11, 2003 (2nd Week)

Reporting Area	All causes, by age (years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	621	446	114	39	14	8	70
Boston, Mass.	182	128	32	11	7	4	17
Bridgeport, Conn.	44	30	9	3	1	1	7
Cambridge, Mass.	28	24	2	1	1	-	5
Fall River, Mass.	29	24	4	1	-	-	4
Hartford, Conn.	52	28	13	9	2	-	12
Lowell, Mass.	26	20	4	2	-	-	4
Lynn, Mass.	11	10	1	-	-	-	2
New Bedford, Mass.	31	29	1	1	-	-	3
New Haven, Conn.	40	29	11	-	-	-	2
Providence, R.I.	U	U	U	U	U	U	U
Somerville, Mass.	5	5	-	-	-	-	-
Springfield, Mass.	60	42	13	2	2	1	3
Waterbury, Conn.	40	32	6	2	-	-	1
Worcester, Mass.	73	45	18	7	1	2	10
MID. ATLANTIC	2,135	1,515	396	141	43	38	115
Albany, N.Y.	49	32	11	4	2	-	5
Allentown, Pa.	28	23	5	-	-	-	-
Buffalo, N.Y.	84	59	21	3	-	1	5
Camden, N.J.	41	28	6	4	-	3	5
Elizabeth, N.J.	32	19	9	2	2	-	-
Erie, Pa.	52	40	10	1	-	1	3
Jersey City, N.J.	56	38	11	7	-	-	-
New York City, N.Y.	949	675	167	75	19	11	38
Newark, N.J.	68	35	15	10	2	6	7
Paterson, N.J.	40	24	10	3	-	3	1
Philadelphia, Pa.	248	174	45	16	8	5	13
Pittsburgh, Pa.§	39	29	9	1	-	-	4
Reading, Pa.	26	21	4	1	-	-	3
Rochester, N.Y.	160	121	26	4	5	4	13
Schenectady, N.Y.	26	22	3	1	-	-	4
Scranton, Pa.	43	37	5	1	-	-	1
Syracuse, N.Y.	99	69	19	2	5	4	7
Trenton, N.J.	29	21	5	3	-	-	2
Utica, N.Y.	33	24	7	2	-	-	3
Yonkers, N.Y.	33	24	8	1	-	-	1
E.N. CENTRAL	2,609	1,744	571	174	48	72	189
Akron, Ohio	69	49	11	3	4	2	6
Canton, Ohio	55	39	9	4	1	2	5
Chicago, Ill.	416	233	107	40	11	25	32
Cincinnati, Ohio	100	69	20	4	6	1	2
Cleveland, Ohio	171	107	45	10	2	7	7
Columbus, Ohio	260	171	63	15	3	8	24
Dayton, Ohio	165	115	38	7	2	3	10
Detroit, Mich.	255	146	68	25	8	8	27
Evansville, Ind.	76	59	9	6	1	1	2
Fort Wayne, Ind.	92	74	15	3	-	-	9
Gary, Ind.	43	29	8	2	2	2	3
Grand Rapids, Mich.	65	46	13	4	1	1	7
Indianapolis, Ind.	281	187	66	21	3	4	9
Lansing, Mich.	U	U	U	U	U	U	U
Milwaukee, Wis.	144	99	28	14	2	1	13
Peoria, Ill.	49	36	9	3	-	1	7
Rockford, Ill.	70	50	14	3	-	3	6
South Bend, Ind.	69	54	14	-	-	1	5
Toledo, Ohio	139	108	25	4	1	1	11
Youngstown, Ohio	90	73	9	6	1	1	4
W.N. CENTRAL	701	497	132	31	21	20	59
Des Moines, Iowa	113	91	16	4	1	1	14
Duluth, Minn.	40	32	6	-	-	2	4
Kansas City, Kans.	43	25	14	1	2	1	5
Kansas City, Mo.	69	47	17	3	2	-	6
Lincoln, Nebr.	51	39	10	1	1	-	9
Minneapolis, Minn.	80	41	21	7	5	6	7
Omaha, Nebr.	126	85	25	8	2	6	6
St. Louis, Mo.	U	U	U	U	U	U	U
St. Paul, Minn.	71	54	9	5	2	1	2
Wichita, Kans.	108	83	14	2	6	3	6
S. ATLANTIC	1,638	1,051	375	136	49	24	89
Atlanta, Ga.	249	148	68	20	10	3	13
Baltimore, Md.	298	173	82	33	9	1	24
Charlotte, N.C.	151	105	28	12	3	3	9
Jacksonville, Fla.	325	226	67	18	10	3	-
Miami, Fla.	U	U	U	U	U	U	U
Norfolk, Va.	49	34	8	5	1	1	3
Richmond, Va.	107	54	28	15	5	5	6
Savannah, Ga.	13	9	3	1	-	-	2
St. Petersburg, Fla.	75	49	13	10	2	1	2
Tampa, Fla.	251	181	46	13	4	6	23
Washington, D.C.	100	57	29	8	4	1	2
Wilmington, Del.	20	15	3	1	1	-	5
E.S. CENTRAL	1,279	840	292	94	26	24	108
Birmingham, Ala.	190	122	46	11	3	5	14
Chattanooga, Tenn.	133	95	24	7	4	3	7
Knoxville, Tenn.	111	72	29	8	1	1	4
Lexington, Ky.	84	57	20	5	1	1	12
Memphis, Tenn.	273	188	50	26	7	2	33
Mobile, Ala.	177	123	38	9	6	1	8
Montgomery, Ala.	65	46	12	4	1	2	7
Nashville, Tenn.	246	137	73	24	3	9	23
W.S. CENTRAL	2,137	1,320	428	213	112	64	141
Austin, Tex.	115	71	27	12	1	4	12
Baton Rouge, La.	121	83	23	9	2	4	1
Corpus Christi, Tex.	58	44	9	3	2	-	3
Dallas, Tex.	264	168	66	19	6	5	20
El Paso, Tex.	81	63	16	2	-	-	7
Ft. Worth, Tex.	176	111	42	17	3	3	13
Houston, Tex.	631	310	112	89	82	38	33
Little Rock, Ark.	80	54	15	8	2	1	-
New Orleans, La.	38	25	9	3	1	-	-
San Antonio, Tex.	248	178	41	22	3	4	22
Shreveport, La.	110	72	23	11	3	1	13
Tulsa, Okla.	215	141	45	18	7	4	17
MOUNTAIN	934	658	176	67	19	14	65
Albuquerque, N.M.	181	124	31	20	4	2	9
Boise, Idaho	26	21	2	2	-	1	1
Colo. Springs, Colo.	85	58	18	7	2	-	2
Denver, Colo.	108	76	14	10	4	4	11
Las Vegas, Nev.	230	169	45	12	2	2	21
Ogden, Utah	29	23	4	2	-	-	-
Phoenix, Ariz.	U	U	U	U	U	U	U
Pueblo, Colo.	33	20	10	2	1	-	4
Salt Lake City, Utah	83	55	14	8	3	3	5
Tucson, Ariz.	159	112	38	4	3	2	12
PACIFIC	1,766	1,237	327	126	37	39	178
Berkeley, Calif.	17	14	1	2	-	-	2
Fresno, Calif.	88	56	18	10	3	1	4
Glendale, Calif.	26	23	2	1	-	-	-
Honolulu, Hawaii	93	67	14	6	1	5	11
Long Beach, Calif.	73	54	15	2	-	2	15
Los Angeles, Calif.	394	246	81	44	18	5	32
Pasadena, Calif.	39	33	5	-	-	1	9
Portland, Oreg.	134	101	24	5	1	3	12
Sacramento, Calif.	147	104	27	11	1	4	29
San Diego, Calif.	223	163	41	12	4	3	22
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	166	116	35	10	3	2	21
Santa Cruz, Calif.	40	30	9	1	-	-	5
Seattle, Wash.	119	80	18	15	3	3	2
Spokane, Wash.	73	52	12	4	-	5	7
Tacoma, Wash.	134	98	25	3	3	5	7
TOTAL	13,820¶	9,308	2,811	1,021	369	303	1,014

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. 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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