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Outbreak of Multidrug-Resistant *Salmonella* Newport — United States, January–April 2002

During January–April 2002, *Salmonella* serotype Newport was isolated from 47 persons in five states: New York (34 cases), Michigan (five), Pennsylvania (four), Ohio (two), and Connecticut (two). Antimicrobial-susceptibility testing of three isolates by CDC revealed resistance to amoxicillin/clavulanate, ampicillin, cefoxitin, ceftiofur, cephalothin, chloramphenicol, streptomycin, sulfamethoxazole, and tetracycline. In addition, two of three isolates were resistant to kanamycin; two had decreased susceptibility or resistance to ceftriaxone. To determine the cause of the outbreak, the New York State Department of Health (NYSDOH) and CDC conducted a case-control study. This report summarizes the results of this investigation, which implicated exposure to raw or undercooked ground beef as the vehicle of transmission. The findings also highlight the emergence of multidrug-resistant *S.* Newport in the United States. These strains exhibit decreased susceptibility or resistance to ceftriaxone, thereby complicating empiric therapy for serious *Salmonella* infections. Clinicians should be informed of the emergence of these *S.* Newport strains, and persons should refrain from eating undercooked ground beef and wash their hands after handling raw ground beef.

The outbreak was identified on February 11, when a county health department notified NYSDOH of seven cases of *S.* Newport infection. Pulsed-field gel electrophoresis (PFGE) testing by the NYSDOH laboratory revealed that six isolates had an indistinguishable pattern, and one isolate had a single band difference. NYSDOH defined a case as isolation of *S.* Newport with a PFGE pattern that was indistinguishable or one band different from the outbreak pattern. Additional cases were reported from Connecticut, Michigan, Ohio, and Pennsylvania through the National Molecular Subtyping Network for Foodborne Disease Surveillance (PulseNet).

A total of 47 cases from the five states was identified. The median age of infected persons was 45 years (range: 2–81 years); 33 (70%) were females. Symptom onsets occurred during January 1–April 4, with 33 (73%) occurring during February 1–15. Of the 47 patients, 46 were interviewed. The median duration of illness was 9 days (range: 3–60 days). Predominant symptoms included diarrhea (100%), abdominal pain (91%), fever (78%), blood-tinged stools (52%), and vomiting (48%). Six (13%) patients reported other symptomatic household members. A total of 33 (72%) patients received antimicrobial agents, and 17 (37%) were hospitalized. One patient from New York with leukemia developed sepsis and died; *S.* Newport was identified in both blood and stool cultures from this patient. A total of 44 isolates had an indistinguishable PFGE pattern after analysis with two enzymes (*Xba*I and *Avr*II); three isolates differed by one band.

To identify exposures associated with illness, NYSDOH and CDC compared 36 patients (28 from New York, four from Michigan, and four from Pennsylvania) with 85 controls, who were interviewed through random-digit–dialing in case-patients' home area codes and frequency-matched by age group. A multivariate logistic regression analysis indicated that 22 (67%) of 35 case-patients had eaten ground beef during the 3 days before illness onset compared with 31 (53%) of 58 controls (odds ratio [OR]=2.3; 95% confidence interval [CI]=0.9–5.7). Case-patients and controls were asked about eating raw or undercooked ground beef during the 3 days

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before illness onset. Of the 26 case-patients who answered definitively, 12 (46%) had eaten raw or undercooked ground beef compared with one (1%) of 80 controls (OR=50.9; 95% CI=5.3–489.0). A total of 11 patients recalled the type of ground beef eaten; seven (64%) had eaten lean or extra-lean ground beef. The U.S. Department of Agriculture (USDA) Food Safety and Inspection Service (FSIS) was notified after this investigation implicated ground beef as a potential vehicle for exposure.

One New York patient had a leftover, frozen, uncooked meatloaf prepared with the same package of ground beef that was used to prepare meals eaten during the 3 days before onset of symptoms. A culture of the meatloaf yielded *S.* Newport with a PFGE pattern indistinguishable from the outbreak pattern. Traceback by FSIS of ground beef eaten by 12 New York patients identified a meat packing plant that could have supplied the meat eaten by all those identified in the outbreak. Review of distribution records, grinding logs, and purchasing information did not identify any specific lot of ground beef, and no intact ground beef sample processed by the plant during the outbreak period was available for testing by FSIS. On April 19, USDA issued a Public Health Alert reminding consumers of food safety guidelines. FSIS is examining practices that might contribute to contamination of meat by this pathogen.

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Editorial Note: An estimated 1.4 million cases of Salmonellosis occur annually in the United States (*1*). *S.* Newport is the third most common *Salmonella* serotype in the United States. During 1997–2001, the number of laboratory-confirmed *S.* Newport infections reported to CDC increased from 1,584 (5%) of 34,608 reported *Salmonella* infections to 3,152 (10%) of 31,607 (CDC, unpublished data, 2002). The increasing number of *S.* Newport infections in the United States appears to be associated with the emergence and rapid dissemination of multidrug-resistant strains of *S.* Newport.

Since 1996, the National Antimicrobial Resistance Monitoring System (NARMS) for Enteric Bacteria has identified an increasing number of *S.* Newport isolates that are resistant to at least nine of 17 antimicrobial agents tested: amoxicillin/clavulanate, ampicillin, cefoxitin, ceftiofur, cephalothin, chloramphenicol, streptomycin, sulfamethoxazole, and tetracycline. In addition, these isolates exhibit decreased susceptibility (minimal inhibitory concentrations [MIC]

≥16mg/ml) or resistance (MIC ≥64mg/ml) to ceftriaxone, an antimicrobial agent commonly used to treat serious infections in children. Isolates with this resistance pattern have plasmids that carry a bla_{CMY} gene. These genes produce AmpC-type enzymes, which confer resistance to penicillin-inhibitor combinations (e.g., amoxicillin/clavulanate), cephamycins (e.g., cefoxitin), and expanded-spectrum cephalosporins (e.g., ceftiofur and ceftriaxone). To distinguish this type of resistance from other multidrug-resistant strains, these strains are referred to as Newport MDR-AmpC. In 1998, one (1%) of 78 *S.* Newport isolates tested in NARMS was Newport MDR-AmpC compared with 33 (26%) of 128 in 2001. Although the full clinical significance of Newport MDR-AmpC is unknown, treatment of these infections with ceftriaxone might be ineffective. In addition, antimicrobial-resistant *Salmonella* infections have been associated with an increased hospitalization rate, morbidity, and mortality (*2,3*).

During 2001–2002, several state health departments, including California, Connecticut, and Massachusetts, documented association of exposure to dairy farms, ill cattle, and cheese made from unpasteurized milk with increased human Newport MDR-AmpC infections (*4–6*). In the outbreak described in this report, most patients for whom information is available ate lean or extra-lean ground beef; dairy cattle are an important source of lean or extra-lean ground beef (*7*). These data suggest that cattle, particularly dairy cattle, might be a source for human Newport MDR-AmpC infection.

This report is the first to associate eating of ground beef, specifically raw or undercooked ground beef, with Newport MDR-AmpC infection. Recent U.S. surveys indicate that 11%–28% of persons report eating raw or undercooked ground beef, and approximately one third of persons do not use safe food-handling practices to prevent cross-contamination in the kitchen (*8*).

The USDA Pathogen Reduction/Hazard Analysis and Critical Control Points (PR/HACCP) inspection system in meat and poultry plants has reduced *Salmonella* prevalence in raw ground beef from 7.5% in 1998 to 2.8% in 2001(*9*). The emergence of Newport MDR-AmpC suggests that further measures might be necessary. Potential strategies include 1) evaluating practices on the farm to determine factors that might contribute to multidrug-resistant *S.* Newport and developing interventions to eliminate these factors; 2) implementing the Public Health Action Plan to Combat Antimicrobial Resistance (*10*); 3) encouraging industry to implement processes such as steam pasteurization or irradiation of ground beef; and 4) increasing efforts to educate consumers on the importance of safe handling and cooking practices.

State health departments and veterinarians should investigate clusters of *S.* Newport and perform antimicrobial-susceptibility testing to determine if isolates are Newport MDR-AmpC. Epidemiologic investigations and PFGE comparison of outbreak isolates will help to identify food vehicles associated with Newport MDR-AmpC and to identify control points for reducing these infections. Because treatment with ceftriaxone might be ineffective, clinicians should be informed of the emergence of Newport MDR-AmpC strains. Persons should not eat undercooked ground beef and should wash their hands after handling raw ground beef.

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Outbreak of *Campylobacter jejuni* Infections Associated with Drinking Unpasteurized Milk Procured through a Cow-Leasing Program — Wisconsin, 2001

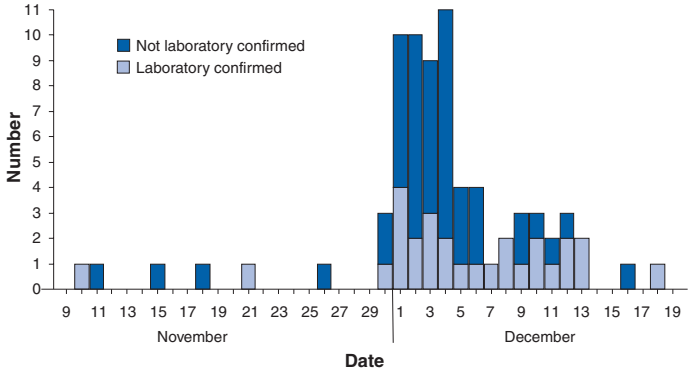
On December 7, 2001, the Sawyer County Department of Health and Human Services in northwestern Wisconsin notified the Wisconsin Division of Public Health about five cases of *Campylobacter jejuni* enteritis. All of the ill persons drank unpasteurized milk obtained at a local dairy farm. This report summarizes the investigation of these and other cases and of a cow-leasing program used to circumvent regulations prohibiting the sale of unpasteurized milk in Wisconsin. The outbreak highlights the hazards of consuming unpasteurized milk and milk products.

A case of *C. jejuni* enteritis was defined as illness in a person from Sawyer County or a surrounding county who had diarrhea or abdominal cramps and fever during November 10–December 18. Case finding was conducted by notifying health-care providers, infection-control practitioners, laboratorians, and the public about the outbreak.

A total of 75 persons had illness that met the case definition (Figure). The patients ranged in age from 2 to 63 years (median: 30 years); 41 (56%) were males. Signs and symptoms of illness included diarrhea (93%), abdominal cramps (92%), fever (76%), nausea (40%), and grossly bloody diarrhea (23%). None of the patients was hospitalized, and none had Guillain-Barre syndrome. A total of 70 (93%) patients reported drinking unpasteurized milk from a local dairy farm. Four (5%) patients did not drink unpasteurized milk but were mothers of ill children who drank unpasteurized milk. One patient was a child who attended a child care facility but did not drink unpasteurized milk or have contact with other patients.

Of the 75 patients, 29 (39%) provided stool specimens; 28 (97%) specimens grew *C. jejuni* (Figure). Of the 28 patients with positive stool specimens, 23 (33%) were patients who drank the unpasteurized milk, four were mothers of patients, and one patient had an unknown mode of infection. Pulsed-field gel electrophoresis (PFGE) was performed on 21 isolates; the patterns were indistinguishable when restricted separately by two enzymes.

FIGURE. Number of patients with *Campylobacter jejuni* infections, by confirmation status and date of illness onset — Wisconsin, November 10–December 18, 2001*



* n=75.

The facility that supplied milk to patients was a Grade A organic dairy farm with 36 dairy cows. The farm also had a retail store in which milk and other food products were available. In addition, farm operators provided unpasteurized milk samples at community events and to persons who toured the farm, including children from childcare facilities. Because unpasteurized milk cannot be sold legally to consumers in Wisconsin, the dairy distributed unpasteurized milk through a cow-leasing program. Customers paid an initial fee to lease part of a cow. Farm operators milked the cows and stored the milk from all leased cows together in a bulk tank. Either customers picked up milk at the farm or farm operators had it delivered. On December 8, investigators obtained a milk sample from the farm's bulk milk tank, and cultures of the milk samples grew *C. jejuni* with a PFGE pattern that matched the outbreak strain. Farm operators were ordered to divert all milk to a processor for pasteurization. State inspectors found the farm to meet Grade A standards for a farm shipping milk to a pasteurization plant. Consumers were advised not to drink unpasteurized milk. To ensure that unpasteurized milk will not be distributed to the public in Wisconsin, state officials are enforcing existing regulations and prohibiting cow-leasing programs.

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Editorial Note: Unpasteurized milk is an important vehicle for transmission of pathogens including *Campylobacter* spp., *Brucella* spp., Shiga toxin-producing *Escherichia coli* (e.g., *E. coli* O157), *Corynebacterium diphtheriae*, *Salmonella* spp. (including multidrug-resistant strains), *Mycobacterium bovis*,

and *Listeria monocytogenes* (*1,2*). In 1995, intrastate sale of unpasteurized milk was permitted in 28 states (*3*). In California, where the sale of unpasteurized milk is legal, 128 (3%) of 3,999 residents reported drinking unpasteurized milk in 1993 (*4*). Persons who drink unpasteurized milk and milk products might believe that these products taste better, provide greater nutrition than pasteurized products, and/or decrease the risk for various medical conditions (*4*). However, the benefits of consuming unpasteurized milk and milk products have never been validated scientifically (*5*).

As in this outbreak, in several states milk producers have established cow-leasing programs to circumvent regulations (*6*). Advocates of unpasteurized milk also have published lists of those states that permit the sale of unpasteurized milk for nonhuman consumption. Persons might use such lists to obtain milk covertly in these states.

State regulatory agencies should consider the risk for human illness when reviewing policies regulating the sale of unpasteurized milk. States that permit the sale of unpasteurized milk might consider placing warning labels on such products, as with unpasteurized juice. Because persons might attempt to circumvent existing regulations, further public health research should address how to communicate to consumers the health risks of drinking unpasteurized milk.

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Achievements in Public Health

Hepatitis B Vaccination — United States, 1982–2002

This year marks the 20th anniversary of the implementation in the United States of the world's first vaccine against hepatitis B virus (HBV). In addition to acute disease, persons infected with HBV are at risk for chronic HBV infection and severe morbidity and mortality from cirrhosis and hepatocellular carcinoma. Before 1982, an estimated 200,000–300,000 persons in the United States were infected annually with HBV, including approximately 20,000 children (*1*). No practical method of pre-exposure prophylaxis for HBV existed, and the only postexposure prophylaxis available was injection with hepatitis B immune globulin (HBIG).

Since 1982, substantial progress has been made toward eliminating HBV transmission in children and reducing the risk for HBV infection in adults. During 1982–2002, an estimated 40 million infants and children and 30 million adults received hepatitis B vaccine. Because of vaccination and changes in risk-reduction behaviors among at-risk populations in response to the HIV/AIDS epidemic, the number of persons infected in the United States declined to an estimated 79,000 in 2001. To eliminate HBV transmission, high vaccine-coverage rates must be sustained among infants, children, and adolescents, and programs to vaccinate adults at high risk for HBV infection must be expanded.

Evolving Vaccination Strategy

In June 1982, the Advisory Committee on Immunization Practices (ACIP) published the first official recommendations on the use of hepatitis B vaccine (Table) (*2*). ACIP recommended pre-exposure vaccination initially for groups with a high risk for HBV infection.* However, by 1989, it had become evident that members of these groups (e.g., men who have sex with men [MSM], injection-drug users [IDUs], and heterosexual persons with multiple partners) were not being vaccinated in substantial numbers. Some persons did not recognize the risk for HBV infection, and others did not know about the vaccine or were unable to purchase it. In addition, health-care providers often did not identify candidates for vaccination (CDC, unpublished data, 1987). Health-care

* Health-care providers, clients, and staff of institutions for the developmentally disabled, hemodialysis patients, men who have sex with men, injection-drug users, recipients of clotting factors for bleeding disorders, household and sexual contacts of persons with chronic HBV infection, populations with high rates of HBV infection (e.g., Alaska Natives, Pacific Islanders, and immigrants and refugees from countries in which HBV is endemic), and inmates of long-term correctional facilities.

TABLE. Chronology of Advisory Committee on Immunization Practices recommendations for hepatitis B immunization — United States, 1982–2002

June 25, 1982	First official recommendations are published for the use of hepatitis B vaccine. Vaccination is recommended for groups known to be at high risk* for hepatitis B virus (HBV) infection.
June 1, 1984	Recommendation that all infants born to hepatitis B surface antigen (HBsAg)-positive mothers receive post-exposure immunoprophylaxis with both hepatitis B vaccine and hepatitis B immune globulin (HBIG) and that pregnant women in high-risk groups be tested for HBsAg during the prenatal period.
June 7, 1985	Recommendation that heterosexual persons with multiple sexual partners and international travelers who plan to spend >6 months in areas where HBV infection is endemic be vaccinated.
June 10, 1988	Recommendation that all pregnant women be tested routinely for HBsAg during the prenatal period.
February 9, 1990	Recommendation that public safety workers who have contact with blood or blood-contaminated body fluids and family members of adoptees from countries in which HBV infection is endemic be vaccinated.
November 22, 1991	Recommendation that all U.S. infants receive hepatitis B vaccination.
August 4, 1995	Recommendation that all children aged 11–12 years who have not been vaccinated previously receive pre-exposure vaccination.
January 22, 1999	Recommendation that all children aged 0–18 years who have not been vaccinated previously be vaccinated.
January 18, 2002	Preference established for administering the first dose of hepatitis B vaccine series at birth.

* Health-care providers, clients, and staff of institutions for the developmentally disabled, hemodialysis patients, men who have sex with men, injection-drug users, recipients of clotting factors for bleeding disorders, household and sexual contacts of persons with chronic HBV infection, populations with high rates of HBV infection (e.g., Alaska Natives, Pacific Islanders, and immigrants and refugees from countries in which HBV is endemic), and inmates of long-term correctional facilities.

workers comprised 80% of the approximately 2.5 million persons vaccinated during the 1980s; however, only 5% of acute hepatitis B cases occurred among health-care workers (*3*).

In 1991, recognizing the difficulty of vaccinating high-risk adults and the substantial burden of HBV-related disease acquired from infections in childhood, ACIP recommended a comprehensive strategy to eliminate HBV transmission in the United States (*4*). The strategy focused on universal childhood vaccination, prevention of perinatal HBV transmission, vaccination of adolescents and adults in high-risk groups, and catch-up vaccinations for susceptible children in high-risk populations. In 1995, ACIP recommended the routine vaccination of all adolescents aged 11–12 years who had not been vaccinated previously (*5*), and in 1999, ACIP recommended that all unvaccinated children aged <19 years be vaccinated (*6*). The ACIP vaccination strategies for children and adolescents have been implemented successfully in the United States, and hepatitis B vaccine is now considered part of the routine childhood vaccination schedule. During 1993–2000, the national coverage rate for hepatitis B vaccine among children aged 19–35 months increased from 16% to 90%, and the coverage rate for U.S. adolescents aged 13–15 years increased from near zero to 67%.

Part of the success of these strategies can be attributed to the availability of expanded funding for childhood vaccinations and to laws requiring vaccination of school children. In 1994, Congress enacted Vaccines for Children, a national program to purchase ACIP-recommended vaccines for eligible children aged <19 years. Laws have been enacted in 44 states mandating hepatitis B vaccination for children entering elementary schools and childcare centers and in 34 states requiring vaccination for adolescents in middle school (*7*).

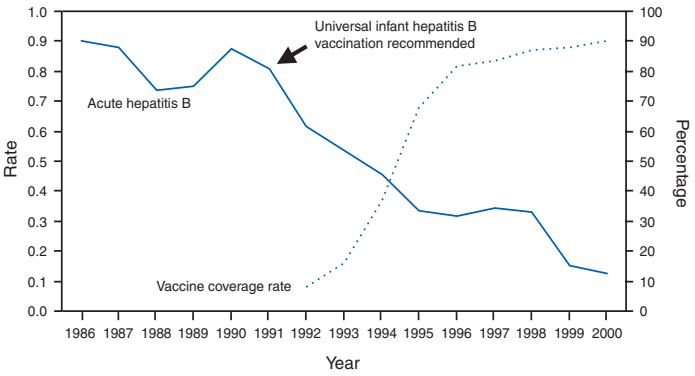
Substantial declines in the incidence of acute hepatitis B have occurred among highly vaccinated populations, such as young children and health-care workers. During 1986–2000, the rate of acute hepatitis B among children aged 1–9 years declined >80% (Figure). During 1983–1995, the rate of HBV infection in health-care workers declined 95% and is now lower than the rate for the general U.S. population (*8*).

Since hepatitis B vaccination began in 1982, the prevalence of chronic HBV infection has been reduced substantially among populations whose infection rates previously were high. For example, in 1994, the prevalence of chronic HBV infection among Alaska Natives aged <10 years (i.e., children born after routine vaccination began) was zero, compared with 16% among Alaska Natives aged 11–30 years (*9*).

Preventing Perinatal HBV Transmission

Since 1982, the control of perinatal infection has been a crucial part of ACIP's evolving HBV vaccination strategy. In 1984, ACIP recommended hepatitis B surface antigen (HBsAg) screening for pregnant women in groups at high risk for acquiring HBV infection and postexposure immunoprophylaxis with hepatitis B vaccine and HBIG for all infants born to HBsAg-positive mothers (*10*). However, within a few years, studies showed that screening women in high-risk groups failed to identify 35%–65% of HBsAg-

FIGURE. Rate* of reported acute hepatitis B among children aged 1–9 years and percentage of children aged 19–35 months who received hepatitis B vaccine, by year — United States, 1986–2000



* Per 100,000 children aged 1–9 years.

positive pregnant women (*11,12*). Consequently, in 1988, ACIP recommended that all pregnant women be screened routinely for HBsAg (*13*).

In 1990, the federal government began funding perinatal hepatitis B prevention programs to promote prenatal screening of all pregnant women for HBsAg and tracking of infants born to HBsAg-positive mothers to ensure that the infants receive appropriate postexposure prophylaxis. These programs have been implemented successfully. A survey of birthing hospitals conducted in 2000 in 14 states showed that 96.5% of pregnant women had been screened for HBsAg (CDC, unpublished data, 2000). During 2000, state health departments identified and tracked 10,192 infants born to HBsAg-positive mothers (CDC, unpublished data, 2000). Of these infants, 90% received hepatitis B vaccine and HBIG before hospital discharge. At age 6–8 months, 71% of these infants had completed the 3-dose hepatitis B vaccine series. On the basis of these coverage rates, CDC estimates that perinatal HBV infection in the United States declined 75% during 1987–2000 (CDC, unpublished data, 2000).

Implementation Challenges

Since its inception in 1982, the U.S. hepatitis B vaccination effort has faced several challenges. In the mid-1980s, concern was expressed about the possible risk for human immunodeficiency virus (HIV) transmission by the original plasma-derived vaccine; however, no transmission of any microbial agent was demonstrated, and the safety of the vaccine was reaffirmed (*14*). Plasma-derived hepatitis B vaccines are no longer used in the United States, but their use continues safely in other countries. The vaccines currently available in the United States are produced by recombinant DNA technology.

In 1991, some pediatric-care providers were reluctant to accept the ACIP recommendation that all U.S. infants be vaccinated. However, by 1996, comprehensive efforts to educate providers and parents about hepatitis B and the benefit of vaccination had resulted in broad acceptance of the vaccine (*15*).

In June 1999, concerns were expressed about the risk to young children of mercury exposure from thimerosal, a preservative used in childhood vaccines, including hepatitis B vaccine. As a precaution, the U.S. Public Health Service (PHS), the American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP) recommended postponing the first dose of hepatitis B vaccine from birth until age 2–6 months for infants born to HBsAg-negative mothers. These groups also recommended eliminating thimerosal from childhood vaccines as soon as possible. By 2000, the two companies that manufacture hepatitis B vaccine in the United States had eliminated thimerosal as a preservative from these vaccines, and PHS, AAP, and AAFP urged the resumption of hepatitis B vaccination at birth. However, the temporary postponement of hepatitis B vaccine at birth resulted in the failure of some hospitals to immunize high-risk infants appropriately. This situation persisted after vaccines that do not contain thimerosal as a preservative became available (*16*).

Although concerns have been expressed over the past 20 years that certain chronic illnesses might be caused by hepatitis B vaccine, no evidence exists that any of these diseases is caused by the vaccine. For example, in the mid-1990s, concerns were expressed that the vaccine might cause multiple sclerosis. However, a report by the Institute of Medicine (IOM) found no evidence of a causal relation between hepatitis B vaccination in adults and multiple sclerosis (*17*). The vaccine continues to be considered safe by the U.S. Food and Drug Administration, ACIP, IOM, and other national professional vaccination advisory groups.

Challenges for the 21st Century

Despite progress in vaccinating children and adults in some occupational and racial/ethnic groups, approximately 1.2 million persons in the United States have chronic HBV infection, and an estimated 4,000–5,000 persons die each year from HBV-related liver diseases. The goal of eliminating HBV transmission in the United States can be achieved only by sustaining a high level of immunity against HBV infection in all age groups. The prospect for achieving immunity in children is already within reach; 90% of U.S. children aged 2 years receive 3 doses of hepatitis B vaccine, a coverage rate that

meets national health goals. To maintain high hepatitis B vaccine coverage, public health professionals must ensure that the safety of hepatitis B vaccine is monitored appropriately through credible scientific studies that assure the public that vaccines are safe.

Two important challenges for health departments and health-care providers are maintaining high screening rates among pregnant women for HBsAg and ensuring that newborn infants receive proper immunoprophylaxis. Although high screening rates have been achieved among pregnant women, current efforts to identify and track infants born to HBsAg-positive mothers are inadequate. Advances in the prevention of perinatal HBV transmission will depend on improved health department identification, tracking, and case management of infants born to HBsAg-positive mothers (*18*).

Routine vaccination of adolescents must be increased and aggressive efforts made to vaccinate adults at high risk for HBV infection. Adolescent vaccination will remain an important goal for the next decade, until the cohort of vaccinated infants reaches adolescence. State laws mandating hepatitis B vaccination for middle-school children are effective in achieving high coverage rates (*7*). Adoption of these laws by more states will increase the adolescent vaccination rate.

The greatest remaining challenge for hepatitis B prevention is the vaccination of high-risk adults. The rate of hepatitis B vaccination in this group has remained low, in part because of the difficulty in identifying candidates for vaccination before they become infected and limited public funding for adult vaccination. In serosurveys of MSM aged 15–22 years recruited at public venues in seven U.S. metropolitan areas during 1994–1998, only 9% had serologic evidence of hepatitis B vaccination (*19*). Among IDUs attending sexually transmitted disease (STD) clinics in San Diego from 1998–2001, only 6% reported previous hepatitis B vaccination (CDC, unpublished data, 2002).

The national health objectives for 2010 call for a reduction of 75%–90% in acute hepatitis B cases among high-risk adults (*20*). To achieve this goal, adults with behavioral risk factors for HBV infection must be identified and vaccinated. Many opportunities to vaccinate high-risk adults are missed. For example, approximately 56% of adults with acute hepatitis B have received care previously in correctional facilities or STD treatment clinics, where vaccination could have been offered (*21*). The most effective approach to vaccinating high-risk adults is to integrate hepatitis B vaccination into programs that provide services to persons with risk factors for HBV infection (e.g., STD clinics, HIV counseling and testing sites, correctional facilities, and drug treatment clinics). CDC is working with state and local public health departments to integrate comprehensive hepatitis prevention measures, including hepatitis B vaccination, into programs providing services to persons at risk for HBV infection. In addition, CDC has funded cooperative agreements at 18 sites around the country to identify the most effective approaches to achieve integration of hepatitis B vaccination into these programs.

Sustaining high vaccine-coverage rates among infants, children, and adolescents will ensure that future generations are protected from HBV infection and its consequences. However, unless efforts to vaccinate adults at increased risk for HBV infection are greatly expanded, complete elimination of HBV transmission might take another 20 years to achieve.

Reported by: *National Immunization Program; Div of Viral Hepatitis, National Center for Infectious Diseases, CDC.*

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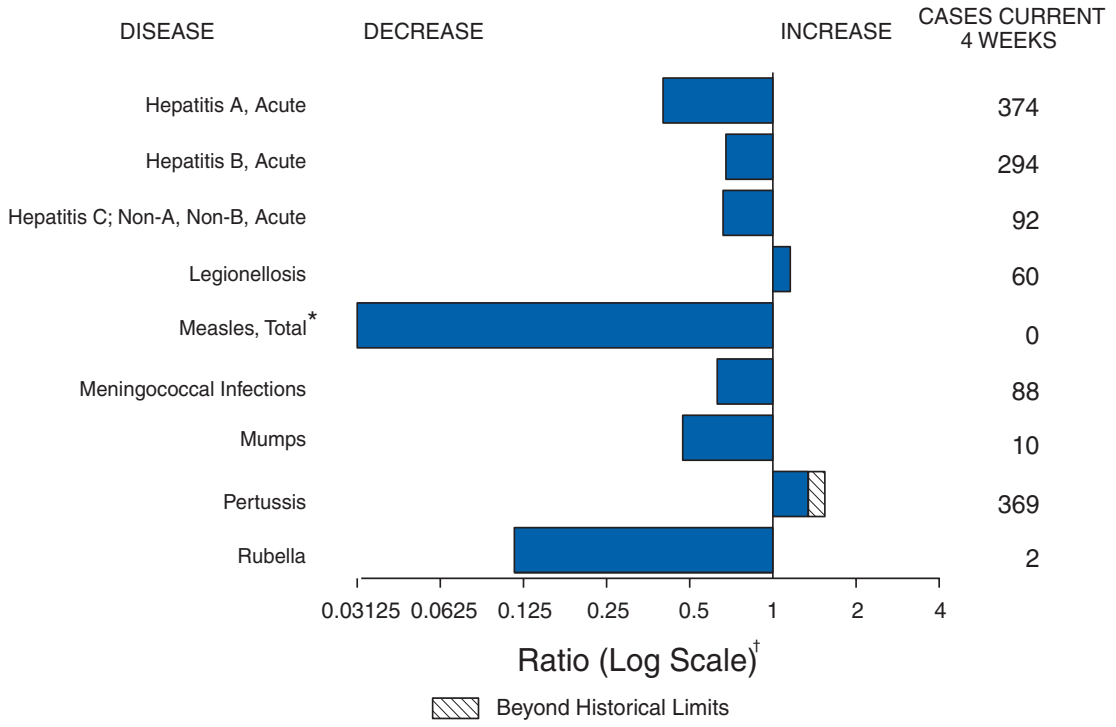
(Continued on page 563)

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending June 22, 2002, with historical data



* No measles cases were reported for the current 4-week period yielding a ratio for week 25 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 June 22, 2002 (25th Week)*

		Cum. 2002	Cum. 2001		Cum. 2002	Cum. 2001
Anthrax		1	-	Encephalitis: West Nile†	1	-
Botulism:	foodborne	7	9	Hansen disease (leprosy)†	37	33
	infant	28	48	Hantavirus pulmonary syndrome†	5	4
	other (wound & unspecified)	9	6	Hemolytic uremic syndrome, postdiarrheal†	60	48
Brucellosis†		35	54	HIV infection, pediatric†§	31	83
Chancroid		28	21	Plague	-	1
Cholera		3	2	Poliomyelitis, paralytic	-	-
Cyclosporiasis†		69	47	Psittacosis†	12	6
Diphtheria		-	1	Q fever†	15	7
Ehrlichiosis:	human granulocytic (HGE)†	71	35	Rabies, human	1	-
	human monocytic (HME)†	32	33	Streptococcal toxic-shock syndrome†	38	49
	other and unspecified	2	1	Tetanus	6	21
Encephalitis:	California serogroup viral†	5	2	Toxic-shock syndrome	55	63
	eastern equine†	1	-	Trichinosis	8	5
	Powassan†	-	-	Tularemia†	19	42
	St. Louis†	-	-	Yellow fever	1	-
	western equine†	-	-			

-:No reported cases.
* Incidence data for reporting year 2001 and 2002 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 May 26, 2002.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending June 22, 2002, and June 23, 2001 (25th Week)*

Reporting Area	AIDS		Chlamydia†		Cryptosporidiosis		*Escherichia coli* O157:H7		*Escherichia coli* Shiga Toxin Positive, Serogroup non-O157	
	Cum. 2002§	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	16,795	18,481	343,425	362,411	904	904	762	811	28	37
NEW ENGLAND	637	652	12,383	10,410	41	41	61	81	6	17
Maine	19	18	688	611	2	3	2	11	-	-
N.H.	17	15	764	622	10	1	4	11	-	2
Vt.	6	10	317	286	8	13	2	3	-	-
Mass.	318	401	5,100	4,014	11	17	31	42	2	4
R.I.	50	42	1,272	1,340	5	3	5	4	-	-
Conn.	227	166	4,242	3,537	5	4	17	10	4	11
MID. ATLANTIC	3,498	4,919	35,032	38,639	101	125	57	58	-	-
Upstate N.Y.	259	671	7,649	6,120	29	35	45	36	-	-
N.Y. City	1,838	2,847	14,154	14,219	47	55	3	4	-	-
N.J.	668	718	2,946	6,486	7	5	9	18	-	-
Pa.	733	683	10,283	11,814	18	30	N	N	-	-
E.N. CENTRAL	1,779	1,200	54,192	67,204	225	303	192	193	1	2
Ohio	316	190	10,183	17,491	62	51	38	50	1	1
Ind.	207	117	7,521	7,514	20	30	17	29	-	-
Ill.	815	562	15,499	20,042	35	29	63	48	-	-
Mich.	358	261	15,142	14,421	47	65	33	24	-	1
Wis.	83	70	5,847	7,736	61	128	41	42	-	-
W.N. CENTRAL	270	373	16,777	18,455	106	74	102	89	3	2
Minn.	56	81	4,510	3,774	46	24	35	35	3	-
Iowa	42	40	629	2,184	11	20	23	14	-	-
Mo.	117	162	6,296	6,518	16	14	17	17	-	-
N. Dak.	-	1	469	501	6	4	3	1	-	-
S. Dak.	2	9	1,063	866	5	4	8	6	-	1
Nebr.	23	34	589	1,623	16	8	9	7	-	1
Kans.	30	46	3,221	2,989	6	-	7	9	-	-
S. ATLANTIC	5,478	5,606	67,799	69,777	154	151	83	74	13	11
Del.	96	83	1,300	1,405	1	1	3	-	-	-
Md.	822	745	7,025	7,348	6	26	3	4	-	-
D.C.	266	357	1,486	1,628	3	9	-	-	-	-
Va.	350	510	7,897	8,340	2	8	19	21	-	2
W. Va.	41	34	1,116	1,123	1	-	2	2	-	-
N.C.	418	379	11,216	10,996	20	15	15	25	-	-
S.C.	433	337	6,245	7,806	2	1	-	2	-	-
Ga.	922	576	13,308	14,214	80	59	30	14	9	6
Fla.	2,130	2,585	18,206	16,917	39	32	11	6	4	3
E.S. CENTRAL	768	883	24,195	23,904	66	17	39	43	-	-
Ky.	122	182	4,120	4,206	1	1	12	21	-	-
Tenn.	341	254	7,732	7,114	33	3	19	13	-	-
Ala.	144	223	7,448	6,632	28	6	4	6	-	-
Miss.	161	224	4,895	5,952	4	7	4	3	-	-
W.S. CENTRAL	1,834	1,998	50,353	51,474	10	24	10	92	-	-
Ark.	123	103	2,956	3,660	4	2	2	2	-	-
La.	442	434	8,958	8,580	3	7	-	2	-	-
Okla.	95	106	4,978	5,226	3	5	8	11	-	-
Tex.	1,174	1,355	33,461	34,008	-	10	-	77	-	-
MOUNTAIN	565	665	21,204	21,092	65	52	72	77	3	1
Mont.	6	12	792	1,052	4	5	9	5	-	-
Idaho	10	15	1,200	863	17	6	8	12	-	-
Wyo.	2	1	410	367	6	1	2	2	1	-
Colo.	108	153	5,200	5,754	18	16	20	31	1	1
N. Mex.	34	59	2,600	2,800	6	9	4	6	1	-
Ariz.	247	243	6,864	7,071	6	2	9	10	-	-
Utah	30	52	2,123	732	5	10	11	7	-	-
Nev.	128	130	2,015	2,453	3	3	9	4	-	-
PACIFIC	1,966	2,185	61,490	61,456	136	117	146	104	2	4
Wash.	235	241	6,744	6,567	24	U	16	23	-	-
Oreg.	181	102	3,224	3,290	18	11	41	19	2	4
Calif.	1,509	1,804	47,992	48,406	93	104	66	55	-	-
Alaska	9	10	1,656	1,323	-	-	4	1	-	-
Hawaii	32	28	1,874	1,870	1	2	19	6	-	-
Guam	2	8	-	194	-	-	N	N	-	-
P.R.	503	578	1,576	1,377	-	-	-	-	-	-
V.I.	57	2	30	82	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	90	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 year 2001 and 2002 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 May 26, 2002.

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending June 22, 2002, and June 23, 2001 (25th Week)*

Reporting Area	*Escherichia coli* Shiga Toxin Positive, Not Serogrouped		Giardiasis	Gonorrhea		*Haemophilus influenzae*, Invasive			
						All Ages, All Serotypes		Age <5 Years Serotype B	
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	10	4	6,406	144,911	162,627	808	807	11	13
NEW ENGLAND	-	1	671	3,620	2,807	58	51	-	1
Maine	-	-	71	48	66	1	1	-	-
N.H.	-	-	22	61	64	5	-	-	-
Vt.	-	1	49	44	39	3	2	-	-
Mass.	-	-	315	1,595	1,204	27	30	-	1
R.I.	-	-	56	447	345	9	2	-	-
Conn.	-	-	158	1,425	1,089	13	16	-	-
MID. ATLANTIC	-	-	1,439	16,337	17,458	144	116	2	3
Upstate N.Y.	-	-	487	3,904	3,672	66	36	2	-
N.Y. City	-	-	578	5,726	5,902	32	32	-	-
N.J.	-	-	141	2,736	2,182	31	27	-	-
Pa.	-	-	233	3,971	5,702	15	21	-	3
E.N. CENTRAL	4	2	1,173	25,690	34,275	136	138	2	1
Ohio	4	2	368	5,569	9,363	50	43	-	1
Ind.	-	-	-	3,255	3,117	28	22	1	-
Ill.	-	-	267	8,388	10,756	43	49	-	-
Mich.	-	-	369	6,636	8,330	9	8	1	-
Wis.	-	-	169	1,842	2,709	6	16	-	-
W.N. CENTRAL	-	-	760	6,788	7,582	26	35	-	1
Minn.	-	-	276	1,323	1,177	17	17	-	-
Iowa	-	-	108	170	579	1	-	-	-
Mo.	-	-	215	3,704	3,840	6	12	-	-
N. Dak.	-	-	11	27	17	-	4	-	-
S. Dak.	-	-	29	118	135	-	-	-	-
Nebr.	-	-	52	137	554	-	1	-	1
Kans.	-	-	69	1,309	1,280	2	1	-	-
S. ATLANTIC	-	-	1,128	39,310	42,027	208	201	1	1
Del.	-	-	21	784	773	-	-	-	-
Md.	-	-	44	3,884	4,180	47	51	1	-
D.C.	-	-	20	1,256	1,402	-	-	-	-
Va.	-	-	95	4,861	4,282	15	16	-	-
W. Va.	-	-	18	459	290	6	5	-	1
N.C.	-	-	-	7,646	7,915	21	29	-	-
S.C.	-	-	30	3,663	5,907	11	4	-	-
Ga.	-	-	447	7,215	7,701	63	55	-	-
Fla.	-	-	453	9,542	9,577	45	41	-	-
E.S. CENTRAL	-	1	148	13,704	15,241	26	53	1	-
Ky.	-	1	-	1,623	1,626	2	2	-	-
Tenn.	-	-	68	4,352	4,624	15	26	-	-
Ala.	-	-	80	4,752	5,183	6	23	1	-
Miss.	-	-	-	2,977	3,808	3	2	-	-
W.S. CENTRAL	-	-	65	22,018	24,904	32	29	2	1
Ark.	-	-	58	1,605	2,295	1	-	-	-
La.	-	-	-	5,545	5,929	2	5	-	-
Okla.	-	-	7	2,157	2,366	27	23	-	-
Tex.	-	-	-	12,711	14,314	2	1	2	1
MOUNTAIN	6	-	587	4,539	4,973	109	93	2	2
Mont.	-	-	34	41	57	-	-	-	-
Idaho	-	-	31	40	39	2	1	-	-
Wyo.	-	-	10	28	29	1	-	-	-
Colo.	6	-	198	1,474	1,509	20	26	-	-
N. Mex.	-	-	70	493	449	17	13	-	-
Ariz.	-	-	80	1,683	1,948	54	40	1	1
Utah	-	-	103	171	63	10	5	-	-
Nev.	-	-	61	609	879	5	8	1	1
PACIFIC	-	-	435	12,905	13,360	69	91	1	3
Wash.	-	-	173	1,337	1,405	2	1	1	-
Oreg.	-	-	178	383	543	36	30	-	-
Calif.	-	-	-	10,654	10,934	9	40	-	3
Alaska	-	-	39	273	173	1	3	-	-
Hawaii	-	-	45	258	305	21	17	-	-
Guam	-	-	-	-	23	-	-	-	-
P.R.	-	-	1	235	312	-	1	-	-
V.I.	-	-	-	17	14	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	7	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending June 22, 2002, and June 23, 2001 (25th Week)*

Reporting Area	*Haemophilus influenzae*, Invasive, Age <5 Years, Non-Serotype B		*Haemophilus influenzae*, Invasive, Age <5 Years, Unknown Serotype		Hepatitis (Viral, Acute), By Type, A		B		C; Non-A, Non-B	
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	129	139	11	15	4,007	4,239	2,992	3,261	1,521	2,001
NEW ENGLAND	7	10	-	-	169	225	98	65	18	25
Maine	-	-	-	-	6	5	3	5	-	-
N.H.	-	-	-	-	10	4	10	10	-	-
Vt.	-	-	-	-	-	6	2	4	11	6
Mass.	4	7	-	-	77	80	49	11	7	19
R.I.	-	-	-	-	24	8	16	11	-	-
Conn.	3	3	-	-	52	122	18	24	-	-
MID. ATLANTIC	20	20	1	2	500	554	683	641	709	553
Upstate N.Y.	8	6	-	1	92	123	73	58	28	18
N.Y. City	6	5	-	-	211	204	377	318	-	-
N.J.	4	3	-	-	61	131	142	122	668	502
Pa.	2	6	1	1	136	96	91	143	13	33
E.N. CENTRAL	19	26	-	1	526	500	389	393	55	102
Ohio	5	7	-	-	163	112	45	58	5	5
Ind.	6	4	-	1	28	39	17	19	-	1
Ill.	7	10	-	-	154	151	33	49	7	8
Mich.	-	-	-	-	121	159	294	246	43	88
Wis.	1	5	-	-	60	39	-	21	-	-
W.N. CENTRAL	2	2	3	2	167	181	100	104	448	647
Minn.	2	1	1	-	25	14	7	11	-	2
Iowa	-	-	-	-	41	18	10	10	1	-
Mo.	-	-	2	2	42	38	59	62	439	639
N. Dak.	-	1	-	-	1	2	1	-	-	-
S. Dak.	-	-	-	-	3	1	-	1	-	-
Nebr.	-	-	-	-	5	24	14	11	6	3
Kans.	-	-	-	-	50	84	9	9	2	3
S. ATLANTIC	30	27	1	5	1,225	772	755	582	77	29
Del.	-	-	-	-	9	4	7	10	3	2
Md.	1	4	-	1	142	109	63	62	9	3
D.C.	-	-	-	-	46	21	10	8	-	-
Va.	2	4	-	-	43	67	104	72	1	-
W. Va.	-	-	1	-	10	6	13	14	1	6
N.C.	3	1	-	4	125	63	108	104	14	9
S.C.	4	1	-	-	42	27	39	11	4	3
Ga.	13	13	-	-	300	422	242	178	18	-
Fla.	7	4	-	-	508	53	169	123	27	6
E.S. CENTRAL	7	10	-	2	142	173	166	212	94	125
Ky.	-	-	-	1	34	36	23	24	2	5
Tenn.	5	5	-	-	58	71	71	100	18	33
Ala.	2	4	-	1	23	54	37	45	3	2
Miss.	-	1	-	-	27	12	35	43	71	85
W.S. CENTRAL	6	4	-	-	59	495	179	408	13	419
Ark.	-	-	-	-	22	29	56	49	2	4
La.	1	-	-	-	13	55	14	62	11	99
Okla.	5	4	-	-	23	79	1	57	-	4
Tex.	-	-	-	-	1	332	108	240	-	312
MOUNTAIN	24	12	5	1	314	372	234	242	43	32
Mont.	-	-	-	-	9	5	3	2	-	-
Idaho	1	-	-	-	20	35	3	7	-	1
Wyo.	-	-	-	-	2	2	9	-	6	4
Colo.	2	-	-	-	52	36	45	55	19	5
N. Mex.	4	6	1	1	8	14	41	64	-	10
Ariz.	12	4	3	-	167	197	88	76	3	8
Utah	4	2	-	-	30	37	18	15	2	1
Nev.	1	-	1	-	26	46	27	23	13	3
PACIFIC	14	28	1	2	905	967	388	614	64	69
Wash.	1	-	-	1	86	50	30	57	12	16
Oreg.	4	5	-	-	45	62	74	78	11	10
Calif.	6	21	1	1	766	834	278	463	41	43
Alaska	1	1	-	-	7	12	3	4	-	-
Hawaii	2	1	-	-	1	9	3	12	-	-
Guam	-	-	-	-	-	1	-	-	-	-
P.R.	-	1	-	-	47	87	31	125	-	1
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	26	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.
* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending June 22, 2002, and June 23, 2001 (25th Week)*

Reporting Area	Legionellosis		Listeriosis		Lyme Disease		Malaria		Measles Total	
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	319	395	180	231	2,509	3,214	497	587	9†	78§
NEW ENGLAND	14	18	20	23	129	794	31	39	-	5
Maine	2	1	2	-	-	-	1	3	-	-
N.H.	2	4	2	-	28	16	5	2	-	-
Vt.	1	4	-	-	3	3	1	-	-	1
Mass.	5	4	13	13	76	332	11	17	-	3
R.I.	-	1	1	1	22	60	3	3	-	-
Conn.	4	4	2	9	-	383	10	14	-	1
MID. ATLANTIC	73	86	32	41	1,901	1,684	111	149	5	10
Upstate N.Y.	22	25	15	12	1,249	448	20	19	-	4
N.Y. City	15	7	8	11	75	36	68	90	5	2
N.J.	10	5	3	6	149	531	13	23	-	1
Pa.	26	49	6	12	428	669	10	17	-	3
E.N. CENTRAL	80	103	22	34	25	275	58	77	-	10
Ohio	37	45	9	6	22	8	11	9	-	3
Ind.	8	5	3	4	3	3	2	11	-	4
Ill.	-	13	1	9	-	17	15	31	-	3
Mich.	27	21	7	13	-	2	23	17	-	-
Wis.	8	19	2	2	U	245	7	9	-	-
W.N. CENTRAL	21	26	8	6	50	66	36	17	-	4
Minn.	2	6	-	-	26	37	13	6	-	2
Iowa	4	6	1	-	7	9	2	1	-	-
Mo.	10	8	5	3	15	17	9	6	-	2
N. Dak.	-	1	1	-	-	-	1	-	-	-
S. Dak.	1	1	-	-	-	-	-	-	-	-
Nebr.	4	3	-	1	-	1	5	2	-	-
Kans.	-	1	1	2	2	2	6	2	-	-
S. ATLANTIC	75	54	28	27	317	283	144	119	1	4
Del.	5	-	-	1	39	37	1	1	-	-
Md.	7	15	4	2	175	180	37	48	-	3
D.C.	3	2	-	-	10	7	7	9	-	-
Va.	6	7	2	5	17	48	11	24	-	-
W. Va.	N	N	-	4	3	1	2	1	-	-
N.C.	5	5	3	-	43	7	9	2	-	-
S.C.	5	1	3	2	3	2	4	4	-	-
Ga.	10	7	9	7	1	-	51	19	-	1
Fla.	34	17	7	6	26	1	22	11	1	-
E.S. CENTRAL	10	34	8	9	17	16	8	12	-	2
Ky.	5	7	2	3	8	5	2	2	-	2
Tenn.	1	15	3	3	4	6	2	6	-	-
Ala.	4	8	3	3	5	3	3	3	-	-
Miss.	-	4	-	-	-	2	1	1	-	-
W.S. CENTRAL	3	15	3	20	2	51	3	40	-	1
Ark.	-	-	-	1	-	-	1	3	-	-
La.	1	6	-	-	1	2	2	2	-	-
Okla.	2	3	3	1	-	-	-	2	-	-
Tex.	-	6	-	18	1	49	-	33	-	1
MOUNTAIN	19	25	17	22	12	4	21	26	-	1
Mont.	1	-	-	-	-	-	-	2	-	-
Idaho	-	1	2	1	2	2	-	3	-	1
Wyo.	3	2	-	1	-	1	-	-	-	-
Colo.	4	10	2	5	3	-	10	13	-	-
N. Mex.	1	1	2	5	1	-	1	1	-	-
Ariz.	3	7	8	4	2	-	4	3	-	-
Utah	6	2	3	1	3	-	3	2	-	-
Nev.	1	2	-	5	1	1	3	2	-	-
PACIFIC	24	34	42	49	56	41	85	108	3	41
Wash.	3	6	3	3	-	1	9	3	-	15
Oreg.	N	N	2	4	5	4	4	8	-	2
Calif.	21	23	32	41	50	35	64	89	3	18
Alaska	-	1	-	-	1	1	2	1	-	-
Hawaii	-	4	5	1	N	N	6	7	-	6
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	2	1	-	N	N	-	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 year 2001 and 2002 are provisional and cumulative (year-to-date).
† Of nine cases reported, three were indigenous and six were imported from another country.
§ Of 78 cases reported, 36 were indigenous and 42 were imported from another country.

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending June 22, 2002, and June 23, 2001 (25th Week)*

Reporting Area	Meningococcal Disease		Mumps		Pertussis		Rabies, Animal	
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	872	1,414	146	108	2,755	2,416	2,455	3,290
NEW ENGLAND	60	68	6	-	294	228	368	294
Maine	4	1	-	-	3	-	22	34
N.H.	7	8	3	-	5	10	11	6
Vt.	4	4	-	-	49	23	58	36
Mass.	30	40	2	-	230	179	123	101
R.I.	4	2	-	-	1	2	26	28
Conn.	11	13	1	-	6	14	128	89
MID. ATLANTIC	81	148	14	9	138	169	432	506
Upstate N.Y.	29	43	2	2	97	96	256	314
N.Y. City	10	25	1	4	7	29	10	13
N.J.	11	25	1	-	3	8	67	76
Pa.	31	55	10	3	31	36	99	103
E.N. CENTRAL	137	202	17	16	328	274	34	35
Ohio	49	57	3	1	196	144	10	13
Ind.	23	22	1	1	22	20	7	1
Ill.	27	47	6	11	48	34	7	4
Mich.	26	46	7	2	32	26	10	11
Wis.	12	30	-	1	30	50	-	6
W.N. CENTRAL	80	95	11	5	264	111	192	172
Minn.	20	14	3	2	84	31	13	18
Iowa	11	20	-	-	97	15	28	36
Mo.	32	34	3	-	52	46	18	14
N. Dak.	-	5	1	-	-	-	11	24
S. Dak.	2	4	-	-	5	3	32	24
Nebr.	10	9	-	1	4	2	-	1
Kans.	5	9	4	2	22	14	90	55
S. ATLANTIC	149	204	17	17	192	110	1,079	1,149
Del.	6	-	-	-	2	-	9	22
Md.	4	28	3	4	19	18	138	237
D.C.	-	-	-	-	1	1	-	-
Va.	24	25	3	2	88	12	245	213
W. Va.	-	6	-	-	6	1	85	62
N.C.	17	50	1	1	20	39	316	287
S.C.	14	20	2	1	26	18	36	58
Ga.	21	31	4	7	14	12	132	175
Fla.	63	44	4	2	16	9	118	95
E.S. CENTRAL	52	88	10	3	72	44	79	135
Ky.	8	15	4	1	22	12	13	10
Tenn.	21	34	2	-	36	18	48	106
Ala.	15	29	2	-	14	11	18	19
Miss.	8	10	2	2	-	3	-	-
W.S. CENTRAL	51	223	11	9	613	216	52	689
Ark.	20	12	-	-	293	8	-	-
La.	16	55	1	2	3	4	-	4
Okla.	14	18	-	-	34	9	52	41
Tex.	1	138	10	7	283	195	-	644
MOUNTAIN	59	70	9	8	402	869	93	122
Mont.	2	2	-	-	2	8	5	16
Idaho	3	7	1	-	42	162	-	2
Wyo.	-	4	-	1	6	-	12	20
Colo.	19	27	2	2	164	162	-	-
N. Mex.	2	8	-	2	57	47	4	4
Ariz.	18	11	-	1	89	456	71	78
Utah	4	7	4	1	26	23	-	1
Nev.	11	4	2	1	16	11	1	1
PACIFIC	203	316	51	41	452	395	126	188
Wash.	38	39	-	1	174	63	-	-
Oreg.	33	37	N	N	73	25	1	-
Calif.	126	230	42	23	196	289	101	152
Alaska	1	2	-	1	2	1	24	36
Hawaii	5	8	9	16	7	17	-	-
Guam	-	-	-	-	-	-	-	-
P.R.	2	4	-	-	1	-	41	58
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	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 year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending June 22, 2002, and June 23, 2001 (25th Week)*

Reporting Area	Rocky Mountain Spotted Fever		Rubella				Salmonellosis	
			Rubella		Congenital Rubella			
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	243	140	6	11	2	-	12,782	13,900
NEW ENGLAND	-	1	-	-	-	-	767	1,025
Maine	-	-	-	-	-	-	63	100
N.H.	-	-	-	-	-	-	45	73
Vt.	-	-	-	-	-	-	29	35
Mass.	-	1	-	-	-	-	432	579
R.I.	-	-	-	-	-	-	40	54
Conn.	-	-	-	-	-	-	158	184
MID. ATLANTIC	14	7	2	4	-	-	1,600	1,912
Upstate N.Y.	3	-	1	1	-	-	527	430
N.Y. City	2	1	-	2	-	-	558	526
N.J.	2	2	1	1	-	-	188	434
Pa.	7	4	-	-	-	-	327	522
E.N. CENTRAL	3	10	-	2	-	-	2,121	1,944
Ohio	3	1	-	-	-	-	601	594
Ind.	-	1	-	-	-	-	176	175
Ill.	-	8	-	2	-	-	654	535
Mich.	-	-	-	-	-	-	372	336
Wis.	-	-	-	-	-	-	318	304
W.N. CENTRAL	26	28	-	3	-	-	980	838
Minn.	-	-	-	-	-	-	217	259
Iowa	1	1	-	1	-	-	162	132
Mo.	24	25	-	1	-	-	382	202
N. Dak.	-	-	-	-	-	-	22	15
S. Dak.	-	2	-	-	-	-	35	52
Nebr.	-	-	-	-	-	-	51	62
Kans.	1	-	-	1	-	-	111	116
S. ATLANTIC	156	51	2	1	-	-	3,155	2,948
Del.	2	-	-	-	-	-	20	33
Md.	21	9	1	-	-	-	319	309
D.C.	-	-	-	-	-	-	36	33
Va.	6	3	-	-	-	-	345	465
W. Va.	1	-	-	-	-	-	43	48
N.C.	81	23	-	-	-	-	465	437
S.C.	28	8	-	-	-	-	189	304
Ga.	14	5	-	-	-	-	732	524
Fla.	3	3	1	1	-	-	1,006	795
E.S. CENTRAL	27	31	-	-	1	-	815	778
Ky.	2	1	-	-	-	-	129	141
Tenn.	18	25	-	-	1	-	214	208
Ala.	7	2	-	-	-	-	249	229
Miss.	-	3	-	-	-	-	223	200
W.S. CENTRAL	13	7	1	-	-	-	463	1,519
Ark.	-	4	-	-	-	-	239	202
La.	-	1	-	-	-	-	80	282
Okla.	13	2	-	-	-	-	142	114
Tex.	-	-	1	-	-	-	2	921
MOUNTAIN	4	5	-	-	-	-	907	886
Mont.	1	1	-	-	-	-	40	36
Idaho	-	1	-	-	-	-	56	52
Wyo.	2	1	-	-	-	-	24	28
Colo.	-	-	-	-	-	-	234	244
N. Mex.	-	-	-	-	-	-	121	112
Ariz.	-	-	-	-	-	-	276	240
Utah	-	2	-	-	-	-	63	96
Nev.	1	-	-	-	-	-	93	78
PACIFIC	-	-	1	1	1	-	1,974	2,050
Wash.	-	-	-	-	-	-	179	201
Oreg.	-	-	-	-	-	-	181	122
Calif.	-	-	1	-	-	-	1,467	1,548
Alaska	-	-	-	-	-	-	34	22
Hawaii	-	-	-	1	1	-	113	157
Guam	-	-	-	-	-	-	-	8
P.R.	-	-	-	3	-	-	69	417
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	17	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending June 22, 2002, and June 23, 2001 (25th Week)*

Reporting Area	Shigellosis		Streptococcal Disease, Invasive, Group A		*Streptococcus pneumoniae*, Drug Resistant, Invasive		*Streptococcus pneumoniae*, Invasive (<5 Years)	
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	6,057	6,808	2,237	2,132	1,242	1,714	117	302
NEW ENGLAND	111	114	110	154	6	80	11	67
Maine	3	4	14	10	-	-	-	-
N.H.	4	2	23	9	-	-	-	-
Vt.	-	3	9	9	3	7	1	-
Mass.	79	78	54	48	-	-	10	40
R.I.	5	7	10	6	3	-	-	1
Conn.	20	20	-	72	-	73	-	26
MID. ATLANTIC	353	760	394	362	75	105	40	71
Upstate N.Y.	73	292	196	156	67	103	40	71
N.Y. City	182	206	98	113	U	U	-	-
N.J.	48	129	71	62	-	-	-	-
Pa.	50	133	29	31	8	2	-	-
E.N. CENTRAL	632	1,034	330	519	117	117	34	78
Ohio	321	428	137	132	10	-	1	-
Ind.	37	118	20	41	102	117	24	36
Ill.	165	239	4	169	2	-	-	27
Mich.	68	147	169	133	3	-	9	15
Wis.	41	102	-	44	-	-	-	-
W.N. CENTRAL	541	649	154	214	142	83	25	25
Minn.	107	223	78	80	48	40	25	24
Iowa	51	144	-	-	-	-	-	-
Mo.	64	123	33	53	6	9	-	-
N. Dak.	15	13	-	7	1	2	-	1
S. Dak.	147	67	9	7	1	3	-	-
Nebr.	104	37	13	23	23	9	-	-
Kans.	53	42	21	44	63	20	-	-
S. ATLANTIC	2,421	948	436	382	761	900	6	4
Del.	6	4	1	2	3	2	-	-
Md.	406	51	67	30	-	-	-	-
D.C.	29	24	5	3	33	3	1	3
Va.	434	76	44	55	-	-	-	-
W. Va.	3	4	10	13	34	32	-	1
N.C.	140	183	84	90	-	-	-	-
S.C.	42	107	25	6	120	189	5	-
Ga.	814	128	120	123	244	266	-	-
Fla.	547	371	80	60	327	408	-	-
E.S. CENTRAL	581	682	63	45	86	168	-	-
Ky.	62	251	9	18	10	18	-	-
Tenn.	27	46	54	27	76	149	-	-
Ala.	283	125	-	-	-	1	-	-
Miss.	209	260	-	-	-	-	-	-
W.S. CENTRAL	324	1,314	35	202	30	231	1	57
Ark.	93	319	4	-	5	13	-	-
La.	55	138	-	-	24	188	1	57
Okla.	175	18	30	27	1	30	-	-
Tex.	1	839	1	175	-	-	-	-
MOUNTAIN	267	358	390	228	25	29	-	-
Mont.	2	-	-	-	-	-	-	-
Idaho	2	16	5	4	-	-	-	-
Wyo.	3	2	7	7	8	5	-	-
Colo.	54	71	143	90	-	-	-	-
N. Mex.	52	56	62	48	17	22	-	-
Ariz.	124	160	173	76	-	-	-	-
Utah	15	24	-	3	-	-	-	-
Nev.	15	29	-	-	-	2	-	-
PACIFIC	827	949	325	26	-	1	-	-
Wash.	52	81	36	-	-	-	-	-
Oreg.	41	52	-	-	-	-	-	-
Calif.	710	790	254	-	-	-	-	-
Alaska	2	3	-	-	-	-	-	-
Hawaii	22	23	35	26	-	1	-	-
Guam	-	27	-	1	-	-	-	-
P.R.	1	10	-	-	-	-	-	-
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	-	-	U	U
C.N.M.I.	7	U	-	U	-	-	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending June 22, 2002, and June 23, 2001 (25th Week)*

Reporting Area	Syphilis				Tuberculosis		Typhoid Fever	
	Primary & Secondary		Congenital					
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	2,842	2,689	140	256	5,120	5,947	110	144
NEW ENGLAND	54	23	-	3	172	216	10	7
Maine	-	-	-	-	5	7	-	1
N.H.	1	1	-	-	7	11	-	1
Vt.	1	2	-	-	-	4	-	-
Mass.	39	12	-	2	90	107	8	4
R.I.	2	3	-	-	17	33	-	-
Conn.	11	5	-	1	53	54	2	1
MID. ATLANTIC	323	229	22	37	969	1,047	27	44
Upstate N.Y.	21	7	2	2	141	144	4	11
N.Y. City	194	131	10	18	494	537	13	15
N.J.	58	42	10	17	239	238	9	17
Pa.	50	49	-	-	95	128	1	1
E.N. CENTRAL	500	465	23	39	516	615	13	19
Ohio	70	44	-	2	85	118	4	2
Ind.	33	85	-	5	49	42	2	2
Ill.	129	142	18	25	265	306	1	9
Mich.	260	178	5	4	111	116	3	3
Wis.	8	16	-	3	6	33	3	3
W.N. CENTRAL	44	38	-	5	233	234	4	6
Minn.	17	18	-	1	102	100	3	2
Iowa	-	2	-	-	14	18	-	-
Mo.	13	9	-	3	71	56	1	4
N. Dak.	-	-	-	-	-	3	-	-
S. Dak.	-	-	-	-	9	6	-	-
Nebr.	4	1	-	-	9	17	-	-
Kans.	10	8	-	1	28	34	-	-
S. ATLANTIC	722	968	28	66	994	1,095	12	19
Del.	8	7	-	-	7	9	-	-
Md.	82	123	2	2	113	98	2	5
D.C.	41	14	1	1	-	34	-	-
Va.	37	60	1	3	75	114	-	5
W. Va.	-	-	-	-	10	15	-	-
N.C.	148	224	12	8	135	153	-	1
S.C.	59	139	3	18	80	96	-	-
Ga.	104	151	1	12	167	204	6	6
Fla.	243	250	8	22	407	372	4	2
E.S. CENTRAL	265	282	10	21	348	376	4	-
Ky.	44	22	2	-	62	43	4	-
Tenn.	106	156	3	13	133	138	-	-
Ala.	87	49	4	4	107	134	-	-
Miss.	28	55	1	4	46	61	-	-
W.S. CENTRAL	385	332	39	42	700	936	-	9
Ark.	12	20	1	4	65	66	-	-
La.	58	62	-	-	-	-	-	-
Okla.	30	34	2	3	61	66	-	-
Tex.	285	216	36	35	574	804	-	9
MOUNTAIN	147	93	8	12	140	225	8	6
Mont.	-	-	-	-	4	-	-	1
Idaho	7	-	1	-	-	3	-	-
Wyo.	-	-	-	-	2	1	-	-
Colo.	10	14	1	-	22	59	4	-
N. Mex.	21	9	-	-	10	33	-	-
Ariz.	100	61	6	12	87	82	-	1
Utah	6	6	-	-	13	8	3	-
Nev.	3	3	-	-	2	39	1	4
PACIFIC	402	259	10	31	1,048	1,203	32	34
Wash.	23	30	1	-	111	103	3	2
Oreg.	5	7	-	-	44	48	2	3
Calif.	369	216	9	31	799	952	27	27
Alaska	-	-	-	-	27	23	-	-
Hawaii	5	6	-	-	67	77	-	2
Guam	-	2	-	-	-	34	-	1
P.R.	120	125	10	2	33	47	-	-
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	13	U	-	U	26	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting year 2001 and 2002 are provisional and cumulative (year-to-date).

TABLE III. Deaths in 122 U.S. cities,* week ending June 22, 2002 (25th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	582	394	124	39	19	6	51
Boston, Mass.	152	91	38	12	9	2	13
Bridgeport, Conn.	30	26	3	-	1	-	1
Cambridge, Mass.	21	15	3	2	1	-	3
Fall River, Mass.	17	13	3	1	-	-	-
Hartford, Conn.	72	53	12	6	1	-	6
Lowell, Mass.	23	16	4	3	-	-	1
Lynn, Mass.	12	7	4	1	-	-	2
New Bedford, Mass.	30	20	8	1	1	-	2
New Haven, Conn.	23	17	2	2	-	2	4
Providence, R.I.	60	44	13	1	1	1	3
Somerville, Mass.	4	2	1	1	-	-	-
Springfield, Mass.	47	26	12	4	4	1	3
Waterbury, Conn.	34	22	10	2	-	-	3
Worcester, Mass.	57	42	11	3	1	-	10
MID. ATLANTIC	2,211	1,543	435	168	30	35	107
Albany, N.Y.	43	27	8	4	1	3	1
Allentown, Pa.	22	22	-	-	-	-	1
Buffalo, N.Y.	87	62	21	3	-	1	11
Camden, N.J.	47	22	14	4	2	5	5
Elizabeth, N.J.	U	U	U	U	U	U	U
Erie, Pa.	38	31	5	1	-	1	1
Jersey City, N.J.	43	30	8	4	-	1	-
New York City, N.Y.	1,015	701	211	83	13	7	40
Newark, N.J.	44	17	11	13	-	3	5
Paterson, N.J.	12	6	4	1	-	1	-
Philadelphia, Pa.	426	292	82	38	9	5	14
Pittsburgh, Pa.§	37	30	5	1	-	1	4
Reading, Pa.	21	15	4	1	1	-	1
Rochester, N.Y.	118	92	18	6	1	1	5
Schenectady, N.Y.	21	19	2	-	-	-	2
Scranton, Pa.	23	19	3	1	-	-	1
Syracuse, N.Y.	153	116	25	6	3	3	14
Trenton, N.J.	31	19	9	-	-	3	1
Utica, N.Y.	21	18	2	1	-	-	1
Yonkers, N.Y.	9	5	3	1	-	-	-
E.N. CENTRAL	1,593	1,044	322	137	38	52	114
Akron, Ohio	62	40	15	3	1	3	3
Canton, Ohio	40	29	9	2	-	-	1
Chicago, Ill.	U	U	U	U	U	U	U
Cincinnati, Ohio	94	55	17	6	5	11	11
Cleveland, Ohio	106	57	27	12	1	9	8
Columbus, Ohio	185	120	39	15	3	8	13
Dayton, Ohio	131	107	17	5	1	1	16
Detroit, Mich.	197	109	51	28	6	3	17
Evansville, Ind.	51	36	7	6	1	1	5
Fort Wayne, Ind.	48	32	10	4	-	2	4
Gary, Ind.	8	4	2	1	1	-	-
Grand Rapids, Mich.	24	18	3	1	1	1	3
Indianapolis, Ind.	189	116	40	23	6	4	11
Lansing, Mich.	45	37	4	3	-	1	4
Milwaukee, Wis.	139	89	34	9	3	4	8
Peoria, Ill.	37	28	8	-	-	1	3
Rockford, Ill.	52	37	7	6	2	-	1
South Bend, Ind.	39	23	6	6	3	1	2
Toledo, Ohio	93	62	20	5	4	2	4
Youngstown, Ohio	53	45	6	2	-	-	-
W.N. CENTRAL	697	462	146	40	26	23	41
Des Moines, Iowa	71	49	13	5	2	2	8
Duluth, Minn.	25	21	2	1	1	-	1
Kansas City, Kans.	32	15	12	2	2	1	1
Kansas City, Mo.	75	54	15	3	2	1	5
Lincoln, Nebr.	53	46	6	1	-	-	3
Minneapolis, Minn.	73	43	18	3	2	7	8
Omaha, Nebr.	79	49	18	3	6	3	7
St. Louis, Mo.	131	75	30	13	7	6	-
St. Paul, Minn.	62	45	12	4	1	-	5
Wichita, Kans.	96	65	20	5	3	3	3
S. ATLANTIC	1,048	646	241	94	34	33	74
Atlanta, Ga.	154	89	41	20	2	2	11
Baltimore, Md.	181	89	56	24	10	2	13
Charlotte, N.C.	85	58	15	5	3	4	13
Jacksonville, Fla.	U	U	U	U	U	U	U
Miami, Fla.	94	58	17	8	6	5	2
Norfolk, Va.	59	41	11	2	2	3	3
Richmond, Va.	62	40	13	5	-	4	6
Savannah, Ga.	53	31	11	8	-	3	5
St. Petersburg, Fla.	62	46	13	1	1	1	12
Tampa, Fla.	189	131	32	15	7	4	7
Washington, D.C.	88	46	28	6	3	5	2
Wilmington, Del.	21	17	4	-	-	-	-
E.S. CENTRAL	837	559	178	58	23	19	56
Birmingham, Ala.	169	119	36	8	4	2	12
Chattanooga, Tenn.	75	53	18	3	-	1	2
Knoxville, Tenn.	90	60	20	4	4	2	1
Lexington, Ky.	49	34	8	4	3	-	5
Memphis, Tenn.	161	98	33	16	7	7	10
Mobile, Ala.	88	62	18	6	2	-	2
Montgomery, Ala.	60	44	11	4	1	-	8
Nashville, Tenn.	145	89	34	13	2	7	16
W.S. CENTRAL	1,387	882	314	103	39	49	93
Austin, Tex.	86	57	17	7	2	3	4
Baton Rouge, La.	69	45	10	10	2	2	2
Corpus Christi, Tex.	68	49	10	-	3	6	4
Dallas, Tex.	182	109	47	17	6	3	9
El Paso, Tex.	61	42	13	5	1	-	2
Ft. Worth, Tex.	142	87	29	16	4	6	14
Houston, Tex.	313	165	93	28	14	13	22
Little Rock, Ark.	72	46	14	3	2	7	4
New Orleans, La.	U	U	U	U	U	U	U
San Antonio, Tex.	226	157	48	10	4	7	17
Shreveport, La.	60	47	13	-	-	-	4
Tulsa, Okla.	108	78	20	7	1	2	11
MOUNTAIN	834	556	169	66	27	16	58
Albuquerque, N.M.	110	67	23	11	5	4	5
Boise, Idaho	38	27	8	1	1	1	4
Colo. Springs, Colo.	49	30	13	3	3	-	-
Denver, Colo.	102	67	22	6	3	4	6
Las Vegas, Nev.	240	149	61	22	5	3	16
Ogden, Utah	32	29	2	1	-	-	4
Phoenix, Ariz.	U	U	U	U	U	U	U
Pueblo, Colo.	25	22	2	1	-	-	4
Salt Lake City, Utah	109	73	19	10	5	2	12
Tucson, Ariz.	129	92	19	11	5	2	7
PACIFIC	1,641	1,155	310	109	44	22	97
Berkeley, Calif.	18	11	6	1	-	-	1
Fresno, Calif.	104	75	11	10	7	1	11
Glendale, Calif.	26	23	1	2	-	-	1
Honolulu, Hawaii	75	52	15	2	3	3	4
Long Beach, Calif.	81	57	16	6	-	2	4
Los Angeles, Calif.	544	373	113	35	16	7	-
Pasadena, Calif.	28	19	5	3	-	1	5
Portland, Oreg.	113	78	24	9	1	1	10
Sacramento, Calif.	186	138	29	12	4	3	25
San Diego, Calif.	163	111	31	10	7	3	16
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	U	U	U	U	U	U	U
Santa Cruz, Calif.	36	22	10	3	1	-	2
Seattle, Wash.	112	79	22	8	2	1	9
Spokane, Wash.	46	35	8	3	-	-	5
Tacoma, Wash.	109	82	19	5	3	-	4
TOTAL	10,830¶	7,241	2,239	814	280	255	691

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.

(Continued from page 552)

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Erratum: Vol. 51, No. RR-3

The *MMWR Recommendations and Reports*, "Prevention and Control of Influenza: Recommendations of the Advisory Committee on Immunization Practices," published on April 12, 2002, contained an inconsistency in the recommended timing of vaccination of target groups. In the section, "Vaccination in October and November," persons at increased risk for influenza-related complications (e.g., persons aged ≥65 years and persons aged 6 months–64 years with high-risk medical conditions) and health-care workers were recommended for vaccination in October. In addition, children aged 6 months to <9 years receiving influenza vaccine for the first time need a booster dose ≥1 month after the first dose and, thus, also were recommended to be vaccinated in October or earlier. However, in the section, "Timing of Organized Vaccination Campaigns," household contacts of persons at high risk were also included among those recommended to begin vaccination in October, but children aged <9 years receiving vaccine for the first time were not discussed.

To clarify, vaccination of the following groups should begin in October, regardless of the setting in which a person receives vaccination:

- persons at increased risk for influenza-related complications (persons aged ≥65 years, persons aged 6 months–64 years with certain medical conditions, and healthy children aged 6–23 months);*
- health-care workers;
- household contacts of persons at increased risk for influenza-related complications (including contacts of infants aged <6 months who are not eligible for influenza vaccine); and
- children aged 6 months to <9 years receiving influenza vaccine for the first time.

The current projected distribution of U.S. influenza vaccine for 2002–2003, on the basis of aggregate manufacturer's estimates, is 92–97 million doses, with the majority of doses expected to be distributed by the end of October. This projection is based on early estimates and might change as the season progresses. Thus, supplies are expected to be adequate for prioritization of persons at increased risk for influenza complications, their household contacts, and health-care workers for vaccination in October.

* This group also might be offered vaccination in September, if available, when seen for routine care or during hospitalization to avoid missed opportunities for vaccination.

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Data in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the following Friday. Address inquiries about the *MMWR* Series, including material to be considered for publication, to Editor, *MMWR* Series, Mailstop C-08, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333; telephone 888-232-3228.

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