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Knowledge About Causes of Peptic Ulcer Disease — United States, March–April 1997

An estimated 25 million persons in the United States have had peptic ulcer disease (PUD) during their lifetimes (*1*). A high proportion (at least 90%) of PUD cases are caused by infection with *Helicobacter pylori*—an association first reported in 1983 (*2,3*). However, in 1995, most (72%) of the general public was unaware of this association (*4*). To increase awareness among the general public and health-care providers about the relation between *H. pylori* infection and PUD, CDC, in collaboration with other federal agencies, academic institutions, and partners from private industry, has developed an awareness and education campaign. The campaign is being initiated during October 19–25, 1997, in conjunction with National Infection Control Week. In preparation for the education campaign, during early 1997 a population-based survey was conducted to provide more current estimates of knowledge about the causes of PUD. This report summarizes the survey findings and describes the campaign; the findings indicate that only 27% of the general public is aware of the association between *H. pylori* infection and PUD.

Questions about the causes of PUD were included as part of the Health Styles Supplemental Survey, which was administered during March–April 1997 (*5*). Questionnaires were mailed to a representative sample of 3064 U.S. adults aged ≥18 years; of these, 2512 (82%) persons completed the questionnaire. Respondents read statements about the causes of PUD and were asked whether they agreed or disagreed with each statement; therefore, respondents could identify more than one cause. To compensate for differential nonresponse rates in various demographic categories, data were weighted to the 1992 distribution of the U.S. population by age, sex, race/ethnicity, income level, and region.

Approximately 60% (95% confidence interval [CI]=58%–62%) of respondents believed that ulcers were caused by too much stress; 17% (95% CI=16%–18%), that eating spicy foods caused ulcers; and 27% (95% CI=25%–29%), that a bacterial infection caused ulcers. The belief that stress was the most likely cause was highest among persons aged 18–24 years (78% [95% CI=65%–81%]) and among persons with annual household incomes of <$15,000 (65% [95% CI=60%–70%]). Similarly, the belief that spicy food was the most common cause of ulcers was highest among persons aged 18–24 years (33% [95% CI=18%–48%]) and among persons with annual household incomes of <$15,000 (26% [95% CI=22%–30%]). The proportion of respondents who

Peptic Ulcer Disease — Continued

believed that PUD was caused by an infection increased with increasing age, from 12% (95% CI=2%–22%) among persons aged 18–24 years to 33% (95% CI=30%–36%) among persons aged ≥55 years.

Reported by: Porter Novelli, Washington, DC. Foodborne and Diarrheal Diseases Br, Div of Bacterial and Mycotic Diseases, National Center for Infectious Diseases, CDC.

Editorial Note: PUD is the primary reported cause of death in approximately 6500 persons in the United States each year (*1*). The estimated direct costs of patient care and indirect costs caused by work and productivity loss for PUD are $6 billion annually (*6*). Before 1983, the major causes of PUD were considered to be excess acid, diet, smoking, and stress, and most patients with recurrent PUD were treated with maintenance doses of acid-reducing medications. With the discovery of the association between *H. pylori* infection and PUD, appropriate antibiotic regimens can now successfully eradicate gastrointestinal infection with this organism and permanently cure ulcers in a high proportion of patients.

In 1994, a National Institutes of Health consensus development conference panel concluded that patients with ulcers caused by *H. pylori* infection require treatment with antimicrobial agents (*7*). Therapy consists of a combination of effective antibiotics for 7–14 days; cure rates for established therapies range from approximately 70% to 90%, depending on the specific regimen (*8*). Five *H. pylori* treatment regimens have been approved by the Food and Drug Administration.

The development of effective treatment has enabled a new public health approach to PUD, which was previously considered a chronic disease. Further research of this emerging infectious disease is needed, including modes of transmission and factors associated with the development of asymptomatic illness. Even though effective primary prevention strategies remain to be defined, appropriate diagnosis and antibiotic treatment can substantially reduce the burden of PUD. This secondary prevention strategy depends on awareness that PUD is caused by a curable infection.

In 1994 and 1996, national surveys of primary-care physicians and gastroenterologists about knowledge of the association between *H. pylori* infection and PUD indicated that approximately 90% of these physicians identified *H. pylori* infection as the primary cause of PUD (*9,10*). However, primary-care physicians reported treating approximately 50% of patients with first-time ulcer symptoms with antisecretory agents without testing for *H. pylori*; in comparison, gastroenterologists reported treating approximately 30% of patients with first-time ulcer symptoms with these agents (T. Breuer, Baylor College of Medicine, personal communication, 1996). These findings suggest that further education of the medical community is needed.

The findings of the survey described in this report are consistent with those of the population-based survey in 1995 (*4*) and confirm limited awareness among the general population about *H. pylori* infection as a treatable cause of PUD. CDC, in collaboration with partner organizations, has developed a national campaign to increase awareness among and educate the general public and the medical community about the association between *H. pylori* infection and PUD. This month, public service announcements for television and radio are being released in both English and Spanish. In addition, consumer education brochures and information about treatment strategies are being mailed to health-care providers. These materials also are available from CDC, telephone (888) 698-5237 ([888] MY-ULCER).

Peptic Ulcer Disease — Continued

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Childhood Pedestrian Deaths During Halloween — United States, 1975–1996

During 1995, pedestrian deaths accounted for approximately 15% of all motor-vehicle–related deaths sustained by children aged 0–19 years in the United States (*1*). Because of the levels of participation in Halloween-related activities by elementary and middle school-aged children, these children might be more likely to sustain pedestrian injuries on that evening than on other evenings. To characterize the occurrence of fatal pedestrian injury among children on Halloween, CDC analyzed mortality data from the Fatal Analysis Reporting System (FARS) of the National Highway Traffic Safety Administration (NHTSA) during 1975–1996. This report summarizes the results of the analysis and suggests measures to prevent Halloween-related pedestrian injuries and deaths among children. The findings indicate that the number of childhood pedestrian deaths increased fourfold among children on Halloween evenings when compared with all other evenings.

FARS is a record of all motor-vehicle crashes that occur on public roads in the United States and result in the death of an occupant or nonmotorist within 30 days. NHTSA compiles data from police crash reports, death certificates, coroner reports, hospital records, emergency medical system reports, state highway department information, and other sources. For this analysis, Halloween-related pedestrian deaths were defined as deaths resulting from motor-vehicle crashes on October 31 each year from 4 p.m. through 10 p.m. This time period was selected because most outdoor Halloween activities among persons aged 5–14 years occur during these hours.

Childhood Pedestrian Deaths — Continued

During 1975–1996, from 4 p.m. through 10 p.m. on October 31, a total of 89 deaths occurred among pedestrians aged 5–14 years, compared with 8846 on all other evenings. Overall, among children aged 5–14 years, an average of four deaths occurred on Halloween during these hours each year, compared with an average of one death during these hours on every other day of the year.

Reported by: Div of Unintentional Injury Prevention, National Center for Injury Prevention and Control, CDC.

Editorial Note: The findings in this report indicate that, during 1975–1996, the number of deaths among young pedestrians was fourfold higher on Halloween evening when compared with the same time period during all other evenings of the year. This analysis may undercount the number of deaths because 1) FARS does not include off-road motor-vehicle crashes (e.g., crashes that occur in driveways, parking lots, and on sidewalks); 2) Halloween activities occasionally occur on another day, particularly if October 31 is a Sunday; and 3) some Halloween activities extend beyond 10 p.m.

Child pedestrian injuries result from an interrelated set of factors involving the driver, the child, and their surroundings. Halloween poses special environmental and behavioral risks compounded by the inherent limitations of the child's developmental stage. Most of the time children spend outdoors is during daylight hours; however, Halloween-related activities occur primarily after dark. This period of darkness is lengthened by the return to Standard Time, which immediately precedes Halloween. In addition, children engaged in door-to-door "trick or treat" activities frequently cross streets at midblock rather than at corners or crosswalks, a known risk factor for pedestrian collision (*2*). Black costumes can further limit the visibility of young pedestrians to drivers. Sensory acuity may be decreased by masks that can restrict peripheral vision and hearing. Attention to sensory input may be decreased because of distractions, including urges to acquire the best candy, shouts from other children, eye-catching costumes and decorations, and time pressure to acquire candy.

In addition to these holiday-specific problems, the pedestrian skills of children are limited by at least five factors related to their physical attributes (e.g., size and motor coordination) and developmental stage that impair their street-crossing skills until approximately age 12 years (*3*). First, young children may lack the physical ability to rapidly cross the street, and their short stature limits their visibility to drivers. Second, children are likely to choose the shortest rather than safest route across streets, often darting out at mid-block or entering the roadway between parked cars (*4*). Third, children normally disregard peripheral vision, have reduced attentiveness, localize sounds poorly, and lack sufficient impulse control (*5*). Fourth, young children do not evaluate potential traffic threats effectively; they cannot anticipate driver behavior, have less acute sensory perception, and process sensory information more slowly than adults (*3,6*). Fifth, children may engage in "magical thinking" that leads them to believe, for example, that they are protected from vehicular harm within the confines of a painted crosswalk (*6,7*).

Parents and caregivers of young children may overestimate the ability of their children to negotiate traffic independently (*8*), underscoring the need for constant adult supervision of school-aged children during trick-or-treat activities. Public health departments and schools should emphasize the importance of adult supervision and other injury-prevention measures just before Halloween (see box).

Childhood Pedestrian Deaths — Continued

Safety Tips for Halloween

Pedestrian Safety

- Parents should establish a route for children in a known neighborhood.
- Children should use flashlights, stay on sidewalks, and avoid crossing yards.
- Children should cross streets at the corner (using crosswalks when they exist) and not between parked cars.
- Children should stop at all corners and stay together in a group before crossing.
- Motorists should drive slowly, watch for children in the street and on medians, and exit driveways and alleyways carefully.
- Children should wear clothing that is bright, reflective, and flame retardant.
- Children should consider using face paint instead of masks, or should wear masks that are well-fitting with eye- and ear-holes that do not obscure sight or hearing; children should not wear floppy hats or hats that will slide over the eyes.
- To reduce the likelihood of tripping, children should not wear long, baggy, or loose costumes or oversized shoes.

General Safety Planning

- Parents should establish a curfew for older youth.
- Children should only go to well-lit houses and remain on porches rather than entering houses.
- Children should travel in small groups and should be accompanied by an adult.
- Children should know their phone number and carry coins for emergency telephone calls.
- Children should have their names and addresses attached to their costumes.
- Children should bring treats home before eating them so parents can inspect them.
- Adults should prepare homes for trick-or-treaters by clearing porches, lawns, and sidewalks and by placing jack-o-lanterns away from doorways or landings.
- Children should use costume knives and swords that are flexible, not rigid or sharp.
- Adults and children who are carving pumpkins should use stable, flat surfaces with good lighting; draw and follow patterns on the outside of the pumpkin instead of freehand carving; and use blunt instruments with dull serrations specially designed for pumpkin carving.

Sources: U.S. Consumer Product Safety Commission and the National SAFE KIDS Campaign.

Childhood Pedestrian Deaths — Continued

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As part of its continuing commemoration of CDC's 50th anniversary in July 1996, MMWR *is reprinting selected* MMWR *articles of historical interest to public health, accompanied by current editorial notes. Reprinted below are the reports published January 6, 1978, and May 5, 1978, describing the final case of naturally acquired smallpox and steps toward certifying countries as smallpox-free.*

Smallpox Surveillance — Worldwide

A total of 3,234 cases of smallpox have been reported from Eastern Africa to the World Health Organization (WHO) in the period January 1–December 6, 1977. Since October 16, 1975 — more than 2 years ago — when a case occurred in Bangladesh, smallpox has been detected only in Ethiopia, Kenya, and Somalia, 3 countries which together with Djibouti are linked by the Ogaden Desert to form one epidemiologic unit.

To date, the last known case of smallpox occurred in Somalia on October 26 in the Merca District. The source of this case was a known outbreak in the nearby district of Kurtuware. All 211 contacts were traced, revaccinated, and kept under surveillance. There have been no secondary cases. As of December 6, there were 6 pending outbreaks* in Somalia — the one in Merca and 5 in Bardere.

During October and November surveillance in Somalia has been severely hampered by heavy rains that have made it difficult or impossible to travel by vehicle. Since work has had to be continued on foot, there have been some delays in reporting and incomplete search coverage in certain areas. To combat this, personnel have been concentrated in those areas considered to be at highest risk of having undetected foci or where information is most limited. Currently there are 1,670 national staff and 24 WHO epidemiologists involved in the program. Increased mobility with restoration of complete active searches will be necessary to ensure that all foci have been

*An outbreak is defined as one or more cases; a pending outbreak is one in which 6 weeks has not elapsed since the onset of rash of the last case.

Smallpox Surveillance — Continued

detected. Accordingly, intensified activities are planned during the dry season, January through April 1978.

The last known case of smallpox in Ethiopia occurred on August 9, 1976, in El Kere Region. In Kenya, the last case was on February 5, 1977, in the Mandera District.

Reported by the World Health Organization in the Weekly Epidemiological Record 52:389-391, 1977

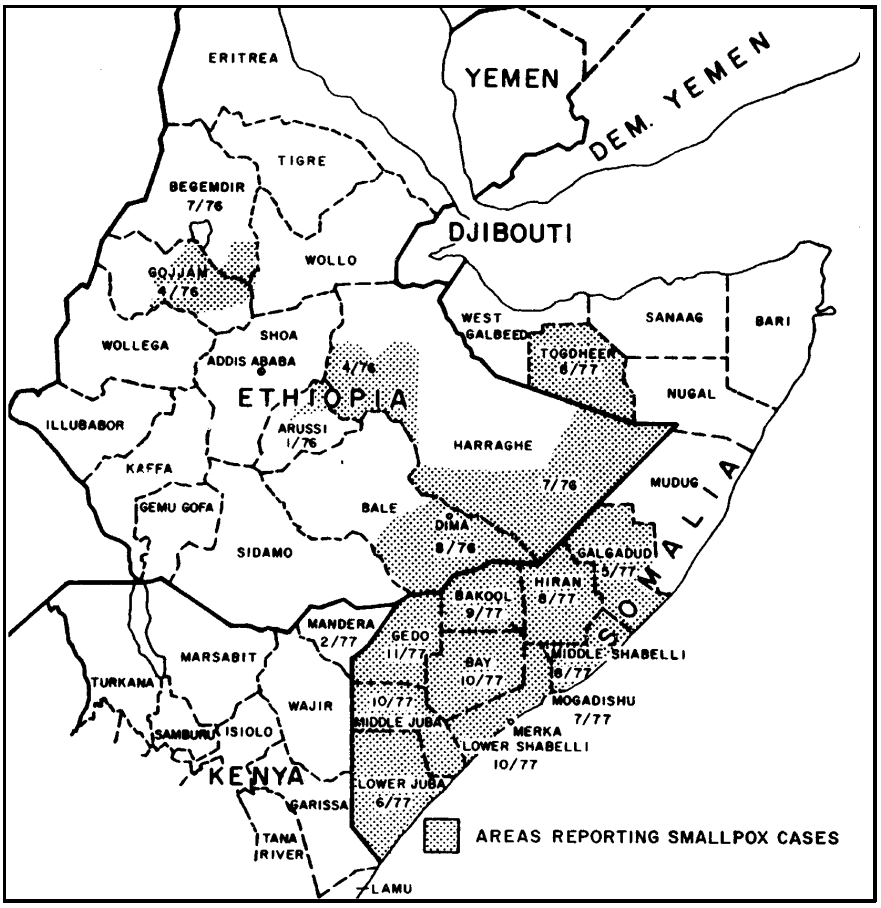
International Notes

Smallpox Surveillance — Worldwide

As of April 14, 1978, no cases of smallpox have been reported to the World Health Organization (WHO) from anywhere in the world since the last case had onset of rash on October 26, 1977, in Merka town, Somalia. However, a total of 2 years of effective surveillance must elapse before this last endemic area can be confirmed to be smallpox-free.

Worldwide, since January 1, 1976, smallpox cases have been detected only in certain areas of Ethiopia, Kenya, and Somalia (Figure 1). One year and 9 months has

FIGURE 1. Eastern Africa: The world's last known smallpox foci by area and dates of last cases, as of April 14, 1978



Smallpox Surveillance — Continued

elapsed since cases were detected in Ethiopia; 1 year and 1 month has elapsed since 5 cases were detected in Kenya after an importation from Somalia; and 6 months has passed since the last case was found in Somalia.

With the apparent interruption of transmission of the disease on a global basis, smallpox activities are being directed toward promptly certifying and providing authoritative endorsement of this historic event. In January 1978 the Executive Board of WHO endorsed the recommendations of a consultant group on worldwide certification of smallpox eradication which met in October 1977. Recognizing that this certification is based on verifying that 2 years has elapsed with no case of smallpox being detected by a surveillance system which would have detected any case had it occurred, the recommendations called for the establishment of a Global Commission. This independent group of experts is to monitor and review the following steps to be undertaken in 1978 and 1979: (1) certification by international commissions in the 15 countries not yet visited by commissions; (2) special documentation or visits to be required for 16 countries; (3) the request for statements from other countries declaring their smallpox-free status.

If no more cases of smallpox are detected, the countries of Somalia, Ethiopia, Djibouti, Kenya, Yemen, and Democratic Yemen will be eligible for certification in October 1979. These will be the last of the 15 countries to be certified by an international commission, and priority attention is being given to surveillance in these areas.

Reported by the World Health Organization in the Weekly Epidemiological Record 53:97-99, 108, 1978.

Editorial Note—1997: Some things need be done only once in the entire history of the world. The development of smallpox vaccine and the eradication of smallpox disease are on the list. Perspective is elusive, even when one contemplates 20 years without a single case of smallpox in the world. Part of the reason is that we all begin our reading "in the middle of the book." Although the full story that went before can never be known, smallpox eradication became possible, and then inevitable, when Edward Jenner, using his clinical powers of observation over a 25-year period during the 18th century, became convinced that an infection with cowpox could protect against smallpox. He then took the next step, inducing immunity by transferring cowpox from the hand of Sarah Nelmes to the arm of James Phipps—creating a tool that would change the health of entire populations (*1*).

In a real sense, the history of modern public health started on that day, May 14, 1796. Word spread quickly, despite communication barriers. By 1806, Jefferson was able to visualize the last case of the disease when he wrote to Jenner, "future generations will know by history only that this loathsome disease has existed" (*1*).

It is a sad commentary that it took 170 years to finally organize to accomplish Jefferson's vision. But when it happened, it brought out the best in science and public health. The resolution at the World Health Assembly in 1965 was unanimous and led to excellent cooperation between the United States and the Soviet Union, even in the midst of Cold War politics. The value of WHO, which represented the health needs of every person in the world, was demonstrated. Workers and resources from around the world were organized for use in the areas of greatest need. The public health situation, rather than political concerns, dictated how the program was to be executed. The United States can be proud of its role in this exciting program, contributing hundreds

Smallpox Surveillance — Continued

of workers and millions of dollars for the eradication of a disease that no longer involved our nation.

Twenty years have passed since the last naturally acquired case of smallpox occurred, as reported in the January 6 and May 5, 1978, issues of *MMWR*. Smallpox has not re-emerged from an unrecognized human or animal reservoir, from a variolator's store of infected scabs, or infected cadaver, either unearthed or thawed. There continues to be no evidence to support the theory of a "niche" for human pathogens that, when vacated, will be filled by another. Although speculation increased when monkeypox was recognized as causing human disease, fears decreased when monkeypox was shown to have a low secondary attack rate among unvaccinated humans (*2*). In addition, monkeypox virus, probably arising from a squirrel reservoir, is not ancestral to smallpox virus based on genomic studies (*3*).

The issue of monkeypox again emerged with outbreaks in 1996 (*4*) and 1997 (*5*) in the eastern Democratic Republic of the Congo with speculation about the need for smallpox vaccine to provide cross-protection for the populations at highest risks. Such recommendations must be considered carefully because of the adverse risks of the vaccine, particularly in persons who may be immunocompromised by human immunodeficiency virus infection (*5*). A better understanding of the current epidemiology/epizoology of monkeypox is needed.

Smallpox has been eradicated, but the etiologic agent is not extinct. The virus continues to exist in freezers in secure facilities at one institution in the United States and another in the Russian Federation. During the past 10 years, various individuals and three WHO committees have recommended destruction of virus stocks on the grounds that the world needs to be assured that smallpox will never again be a threat to humankind. In opposition to virus destruction are equally strong views that laboratory stocks serve as a counterbalance to terrorism and a source of unknown future benefits to humankind. In May 1996, the World Health Assembly recommended, subject to further review, that all stocks be destroyed in June 1999.

The legacy of the smallpox program, beyond eradication, has been enduring and includes the Expanded Program on Immunization (with its remarkable reductions of measles and other vaccine-preventable illnesses), the impending eradication of Guinea worm disease and poliomyelitis, and improved global disease surveillance and public health logistics systems. The growing interest in eradication as a global health strategy led to the creation of the International Task Force for Disease Eradication, which reviewed >80 potential candidate diseases and concluded in 1993 that six were eradicable (*6*). The science of infectious diseases eradication was the subject of a multidisciplinary Dahlem Workshop in Berlin in March 1997. As a follow-up to the Dahlem Workshop, a conference is scheduled in Atlanta in early 1998 on Global Disease Elimination/Eradication as Public Health Strategies; this conference will explore the potential synergistic relations between disease elimination/eradication and primary health-care programs throughout the world.

The health benefits of smallpox eradication have been enormous and the economic benefits satisfying. Because of smallpox eradication, the United States saves more each year than its annual dues to WHO. For the first time, social justice in public health has been achieved, with everyone benefiting from a body of scientific knowledge and experience. The benefits will continue to be enjoyed by every person who will ever be

Smallpox Surveillance — Continued

born. "Future generations will know by history only" that world cooperation reached an unprecedented level in the 20th century, making this bequest possible.

1997 Editorial Note by William F Foege, MD, Rollins School of Public Health, Emory University, and Director Emeritus, CDC. Walter R Dowdle, PhD, Director of Programs, Task Force on Child Survival and Development, and Deputy Director Emeritus, CDC.

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Progress Toward Poliomyelitis Eradication — Europe and Central Asian Republics, 1991–September 1997

In 1988, the World Health Assembly resolved to eradicate poliomyelitis by 2000; this goal was reaffirmed in 1989 by the World Health Organization (WHO) Regional Committee for Europe. Although most of the 51 member states of the European Region of WHO (EUR) (including Israel and the Central Asian Republics) have reported zero polio cases since at least the early 1980s, endemic transmission or outbreaks of polio continued to be reported through 1996 in some countries. This report updates progress of the EUR polio eradication initiative through September 1997 (*1,2*), including progress in polio vaccination activities, interruption of wild poliovirus transmission, and the establishment of sensitive surveillance systems in the region.

Routine Vaccination Coverage

In 1995 and 1996, a total of 41 EUR countries routinely used oral poliovirus vaccine (OPV) for infant vaccination, six used inactivated poliovirus vaccine (IPV), and four used sequential IPV-OPV schedules. In 1996, the provisional regional average for coverage with a primary series of polio vaccination by age 1 year was 92% (range: 77%–100%, with 26 countries reporting), compared with 83% in 1993 (range: 45%–100%, with 46 countries reporting); coverage levels in many of the Newly Independent States of the Former Soviet Union reached their lowest points during the economic transitions of the early 1990s.

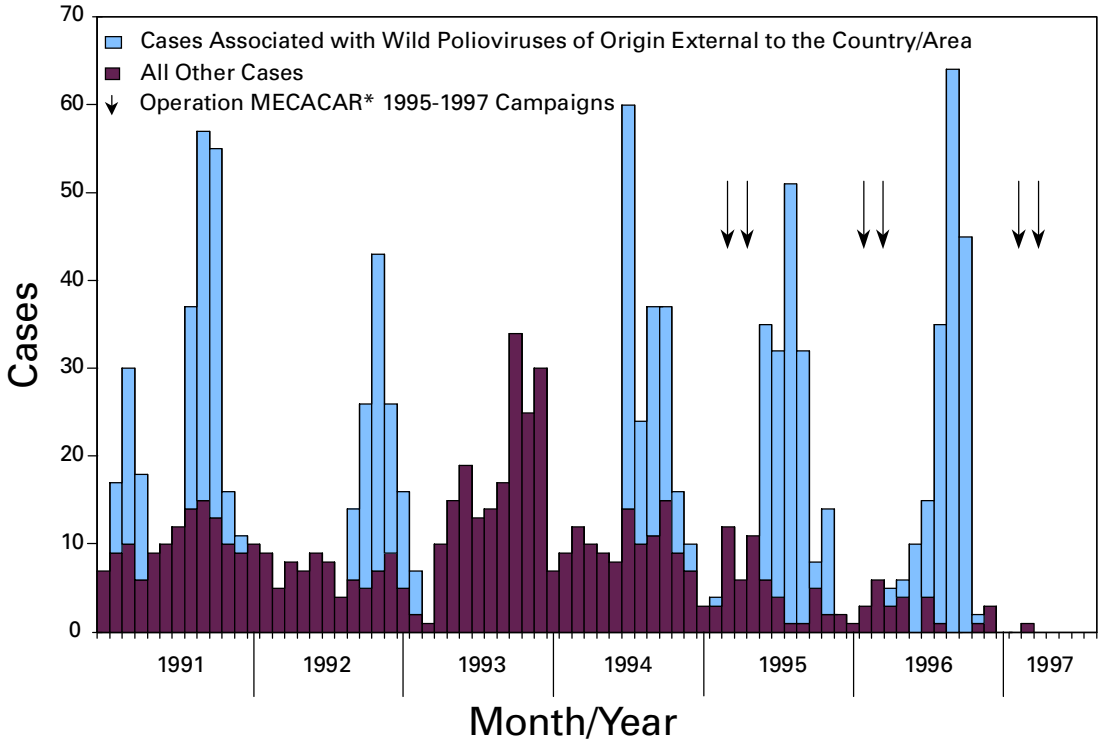
Supplemental Vaccination Activities

The third year of an international mass vaccination activity—Operation MECACAR (Eastern Mediterranean, Caucasus, Central Asian Republics)—was completed in May 1997 (Figure 1). Operation MECACAR consisted of coordinated National Immunization Days (NIDs)* in the bordering countries of the WHO Eastern Mediterranean and European regions with continuing endemic polio (*1*). During each of these NIDs,

*Mass campaigns over a short period (days to weeks) in which two doses of oral poliovirus vaccine are adminstered to all children in the target age group (usually aged 0–4 years) regardless of previous vaccination history, with an interval of 4–6 weeks between doses.

Poliomyelitis Eradication — Continued

FIGURE 1. Number of reported cases of poliomyelitis, by month and origin of wild poliovirus — Europe and the Central Asian Republics, 1991–1997



*Eastern Mediterranean, Caucasus, Central Asian Republics.

58–60 million children (95% of targeted children) received two supplementary doses of OPV. Nine countries of EUR (Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkey, Turkmenistan, and Uzbekistan) participated in all 3 years of Operation MECACAR. The Russian Federation joined MECACAR in 1996 and 1997. Bulgaria also conducted NIDs in synchrony with Operation MECACAR in 1995. In addition to Operation MECACAR, five other EUR countries at high risk for polio conducted NIDs or sub-NIDs in 1996 (Albania, Republic of Moldova, Romania, Ukraine, and the Federal Republic of Yugoslavia).

Because of a polio outbreak following a wild poliovirus importation into the Balkan peninsula during 1996, extra emergency mass vaccination rounds were conducted during 1996 and/or 1997 in Albania, Bosnia, Croatia (Eastern Slavonia section), the Federal Republic of Yugoslavia, Herzegovina, and The Former Yugoslav Republic of Macedonia. Two rounds of targeted "catch-up" vaccination also were conducted in Greece in 1996 as a result of the epidemic.

Surveillance

By 1996, all 16 EUR member states that had reported epidemic or endemic polio since 1991 had established surveillance for acute flaccid paralysis (AFP), the surveillance strategy recommended by WHO for polio eradication. Fifteen EUR member states without endemic disease also had instituted such systems. A total of 33 member states will be conducting AFP surveillance by the end of 1997 (Table 1). During

TABLE 1. Number of reported cases of poliomyelitis and acute flaccid paralysis (AFP) and key surveillance indicators among countries with AFP surveillance, by year— European Region, World Health Organization, January 1996–September 1997

	1996				1997			
Country	No. polio cases	No. nonpolio AFP cases	Nonpolio AFP rate*	% AFP cases with two stool specimens†	No. polio cases	No. nonpolio AFP cases	Nonpolio AFP rate§	% AFP cases with two stool specimens
Albania	138	2	0.2	79%	0	5	0.9	100%
Armenia	0	8	0.8	100%	0	13	1.8	92%
Azerbaijan	0	12	0.5	0	0	13	1.1	77%
Belarus	0	28	1.3	93%	0	25	1.7	100%
Bosnia-Herzegovina	0	—	—	—	0	2	0.4	100%
Bulgaria	0	5	0.3	60%	0	6	0.6	100%
Croatia	0	2	0.2	0	0	2	0.3	50%
Czech Republic	0	17	0.9	47%	0	11	0.9	91%
Estonia	0	3	1.0	100%	0	3	1.6	75%
Georgia	0	9	0.7	22%	0	5	0.6	80%
Israel	0	28	1.7	68%	0	13	1.4	38%
Italy¶	0	12	0.1	17%	0	28	0.6	71%
Kazakhstan	0	111	2.2	84%	0	112	3.2	93%
Kyrgyzstan	0	6	0.7	100%	0	30	3.4	83%
Latvia	0	0	0	—	0	0	0	0
Malta**	0	—	—	—	0	1	2.5	0
Netherlands	0	21	0.7	19%	0	15	0.9	7%
Poland	0	42	0.5	36%	0	34	0.5	26%
Portugal	0	0	0	—	0	0	0	—
Republic of Moldova	1	13	1.1	29%	0	7	0.9	86%
Romania	0	50	1.1	86%	0	38	1.2	95%
Russian Federation	3	227	1.0	78%	0	369	2.5	85%
Slovak Republic	0	4	0.3	50%	0	3	0.4	100%
Slovenia	0	0	0	—	0	0	0	—
Spain††	0	—	—	—	0	0	—	—
Switzerland	0	10	0.8	0	0	9	1.1	11%
Tajikistan	0	0	0	—	1	5	0.3	17%
The Former Yugoslav Republic of Macedonia	0	0	0	—	0	2	0.6	0

Turkey	19	68	0.3	34%	0	69	0.6	61%
Turkmenistan	2	6	0.5	88%	0	5	0.5	100%
Ukraine	1	129	1.5	82%	0	94	1.9	74%
Uzbekistan	0	7	0.1	29%	0	9	0.6	100%
Federal Republic of Yugoslavia	24	7	0.3	74%	0	10	0.6	80%
Total	**188[§§]**	**827**	**0.7**	**68%**	**1**	**938**	**1.1**	**78%**

[*] Per 100,000 children aged <15 years.
[†] Two stool specimens collected at an interval of at least 24 hours within 14 days of paralysis onset.
[§] Annualized nonpolio AFP rate.
[¶] In pilot area of four regions in 1996, AFP rate was 0.5.
[**] AFP surveillance began in July 1997.
[††] AFP surveillance began in October 1997.
[§§] An additional five virologically confirmed cases were reported from Greece in 1996.

Poliomyelitis Eradication — Continued

January 1996–September 30, 1997, six countries (Belarus, Israel, Kazakhstan, Romania, the Russian Federation, and Ukraine) achieved the minimum AFP reporting rate indicative of a sensitive surveillance system (at least one nonpolio AFP case per 100,000 children aged <15 years annually). The regional nonpolio AFP rate increased from 0.3 in 1995 to 0.7 (range: 0–2.2) in 1996; based on cases reported through September 1997, the annualized rate for 1997 was 1.1 (Table 1). The rate of collection of two adequate stool samples[†] from persons with reported AFP cases increased from 47% in 1995 to 68% in 1996; through September 1997, 78% of reported AFP cases had two adequate specimens. During 1996 and 1997, Armenia, Belarus, Kazakhstan, Kyrgyzstan, Romania, and Turkmenistan consistently achieved the WHO-recommended target of two adequate stool specimens collected from at least 80% of AFP cases.

EUR Laboratory Network

The EUR polio laboratory network consists of 41 laboratories (34 national laboratories; two subregional reference laboratories; and five regional reference laboratories) (*3*). Of the 33 EUR network laboratories that underwent proficiency testing during 1996, a total of 25 rated a passing score (at least 80%) compared with five of the 15 laboratories tested in 1995.

Incidence of Polio

From 1991 through 1995, the number of confirmed cases of polio reported in EUR ranged from 177 to 221; 193 cases were reported in 1996. Of the 50 EUR member states that reported 1996 data to WHO, 42 reported zero cases, compared with 38 countries in 1994 before Operation MECACAR. Of the nine countries with endemic or recently endemic disease that participated in Operation MECACAR during 1995–1997, two (Turkey and Turkmenistan) reported 21 cases in 1996 (Table 1). During 1991–1994, these nine countries had reported 78–221 polio cases each year. Of the 50 EUR member states that have reported 1997 data to WHO, only Tajikistan has reported one confirmed polio case. In 1996, most reported polio cases in EUR occurred during an outbreak that followed an importation of wild poliovirus type 1 into the Balkan peninsula. As part of that outbreak, 138 cases were reported from Albania (*4*); additional cases occurred in young, undervaccinated population subgroups: among Roma (gypsies) in Greece (five cases) and among ethnic Albanians in the Kosova and Metohija district of the Federal Republic of Yugoslavia (24 cases). The outbreak in Albania primarily affected persons aged 10–34 years because of historical problems with the transport, storage, and administration of vaccines. The outbreak ended following mass vaccination of the entire population through age 50 years with two doses of OPV, reaching more than 85% of the target group. Similarly, in the Federal Republic of Yugoslavia the outbreak was terminated by previously planned sub-NIDs. Wild poliovirus type 1 also was isolated in Turkmenistan in July 1996. The remaining cases reported in 1996 (in the Republic of Moldova, Russian Federation, Turkey, and Ukraine) and 1997 (in Tajikistan) were clinically confirmed. Wild poliovirus types 1 and 3 were last isolated in Turkey in 1994 and 1995, respectively.

Based on epidemiologic investigations and the genomic characterization of wild poliovirus isolates, approximately 52% of the 1335 polio cases reported in EUR member states during January 1991–September 1997 were associated with indigenous transmission of wild poliovirus of origin from outside the involved country, and

[†]Two stool specimens collected at an interval of at least 24 hours within 14 days of onset of paralysis.

Poliomyelitis Eradication — Continued

sometimes apparently from outside the EUR, primarily affecting susceptible populations or subgroups (Figure 1). During 1991–1995, most outbreaks were associated with wild poliovirus originating from the Indian subcontinent (*5,6*).

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Editorial Note: Improvements in routine vaccination coverage and in surveillance in the EUR member states and the successes of Operation MECACAR have resulted in substantial progress toward regional elimination of wild poliovirus transmission. In addition to most of western and central Europe, which have not reported polio in the 1990s, polio transmission has been interrupted in virtually all of those countries in which polio was endemic. However, the quality of surveillance in many areas of the region must continue to improve to ensure that endemic transmission has been interrupted and that any transmission secondary to imported poliovirus is promptly detected.

Tajikistan, Turkmenistan, and Uzbekistan remain at risk for polio because of recent cases and suspected ongoing poliovirus transmission in Afghanistan; however, transmission might not be detected because of weak surveillance and/or laboratory deficiencies. In addition, some areas of Turkey—particularly those adjacent to Iran and Iraq—remain at high risk for wild poliovirus transmission (*7*).

Supplemental vaccination activities (i.e., NIDs, sub-NIDs, and "mopping-up" [intensive house-to-house supplemental vaccination in high-risk areas]) will continue to be organized through 2000 under Operation MECACAR Plus to interrupt any remaining chains of poliovirus transmission. Mopping-up activities will be conducted in nearly all MECACAR countries during October–November 1997, with particular emphasis on the high-risk areas that border countries of the Eastern Mediterranean Region with endemic disease.

Since the late 1980s, large polio outbreaks have occurred nearly every year in EUR among undervaccinated religious or ethnic population subgroups or in countries where vaccination coverage decreased for economic reasons (*4,5,8*). As progress has been made in the interruption of endemic transmission, the relative importance of indigenous transmission of virus introduced from outside the region has increased. Therefore, specific efforts are needed to identify and improve the vaccination status of hard-to-reach population subgroups in member states (e.g., ethnic minorities, migrants, and displaced persons).

EUR priorities for the eradication of polio by 2000 include 1) further strengthening AFP surveillance systems throughout the region (including accreditation of polio network laboratories by mid-1998); 2) ensuring that high-quality NIDs or sub-NIDs are conducted through Operation MECACAR Plus in selected countries with persistent high risk for wild poliovirus circulation resulting from low vaccination coverage, weak surveillance, and/or administrative problems; 3) implementing coordinated intensive supplemental vaccination activities among key border area populations; 4) maintaining and strengthening the political commitment of governments for polio eradication and certification; 5) consolidating the support of donor governments and partner agencies to ensure sufficient financial and human resources are available; and 6) progressing in the formal process of certification. External technical and financial support

Poliomyelitis Eradication — Continued

provided to achieve progress in the polio eradication initiative in EUR has been provided by an international coalition consisting of WHO; United Nations Children's Fund (UNICEF); and other partner agencies including Rotary International, US Agency for International Development, CDC, and the governments of Canada, Denmark, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Norway, Switzerland, and the United Kingdom and the European Commission Humanitarian Office.

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Adult Blood Lead Epidemiology and Surveillance — United States, Second Quarter, 1997

CDC's National Institute for Occupational Safety and Health (NIOSH) Adult Blood Lead Epidemiology and Surveillance (ABLES) program monitors laboratory-reported elevated blood lead levels (BLLs) among adults in the United States. During 1997, a total of 27 states reported surveillance data to ABLES.* In this report, ABLES data for the first and second quarters of 1997 are presented and compared with the first and second quarters of 1996.

During April–June 1996 and 1997, reports of BLLs ≥25 μg/dL by the same 27 states increased by 5%, from 5867 to 6157, respectively (*1*).† This quarterly increase follows an increase of 13% during the first quarter of 1997 (*2*). The combined increase for the first two quarters of 1997 is 9% (Table 1); in comparison, the long-term trend had been decreasing during 1993–1996 (*2–4*) as had the overall number of reported BLLs ≥25 μg/dL among adults in the United States (*5*).

*Alabama, Arizona, California, Connecticut, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.

†To compare the number of reports for a constant roster of 27 states in 1997 and 1996, first and second quarters 1997 data for New Mexico, Rhode Island, and Wyoming were added to the previously reported totals for the first and second quarter of 1996, and first and second quarters 1996 data for Illinois (which discontinued reporting at the end of 1996) were subtracted from the previously reported totals for the first and second quarters of 1996 (*1*). Adjustments were made to compare 28 states in the first quarter report for 1997 (*2*), but a roster of 27 states has been adopted for the remainder of 1997.

ABLES — Continued

TABLE 1. Number of reports of elevated blood lead levels (BLLs) among adults, number of persons with elevated BLLs, and percentage change in number of reports — 27 states,* second quarter, 1997

Reported BLL (μg/dL)	Second quarter, 1997		Cumulative reports, 1996§	Cumulative reports, 1997¶	% Change from second quarter, 1996 to 1997
	No. reports	No. persons†			
25–39	4,928	3,566	8,835	9,866	12%
40–49	933	652	1,947	1,897	–3%
50–59	189	136	415	403	–3%
≥60	107	76	196	215	10%
Total	**6,157**	**4,430**	**11,393**	**12,381**	**9%**

* Alabama, Arizona, California, Connecticut, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming. Data from New Hampshire were missing; 1996 data were used as an estimate.

† Individual reports for persons are categorized according to the highest reported BLL for the person during the given quarter. The number of persons reported in Michigan is an estimate based on the number of reports received.

§ To compare the number of reports for a constant roster of 27 states in 1997 and 1996, first and second quarter 1997 data for New Mexico, Rhode Island, and Wyoming were added to the previously reported totals for the first and second quarters of 1996, and first and second quarters 1996 data for Illinois (which discontinued reporting at the end of 1996) were subtracted from the previously reported totals for the first and second quarter of 1996 (*1*).

¶ To compare a constant roster of 27 states, first quarter 1996 data for Illinois, used as an estimate, were subtracted from the previously reported totals for the first quarter of 1997 (*2*).

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Editorial Note: The increase in the number of reports of elevated BLLs for the first two quarters of 1997 suggests the possible ending of the long-term decline in the overall number of detected cases of elevated BLLs among adults reported during 1993–1996 (*4*). Factors related to this increase might include 1) improved efforts of the

ABLES — Continued

participating states and lead-using industries within them to identify lead-exposed workers; 2) improved compliance with Occupational Safety and Health Administration requirements for blood lead monitoring; 3) increased occupational exposures to lead; and/or 4) an increase in the size of the workforce in lead-using industries. However, this trend also might reflect normal variations in nationwide reporting totals that result from changes in staffing and funding in state-based surveillance programs and interstate differences in worker BLL testing by lead-using industries. Continued surveillance is required before this two-quarter increase can be confirmed as a reversal of the previous long-term decrease.

The findings in this report document the continuing hazard of lead exposures as an occupational health problem in the United States. ABLES seeks to enhance surveillance for this preventable condition by expanding the number of participating states, reducing variability in reporting, and distinguishing between new and recurring elevated BLLs in adults.

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Notice to Readers

Satellite Broadcast on Managing Occupational Exposures to HIV

Putting the Pieces Together: Managing Occupational Exposures to HIV, a live satellite broadcast, will be held Thursday, January 15, 1998, from 1 p.m. to 3:30 p.m. eastern standard time. Cosponsors are CDC and the Public Health Training Network. This course is designed for physicians, nurses, occupational-health professionals, infection-control professionals, pharmacists, laboratorians, hospital administrators, and others who developed policies on or managed occupational exposures to HIV.

This course will provide an overview and update of the "PHS Statement on Management of Occupational Exposures to HIV and Recommendations for Chemoprophylaxis after Exposure." Experts will identify and discuss the components necessary to incorporate the PHS recommendations in policies on management of occupational exposures to HIV. Viewers will be able to submit questions during the program. Continuing education credits will be offered.

Additional information is available through CDC's fax information system, telephone (888) 232-3299 ([888] CDC-FAXX), by requesting document number 130013.

Notices to Readers — Continued

Notice to Readers

New Videotape Training Program: Recognition and Prevention of False-Positive Test Results in Mycobacteriology

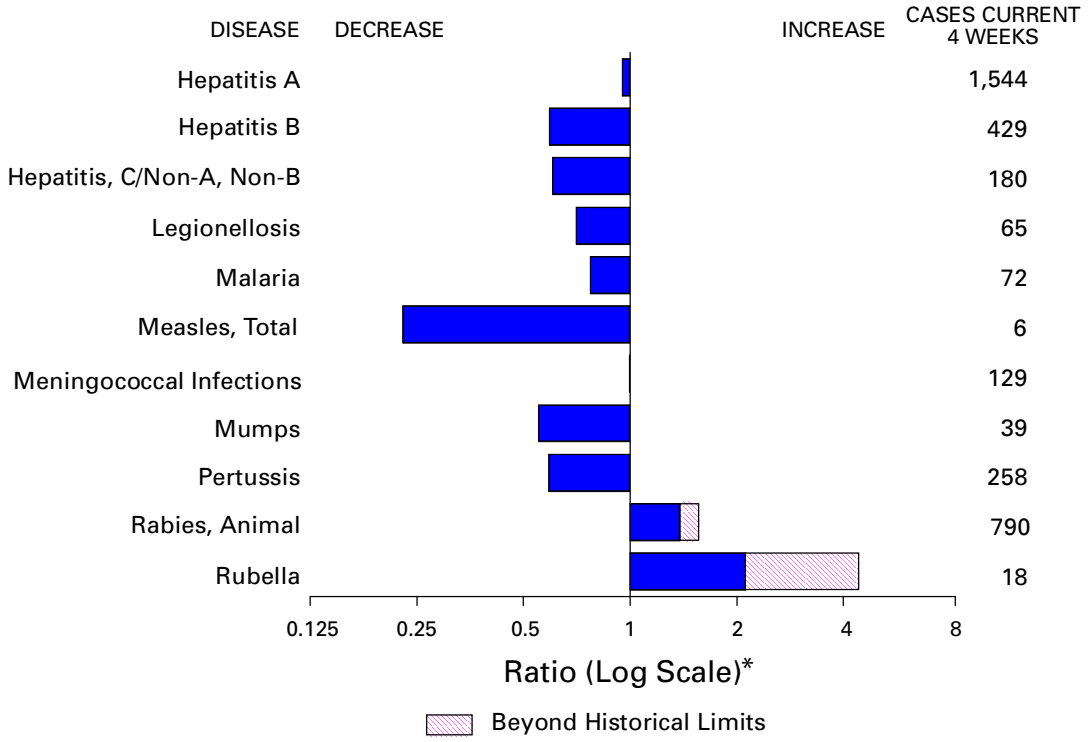
A new training program, consisting of a videotape and a study booklet, is designed to help laboratorians achieve accurate test results in mycobacteriology. The program, developed through a cooperative agreement between CDC and the Association of State and Territorial Public Health Laboratory Directors (ASTPHLD), discusses how to recognize conditions that may lead to false-positive results and provides strategies for eliminating or modifying these conditions. Cross-contamination issues are specifically addressed.

Additional information is available from the National Laboratory Training Network, telephone (800) 536-6586, or from ASTPHLD, telephone (202) 822-5227.

Erratum: Vol. 46, No. 24

In the article "Update: Syringe-Exchange Programs—United States, 1996," on page 566 in the § footnote, the number of syringe exchange programs (SEPs) asking that their location not be reported is incorrect. The last sentence of the footnote should read "Fourteen SEPs asked that their location not be reported." On page 567, a credit was omitted from the "Reported by" section: Community Research Br, Div of Epidemiology and Prevention Research, National Institute on Drug Abuse.

FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending October 18, 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 October 18, 1997 (42nd Week)

	Cum. 1997		Cum. 1997
Anthrax	-	Plague	2
Brucellosis	60	Poliomyelitis, paralytic	-
Cholera	8	Psittacosis	38
Congenital rubella syndrome	4	Rabies, human	2
Cryptosporidiosis*	1,412	Rocky Mountain spotted fever (RMSF)	344
Diphtheria	5	Streptococcal disease, invasive Group A	1,110
Encephalitis: California*	87	Streptococcal toxic-shock syndrome*	29
eastern equine*	6	Syphilis, congenital¶	390
St. Louis*	10	Tetanus	34
western equine*	-	Toxic-shock syndrome	101
Hansen Disease	83	Trichinosis	7
Hantavirus pulmonary syndrome*†	16	Typhoid fever	271
Hemolytic uremic syndrome, post-diarrheal*	48	Yellow fever	-
HIV infection, pediatric*§	182		

-: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 October 5, 1997.
¶Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending October 18, 1997, and October 19, 1996 (42nd 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	44,447	51,671	360,732	344,291	1,929	1,209	227,476	253,489	2,532	2,821
NEW ENGLAND	1,903	2,062	13,971	13,869	169	110	4,580	5,191	51	86
Maine	46	32	820	736	16	-	55	50	-	-
N.H.	29	73	614	598	10	14	75	133	8	7
Vt.	31	18	339	314	7	2	43	42	2	22
Mass.	646	995	5,902	5,576	90	79	1,753	1,769	34	51
R.I.	119	128	1,601	1,552	8	-	359	416	7	6
Conn.	1,032	816	4,695	5,093	38	15	2,295	2,781	-	-
MID. ATLANTIC	13,720	14,332	48,704	48,474	114	40	29,632	33,029	285	243
Upstate N.Y.	2,137	1,854	N	N	76	-	4,750	6,001	212	194
N.Y. City	7,308	7,852	25,447	23,989	10	6	11,461	11,526	-	3
N.J.	2,667	2,884	7,160	10,017	28	22	5,591	7,033	-	-
Pa.	1,608	1,742	16,097	14,468	N	12	7,830	8,469	73	46
E.N. CENTRAL	3,255	4,026	55,253	69,152	360	220	34,014	47,307	428	393
Ohio	683	870	15,650	16,689	98	48	9,726	12,164	16	32
Ind.	447	463	7,464	8,063	63	35	4,962	5,175	10	8
Ill.	1,356	1,800	8,513	19,719	62	-	4,186	14,092	69	76
Mich.	564	682	16,363	16,107	137	96	11,937	11,879	333	277
Wis.	205	211	7,263	8,574	N	41	3,203	3,997	-	-
W.N. CENTRAL	859	1,203	19,717	25,352	450	349	9,061	12,459	136	80
Minn.	157	225	U	4,017	202	185	U	1,881	3	2
Iowa	86	71	3,713	3,486	102	63	945	914	28	37
Mo.	392	619	9,573	10,136	46	57	5,920	7,019	91	21
N. Dak.	13	11	546	777	12	11	37	26	2	-
S. Dak.	8	10	1,107	1,183	28	23	124	150	-	-
Nebr.	83	83	1,768	2,191	40	-	695	857	2	7
Kans.	120	184	3,010	3,562	20	10	1,340	1,612	10	13
S. ATLANTIC	10,879	13,030	72,751	40,273	171	119	72,121	74,843	224	158
Del.	184	230	1,276	1,148	4	4	974	1,181	-	1
Md.	1,695	1,950	5,699	U	19	10	10,696	9,005	15	2
D.C.	767	1,008	N	N	2	-	3,553	3,631	-	-
Va.	879	894	9,002	9,392	N	40	6,628	7,507	24	13
W. Va.	92	88	2,369	1,745	N	1	734	637	16	9
N.C.	680	678	14,774	U	60	30	14,570	15,166	42	43
S.C.	631	663	9,936	U	8	7	9,221	8,757	35	25
Ga.	1,267	1,870	10,112	9,554	36	-	11,676	14,852	U	-
Fla.	4,684	5,649	19,583	18,434	40	27	14,069	14,107	92	65
E.S. CENTRAL	1,561	1,783	26,411	24,929	87	34	26,569	26,479	281	463
Ky.	290	307	5,136	5,428	28	-	3,319	3,384	12	28
Tenn.	638	640	10,163	10,965	42	34	8,854	9,737	197	333
Ala.	384	470	6,935	6,760	14	-	9,658	10,820	10	4
Miss.	249	366	4,177	1,776	3	-	4,738	2,538	62	98
W.S. CENTRAL	4,694	5,128	47,595	43,330	62	16	31,631	30,418	386	311
Ark.	180	225	2,068	1,476	9	5	3,455	3,302	3	8
La.	797	1,164	7,745	6,101	6	3	7,539	6,398	182	181
Okla.	240	191	6,085	6,114	9	5	3,932	3,969	7	1
Tex.	3,477	3,548	31,697	29,639	38	3	16,705	16,749	194	121
MOUNTAIN	1,277	1,592	19,674	20,787	215	125	6,933	6,127	369	470
Mont.	35	33	776	1,005	22	-	34	25	20	13
Idaho	41	31	1,253	1,236	29	21	112	87	52	94
Wyo.	13	5	476	495	16	12	44	37	176	145
Colo.	299	434	1,896	2,598	75	53	1,824	1,191	34	50
N. Mex.	141	139	2,437	3,192	7	5	961	693	44	69
Ariz.	323	462	9,627	8,620	N	24	3,211	2,997	25	61
Utah	104	142	1,354	1,248	55	-	219	243	4	19
Nev.	321	346	1,855	2,393	11	10	528	854	14	19
PACIFIC	6,299	8,514	56,656	58,125	301	196	12,935	17,636	372	617
Wash.	532	539	7,384	7,691	98	54	1,567	1,678	21	48
Oreg.	248	359	3,950	4,377	69	78	596	684	3	6
Calif.	5,434	7,429	42,772	43,617	123	56	10,067	14,553	217	383
Alaska	37	28	1,205	974	11	1	309	352	-	3
Hawaii	48	159	1,345	1,466	N	7	396	369	131	177
Guam	2	4	86	309	N	-	9	55	-	6
P.R.	1,511	1,829	U	U	37	U	481	533	124	130
V.I.	80	17	N	N	N	U	-	-	-	-
Amer. Samoa	-	-	-	-	N	U	-	-	-	-
C.N.M.I.	1	-	N	N	N	U	17	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 October 5, 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 October 18, 1997, and October 19, 1996 (42nd 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	739	798	8,408	12,562	1,370	1,331	6,530	9,463	13,667	15,340	6,359
NEW ENGLAND	62	57	2,595	3,600	72	49	112	147	346	336	952
Maine	2	2	8	46	1	7	-	-	11	18	174
N.H.	7	3	36	42	8	2	-	1	13	11	31
Vt.	11	5	8	20	2	4	-	-	5	1	103
Mass.	18	25	276	218	25	20	55	66	206	168	219
R.I.	7	22	343	425	5	6	2	3	30	27	26
Conn.	17	N	1,924	2,849	31	10	55	77	81	111	399
MID. ATLANTIC	147	195	4,666	7,564	345	402	314	429	2,518	2,876	1,359
Upstate N.Y.	42	59	1,911	3,418	56	73	31	62	333	339	1,010
N.Y. City	7	18	51	354	198	242	70	123	1,300	1,482	U
N.J.	20	13	1,245	1,765	70	60	119	142	521	610	140
Pa.	78	105	1,459	2,027	21	27	94	102	364	445	209
E.N. CENTRAL	216	241	77	385	110	154	559	1,382	1,315	1,621	160
Ohio	96	83	50	22	17	13	173	512	228	237	106
Ind.	39	43	22	25	15	14	134	174	121	144	11
Ill.	7	31	5	8	31	75	59	397	643	848	16
Mich.	63	47	-	17	36	37	111	142	233	308	27
Wis.	11	37	U	313	11	15	82	157	90	84	-
W.N. CENTRAL	54	44	120	156	46	39	134	290	441	401	395
Minn.	2	5	89	58	19	17	U	34	119	90	43
Iowa	11	9	7	18	10	2	7	18	45	53	131
Mo.	21	13	17	44	8	10	99	202	184	159	21
N. Dak.	2	-	-	1	3	1	-	-	10	8	64
S. Dak.	2	2	1	-	1	-	-	-	10	17	62
Nebr.	12	12	2	5	1	2	5	10	17	20	2
Kans.	4	3	4	30	4	7	23	26	56	54	72
S. ATLANTIC	101	117	603	598	284	249	2,635	3,122	2,677	2,899	2,562
Del.	9	11	35	167	5	3	17	34	18	34	47
Md.	19	25	432	280	77	71	751	569	256	238	469
D.C.	4	7	7	3	15	8	95	108	78	112	5
Va.	20	17	52	45	63	39	189	341	254	234	556
W. Va.	N	N	7	11	-	5	3	9	47	50	78
N.C.	13	9	31	62	16	25	590	869	344	403	751
S.C.	7	6	2	6	17	11	310	314	242	292	155
Ga.	-	3	1	1	30	26	430	564	498	529	270
Fla.	28	39	36	23	61	61	250	314	940	1,007	231
E.S. CENTRAL	38	43	66	67	30	33	1,401	2,034	984	1,104	242
Ky.	6	6	8	23	8	7	114	122	138	183	27
Tenn.	25	19	37	19	7	13	618	677	349	385	131
Ala.	3	4	8	7	10	6	365	458	341	346	79
Miss.	4	14	13	18	5	7	304	777	156	190	5
W.S. CENTRAL	27	18	74	97	46	41	977	1,455	1,885	1,740	278
Ark.	-	1	17	21	5	-	124	206	153	161	27
La.	3	1	3	2	12	7	301	420	183	20	5
Okla.	4	6	21	20	4	-	106	150	139	135	91
Tex.	20	10	33	54	25	34	446	679	1,410	1,424	155
MOUNTAIN	52	38	18	8	62	52	195	126	416	499	168
Mont.	1	1	-	-	2	7	-	-	7	15	43
Idaho	2	-	3	1	-	-	1	4	11	7	-
Wyo.	1	4	4	3	2	7	-	2	2	6	31
Colo.	17	7	5	-	27	21	12	24	70	71	19
N. Mex.	2	2	1	1	8	2	52	7	53	72	12
Ariz.	12	15	2	-	11	6	116	71	202	187	49
Utah	10	3	1	1	3	4	5	2	25	39	6
Nev.	7	6	2	2	9	5	9	16	46	102	8
PACIFIC	42	45	189	87	375	312	203	478	3,085	3,864	243
Wash.	7	6	8	14	19	21	9	9	225	222	-
Oreg.	-	-	17	18	18	20	9	8	125	135	14
Calif.	34	34	162	54	329	259	183	459	2,545	3,291	206
Alaska	-	1	2	-	3	3	1	-	61	60	23
Hawaii	1	4	-	1	6	9	1	2	129	156	-
Guam	-	1	-	-	-	-	2	3	13	73	-
P.R.	-	-	-	-	5	2	213	178	164	130	58
V.I.	-	-	-	-	-	1	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	-	9	1	2	-	-

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

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending October 18, 1997, and October 19, 1996 (42nd 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	836	837	22,296	22,836	6,937	7,804	1	64	3	53	117	473
NEW ENGLAND	50	28	521	327	113	178	-	11	-	6	17	16
Maine	5	-	51	18	6	2	-	-	-	1	1	-
N.H.	8	11	27	12	15	15	-	1	-	-	1	-
Vt.	3	1	11	9	5	11	-	-	-	-	-	2
Mass.	30	14	197	165	41	67	-	10	-	4	14	12
R.I.	2	2	123	17	14	9	-	-	-	-	-	-
Conn.	2	-	112	106	32	74	-	-	-	1	1	2
MID. ATLANTIC	112	173	1,511	1,576	1,035	1,155	-	14	-	8	22	37
Upstate N.Y.	29	43	256	364	226	280	-	2	-	3	5	11
N.Y. City	28	45	553	482	358	409	-	5	-	2	7	11
N.J.	39	47	238	300	195	229	-	2	-	-	2	3
Pa.	16	38	464	430	256	237	-	5	-	3	8	12
E.N. CENTRAL	133	147	2,190	2,040	708	882	-	7	-	3	10	20
Ohio	76	80	267	636	62	105	-	-	-	-	-	5
Ind.	14	12	240	256	79	111	-	-	-	-	-	-
Ill.	29	40	509	616	177	284	-	6	-	1	7	3
Mich.	13	8	1,049	361	351	302	-	-	-	2	2	3
Wis.	1	7	125	171	39	80	-	1	-	-	1	9
W.N. CENTRAL	41	37	1,812	1,999	369	414	-	12	-	5	17	22
Minn.	27	23	165	108	36	51	-	3	-	5	8	18
Iowa	6	4	393	292	37	57	-	-	-	-	-	-
Mo.	4	7	912	1,016	253	241	-	1	-	-	1	3
N. Dak.	-	-	10	111	4	2	-	-	-	-	-	-
S. Dak.	2	1	19	41	1	5	-	8	-	-	8	-
Nebr.	1	1	80	125	12	31	-	-	-	-	-	-
Kans.	1	1	233	306	26	27	-	-	-	-	-	1
S. ATLANTIC	136	150	1,580	1,101	1,037	1,071	-	1	3	13	14	11
Del.	-	2	28	15	5	8	-	-	-	-	-	1
Md.	48	53	188	192	151	136	-	-	-	2	2	2
D.C.	-	5	17	35	27	29	-	-	-	1	1	-
Va.	12	9	189	141	104	118	-	-	-	1	1	3
W. Va.	3	7	10	13	14	22	-	-	-	-	-	-
N.C.	20	22	165	139	202	278	-	-	-	2	2	2
S.C.	4	4	93	44	87	74	-	-	-	1	1	-
Ga.	26	32	416	149	110	32	-	-	-	1	1	2
Fla.	23	16	474	373	337	374	-	1	3	5	6	1
E.S. CENTRAL	38	24	491	1,074	544	692	-	-	-	-	-	2
Ky.	5	5	66	43	32	65	-	-	-	-	-	-
Tenn.	21	9	302	688	357	384	-	-	-	-	-	2
Ala.	12	9	72	164	59	60	-	-	-	-	-	-
Miss.	-	1	51	179	96	183	-	-	-	-	-	-
W.S. CENTRAL	43	35	4,681	4,591	987	992	-	3	-	5	8	26
Ark.	1	-	201	377	45	70	-	-	-	-	-	-
La.	11	4	195	165	131	124	-	-	-	-	-	-
Okla.	27	27	1,235	1,956	39	24	-	-	-	1	1	-
Tex.	4	4	3,050	2,093	772	774	-	3	-	4	7	26
MOUNTAIN	81	46	3,642	3,604	747	930	1	7	-	2	9	156
Mont.	-	1	66	98	9	13	-	-	-	-	-	-
Idaho	1	1	114	191	35	77	-	-	-	-	-	1
Wyo.	4	-	32	29	27	37	-	-	-	-	-	1
Colo.	12	13	344	377	134	111	-	-	-	-	-	7
N. Mex.	8	10	311	317	225	334	-	-	-	-	-	16
Ariz.	30	14	1,923	1,408	173	207	-	5	-	-	5	8
Utah	3	7	495	828	79	80	-	-	-	1	1	118
Nev.	23	-	357	356	65	71	1	2	-	1	3	5
PACIFIC	202	197	5,868	6,524	1,397	1,490	-	9	-	11	20	183
Wash.	5	4	538	486	56	82	-	1	-	1	2	38
Oreg.	29	25	315	745	87	88	-	-	-	-	-	13
Calif.	156	160	4,868	5,188	1,227	1,297	U	6	U	8	14	40
Alaska	6	6	26	39	18	11	-	-	-	-	-	63
Hawaii	6	2	121	66	9	12	-	2	-	2	4	29
Guam	-	-	-	7	1	1	U	-	U	-	-	-
P.R.	-	2	235	182	1,184	761	-	-	-	-	-	2
V.I.	-	-	-	31	-	33	U	-	U	-	-	-
Amer. Samoa	-	-	-	-	-	-	U	-	U	-	-	-
C.N.M.I.	6	10	1	1	34	5	U	1	U	-	1	-

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

*Of 187 cases among children aged <5 years, serotype was reported for 102 and of those, 40 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 October 18, 1997, and October 19, 1996 (42nd 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	2,629	2,559	11	461	573	63	4,062	4,769	1	158	218
NEW ENGLAND	165	112	-	8	1	2	731	1,036	-	1	26
Maine	17	10	-	-	-	-	6	36	-	-	-
N.H.	14	5	-	-	-	-	103	96	-	-	-
Vt.	4	4	-	-	-	-	196	108	-	-	2
Mass.	79	45	-	2	1	1	384	739	-	1	20
R.I.	17	13	-	5	-	-	16	30	-	-	-
Conn.	34	35	-	1	-	1	26	27	-	-	4
MID. ATLANTIC	258	272	1	44	76	15	290	399	-	29	12
Upstate N.Y.	55	72	1	8	21	1	97	216	-	2	4
N.Y. City	42	39	-	3	18	-	56	37	-	27	5
N.J.	55	55	-	5	4	-	9	28	-	-	2
Pa.	106	106	-	28	33	14	128	118	-	-	1
E.N. CENTRAL	382	372	2	53	110	7	349	572	-	5	3
Ohio	145	129	-	24	39	-	128	192	-	-	-
Ind.	44	51	1	9	8	5	50	55	-	-	-
Ill.	120	105	1	9	20	2	63	143	-	2	1
Mich.	44	39	-	11	40	-	43	35	-	-	2
Wis.	29	48	-	-	3	-	65	147	-	3	-
W.N. CENTRAL	186	197	-	14	17	11	346	325	-	-	-
Minn.	29	25	-	5	5	11	221	251	-	-	-
Iowa	41	40	-	7	2	-	48	17	-	-	-
Mo.	83	75	-	-	7	-	52	32	-	-	-
N. Dak.	2	3	-	-	2	-	2	1	-	-	-
S. Dak.	5	10	-	-	-	-	4	4	-	-	-
Nebr.	8	20	-	2	-	-	6	7	-	-	-
Kans.	18	24	-	-	1	-	13	13	-	-	-
S. ATLANTIC	468	404	3	63	94	7	384	506	-	83	91
Del.	5	2	-	-	-	-	1	22	-	-	-
Md.	42	52	-	4	31	-	106	178	-	1	-
D.C.	-	5	-	-	-	-	3	1	-	1	1
Va.	47	49	-	10	12	-	42	73	-	1	2
W. Va.	16	13	-	-	-	-	6	2	-	-	-
N.C.	80	66	1	10	20	1	106	97	-	59	77
S.C.	51	49	-	10	6	-	24	37	-	19	1
Ga.	92	120	2	10	3	2	13	19	-	-	-
Fla.	135	48	-	19	22	4	83	77	-	2	10
E.S. CENTRAL	209	192	-	22	20	1	113	187	-	-	2
Ky.	42	25	-	3	-	-	46	136	-	-	-
Tenn.	81	51	-	5	1	-	35	19	-	-	-
Ala.	68	70	-	8	4	1	24	23	-	-	2
Miss.	18	46	-	6	15	-	8	9	-	-	N
W.S. CENTRAL	260	281	1	49	40	11	195	129	1	7	8
Ark.	30	30	-	1	1	11	38	7	1	3	-
La.	46	52	-	12	13	-	18	9	-	-	1
Okla.	35	32	-	-	-	-	27	10	-	-	-
Tex.	149	167	1	36	26	-	112	103	-	4	7
MOUNTAIN	157	154	-	54	23	3	977	421	-	6	6
Mont.	9	8	-	-	-	-	16	29	-	-	-
Idaho	10	22	-	3	-	1	546	100	-	1	2
Wyo.	3	3	-	1	-	-	7	5	-	-	-
Colo.	43	32	-	3	4	1	255	156	-	-	2
N. Mex.	23	24	N	N	N	-	87	55	-	-	-
Ariz.	41	34	-	32	1	1	34	28	-	5	1
Utah	12	15	-	8	3	-	16	18	-	-	-
Nev.	16	16	-	7	15	-	16	30	-	-	1
PACIFIC	544	575	4	154	192	6	677	1,194	-	27	70
Wash.	70	82	3	17	20	6	312	529	-	5	15
Oreg.	104	102	N	N	N	-	17	56	-	-	1
Calif.	361	378	U	111	141	U	321	574	U	14	51
Alaska	2	8	-	4	3	-	14	3	-	-	-
Hawaii	7	5	1	22	28	-	13	32	-	8	3
Guam	1	4	U	1	8	U	-	-	U	-	-
P.R.	10	11	-	7	1	-	1	2	-	-	-
V.I.	-	-	U	-	1	U	-	-	U	-	-
Amer. Samoa	-	-	U	-	-	U	-	-	U	-	-
C.N.M.I.	-	-	U	4	-	U	-	-	U	-	-

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

TABLE IV. Deaths in 122 U.S. cities,* week ending October 18, 1997 (42nd Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	>65	45-64	25-44	1-24	<1	
NEW ENGLAND	502	383	73	29	8	9	39
Boston, Mass.	133	89	21	17	3	3	6
Bridgeport, Conn.	38	32	6	-	-	-	3
Cambridge, Mass.	18	14	2	2	-	-	1
Fall River, Mass.	36	31	4	1	-	-	-
Hartford, Conn.	44	36	5	2	-	1	4
Lowell, Mass.	17	17	-	-	-	-	2
Lynn, Mass.	18	14	3	-	1	-	2
New Bedford, Mass.	16	11	1	4	-	-	1
New Haven, Conn.	51	36	9	1	1	4	2
Providence, R.I.	U	U	U	U	U	U	U
Somerville, Mass.	4	4	-	-	-	-	-
Springfield, Mass.	28	25	2	-	1	-	1
Waterbury, Conn.	34	26	7	-	-	1	3
Worcester, Mass.	65	48	13	2	2	-	14
MID. ATLANTIC	2,359	1,622	457	175	57	48	105
Albany, N.Y.	56	38	10	3	2	3	2
Allentown, Pa.	30	21	7	2	-	-	-
Buffalo, N.Y.	69	51	12	4	1	1	2
Camden, N.J.	31	21	5	1	2	2	2
Elizabeth, N.J.	16	11	2	2	-	1	4
Erie, Pa.	55	45	8	1	1	-	1
Jersey City, N.J.	41	24	7	7	-	3	-
New York City, N.Y.	1,098	748	218	91	27	14	33
Newark, N.J.	50	22	14	8	3	3	3
Paterson, N.J.	20	15	3	-	1	1	-
Philadelphia, Pa.	499	325	108	37	15	14	24
Pittsburgh, Pa.§	79	56	15	6	1	1	2
Reading, Pa.	27	23	4	-	-	-	5
Rochester, N.Y.	120	92	19	4	3	2	11
Schenectady, N.Y.	27	23	4	-	-	-	3
Scranton, Pa.	22	20	2	-	-	-	2
Syracuse, N.Y.	84	63	16	4	-	1	7
Trenton, N.J.	18	10	1	5	-	2	3
Utica, N.Y.	17	14	2	-	1	-	1
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	1,994	1,307	406	160	64	57	101
Akron, Ohio	48	35	11	1	-	1	-
Canton, Ohio	36	26	4	2	1	3	6
Chicago, Ill.	394	219	78	61	25	11	24
Cincinnati, Ohio	98	74	15	4	4	1	3
Cleveland, Ohio	130	89	28	8	1	4	3
Columbus, Ohio	161	103	35	11	4	8	8
Dayton, Ohio	117	87	20	8	2	-	5
Detroit, Mich.	206	110	64	19	-	13	6
Evansville, Ind.	39	30	7	1	1	-	-
Fort Wayne, Ind.	64	45	15	3	-	1	1
Gary, Ind.	13	6	5	1	1	-	-
Grand Rapids, Mich.	91	57	17	7	3	7	7
Indianapolis, Ind.	161	97	33	15	10	6	15
Lansing, Mich.	38	27	11	-	-	-	1
Milwaukee, Wis.	133	104	17	7	4	1	9
Peoria, Ill.	35	31	3	1	-	-	3
Rockford, Ill.	60	40	13	2	4	1	3
South Bend, Ind.	40	29	8	2	1	-	-
Toledo, Ohio	79	53	19	4	3	-	5
Youngstown, Ohio	51	45	3	3	-	-	2
W.N. CENTRAL	776	570	112	46	16	22	35
Des Moines, Iowa	62	48	11	-	-	3	6
Duluth, Minn.	27	25	1	1	-	-	2
Kansas City, Kans.	29	25	2	2	-	-	1
Kansas City, Mo.	87	50	14	8	2	3	2
Lincoln, Nebr.	44	36	7	1	-	-	3
Minneapolis, Minn.	216	157	36	12	7	4	6
Omaha, Nebr.	73	56	9	6	-	2	6
St. Louis, Mo.	93	76	10	5	1	1	-
St. Paul, Minn.	74	59	7	3	3	2	7
Wichita, Kans.	71	38	15	8	3	7	2

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	>65	45-64	25-44	1-24	<1	
S. ATLANTIC	1,131	718	241	108	38	24	50
Atlanta, Ga.	163	104	32	16	7	4	6
Baltimore, Md.	146	85	29	24	5	1	11
Charlotte, N.C.	61	39	17	3	1	1	2
Jacksonville, Fla.	90	58	16	11	1	4	2
Miami, Fla.	110	65	24	11	7	3	-
Norfolk, Va.	58	32	13	7	4	2	-
Richmond, Va.	71	43	15	11	2	-	4
Savannah, Ga.	47	32	5	5	2	3	3
St. Petersburg, Fla.	63	56	3	3	1	-	5
Tampa, Fla.	182	118	48	5	5	6	14
Washington, D.C.	129	80	34	12	3	-	3
Wilmington, Del.	11	6	5	-	-	-	-
E.S. CENTRAL	731	467	166	55	25	17	52
Birmingham, Ala.	145	96	32	10	2	4	20
Chattanooga, Tenn.	55	32	17	4	1	1	3
Knoxville, Tenn.	72	53	15	2	1	1	8
Lexington, Ky.	61	33	16	8	1	3	4
Memphis, Tenn.	109	67	22	11	8	1	8
Mobile, Ala.	91	55	28	4	3	1	1
Montgomery, Ala.	55	41	7	4	3	-	3
Nashville, Tenn.	143	90	29	12	6	6	5
W.S. CENTRAL	1,139	759	215	98	44	23	59
Austin, Tex.	80	45	19	10	6	-	5
Baton Rouge, La.	34	24	6	2	1	1	-
Corpus Christi, Tex.	44	29	11	2	2	-	1
Dallas, Tex.	157	97	34	16	6	4	4
El Paso, Tex.	U	U	U	U	U	U	U
Ft. Worth, Tex.	101	65	20	7	5	4	8
Houston, Tex.	209	137	41	21	5	5	11
Little Rock, Ark.	70	37	23	7	2	1	1
New Orleans, La.	113	74	19	13	6	1	-
San Antonio, Tex.	202	151	27	13	7	4	20
Shreveport, La.	56	41	8	3	1	3	5
Tulsa, Okla.	73	59	7	4	3	-	4
MOUNTAIN	890	572	171	78	36	32	56
Albuquerque, N.M.	100	64	18	10	7	1	1
Boise, Idaho	38	23	7	6	-	2	1
Colo. Springs, Colo.	48	28	10	8	-	2	1
Denver, Colo.	105	63	25	7	3	7	6
Las Vegas, Nev.	197	129	44	11	7	6	5
Ogden, Utah	42	34	3	2	3	-	7
Phoenix, Ariz.	117	74	18	11	8	6	8
Pueblo, Colo.	39	23	10	2	2	2	5
Salt Lake City, Utah	115	75	16	14	6	3	12
Tucson, Ariz.	89	59	20	7	-	3	10
PACIFIC	1,301	935	232	84	22	27	85
Berkeley, Calif.	9	7	2	-	-	-	-
Fresno, Calif.	43	32	7	1	-	3	2
Glendale, Calif.	19	14	3	2	-	-	-
Honolulu, Hawaii	71	57	12	1	-	1	4
Long Beach, Calif.	40	24	12	3	-	1	1
Los Angeles, Calif.	243	173	48	13	8	1	8
Pasadena, Calif.	9	7	1	1	-	-	-
Portland, Oreg.	U	U	U	U	U	U	U
Sacramento, Calif.	191	137	33	12	2	6	23
San Diego, Calif.	116	90	13	9	1	3	11
San Francisco, Calif.	92	66	13	10	2	1	5
San Jose, Calif.	151	107	27	12	4	1	10
Santa Cruz, Calif.	33	26	5	1	1	-	7
Seattle, Wash.	131	88	26	10	4	3	6
Spokane, Wash.	57	41	9	3	-	4	2
Tacoma, Wash.	96	66	21	6	-	3	6
TOTAL	10,823¶	7,333	2,073	833	310	259	582

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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