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Surveillance for Penicillin-Nonsusceptible *Streptococcus pneumoniae* — New York City, 1995

Streptococcus pneumoniae has become a leading cause of bacteremia, pneumonia, meningitis, and otitis media in the United States. Persons at increased risk include young children, immunocompromised persons, and the elderly (*1*). Until 1987, *S. pneumoniae* was uniformly susceptible to penicillin; since then, in the United States, there has been increased identification of penicillin-nonsusceptible *S. pneumoniae* (PNSP) (defined as minimum inhibitory concentration [MIC] to penicillin ≥0.1 μg/mL), especially penicillin-resistant *S. pneumoniae* (PRSP) (defined as MIC to penicillin ≥2.0 μg/mL). In addition, PNSP is becoming less susceptible to other antimicrobial drugs, including tetracycline, erythromycin, extended-spectrum cephalosporins, and chloramphenicol; some are susceptible only to vancomycin (*2*). Because of the emergence of PNSP, in December 1994, the New York City Department of Health (NYCDOH) amended the New York City health code to require reporting of PNSP to monitor the local prevalence of resistance to penicillin. This report summarizes surveillance findings from NYCDOH's data for 1995, which indicate that the highest case rates were among children aged <4 years and that, among adults aged 20–44 years with PNSP infections, 71.4% also were infected with human immunodeficiency virus (HIV).

The surveillance case definition for PNSP included *S. pneumoniae* isolated from any anatomical site with a MIC to penicillin ≥0.1 μg/mL confirmed by an approved National Committee for Clinical Laboratory Standards (NCCLS) methodology (*3*). All reports of PNSP were evaluated by telephone consultation with the reporting laboratory to determine the anatomical site, the oxacillin disk diffusion test result, the MIC-testing methodology, and the quantitative MIC. Confirmed cases with isolates from normally sterile sites were investigated by medical record reviews to determine the clinical presentation, underlying medical conditions (including HIV-infection status), and hospitalization and antibiotic use within the preceding 6 months.

In 1995, a total of 282 PNSP cases were reported to NYCDOH by hospital and commercial laboratories (rate: 3.9 cases per 100,000 population). Among 281 infected persons for whom sex was known, 176 (62.6%) were male (5.1 per 100,000), and 105 (37.4%) were female (2.7 per 100,000). Age was available for 266 (94.3%) persons; the median age was 39.6 years (range: 1 week–98 years). Age-group–specific rates

Penicillin-Nonsusceptible Streptococcus pneumoniae — *Continued*

were highest for children aged <1 year (30.3 per 100,000) and aged 1–4 years (7.5 per 100,000).

Of the 282 persons with PNSP, 130 (46.1%) had invasive illness with PNSP isolates from normally sterile sites. Chart reviews for 125 of the 130 patients indicated that the sites of infection were blood (99 [79.2%]), tracheal aspirate (16 [12.8%]), cerebrospinal fluid (10 [8.0%]), middle ear aspirate (one [0.8%]), and other sites (five [4.0%]); chart information was incomplete or unavailable for five patients. Six persons had invasive isolates confirmed from more than one site. Charts were not reviewed for the 149 (52.8%) patients with isolates from normally nonsterile sites and for three (1.1%) patients with isolates from unknown sites.

Of the 125 invasive cases reviewed, eight (6.4%) were fatal. During the 6 months preceding illness onset, 43 (34.4%) patients with invasive disease had been hospitalized, and 54 (43.2%) had received antibiotic therapy.

Of the 125 patients with invasive illness whose charts were reviewed, 52 (41.6%) were HIV-seropositive or had acquired immunodeficiency syndrome (AIDS). Other underlying medical conditions included pulmonary disease (36 [28.8%]), cardiovascular disease (23 [18.4%]), cancer (13 [10.4%]), diabetes (10 [8.0%]), renal disease (nine [7.2%]), liver disease (five [4.0%]), and splenectomy (two [1.6%]); more than one underlying illness was present in 60 (48.0%) patients. Of the 27 children aged <5 years, 14 (51.9%) had an underlying illness (e.g., HIV/AIDS or pulmonary disease), 10 (37.0%) had been hospitalized recently, and 15 (55.6%) had used antibiotics during the previous 6 months. Of the 51 invasive cases in persons with HIV/AIDS with known age, 30 (71.4%) were among 42 persons aged 20–44 years compared with seven (21.2%) of 33 cases among persons aged <20 years and 14 (28.6%) of 49 cases among persons aged >44 years; age was unknown for one person.

Of the 52 patients with HIV/AIDS, 31 (59.6%) had been treated with antibiotics within the previous 6 months compared with 23 (31.5%) of the 73 patients without HIV/AIDS ($p<0.01$). Of the 31 patients with HIV/AIDS who received antibiotics within the previous 6 months, 22 (71.0%) had received trimethoprim-sulfamethoxazole as prophylaxis for *Pneumocystis carinii* pneumonia.

Quantitative MIC data were available for 123 isolates; 60 (48.8%) were PRSP. Among the 73 patients without HIV/AIDS, 26 (35.6%) had infections with PRSP compared with 34 (68.0%) of 50 patients with HIV/AIDS ($p<0.01$).

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Editorial Note: The findings in this report indicate that, in New York in 1995, PNSP infections were most common among children aged <4 years. This is consistent with results from community-based studies of penicillin-susceptible pneumococcal bacteremia, which documented that rates of pneumococcal disease were higher among younger children than among older children and adults (*4*). In addition, the findings indicate that physicians caring for persons with HIV/AIDS should be aware of the potential for antibiotic resistance when treating presumptive pneumococcal infections.

Surveillance limited to antibiotic-resistant infections is difficult to interpret because information on nonsusceptible isolates does not provide data about the proportion of all isolates in the community that are antibiotic resistant. To address this need, during 1993–1995 the NYCDOH conducted annual surveys of microbiology laboratories to

Penicillin-Nonsusceptible Streptococcus pneumoniae — *Continued*

determine the total number of *S. pneumoniae* isolates identified and the number identified as nonsusceptible by NCCLS-approved methodologies. The proportion of PNSP isolates increased from 7.2% of all isolates tested in 1993 to 15.0% in 1995 (NYCDOH, unpublished data, 1996). To improve the ability to track antibiotic resistance, in 1996 NYCDOH changed its method for collecting surveillance data on PNSP by requesting hospital laboratories report monthly on the total number of invasive *S. pneumoniae* isolates identified and the number with confirmed resistance, allowing timely collection, analysis, and dissemination of surveillance data to the medical community.

The NYCDOH has provided laboratory directors, hospital infection-control departments, and clinicians with regular updates about PNSP in New York City at medical rounds in hospitals throughout the city. Other efforts have included publishing data in local medical society newsletters and bulletins to alert clinicians to the increasing proportion of PNSP isolates in New York City and to caution against over-prescribing antibiotics.

CDC has recommended that clinicians base their decisions about empiric antibiotic therapy for presumptive pneumococcal infections on local prevalence data (*5*). Unlike methicillin-resistant *Staphylococcus aureus* and vancomycin-resistant *Enterococcus*, which initially emerged as nosocomial infections, PNSP infections are primarily community-acquired (*6*). Therefore, to understand the impact of this disease in the community, population-based surveillance data need to be collected at the local and state levels. In addition, these data should be sent to CDC for aggregation at the national level to assist in monitoring the scope and magnitude of PNSP.

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Urban Community Intervention to Prevent Halloween Arson — Detroit, Michigan, 1985–1996

Arson, the second leading cause of residential fire-associated deaths in the United States, accounts for approximately 700 deaths annually, destroys homes, and destabilizes neighborhoods (*1–3*). In Detroit, Michigan (1990 population: 1,027,974), arson accounted for nearly half (46.3%) of all fire-related deaths since 1984 (*4*). During the late 1970s, pre-Halloween pranks traditionally associated in some parts of the United

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States with the night of October 30 turned destructive in Detroit, with hundreds of fires set throughout the city. By 1984, October 30 became known as "Devil's Night" and had evolved to 3 consecutive nights of arson on October 29–31; in that year, a record 810 fires were reported (*5*). In 1985, Detroit began a citywide intervention campaign against arson and vandalism during the 3-day Halloween period using data from an ongoing fire surveillance system maintained by the Detroit Fire Department (DFD) to target areas at high risk for arson. This report describes the intervention implemented by the city of Detroit from 1985 through 1996 and the impact of the intervention in preventing Halloween arson; approximately 34,000 volunteers participated in 1996 (*6*), and the number of fires during this 3-day period decreased to the average number of fires for any other 3-day period during the remainder of the year.

Intervention Design

Since 1985, the annual citywide antiarson intervention has been developed and implemented by the Anti-Arson Initiative Steering Committee (comprising representatives from city government departments and agencies, community organizations, and the private sector). Information from previous intervention programs and fire incidence data obtained from the Detroit Fire Incident Reporting System (DFIRS) were used to plan the annual antiarson intervention (*7,8*). Information in the DFIRS database is obtained from incident and casualty reports documenting the nature of each incident to which the DFD responds; date, time, and location of occurrence; probable cause; associated injuries and/or fatalities; and other information. The DFD Arson Section investigates a proportion of "incendiary" (i.e., confirmed) or "suspected" arson fires, including all multiple alarm fires and those that involve a death or injury, criminal activity, occupied dwelling, or explosion. From 1985 through 1996, DFIRS information was used to monitor annual and monthly trends in fire incidence and to plot maps detailing the location of fires reported during the previous year, by type, in each census tract within the metropolitan area. The steering committee used these maps, along with Detroit Police Department maps indicating the location of various crimes committed during the previous year, to 1) identify areas at high risk for Halloween arson and vandalism, 2) develop volunteer deployment plans, 3) estimate equipment and supply requirements, 4) prioritize areas for demolition of vacant buildings, and 5) determine the location of temporary DFD command posts during Halloween. Staff at nine neighborhood city halls, 13 police precincts, and nine fire battalions coordinated decentralized action plans complementing the overall city plan.

The antiarson intervention implemented by the city of Detroit from 1985 through 1996 included eight key elements. First, all available city firefighters were stationed at strategically located DFD command posts, and police officers and other city employees patrolled designated areas of the city. Second, potential arson targets were eliminated or reduced by demolishing abandoned buildings, towing abandoned vehicles, removing tires from dump sites, and emptying large trash receptacles. Third, city residents were recruited to serve as volunteers from community organizations, religious groups, schools, unions, and the private sector. Fourth, volunteers received orientation for guarding abandoned neighborhood buildings, patrolling designated neighborhoods in vehicles, providing administrative support at operational centers throughout the city, and keeping outdoor lights on throughout the night. Fifth, an aggressive education/public relations campaign informed residents about Halloween

Arson — Continued

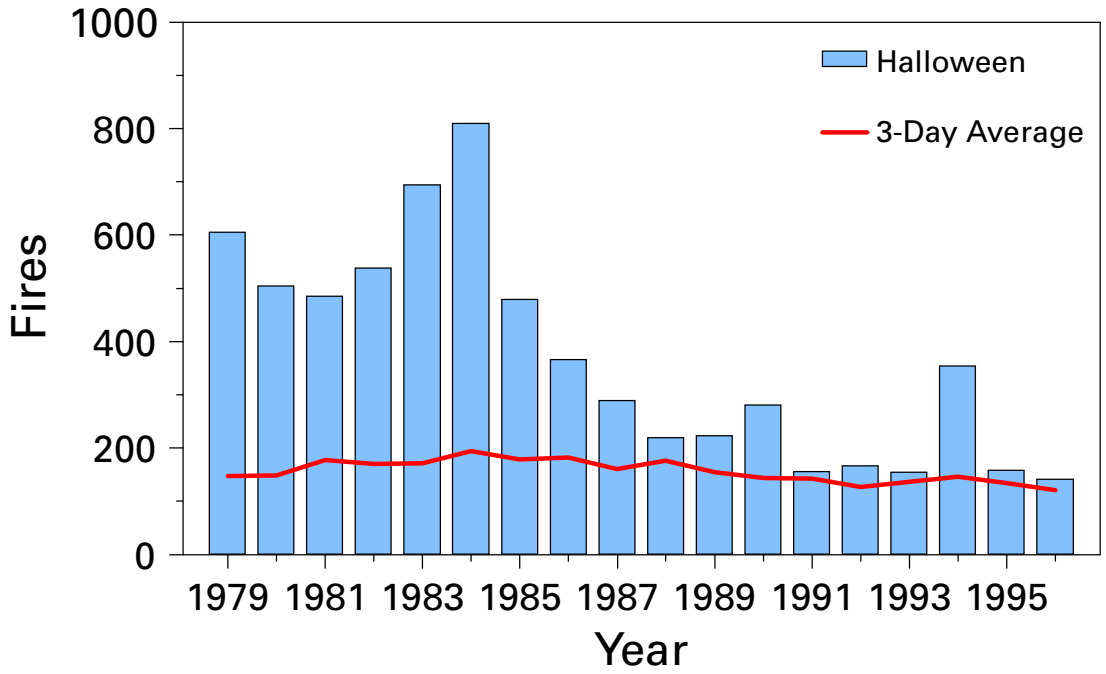
antiarson intervention plans, the dangers of arson, and suggestions for preventing arson. Sixth, structured activities for children and teenagers—including movie marathons, teen dances, overnight slumber parties, carnivals, and other activities—were sponsored by the city of Detroit, community organizations, churches, and other groups. Seventh, Detroit's year-round youth curfew was extended to begin at 6:00 p.m. on October 30 and continue through 6:00 a.m. on October 31 for youth aged ≤17 years unaccompanied by an adult. Finally, since 1995, an emergency city ordinance has prohibited the dispensing of fuel into portable containers, except in certain emergency circumstances, during Halloween.

Fire Trends and Fire-Related Deaths, 1979–1996

Following an increase in the number of total Halloween fires from 1979 through 1984, the number of Halloween fires reported annually declined from 810 in 1984 to 142 in 1996 (Figure 1). From 1991 through 1996 (with the exception of 1994), the number of Halloween fires ranged from 142 to 167, within the range of the number of fires expected to occur during any 3-day period in Detroit (Figure 1).

From 1979 to 1996, an average of 61.2% of annual Halloween fires were classified by DFD personnel as confirmed or suspected arson. For 1995, of 158 Halloween fires, 86 (54.4%) were arson-related, compared with 6572 (41.1%) of 15,971 total fires. From 1979 through 1984, the number of arson-related Halloween fires increased from 341 to 582, with an overall decrease to 84 in 1996 (Figure 2). Before 1985, most Halloween arson fires were refuse fires. From 1983 to 1984, the number of arson-related building

FIGURE 1. Total number of fires (arson and nonarson) reported during the 3-day Halloween period (October 29–31) and 3-day average number of fires during the remainder of the year* — Detroit, Michigan, 1979–1996

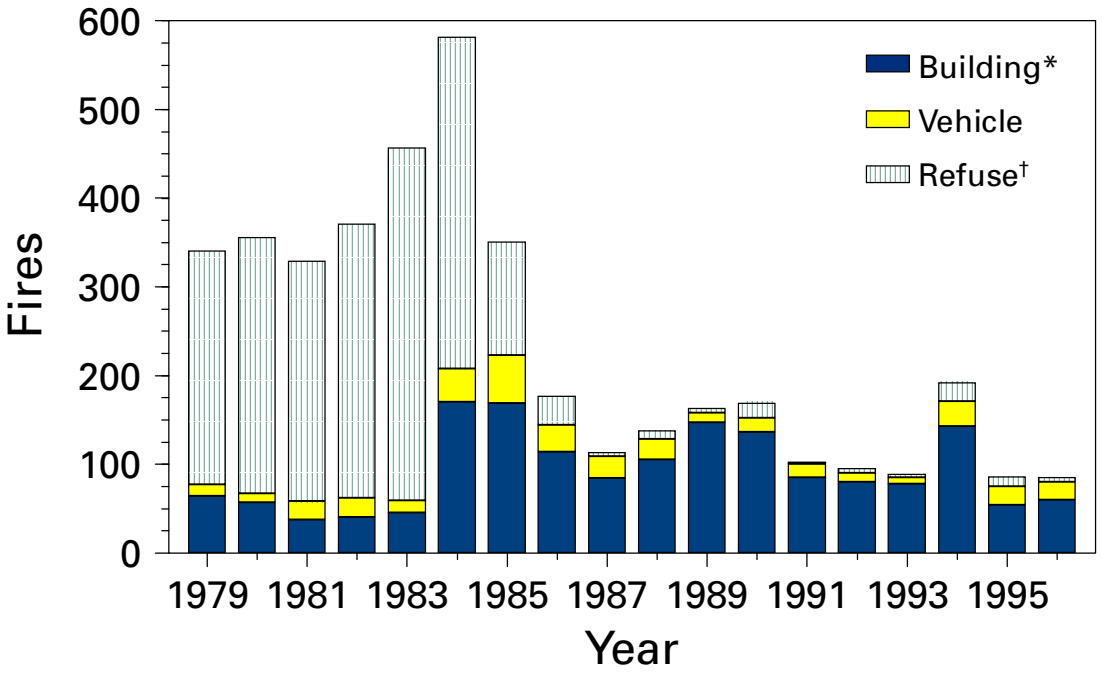


*Range: 120–195 fires.

Source: Detroit Fire Department, City of Detroit.

Arson — Continued

FIGURE 2. Number of confirmed or suspected arson fires reported during the 3-day Halloween period (October 29–31), by type — Detroit, Michigan, 1979–1996



*Occupied or vacant buildings and garages.
†Brush or rubbish fires involving little or no monetary loss. This includes all "children with matches" fires.

Source: Detroit Fire Department, City of Detroit.

fires increased nearly fourfold, from 45 to 170 fires, and since 1985, the greatest proportion of Halloween fires have occurred in buildings (Figure 2).

Annual fire-related fatalities in Detroit have decreased since 1979, ranging from 107 deaths in 1979 to 44 deaths in 1996. From 1984 through 1996, arson accounted for an average of nearly half (47.4%) of all fire-related deaths each year. The number of youth curfew violations decreased from 315 in 1994 to 185 in 1996. Except for 1994, the number of volunteers participating in the annual antiarson campaign increased annually from 1985 through 1996, from approximately 8000 to 33,615 (Figure 3). In 1994, the number of volunteers decreased, and the number of Halloween fires increased.

Reported by: City of Detroit Mayor's Office; neighborhood city halls; Detroit Fire Dept; Detroit Police Dept; Detroit Health Dept; the partners of the Detroit Community-Academic Prevention Research Center (Butzel Family Center, Community Health and Social Svcs, Friends of Parkside, Kettering/Butzel Health Initiative, Latino Family Svcs, Warren/Connor Development Coalition, Henry Ford Health System, Detroit Health Dept, Detroit; and School of Public Health, Univ of Michigan, Ann Arbor, Michigan). Urban Research Centers, Div of Prevention Research and Analytic Methods (proposed), Epidemiology Program Office, CDC.

Editorial Note: The decline in Halloween fires reported from 1984 through 1996 suggests a positive effect of Detroit's annual intervention campaign in preventing arson. Except during 1994, the number of Halloween fires reported in Detroit during 1991–

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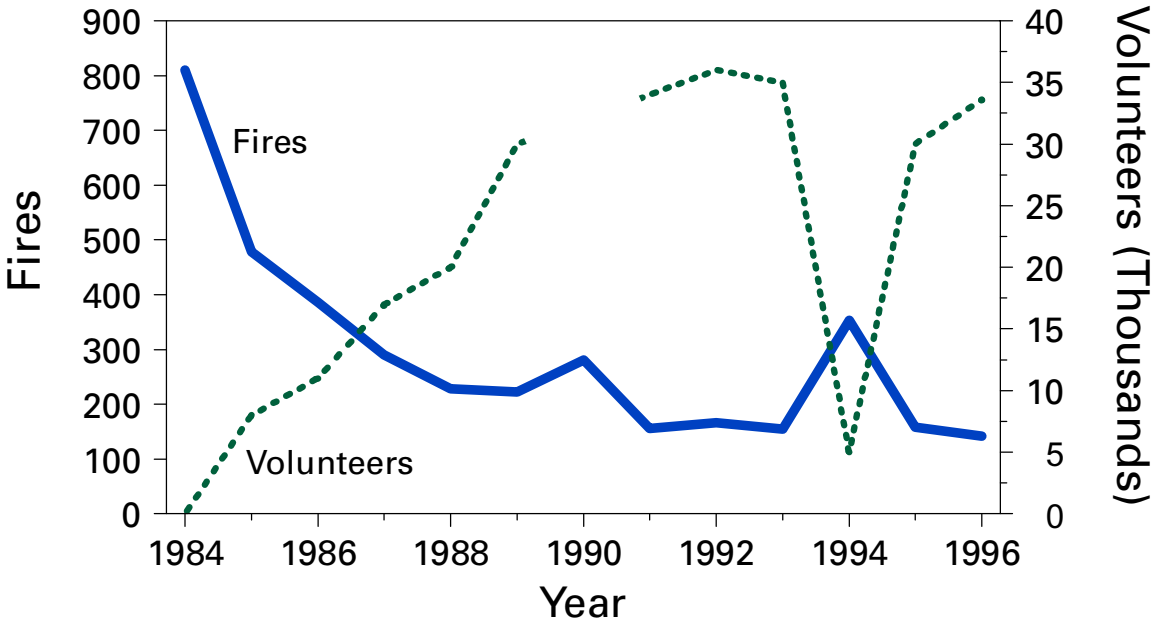
FIGURE 3. Total number of fires (arson and nonarson) reported during the 3-day Halloween period (October 29–31) and number of volunteers participating in arson-prevention activities — Detroit, Michigan, 1984–1996*



*Volunteer data not available for 1990.

Source: Detroit Fire Department, City of Detroit.

1996 decreased to within the range for 3-day periods during the remainder of the year. Among Halloween arson fires, refuse fires decreased most markedly from 1984 through 1987. Arson-related building fires also declined since 1985, but these fires still accounted for the greatest proportion of Halloween arson through 1996. In 1994, the number of fires increased sharply concurrent with a decrease in volunteer participation; in 1995, the number of fires decreased coincident with an increase in volunteer participation (Figure 3). Although the decreased numbers of volunteers may reflect declines in the intensity of other elements of the intervention, the contribution of each of these elements to changes in the number of fires cannot be assessed. The precise number of vacant buildings (an important target for Halloween arson) existing each year is not known, but the overall number is believed to have remained stable.

Use of fire surveillance data by the Anti-Arson Initiative Steering Committee to identify geographic areas at high risk for arson, target intervention activities, and deploy resources to the most critical locations serves as a model for prevention planning and may have contributed to the effectiveness of the annual campaign. Collaboration among fire, police, and other city officials facilitated planning and implementation efforts. The linkages between Detroit public safety and public health were strengthened through coordinated efforts between village health workers and some local police precinct personnel in recruiting community volunteers. This collaboration provides a basis for future collaborative interventions targeting other serious inner-city problems. Based on the importance of widespread community involvement in the Halloween arson-prevention intervention, the DFD has established the Arson in the Community

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Fire Prevention Program, a year-round program emphasizing education and prevention through community-based partnerships.

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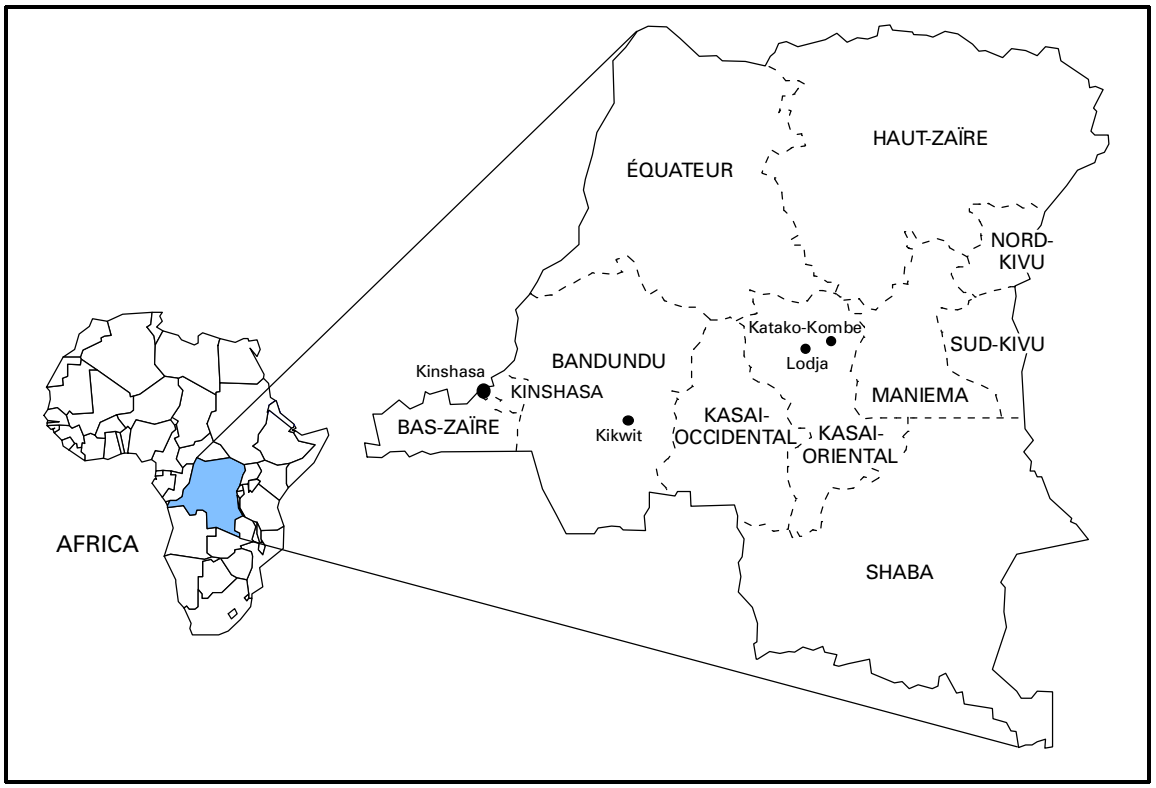
Human Monkeypox — Kasai Oriental, Zaire, 1996–1997

Monkeypox is an orthopoxvirus with enzootic circulation in rainforests of central and western Africa; the virus can be transmitted to humans and cause a syndrome clinically similar to smallpox (e.g., pustular rash, fever, respiratory symptoms, and in some cases, death). From February through August 1996, a total of 71 clinical cases of monkeypox, including six deaths, occurred in 13 villages in Africa in the Katako-Kombe health zone (1996 combined population: 15,698), Sankuru subregion, Kasai Oriental, Zaire (Figure 1) (*1*). During the initial investigation of this cluster of human cases, specimens of serum and/or crusted scab or fluid from vesicles were collected from 11 patients, and monkeypox virus infection was confirmed in all 11 patients by the World Health Organization (WHO) Collaborating Center for Smallpox and Other Poxvirus Infections at CDC. Preliminary DNA phylogenetic studies of this strain of virus indicated only minor genetic variation compared with other strains of monkeypox virus from Zaire collected during 1970–1979. Because of reports by local public health officials of ongoing disease transmission, the Zaire Ministry of Health and WHO organized a follow-up investigation in February 1997 to characterize the magnitude of the outbreak. This report summarizes the preliminary results of the ongoing multidisciplinary investigation, which suggest that person-to-person transmission accounted for most monkeypox cases investigated in 1996 and 1997; in contrast, during previous years, reports were primarily for sporadic cases that resulted from animal-to-human transmission (*2*).

As part of the follow-up investigation, during February 23–27, 1997, a dwelling-to-dwelling active case search was conducted in 12 villages (1997 combined population: 4057), including some of the villages in the initial investigation. A possible monkeypox case was defined as a vesicular, pustular, or crusted rash, not diagnosed as chickenpox by the family or the health-care provider, that occurred since January 1996 in a

Human Monkeypox — Continued

FIGURE 1. Location of Katako-Kombe health zone, Sankuru subregion, Kasai Oriental, Zaire



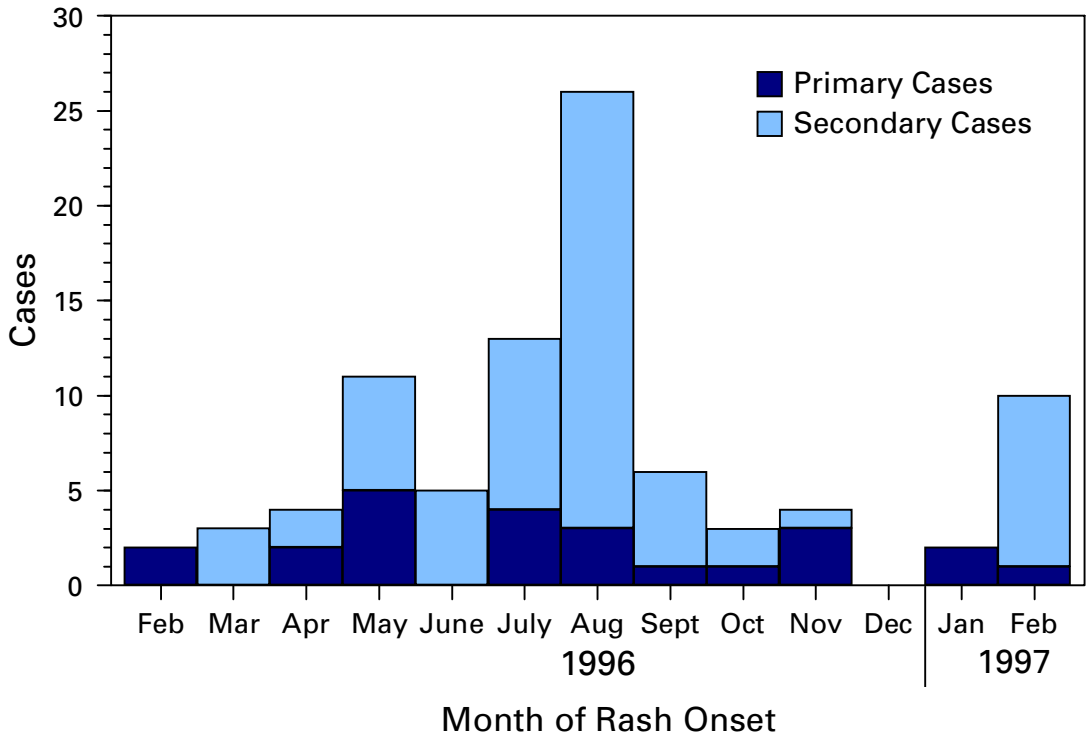
resident of the Katako-Kombe zone. A total of 92 possible monkeypox cases were identified (attack rate: 2%); seven cases had typical active vesiculo-pustular skin lesions. Fifty-one (55%) case-patients were male, and 25 (27%) were aged ≥15 years. In Akungula, the village with the highest attack rate (11 per 100 population), the 45 reported cases were clustered in eight of the 44 housing compounds. Of the 84 case-patients for whom vaccination data were available, 15 (18%) had a vaccination scar on the upper left arm suggesting receipt of vaccinia vaccine; of these, 13 (87%) were aged ≥25 years. Three (3%) of the 92 patients died; all were aged <3 years and died within 3 weeks of disease onset. The other three deaths reported during the initial investigation (*1*) either were not monkeypox cases or occurred in a village in which no active case search was conducted during the follow-up investigation.

Of the 89 case-patients for whom data were available, 65 (73%) reported contact with another case-patient 7–21 days before onset of illness and thus were considered secondary cases. The number of possible cases identified per month increased during February–August 1996 and decreased gradually during subsequent months (Figure 2). However, in February 1997, the number of reported cases increased again. The number of secondary cases was highest in August 1996.

Arboreal squirrels of the *Funisciurus* (Thomas' and Kuhl's tree squirrels) and *Heliosciurus* (sun squirrels) spp. have been implicated previously as probable reservoir hosts for monkeypox virus in Zaire based on antibody data and a single viral isolate from a *Funisciurus anerythrus* (*2*). In an attempt to assess the potential role of squir-

Human Monkeypox — Continued

FIGURE 2. Number of possible monkeypox cases, by date of rash onset — 12 villages, Katako-Kombe health zone, Sankuru subregion, Kasai Oriental, Zaire, February 1996–February 1997*



*n=89 (24 primary and 65 secondary cases).

rels as a reservoir for monkeypox virus and to estimate the seroprevalence in wild-caught species, animals were hunted by local villagers and trapped by the study team. Over 4 days, 84 animals representing 16 species were captured; all animals were examined for lesions, and serum specimens were collected from 64 (76%). Except for one squirrel from which skin biopsies were collected, lesions suspected to be associated with monkeypox were not present on any other animals. Most of the animals captured and processed were *Funisciurus* sp. (22 [34%] of 64) and *Cricetomys emini* (Gambian rat) (15 [23%] of 64). Virus isolation and antibody studies are ongoing.

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Editorial Note: Monkeypox virus, first identified in 1958 as a pathogen of cynomolgus monkeys, was associated with human illness in Zaire and West Africa during 1970–1971. The number of human monkeypox cases associated with the epidemic described in this report exceeded the total of 37 sporadic cases previously detected in

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the Sankuru subregion, Kasai Oriental region, by active surveillance activities during 1981–1986 (*2*). This outbreak was unrecognized until the end of July 1996, when an abrupt increase in the number of cases prompted a preliminary investigation by public health officials in Zaire (*1*). One person in a single village was the likely primary case-patient who may have been the source of infection for a cascade of person-to-person transmission to eight members of his family from February to July. During this period, monkeypox cases also were identified in persons who reported no contact with any other case-patient, suggesting introductions of monkeypox into the human population through contacts with wild animals.

In a previous study (*3*), the low secondary attack rate of monkeypox within households suggested low potential for person-to-person transmission and inability of the infection to sustain itself in a human population. However, this outbreak—with active cases continuing to occur in February 1997—differs from previously described monkeypox episodes. First, this outbreak represents the largest cluster of monkeypox cases ever reported. Second, the proportion of case-patients aged ≥15 years (27%) was substantially higher than previously reported (8%) (*2*). Third, the proportion of secondary cases (73%) was substantially higher than previously reported (30%) (*3*). Fourth, the clustering of cases by household compounds and the previously undescribed prolonged chains of transmission suggest that person-to-person transmission accounted for most of the cases during this outbreak. Finally, the case-fatality proportion (3%) was lower than what was previously reported (10%). Cessation of vaccinia vaccination (which is protective against monkeypox infection) (*2*) in the late 1970s has resulted in an increase in the number of persons susceptible to monkeypox and could account for the magnitude of the outbreak and the higher proportion of case-patients aged <15 years.

Local measures to interrupt disease transmission are ongoing and include education of health-care providers and distribution of health messages, such as limiting contact with wild-caught animals and restricting contact with suspected cases to a single person (preferably the oldest member of the household who has either recovered from monkeypox or has a vaccinia vaccination scar). Cohort studies of persons who had household or other close contact with monkeypox case-patients were interrupted during the investigation because of civil unrest in Zaire. These studies are needed to quantify the newly observed person-to-person transmission potential and to evaluate whether monkeypox infection can be sustained in a human population without the occurrence of new cases acquired through contact with wild animals. Analytical studies also should provide information about the natural history of monkeypox infection in humans and animals based on changing demographics and increased human interaction with the flora and fauna of the rainforest. The results of such studies will determine the need for additional risk-reduction measures, possibly including consideration of vaccinia vaccination under select circumstances.

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Multidrug-Resistant *Salmonella* Serotype Typhimurium — United States, 1996

A multidrug-resistant strain of *Salmonella* serotype Typhimurium known as Definitive Type 104 (DT104) has emerged as an increasing cause of *Salmonella* infections in the United Kingdom (UK). DT104 isolates in the UK are highly resistant to antimicrobial agents, frequently demonstrating a pattern of resistance to ampicillin, chloramphenicol, streptomycin, sulfonamides, and tetracycline (R-type ACSSuT) (*1*). This report summarizes surveillance data documenting the rapid emergence of DT104 R-type ACSSuT in the United States and preliminary findings from the investigation of the first outbreak of DT104 infections in this country.

U.S. Surveillance

S. Typhimurium was the second most commonly reported *Salmonella* serotype in 1995, accounting for 9702 (24%) of 41,222 *Salmonella* isolates reported that year. During July–August 1996, the algorithm used by the Public Health Laboratory Information System (PHLIS) to detect *Salmonella* outbreaks indicated that, in 29 states, the number of *S.* Typhimurium isolates had substantially increased when compared with a 5-year historical baseline. Although it is unknown whether these increases were associated with the emergence of DT104, the ACSSuT resistance pattern was present in 90 (32%) of the 282 human *S.* Typhimurium isolates tested at CDC in 1996. This pattern also was present in 273 (28%) of a national sample of 976 *S.* Typhimurium isolates tested during 1995, compared with 7% in 1990. In 1995, a total of 30 *S.* Typhimurium R-type ACSSuT isolates were obtained from 10 states and were sent to the UK for phage typing; of these, 25 (83%) were DT104.

Nebraska Outbreak

During October 1996, the Nebraska Department of Health was notified about an outbreak of diarrheal illness among elementary school children in Cass County, a farming community in east central Nebraska. During October 12–14, a total of 19 (59%) of 32 children attending an elementary school developed diarrhea (100%), fever (89%), headache (89%), nausea (89%), and vomiting (58%); three reported bloody diarrhea. None required hospitalization, and all recovered.

On October 10, during lunch at the school, children had been served cold chocolate milk poured from cartons. Of the 22 children who drank the milk, 18 (82%) developed diarrhea, compared with one (10%) of 10 children who did not drink it (risk ratio [RR]=8.2; 95% confidence interval [CI]=1.3–53.1). Inspection of the school refrigerator detected numerous cartons of milk with expiration dates predating October 10, but cultures of samples obtained from these remaining cartons were negative for enteropathogens. In addition, some children had handled a turtle brought to the school for "show-and-tell" and a reportedly ill kitten during October 7–9. However, neither the turtle nor kitten were available for testing. Culture of stool samples obtained from seven children all yielded *S.* Typhimurium R-type ACSSuT. Phage-typing at CDC confirmed the isolates as DT104.

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Salmonella *serotype Typhimurium — Continued*

Editorial Note: *S.* Typhimurium DT104 was first reported in the UK in 1984; this organism is now the second most prevalent strain of *Salmonella* isolated from humans in the UK after *Salmonella* serotype Enteritidis phage type 4 (*1*). Contact with ill farm animals and consumption of chicken, pork sausages, and meat paste were identified as risk factors for DT104 infection in England and Wales (*2*), and an outbreak investigation in 1995 implicated beef consumption (*3*). The organism has been isolated from several species (poultry, sheep, pigs [*4*], cats, wild birds, rodents, foxes, and badgers [*5*]) and has been transmitted from cattle and sheep to humans (*6*). The ecology of this organism in the United States has not been well characterized, and efforts similar to those conducted in the UK (*5*) are needed to elucidate its distribution in the environment and human food chain. However, transmission of *S.* Typhimurium DT104 through food probably occurs through a complex route that may include wild animals, animal feed, farm animals, slaughterhouses, processing and distribution networks, retail outlets, and the consumer.

The clinical features associated with infection with this organism were severe in the UK study: 41% of patients were hospitalized (*2*), and of 295 patients with culture-confirmed illness, 10 (3%) died. In contrast, the case-fatality rate for nontyphoid *Salmonella* infections is approximately 0.1% (*7*).

Although R-type ACSSuT is the most common antimicrobial resistance pattern of DT104 isolates (present in 54%–67% of DT104 isolates in the UK during 1992–1995), resistance of DT104 isolates to trimethoprim and fluoroquinolones is emerging. In the UK, from 1993 to 1995, trimethoprim-resistant DT104 (R-type ACSSuTTm) increased from 1% to 27% of isolates, and ciprofloxacin-resistant DT104 (R-type ACSSuTCp) increased from 0 to 6% of isolates (*1*). Acquisition of trimethoprim resistance may have resulted from use of this agent to treat DT104 R-type ACSSuT infections in cattle (*1*). In addition, the emergence of fluoroquinolone resistance may be related to veterinary use: enrofloxacin was licensed for veterinary use in the UK in 1994, and the observed increased resistance of human isolates of DT104 to fluoroquinolones followed this introduction (*1*). In 1995, the Food and Drug Administration approved the fluoroquinolone sarafloxacin for treatment of *Escherichia coli* infections in poultry flocks. Fluoroquinolone resistance has not been detected in DT104 isolates from humans in the United States; however, ciprofloxacin is currently a treatment of choice for *Salmonella* infections in adult humans. The development of fluoroquinolone resistance in a strain of *Salmonella* that causes serious human illness could have serious public health implications.

Reservoirs for DT104 infection in the United States are not known. The outbreak of DT104 infections in Nebraska suggests possible associations with animal reservoirs (e.g., through milk or contact with animals). However, additional epidemiologic studies are needed to improve understanding of risk factors for and public health implications associated with this pathogen. CDC is conducting a national case-control study of *S.* Typhimurium infections through the Emerging Infectious Diseases Program's Foodborne Diseases Active Surveillance Network (FoodNet). Resistance to chloramphenicol in *S.* Typhimurium isolates is a highly specific marker for DT104. State health departments investigating clusters of infections of *S.* Typhimurium can measure chloramphenicol resistance and, if present, contact CDC's Foodborne and Diarrheal Diseases Branch, Division of Bacterial and Mycotic Diseases, National Center for Infec-

Salmonella *serotype Typhimurium — Continued*

tious Diseases, to discuss more extensive antimicrobial testing and phage-typing of isolates.

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National Minority Cancer Awareness Week — April 20–26, 1997

National Minority Cancer Awareness Week is April 20–26, 1997. In 1997, an estimated 560,000 deaths from cancer will occur; of these, approximately 77,000 will occur among racial/ethnic minorities (*1*). To improve cancer control and prevention within minority and underserved populations, CDC, its partners, and other federal and nonprofit organizations are supporting various activities including 1) tracking cancer rates among minority populations, 2) recruiting members of minority groups into clinical trials, 3) increasing and improving research efforts that target minority and underserved populations, and 4) implementing community-based education programs and outreach initiatives that target and address the specific needs of different racial/ethnic groups.

To promote policies and programs that address inequalities in health care and reduce the imbalance in risk factors, morbidity, and deaths, CDC is supporting the *Sixth Biennial Symposium on Minorities, the Medically Underserved, and Cancer*. This year, the symposium is convening April 23–27, during National Minority Cancer Awareness Week in Washington, D.C. Additional information about the symposium is available from the Intercultural Cancer Council, telephone (713) 798-5383, or by accessing the World-Wide Web at http://icc.bcm.tmc.edu/symposium/. Information about cancer is available from the National Cancer Institute, telephone (800) 422-6237 ([800] 4-CANCER). In addition, information about CDC's cancer prevention and control programs is available from the World-Wide Web at http://www.cdc.gov/nccdphp/dcpc.

Reference

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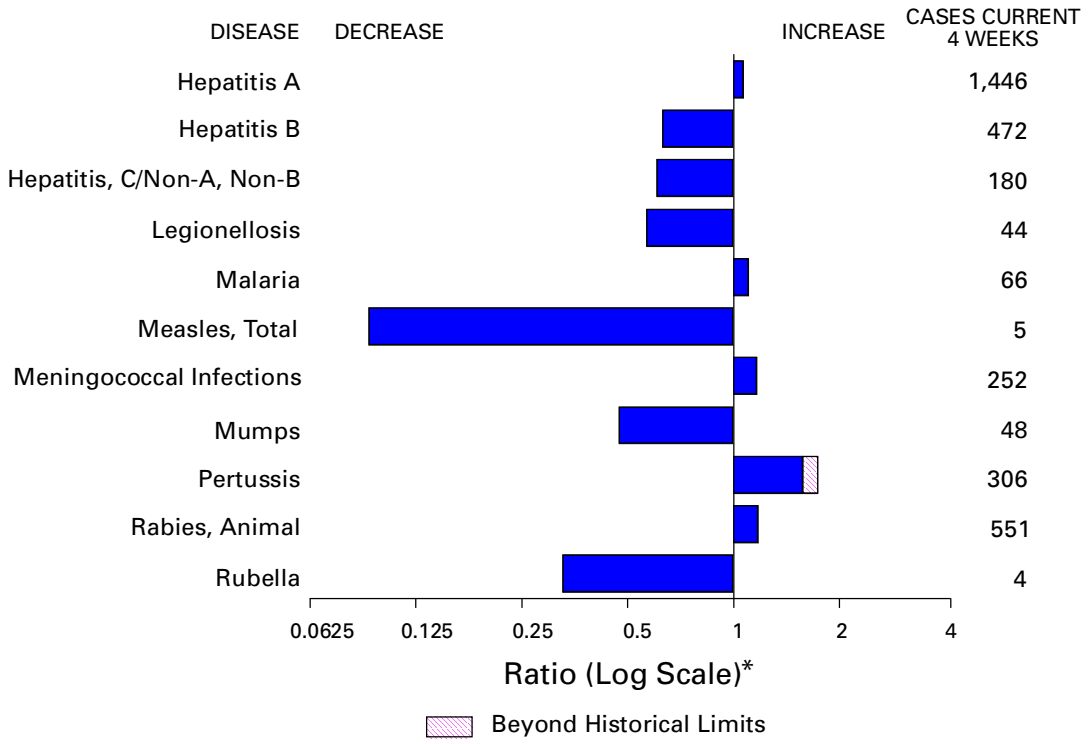
FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending April 5, 1997, with historical data — United States



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

TABLE I. Summary — provisional cases of selected notifiable diseases, United States, cumulative, week ending April 5, 1997 (14th Week)

	Cum. 1997		Cum. 1997
Anthrax	-	Plague	-
Brucellosis	11	Poliomyelitis, paralytic	-
Cholera	1	Psittacosis	11
Congenital rubella syndrome	2	Rabies, human	1
Cryptosporidiosis*	266	Rocky Mountain spotted fever (RMSF)	24
Diphtheria	2	Streptococcal disease, invasive Group A	294
Encephalitis: California*	4	Streptococcal toxic-shock syndrome*	6
eastern equine*	-	Syphilis, congenital¶	-
St. Louis*	-	Tetanus	8
western equine*	-	Toxic-shock syndrome	25
Hansen Disease	27	Trichinosis	2
Hantavirus pulmonary syndrome*†	1	Typhoid fever	72
Hemolytic uremic syndrome, post-diarrheal*	10	Yellow fever	-
HIV infection, pediatric*§	53		

-:no reported cases
*Not notifiable in all states.
†Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).
§Updated monthly to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), last update March 25, 1997.
¶Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending April 5, 1997, and April 6, 1996 (14th Week)

Reporting Area	AIDS		Chlamydia		*Escherichia coli* O157:H7		Gonorrhea		Hepatitis C/NA,NB	
					NETSS†	PHLIS§				
	Cum. 1997*	Cum. 1996	Cum. 1997	Cum. 1996	Cum. 1997	Cum. 1997	Cum. 1997	Cum. 1996	Cum. 1997	Cum. 1996
UNITED STATES	15,582	17,411	90,866	103,125	250	115	60,778	79,311	1,010	778
NEW ENGLAND	465	744	3,970	4,969	20	10	1,484	1,988	9	20
Maine	18	10	253	-	1	-	13	11	-	-
N.H.	4	23	144	177	-	-	37	34	2	2
Vt.	10	7	115	134	1	1	15	16	-	10
Mass.	220	484	1,750	1,775	15	9	635	597	7	5
R.I.	43	38	573	586	1	-	143	148	-	3
Conn.	170	182	1,135	2,297	2	-	641	1,182	-	-
MID. ATLANTIC	5,146	4,557	5,473	13,687	17	4	3,773	6,879	70	57
Upstate N.Y.	833	541	N	N	10	3	752	6	52	49
N.Y. City	2,649	2,448	-	5,969	4	-	-	3,467	-	1
N.J.	1,098	926	1,303	2,471	3	-	912	561	-	-
Pa.	566	642	4,170	5,247	N	1	2,109	2,845	18	7
E.N. CENTRAL	1,088	1,445	15,741	24,229	48	17	9,586	16,232	158	134
Ohio	216	354	3,693	5,669	17	9	2,442	4,163	5	4
Ind.	286	264	2,357	2,257	9	1	1,634	1,711	3	4
Ill.	372	525	2,982	7,140	10	-	1,551	4,694	14	26
Mich.	158	224	4,855	6,157	12	2	3,091	4,342	136	100
Wis.	56	78	1,854	3,006	N	5	868	1,322	-	-
W.N. CENTRAL	313	401	5,471	9,013	34	26	2,377	3,500	26	17
Minn.	55	83	-	1,369	20	16	U	-	-	-
Iowa	52	31	1,239	943	8	4	313	274	14	6
Mo.	135	169	2,793	4,133	1	3	1,585	2,346	5	7
N. Dak.	4	1	81	284	3	2	5	9	2	-
S. Dak.	2	5	298	323	-	-	32	47	-	-
Nebr.	28	32	250	663	1	-	88	129	-	2
Kans.	37	80	810	1,298	1	1	354	695	5	2
S. ATLANTIC	3,895	4,638	20,795	14,018	34	5	21,956	27,795	62	44
Del.	51	92	-	-	1	1	286	379	-	-
Md.	425	551	1,849	1,576	2	1	3,407	3,563	4	-
D.C.	182	229	N	N	-	-	1,234	1,180	-	-
Va.	323	223	3,090	3,129	N	-	2,405	2,660	4	3
W. Va.	21	24	-	-	N	-	186	99	1	4
N.C.	217	196	4,787	U	5	3	4,376	5,092	17	10
S.C.	213	226	3,331	U	-	-	2,961	3,113	12	11
Ga.	528	680	2,070	3,177	13	-	2,939	6,658	U	-
Fla.	1,935	2,417	5,668	6,136	13	-	4,162	5,051	24	16
E.S. CENTRAL	473	540	8,552	7,494	20	7	8,742	8,049	90	146
Ky.	48	88	1,703	1,940	6	-	1,063	1,097	6	8
Tenn.	203	200	3,075	3,182	12	7	2,673	2,784	42	137
Ala.	127	157	2,148	2,267	-	-	2,987	3,580	5	1
Miss.	95	95	1,626	105	2	-	2,019	588	37	-
W.S. CENTRAL	1,459	1,640	10,631	6,722	3	1	7,413	6,313	63	79
Ark.	59	70	338	394	2	-	662	1,076	2	1
La.	219	427	1,798	1,861	1	1	1,781	2,154	44	33
Okla.	86	52	2,048	2,034	-	-	1,347	1,255	2	26
Tex.	1,095	1,091	6,447	2,433	-	-	3,623	1,828	15	19
MOUNTAIN	441	512	5,463	3,324	28	19	1,882	2,130	98	170
Mont.	12	4	212	350	-	-	13	8	3	8
Idaho	8	7	418	422	2	-	33	25	14	38
Wyo.	9	2	121	186	1	-	16	10	37	47
Colo.	114	150	101	7	13	8	416	534	18	18
N. Mex.	34	25	1,051	1,088	4	3	363	254	14	26
Ariz.	122	134	2,527	75	N	6	818	1,006	7	21
Utah	30	62	399	425	2	-	47	74	2	7
Nev.	112	128	634	771	6	2	176	219	3	5
PACIFIC	2,302	2,934	14,770	19,669	46	24	3,565	6,425	434	111
Wash.	176	216	2,473	2,556	8	4	581	657	7	23
Oreg.	97	163	811	1,424	14	10	113	126	3	3
Calif.	2,002	2,516	10,737	15,014	21	8	2,621	5,354	379	42
Alaska	12	3	343	192	3	-	134	150	-	2
Hawaii	15	36	406	483	N	2	116	138	45	41
Guam	-	3	-	98	N	-	-	22	-	-
P.R.	420	416	N	N	12	U	244	60	24	13
V.I.	17	3	N	N	N	U	-	-	-	-
Amer. Samoa	-	-	-	-	N	U	-	-	-	-
C.N.M.I.	-	-	N	N	N	U	8	11	2	-

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

*Updated monthly to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, last update March 25, 1997.

†National Electronic Telecommunications System for Surveillance.

§Public Health Laboratory Information System.

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending April 5, 1997, and April 6, 1996 (14th Week)

Reporting Area	Legionellosis		Lyme Disease		Malaria		Syphilis (Primary & Secondary)		Tuberculosis		Rabies, Animal
	Cum. 1997	Cum. 1996	Cum. 1997	Cum. 1996	Cum. 1997	Cum. 1996	Cum. 1997	Cum. 1996	Cum. 1997	Cum. 1996	Cum. 1997
UNITED STATES	216	202	567	1,149	304	260	2,052	3,266	3,136	3,889	1,614
NEW ENGLAND	17	5	58	93	5	8	40	51	87	98	253
Maine	1	1	1	-	-	2	-	-	-	7	52
N.H.	3	-	2	2	-	1	-	1	2	3	10
Vt.	2	-	2	-	-	1	-	-	-	-	41
Mass.	6	2	29	10	4	3	17	21	48	32	51
R.I.	1	2	24	20	1	1	-	-	7	16	3
Conn.	4	N	-	61	-	-	23	29	30	40	96
MID. ATLANTIC	39	45	407	942	60	67	64	78	661	662	347
Upstate N.Y.	10	8	43	324	10	12	10	12	70	79	244
N.Y. City	-	1	2	226	31	33	-	36	364	337	-
N.J.	4	7	84	81	14	18	33	-	144	145	32
Pa.	25	29	278	311	5	4	21	30	83	101	71
E.N. CENTRAL	82	78	14	7	23	33	189	533	412	493	10
Ohio	48	30	11	5	2	5	68	214	93	71	6
Ind.	8	19	3	2	3	2	50	70	37	44	2
Ill.	-	9	-	-	5	12	18	139	200	302	1
Mich.	24	14	-	-	11	8	22	50	56	61	1
Wis.	2	6	U	U	2	6	31	60	26	15	-
W.N. CENTRAL	13	11	2	22	7	4	50	160	105	118	104
Minn.	-	-	-	1	3	1	-	36	34	30	12
Iowa	1	-	-	3	2	1	15	6	10	12	43
Mo.	4	3	-	7	2	1	22	103	41	48	6
N. Dak.	1	-	-	-	-	-	-	-	2	1	13
S. Dak.	1	2	-	-	-	-	-	-	2	9	17
Nebr.	5	6	2	-	-	-	-	6	-	5	-
Kans.	1	-	-	11	-	1	13	9	16	13	13
S. ATLANTIC	31	22	55	51	81	44	844	1,070	582	582	743
Del.	3	1	-	16	2	2	7	11	-	11	2
Md.	13	4	41	25	23	12	208	161	57	63	136
D.C.	1	1	4	-	5	2	32	43	21	24	1
Va.	1	6	-	-	16	6	88	132	40	43	157
W. Va.	-	1	-	3	-	-	-	1	13	19	18
N.C.	3	3	2	4	5	5	213	276	89	83	249
S.C.	2	1	1	1	3	2	106	131	84	81	25
Ga.	-	-	1	-	9	7	127	232	115	138	73
Fla.	8	5	6	2	18	8	63	83	163	120	82
E.S. CENTRAL	7	15	17	13	7	5	516	813	217	316	70
Ky.	-	3	1	4	1	2	46	44	45	53	8
Tenn.	3	7	3	3	2	2	212	268	34	90	47
Ala.	1	1	2	-	1	1	134	161	90	107	15
Miss.	3	4	11	6	3	-	124	340	48	66	-
W.S. CENTRAL	-	1	3	4	4	8	261	356	68	317	34
Ark.	-	-	-	3	1	-	22	76	45	35	9
La.	-	-	1	-	3	-	119	162	-	-	-
Okla.	-	1	1	1	-	-	34	44	23	43	25
Tex.	-	-	1	-	-	8	86	74	-	239	-
MOUNTAIN	16	10	-	-	20	18	34	42	107	138	9
Mont.	1	-	-	-	1	1	-	-	2	-	1
Idaho	1	-	-	-	-	-	-	1	1	2	-
Wyo.	1	-	-	-	1	2	-	1	1	1	-
Colo.	4	5	-	-	9	10	-	13	21	24	-
N. Mex.	-	-	-	-	2	1	-	-	8	20	1
Ariz.	3	2	-	-	1	1	28	24	49	54	7
Utah	4	-	-	-	-	2	1	-	4	10	-
Nev.	2	3	-	-	6	1	5	3	21	27	-
PACIFIC	11	15	11	17	97	73	54	163	897	1,165	44
Wash.	2	1	-	-	2	2	5	1	42	64	-
Oreg.	-	-	5	5	7	6	1	3	33	47	1
Calif.	8	14	6	11	87	62	47	158	745	990	36
Alaska	-	-	-	-	1	-	-	-	25	21	7
Hawaii	1	-	-	1	-	3	1	1	52	43	-
Guam	-	-	-	-	-	-	-	2	-	31	-
P.R.	-	-	-	-	2	-	82	37	-	47	16
V.I.	-	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	-	2	1	-	-	-

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

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending April 5, 1997, and April 6, 1996 (14th Week)

Reporting Area	*H. influenzae*, invasive		Hepatitis (Viral), by type				Measles (Rubeola)					
			A		B		Indigenous		Imported†		Total	
	Cum. 1997*	Cum. 1996	Cum. 1997	Cum. 1996	Cum. 1997	Cum. 1996	1997	Cum. 1997	1997	Cum. 1997	Cum. 1997	Cum. 1996
UNITED STATES	308	331	6,396	7,203	1,915	2,308	3	15	-	7	22	76
NEW ENGLAND	9	9	128	72	39	49	-	-	-	-	-	6
Maine	2	-	12	8	3	2	-	-	-	-	-	-
N.H.	1	7	8	3	4	2	-	-	-	-	-	-
Vt.	-	-	4	1	1	2	-	-	-	-	-	1
Mass.	5	2	54	34	25	11	-	-	-	-	-	4
R.I.	1	-	11	3	4	4	-	-	-	-	-	-
Conn.	-	-	39	23	2	28	-	-	-	-	-	1
MID. ATLANTIC	31	50	426	523	281	384	1	6	-	3	9	4
Upstate N.Y.	1	4	44	82	54	73	-	1	-	3	4	1
N.Y. City	12	9	157	247	97	179	-	4	-	-	4	3
N.J.	11	20	93	113	65	78	-	-	-	-	-	-
Pa.	7	17	132	81	65	54	1	1	-	-	1	-
E.N. CENTRAL	42	60	573	664	228	296	-	3	-	1	4	3
Ohio	24	34	131	277	28	34	-	-	-	-	-	2
Ind.	4	2	81	101	21	34	-	-	-	-	-	-
Ill.	9	17	117	147	38	85	-	3	-	-	3	-
Mich.	4	3	207	90	138	114	-	-	-	1	1	-
Wis.	1	4	37	49	3	29	-	-	-	-	-	1
W.N. CENTRAL	8	11	462	538	83	114	2	3	-	-	3	3
Minn.	2	4	27	18	3	3	-	-	-	-	-	2
Iowa	2	3	73	129	33	12	-	-	-	-	-	-
Mo.	1	3	244	260	33	76	2	3	-	-	3	1
N. Dak.	-	-	5	5	-	-	-	-	-	-	-	-
S. Dak.	2	1	5	27	-	-	-	-	-	-	-	-
Nebr.	-	-	36	57	6	7	-	-	-	-	-	-
Kans.	1	-	72	42	8	16	-	-	-	-	-	-
S. ATLANTIC	79	67	420	247	278	358	-	-	-	-	-	2
Del.	-	1	10	5	1	1	-	-	-	-	-	1
Md.	25	21	97	54	45	86	-	-	-	-	-	-
D.C.	2	-	11	6	18	5	-	-	-	-	-	-
Va.	3	3	45	44	26	40	-	-	-	-	-	-
W. Va.	1	1	5	6	6	8	-	-	-	-	-	-
N.C.	10	13	56	26	63	103	-	-	-	-	-	-
S.C.	4	3	31	24	20	28	-	-	-	-	-	-
Ga.	15	22	39	2	14	3	-	-	-	-	-	-
Fla.	19	3	126	80	85	84	-	-	-	-	-	1
E.S. CENTRAL	14	10	164	539	185	179	-	-	-	-	-	-
Ky.	1	3	21	6	9	23	-	-	-	-	-	-
Tenn.	10	2	77	402	107	141	-	-	-	-	-	-
Ala.	3	4	35	75	21	15	-	-	-	-	-	-
Miss.	-	1	31	56	48	U	-	-	-	-	-	-
W.S. CENTRAL	15	9	1,107	1,147	152	185	-	-	-	-	-	1
Ark.	1	-	69	143	16	26	-	-	-	-	-	-
La.	-	-	54	20	34	13	-	-	-	-	-	-
Okla.	11	9	474	525	8	16	-	-	-	-	-	-
Tex.	3	-	510	459	94	130	-	-	-	-	-	1
MOUNTAIN	34	20	1,171	1,066	249	273	-	-	-	-	-	4
Mont.	-	-	34	22	1	2	-	-	-	-	-	-
Idaho	-	1	52	104	9	26	-	-	-	-	-	-
Wyo.	-	-	14	6	12	6	-	-	-	-	-	-
Colo.	2	4	136	109	50	38	-	-	-	-	-	-
N. Mex.	2	7	72	145	80	103	-	-	-	-	-	-
Ariz.	12	5	512	326	46	47	-	-	-	-	-	-
Utah	3	2	242	268	31	36	-	-	-	-	-	-
Nev.	15	1	109	86	20	15	-	-	-	-	-	4
PACIFIC	76	95	1,945	2,407	420	470	-	3	-	3	6	53
Wash.	1	1	151	139	16	25	-	-	-	-	-	4
Oreg.	14	12	114	356	38	37	-	-	-	-	-	-
Calif.	58	80	1,624	1,866	354	405	-	-	-	3	3	-
Alaska	1	-	12	23	8	1	-	-	-	-	-	48
Hawaii	2	2	44	23	4	2	-	3	-	-	3	1
Guam	-	-	-	2	-	-	U	-	U	-	-	-
P.R.	-	-	119	20	383	45	-	-	-	-	-	1
V.I.	-	-	-	-	-	-	U	-	U	-	-	-
Amer. Samoa	-	-	-	-	-	-	U	-	U	-	-	-
C.N.M.I.	4	10	1	1	15	5	U	1	U	-	1	-

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

*Of 60 cases among children aged <5 years, serotype was reported for 30 and of those, 13 were type b.

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

TABLE III. (Cont'd.) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending April 5, 1997, and April 6, 1996 (14th Week)

Reporting Area	Meningococcal Disease		Mumps			Pertussis			Rubella		
	Cum. 1997	Cum. 1996	1997	Cum. 1997	Cum. 1996	1997	Cum. 1997	Cum. 1996	1997	Cum. 1997	Cum. 1996
UNITED STATES	1,124	1,068	14	144	161	88	1,228	734	-	8	40
NEW ENGLAND	69	42	-	6	-	3	301	178	-	-	6
Maine	9	6	-	-	-	-	6	8	-	-	-
N.H.	6	1	-	-	-	-	39	15	-	-	-
Vt.	2	1	-	-	-	3	114	6	-	-	-
Mass.	40	14	-	1	-	-	127	146	-	-	4
R.I.	2	5	-	4	-	-	11	-	-	-	-
Conn.	10	15	-	1	-	-	4	3	-	-	2
MID. ATLANTIC	92	99	-	12	22	5	84	71	-	2	4
Upstate N.Y.	24	21	-	1	6	-	42	37	-	1	2
N.Y. City	15	18	-	-	4	-	6	13	-	1	1
N.J.	21	23	-	-	2	-	-	3	-	-	1
Pa.	32	37	-	11	10	5	36	18	-	-	-
E.N. CENTRAL	140	151	6	22	45	9	121	149	-	2	1
Ohio	60	50	4	7	17	6	53	51	-	-	-
Ind.	15	14	1	4	5	2	11	9	-	-	-
Ill.	42	54	1	7	9	-	17	45	-	-	1
Mich.	10	12	-	4	14	1	22	9	-	-	-
Wis.	13	21	-	-	-	-	18	35	-	2	-
W.N. CENTRAL	81	88	1	7	2	11	76	33	-	-	-
Minn.	2	4	-	3	-	10	45	22	-	-	-
Iowa	22	15	1	3	-	-	12	2	-	-	-
Mo.	39	43	-	-	-	1	10	4	-	-	-
N. Dak.	-	2	-	-	2	-	1	-	-	-	-
S. Dak.	3	3	-	-	-	-	1	1	-	-	-
Nebr.	5	9	-	1	-	-	2	1	-	-	-
Kans.	10	12	-	-	-	-	5	3	-	-	-
S. ATLANTIC	214	158	2	22	17	18	128	54	-	1	-
Del.	4	2	-	-	-	-	-	7	-	-	-
Md.	25	19	1	3	8	1	48	29	-	-	-
D.C.	1	3	-	-	-	-	2	-	-	-	-
Va.	14	16	-	1	3	3	17	3	-	-	-
W. Va.	2	4	-	-	-	-	3	2	-	-	-
N.C.	39	28	-	5	-	7	27	-	-	-	-
S.C.	32	24	-	1	3	-	3	-	-	1	-
Ga.	37	53	-	2	1	-	2	2	-	-	-
Fla.	60	9	1	10	2	7	26	11	-	-	-
E.S. CENTRAL	87	90	-	11	7	-	25	31	-	-	-
Ky.	20	12	-	-	-	-	1	23	-	-	-
Tenn.	30	25	-	3	1	-	10	5	-	-	-
Ala.	25	29	-	4	3	-	7	1	-	-	-
Miss.	12	24	-	4	3	-	7	2	-	-	N
W.S. CENTRAL	112	112	2	17	7	2	17	10	-	-	-
Ark.	20	14	-	-	-	-	3	2	-	-	-
La.	21	23	1	5	7	1	6	2	-	-	-
Okla.	13	9	-	-	-	-	-	1	-	-	-
Tex.	58	66	1	12	-	1	8	5	-	-	-
MOUNTAIN	70	67	-	5	11	15	246	100	-	-	1
Mont.	4	1	-	-	-	-	3	4	-	-	-
Idaho	5	8	-	2	-	10	156	32	-	-	-
Wyo.	-	3	-	-	-	-	3	-	-	-	-
Colo.	19	9	-	2	-	3	62	18	-	-	-
N. Mex.	12	12	N	N	N	2	12	19	-	-	-
Ariz.	16	20	-	-	1	-	9	5	-	-	1
Utah	10	7	-	1	1	-	1	2	-	-	-
Nev.	4	7	-	-	9	-	-	20	-	-	-
PACIFIC	259	261	3	42	50	25	230	108	-	3	28
Wash.	27	31	-	3	5	23	98	35	-	-	1
Oreg.	59	43	-	-	-	-	6	21	-	-	-
Calif.	172	181	2	29	37	2	121	44	-	1	25
Alaska	-	4	-	1	1	-	1	-	-	-	-
Hawaii	1	2	1	9	7	-	4	8	-	2	2
Guam	-	1	U	-	3	U	-	-	U	-	-
P.R.	2	2	-	-	1	-	-	-	-	-	-
V.I.	-	-	U	-	-	U	-	-	U	-	-
Amer. Samoa	-	-	U	-	-	U	-	-	U	-	-
C.N.M.I.	-	-	U	-	-	U	-	-	U	-	-

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

TABLE IV. Deaths in 122 U.S. cities,* week ending April 5, 1997 (14th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	>65	45-64	25-44	1-24	<1	
NEW ENGLAND	612	432	102	44	20	14	59
Boston, Mass.	139	86	23	14	7	9	20
Bridgeport, Conn.	39	30	3	1	5	-	2
Cambridge, Mass.	16	13	1	1	1	-	1
Fall River, Mass.	18	15	2	1	-	-	-
Hartford, Conn.	82	55	18	7	1	1	3
Lowell, Mass.	30	28	1	1	-	-	6
Lynn, Mass.	12	8	4	-	-	-	1
New Bedford, Mass.	25	17	6	1	-	1	-
New Haven, Conn.	29	19	6	2	2	-	5
Providence, R.I.	63	40	15	4	3	1	8
Somerville, Mass.	7	7	-	-	-	-	1
Springfield, Mass.	52	39	9	3	-	1	2
Waterbury, Conn.	35	27	4	4	-	-	2
Worcester, Mass.	65	48	10	5	1	1	8
MID. ATLANTIC	2,328	1,620	425	190	46	47	121
Albany, N.Y.	55	39	9	3	-	4	7
Allentown, Pa.	23	23	-	-	-	-	-
Buffalo, N.Y.	55	41	8	3	1	2	5
Camden, N.J.	56	34	15	2	3	2	3
Elizabeth, N.J.	31	18	1	3	1	8	-
Erie, Pa.	47	36	8	3	-	-	2
Jersey City, N.J.	55	37	11	7	-	-	6
New York City, N.Y.	1,187	820	230	99	17	21	38
Newark, N.J.	78	36	20	16	6	-	4
Paterson, N.J.	25	16	2	4	2	1	-
Philadelphia, Pa.	303	217	51	23	9	3	13
Pittsburgh, Pa.§	60	39	12	5	1	3	6
Reading, Pa.	6	3	1	2	-	-	1
Rochester, N.Y.	114	87	14	7	5	1	15
Schenectady, N.Y.	36	26	9	1	-	-	1
Scranton, Pa.	26	20	5	1	-	-	3
Syracuse, N.Y.	100	74	18	6	1	1	10
Trenton, N.J.	37	25	7	4	-	1	1
Utica, N.Y.	13	10	2	1	-	-	2
Yonkers, N.Y.	21	19	2	-	-	-	4
E.N. CENTRAL	2,183	1,508	435	137	41	61	140
Akron, Ohio	44	28	13	2	1	-	-
Canton, Ohio	47	33	13	-	1	-	7
Chicago, Ill.	516	308	134	45	12	17	41
Cincinnati, Ohio	82	65	8	5	2	2	8
Cleveland, Ohio	203	138	40	15	1	9	2
Columbus, Ohio	129	77	27	15	5	5	4
Dayton, Ohio	114	85	20	5	2	2	13
Detroit, Mich.	200	117	51	17	8	6	6
Evansville, Ind.	55	49	3	2	-	1	-
Fort Wayne, Ind.	61	50	9	1	-	1	4
Gary, Ind.	U	U	U	U	U	U	U
Grand Rapids, Mich.	43	36	3	2	2	-	9
Indianapolis, Ind.	170	118	34	9	2	7	8
Lansing, Mich.	51	38	7	5	-	1	6
Milwaukee, Wis.	142	112	20	6	-	4	11
Peoria, Ill.	41	26	8	1	2	4	4
Rockford, Ill.	67	52	14	1	-	-	5
South Bend, Ind.	61	48	9	4	-	-	3
Toledo, Ohio	102	79	19	1	1	2	6
Youngstown, Ohio	55	49	3	1	2	-	3
W.N. CENTRAL	824	589	138	44	24	14	38
Des Moines, Iowa	55	40	8	6	1	-	2
Duluth, Minn.	30	23	7	-	-	-	3
Kansas City, Kans.	55	42	7	4	2	-	-
Kansas City, Mo.	129	81	24	7	2	-	6
Lincoln, Nebr.	33	25	6	2	-	-	2
Minneapolis, Minn.	158	117	26	7	5	3	5
Omaha, Nebr.	105	79	13	2	6	5	10
St. Louis, Mo.	119	84	23	5	4	3	2
St. Paul, Minn.	59	43	11	4	-	1	4
Wichita, Kans.	81	55	13	7	4	2	4

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	>65	45-64	25-44	1-24	<1	
S. ATLANTIC	1,562	1,007	328	152	41	33	84
Atlanta, Ga.	205	130	49	24	1	1	5
Baltimore, Md.	283	177	62	30	8	6	37
Charlotte, N.C.	92	61	22	5	3	1	6
Jacksonville, Fla.	140	99	23	14	2	2	6
Miami, Fla.	111	72	27	9	2	1	2
Norfolk, Va.	45	26	10	1	5	3	4
Richmond, Va.	84	45	24	7	5	3	1
Savannah, Ga.	72	54	8	5	2	2	3
St. Petersburg, Fla.	65	55	8	-	1	1	4
Tampa, Fla.	179	120	36	16	3	4	11
Washington, D.C.	275	160	56	41	9	9	5
Wilmington, Del.	11	8	3	-	-	-	-
E.S. CENTRAL	775	518	169	53	16	19	49
Birmingham, Ala.	U	U	U	U	U	U	U
Chattanooga, Tenn.	101	66	23	7	1	4	6
Knoxville, Tenn.	61	45	12	2	-	2	6
Lexington, Ky.	73	55	14	2	-	2	4
Memphis, Tenn.	275	179	61	26	8	1	20
Mobile, Ala.	94	57	26	3	2	6	-
Montgomery, Ala.	31	22	6	3	-	-	6
Nashville, Tenn.	140	94	27	10	5	4	7
W.S. CENTRAL	1,557	1,055	295	131	48	28	100
Austin, Tex.	85	60	9	11	4	1	10
Baton Rouge, La.	42	28	9	4	1	-	-
Corpus Christi, Tex.	62	40	15	2	5	-	4
Dallas, Tex.	229	135	59	20	10	5	5
El Paso, Tex.	58	37	11	6	3	1	3
Ft. Worth, Tex.	109	84	18	5	2	-	5
Houston, Tex.	385	252	74	41	7	11	33
Little Rock, Ark.	90	64	22	2	2	-	7
New Orleans, La.	111	70	20	11	6	4	-
San Antonio, Tex.	178	133	23	15	4	3	11
Shreveport, La.	52	35	13	1	2	1	6
Tulsa, Okla.	156	117	22	13	2	2	16
MOUNTAIN	935	641	160	83	29	20	81
Albuquerque, N.M.	122	85	14	12	10	1	5
Boise, Idaho	39	25	7	6	1	-	3
Colo. Springs, Colo.	54	37	14	2	-	1	4
Denver, Colo.	116	82	19	7	2	6	14
Las Vegas, Nev.	214	139	41	27	6	1	21
Ogden, Utah	38	30	6	2	-	-	1
Phoenix, Ariz.	182	113	38	14	7	8	12
Pueblo, Colo.	33	23	5	2	1	2	7
Salt Lake City, Utah	U	U	U	U	U	U	U
Tucson, Ariz.	137	107	16	11	2	1	14
PACIFIC	1,561	1,118	295	101	24	22	131
Berkeley, Calif.	18	15	2	1	-	-	2
Fresno, Calif.	88	70	10	5	2	1	7
Glendale, Calif.	36	25	9	1	1	-	3
Honolulu, Hawaii	72	49	15	5	1	2	3
Long Beach, Calif.	79	56	15	6	1	1	11
Los Angeles, Calif.	523	383	89	31	10	10	43
Pasadena, Calif.	39	28	10	-	-	1	4
Portland, Oreg.	123	85	33	4	1	-	8
Sacramento, Calif.	U	U	U	U	U	U	U
San Diego, Calif.	135	85	36	10	1	3	14
San Francisco, Calif.	113	70	26	15	-	1	17
San Jose, Calif.	U	U	U	U	U	U	U
Santa Cruz, Calif.	50	41	2	5	1	1	5
Seattle, Wash.	139	95	28	14	1	1	5
Spokane, Wash.	57	46	6	3	2	-	5
Tacoma, Wash.	89	70	14	1	3	1	4
TOTAL	12,337¶	8,488	2,347	935	289	258	803

U: Unavailable -: no reported cases

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

†Pneumonia and influenza.

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

¶Total includes unknown ages.

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