



- 1129 Evaluation of Bacillus anthracis Contamination Inside the Brentwood Mail Processing and Distribution Center — District of Columbia, October 2001
- 1133 Progress Toward Interrupting Indigenous Measles Transmission — Region of the Americas, January– November 2001
- 1137 Rubella Outbreak Arkansas, 1999
- 1140 Notices to Readers



Evaluation of *Bacillus anthracis* Contamination Inside the Brentwood Mail Processing and Distribution Center — District of Columbia, October 2001

During October 19–21, 2001, four postal workers at the Brentwood Mail Processing and Distribution Center in the District of Columbia were hospitalized with inhalational anthrax; two of the workers died. The building, which was closed on October 21, was believed to have been contaminated by a letter containing *Bacillus anthracis* spores sent to the Hart Senate Office Building (HSOB) that had passed through the postal facility on October 12. A second contaminated letter addressed to another U.S. senator that was processed through the same mail sorter and sort run as the first letter was discovered on November 17. This report describes the results of CDC's evaluation of *B. anthracis* in the facility, which showed widespread contamination of the facility and suggest that wipe samples and high efficiency particulate air (HEPA) vacuum samples complement each other in assessing contamination.

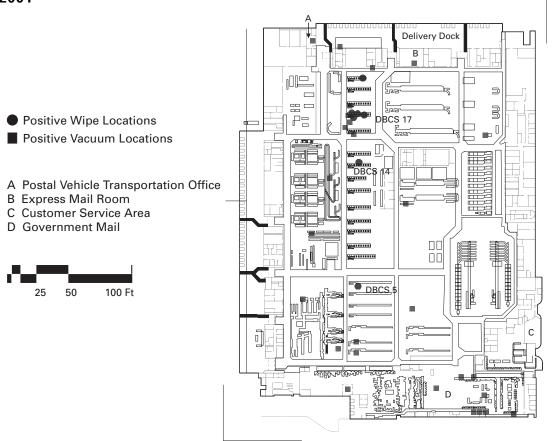
A U.S. Postal Service investigation indicated that, on late October 11 or early October 12, the letter sent to one U.S. senator entered the building in a mailbag through a loading dock near the Postal Vehicle Transportation Office (Figure 1). The bag was opened and the contents separated into bar-coded trays and moved by all-purpose carrier (APC) to a large tray-sorting machine. The APC tray then went to delivery bar-code sorter (DBCS)* 17, where the letter was manually fed into the machine at 7:10 a.m. The letter was then transported by APC to the government mail section of the facility and was transported to HSOB at approximately noon on October 12. Sometime during 8 a.m.–9:40 a.m., the DBCS machine that processed the letter was opened, and compressed air at 70 lbs. per square inch was used to clean debris and dust from conveyor belts and optical reading heads.

On October 18, before recognition of inhalational anthrax cases, a Postal Service contractor collected 29 swab samples from the mail sorting area of the Brentwood facility. On October 20, CDC initiated an investigation of the Brentwood facility. As part of this investigation, CDC extended the evaluation of *B. anthracis* contamination in the Brentwood facility.

On October 23, CDC investigators and Postal Service contractors selected and marked sampling locations. Sampling for *B. anthracis* spores began on October 24 using three

^{*}The DBCS machines move mail along internal conveyor belts and rollers through a series of turns and compressions at 32 miles per hour until the mail lands in the appropriate collection bin for distribution.

FIGURE 1. Diagram of Brentwood Mail Processing and Distribution Center and location of positive identification of *Bacillus anthracis* spores — District of Columbia, October 2001



techniques: surface wipe sampling, surface vacuum sampling, and air sampling (1). The evaluation focused on the path of the HSOB letter through the facility and the work locations of the known anthrax patients. To evaluate the extent of *B. anthracis* contamination, additional samples were collected throughout the facility, including the administrative areas on the second level and the customer service area at the front of the building. Wipe samples were submitted to CDC for culture and analysis. Vacuum and air samples were analyzed by a contract laboratory. Suspect culture colonies were screened using standardized Laboratory Response Network (LRN) Level A testing procedures for identification of *B. anthracis* (2) and were confirmed by direct fluorescent antibody staining and gamma phage lysis (3).

Surface Wipe Sampling

Selected surfaces (e.g., table or desk tops, sorting machines, sorting bins, control consoles of sorting machines, and ventilation ducts) were sampled using moistened sterile cotton gauze pads. Cultures from samples were reported as either positive or negative for colonies of *B. anthracis*.

Twelve days after the contaminated letter sent to HSOB passed through the facility, eight (7%) of 114 surface wipe samples were positive for isolates of *B. anthracis*. Four of the positive samples were collected on and around DBCS machine 17, which processed

the contaminated letters, and one was from an air supply duct approximately 12 feet above the machine. The remaining three positive samples were from areas on distant DBCS machines. None of the wipe samples collected in the administration area or in the customer service area was positive for isolates of *B. anthracis*. All wipe samples collected in the Postal Vehicle Transportation office, express mail room, and the government mail area were negative.

Surface Vacuum Sampling

Surface vacuum samples were collected by inserting a cone-shaped filtering "sock" (dust collection trap) into the nozzle of a HEPA vacuum cleaner with a high-efficiency (0.1 μ m pore size) filter. The vacuum nozzle was mechanically cleaned with an alcohol wipe between samples to dislodge spores and prevent cross-contamination. Several grams of dust were collected inside each vacuum sock (1) and were submitted to a contract laboratory for culture and analysis. Results were reported as number of colony forming units per gram of material collected (CFU/g); a CFU can represent a single *B. anthracis* spore or an aggregate of several spores and may not correlate directly to the number of spores present.

Of 39 vacuum dust samples, B. anthracis was isolated in 27 (69%). Reported B. anthracis concentrations in positive samples ranged from 3 CFU/g to 9.7 million CFU/g. All eight samples collected in the government mail area were positive. No wipe samples collected in this area were positive. All samples from the high-speed sorting machines and from areas near DBCS sorting machines were positive (8,700 CFU/g to 2 million CFU/g). A relatively high concentration of spores was found in the sample collected on the overnight hot mail sorting bin (13,000 CFU/g), which was near the end of DBCS machine 5 that had a positive wipe sample collected inside it but had not processed the contaminated letters addressed to the U.S. senators. Concentrations on the loading dock and in the express mail room were relatively low. Although the concentrations tended to decrease with distance from the DBCS machine that processed both letters, spores also were found in areas far from DBCS machines. The three samples collected in the second floor administration area and two samples collected in the customer service area were negative. The vacuum samples indicated wide distribution of B. anthracis spores, with the greatest concentrations associated with work areas along the path of the HSOB letter.

Air Sampling

Air samples were collected on open-faced 37 mm mixed cellulose ester filters (0.8 μ m pore size) in polystyrene cassettes attached to sampling pumps operated at 2.0 liters per minute. The sampling pumps were placed in fixed locations throughout the facility for approximately 30 hours. Results were reported as positive or negative for isolates of *B. anthracis*.

Twelve air samples for airborne *B. anthracis* spores were collected 12 days after the contaminated letters were processed, which was 4 days after the building was closed and the ventilation system was turned off. The ventilation system was not operating during the sampling period. All air samples were negative for *B. anthracis*, indicating that no airborne spores were detectable during the sampling period.

Reported by: D Small, IT Corporation, Virginia Beach, Virginia. B Klusaritz, IT Corporation, Somerset, New Jersey. P Muller, Muller Architects, Cincinnati, Ohio. National Institute for Occupational Safety and Health; National Center for Infectious Diseases; and EIS officers, CDC.

Editorial Note: The four inhalational anthrax cases among Brentwood facility employees indicate that aerosolization of *B. anthracis* occurred at the facility. The extent to which environmental sampling can detect potential aerosol dispersion and widespread contamination is uncertain. In the absence of positive air samples, contamination detected by wipe or vacuum sampling away from the path of the known source of contamination (i.e., the letters addressed to the two U.S. senators) could indicate either airborne dispersion from that source or contamination from a different, unrecognized source (e.g., another contaminated letter). However, even without positive air samples, two patterns of sampling results are particularly useful as evidence of possible aerosolization. Either contamination of surfaces such as air ducts and rafters, which would be unlikely to have contact with a contaminated source, or the dispersion pattern of multiple positive samples suggest the likelihood of aerosolization.

Environmental sampling results in this investigation indicated widespread contamination from the letters processed for delivery to the offices of two U.S. senators. Most vacuum sample results were positive, indicating *B. anthracis* spore contamination in areas that were negative by wipe testing, and this contamination was found throughout the mail processing area. One possible explanation for this difference may be the use of a cotton wipe material, which subsequently was found to decrease spore recoveries; CDC investigators now use rayon-tipped swabs or rayon wipes moistened with sterile water (1). Only the second level administrative area and the customer service area appeared to be free of spores by all methods. The air sampling results indicated that airborne spores were not detectable during the sampling period. However, these samples were not collected under normal airflow conditions when mail was being processed or when dust was blown from machinery with compressed air. The use of compressed air to clean sorting machines may have contributed to the aerosolization and dispersion of *B. anthracis* spores in the Brentwood facility. Therefore, HEPA vacuum cleaning has been substituted for blowing for cleaning sorting machines.

Although sampling with surface wipes has been the standard sampling method and has advantages for sampling some small surfaces, surface wipes have several limitations. Wipe samples might miss minimally contaminated surfaces or smaller, discrete contaminated areas. Also, the method of extracting *B. anthracis* from the wipe samples might yield different results than the extraction method for vacuum sock samples. Because it is not feasible to wipe-sample all surfaces within a building, vacuum samples provide an important tool for maximizing the surfaces that can be evaluated during an investigation. The vacuum sample locations at the Brentwood facility were selected to collect large quantities of dust and to cover broader surface areas than wipes. Although cross-contamination between vacuum samples is possible, precleaning of the vacuum nozzle before each sample and use of a high-efficiency filter appeared to be effective because negative vacuum samples were interspersed among heavily contaminated samples.

The results of the environmental sampling at the Brentwood facility might be used to assess the extent of contamination and are consistent with the aerosolization indicated by the cases of inhalational anthrax. They also should help guide cleanup efforts and can serve as a baseline for follow-up environmental assessments after the building has been cleaned. In addition, these results suggest that vacuum sampling is a useful complement to wipe surface samples, particularly when widespread contamination is suspected. CDC continues to assess optimal strategies and methods for sampling of contamination by *B. anthracis*. Current guidelines for collecting environmental samples are available at http://www.bt.cdc.gov/DocumentsApp/Anthrax/11132001/final42.asp.

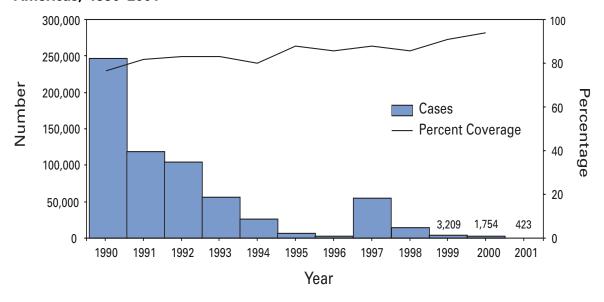
References

- 1. CDC. Procedures for collecting surface environmental samples for culturing *Bacillus anthracis*. Available at http://www.bt.cdc.gov/DocumentsApp/Anthrax/11132001/final42.asp. Accessed November 2001.
- CDC, American Society for Microbiology, Association of Public Health Laboratories. Basic diagnostic testing protocols for level A laboratories for the presumptive identification of Bacillus anthracis. Available at http://www.asmusa.org/pcsrc/ban.asm.la.cp.102401f.pdf. Accessed October 2001.
- 3. Turnbull PC. Definitive identification of *Bacillus anthracis*—a review. J Appl Microbiol 1999;87:237–40.

Progress Toward Interrupting Indigenous Measles Transmission — Region of the Americas, January–November 2001

In 1994, countries in the Region of the Americas set a goal of interrupting indigenous measles transmission by the end of 2000 (1). During 1990–2000, measles cases declined 99.3%, from approximately 250,000 to 1,754 (Figure 1). During 2000, transmission occurred in five of 41 countries that report to the Pan American Health Organization (PAHO) (Argentina, Bolivia, Brazil, the Dominican Republic, and Haiti), and confirmed cases were reported in 16 (<1%) of 12,010 municipalities (2–4). During 2001, measles transmission occurred in the Dominican Republic, Haiti, and Venezuela; no outbreaks were reported in Argentina, Bolivia, or Brazil. This report summarizes measles circulation patterns and efforts to interrupt measles transmission in the Americas during 2001.

FIGURE 1. Number of reported and confirmed measles cases* and percentage of routine measles vaccination coverage among infants, by year — Region of the Americas, 1990–2001[†]



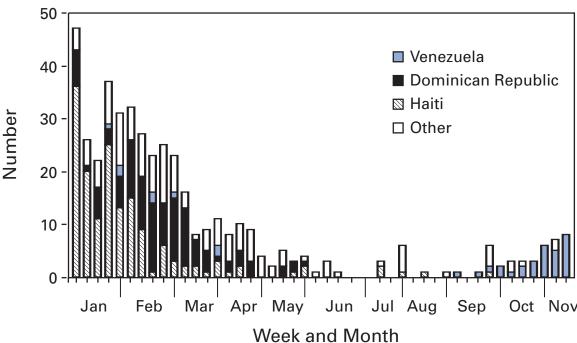
^{* 1990–1994=}total number of reported cases; 1995–2001=total number of confirmed cases.

[†] As of November 26, 2001 (423 confirmed cases from nine countries).

The measles vaccination strategy recommended by PAHO includes a one-time national "catch-up" campaign for all children aged 1–14 years, routine "keep-up" vaccination for infants aged 1 year, and national "follow-up" campaigns every 3–5 years for all children aged 1–4 years, regardless of measles vaccination history (5). Thirty-nine (95%) of the 41 countries that report to PAHO conducted catch-up campaigns during 1989–1995 and follow-up campaigns since 1994. Routine coverage increased from 80% in 1994 to 94% in 2000 but varied by country from 75% to 99%; coverage was lowest in Colombia (75%), Haiti (80%), Belize (82%), Venezuela and Costa Rica (84%), Guyana (86%), Jamaica (88%), and the Dominican Republic (88%). Vaccination efforts also have been focused on populations at high risk for measles transmission (e.g., health-care workers, military personnel, teachers, university students, workers in the tourist industry, persons living or working in prisons and large factories, and young adults from rural areas who have moved to cities) in Argentina, Bolivia, Chile, the Dominican Republic, Haiti, Peru, Uruguay, and Venezuela (6).

During January–mid-November 2001, a total of 423 confirmed measles cases were reported in the Americas, the lowest number of cases for the first 46 weeks of any year since implementation of the eradication program in 1996 and a 65% decrease compared with the 1,202 cases reported during the same period in 2000 (Figure 2). The number of cases reported annually has decreased substantially since the resurgence that occurred in Argentina and Brazil during 1997 (7). In 1998, a total of 14,332 confirmed cases were reported from 17 (41%) of the 41 PAHO-reporting countries. In 1999, a total of 3,209 confirmed cases were reported from 11 countries, 78% fewer cases than in 1998 and 94% fewer than in 1997 (7,8). The 1,754 cases reported during 2000 was the lowest number since the goal to interrupt measles transmission was set in 1994 (Figure 1) (7).

FIGURE 2. Number of measles cases, by week and month — Region of the Americas, January–November 2001*



^{*} As of November 17.

During 1999–2000, a total of 528 confirmed measles cases were reported in the Dominican Republic. During January–mid-November 2001, a total of 113 (27%) of the 423 confirmed cases in the region were reported from 18 provinces. The highest attack rates occurred among children aged <5 years (range: from two cases per 100,000 children aged 1–4 years to 18 cases per 100,000 children aged 6–11 months), children aged 5–9 years (one case per 100,000), and adults aged 20–29 years (two cases per 100,000). As of November 17, 2001, a total of 1,097 suspected cases of measles have been investigated; the last patient with a confirmed case of illness had symptom onset during May 2001.

In Haiti, no confirmed cases were reported during 1998–1999. In 2000, an outbreak probably caused by measles imported from the Dominican Republic began in Artibonite; 992 (57%) of 1,754 confirmed cases in the region were reported. From January 2000 to April 2001, fixed-post vaccination campaigns for all vaccines were conducted nation-wide; coverage ranged from 45% to 65%. A house-to-house vaccination campaign was conducted in the most affected neighborhood of the country, Delmas, Port au Prince, interrupting transmission in that municipality. During January 1–mid-November 2001, Haiti reported 158 (37%) of the 423 confirmed cases in the region; 49% of the cases occurred among children aged <5 years. A nationwide house-to-house poliomyelitis and measles vaccination campaign began in September 2001. Active case finding is under way, including house-to-house surveillance in all municipalities and a \$100 reward for identifying laboratory-confirmed cases. No confirmed measles cases have been reported since the end of September 2001 (9).

In Venezuela during 2000, an outbreak of 22 confirmed cases among preschool and school-aged children occurred in Zulia, the most populous state, which borders Colombia. During January–June 2001, eight cases were classified as clinically confirmed, and during August–mid-November, 30 confirmed cases linked to an importation from Europe were confirmed (Figure 2). Of these 30 cases, 19 occurred in two municipalities in Falcon and 11 occurred in two municipalities in Zulia. Seventeen (57%) occurred among children aged <5 years, 12 (40%) among persons aged 22–45 years, and one among a child aged 8 years. Among children aged <5 years, two (12%) had received measles vaccine.

Following the recommendations of a PAHO-sponsored evaluation of Venezuela's National Immunization Program, the government is implementing a nationwide, house-to-house, follow-up measles and rubella vaccination campaign among children aged 1–4 years. The campaign started in November 2001 and will end in January 2002. In the campaign's first week, 878,000 children (39% of the target population of approximately 2.3 million) were vaccinated.

Reported by: H Izurieta, M Brana, V Dietz, L Venczel, P Carrasco, G Tambini, C Castillo-Solorzano, M Landaverde, CA de Quadros, Div of Vaccines and Immunizations, Pan American Health Organization, Washington, DC. C Pedreira, Pan American Health Organization, Santo Domingo; Z Garib, Ministry of Health, Dominican Republic. O Barrezueta, Pan American Health Organization; R Russo, G García, Ministry of Health, Caracas, Venezuela. F Laender, J Dobbins, J André, Pan American Health Organization; P Delormo, Ministry of Health, Port au Prince, Haiti. Caribbean Epidemiology Center, Trinidad and Tobago. Respiratory and Enteric Viruses Br, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; Global Measles Br, Global Immunization Div, National Immunization Program, CDC.

Editorial Note: The World Health Organization (WHO) has estimated that 777,000 children died as a result of measles during 2000. During 1997–1998, approximately 100 measles-related deaths were reported in Argentina and Brazil, most among unvaccinated infants and preschool-aged children. Vaccinating poor children against measles

substantially improves their long-term chances for survival (10). During 1990–2000, implementation of national vaccination and surveillance programs reduced measles incidence by 99% (5). Haiti and Venezuela are the last countries in the Americas where measles is endemic.

Surveillance data and results of molecular testing by PAHO's measles laboratory network demonstrate that measles can be imported to measles-free countries from countries where measles is endemic; therefore, all countries in the region must continue to implement vaccination and surveillance strategies. All countries in the Americas must maintain the highest possible population immunity (i.e., ≥95% among infants and children) and must strengthen surveillance to detect importations. In addition, countries must target vaccination efforts to susceptible adolescents and young adults who are at risk for exposure to measles.

In all countries of the Americas, the elimination of measles will require improving technical and managerial capabilities such as maintaining the cold chain and the local capacity to plan and conduct vaccination campaigns on a regular basis (once every 3–5 years). In countries that report adequate routine coverage, local data need to be verified to identify areas where coverage persists at low levels. Even so, ongoing transmission of measles probably would be detected in the Americas as a result of intense surveillance and active case finding at health-care centers in high-risk communities. PAHO is implementing standard supervisory instruments for monitoring vaccination coverage, investigating measles outbreaks, and validating routine surveillance. In addition, experience in the Americas has demonstrated that house-to-house vaccination is the most efficient method of vaccinating persons living in high-risk and hard-to-reach areas. During measles outbreaks in Haiti and Bolivia, door-to-door vaccination was essential in reaching target coverage levels.

The importations of measles virus in the Americas during 2001 underscore the importance of controlling measles in other regions of the world; therefore, PAHO has encouraged other WHO regions to accelerate their measles control programs. In March 2001, WHO and United Nations Children's Fund (UNICEF) announced a joint initiative to decrease by 50% the number of global measles deaths by 2005. This is an important step toward a concerted effort to accelerate global measles control.

References

- 1. Pan American Health Organization. Elimination of measles in the Americas. XXIV Meeting of the Pan American Sanitary Conference, Washington, DC, 1995.
- 2. Pan American Health Organization, Division of Vaccines and Immunization. Good surveillance is key to measles eradication. EPI Newsletter 1999;21:3–4.
- 3. Pan American Health Organization, Division of Vaccines and Immunization. USA interrupts measles transmission. EPI Newsletter 1998;20:1–2.
- 4. Pan American Health Organization, Division of Vaccines and Immunization. Measles outbreak in an isolated community in Bolivia. EPI Newsletter 2000;22:1–3.
- 5. de Quadros CA, Olivé JM, Hersh BS, et al. Measles elimination in the Americas—evolving strategies. JAMA 1996;275:224–9.
- Pan American Health Organization, Division of Vaccines and Immunization. Final report: conclusions and recommendations. Washington, DC: Pan American Health Organization, 14th Meeting of the Technical Advisory Group Meeting on Vaccine-Preventable Diseases, Foz do Iguacu, Brazil 2000; document PAHO/HVP/2000-000098.
- 7. Pan American Health Organization. Progress toward interrupting indigenous measles transmission—Region of the Americas, January 1999–September 2000. MMWR 2000;49:986–90.

- 8. Hersh BS, Tambini G, Nogueira AC, Carrasco P, de Quadros CA. Review of regional measles surveillance data in the Americas, 1996–1999. Lancet 2000;355:1943–8.
- 9. Pan American Health Organization, Division of Vaccines and Immunization. Haiti begins all out effort to halt measles and OPV-derived polio outbreaks. EPI Newsletter 2001;22:2.
- Koening AM, Bishai D, Khan MA. Health interventions and health equity: the example of measles vaccination in Bangladesh. Population and Development Review 2001;27:283–302.

Rubella Outbreak — Arkansas, 1999

Rubella is a viral disease that usually presents as a mild febrile rash illness in adults and children; however, 20%-50% of infected persons are asymptomatic. Rubella can have severe adverse effects on the fetuses of pregnant women who contract the disease during the first trimester of pregnancy, causing a wide range of congenital defects known as congenital rubella syndrome (CRS). The primary objective of the rubella vaccination program is to prevent intrauterine rubella infection. The primary strategies for rubella control in the United States are universal childhood vaccination, prenatal screening of pregnant women for rubella immunity, and vaccinating rubella-susceptible women postpartum. After the licensure of rubella vaccine in 1969, the incidence of rubella and CRS decreased 99% by 1997 (1). However, outbreaks continue to occur (2,3). During September 7-October 26, 1999, a total of 12 cases of rubella were confirmed in three Arkansas counties. This report describes this outbreak, which prompted reimplementation of routine rubella control and prevention measures. These included prenatal screening for rubella immunity and postnatal vaccination of rubella-susceptible women and the initiation of prevention and control activities in foreign-born populations that are less likely to be vaccinated.

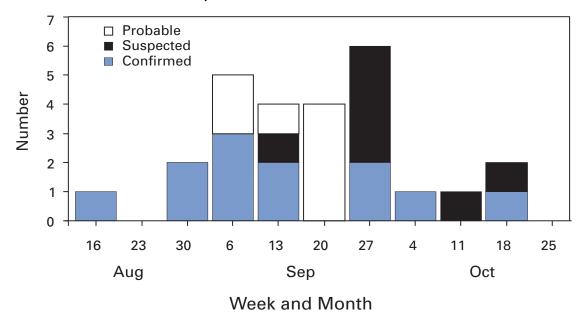
On September 7, a pregnant woman aged 23 years presented to a public health clinic in Fort Smith, Sebastian County, Arkansas, with rash and fever. The woman was from Mexico and had lived in Arkansas for 1 year before onset of illness. She later delivered a stillborn infant with pathologic findings compatible with intrauterine rubella infection. The index patient was a household contact of a Mexican aged 20 years who also was confirmed as infected with rubella by EIA testing. Both patients worked in a poultry processing plant in Fort Smith.

Outbreak investigators interviewed household and workplace contacts, suspected patients, and potentially exposed pregnant women and tested them for rubella IgG and IgM antibodies. An additional 10 cases were confirmed by laboratory testing (Figure 1) in this and two other counties. A definitive laboratory diagnosis or epidemiologic link could not be established for an additional 14 patients (seven meeting the case definition for suspected and seven for probable rubella). Among the 12 confirmed cases, the median age was 23 years (range: 18–34 years); 10 (83%) were Hispanic, nine (75%) were foreign-born, and six (50%) were women. All six female patients were pregnant, and one became infected during the first trimester of pregnancy. Ten (83%) patients worked in poultry processing plants; the index patient and seven others worked at the same plant in Fort Smith. Nine of these 10 patients were Hispanic and were foreign-born (Mexico and El Salvador).

Screening of pregnant women for rubella immunity was not part of routine prenatal care in Arkansas' public health clinics when this outbreak occurred. Because the index patient and other potential patients exposed persons in the clinic waiting room, and

Rubella Outbreak — Continued

FIGURE 1. Number of probable, suspected, and confirmed rubella cases*, by week and month of onset — Arkansas, 1999



* Suspected=Any generalized rash illness with acute onset in persons residing in the affected counties; Probable=Meets the clinical case definition, has no or noncontributory serologic or virologic testing, and is not epidemiologically linked to a laboratory-confirmed case; Confirmed=Laboratory confirmed or meets the clinical case definition and is epidemiologically linked to a laboratory-confirmed case.

because the proportion of rubella-susceptible pregnant women attending the clinic was unknown, a serosusceptibility survey was conducted at the clinic during September 23-October 29. A questionnaire was administered to and serum specimens were taken from 155 women consecutively attending the clinic and tested for rubella IgG and IgM. Of the 155 women tested, 79 (51%) were Hispanic, 64 (41%) were white, five were black (3%), three (2%) were Asian, and four (3%) were of unknown race/ethnicity. Seventy-three (47%) women were foreign-born; 72 (99%) were born in Central America and Mexico. The median age was 23 years (range: 15-43 years). Of the 155 women, 46 (32%) reported a history of rubella vaccination, 25 (17%) had not been vaccinated, 74 (51%) did not know their rubella vaccination status, and no data were available for the remaining 10 (6%). In comparison with the relatively low number of women with a selfreported history of rubella vaccination, 134 (86%) women had positive test results for rubella IgG, 14 (9%) had negative test results, and seven (5%) had equivocal or missing test results. No association was found between IgG-positivity and nationality or history of vaccination. Of the 21 women who had equivocal or negative results, 11 (52%) reported a previous delivery in the United States, and 19 (90%) missed at least one opportunity for rubella vaccination.

Reported by: P Dozier, J Bates, P Wiggins, J Wilhelm, Health Unit, Fort Smith; H Mabry, Northwest Arkansas Health Region; C Beets, J Burnett, M Foreman, L Gladden, L Himstedt, B Ledford, R Nugent, MD, K Sayyed, S Snow, MD, A Zoldessy, Arkansas Dept of Health. Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; Rubella/Mumps Activity, Div of Epidemiology and Surveillance, National Immunization Program; and an EIS Officer, CDC.

Rubella Outbreak — Continued

Editorial Note: The findings in this report highlight the absence of routine, recommended prevention and control efforts in the state and the emergence of Hispanic, foreign-born persons as the main reservoirs of rubella virus in the United States. Prenatal screening followed by postpartum vaccination against rubella is essential for the control and elimination of CRS. Although recommended by the American College of Obstetricians and Gynecologists and the Advisory Committee on Immunization Practices (4), prenatal screening for rubella was discontinued in Arkansas public health clinics during the early 1980s because of fiscal constraints. In the absence of routine prenatal screening for rubella antibodies, the immune status of pregnant women potentially exposed to rubella virus was unknown. In the United States, prenatal screening and postpartum vaccination might prevent an estimated 50% of all CRS cases (5).

Based on supplementary data reported through the national notifiable diseases surveillance system in the United States, rubella primarily affects foreign-born Hispanic adults. Among rubella patients with known ethnicity in the United States, the proportion of Hispanics increased from 19% in 1992 to 79% in 1998, compared with 83% of patients in this outbreak. In the affected plant in Fort Smith, a large proportion of the workforce was Hispanic, and many of these were born and raised abroad. In Latin America, many countries have only recently introduced rubella into their routine childhood vaccination programs. For immigrants entering the United States, vaccination efforts focus on preschool-aged children and students; adults are not routinely screened or vaccinated. To eliminate rubella and CRS in the United States, further control efforts are needed to identify and vaccinate clusters of rubella-susceptible adults and to ensure nationwide prenatal rubella screening and postpartum vaccination of rubella-susceptible women.

As a result of this outbreak, the Arkansas Department of Health (ADH), in collaboration with employers, implemented additional control efforts that focused on workplace vaccination. ADH implemented a measles-mumps-rubella (MMR) vaccine screening policy at a local employment agency that supplied temporary help for the poultry processing companies. Potential employees were required to show proof of a previous MMR vaccination or receive MMR vaccine before employment. In addition, ADH recommended that employers of large numbers of foreign-born persons provide vaccine at the plant site and offered clinics to any industry that employed large numbers of foreign-born persons in Arkansas.

ADH has reimplemented routine screening for rubella immunity in all maternity and family planning clinics. Susceptible ADH maternity patients are identified routinely and offered MMR vaccine postpartum, and family planning patients are offered MMR vaccine immediately with appropriate counseling. These measures have resulted in substantial increases in rubella seropositivity rates for pregnant women in ADH clinics. Control efforts such as these in conjunction with proven routine measures are necessary to eliminate indigenous rubella and CRS in the United States.

References

- 1. CDC. Rubella and congenital rubella syndrome—United States, 1994–1997. MMWR 1997;46:350–4.
- 2. Danovaro-Holliday MC, LeBaron CW, Allensworth C, et al. A large rubella outbreak with spread from the workplace to the community. JAMA 2000;284:2733–9.
- 3. CDC. Rubella among Hispanic adults—Kansas 1998, and Nebraska 1999. MMWR 2000;49:225-8.
- 4. CDC. Measles, mumps, and rubella—vaccine use and strategies for elimination of measles, rubella, congenital rubella syndrome and control of mumps: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1998;47(no. RR-8).
- 5. Schluter WW, Reef SE, Redd SC, Dykewicz CA. Changing epidemiology of congenital rubella syndrome in the United States. J Infect Dis 1998;178:636–41.

Notice to Readers

Updated Recommendations on the Use of Pneumococcal Conjugate Vaccine in a Setting of Vaccine Shortage — Advisory Committee on Immunization Practices

In September 2000, CDC published an interim vaccination schedule recommended by the Advisory Committee on Immunization Practices (ACIP) to be used during a pneumococcal conjugate vaccine shortage that was anticipated to be brief (1,2). Because the duration of the shortage has been longer and the severity has been greater than anticipated, ACIP has revised these recommendations to health-care providers who had been advised to conserve vaccine by decreasing the number of doses administered to healthy infants rather than to leave some infants unvaccinated. For infants who receive their first dose before age 6 months, vaccination with a maximum of 3 doses is recommended; the fourth dose should be deferred. All health-care providers should reduce the number of vaccine doses used and ordered, regardless of their current supply, so that vaccine is more widely available until supplies are adequate.

Because of greater-than-expected demand, vaccine has been back ordered for the public sector throughout most of 2001. In August, the situation worsened when facility and product testing-related limitations at the manufacturer's production sites halted distribution for several weeks. Under a full vaccination schedule, approximately 1.5 million doses are needed per month; the manufacturer estimates that 90% of the doses are used for the 4-dose infant vaccination series, and 10% are used for catch-up vaccination. During September, approximately 700,000 doses were distributed (47% of the 4-dose infant schedule), and in October, approximately 600,000 doses were distributed (40%). The manufacturer anticipates the distribution of approximately 1.2 million doses per month during November 2001–March 2002 (86%) and approximately 2.0 million doses per month during April 2002–mid-2002 (142%).

Until adequate supplies are available, ACIP recommends the following:

- 1. Vaccine should be administered to high-risk children aged <5 years as recommended by ACIP in October 2000 (1), including children with sickle cell disease and other hemoglobinopathies; anatomic asplenia; chronic diseases (e.g., chronic cardiac and pulmonary disease, and diabetes); cerebrospinal fluid leak; human immunodeficiency virus infection and other immunocompromising conditions; immunosuppressive chemotherapy or long-term systemic corticosteroid use, and children who have undergone solid organ transplantation.</p>
- 2. Healthy infants and children aged <24 months should receive a decreased number of pneumococcal conjugate vaccine doses on the basis of the age at which vaccination is initiated and the estimated amount of vaccine available to the health-care provider's practice (Table 1). On the basis of birth, cohort size and recent experience with vaccine supply, if health-care providers estimate a shortfall of <25% of the 4-dose infant schedule, a moderate shortage schedule is recommended. If estimates suggest a greater shortfall, the severe shortage schedule is recommended. If shortages are estimated to be more severe (>50%), health-care providers should set infant vaccination priorities based on the assessment of risk, deferring infants at lowest risk. Demographic risk factors for invasive infections include being black or American Indian (1); exposure risk factors include not breastfeeding and attendance at out-of-home child care (3).

Notices to Readers — Continued

TABLE 1. Updated recommendations for pneumococcal conjugate vaccine use among healthy children during moderate and severe shortages — Advisory Committee on Immunization Practices, 2001

Age at first vaccination	No shortage*	Moderate shortage	Severe shortage
<6 months	2, 4, 6, and 12–15 months	2, 4, and 6 months (defer 4th dose)	2 doses at 2–month interval in 1st 6 months of life (defer 3rd and 4th doses)
7–11 months	2 doses at 2–month interval; 12–15 month dose	2 doses at 2–month interval; 12–15 month dose	2 doses at 2–month interval (defer 3rd dose)
12-23 months	2 doses at 2–month interval	2 doses at 2–month interval	1 dose (defer 2nd dose)
>24 months	1 dose should be considered	No vaccination	No vaccination
Reduction in vaccine doses used [†]		21%	46%

^{*} The vaccine schedule for no shortage is included as a reference. Providers should not use the no shortage schedule regardless of their vaccine supply until the national shortage is resolved.

Limited data support a 2-dose schedule among infants; however, this regimen is preferable to vaccinating some children with 3 doses and not vaccinating others. Efficacy data from a randomized controlled trial prelicensure suggest that 1 or 2 doses of pneumococcal conjugate vaccine are protective during the 2-month interval before the next dose with a point estimate of 86% efficacy but a 95% confidence interval that includes zero (4). Immunogenicity data indicate increases in antibody titer following 2 doses for all vaccine serotypes except 6B (5). For all serotypes, 2 doses of conjugate vaccine probably increase antibody avidity and induce immunologic memory that is boosted by subsequent antigenic exposure. Acceptable 2-dose regimens include vaccination at ages 2 and 4 months, 2 and 6 months, or 4 and 6 months. The major advantage of regimens that begin at age 2 months is earlier provision of protection. Immunogenicity may be improved by increasing the interval between doses and vaccinating at ages 2 and 6 months or by vaccinating at ages 4 and 6 months. "Carrier priming" has been documented with the CRM₁₉₇ Haemophilus influenzae type b conjugate vaccine (6), but the impact has not been evaluated for pneumococcal conjugate vaccine. Although immunogenicity would be greater if pneumococcal conjugate vaccination were deferred until after age 6 months (e.g., ages 7 and 9 months), this regimen would leave younger infants unprotected and would require additional vaccination visits.

3. Health-care providers should maintain a list of children for whom conjugate vaccine has been deferred so that it can be administered when the supply allows. The highest priority for vaccination among children who have been deferred is infants vaccinated with 2 doses. Infants who have received 3 doses and are eligible for a fourth dose would be a second priority group.

[†] Assumes that approximately 85% of vaccine is administered to healthy infants beginning at age <7 months; approximately 5% is administered to high-risk infants beginning at age <7 months; and approximately 10% is administered to healthy children beginning at age 7 to 24 months. Actual vaccine savings will depend on a provider's vaccine use.

Notices to Readers — Continued

4. Pneumococcal polysaccharide vaccine is not licensed or recommended for children aged <2 years. Although a study indicated that administration of this vaccine at age 15–18 months may substantially boost antibody levels among children primed with 3 doses of conjugate vaccine (University of Chicago, unpublished data, 1995), this study did not use the licensed conjugate preparation. ACIP recommends additional study to evaluate the immune response to a polysaccharide vaccine booster dose among children aged 12–15 months.</p>

Because data are limited on the long-term efficacy of a 3-dose or 2-dose vaccine regimen for young infants, health-care providers are encouraged to report invasive pneumococcal disease following pneumococcal conjugate vaccine to CDC through state health departments. If pneumococcal isolates are available from vaccinated children, CDC can perform serotyping to determine whether it is a type included in the vaccine. Additional information about this study is available at http://www.cdc.gov/nip/home-hcp.htm; other information is available at CDC's Respiratory Diseases Branch, telephone 404-639-2215; fax 404-639-3970.

References

- 1. CDC. Preventing pneumococcal disease among infants and young children: recommendations of the Advisory Committee on Immunization Practices. MMWR 2000; 49(no. RR-9).
- 2. CDC. Decreased availability of pneumococcal conjugate vaccine. MMWR 2001;50:783-4.
- 3. Levine OS, Farley M, Harrison LH, Lefkowitz L, McGeer A, Schwartz B. Risk factors for invasive pneumococcal disease in children: a population-based case-control study in North America. Pediatr 1999;103:E28.
- 4. Black S, Shinefeld H, Fireman B, et al. Efficacy, safety, and immunogenicity of heptavalent pneumococcal conjugate vaccine in children. Pediatr Infect Dis J 2000;19:187–95.
- 5. Rennels MB, Edwards KM, Keyserling HL, et al. Safety and immunogenicity of heptavalent pneumococcal vaccine conjugated to CRM₁₉₇ in United States infants. Pediatrics 1998;104:604–11.
- 6. Granoff DM, Rathore MH, Holmes SJ, et al. Effect of immunity to the carrier protein on antibody responses to *Haemophilus influenzae* type b conjugate vaccines. Vaccine 1993;11(Suppl 1):S46–S51.

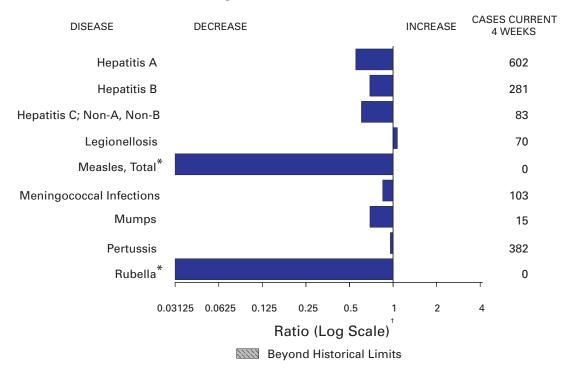
Notice to Readers

Additional Options for Preventive Treatment for Persons Exposed to Inhalational Anthrax

Many persons who were exposed to inhalational anthrax in the recent bioterrorism-related anthrax attacks have or are concluding their 60-day course of antimicrobial prophylaxis. Some persons, especially those who were exposed to high levels of anthrax spores, might want to take additional precautions. The U.S. Department of Health and Human Services (DHHS) is providing two additional options beyond the 60-day antimicrobial prophylaxis course: an extended 40-day course of antimicrobial prophylaxis and investigational postexposure treatment with anthrax vaccine.

The three preventive options for persons with risks for inhalational anthrax are 1) 60 days of antimicrobial prophylaxis, accompanied by monitoring for illness; 2) 40 additional days of antimicrobial prophylaxis (intended to provide protection against the theoretical

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending December 15, 2001, with historical data



^{*} No measles or rubella cases were reported for the current 4-week period yielding a ratio for week 50 of zero (0).

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending December 15, 2001 (50th Week)*

	Cum. 2001		Cum. 2001
Anthrax	15	Poliomyelitis, paralytic	_
Brucellosis†	90	Psittacosis [†]	26
Cholera	4	O fever [†]	22
Cyclosporiasis [†]	124	Rabies, human	4
		,	504
Diphtheria	2	Rocky Mountain spotted fever (RMSF)	591
Ehrlichiosis: human granulocytic (HGE) [†]	212	Rubella, congenital syndrome	2
human monocytic (HME) [†]	90	Streptococcal disease, invasive, group A	3,537
Encephalitis: California serogroup viral [†]	102	Streptococcal toxic-shock syndrome [†]	52
eastern equine [†]	8	Syphilis, congenital [¶]	240
St. Louis [†]	2	Tetanus	26
western equine [†]	-	Toxic-shock syndrome	120
Hansen disease (leprosy)†	86	Trichinosis	24
Hantavirus pulmonary syndrome [†]	6	Tularemia [†]	102
Hemolytic uremic syndrome, postdiarrheal [†]	156	Typhoid fever	291
HIV infection, pediatric ^{†§}	200	Yellow fever	
Plague	2		

[†] 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.

^{-:} No reported cases.
*Incidence data for reporting year 2001 are provisional and cumulative (year-to-date).

[†] Not notifiable in all states.

⁵ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV,

STD, and TB Prevention (NCHSTP). Last updated November 27, 2001. Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending December 15, 2001, and December 16, 2000 (50th Week)*

									coli O157:H7	
	Cum.	OS Cum.	Chlam Cum.	ıydia⁵ Cum.	Cryptosı Cum.	ooridiosis Cum.	NET Cum.	Cum.	PHI Cum.	LIS Cum.
Reporting Area	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000
UNITED STATES NEW ENGLAND Maine N.H. Vt. Mass. R.I. Conn.	37,411 1,403 44 37 15 704 95 508	35,685 1,863 38 30 37 1,128 91 539	691,055 22,477 1,299 1,306 622 9,675 2,831 6,744	22,658 1,406 1,077 508 9,738 2,560 7,369	3,397 125 18 16 33 50 8	2,902 135 20 23 27 35 4 26	3,021 224 27 35 14 115 17	4,391 374 31 38 36 165 20 84	2,237 228 27 31 10 112 11 37	3,581 379 28 38 37 174 18 84
MID. ATLANTIC Upstate N.Y. N.Y. City N.J. Pa.	9,346 945 5,253 1,607 1,541	7,605 676 3,919 1,554 1,456	81,232 14,755 28,459 12,445 25,573	63,470 3,488 25,325 10,038 24,619	283 110 105 14 54	376 127 167 19 63	213 157 14 42 N	434 294 23 117 N	181 136 11 34	342 79 18 117 128
E.N. CENTRAL Ohio Ind. III. Mich. Wis.	2,812 538 343 1,255 500 176	3,411 533 347 1,692 648 191	113,562 23,915 14,212 31,717 29,121 14,597	115,513 29,754 13,025 32,001 24,969 15,764	1,462 181 79 420 178 604	947 258 58 122 94 415	783 228 84 159 98 214	1,067 266 120 193 140 348	505 155 43 135 82 90	746 224 88 156 104 174
W.N. CENTRAL Minn. Iowa Mo. N. Dak. S. Dak. Nebr. Kans.	808 133 85 405 2 23 68 92	809 160 83 367 3 7 68 121	34,743 6,851 4,611 12,574 874 1,752 2,220 5,861	37,949 7,868 5,120 12,960 858 1,770 3,522 5,851	513 180 81 45 13 8 182	351 123 76 31 16 15 81	555 268 79 61 18 43 60 26	659 202 180 108 21 56 62 30	457 212 62 94 34 41 - 14	623 231 148 97 21 59 49
S. ATLANTIC Del. Md. D.C. Va. W. Va. N.C. S.C. Ga. Fla.	11,517 231 1,698 782 911 95 845 645 1,528 4,782	10,027 198 1,192 784 745 57 644 737 1,118 4,552	130,597 2,511 11,716 3,048 17,367 2,251 19,799 10,506 28,739 34,660	125,517 2,760 13,595 3,052 15,047 2,075 20,793 9,489 26,893 31,813	329 6 39 12 26 2 30 7 131 76	464 6 13 18 19 3 28 - 170 207	238 4 28 50 10 57 22 33 34	364 3 34 1 75 15 90 21 40 85	149 7 1 U 42 8 43 11 15 22	287 1 2 U 67 13 70 16 39 79
E.S. CENTRAL Ky. Tenn. Ala. Miss.	1,671 315 540 415 401	1,781 185 748 455 393	46,380 8,125 14,026 13,554 10,675	49,395 7,802 14,449 14,879 12,265	48 4 14 17 13	50 7 11 16 16	129 58 43 18 10	150 40 61 10 39	112 49 48 6 9	116 32 54 9 21
W.S. CENTRAL Ark. La. Okla. Tex.	3,856 189 806 214 2,647	3,666 170 632 322 2,542	100,481 6,695 16,602 10,074 67,110	99,667 6,140 17,286 9,050 67,191	120 8 7 15 90	160 15 13 17 115	113 14 4 34 61	223 56 15 19 133	91 26 28 37	281 38 53 17 173
MOUNTAIN Mont. Idaho Wyo. Colo. N. Mex. Ariz. Utah Nev.	1,288 15 19 4 267 137 502 110 234	1,324 14 20 9 326 140 410 133 272	40,288 1,849 1,882 801 9,752 5,767 13,886 1,870 4,481	36,389 1,386 1,814 775 9,153 5,115 12,094 2,182 3,870	235 37 22 7 42 29 9 83 6	172 10 23 5 71 21 10 28 4	288 20 75 7 88 16 31 32	422 31 73 21 156 22 56 49 14	171 - 39 1 54 11 23 42 1	305 - 41 11 110 18 44 71 10
PACIFIC Wash. Oreg. Calif. Alaska Hawaii	4,710 483 213 3,898 18 98	5,199 463 170 4,444 23 99	121,295 13,096 7,017 94,947 2,539 3,696	117,324 12,570 6,733 92,143 2,426 3,452	282 7 51 220 1 3	247 U 20 227 - -	478 130 82 243 4 19	698 222 134 296 32 14	343 62 61 211 1 8	502 206 114 165 6 11
Guam P.R. V.I. Amer. Samoa C.N.M.I.	12 1,113 11 1 -	13 1,242 32 - -	2,404 53 U 129	484 U - U U	- - U -	- - - U U	N 1 - U -	N 7 - U U	U U U U	U U U U

[:] Not notifiable. U: Unavailable. -: No reported cases. C.N.M.I.: Commonwealth of Northern Mariana Islands. Incidence data for reporting year 2001 are provisional and cumulative (year-to-date). Incidence data for reporting year 2000 are finalized and cumulative (year-to-date).

cumulative (year-to-date).
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*.
Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last updated November 27, 2001.

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending December 15, 2001, and December 16, 2000 (50th Week)*

		orrhea	Hepati Non-A,	tis C;	Legionel		Listeriosis		me ease
Reporting Area	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2001	Cum. 2000
UNITED STATES	317,798	341,965	3,048	3,008	1,030	1,041	506	12,106	16,596
NEW ENGLAND Maine N.H. Vt. Mass. R.I.	6,462 141 176 73 3,041 813	6,362 87 106 63 2,674 631	32 - 7 25 -	32 2 - 4 20 6	73 8 12 5 21 13	54 2 3 5 17 9	44 2 4 3 26 2	3,849 - 111 17 826 493	5,438 - 63 40 1,155 611
Conn.	2,218	2,801	-	-	14	18	7	2,402	3,569
MID. ATLANTIC Upstate N.Y. N.Y. City N.J. Pa.	41,245 8,629 12,182 7,587 12,847	37,667 6,997 11,232 6,765 12,673	1,466 57 - 1,342 67	641 37 - 561 43	213 69 38 13 93	293 93 47 23 130	73 28 16 12 17	6,000 3,560 10 927 1,503	8,603 3,822 177 2,446 2,158
E.N. CENTRAL Ohio Ind. III. Mich. Wis.	59,295 13,391 6,401 17,677 16,471 5,355	68,833 18,378 6,125 20,016 17,557 6,757	157 9 1 13 134	222 12 - 21 189	306 147 23 19 81 36	271 110 36 33 49 43	73 16 8 16 23 10	674 110 23 22 17 502	768 60 22 35 23 628
W.N. CENTRAL Minn. Iowa Mo. N. Dak. S. Dak.	14,848 2,214 1,224 7,763 40 279	17,188 3,069 1,208 8,494 70 268	739 12 - 708 -	590 7 2 568 1	48 9 8 22 1 3	56 7 14 25 - 2	20 3 2 10	386 318 36 26	424 322 33 45 2
Nebr. Kans.	713 2,615	1,416 2,663	8 11	4 8	4	4 4	1 4	4 2	5 17
S. ATLANTIC Del. Md. D.C. Va. W. Va. N.C. S.C. Ga. Fla.	80,370 1,545 6,638 2,727 10,437 699 15,578 6,943 15,889 19,914	88,524 1,671 9,386 2,590 9,869 628 16,954 8,101 17,603 21,722	112 7 17 - 9 21 6 1	108 2 14 3 3 16 20 3 3	197 12 37 8 28 N 11 13 10 78	187 10 67 6 33 N 16 6 7	74 2 15 - 13 5 6 5 14	918 151 533 16 116 13 41 5	1,096 167 636 11 146 34 46 17
E.S. CENTRAL Ky. Tenn. Ala. Miss.	30,247 3,268 9,386 10,595 6,998	35,479 3,411 11,476 11,707 8,885	175 9 62 4 100	439 36 99 10 294	54 11 28 13 2	40 20 12 5 3	20 5 8 7	61 22 29 9 1	50 13 28 6 3
W.S. CENTRAL Ark. La. Okla. Tex.	49,195 4,162 11,428 4,587 29,018	52,726 3,601 12,870 4,082 32,173	179 4 90 4 81	720 9 443 10 258	13 - 2 3 8	26 7 5 14	29 1 - 2 26	82 1 2 - 79	89 5 8 1 75
MOUNTAIN Mont. Idaho Wyo. Colo. N. Mex. Ariz. Utah Nev.	9,676 101 72 77 2,863 969 3,788 142 1,664	10,178 53 89 51 3,105 1,130 4,022 231 1,497	57 1 2 8 12 12 9 3 10	79 5 3 2 16 16 20 1	58 - 3 1 17 3 23 7 4	43 2 5 - 15 1 7 12 1	38 - 1 2 10 7 9 2 7	13 - 5 1 1 2 1 2	13 - 3 3 - - - 3 4
PACIFIC Wash. Oreg. Calif. Alaska Hawaii	26,460 2,864 1,088 21,533 410 565	25,008 2,282 990 20,921 347 468	131 23 13 95 -	177 32 26 117 - 2	68 10 N 54 - 4	71 18 N 52 - 1	135 10 9 110 - 6	123 8 12 101 2 N	115 9 13 91 2 N
Guam P.R.	- 578	53 499	- 1	3 1	2	- 1	-	- N	- N
V.I. Amer. Samoa C.N.M.I.	6 U 14	U	Ū -	U U	Ū -	U U	- - -	Ū -	U U

N: Not notifiable.

-: No reported cases.

* Incidence data for reporting year 2001 are provisional and cumulative (year-to-date). Incidence data for reporting year 2000 are finalized and cumulative (year-to-date).

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending December 15, 2001, and December 16, 2000 (50th Week)*

WCCI	s enumy	Decembe	1 13, 200	i, allu De		Salmonellosis†						
		laria		s, Animal	NET	rss	Pl	ILIS				
Reporting Area	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.				
	2001	2000	2001	2000	2001	2000	2001	2000				
UNITED STATES	1,209	1,429	6,399	6,736	35,883	37,612	28,019	31,265				
NEW ENGLAND	86	70	720	802	2,262	2,118	2,124	2,166				
Maine	5	6	67	128	163	122	151	97				
N.H.	2	1	21	21	158	140	155	144				
Vt.	1	3	61	57	80	108	71	104				
Mass.	38	32	268	271	1,289	1,209	1,116	1,228				
R.I.	13	8	70	57	139	138	173	154				
Conn.	27	20	233	268	433	401	458	439				
MID. ATLANTIC	346	384	1,170	1,265	4,204	4,859	3,648	5,147				
Upstate N.Y.	67	75	757	809	1,225	1,192	1,213	1,256				
N.Y. City	201	225	35	18	1,054	1,167	1,357	1,258				
N.J.	44	49	190	193	905	1,126	657	1,003				
Pa.	34	35	188	245	1,020	1,374	421	1,630				
E.N. CENTRAL	140	145	143	168	4,743	5,207	4,101	3,616				
Ohio	26	21	52	52	1,320	1,506	1,165	1,431				
Ind.	16	8	15	14	509	622	482	601				
III.	35	66	24	22	1,294	1,459	1,169	281				
Mich.	42	32	46	68	810	880	791	922				
Wis.	21	18	6	12	810	740	494	381				
W.N. CENTRAL Minn. Iowa Mo. N. Dak. S. Dak. Nebr. Kans.	35 6 9 13 - 2 5	67 27 2 20 2 1 8 7	356 46 79 40 37 56 4 94	524 89 78 50 115 94 2 96	2,268 651 333 628 57 146 153 300	2,332 528 354 698 61 98 223 370	2,328 665 301 940 84 118	2,459 659 343 845 75 102 139 296				
S. ATLANTIC	284	324	2,196	2,332	8,597	7,875	5,912	5,787				
Del.	2	5	30	49	86	115	112	130				
Md.	110	117	338	407	814	767	853	707				
D.C.	13	16	-	-	81	63	U	U				
Va.	49	50	478	554	1,269	981	1,041	913				
W. Va.	1	4	137	113	139	165	140	148				
N.C.	19	36	567	556	1,348	1,119	1,219	1,118				
S.C.	7	2	114	155	866	739	723	564				
Ga.	30	30	363	340	1,659	1,443	1,210	1,693				
Fla.	53	64	169	158	2,335	2,483	614	514				
E.S. CENTRAL	34	47	200	201	2,580	2,385	1,788	1,784				
Ky.	12	18	27	21	359	376	230	262				
Tenn.	12	12	105	103	635	658	788	798				
Ala.	6	16	64	76	738	658	474	594				
Miss.	4	1	4	1	848	693	296	130				
W.S. CENTRAL	12	71	1,045	867	3,971	4,859	2,537	2,978				
Ark.	3	3	20	20	887	711	92	573				
La.	5	13	3	4	418	869	952	746				
Okla.	3	9	60	57	474	382	375	298				
Tex.	1	46	962	786	2,192	2,897	1,118	1,361				
MOUNTAIN Mont. Idaho Wyo. Colo. N. Mex. Ariz. Utah Nev.	62 3 3 - 23 3 17 4 9	51 1 4 - 24 - 9 6 7	231 38 28 20 - 14 115 15	269 65 9 56 - 21 99 10 9	2,143 73 137 55 578 275 641 215 169	2,695 95 128 71 679 233 754 476 259	1,801 95 52 577 235 627 192 23	2,436 - 114 - 59 660 205 744 473 181				
PACIFIC Wash. Oreg. Calif. Alaska Hawaii	210 15 14 170 1	270 33 39 188 - 10	338 - 3 298 37 -	308 - 7 270 31	5,115 533 237 3,936 49 360	5,282 570 286 4,140 59 227	3,780 491 309 2,622 28 330	4,892 656 352 3,613 36 235				
Guam P.R. V.I. Amer. Samoa C.N.M.I.	5 - U -	2 5 U U	90 - U -	- 78 - U U	556 - U 16	27 680 - U U	U U U U	U U U U				

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

* Incidence data for reporting year 2001 are provisional and cumulative (year-to-date). Incidence data for reporting year 2000 are finalized and cumulative (year-to-date).

[†] 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 December 15, 2001, and December 16, 2000 (50th Week)*

week	s ending			1, and De	i e	T	0th Week)*			
	NE ¹	Shigel		LIS		philis (Secondary)	Tuber	culosis		
Reporting Area	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.		
	2001	2000	2001	2000	2001	2000	2001	2000		
UNITED STATES	17,533	21,679	7,747	12,375	5,644	5,786	11,888	13,947		
NEW ENGLAND	268	398	276	377	66	82	393	420		
Maine	6	10	3	11	1	1	3	21		
N.H.	7	6	4	8	1	2	16	19		
Vt.	7	4	6	-	3	-	4	4		
Mass.	198	279	185	257	41	59	230	242		
R.I.	23	33	26	34	9	4	39	31		
Conn.	27	66	52	67	11	16	101	103		
MID. ATLANTIC	1,199	2,714	724	1,685	483	269	2,218	2,206		
Upstate N.Y.	470	764	113	212	25	12	341	316		
N.Y. City	348	916	362	620	269	114	1,107	1,152		
N.J.	185	497	184	428	140	67	486	531		
Pa.	196	537	65	425	49	76	284	207		
E.N. CENTRAL	4,226	4,046	1,837	1,276	983	1,174	1,315	1,422		
Ohio	2,897	405	1,182	318	77	67	269	292		
Ind.	220	1,504	50	152	150	343	106	137		
III.	524	1,161	362	156	337	405	598	666		
Mich.	299	653	216	594	397	314	262	243		
Wis.	286	323	27	56	22	45	80	84		
W.N. CENTRAL Minn. Iowa Mo. N. Dak. S. Dak. Nebr. Kans.	1,930 444 363 302 21 628 98 74	2,411 780 529 651 51 7 147 246	1,267 440 290 218 35 246 - 38	2,002 886 344 460 49 5 117 141	83 28 4 20 - 1 5 25	63 16 11 28 - - 2 6	432 215 34 135 3 13 32	510 167 36 188 5 16 23 75		
S. ATLANTIC Del. Md. D.C. Va. W. Va. N.C. S.C. Ga. Fla.	2,596 17 153 53 516 8 352 247 406 844	2,886 24 195 80 443 22 385 136 256	841 14 91 U 268 10 170 123 130 35	1,139 22 113 U 345 17 258 92 187 105	1,887 12 246 41 105 4 426 222 366 465	1,935 8 300 37 126 3 469 223 374 395	2,535 15 226 51 246 27 387 189 441	2,784 14 243 36 255 31 390 263 601 951		
E.S. CENTRAL	1,550	1,166	608	565	631	847	777	883		
Ky.	705	510	327	116	43	82	109	113		
Tenn.	111	339	120	369	318	512	287	333		
Ala.	208	98	130	73	137	120	256	296		
Miss.	526	219	31	7	133	133	125	141		
W.S. CENTRAL	2,360	3,436	1,146	1,139	737	798	798	2,031		
Ark.	537	212	155	60	45	103	150	173		
La.	145	288	166	194	168	204	-	257		
Okla.	100	123	36	44	65	114	136	141		
Tex.	1,578	2,813	789	841	459	377	512	1,460		
MOUNTAIN Mont. Idaho Wyo. Colo. N. Mex. Ariz. Utah Nev.	980 8 40 3 243 120 435 64 67	1,217 8 44 5 261 167 534 78 120	708 - 15 5 258 79 290 53 8	848 - 25 3 216 116 340 82 66	225 1 1 22 17 168 8 8	219 - 1 1 10 16 185 1 5	485 14 8 3 113 25 222 33 67	526 17 10 4 81 42 236 46 90		
PACIFIC	2,424	3,405	340	3,344	549	399	2,935	3,165		
Wash.	209	445	167	407	50	65	224	244		
Oreg.	92	164	111	109	13	11	104	102		
Calif.	2,055	2,752	-	2,792	474	321	2,418	2,588		
Alaska	7	7	6	3	-	-	50	102		
Hawaii	61	37	56	33	12	2	139	129		
Guam P.R. V.I. Amer. Samoa C.N.M.I.	- 9 - U 8	45 33 - U U	U U U U	U U U U	- 257 - U 13	3 161 - U U	- 76 - U 32	51 152 - U U		

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

* Incidence data for reporting year 2001 are provisional and cumulative (year-to-date). Incidence data for reporting year 2000 are finalized and cumulative (year-to-date).

† 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 December 15, 2001, and December 16, 2000 (50th Week)*

	H influ	ienzae,	н н	epatitis (Vi			1	Measles (Rubeola)					
		isive	Α	cputitis (v i	B	, , , , , , , , , , , , , , , , , , , 	Indige	nous		rted [†]	Tota	l I	
Reporting Area	Cum. 2001 [§]	Cum. 2000	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000	2001	Cum. 2001	2001	Cum. 2001	Cum. 2001	Cum. 2000	
UNITED STATES	1,308	1,246	10,066	12,561	6,237	6,824	-	52	-	43	95	79	
NEW ENGLAND Maine	92 2	108 2	656 11	383 21	94 5	111 5	-	4	-	1	5	6	
N.H. Vt.	7 4	12 10	17 16	18 10	15 4	18 6	-	- 1	-	-	- 1	3 3	
Mass.	41	42	311	133	11	15	-	2	-	1	3	-	
R.I. Conn.	7 31	4 38	72 229	25 176	28 31	23 44	-	1	-	-	1	-	
MID. ATLANTIC	189	223	1,000	1,467	977	1,118	-	5	-	11	16	23	
Upstate N.Y. N.Y. City	76 48	97 59	267 297	244 498	129 437	131 543	-	1 3	-	4 1	5 4	10 12	
N.J. Pa.	43 22	40 27	232 204	284 441	169 242	177 267	-	- 1	-	1 5	1 6	- 1	
E.N. CENTRAL	222	176	1,176	1,634	855	714	_	-	_	10	10	8	
Ohio Ind.	74 46	53 30	255 100	260 114	91 47	101 46	-	-	-	3 4	3 4	2	
III.	63	59	434	683	152	111	-	-	-	3	3	3	
Mich. Wis.	13 26	11 23	318 69	483 94	565 -	415 41	-	-	-	-	-	3 -	
W.N. CENTRAL Minn.	67 41	78 43	400 41	638 172	211 31	289 40	-	4 2	-	1 1	5 3	3 1	
lowa	-	-	35	65	20	32	-	-	-	-	-	-	
Mo. N. Dak.	16 7	23 4	105 3	251 4	109 2	142 2	-	2	-	-	2	-	
S. Dak. Nebr.	2	1 3	3 35	3 35	1 28	2 44	-	-	-	-	-	-	
Kans.	1	4	178	108	20	27	-	-	-	-	-	2	
S. ATLANTIC Del.	370 -	273 -	2,439 15	1,435 15	1,458 11	1,254 14	-	4	-	1 -	5 -	4	
Md. D.C.	89	77	302 60	203 35	138 13	123 34	-	2	-	1	3	-	
Va.	28	39	134	154	174	162	-	1	-	-	1	2	
W. Va. N.C.	16 46	8 23	27 236	55 149	25 208	21 246	-	-	-	-	-	-	
S.C. Ga.	9 101	7 6 8	71 960	86 288	29 452	23 222	-	- 1	-	-	- 1	-	
Fla.	81	51	634	450	408	409	-	-	-	-	-	2	
E.S. CENTRAL Ky.	75 2	52 12	388 123	387 53	417 43	465 <i>7</i> 7	Ū	2	Ū	-	2 2	-	
Tenn.	44	24	162	141	235	219	-	-	-	-	-	-	
Ala. Miss.	27 2	14 2	73 30	51 142	85 54	63 106	-	-	-	-	-	-	
W.S. CENTRAL	52	ങ	1,310	2,353	668	1,060	-	-	-	1	1	1	
Ark. La.	2 6	2 16	67 61	131 102	98 46	95 151	-	-	-	-	-	1 -	
Okla. Tex.	43 1	43 2	117 1,065	247 1,873	107 417	150 664	-	-	-	- 1	- 1	-	
MOUNTAIN	140	128	729	921	468	534	-	2	-	-	2	12	
Mont. Idaho	2	1 4	12 57	7 37	3 11	7 8	-	- 1	-	-	1	-	
Wyo. Colo.	- 3 8	1 32	7 88	4 219	3 102	3 104	-	-	-	-	-	2	
N. Mex.	25	26	37	70	129	137	-	-	-	-	-	-	
Ariz. Utah	56 8	47 11	400 69	440 62	147 27	198 27	-	1 -	-	-	1 -	3 7	
Nev.	11	6	59	82	46	50	-	-	-	-	-		
PACIFIC Wash.	101 7	145 8	1,968 152	3,343 279	1,089 140	1,279 109	-	31 13	-	18 2	49 15	22 3	
Oreg. Calif.	20 44	32 35	77 1,722	168 2,870	113 809	118 1,028	-	4 12	-	- 11	4 23	- 15	
Alaska Hawaii	6 24	45 25	14 3	13 13	9 18	12 12	-	2	-	- 5	- 7	1 3	
Guam	_	1	-	1	-	10	U	-	U	-	-	-	
P.R. V.I.	1	4	132	242	188	287	Ū		Ū	-		2	
Amer. Samoa C.N.M.I.	U -	U U	U -	U U	U 35	U U	U U	U -	U U	U -	U -	U U	

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

* Incidence data for reporting year 2001 are provisional and cumulative (year-to-date). Incidence data for reporting year 2000 are finalized and cumulative (year-to-date).

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

§ Of 268 cases among children aged <5 years, serotype was reported for 124, and of those, 21 were type b.

TABLE III. (Cont'd) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending December 15, 2001, and December 16, 2000 (50th Week)*

	Meningococcal Disease		Decei	Mumps	,, <u>2</u> 000	(30111	Pertussis		Rubella			
Reporting Area	Cum. 2001	Cum. 2000	2001	Cum. 2001	Cum. 2000	2001	Cum. 2001	Cum. 2000	2001	Cum. 2001	Cum. 2000	
UNITED STATES	2,146	2,096	-	216	308	130	4,788	6,900	- 2001	19	165	
NEW ENGLAND Maine N.H. Vt. Mass. R.I. Conn.	110 6 14 6 54 6 24	118 8 12 3 68 9	- - - - -	- - - - -	4 - - 1 1 2	12 - 1 11 - -	454 21 39 57 314 6	1,863 45 127 248 1,374 24 45	- - - - -	- - - - - -	12 - 2 - 8 1 1	
MID. ATLANTIC Upstate N.Y. N.Y. City N.J. Pa.	207 62 40 49 56	249 75 44 53 77	- - - -	23 3 12 4 4	27 11 7 3 6	3 3 - -	280 139 49 22 70	685 338 84 36 227	- - - -	5 1 3 1	9 1 8 - -	
E.N. CENTRAL Ohio Ind. III. Mich. Wis.	322 92 41 72 69 48	381 92 46 87 113 43	- - - - -	20 1 3 11 5	23 7 2 6 6 2	14 1 11 - 2	712 306 91 80 137 98	808 318 120 115 123 132	- - - -	2 - - 2 -	1 - - 1 -	
W.N. CENTRAL Minn. Iowa Mo. N. Dak. S. Dak. Nebr. Kans.	161 26 31 53 6 5 25	149 21 34 67 2 6 7 12	- - - - -	16 5 1 4 - 1 5	18 7 5 1 - 2 3	14 9 2 3 - - -	400 188 64 102 5 4 7 30	591 361 57 90 7 7 27 42	- - - - -	3 - 1 1 - - - 1	2 1 - - - 1	
S. ATLANTIC Del. Md. D.C. Va. W. Va. N.C. S.C. Ga. Fla.	357 5 41 - 39 14 62 34 48 114	286 1 27 - 42 13 36 26 46 95	-	39 - 7 - 8 - 5 5 7 7	46 - 9 - 11 - 7 11 2 6	15 - 6 - 8 - 1 -	266 - 43 1 58 4 73 34 27 26	508 9 130 3 112 1 110 40 40 63		6 - - - - - 2 2 1 3	112 1 - - - 82 27 - 2	
E.S. CENTRAL Ky. Tenn. Ala. Miss.	131 22 59 34 16	132 26 56 35 15	- U - -	9 3 1 - 5	6 1 2 3	- U - -	157 57 59 37 4	114 58 33 19 4	Ū - -	- - - -	6 1 1 4	
W.S. CENTRAL Ark. La. Okla. Tex.	337 20 65 31 221	224 13 44 28 139	- - - -	14 1 2 - 11	34 3 5 - 26	15 - - 3 12	524 45 3 30 446	361 37 21 48 255	- - - -	2 - - - 2	8 1 1 - 6	
MOUNTAIN Mont. Idaho Wyo. Colo. N. Mex. Ariz. Utah Nev.	94 4 8 5 35 11 16 8 7	98 6 7 1 32 11 29 7 5	- - - - - - -	13 1 1 1 3 2 1 1 3	22 1 1 1 1 1 4 7 6	56 - - 23 1 32 -	1,339 37 171 1 320 143 551 76 40	798 35 64 4 467 90 91 32 15	- - - - - -	- - - - - - -	2 - - 1 - 1	
PACIFIC Wash. Oreg. Calif. Alaska Hawaii	427 64 43 304 3	459 61 68 313 9 8	- N - -	82 2 N 43 1 36	128 10 N 87 8 23	1 1 - - -	656 166 51 395 11 33	1,172 412 106 593 21 40	- - - - -	1 - - - - 1	13 7 - 6 -	
Guam P.R. V.I. Amer. Samoa C.N.M.I.	5 - U -	- 10 - U U	U U U U	- - - U -	16 - - U U	U U U U	2 - U -	4 10 - U U	U - U U	- - - U -	1 - - U U	

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

* Incidence data for reporting year 2001 are provisional and cumulative (year-to-date). Incidence data for reporting year 2000 are finalized and cumulative (year-to-date).

TABLE IV. Deaths in 122 U.S. cities,* week ending December 15, 2001 (50th Week)

	All Causes, By Age (Years)					/ U .			OOK,	All Causes, By Age (Years)					
Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	P&I [†] Total			≥65	45-64	<u> </u>	1-24	<1	P&I [†] Total
NEW ENGLAND Boston, Mass. Bridgeport, Conn Cambridge, Mass Fall River, Mass. Hartford, Conn. Lowell, Mass. Lynn, Mass. New Bedford, Ma New Haven, Conn Providence, R.I. Somerville, Mass Springfield, Mass Waterbury, Conn. Worcester, Mass.	. 19 U 43 26 17 ss. 31 . 44 69 . 2 . 38 . 27 54	381 90 29 18 U 28 23 15 20 28 45 27 17 39	115 31 11 1 1 0 10 2 1 5 9 16	41 18 2 - U 3 - 1 4 3 4 - 1 1 4	11 6 - - U 1 - - 1 2 - 1	13 3 1 - U 1 1 - 2 3 2 - -	64 23 10 1 1 2 3 5 5 2 3 1 8	S. ATLANTIC Atlanta, Ga. Baltimore, Md. Charlotte, N.C. Jacksonville, Fla Miami, Fla. Norfolk, Va. Richmond, Va. Savannah, Ga. St. Petersburg, F Tampa, Fla. Washington, D.C. Wilmington, Del E.S. CENTRAL Birmingham, Ala	97 60 53 42 56 208 C. 102 I. U 793 a. 194	724 92 99 63 95 50 38 33 27 35 137 55 U	286 36 46 27 30 30 13 7 11 14 49 23 U	127 20 21 7 16 13 4 8 4 6 12 16 U	26 6 4 2 - 2 - 2 - 6 4 U	23 2 2 2 1 2 4 3 - 1 3 3 U	72 8 15 10 9 2 4 6 2 5 9 2 U
MID. ATLANTIC Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J. Erie, Pa.§ Jersey City, N.J. New York City, N.Y. Newark, N.J. Paterson, N.J. Philadelphia, Pa. Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa.§	28 235 37 18 139 29 42	1,538 31 15 49 24 9 77 43 814 U 16 168 23 17 113 20 34	481 6 3 19 4 6 3 14 308 U 7 42 8 1 21 7 7	170 1 3 2 1 60 120 U 3 15 5 4 2 1	43 2 - 1 2 - - 30 U 1 3 - - -	33 2 - 3 1 - 1 5 0 1 - 1 - 1 - - 1 - - - - - - - - - - -	108 5 1 7 2 3 48 U 12 1 2 3 2	Chattanooga, Te Knoxville, Tenn. Lexington, Ky. Memphis, Tenn. Mobile, Ala. Montgomery, Al Nashville, Tenn. W.S. CENTRAL Austin, Tex. Baton Rouge, La Corpus Christi, Toallas, Tex. El Paso, Tex. Ft. Worth, Tex. Little Rock, Ark.	104 58 223 86 Ia. 25 U 1,645 99 . 97 Tex. 58 216 94 115 376 66	73 72 40 138 59 21 U 1,115 67 66 40 150 68 226 4 U	20 17 10 46 18 4 U 307 19 20 12 38 14 21 69 12 U	6 11 7 17 4 - U 126 7 8 2 15 10 5 47 7 U	3 -10 2 - U 64 4 3 1 7 3 6 28 2 U	4 11 12 3 U 33 2 1 3 6 2 6 6 1	10 6 6 16 3 12 U 108 5 7 5 13 2 21 1 U
Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y. E.N. CENTRAL Akron, Ohio Canton, Ohio Chicago, Ill. Cincinnati, Ohio Cleveland, Ohio	125 35 14 U 1,597 53 38 U 61 120	98 25 12 U 1,116 41 26 U 48 74	17 6 2 U 305 5 8 U 8 32	5 2 - U 106 1 2 U 3 9	3 1 - U 35 2 - U 1	2 1 U 35 4 2 U 1 4	19 2 1 U 116 8 7 U 8 3	New Orleans, La San Antonio, Te Shreveport, La. Tulsa, Okla. MOUNTAIN Albuquerque, N Boise, Idaho Colo. Springs, C Denver, Colo. Las Vegas, Nev. Ogden, Utah	x. 233 141 150 947 .M. 142 55	168 100 107 635 97 35 49 54 165 22	39 30 33 197 30 12 14 26 35 9	17 3 5 80 13 6 4 11 12 3	5 4 1 15 - 1 - 5 3	U 4 4 18 2 1 2 4 1	17 15 22 72 16 7 2 8 16
Columbus, Ohio Dayton, Ohio Detroit, Mich. Evansville, Ind. Fort Wayne, Ind. Gary, Ind. Grand Rapids, Mi Indianapolis, Ind. Lansing, Mich. Milwaukee, Wis. Peoria, Ill. Rockford, Ill.		119 92 110 39 39 10 27 116 27 91 43	29 16 63 4 8 6 4 47 6 16 11 7	13 11 23 2 2 2 2 3 12 4 3 6 3	2 3 8 - 2 1 - 7 - 2 - 2	9 1 4 - - 1 4 - 3	8 6 16 4 1 3 10 4 7 11 5	Phoenix, Ariz. Pueblo, Colo. Salt Lake City, U Tucson, Ariz. PACIFIC Berkeley, Calif. Fresno, Calif. Glendale, Calif. Honolulu, Hawa Long Beach, Cal Los Angeles, Cal	179 34 tah 117 U 1,891 16 116 33 ii 87 if. 90	102 22 89 U 1,369 11 75 26 72 64 373	43 9 19 U 327 2 24 5 8 18 79	22 3 6 U 126 2 12 1 4 5 39	4 - 2 U 34 - 5 - 2 2 10	33 1 - 1 1 1 10	160 2 9 17 12 26
South Bend, Ind. Toledo, Ohio Youngstown, Ohi W.N. CENTRAL Des Moines, Iowa Duluth, Minn. Kansas City, Kans Kansas City, Mo. Lincoln, Nebr. Minneapolis, Min Omaha, Nebr. St. Louis, Mo. St. Paul, Minn. Wichita, Kans.	801 57 32 . 30 94 30	49 73 59 575 36 27 63 22 139 61 95 49 57	10 18 7 147 18 4 1 17 3 28 16 33 12 15	4 1 2 52 1 1 2 8 1 12 10 11 3 3	3 - 1 10 2 - - 3 - 3 - 1 1	17 1 1 - - 3 4 2 6 1	8 5 2 59 10 3 4 4 2 16 7 6 7	Pasadena, Calif. Portland, Oreg. Sacramento, Cal San Diego, Calif. San Francisco, C San Jose, Calif. Santa Cruz, Calif. Seattle, Wash. Spokane, Wash. Total	28 86 lif. 197 . 187 alif. U 184 f. 23 163	275 61 142 136 U 136 20 109 43 76 7,980	35 13 41 27 U 35 1 36 13 24 2,324	5 9 17 U 10 1 12 2 7 887	6 2 3 U 1 - 3 -	2 1 1 4 U 2 1 3 1 4 229	25 5 19 19 U 21 2 14 11 7

U: Unavailable. -:No reported cases.

* Mortality data in this table are reported voluntarily 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.

Notices to Readers — Continued

possibility that anthrax spores might cause illness up to 100 days after exposure) accompanied by monitoring for illness or adverse reactions; and 3) 40 additional days of antimicrobial prophylaxis plus 3 doses of anthrax vaccine administered over a 4-week period. Although not a use approved by the Food and Drug Administration, the vaccine might provide additional protection by inducing an immune response to *Bacillus anthracis*. As an investigational new drug, the vaccine should be administered with informed consent, and vaccinated persons may participate in a follow-up evaluation measuring the effect of the vaccine when administered after exposure.

Additional information about these options is available from DHHS at http://www.hhs.gov/news/press/2001pres/20011218.html.

Contributors to the Production of the MMWR (Weekly)

Weekly Notifiable Disease Morbidity Data and 122 Cities Mortality Data

Samuel L. Groseclose, D.V.M., M.P.H. Wayne S. Brathwaite

State Support Team

Robert Fagan Jose Aponte Gerald Jones David Nitschke Scott Noldy Jim Vaughan Carol A. Worsham CDC Operations Team

Carol M. Knowles
Deborah A. Adams
Willie J. Anderson
Lateka M. Dammond
Patsy A. Hall
Mechele A. Hester
Felicia J. Connor
Pearl Sharp

Informatics

T. Demetri Vacalis, Ph.D.

Michele D. Renshaw Erica R. Shaver

All MMWR references are available on the Internet at http://www.cdc.gov/mmwr/. Use the search function to find specific articles.

Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

References to non-CDC sites on the Internet 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.

The Morbidity and Mortality Weekly Report (MMWR) Series is prepared by the Centers for Disease Control and Prevention (CDC) and is available free of charge in electronic format and on a paid subscription basis for paper copy. To receive an electronic copy on Friday of each week, send an e-mail message to listserv@listserv.cdc.gov. The body content should read SUBscribe mmwr-toc. Electronic copy also is available from CDC's World-Wide Web server at http://www.cdc.gov/mmwr or from CDC's file transfer protocol server at ftp://ftp.cdc.gov/pub/Publications/mmwr. To subscribe for paper copy, contact Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone (202) 512-1800.

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.

All material in the MMWR Series is in the public domain and may be used and reprinted without permission; citation as to source, however, is appreciated.

Director, Centers for Disease Control and Prevention Jeffrey P. Koplan, M.D., M.P.H. Deputy Director for Science and Public Health, Centers for Disease Control and Prevention David W. Fleming, M.D. Director,
Epidemiology Program Office
Stephen B. Thacker, M.D., M.Sc.
Editor, MMWR Series

John W. Ward, M.D. Acting Managing Editor, *MMWR* (Weekly)

Teresa F. Rutledge

Writers-Editors, MMWR (Weekly)

Jill Crane David C. Johnson

Desktop Publishing Lynda G. Cupell Morie M. Higgins

☆U.S. Government Printing Office: 2002-733-100/49033 Region IV