

MMWRTM
**MORBIDITY AND MORTALITY
WEEKLY REPORT**

- 221 Update: Assessment of Risk for Meningococcal Disease Associated With the Hajj 2001
- 222 Apparent Global Interruption of Wild Poliovirus Type 2 Transmission
- 224 Severe Malnutrition Among Young Children — Georgia, January 1997–June 1999
- 227 Outbreak of Community-Acquired Pneumonia Caused by *Mycoplasma pneumoniae* — Colorado, 2000
- 230 Notice to Readers

Public Health Dispatch

**Update: Assessment of Risk for Meningococcal Disease
Associated With the Hajj 2001**

During late March and early April 2000, four cases of meningococcal disease caused by *Neisseria meningitidis* serogroup W-135 were identified among U.S. pilgrims returning from the Hajj in Saudi Arabia, their close contacts, and communities (1). These cases occurred as part of a larger epidemic in which approximately 400 cases caused by a similar and unusual strain were identified worldwide (2). The Hajj, an annual pilgrimage to the major holy places of Islam, is attended by approximately two million persons from approximately 140 countries, including an estimated 15,000 from the United States.

After an outbreak of serogroup A meningococcal disease in 1987 associated with the Hajj, CDC recommended that U.S. pilgrims receive the quadrivalent meningococcal polysaccharide vaccine (3). This vaccine provides protection against disease caused by serogroups A, C, Y, and W-135; however, the vaccine may not affect asymptomatic pharyngeal carriage or a person's ability to transmit disease. To assess the risk for meningococcal disease in 2001 among U.S. pilgrims, CDC conducted a study of pharyngeal carriage of *N. meningitidis* in departing pilgrims traveling to Saudi Arabia and of passengers returning from Saudi Arabia after the Hajj 1–2 weeks later.

After informed consent was obtained, pilgrims departing from John F. Kennedy International Airport (JFK), New York, on seven consecutive direct flights to Saudi Arabia during February 16–27, 2001, were asked to complete a questionnaire and provide an oropharyngeal swab for culture. During March 9–16, all disembarking passengers (i.e., pilgrims and nonpilgrims) on five consecutive direct flights from Saudi Arabia to JFK were similarly approached; 451 pilgrims were enrolled in the departing portion of the study and 869 passengers, including 727 pilgrims, were enrolled in the returning portion. Of the 27 *N. meningitidis* isolates recovered from 1320 passengers, 17 (63%) were nongroupable (i.e., a typically nonpathogenic strain); seven (26%) were serogroup W-135. Returning pilgrims were more likely to be carriers than departing pilgrims (2.6% versus 0.9%; $p=0.04$). None of the departing pilgrims carried serogroup W-135; however, six (0.8%) returning pilgrims were serogroup W-135 carriers ($p=0.06$). Among returning passengers, carriage of serogroup W-135 was similar among pilgrims and nonpilgrims (0.8% versus 0.9%; $p=0.98$).

Many returning passengers reported upper respiratory symptoms; 63% reported cough, 58% had sore throat, and 24% had fever during the 2 weeks before their return.

Meningococcal Disease — Continued

Antibiotic use was reported by 396 (49%) of 811 returning passengers and was associated with decreased (although not significantly [2.1% versus 4.2%; $p=0.09$]) *N. meningitidis* carriage. The cause of this illness is not known; severe illness requiring hospitalization was not reported.

Because of the low rate of *N. meningitidis* serogroup W-135 carriage, antimicrobial chemoprophylaxis for all pilgrims returning to the United States is not recommended. Although overall carriage was low, the high proportion of serogroup W-135 carriage suggests continuing transmission in Saudi Arabia. Evidence of this transmission, combined with reports of cases of invasive disease among pilgrims returning to the United Kingdom who received only bivalent vaccine against serogroup A and C, suggests that U.S. pilgrims should continue to receive quadrivalent meningococcal polysaccharide vaccine before travel to the Hajj.

Reported by: Div of Applied Public Health Training, Epidemiology Program Office; Meningitis and Special Pathogens Br, Div of Bacterial and Mycotic Diseases; Surveillance and Epidemiology Br, Div of Quarantine, National Center for Infectious Diseases; and EIS officers, CDC.

References

1. CDC. Risk for meningococcal disease associated with the Hajj 2001. MMWR 2001;50:97–8.
2. Popovic T, Sacchi CT, Reeves MW, et al. *N. meningitidis* serogroup W135 isolates associated with the ET-37 complex [Letter]. Emerg Infect Dis 2000;6:428–9.
3. Moore PS, Harrison LH, Telzak EE, et al. Group A meningococcal carriage in travelers returning from Saudi Arabia. JAMA 1988;260:2686–9.

Apparent Global Interruption of Wild Poliovirus Type 2 Transmission

In 1988, the World Health Assembly of the World Health Organization (WHO) resolved to eradicate poliomyelitis by 2000. Since then, the WHO Region of the Americas and Western Pacific Region have been certified free of polio, and the European Region is approaching 3 years since the last confirmed case of polio. Transmission of wild poliovirus types 1 and 3 continues to decline in the other WHO regions (1). This report summarizes the evidence, obtained through surveillance for acute flaccid paralysis (AFP), supporting the global interruption of wild poliovirus type 2 transmission.

Along with achieving and maintaining high routine coverage with oral poliovirus vaccine (OPV), conducting National Immunization Days* to decrease poliovirus circulation, and mopping-up vaccination activities† to eliminate remaining reservoirs‡ of poliovirus transmission, one of the main polio eradication strategies is AFP surveillance. The quality of AFP surveillance is assessed primarily by the nonpolio AFP rate (target: ≥ 1 per 100,000 population aged <15 years), and by the completeness of specimen collection (target: two adequate stool specimens¶ from >80% of persons with AFP).

*Nationwide mass campaigns during a short period (days to weeks), in which two doses of OPV are administered to all children in the target age group (usually aged <5 years), regardless of vaccination history, with an interval of 4–6 weeks between doses.

† Focal mass campaigns in high-risk areas during a short period (days to weeks) in which two OPV doses are administered to all children in the target age groups, regardless of vaccination history, with an interval of 4–6 weeks between doses.

‡ Countries where polio is endemic that have large populations and that may export poliovirus to neighboring countries and elsewhere.

¶ Two stool specimens, collected 24 to 48 hours apart within 14 days of paralysis onset, that arrive in the laboratory in good condition.

Wild Poliovirus Type 2 — Continued

The last countries to report wild poliovirus type 2 isolates were Afghanistan and Pakistan in 1997, Nigeria in 1998, and India in 1999 (2). The last known reservoirs of wild poliovirus type 2 transmission occurred in Bihar, Uttar Pradesh, and West Bengal in northern India. Several type 2 isolates were obtained from this region during 1998–1999. The rapidly declining genetic diversity of the few sustaining type 2 isolate chains is consistent with the final phase of transmission. The last wild poliovirus type 2 isolated was from a child reported as an AFP case in West Bihar with paralysis onset in October 1999.

Despite substantially improved AFP surveillance globally since late 1999, no wild poliovirus type 2 isolates have been reported by any WHO region since late 1999. From 1999 to 2000, the number of AFP cases reported worldwide increased from 29,583 to 30,436 despite a decrease of confirmed polio cases from 7141 in 1999 to 2824 in 2000. In the South-East Asia Region during 1999–2000, the overall nonpolio AFP rate increased from 1.6 to 1.7 per 100,000 population aged <15 years, and the rate of adequate stool collection increased from 71% to 81%, respectively. In the Eastern Mediterranean Region, the overall nonpolio AFP rate increased from 1.1 to 1.4 and the rate of adequate stool collection remained at 67%. In the African Region during 1999–2000, the overall nonpolio AFP rate increased from 0.8 to 1.3; however, the rate of adequate stool collection (53%) remained below the 2000 target level. Surveillance remains suboptimal in the major reservoir countries of Angola, Democratic Republic of Congo, Ethiopia, and Nigeria.

AFP surveillance comprises a global network of seven specialized, 15 reference, and 126 national WHO-accredited laboratories. The network processed 48,370 stool specimens in 1999 and approximately 50,000 in 2000. During 1999–2000, 1423 isolates were wild poliovirus type 1 (989 in 1999 and 434 in 2000); 11 were wild poliovirus type 2 (11 in 1999 [from India] and zero in 2000); 1127 were wild poliovirus type 3 (894 in 1999 and 233 in 2000), and 23 were wild poliovirus types 1 and 3 mixed isolates (16 in 1999 and seven in 2000) (Table 1).

TABLE 1. Number of confirmed cases of poliomyelitis and wild poliovirus, by type and region — World Health Organization, 1999 and 2000

Region	1999					2000				
	No. confirmed cases	Wild virus confirmed	Type 1	Type 2	Type 3	No. confirmed cases	Wild virus confirmed	Type 1	Type 2	Type 3
African	2861	246	167	0	79	1763	144	139	0	5
Americas	0	0	0	0	0	0	0	0	0	0
Eastern Mediterranean	914	479 (four were mixed types 1 and 3)	392	0	83	453	259 (six were mixed types 1 and 3)	155	0	98
European	0	0	0	0	0	0	0	0	0	0
South-East Asia	3365	1185 (12 were mixed types 1 and 3)	430	11	732	608	271 (one was mixed types 1 and 3)	140	0	130
Western Pacific	1*	1	0	0	0	0	0	0	0	0
Total	7141	1911	989	11	894	2824	674	434	0	233

* Imported case.

Wild Poliovirus Type 2 — Continued

Reported by: Vaccines and Biologicals Dept, World Health Organization, Geneva, Switzerland. Respiratory and Enteric Viruses Br, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; Vaccine Preventable Disease Eradication Div, National Immunization Program, CDC.

Editorial Note: The apparent elimination of wild poliovirus type 2 represents a milestone for the global polio eradication initiative and an indication that the current strategies can eradicate poliovirus types 1 and 3. Since late 1999, the global polio laboratory network has processed tens of thousands of stool specimens, including those from countries at high risk for undetected poliovirus circulation. All polioviruses type 2 isolated since October 1999 have been vaccine derived, and the declining genetic diversity of the last wild isolates from India is consistent with the final phase of transmission.

Before the advent of the polio vaccine, wild poliovirus type 2 had worldwide distribution. As the vaccine was introduced, particularly in temperate climates, wild poliovirus type 2 transmission disappeared quickly. Transmission continued in countries with high population density and poor sanitation, but disappeared more quickly than other poliovirus types as vaccination rates improved. The high immunogenicity of type 2 polioviruses in OPV and the efficient spread of the vaccine-derived strain from vaccinated persons to close contacts may be important factors in its earlier disappearance.

Although the likelihood of undetected transmission decreases with time, evidence of interruption of type 2 transmission is reinforced with continued improvement in AFP surveillance, particularly in Africa, where the nonpolio AFP rate and rate of timely specimen collection remain inadequate in some high-risk countries. In addition, the increased laboratory workload generated by improving stool collection rates must be met with additional human and financial resources to maintain the quality and timeliness of specimen processing.

Although wild polioviruses types 1 and 3 have been more difficult to control than type 2, the experience in the Americas, Western Pacific, and Europe underscores the feasibility of global eradication of all wild poliovirus serotypes.

References

1. CDC. Progress toward global poliomyelitis eradication, 1999. *MMWR* 2000;49:349–54.
2. CDC. Progress toward the global interruption of wild poliovirus type 2 transmission, 1999. *MMWR* 1999;48:736–9.

Severe Malnutrition Among Young Children — Georgia, January 1997–June 1999

In October 1999, the Georgia Department of Human Resources (GDHR) was notified of two cases of severe malnutrition in toddlers. Both cases were associated with the use of commercial alternative milk. In response, GDHR and CDC reviewed Georgia hospital records to assess the frequency and cause of hospitalized cases of rickets and protein energy malnutrition (PEM). The findings of this review indicated that, although no new cases were associated with milk alternatives, three children had PEM and six had vitamin D deficiency rickets. The children with rickets had been breast fed for approximately 6 months while receiving no vitamin D supplementation. Rickets is preventable through the adequate intake of vitamin D. The American Academy of Pediatrics (AAP) is examining vitamin D supplementation among breast-fed infants.

Malnutrition Among Young Children — Continued

For the purpose of this study, vitamin D deficient rickets was defined as having an *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM) (1) code of 268.0 (active rickets), 268.9 (unspecified vitamin D deficiency), or 268.2 (unspecified osteomalacia) combined with a low serum 25-hydroxy-vitamin-D level (below laboratory reference range) and one or more of the following radiographic changes: osteopenia, widening of growth plates, fraying and cupping of the metaphysis, or craniomalacia. Severe PEM was defined as codes 260 (kwashiorkor), 261 (nutritional marasmus), or 262 (severe protein calorie malnutrition) combined with one or more of the clinical signs: edema, nonspecific dermatitis, thinning and streaking of hair, inadequate growth (below the fifth percentile weight-for-height), or weight loss.

To identify rickets and PEM cases among children aged 6 months–5 years, GDHR and CDC reviewed hospital discharge records for January 1997–June 1999, and confirmed cases by medical record review. Cases determined to have nutritional causes were evaluated through telephone interviews with parents, guardians, or attending physicians to assess the child's diet (e.g., use of alternative milk beverages and vitamin supplements) and time spent outdoors. Among children aged 6 months–5 years residing in Georgia during January 1997–June 1999, case findings and Georgia census data (2) suggest that five per one million children were hospitalized with vitamin D deficient rickets and two per million were hospitalized with severe PEM.

Forty cases were identified; 11 were rickets and 29 were severe PEM. Five rickets cases and 24 PEM cases were associated with metabolic disorders from congenital (n=seven) or genetic (n=12) abnormalities, premature birth (n=seven), or chronic diseases (n=three). Two children had disorders associated with chronic infectious diseases. Six cases of rickets and three cases of PEM were associated with primary nutritional deficiency. Interviews were conducted with a parent or guardian for three of the children with rickets and two with PEM. Of the remaining four cases, two families declined an interview and two could not be located.

The six children with rickets were male and age 8–21 months. Three children had skin complexions ranging from light to dark brown. The annual income level of two families was \$30,000–\$49,999; two families' income level was \$10,000–\$29,999; and the income level of two families was unknown. During this investigation, vitamin D deficient rickets was reported in a child aged 17 months who drank a soy beverage containing no vitamin D. This child also received a multivitamin supplement (30% of the recommended dose) 1 month before hospital admission. Six children received breast milk until age 8–20 months; none of the children received routine vitamin D supplementation while breast feeding. Two children were exposed to six and 21 hours of sunlight per week, respectively, one child "did not receive much sunlight," and two children received "minimal sunlight." Sun exposure was unknown for one child.

Three children with severe PEM and one child with kwashiorkor were age 6–22 months at diagnosis. The child with kwashiorkor drank a rice beverage with a low protein content. One family reported \$30,000–\$49,999 annual income; the income level of two families was unknown. Two children had eczema attributed to food allergies. Concern about allergies led to diet restrictions and subsequent PEM.

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Malnutrition Among Young Children — Continued

Editorial Note: Rickets and severe PEM are rare in Georgia, and each can be prevented through adequate nutritional intake. Rickets is caused by vitamin D deficiency and severe PEM by severe protein and energy (caloric) deficiency (3,4). Vitamin D is obtained from dietary sources or is synthesized in the skin by the action of ultraviolet (UV) light on the cholesterol precursor 7-dehydrocholesterol (7-DHC). Melanin in skin competes with 7-DHC for UV light, thus decreasing vitamin D synthesis (3). The vitamin D content of human milk is low (approximately 22 IU/L) (5). However, among most breast-fed infants, the combination of breast milk and sunlight exposure provides sufficient vitamin D. AAP recommends 400 IU per day vitamin D supplementation for breast-fed infants whose mothers are vitamin D deficient or for those infants not exposed to adequate sunlight (5,6). Skin complexion, environmental conditions, use of sunscreen, and the risk for developing skin cancer (7,8) complicate the determination of adequate sunlight.

The findings in this study are subject to at least two limitations. First, the extent of rickets in Georgia probably was underestimated because the study was limited to hospitalized children. Rickets and PEM are not reportable diseases, and no surveillance system or national rates exist for these conditions. ICD-9-CM codes alone do not distinguish nutritional deficiencies from other causes of rickets. Second, the parents of four of the nine children were not interviewed.

AAP is examining the recommendation for vitamin D supplementation among breast-fed infants. In addition, efforts are under way to assess the frequency of malnutrition associated with commercial or homemade alternative beverages. Clinicians and state health departments should report such cases by accessing the Food and Drug Administration's MedWatch program, <http://www.fda.gov/medwatch/how.htm>* or by calling MedWatch at (800) FDA[332]-1088. Caretakers also should discuss a child's dietary intake and nutritional needs with their health-care provider to ensure that these needs are met. Information on the nutritional requirements of children is available from AAP, <http://www.aap.org/pubserv>*.

References

1. Public Health Service and Health Care Financing Administration. International classification of diseases, 9th revision, clinical modification. Washington, DC: Public Health Service, 1997.
2. US Bureau of the Census, Population Estimates Program, Population Division. Population Estimate for the U.S. and states by single year: January 1997–June 1999. Available at <http://www.census.gov/population/estimates/state/stats/st-99-10.txt>. Accessed March 2001.
3. Hollick MF. Vitamin D. In: Shils ME, Olson JA, Shike M, Ross AC, eds. *Modern nutrition in health and diseases*. Baltimore, Maryland: Williams and Wilkins, 1999:329–44.
4. Torun B, Chew F. Protein-energy malnutrition. In: Shils ME, Olson JA, Shike M, Ross AC, eds. *Modern nutrition in health and diseases*. Baltimore, Maryland: Williams and Wilkins, 1999:936–88.
5. American Academy of Pediatrics. Vitamins: vitamin D. In: Kleinman RE, ed. *Pediatric nutrition handbook*, 4th edition. Elk Grove Village, Illinois: American Academy of Pediatrics, 1998:275–7.
6. American Academy of Pediatrics Work Group on Breast-feeding. Breast-feeding and the use of human milk. *Pediatrics* 1997;100:1035–9.

*References to sites of non-CDC organizations on the World-Wide Web are provided as a service to *MMWR* readers and do not constitute or imply endorsement of these organizations or their programs by CDC or the U.S. Department of Health and Human Services. CDC is not responsible for the content of pages found at these sites.

Malnutrition Among Young Children — Continued

7. Armstrong BK. Melanoma: childhood or lifelong sun exposure. In: Grob JJ, Stern RS, Mackie RM, Weinstock WA, eds. *Epidemiology, causes, and prevention of skin diseases*. Malden, Massachusetts: Blackwell Science, 1997:63–71.
8. Gallagher RP, Hill GB, Bajdik CD, et al. Sunlight exposure, pigmentation factors, and risk of non-melanocytic skin cancer, I: basal cell carcinoma. *Arch Dermatol* 1995;131:157–63.

Outbreak of Community-Acquired Pneumonia Caused by *Mycoplasma pneumoniae* — Colorado, 2000

On May 18, 2000, the Colorado Department of Public Health and Environment (CDPHE) was contacted by a family physician in Moffat County, Colorado (1998 population: 12,700), about a large number (>50) of community-acquired pneumonia cases diagnosed by chest radiograph in a group practice over several months. An investigation by state public health officials and CDC implicated *Mycoplasma pneumoniae* as the cause of illness. This report summarizes the results of the investigation and underscores the importance of investigating outbreaks of severe unexplained respiratory illness to enable implementation of appropriate treatment and control measures.

During January–July 2000, 109 persons were diagnosed with pneumonia by chest radiograph in group practice A (the largest outpatient practice in the county), compared with 21 persons in the same practice during January–June 1999. A case was defined as an acute infiltrate consistent with pneumonia on a chest radiograph in a person aged 2–49 years with illness onset during January–July 2000. Medical records were abstracted to collect demographic and clinical information.

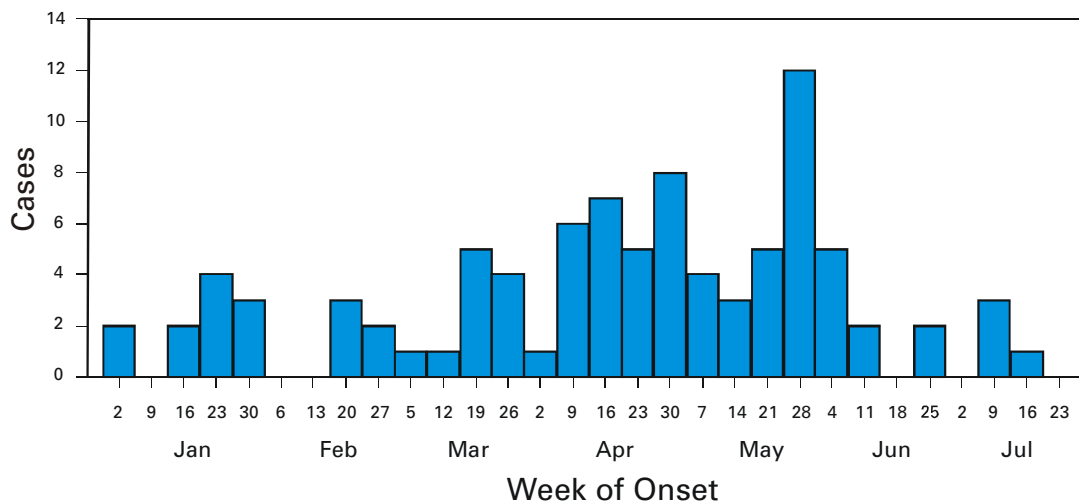
Following recognition of the outbreak, throat and nasopharyngeal swab specimens were collected from acutely ill persons who agreed to be tested. During early June, specimens from seven case-patients underwent polymerase chain reaction (PCR) testing for bacterial pathogens and for viral culture at CDC. Acute and convalescent serum specimens were available from six patients (including five of the seven patients for whom PCR was performed and one patient for whom PCR testing was not performed); these paired serum specimens were tested at CDC for antibodies by the Remel test. The paired serum specimens also were tested for complement fixation (CF) antibody titers to respiratory viruses and *M. pneumoniae* at the CDPHE laboratory.

Ninety-one patients had illness that met the case definition; 64 (70%) had illness onset during April–July (Figure 1). The median age was 11 years; 59 (65%) were aged 5–14 years, and 52 (57%) were male. Records of 77 (85%) patients were reviewed. Symptoms included cough (77 [100%]), fever (72 [94%]), sputum production (44 [57%]), and abnormal lung auscultation findings (54 [70%]). Three (3%) patients were hospitalized.

All eight patients tested had laboratory evidence of *M. pneumoniae* infection. Specimens from four patients were positive by PCR and the Remel test and had a fourfold rise in CF titers; two patients were positive by PCR alone (serum not collected); one patient had a positive Remel test and two convalescent-phase CF titers $\geq 1:128$, consistent with recent infection (PCR not performed); and one patient had a positive Remel test and two convalescent-phase CF titers of 1:32, consistent with recent infection (PCR negative). PCR testing for nucleic acid of *Chlamydia pneumoniae* was negative as was viral culture and serologic testing for viral respiratory pathogens, including influenza and respiratory syncytial virus.

Mycoplasma pneumoniae — Continued

FIGURE 1. Number* of cases of community-acquired pneumonia, by week of onset — Moffat County, Colorado, January–July 2000



*n=91.

In mid-June, CDPHE, in conjunction with the county public health nursing service, notified local health-care providers that *M. pneumoniae* had been confirmed by laboratory testing and provided information about the illness, including appropriate antibiotic treatment and treatment of symptomatic close contacts. Local media reports provided the community with similar information.

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Editorial Note: *M. pneumoniae* is a common cause of acute respiratory tract infections (e.g., pharyngitis, tracheobronchitis, and pneumonia), especially in school-aged children. Although some infections can be fatal, most illnesses attributed to *M. pneumoniae* are relatively mild, and pneumonia caused by *Mycoplasma* rarely results in hospitalization (1,2). Outbreaks can occur in closed settings (e.g., institutions and summer camps) or can occur as communitywide epidemics (3,4). Communitywide epidemics often may not be recognized (5).

The highest incidence rates of pneumonia caused by *Mycoplasma* are among children aged 5–9 years followed by children aged 10–14 years (6). Children aged 2–4 years have higher rates than adults, although *M. pneumoniae* accounts for a low proportion of all pneumonias in this age group for which viral and other bacterial etiologies predominate (6). During outbreaks, the estimated frequency of pneumonia among school-aged children with *M. pneumoniae* infection has been 10%–19% (4,6). The incubation period for *Mycoplasma* is approximately 3 weeks (7). High rates of transmission have been documented within families, with a high proportion of secondary cases involving lower

Mycoplasma pneumoniae — Continued

respiratory tract infection (7,8). In a study of community spread, transmission of *Mycoplasma* within schools was relatively low compared with spread within families; clustering of infections also occurred among neighborhood playmates (9).

The findings in this report are subject to at least four limitations. First, case ascertainment was conducted at only one of several medical practices in the affected community. Second, case ascertainment included only cases of pneumonia rather than the broader spectrum of acute respiratory illness that probably was occurring. Third, determination of the beginning of the outbreak was not possible with available data. Fourth, laboratory testing was performed only during a limited portion of the outbreak because acute isolates were available for only a fraction of possible patients following recognition of the outbreak. A portion of the cases, especially those occurring earlier in the outbreak, may have been attributed to other agents such as influenza and respiratory syncytial virus. However, because of the relatively mild nature of the symptoms, the prolonged duration of the outbreak, the occurrence of cases among school-aged children, and the laboratory results, *M. pneumoniae* was most likely the cause of the outbreak.

Definitive diagnosis of *M. pneumoniae* traditionally has depended upon isolation of *M. pneumoniae* or a fourfold rise in CF antibody titers between acute- and convalescent-phase serum specimens collected 4 weeks apart; isolation may require several weeks and acute and convalescent titers often are difficult to collect. Single elevated CF antibody titers are of limited use for clinical diagnosis. Although the CF and Remel tests both indicated *Mycoplasma* infection on the six paired serum specimens tested, the Remel test is now preferred because of its improved specificity. PCR testing of oropharyngeal or nasopharyngeal swabs offers more sensitive and rapid diagnosis of acute *M. pneumoniae* infections; however, this test is not widely available (10).

Macrolides and tetracycline are the antimicrobials of choice for *Mycoplasma* infections. Tetracycline should not be used for children aged <8 years because it may cause permanent dental discoloration. Prophylactic antimicrobial therapy with azithromycin substantially reduces the secondary attack rate in institutional outbreaks (3). No data support routine chemoprophylaxis during community outbreaks of *M. pneumoniae*.

Evaluation of clusters or outbreaks of acute respiratory illness may be important to determine appropriate treatment of infected persons and appropriate control measures, including use of chemoprophylaxis. The possible etiologic agents depend on the predominant acute respiratory syndrome observed (i.e., prolonged or paroxysmal cough, bronchitis, influenza-like illness, pneumonia, and rapidly progressive pneumonia). As demonstrated in this outbreak, factors such as the population affected, incubation period, and clinical features may suggest a particular agent and help to guide laboratory testing. CDC can assist local, state, and territorial health departments with the investigation of acute respiratory disease outbreaks of unknown etiology.

References

1. Foy HM. Infections caused by *Mycoplasma pneumoniae* and possible carrier state in a different population of patients. *Clin Infect Dis* 1993;17:37–46.
2. Talkington DF, Thacker WL, Keller DW, Jensen JS. Diagnosis of *Mycoplasma pneumoniae* infection in autopsy and open lung biopsy tissues by nested PCR. *J Clin Microbiol* 1998;36:1151–3.
3. Klausner JD, Passaro D, Rosenberg J, et al. Enhanced control of an outbreak of *Mycoplasma pneumoniae* pneumonia with azithromycin prophylaxis. *J Infect Dis* 1998;177:161–6.
4. Broome CV, LaVenture M, Kaye HS, et al. An explosive outbreak of *Mycoplasma pneumoniae* infection in a summer camp. *Pediatrics* 1980;66:884–8.

Mycoplasma pneumoniae — Continued

5. Clyde WA Jr. Clinical overview of typical *Mycoplasma pneumoniae* infections. Clin Infect Dis 1993;17:32–6.
6. Foy HM, Kenny GE, Cooney MK, Allan ID. Long-term epidemiology of infections with *Mycoplasma pneumoniae*. J Infect Dis 1979;139:681–7.
7. Foy HM, Grayston JT, Kenny GE, Alexander ER, McMahan R. Epidemiology of *Mycoplasma pneumoniae* infection in families. JAMA 1966;197:137–44.
8. Balassanian N, Robbins FC. *Mycoplasma pneumoniae* infection in families. N Engl J Med 1967;277:719–25.
9. Foy HM, Kenny GE, McMahan R, Kaiser G, Grayston JT. *Mycoplasma pneumoniae* in the community. Am J Epidemiol 1971;93:55–67.
10. Feikin DR, Moroney JF, Talkington DF, et al. An outbreak of acute respiratory disease caused by *Mycoplasma pneumoniae* and adenovirus at a federal service training academy: new implications from an old scenario. Clin Infect Dis 1999;29:1545–50.

Notice to Readers**Publication of Surgeon General's Report on Smoking and Health**

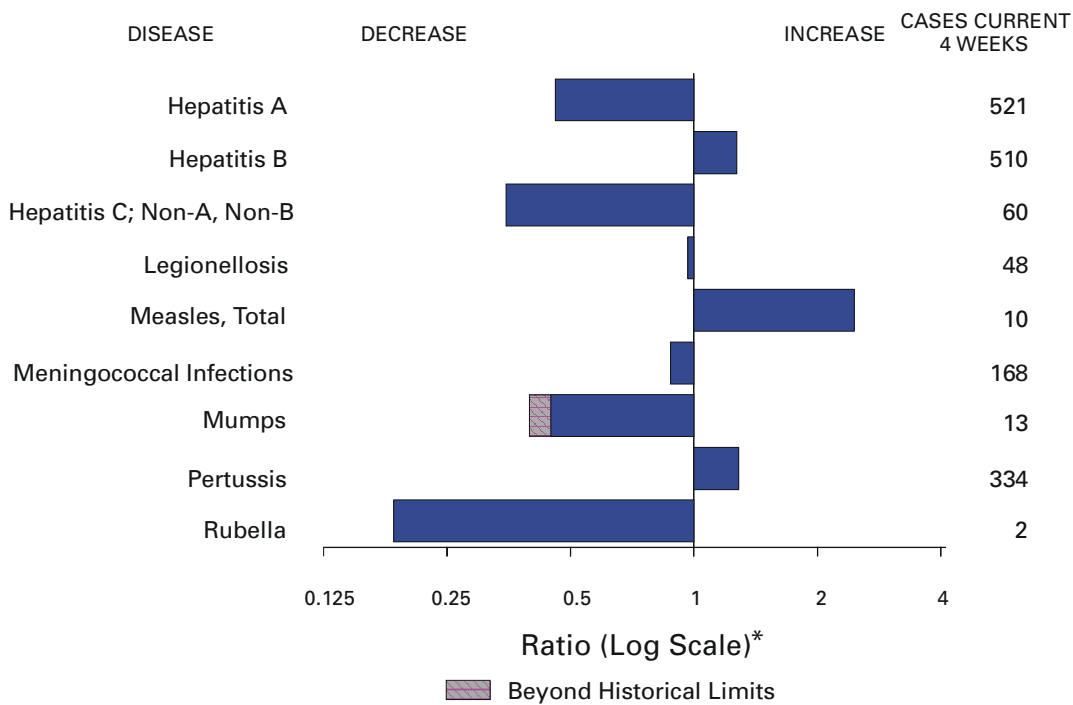
The Surgeon General's report, *Women and Smoking* (1), was released on March 27, 2001. This report updates and expands the 1980 Surgeon General's report, *The Health Consequences of Smoking for Women*, and examines various facets of smoking among women: patterns of tobacco use, health consequences of smoking, social and individual factors influencing cigarette smoking and smokeless tobacco use, and prevention and cessation programs and policies.

Additional information about the report and a free copy of the executive summary are available from CDC's Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, CDC, Mailstop K-50, 4770 Buford Highway, NE, Atlanta, Georgia 30341-3724; telephone (770) 488-5705. Copies of the full report (stock no. 017-023-00207-4) can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9328; fax (202) 512-2250. Copies of the full report, executive summary, and the "At a Glance" pamphlet on the report are available on the World-Wide Web, <http://www.cdc.gov/tobacco>.

Reference

1. US Department of Health and Human Services. Women and smoking: a report of the Surgeon General. Atlanta, Georgia: US Department of Health and Human Services, CDC, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2001.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending March 24, 2001, with historical data



* 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 March 24, 2001 (12th Week)

	Cum. 2001		Cum. 2001
Anthrax	-	Poliomyelitis, paralytic	-
Brucellosis*	14	Psittacosis*	3
Cholera	-	Q fever*	2
Cyclosporiasis*	22	Rabies, human	-
Diphtheria	-	Rocky Mountain spotted fever (RMSF)	21
Ehrlichiosis: human granulocytic (HGE)*	5	Rubella, congenital syndrome	-
human monocytic (HME)*	3	Streptococcal disease, invasive, group A	662
Encephalitis: California serogroup viral*	-	Streptococcal toxic-shock syndrome*	15
eastern equine*	-	Syphilis, congenital†	5
St. Louis*	-	Tetanus	2
western equine*	-	Toxic-shock syndrome	33
Hansen disease (leprosy)*	9	Trichinosis	2
Hantavirus pulmonary syndrome*†	2	Tularemia*	4
Hemolytic uremic syndrome, postdiarrheal*	11	Typhoid fever	30
HIV infection, pediatric*§	37	Yellow fever	-
Plague	-		

-: 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, 2001.

¶ Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending March 24, 2001, and March 25, 2000 (12th Week)

Reporting Area	AIDS		Chlamydia [†]		Cryptosporidiosis		<i>Escherichia coli</i> O157:H7*			
	Cum. 2001 [‡]	Cum. 2000	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000	NETSS		PHLIS	
							Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000
UNITED STATES	5,820	6,226	126,779	153,639	277	288	193	312	129	255
NEW ENGLAND	200	500	4,638	5,264	11	22	24	30	18	32
Maine	3	6	208	308	-	3	3	3	3	2
N.H.	12	6	227	246	-	-	5	4	3	4
Vt.	9	-	132	131	5	6	1	1	-	2
Mass.	118	360	1,934	2,246	2	6	12	11	10	10
R.I.	24	17	688	534	2	2	-	-	-	-
Conn.	34	111	1,449	1,799	2	5	3	11	2	14
MID. ATLANTIC	1,180	1,591	3,778	13,919	10	20	14	29	10	43
Upstate N.Y.	29	65	N	N	10	16	14	28	6	35
N.Y. City	740	985	-	5,814	-	-	-	-	1	-
N.J.	241	387	826	2,981	-	1	-	1	3	3
Pa.	170	154	2,952	5,124	-	3	N	N	-	5
E.N. CENTRAL	463	591	16,653	26,527	96	62	38	56	18	17
Ohio	77	91	249	7,308	26	13	17	11	10	6
Ind.	45	56	3,295	3,008	11	3	8	3	1	4
Ill.	226	354	4,809	7,597	-	7	5	19	4	-
Mich.	97	67	6,253	4,728	26	7	4	10	-	3
Wis.	18	23	2,047	3,886	33	32	4	13	3	4
W.N. CENTRAL	110	147	6,015	8,767	12	17	21	52	16	54
Minn.	29	31	1,307	1,898	-	4	3	11	8	24
Iowa	15	10	610	875	5	3	3	10	1	5
Mo.	38	67	1,439	3,102	4	5	10	21	4	13
N. Dak.	1	-	213	229	-	1	-	2	-	4
S. Dak.	-	2	434	416	-	1	1	1	1	1
Nebr.	9	7	656	807	3	2	-	3	-	4
Kans.	18	30	1,356	1,440	-	1	4	4	2	3
S. ATLANTIC	1,673	1,508	28,729	29,031	63	45	27	28	10	17
Del.	37	25	703	690	-	-	-	-	-	-
Md.	131	154	3,030	2,714	17	5	1	5	-	1
D.C.	166	113	647	657	3	-	-	-	U	U
Va.	137	113	3,974	3,494	5	1	5	6	4	5
W. Va.	12	7	512	487	-	-	1	2	-	1
N.C.	101	74	4,457	4,470	11	3	13	6	2	2
S.C.	171	153	3,006	3,731	-	-	1	-	-	-
Ga.	187	180	5,502	5,541	13	27	2	3	2	3
Fla.	731	689	6,898	7,247	14	9	4	6	2	5
E.S. CENTRAL	360	279	10,872	11,893	8	11	9	17	4	15
Ky.	51	37	2,018	1,830	-	-	1	6	2	4
Tenn.	132	104	3,411	3,278	2	1	4	5	1	9
Ala.	95	91	3,071	4,020	2	7	4	1	-	-
Miss.	82	47	2,372	2,765	4	3	-	5	1	2
W.S. CENTRAL	629	532	22,302	23,016	6	14	15	18	18	28
Ark.	45	20	1,995	1,135	2	1	-	4	-	3
La.	188	91	4,097	4,449	3	2	-	-	6	7
Okla.	36	17	2,283	1,878	1	1	5	4	5	3
Tex.	360	404	13,927	15,554	-	10	10	10	7	15
MOUNTAIN	241	210	7,025	8,996	22	20	17	29	10	12
Mont.	5	3	384	271	1	1	2	8	-	-
Idaho	5	3	421	451	3	1	2	4	-	1
Wyo.	-	1	175	181	-	1	-	2	-	2
Colo.	40	52	600	2,433	12	7	7	10	4	5
N. Mex.	15	25	1,141	1,121	3	1	-	-	-	-
Ariz.	93	55	3,066	3,085	1	2	5	3	4	3
Utah	23	28	270	572	2	6	-	1	1	1
Nev.	60	43	968	882	-	1	1	1	1	-
PACIFIC	964	868	26,767	26,226	49	77	28	53	25	37
Wash.	117	101	3,112	2,842	N	U	5	5	5	11
Oreg.	38	22	1,309	1,162	8	2	3	8	2	9
Calif.	798	721	21,103	20,938	41	75	20	36	16	13
Alaska	2	-	544	559	-	-	-	-	-	-
Hawaii	9	24	699	725	-	-	-	4	2	4
Guam	5	7	-	-	-	-	N	N	U	U
P.R.	158	150	1,118	U	U	U	U	1	U	U
V.I.	1	5	U	U	U	U	U	U	U	U
Amer. Samoa	-	-	U	U	U	U	U	U	U	U
C.N.M.I.	-	-	U	U	U	U	U	U	U	U

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

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

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

[‡] 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, 2001.

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending March 24, 2001, and March 25, 2000 (12th Week)

Reporting Area	Gonorrhea		Hepatitis C: Non-A, Non-B		Legionellosis		Listeriosis	Lyme Disease	
	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2001	Cum. 2000
UNITED STATES	59,953	79,476	357	758	133	144	67	452	918
NEW ENGLAND	1,310	1,493	4	5	4	15	8	134	137
Maine	32	17	-	-	-	2	-	-	-
N.H.	29	22	-	-	-	2	-	42	15
Vt.	19	10	2	2	2	-	-	1	-
Mass.	594	618	2	3	1	8	6	14	40
R.I.	169	135	-	-	-	-	-	-	-
Conn.	467	691	-	-	1	3	2	77	82
MID. ATLANTIC	3,403	7,842	18	148	8	25	5	203	630
Upstate N.Y.	1,435	1,186	11	11	7	12	3	168	229
N.Y. City	-	2,523	-	-	-	-	-	-	-
N.J.	517	1,698	-	129	-	-	-	-	85
Pa.	1,451	2,435	7	8	1	13	2	35	316
E.N. CENTRAL	8,519	15,888	48	65	43	46	9	10	23
Ohio	186	4,122	4	-	21	20	2	10	2
Ind.	1,453	1,353	-	-	5	7	1	-	1
Ill.	2,741	5,283	2	8	-	4	-	-	1
Mich.	3,458	3,443	42	57	13	8	5	-	-
Wis.	681	1,687	-	-	4	7	1	U	19
W.N. CENTRAL	2,534	3,688	61	102	11	5	2	11	14
Minn.	411	723	-	-	1	1	-	8	6
Iowa	202	224	-	-	2	2	-	-	-
Mo.	1,013	1,803	58	98	5	2	1	3	3
N. Dak.	9	11	-	-	-	-	-	-	-
S. Dak.	47	61	-	-	-	-	-	-	-
Nebr.	223	279	2	1	2	-	-	-	1
Kans.	629	587	1	3	1	-	1	-	4
S. ATLANTIC	17,931	22,337	20	16	22	27	9	75	93
Del.	377	379	-	1	-	2	-	-	12
Md.	1,939	1,828	5	2	6	8	1	64	68
D.C.	667	497	-	-	1	-	-	5	-
Va.	2,170	2,260	-	-	2	3	1	2	5
W. Va.	105	130	-	1	N	N	1	1	4
N.C.	3,669	4,060	6	7	2	3	-	2	4
S.C.	2,272	4,570	2	-	-	2	-	-	-
Ga.	2,860	3,506	-	-	1	1	2	-	-
Fla.	3,872	5,107	7	5	10	8	4	1	-
E. S. CENTRAL	7,028	8,288	49	116	13	3	4	2	-
Ky.	798	736	1	12	5	1	1	2	-
Tenn.	2,230	2,502	13	22	6	1	2	-	-
Ala.	2,495	2,994	1	3	2	1	1	-	-
Miss.	1,505	2,056	34	79	-	-	-	-	-
W.S. CENTRAL	11,109	11,993	102	247	1	4	2	-	4
Ark.	1,248	558	1	3	-	-	1	-	-
La.	2,852	3,114	52	143	1	2	-	-	2
Okla.	1,125	880	1	-	-	-	-	-	-
Tex.	5,884	7,441	48	101	-	2	1	-	2
MOUNTAIN	2,207	2,490	22	19	8	8	6	1	-
Mont.	19	2	-	-	-	-	-	-	-
Idaho	22	25	1	-	-	1	-	-	-
Wyo.	15	16	3	-	-	-	-	-	-
Colo.	772	811	8	10	3	4	1	-	-
N. Mex.	184	223	6	4	1	-	2	-	-
Ariz.	846	1,022	1	4	3	-	1	-	-
Utah	26	76	-	-	-	3	-	-	-
Nev.	323	315	3	1	1	-	2	1	-
PACIFIC	5,912	5,457	33	40	23	11	22	16	17
Wash.	707	528	8	5	5	5	1	1	-
Oreg.	232	135	4	9	N	N	2	2	1
Calif.	4,780	4,635	21	26	18	6	19	13	16
Alaska	60	65	-	-	-	-	-	-	-
Hawaii	133	94	-	-	-	-	-	N	N
Guam	-	-	-	-	-	-	-	-	-
P.R.	294	104	-	1	2	-	-	N	N
V.I.	U	U	U	U	U	U	-	U	U
Amer. Samoa	U	U	U	U	U	U	-	U	U
C.N.M.I.	U	U	U	U	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 24, 2001, and March 25, 2000 (12th Week)

Reporting Area	Malaria		Rabies, Animal		Salmonellosis*			
	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000	NETSS		PHLIS	
					Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000
UNITED STATES	166	184	929	1,137	4,039	5,106	3,338	4,744
NEW ENGLAND	17	5	106	123	344	346	307	368
Maine	1	1	15	29	14	29	12	15
N.H.	1	-	3	2	29	23	24	25
Vt.	-	-	23	7	18	23	16	27
Mass.	5	4	25	38	214	204	174	205
R.I.	-	-	11	6	18	8	28	21
Conn.	10	-	29	41	51	59	53	75
MID. ATLANTIC	8	20	140	195	175	542	484	875
Upstate N.Y.	7	10	114	150	138	143	64	235
N.Y. City	-	-	-	U	-	-	179	259
N.J.	-	5	26	27	-	239	111	147
Pa.	1	5	-	18	37	160	130	234
E.N. CENTRAL	25	28	4	14	622	795	491	431
Ohio	5	2	-	2	241	182	157	153
Ind.	8	1	1	-	52	66	43	92
Ill.	-	16	-	-	147	277	144	1
Mich.	12	8	3	6	117	122	98	128
Wis.	-	1	-	6	65	148	49	57
W.N. CENTRAL	4	10	65	88	250	245	269	324
Minn.	1	4	12	22	31	39	88	100
Iowa	1	-	14	9	45	29	37	34
Mo.	1	1	4	2	92	79	98	97
N. Dak.	-	-	11	13	1	4	5	17
S. Dak.	-	-	9	26	22	12	12	19
Nebr.	-	2	-	-	18	35	-	24
Kans.	1	3	15	16	41	47	29	33
S. ATLANTIC	49	48	417	405	1,093	886	688	777
Del.	1	-	-	10	18	14	16	18
Md.	20	22	74	84	136	145	96	142
D.C.	4	-	-	-	16	-	U	U
Va.	9	13	78	104	122	94	79	104
W. Va.	-	-	32	26	8	23	16	19
N.C.	1	5	121	106	218	162	115	120
S.C.	2	-	18	24	132	85	150	73
Ga.	1	-	51	28	162	136	188	223
Fla.	11	8	43	23	281	227	28	78
E.S. CENTRAL	8	7	18	39	291	271	97	212
Ky.	2	2	4	8	54	56	30	39
Tenn.	3	-	10	25	74	61	56	95
Ala.	3	4	4	6	113	97	-	68
Miss.	-	1	-	-	50	57	11	10
W.S. CENTRAL	3	2	74	197	249	507	305	346
Ark.	-	-	-	-	50	49	29	25
La.	1	2	-	-	32	58	95	76
Okla.	1	-	15	13	19	46	23	45
Tex.	1	-	59	184	148	354	158	200
MOUNTAIN	15	13	35	38	328	450	268	382
Mont.	1	1	5	9	9	18	-	-
Idaho	1	-	-	-	12	26	4	27
Wyo.	-	-	10	19	9	6	6	4
Colo.	9	7	-	-	97	119	80	97
N. Mex.	1	-	1	2	40	46	39	39
Ariz.	1	2	19	8	110	133	81	132
Utah	1	2	-	-	35	65	35	60
Nev.	1	1	-	-	16	37	23	23
PACIFIC	37	51	70	38	687	1,064	429	1,029
Wash.	1	3	-	-	69	58	37	131
Oreg.	5	7	-	-	43	63	43	78
Calif.	30	39	46	31	567	879	284	765
Alaska	1	-	24	7	8	13	-	14
Hawaii	-	2	-	-	-	51	65	41
Guam	-	-	-	-	-	-	U	U
P.R.	-	2	30	12	58	69	U	U
V.I.	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U

N: Not notifiable. U: Unavailable. -: No reported cases.

* Individual cases can 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 24, 2001, and March 25, 2000 (12th Week)

Reporting Area	Shigellosis*				Syphilis (Primary & Secondary)		Tuberculosis	
	NETSS		PHLIS		Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000
	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000				
UNITED STATES	2,001	3,223	1,114	2,146	993	1,424	1,422	2,295
NEW ENGLAND	30	71	28	56	9	21	70	66
Maine	1	2	1	-	-	-	-	2
N.H.	-	1	-	1	-	-	6	1
Vt.	-	1	-	-	-	-	-	1
Mass.	23	51	19	38	6	17	38	41
R.I.	-	6	1	6	-	1	3	4
Conn.	6	10	7	11	3	3	22	18
MID. ATLANTIC	113	214	150	295	23	61	208	387
Upstate N.Y.	94	133	2	84	4	2	36	32
N.Y. City	-	-	65	124	-	26	22	232
N.J.	-	51	39	42	7	11	93	90
Pa.	19	30	44	45	12	22	57	33
E.N. CENTRAL	340	551	183	199	127	303	197	226
Ohio	106	31	54	27	14	19	24	44
Ind.	66	62	11	11	34	99	14	15
Ill.	78	214	68	2	15	111	107	135
Mich.	72	182	48	153	57	56	30	19
Wis.	18	62	2	6	7	18	22	13
W.N. CENTRAL	230	193	216	146	9	24	77	94
Minn.	66	42	126	52	6	3	41	37
Iowa	43	23	31	31	-	6	9	8
Mo.	67	98	46	45	2	12	16	36
N. Dak.	9	-	1	1	-	-	-	-
S. Dak.	4	1	1	-	-	-	1	3
Nebr.	14	19	-	11	-	2	10	3
Kans.	27	10	11	6	1	1	-	7
S. ATLANTIC	336	361	103	124	425	467	309	321
Del.	3	3	-	2	1	2	-	-
Md.	23	26	4	8	46	86	32	46
D.C.	14	-	U	U	9	16	11	-
Va.	25	14	6	14	47	31	37	29
W. Va.	4	2	6	2	-	1	6	9
N.C.	94	18	47	12	104	121	27	49
S.C.	25	3	11	3	62	41	19	18
Ga.	26	39	25	52	45	81	50	73
Fla.	122	256	4	31	111	88	127	97
E.S. CENTRAL	182	160	38	115	120	215	117	171
Ky.	69	35	16	21	11	19	15	14
Tenn.	20	72	16	88	60	140	31	62
Ala.	37	9	-	4	25	27	60	68
Miss.	56	44	6	2	24	29	11	27
W.S. CENTRAL	217	548	233	177	155	205	45	389
Ark.	109	48	65	3	12	16	27	20
La.	14	72	48	37	32	56	-	6
Okla.	3	8	-	6	18	46	18	9
Tex.	91	420	120	131	93	87	-	354
MOUNTAIN	156	223	96	116	42	39	65	109
Mont.	-	-	-	-	-	-	-	4
Idaho	5	22	-	15	-	-	4	-
Wyo.	-	1	-	1	-	-	-	-
Colo.	33	40	22	18	2	1	18	10
N. Mex.	29	23	23	14	4	3	5	18
Ariz.	76	81	36	32	28	33	18	38
Utah	5	7	7	10	6	-	5	7
Nev.	8	49	8	26	2	2	15	32
PACIFIC	397	902	67	918	83	89	334	532
Wash.	43	165	37	201	19	10	38	34
Oreg.	22	79	22	46	3	2	-	1
Calif.	331	645	-	660	58	77	287	464
Alaska	1	4	-	3	-	-	9	13
Hawaii	-	9	8	8	3	-	-	20
Guam	-	-	U	U	-	-	-	-
P.R.	5	10	U	U	74	43	19	21
V.I.	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U

N: Not notifiable. U: Unavailable. -: No reported cases.

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

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending March 24, 2001, and March 25, 2000 (12th Week)

Reporting Area	<i>H. influenzae</i> , Invasive		Hepatitis (Viral), By Type				Measles (Rubeola)					
	Cum. 2001 [†]	Cum. 2000	A		B		Indigenous		Imported*		Total	
			Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000	2001	Cum. 2001	2001	Cum. 2001	Cum. 2001	Cum. 2000
UNITED STATES	294	309	1,816	2,855	1,175	1,198	1	14	4	13	27	15
NEW ENGLAND	12	30	87	85	13	25	-	3	-	1	4	-
Maine	-	1	1	3	1	1	-	-	-	-	-	-
N.H.	-	4	3	7	4	6	-	-	-	-	-	-
Vt.	-	3	2	3	1	3	-	1	-	-	1	-
Mass.	12	18	32	37	1	1	-	2	-	1	3	-
R.I.	-	-	4	4	6	2	-	-	-	-	-	-
Conn.	-	4	45	31	-	12	-	-	-	-	-	-
MID. ATLANTIC	21	32	54	89	36	101	-	1	-	2	3	6
Upstate N.Y.	13	20	40	54	24	22	-	-	-	2	2	-
N.Y. City	-	-	-	-	-	-	-	-	-	-	-	6
N.J.	7	10	-	7	-	10	-	-	-	-	-	-
Pa.	1	2	14	28	12	69	-	1	-	-	1	-
E.N. CENTRAL	34	53	205	418	152	122	-	-	4	7	7	3
Ohio	23	16	65	92	31	24	-	-	2	2	2	2
Ind.	6	4	10	11	3	5	-	-	2	2	2	-
Ill.	-	21	42	180	9	2	-	-	-	3	3	-
Mich.	2	3	88	122	109	90	-	-	-	-	-	1
Wis.	3	9	-	13	-	1	-	-	-	-	-	-
W.N. CENTRAL	10	12	120	241	47	75	1	4	-	-	4	-
Minn.	4	7	7	23	2	4	1	1	-	-	1	-
Iowa	1	-	9	28	5	11	-	-	-	-	-	-
Mo.	4	4	37	147	32	48	-	3	-	-	3	-
N. Dak.	-	1	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	1	-	1	-	-	-	-	-	-	-
Nebr.	1	-	17	8	5	8	-	-	-	-	-	-
Kans.	-	-	49	35	2	4	-	-	-	-	-	-
S. ATLANTIC	113	75	388	294	255	208	-	2	-	1	3	-
Del.	-	-	-	5	-	4	-	-	-	-	-	-
Md.	29	25	56	37	32	37	-	2	-	1	3	-
D.C.	-	-	12	-	3	-	-	-	-	-	-	-
Va.	9	14	35	45	26	34	-	-	-	-	-	-
W. Va.	4	2	1	29	3	-	-	-	-	-	-	-
N.C.	17	6	29	58	51	81	-	-	-	-	-	-
S.C.	2	3	13	5	1	2	-	-	-	-	-	-
Ga.	21	19	117	41	71	13	-	-	-	-	-	-
Fla.	31	6	125	74	68	37	-	-	-	-	-	-
E.S. CENTRAL	20	15	67	126	86	98	-	-	-	-	-	-
Ky.	-	9	8	8	8	16	-	-	-	-	-	-
Tenn.	10	4	32	43	35	43	-	-	-	-	-	-
Ala.	9	2	23	19	26	7	-	-	-	-	-	-
Miss.	1	-	4	56	17	32	-	-	-	-	-	-
W.S. CENTRAL	5	21	222	558	183	134	-	1	-	-	1	-
Ark.	-	-	16	42	22	17	-	-	-	-	-	-
La.	1	7	13	22	12	36	-	-	-	-	-	-
Okla.	4	14	42	92	22	17	-	-	-	-	-	-
Tex.	-	-	151	402	127	64	-	1	-	-	1	-
MOUNTAIN	62	39	216	193	124	100	-	-	-	1	1	-
Mont.	-	-	4	1	1	3	-	-	-	-	-	-
Idaho	1	2	23	8	4	4	-	-	-	1	1	-
Wyo.	-	-	1	3	-	-	U	-	U	-	-	-
Colo.	11	11	26	45	27	23	-	-	-	-	-	-
N. Mex.	10	11	7	22	34	34	-	-	-	-	-	-
Ariz.	33	11	109	85	43	28	-	-	-	-	-	-
Utah	1	2	18	13	4	3	-	-	-	-	-	-
Nev.	6	2	28	16	11	5	-	-	-	-	-	-
PACIFIC	17	32	457	851	279	335	-	3	-	1	4	6
Wash.	1	2	19	49	20	9	-	-	-	-	-	3
Oreg.	13	8	24	70	39	29	-	2	-	-	2	-
Calif.	2	11	406	723	218	290	-	1	-	1	2	3
Alaska	1	1	8	3	2	2	-	-	-	-	-	-
Hawaii	-	10	-	6	-	5	-	-	-	-	-	-
Guam	-	-	-	-	-	-	U	-	U	-	-	-
P.R.	-	1	26	86	12	61	-	-	-	-	-	-
V.I.	U	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	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 55 cases among children aged <5 years, serotype was reported for 24, and of those, four were type b.

TABLE III. (Cont'd) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending March 24, 2001, and March 25, 2000 (12th Week)

Reporting Area	Meningococcal Disease		Mumps			Pertussis			Rubella		
	Cum. 2001	Cum. 2000	2001	Cum. 2001	Cum. 2000	2001	Cum. 2001	Cum. 2000	2001	Cum. 2001	Cum. 2000
UNITED STATES	653	649	2	31	113	58	1,116	1,143	-	2	13
NEW ENGLAND	46	38	-	-	2	1	200	313	-	-	4
Maine	-	3	-	-	-	-	-	7	-	-	-
N.H.	4	3	-	-	-	-	16	45	-	-	1
Vt.	4	1	-	-	-	1	20	52	-	-	-
Mass.	26	23	-	-	-	-	158	200	-	-	3
R.I.	-	2	-	-	1	-	-	5	-	-	-
Conn.	12	6	-	-	1	-	6	4	-	-	-
MID. ATLANTIC	42	38	-	-	7	2	68	104	-	1	4
Upstate N.Y.	23	12	-	-	3	2	60	55	-	1	2
N.Y. City	-	-	-	-	2	-	-	23	-	-	2
N.J.	18	13	-	-	-	-	-	-	-	-	-
Pa.	1	13	-	-	2	-	8	26	-	-	-
E.N. CENTRAL	55	113	-	5	13	7	128	172	-	1	-
Ohio	29	19	-	1	4	4	102	108	-	-	-
Ind.	1	15	-	-	-	2	5	8	-	-	-
Ill.	-	33	-	3	3	1	7	14	-	1	-
Mich.	16	32	-	1	6	-	13	6	-	-	-
Wis.	9	14	-	-	-	-	1	36	-	-	-
W.N. CENTRAL	43	39	-	2	5	3	36	30	-	-	1
Minn.	1	3	-	-	-	-	-	10	-	-	-
Iowa	13	10	-	-	3	-	3	6	-	-	-
Mo.	16	21	-	-	1	3	21	5	-	-	-
N. Dak.	2	1	-	-	-	-	-	1	-	-	-
S. Dak.	2	2	-	-	-	-	2	1	-	-	-
Nebr.	2	1	-	-	1	-	-	2	-	-	1
Kans.	7	1	-	2	-	-	10	5	-	-	-
S. ATLANTIC	137	97	1	4	13	7	48	77	-	-	1
Del.	-	-	-	-	-	-	-	1	-	-	-
Md.	19	10	-	2	5	1	12	18	-	-	-
D.C.	-	-	-	-	-	-	-	-	-	-	-
Va.	14	17	-	1	1	-	6	5	-	-	-
W. Va.	4	2	-	-	-	-	1	-	-	-	-
N.C.	36	17	-	-	2	4	19	28	-	-	-
S.C.	11	6	1	1	4	-	6	12	-	-	-
Ga.	17	19	-	-	-	-	-	9	-	-	-
Fla.	36	26	-	-	1	2	4	4	-	-	1
E.S. CENTRAL	48	42	-	-	1	1	23	31	-	-	-
Ky.	8	8	-	-	-	1	6	21	-	-	-
Tenn.	18	17	-	-	-	-	13	2	-	-	-
Ala.	18	12	-	-	1	-	2	7	-	-	-
Miss.	4	5	-	-	-	-	2	1	-	-	-
W.S. CENTRAL	100	78	-	2	13	-	8	18	-	-	3
Ark.	7	4	-	1	1	-	2	5	-	-	-
La.	30	23	-	1	3	-	-	2	-	-	-
Okla.	11	9	-	-	-	-	1	-	-	-	-
Tex.	52	42	-	-	9	-	5	11	-	-	3
MOUNTAIN	34	40	-	4	5	30	546	208	-	-	-
Mont.	-	1	-	-	1	-	3	1	-	-	-
Idaho	3	5	-	-	-	16	148	32	-	-	-
Wyo.	-	-	U	1	-	U	-	-	U	-	-
Colo.	12	11	-	1	-	9	117	122	-	-	-
N. Mex.	6	6	-	2	1	2	14	35	-	-	-
Ariz.	6	11	-	-	-	-	255	11	-	-	-
Utah	4	5	-	-	1	3	9	4	-	-	-
Nev.	3	1	-	-	2	-	-	3	-	-	-
PACIFIC	148	164	1	14	54	7	59	190	-	-	-
Wash.	22	13	-	-	2	6	22	41	-	-	-
Oreg.	19	20	N	N	N	1	5	18	-	-	-
Calif.	106	127	1	13	47	-	32	123	-	-	-
Alaska	1	1	-	1	-	-	-	2	-	-	-
Hawaii	-	3	-	-	5	-	-	6	-	-	-
Guam	-	-	U	-	-	U	-	-	U	-	-
P.R.	1	3	-	-	-	-	-	-	-	-	-
V.I.	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	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 24, 2001 (12th Week)**

Reporting Area	All Causes, By Age (Years)						P&I [†] Total	Reporting Area	All Causes, By Age (Years)						P&I [†] Total
	All Ages	≥65	45-64	25-44	1-24	<1			All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	571	429	86	33	12	11	73	S. ATLANTIC	1,337	854	292	137	30	24	102
Boston, Mass.	162	113	30	14	2	3	20	Atlanta, Ga.	217	132	49	22	8	6	10
Bridgeport, Conn.	47	37	9	1	-	-	3	Baltimore, Md.	208	133	41	26	3	5	20
Cambridge, Mass.	18	15	2	1	-	-	3	Charlotte, N.C.	105	70	21	8	2	4	11
Fall River, Mass.	26	22	3	-	1	-	1	Jacksonville, Fla.	136	78	39	14	2	3	14
Hartford, Conn.	35	25	4	2	1	3	9	Miami, Fla.	123	79	26	14	3	1	18
Lowell, Mass.	27	22	4	1	-	-	5	Norfolk, Va.	54	36	13	3	1	1	3
Lynn, Mass.	22	18	3	1	-	-	2	Richmond, Va.	77	44	23	7	1	2	4
New Bedford, Mass.	29	23	5	1	-	-	4	Savannah, Ga.	58	42	12	4	-	-	4
New Haven, Conn.	48	32	9	2	3	2	2	St. Petersburg, Fla.	61	42	13	5	1	-	2
Providence, R.I.	U	U	U	U	U	U	U	Tampa, Fla.	199	140	35	19	4	1	13
Somerville, Mass.	5	4	1	-	-	-	-	Washington, D.C.	99	58	20	15	5	1	3
Springfield, Mass.	46	32	5	8	1	-	7	Wilmington, Del.	U	U	U	U	U	U	U
Waterbury, Conn.	37	30	5	-	2	-	4	E. S. CENTRAL	942	621	203	71	28	19	76
Worcester, Mass.	69	56	6	2	2	3	13	Birmingham, Ala.	224	155	42	22	3	2	19
MID. ATLANTIC	2,323	1,655	451	143	39	33	143	Chattanooga, Tenn.	76	51	17	4	3	1	4
Albany, N.Y.	53	39	11	2	1	-	8	Knoxville, Tenn.	101	67	26	4	2	2	3
Allentown, Pa.	24	21	3	-	-	-	2	Lexington, Ky.	55	31	15	6	3	-	9
Buffalo, N.Y.	104	77	18	9	-	-	9	Memphis, Tenn.	187	116	42	12	10	7	16
Camden, N.J.	37	25	4	3	1	4	2	Mobile, Ala.	114	82	20	7	1	4	2
Elizabeth, N.J.	14	8	4	1	1	-	-	Montgomery, Ala.	41	32	8	1	-	-	9
Erie, Pa.‡	35	32	2	-	1	-	1	Nashville, Tenn.	144	87	33	15	6	3	14
Jersey City, N.J.	39	26	7	5	1	-	-	W. S. CENTRAL	1,443	975	299	111	26	31	103
New York City, N.Y.	1,180	837	248	64	16	14	59	Austin, Tex.	104	70	20	7	-	7	8
Newark, N.J.	65	36	12	13	4	-	1	Baton Rouge, La.	108	74	21	10	1	2	1
Paterson, N.J.	27	18	6	3	-	-	2	Corpus Christi, Tex.	64	49	11	2	2	-	2
Philadelphia, Pa.	290	182	61	25	9	12	19	Dallas, Tex.	176	115	43	12	3	3	14
Pittsburgh, Pa.‡	36	26	7	3	-	-	2	El Paso, Tex.	65	43	8	9	4	1	8
Reading, Pa.	42	37	4	-	1	1	7	Ft. Worth, Tex.	110	74	22	12	1	1	12
Rochester, N.Y.	140	111	20	6	2	1	11	Houston, Tex.	360	231	83	30	6	10	29
Schenectady, N.Y.	29	23	3	1	2	-	2	Little Rock, Ark.	55	37	12	4	-	2	2
Scranton, Pa.‡	43	35	7	1	-	-	1	New Orleans, La.	U	U	U	U	U	U	U
Syracuse, N.Y.	86	69	11	5	-	1	7	San Antonio, Tex.	262	187	48	17	8	2	18
Trenton, N.J.	27	14	11	2	-	-	4	Shreveport, La.	U	U	U	U	U	U	U
Utica, N.Y.	31	24	6	-	1	-	2	Tulsa, Okla.	139	95	31	8	1	3	9
Yonkers, N.Y.	21	15	6	-	-	-	4	MOUNTAIN	1,073	723	209	85	29	25	80
E. N. CENTRAL	2,155	1,510	428	117	47	50	158	Albuquerque, N.M.	137	85	31	12	4	3	16
Akron, Ohio	63	45	9	2	5	2	8	Boise, Idaho	49	34	8	5	2	-	4
Canton, Ohio	43	36	6	1	-	-	5	Colo. Springs, Colo.	63	44	15	4	-	-	8
Chicago, Ill.	361	234	77	29	9	10	24	Denver, Colo.	116	73	25	12	1	5	12
Cincinnati, Ohio	109	81	22	-	2	4	13	Las Vegas, Nev.	200	124	52	16	6	2	15
Cleveland, Ohio	150	99	36	10	1	4	8	Ogden, Utah	29	24	1	1	1	2	-
Columbus, Ohio	201	136	45	8	6	6	15	Phoenix, Ariz.	197	138	27	13	10	9	9
Dayton, Ohio	139	107	22	7	3	-	9	Pueblo, Colo.	36	24	9	2	1	-	1
Detroit, Mich.	234	138	59	22	7	7	16	Salt Lake City, Utah	99	74	14	6	2	3	8
Evansville, Ind.	41	34	6	1	-	-	2	Tucson, Ariz.	147	103	27	14	2	1	7
Fort Wayne, Ind.	66	53	8	2	3	-	5	PACIFIC	1,314	932	236	92	28	25	111
Gary, Ind.	15	7	7	1	-	-	3	Berkeley, Calif.	16	10	2	2	1	1	4
Grand Rapids, Mich.	45	35	7	2	-	1	6	Fresno, Calif.	51	32	14	4	1	-	4
Indianapolis, Ind.	217	155	46	9	3	4	10	Glendale, Calif.	10	9	-	1	-	-	2
Lansing, Mich.	42	32	7	2	1	-	1	Honolulu, Hawaii	59	50	5	3	-	1	2
Milwaukee, Wis.	104	67	25	7	3	2	9	Long Beach, Calif.	82	64	11	2	3	2	17
Peoria, Ill.	49	38	7	-	1	3	2	Los Angeles, Calif.	246	153	55	21	9	8	20
Rockford, Ill.	50	33	8	8	1	-	5	Pasadena, Calif.	23	18	5	-	-	-	3
South Bend, Ind.	45	32	8	2	1	2	2	Portland, Oreg.	112	83	17	8	3	1	7
Toledo, Ohio	115	95	14	3	-	3	13	Sacramento, Calif.	191	136	33	16	4	2	8
Youngstown, Ohio	66	53	9	1	1	2	2	San Diego, Calif.	201	139	37	17	4	4	18
W. N. CENTRAL	813	597	146	46	11	13	72	San Francisco, Calif.	U	U	U	U	U	U	U
Des Moines, Iowa	68	56	11	1	-	-	5	San Jose, Calif.	U	U	U	U	U	U	U
Duluth, Minn.	28	22	6	-	-	-	-	Santa Cruz, Calif.	35	28	3	4	-	-	4
Kansas City, Kans.	48	32	12	3	-	1	6	Seattle, Wash.	123	88	23	7	2	3	10
Kansas City, Mo.	99	72	15	8	1	3	19	Spokane, Wash.	57	42	10	2	-	3	4
Lincoln, Nebr.	37	32	4	1	-	-	6	Tacoma, Wash.	108	80	21	5	1	-	8
Minneapolis, Minn.	116	88	19	4	4	1	14	TOTAL	11,971 [†]	8,296	2,350	835	250	231	918
Omaha, Nebr.	123	91	22	5	3	2	2								
St. Louis, Mo.	101	63	28	8	1	1	5								
St. Paul, Minn.	89	69	8	7	2	3	3								
Wichita, Kans.	104	72	21	9	-	2	12								

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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