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Update: Fatal and Severe Liver Injuries Associated With Rifampin and Pyrazinamide for Latent Tuberculosis Infection, and Revisions in American Thoracic Society/CDC Recommendations — United States, 2001

During February 12–August 24, 2001, a total of 21 cases of liver injury associated with a 2-month rifampin-pyrazinamide (RIF-PZA) regimen for the treatment of latent tuberculosis infection (LTBI) was reported to CDC. These 21 cases are in addition to two previously reported RIF-PZA–associated cases (*1*). Cases of liver injury have occurred each year since 1999. CDC also received reports of 10 cases associated with other LTBI treatment regimens; however, risk for liver injury cannot be compared among treatment regimens in part because the number of patients treated for LTBI with each treatment regimen is unknown. This report provides preliminary information about the 21 cases associated with RIF-PZA and the revised recommendations on selecting appropriate LTBI therapy for patients and monitoring the use of RIF-PZA to treat LTBI (*2*). In most instances, the 9-month isoniazid (INH) regimen is preferred for the treatment of patients with LTBI. RIF-PZA may be used in selected cases and requires more intensive clinical and laboratory monitoring than previously recommended.

A case was defined as liver injury (i.e., clinical and laboratory findings consistent with hepatitis) leading to hospital admission or death of a patient being treated for LTBI with RIF-PZA. The median age of the 21 patients was 44 years (range: 28–73 years) and 12 were men. For patients in which the information was known, jaundice was reported in 15 of 18, and human immunodeficiency virus (HIV) test results were negative for all 11 who were tested. One patient had been diagnosed with hepatitis C disease at the start of RIF-PZA treatment. Three of the 21 RIF-PZA–associated cases occurred when patients received this regimen after recovering from INH-associated liver injury. One case was associated with a patient who received RIF-PZA after taking INH without problems.

Of the 21 patients with RIF-PZA–associated liver injury, 16 recovered and five died of liver failure. No patient received a liver transplant. The five patients who died had LTBI diagnosed under the current recommendations, and each had indications for RIF-PZA treatment (*2*). Patient 1 was a 68-year-old man who had diabetes and a positive tuberculin skin test (TST) result, patient 2 was a 62-year-old woman who had a TST conversion detected by employee screening, and patient 3 was a 36-year-old man who had a TST conversion during incarceration. Patient 4 was a 32-year-old woman who had emigrated from a high-prevalence country to the United States in 2000 and had a positive TST result of 20 mm induration, and patient 5 was a 34-year-old man who had emigrated from a high-prevalence country to the United States in 1988 and had a positive TST result of 22 mm induration. Patient 3 had HIV risk factors but a negative serology result; the other

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four did not have HIV risk factors. Patients 2, 4, and 5 were tested and had negative serology results. Patients 2 and 3 received RIF-PZA after recovering from INH-associated liver injury.

PZA dosages for the five patients were 19, 18, 23, 20, and 16 mg/kg/d (recommended dose: 15–20 mg/kg/d). After liver injury was diagnosed, all patients were tested for hepatitis A (acute), B (acute and chronic), and C. Patients 2 and 5 had serologic evidence of previous hepatitis A. Patient 5 had serologic evidence of past hepatitis B. Patient 1 had idiopathic nonalcoholic steatotic hepatitis confirmed by biopsy in 1997, and patient 3 used injection drugs and alcohol, although reportedly not during RIF-PZA treatment. Patient 2 had no risks for chronic liver disease and had neither a liver biopsy nor an autopsy. Patients 4 and 5 had autopsies; microscopic examination of the liver of patient 5 revealed acute hepatic necrosis, and results are pending for patient 4. Patients 1 and 2 were taking other medicines* that have been associated with idiosyncratic liver injury. All five patients had onset of liver injury during the second month of the 2-month course of treatment. Patients 1 and 3 continued RIF-PZA an estimated 3 days and 14 days, respectively, after symptom onset; the exact duration of RIF-PZA treatment could not be determined for patients 2 and 4. Patient 5 developed symptoms at the completion of treatment. Patients 1, 2, 4, and 5 received 30-day supplies of RIF-PZA. Patient 3 received directly observed therapy daily, but a language barrier possibly hampered patient education and communication about symptoms. Patient 4 also may have faced a language barrier.

Reported by: State and territorial health depts. Div of Tuberculosis Elimination, National Center for HIV, STD, and TB Prevention, CDC.

Editorial Note: During June, tuberculosis (TB) and liver disease specialists consulted by CDC analyzed case reports and assessed current guidelines on the use of RIF-PZA and noted that the 2-month RIF-PZA regimen was well tolerated in LTBI treatment trials among HIV-infected persons (*3–5*). Although clinical trials of RIF-PZA did not include HIV-uninfected persons, the number of reports of severe liver injury among persons presumed or known not to be infected with HIV was unexpected. CDC continues to investigate the rate and risk factors for liver injury. To reduce the risk for liver injury associated with RIF-PZA therapy, the American Thoracic Society and CDC, with the endorsement of the Infectious Diseases Society of America, have prepared recommendations that supercede previous guidelines (*2*).

1. The 2-month RIF-PZA treatment regimen for LTBI should be used with caution, especially in patients concurrently taking other medications associated with liver injury, and those with alcoholism, even if alcohol use is discontinued during treatment. RIF-PZA is not recommended for persons with underlying liver disease or for those who have had INH-associated liver injury. Persons being considered for treatment with RIF-PZA should be informed of potential hepatotoxicity and asked whether they have had liver disease or adverse effects from INH.

2. For persons not infected with HIV, 9 months of daily INH remains the preferred treatment for LTBI; 4 months of daily RIF is an acceptable alternative. Two months of daily RIF-PZA may be useful when completion of longer treatment courses is unlikely and when the patient can be monitored closely.

3. Available data do not suggest excessive risk for severe hepatitis associated with RIF-PZA treatment among HIV-infected persons. In a large multinational trial, HIV-infected patients treated with RIF-PZA had lower rates of serum aminotransferase (AT)

*One patient was taking hydrochlorothiazide; and the other was taking lisinopril, metformin, and aspirin.

Liver Injuries — Continued

elevations than those given INH alone (*3*). The RIF-PZA regimen also was well tolerated when given twice weekly to HIV-infected persons in Zambia and Haiti (*4,5*). However, experience from trials may not translate to all clinical practice settings, and it may be prudent to use 9 months of daily INH for treatment of HIV-infected persons with LTBI when completion of treatment can be assured.

4. No more than a 2-weeks supply of RIF-PZA (with a PZA dose ≤20 mg/kg/d and a maximum of 2 gm/d) should be dispensed at a time to facilitate periodic clinical assessments. Patients should be reassessed in person by a health-care provider at 2, 4, and 6 weeks of treatment for adherence, tolerance, and adverse effects, and at 8 weeks to document treatment completion. At each visit, health-care providers conversant in the patients' language should instruct patients to stop taking RIF-PZA immediately and seek medical consultation if abdominal pain, emesis, jaundice, or other hepatitis symptoms develop. Provider continuity is recommended for monitoring.

5. A serum AT and bilirubin should be measured at baseline and at 2, 4, and 6 weeks of treatment in patients taking RIF-PZA. Because some side effects may occur in the second month of treatment, patients should be monitored throughout the entire course of treatment. Asymptomatic serum AT increases are expected and usually do not require that treatment be stopped (*2,3*). However, treatment should be stopped and not resumed for any of these findings: AT greater than five times the upper limit of normal range in an asymptomatic person, AT greater than normal range when accompanied by symptoms of hepatitis, or a serum bilirubin greater than normal range.

The following considerations are crucial in deciding whom to test and treat for LTBI:

1. The purpose of targeted testing is to find and treat persons who have both LTBI and high risk for TB disease (e.g., recent exposure to a contagious case) (*2*). Persons at low risk for developing TB and who have had a TST for other reasons, such as baseline TST of health-care workers, are not necessarily candidates for treatment if found to be infected (*2*).

2. Treatment is recommended for foreign-born persons from countries with a high prevalence of TB who have LTBI and who have been in the United States <5 years (*2*). After 5 years, treatment decisions should be made on the same basis as other patients.

3. Because sporadic severe INH-associated liver injury still occurs, patients taking INH should be monitored as recommended (*2*).

CDC is collecting reports of severe liver injury (i.e., leading to hospital admission or death) in persons receiving any regimen for LTBI. Reports are being analyzed to assess contributing factors. Report possible cases to the Division of Tuberculosis Elimination; telephone (404) 639-8125.

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

Impact of Targeted, School-Based Dental Sealant Programs in Reducing Racial and Economic Disparities in Sealant Prevalence Among Schoolchildren — Ohio, 1998–1999

Despite the availability of highly effective measures for primary prevention, dental caries (tooth decay) remains one of the most common childhood chronic diseases (*1*). When properly placed, dental sealants are almost 100% effective in preventing caries on the chewing surfaces of first and second permanent molar teeth (*2*). However, sealants remain underused, particularly among children from low-income families and from racial/ethnic minority groups (*3*). Schools traditionally have been a setting for both dental disease prevention programs and for oral health status assessment. To determine the prevalence of dental sealant use among third grade students from schools with and without sealant programs, during the 1998–99 school year, the Ohio Department of Health conducted an oral health survey among schoolchildren. This report summarizes the results of this survey, which indicate that targeted, school-based dental sealant programs can substantially increase prevalence of dental sealants. Providing sealant programs in all eligible, high-risk schools could reduce or eliminate racial and economic disparities in the prevalence of dental sealants.

The study population was derived from a sample of elementary schools in Ohio. Eligible schools included those with complete data on enrollment and that participated in the free or reduced-cost lunch program. Of 1857 public schools with complete data, 335 (representing 87 of 88 Ohio counties) were selected randomly using the probability-proportional-to-size approach. The prevalence of dental sealant use was compared among students attending schools with a program (69 schools) to that of students attending schools without a program (266 schools). On the basis of a student census in randomly selected classrooms (grades 1–3), 34,668 students were eligible for the survey; 19,471 of these were from the third grade. Parental consent was obtained and oral screenings performed on 11,191 third graders (57.5% of those eligible). Using mouth mirrors, artificial lighting, and dental explorers, 12 dental professionals completed the clinical screening. Weighted data were analyzed using Stata software (*4*). The Design-Based Pearson Statistic was used to test for association. Weighting was based on the relation between the number of children screened and the number in the underlying eligible population.

Among third grade students surveyed in Ohio, 34.2% (95% confidence interval [CI]=32.1%–36.4%) had at least one dental sealant on a permanent molar tooth. At schools with dental sealant programs, 56.7% of third grade students had a sealant, compared with 28.2% of students at schools without sealant programs (Table 1). By race, 61.6% of white third grade students in schools with sealant programs had sealants, compared with 30.0% of white third grade students in schools without programs. For black third grade students, 50.8% in schools with sealant programs had a sealant, compared with 17.7% of black third grade students in schools without programs.

Using eligibility for free or reduced-cost lunch programs as a proxy for low income, 54.4% of eligible third grade students in schools with sealant programs had a sealant, compared with 64.8% of third grade students not eligible for the program in the same schools; 19.0% of eligible third grade students in schools without programs had a sealant. Among third grade students in schools with sealant programs, the prevalence of sealants was similar for students with and without health insurance.

Dental Sealant Programs — Continued

TABLE 1. Dental sealant prevalence among third grade students, by race, sex, free or reduced-cost lunch program eligibility, health insurance status, and attendance at a school with or without a sealant program — Ohio, 1998–1999

Characteristic	All schools No.*	School with sealant program: No. children with sealants	(%)	(95% CI†)	School without sealant program: No. children with sealants	(%)	(95% CI)
Race							
White	10,003	1,052	(61.6)	(56.0–67.0)	2,398	(30.0)	(28.4–31.7)
Black	1,035	257	(50.8)	(42.3–59.2)	121	(17.7)	(14.0–22.1)
Sex							
Male	5,495	611	(57.3)	(52.5–62.0)	1,259	(28.0)	(25.0–31.1)
Female	5,690	709	(56.3)	(48.6–63.6)	1,300	(28.5)	(26.6–30.4)
Lunch program§							
Eligible	3,709	675	(54.4)	(47.7–60.9)	546	(19.0)	(15.2–23.6)
Not eligible	6,343	506	(64.8)	(55.7–72.9)	1,812	(33.7)	(31.7–35.9)
Insurance							
Uninsured	3,780	394	(55.0)	(43.7–65.7)	728	(23.5)	(21.6–25.5)
Medicaid	1,844	389	(58.3)	(53.2–63.2)	314	(22.2)	(16.8–28.7)
Private insurance	4,964	450	(58.4)	(47.4–68.6)	1,418	(34.4)	(32.4–36.5)
Total	**11,191**	**1,321**	**(56.7)**	**(51.7–61.6)**	**2,559**	**(28.2)**	**(26.4–30.2)**

* Numbers may not add to total because of missing data.
† Confidence interval.
§ Students were eligible for the free or reduced-cost lunch program if their family income was ≤185% the federal poverty level.

Among students who attended schools with sealant programs and had sealants on their teeth, 70.2% (95% CI=62.8–76.7) received them at school. Students who received sealants at school represented 22.6% of all Ohio students with sealants.

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Editorial Note: The findings in this report indicate that school-based dental sealant programs in Ohio that are targeted to groups at high risk for dental caries and least likely to receive regular dental care can substantially increase sealant prevalence. Third grade students in schools with dental sealants programs have two to three times greater prevalence of sealants compared with students in schools without sealant programs. One of the national health objectives for 2010 is to increase to 50% the proportion of children aged 8 years that have received dental sealants on their first permanent molar teeth (*3*). Periodic surveys in Ohio have documented steady increases in the overall prevalence of dental sealants among children aged 8 years, from 11% during 1987–1988 to 26% during 1992–1993 to 30% during 1998–1999 (*5*). Although the overall prevalence still falls short of the 2010 objective, among targeted schools, all racial and income groups have achieved or exceeded the objective. Providing programs in all eligible, high-risk schools would accelerate progress toward both achieving the 2010 objective and eliminating racial and income disparities.

Dental Sealant Programs — Continued

School-based sealant programs began in Ohio during the mid-1980s, expanding from a single demonstration program in one city in 1984 to 18 programs in 34 of 88 counties in 2000. During 1997–1998, approximately 12,000 second grade students received sealants through Ohio school-based programs.

The findings in this report are subject to at least two limitations. First, it is not known to what extent the 42% of third grade students who did not return parental consent forms were similar to the students who did. In addition, it is unknown whether those without consent were equally distributed according to other factors that could influence the findings (e.g., receipt of regular dental care). Second, parental recall about whether children received sealants at school was subject to error. As a result, for this analysis, only children who attended a school with a sealant program, had a sealant on at least one tooth, and had a consent form indicating that they had received sealants at school were counted in that category.

The findings of this survey indicate that, among students who participated, the use of appropriately targeted school-based programs increases the prevalence of dental sealants among children from low-income families and reduces the racial and income disparity in sealant prevalence among elementary school students. The extent to which sealant programs can eliminate the disparity in sealant prevalence in a population will be influenced by the manner in which the programs are targeted and by their penetration in the targeted population. Sealant programs provide additional benefits when they are linked to programs that ensure access to primary dental care for those in need of restorative services.

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Progress Toward Poliomyelitis Eradication — South-East Asia, January 2000–June 2001

Since the World Health Assembly resolved in 1988 to eradicate poliomyelitis globally (*1*), the estimated number of polio cases worldwide has declined 99%. During 1994, member countries of the South-East Asia Region (SEAR)* of the World Health Organization (WHO) began accelerating efforts to eradicate polio. By 2000 (*2*), wild poliovirus was detected in only four of the 10 countries: Bangladesh, India, Nepal, and Myanmar. This report summarizes polio eradication activities during January 2000–June 2001 in SEAR, where wild poliovirus transmission has declined rapidly and is occurring primarily in northern India.

*Bangladesh, Bhutan, Democratic People's Republic of Korea, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, and Thailand.

Poliomyelitis Eradication — Continued

Routine Vaccination

During 2000, the Indian government reported that the routine administrative coverage rate with three doses of oral poliovirus vaccine (OPV3) among children aged 1 year was 95%; however, Multiple Indicator Cluster Survey data suggested that coverage was approximately 59% in India (United Nations Children's Fund [UNICEF], unpublished data, 2000)[†]. Similar surveys found coverage rates of approximately 67% in Bangladesh and 60% in Nepal. Routine administrative OPV3 coverage rates were reported from Bangladesh (90%), Bhutan (90%), Democratic People's Republic (DPR) of Korea (91%), Indonesia (66%), Maldives (98%), Myanmar (86%), Nepal (80%), Sri Lanka (102%), and Thailand (89%).

Supplementary Vaccination

During the second half of 2000 and the first half of 2001, all countries in the region implemented at least two rounds of national immunization days (NIDs) (mass campaigns over a period of days to weeks in which two doses of OPV are administered to all children usually aged <5 years regardless of previous vaccination history with an interval of 4–6 weeks between doses). On the basis of May 1999 recommendations (*3*), India conducted four NID rounds (October 1999–January 2000) followed 1 month later by two rounds of subnational immunization days (SNIDs) (same procedure as NIDs but in a smaller area) in eight high-risk northern states. Two additional SNID rounds and two NID rounds were conducted in fall and winter 2000–2001. In addition to the use of fixed vaccination posts, the NID and SNID rounds in Bangladesh, India, and Nepal were intensified through door-to-door and boat-to-boat vaccine delivery. NIDs and SNIDs in Bangladesh, Myanmar, and Nepal were synchronized to coincide with India.

During 2000, in response to the detection of wild poliovirus, mop-up campaigns began in India, Myanmar, and Nepal. In India, eight mop-up campaigns were conducted targeting 22.7 million children. During spring (low transmission season) 2001, two OPV doses were administered in high-risk areas to children aged <5 years, including 20.2 million in 40 districts of Uttar Pradesh, 9.5 million in 18 districts of Bihar, and 3.7 million in five districts of West Bengal. Eleven additional mop-up campaigns were completed or were planned by June.

Acute Flaccid Paralysis (AFP) Surveillance

The goal of AFP surveillance is to detect circulating polioviruses and provide data for developing appropriate supplementary vaccination strategies. AFP surveillance is evaluated by two key indicators: sensitivity of reporting (target: nonpolio AFP rate of $\geq$1 case per 100,000 children aged <15 years) and completeness of specimen collection (target: two adequate stool specimens from $\geq$80% of all persons with AFP cases).

In Bangladesh, India, Myanmar, and Nepal, AFP detection is facilitated through surveillance medical officers (SMOs) who receive training and are responsible for a defined area. Myanmar had nine officers and Nepal had six. By June 2001, Bangladesh had 32 and India had 207. Surveillance in Bangladesh, India, and Nepal was strengthened by the Stop the Transmission of Polio (STOP) teams[§].

[†] Vaccination coverage determined by the administrative method (in which the doses administered is the numerator and the estimated number of target children is the denominator) is often higher than coverage determined through surveys because of overestimates in the number of doses of vaccine administered and underestimates of the size of the target population.

[§] Groups of international health-care professionals deployed to a local area for 3 months to assist ministry of health staff with polio eradication activities.

Poliomyelitis Eradication — Continued

The reported number of AFP cases during 1999–2000 increased in Bangladesh (from 767 to 1133) and Myanmar (from 183 to 294); both countries had a nonpolio AFP rate >1.0 for the first time (Table 1). India, Nepal, Sri Lanka, and Thailand maintained nonpolio AFP rates >1.0. In Indonesia, the rate decreased from 0.99 in 1999 to 0.85 in 2000. During 2001, the nonpolio AFP rate continued to be >1.0 in Bangladesh, India, Nepal, Sri Lanka, and Thailand; however, the rate decreased to 0.46 in Indonesia. During 2000, the percentage of adequate stool specimens[¶] collected from persons with AFP was >80% in India, Indonesia, Sri Lanka, and Thailand. Specimen collection increased during 1999–2000 in Bangladesh (from 48% to 68%), DPR Korea (from 33% to 74%), Myanmar (from 66% to 74%), and Nepal (from 76% to 79%). During 2001, sewage sampling in Mumbai, Maharashtra, India, detected wild poliovirus type 1 that was linked genetically to poliovirus previously isolated in Uttar Pradesh.

Polio Incidence

During 1999–2000, the incidence of wild virus-confirmed polio cases decreased in SEAR from 1161 to 272, primarily reflecting the decreases in India (from 1126 to 265). In India, the greatest decline occurred in central and southern states.

Of 265 virus-confirmed cases in India in 2000, 138 (52%) were poliovirus type 1 (P1), 126 (48%) were poliovirus type 3 (P3), and one case was a mixture of P1 and P3 (Figure 1). The last reported case of wild poliovirus type 2 in the world was isolated from an AFP case from India in October 1999 (Aligarh District, Uttar Pradesh). The number of polio cases reported from Bangladesh decreased from 393 (29 virus-confirmed) in 1999 to

[¶] Two stool specimens collected at least 24 hours apart within 14 days from onset of paralysis and shipped adequately to the laboratory.

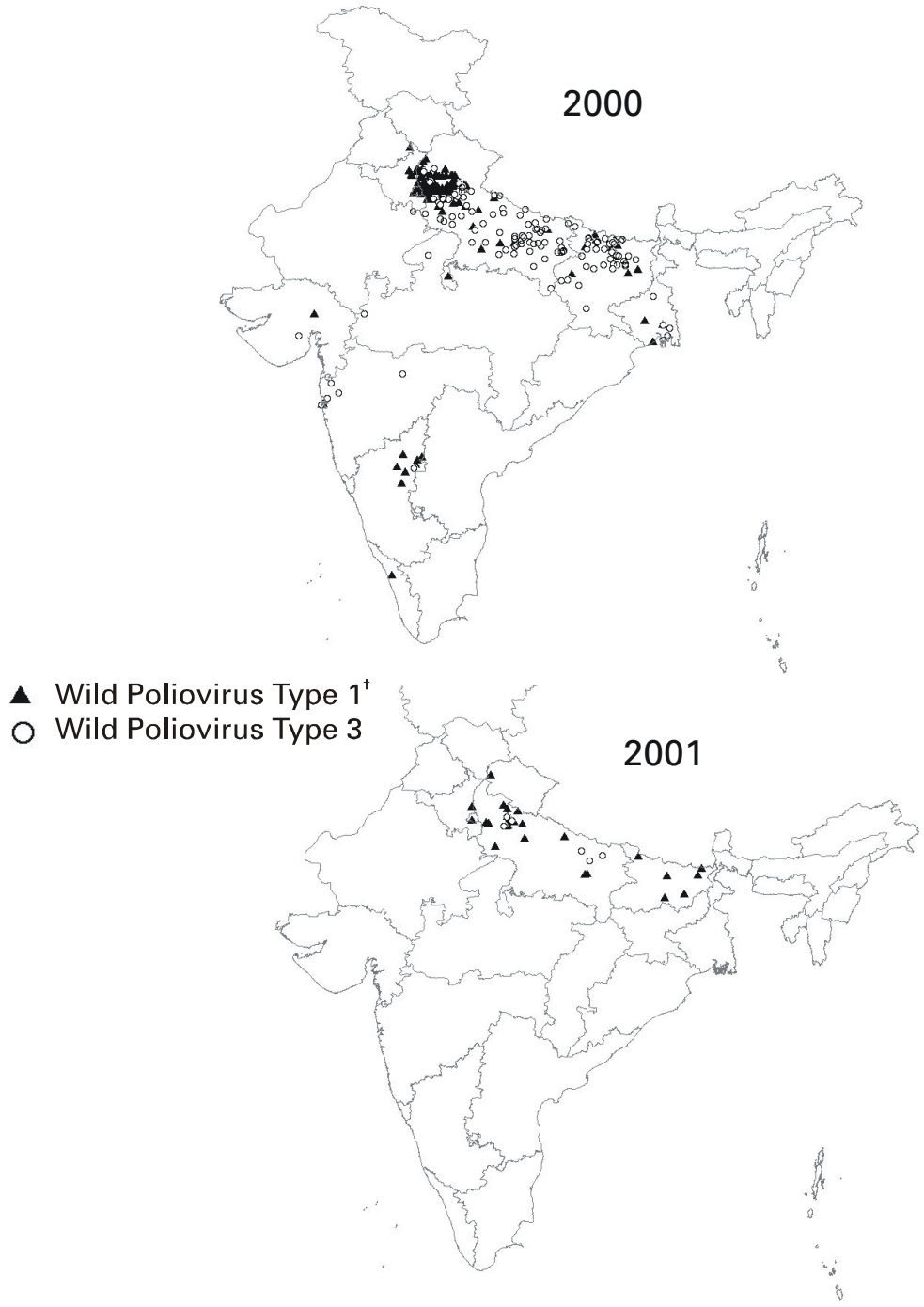
TABLE 1. Number of reported cases of acute flaccid paralysis (AFP), nonpolio AFP rates, and confirmed poliomyelitis cases, by country — South-East Asia Region, January 2000–June 2001*

	AFP reported cases		Nonpolio AFP rate		Persons with AFP with adequate specimens (%)		Polio cases (wild virus-confirmed)	
Country	**2000**	**2001**	**2000**	**2001**	**2000**	**2001**	**2000**	**2001**
Bangladesh	1,133	576	1.85	1.14	68	78	197 (1)	0 (0)
Bhutan	4	1	1.54	0.77	25	100	0 (0)	0 (0)
Democratic People's Republic (DPR) of Korea	65	24	0	0	74	79	0 (0)[†]	0 (0)
India	8,104	2,913	2.03	1.20	82	84	265 (265)[†]	31 (31)
Indonesia	593	216	0.85	0.46	85	84	37 (0)	0 (0)
Maldives	0	0	0	0	0	0	0 (0)	0 (0)
Myanmar	294	107	1.55	0.98	74	90	44 (2)	0 (0)
Nepal	211	77	1.90	1.15	79	84	29 (4)	0 (0)
Sri Lanka	97	61	1.75	1.08	86	82	0 (0)[†]	0 (0)
Thailand	261	109	1.45	1.24	90	92	20 (0)	0 (0)
Total	**10,762**	**4,084**	**1.81**	**1.08**	**81**	**84**	**592 (272)**	**31 (31)**

* Data up to June 30, 2001.
[†] During 2000, only India and Sri Lanka used the virologic classification scheme. As of January 2001, all countries are using the virologic classification scheme except DPR Korea, which uses the clinical classification scheme.

Poliomyelitis Eradication — Continued

FIGURE 1. Confirmed cases of poliomyelitis*, by type of wild poliovirus isolate — India, January 2000 and January–June 2001



* n=265 for 2000 and n=31 for January–June 2001.
† Included one wild poliovirus mixture (P1 and P3).

Poliomyelitis Eradication — Continued

197 (one virus-confirmed) in 2000. During that year, wild viruses also were isolated from two cases in Myanmar (along the border with Bangladesh) and from four cases in Nepal (along the border with India). By June 30, 2001, 31 virus-confirmed polio cases had been detected in the four northern states of Bihar, Delhi, Haryana, and Uttar Pradesh in India; and no virus had been found elsewhere in SEAR.

Laboratory Network

The Polio Laboratory Network for SEAR consists of 17 laboratories (nine in India, three in Indonesia, and one each in Bangladesh, DPR Korea, Myanmar, Sri Lanka, and Thailand). The network includes 14 national polio laboratories, two regional reference laboratories, and one global specialized laboratory that conducts genetic sequencing. As of June, 16 laboratories were fully accredited.

Reported by: Vaccines and Biologicals Dept, World Health Organization, Regional Office for South-East Asia, New Delhi, India. Vaccines and Biologicals Dept, World Health Organization, Geneva, Switzerland. Respiratory and Enterovirus Br, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; Vaccine Preventable Disease Eradication Div, National Immunization Program, CDC.

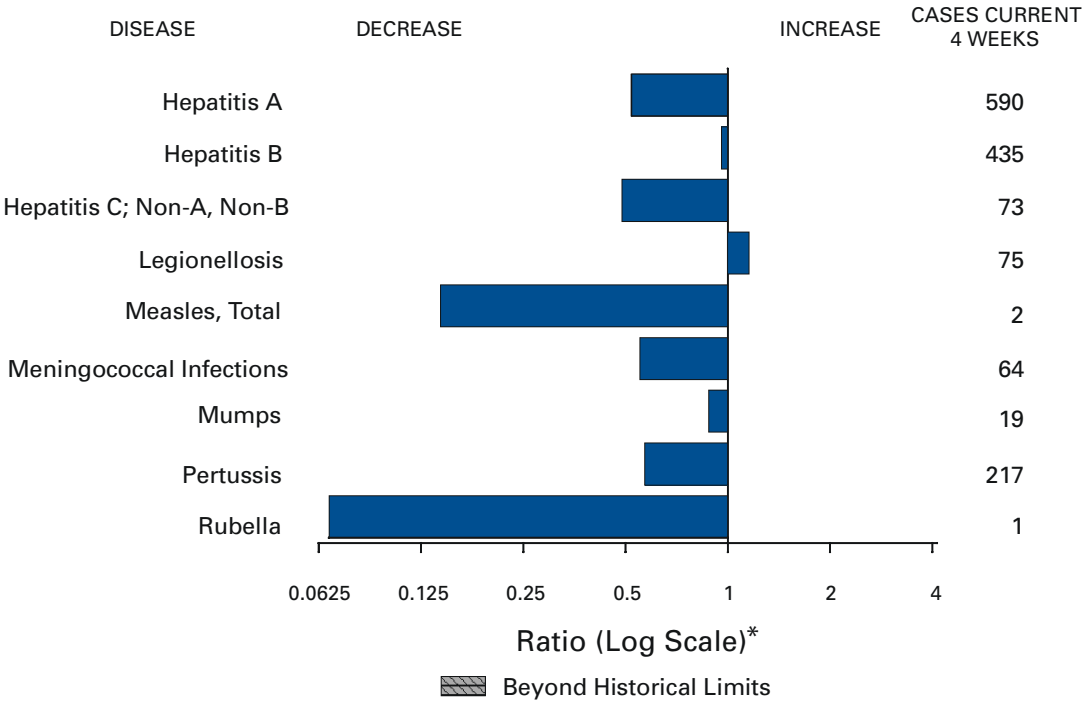
Editorial Note: The increase in SEAR polio eradication activities during the past 18 months has resulted in a dramatic reduction in polio cases. This progress has been accompanied by enhanced surveillance that improves the completeness of reporting. During January–June 2001, wild poliovirus circulated in only four states in India, with intense transmission in western Uttar Pradesh. Interrupting the remaining chains of transmission through supplementary vaccination activities is the highest priority in SEAR. Viruses isolated from AFP cases in Myanmar and Nepal along the border with India in 2000 were genetically similar to those from Bangladesh and India during 1999, underscoring the importance of border areas in virus transmission. Continuous cooperation among neighboring countries both in AFP surveillance and synchronization of supplementary vaccination activity is needed (*4*).

The immediate concern in India is improvement in supplementary vaccination activities in the four contiguous states of Bihar, Delhi, Haryana, and Uttar Pradesh to compensate for high birth rates, crowded urban conditions, poor sanitation and infrastructure, low routine vaccination coverage, and insufficient health personnel. The SEAR Technical Consultative Group meeting in May 2001 called for 1) Increased prioritization of AFP cases highly suspected of being true polio cases; 2) prompt supplementary vaccination campaigns in areas with wild poliovirus transmission; 3) prompt reporting of AFP cases, timely laboratory results, and regular analysis of data; and 4) establishment of national expert review committees in SEAR countries. Although AFP surveillance has improved in Bangladesh, India, Myanmar, and Nepal through the SMO network (*5*), surveillance remains suboptimal in DPR Korea, and AFP performance indicators have declined in Indonesia.

Assessments of AFP surveillance by WHO and the ministries of health were conducted in India and Nepal in 2001. The review concluded that the existing surveillance system is unlikely to miss areas in India with sustained wild poliovirus transmission. The review recommended implementation of the mopping-up plan, regular active AFP searches by the reporting units, greater private sector involvement, regular analysis of surveillance data for programmatic action, addressing vacancies of key district government posts, and strengthening project management at national and regional levels. AFP surveillance reviews in Bangladesh and DPR Korea are planned for late 2001.

(Continued on page 751)

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending August 25, 2001, with historical data



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

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending August 25, 2001 (34th Week)

	Cum. 2001		Cum. 2001
Anthrax	-	Poliomyelitis, paralytic	-
Brucellosis*	51	Psittacosis*	9
Cholera	4	Q fever*	15
Cyclosporiasis*	104	Rabies, human	1
Diphtheria	1	Rocky Mountain spotted fever (RMSF)	307
Ehrlichiosis: human granulocytic (HGE)*	126	Rubella, congenital syndrome	-
human monocytic (HME)*	48	Streptococcal disease, invasive, group A	2,543
Encephalitis: California serogroup viral*	21	Streptococcal toxic-shock syndrome*	43
eastern equine*	4	Syphilis, congenital §	157
St. Louis*	-	Tetanus	17
western equine*	-	Toxic-shock syndrome	82
Hansen disease (leprosy)*	51	Trichinosis	14
Hantavirus pulmonary syndrome*	4	Tularemia*	69
Hemolytic uremic syndrome, postdiarrheal*	72	Typhoid fever	166
HIV infection, pediatric*†	98	Yellow fever	-
Plague	2		

-: No reported cases.
*Not notifiable in all states.
† Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP). Last update June 26, 2001.
§ Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending August 25, 2001, and August 26, 2000 (34th Week)

Reporting Area	AIDS		Chlamydia†		Cryptosporidiosis		*Escherichia coli* O157:H7*			
							NETSS		PHLIS	
	Cum. 2001§	Cum. 2000	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000
UNITED STATES	19,145	25,088	434,579	449,825	1,354	1,391	1,477	2,751	1,210	2,418
NEW ENGLAND	746	1,412	14,459	15,095	66	76	155	251	153	268
Maine	20	25	668	913	10	12	19	17	22	22
N.H.	17	25	809	672	4	9	24	21	18	28
Vt.	10	27	385	352	25	17	10	25	5	27
Mass.	411	890	6,607	6,400	20	25	78	120	76	120
R.I.	53	54	1,859	1,651	3	2	9	11	7	12
Conn.	235	391	4,131	5,107	4	11	15	57	25	59
MID. ATLANTIC	3,974	5,778	48,224	41,965	160	209	107	289	122	201
Upstate N.Y.	322	606	8,733	951	64	55	81	178	85	38
N.Y. City	1,996	3,136	19,132	17,377	63	107	8	17	8	14
N.J.	960	1,121	6,458	7,484	4	10	18	94	29	91
Pa.	696	915	13,901	16,153	29	37	N	N	-	58
E.N. CENTRAL	1,408	2,417	62,370	77,409	400	396	345	652	257	511
Ohio	237	388	9,481	19,992	101	63	89	127	69	145
Ind.	165	216	9,102	8,523	41	23	50	79	32	62
Ill.	665	1,364	17,043	21,870	1	55	88	138	80	108
Mich.	261	331	19,591	16,465	99	54	51	78	40	71
Wis.	80	118	7,153	10,559	158	201	67	230	36	125
W.N. CENTRAL	454	604	22,117	25,413	185	139	237	398	215	401
Minn.	85	115	4,261	5,184	93	21	92	95	91	121
Iowa	47	61	1,858	3,504	49	40	43	110	31	101
Mo.	218	286	8,443	8,701	15	21	32	79	48	75
N. Dak.	1	2	599	574	7	7	9	14	19	15
S. Dak.	18	6	1,163	1,153	6	9	15	33	19	39
Nebr.	39	38	2,054	2,392	15	35	32	49	-	38
Kans.	46	96	3,739	3,905	-	6	14	18	7	12
S. ATLANTIC	6,167	6,754	83,480	83,763	200	229	132	215	83	206
Del.	116	131	1,811	1,875	2	5	2	1	4	-
Md.	751	839	7,467	8,893	28	8	9	17	1	1
D.C.	465	448	1,764	2,087	9	6	-	-	U	U
Va.	501	461	11,814	10,301	15	8	38	45	30	42
W. Va.	49	37	1,524	1,395	1	3	4	10	3	7
N.C.	402	430	13,148	14,390	19	17	29	48	17	49
S.C.	350	525	7,750	5,619	-	-	7	15	9	13
Ga.	757	705	16,028	17,750	71	84	19	33	12	36
Fla.	2,776	3,178	22,174	21,453	55	98	24	46	7	58
E.S. CENTRAL	977	1,295	31,106	32,696	30	37	81	86	70	79
Ky.	201	146	5,795	5,144	3	5	38	25	39	25
Tenn.	293	531	9,359	9,218	7	9	25	38	27	41
Ala.	224	337	8,269	10,305	11	12	11	5	-	5
Miss.	259	281	7,683	8,029	9	11	7	18	4	8
W.S. CENTRAL	2,058	2,594	66,707	67,971	21	75	44	187	59	228
Ark.	104	126	4,572	4,324	5	5	6	48	-	34
La.	472	368	10,893	12,138	7	10	3	13	24	36
Okla.	107	219	6,934	5,491	7	4	18	11	20	11
Tex.	1,375	1,881	44,308	46,018	2	56	17	115	15	147
MOUNTAIN	714	1,005	24,776	26,134	94	57	167	268	87	201
Mont.	12	10	1,305	985	7	8	10	26	-	-
Idaho	15	16	1,124	1,192	9	3	25	40	-	23
Wyo.	1	7	537	515	1	5	7	12	1	8
Colo.	140	239	4,790	7,820	25	17	65	101	44	73
N. Mex.	56	107	3,622	3,144	17	5	9	15	8	14
Ariz.	295	319	9,368	8,419	6	6	21	35	9	27
Utah	63	95	996	1,534	26	10	22	32	24	46
Nev.	132	212	3,034	2,525	3	3	8	7	1	10
PACIFIC	2,647	3,229	81,340	79,379	198	173	209	405	164	323
Wash.	290	291	8,827	8,426	37	U	54	127	31	145
Oreg.	112	107	2,917	4,460	20	11	29	75	25	86
Calif.	2,204	2,733	65,435	62,600	137	162	113	170	105	81
Alaska	13	12	1,750	1,590	1	-	3	23	-	2
Hawaii	28	86	2,411	2,303	3	-	10	10	3	9
Guam	9	13	-	333	-	-	N	N	U	U
P.R.	580	759	1,697	U	-	-	1	5	U	U
V.I.	2	25	53	-	-	-	-	-	U	U
Amer. Samoa	-	-	U	U	U	U	U	U	U	U
C.N.M.I.	-	-	85	U	-	U	-	U	U	U

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

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

† Chlamydia refers to genital infections caused by *C. trachomatis*.

§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update June 26, 2001.

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending August 25, 2001, and August 26, 2000 (34th Week)

Reporting Area	Gonorrhea		Hepatitis C; Non-A, Non-B		Legionellosis		Listeriosis	Lyme Disease	
	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2001	Cum. 2000
UNITED STATES	199,624	226,200	2,294	2,146	590	634	287	6,557	10,259
NEW ENGLAND	4,045	4,280	14	21	29	38	32	1,824	3,060
Maine	79	53	-	2	4	2	-	-	-
N.H.	107	69	-	-	7	2	2	88	36
Vt.	47	41	6	4	4	3	2	4	20
Mass.	2,029	1,732	8	10	5	15	16	405	949
R.I.	478	399	-	5	2	3	1	218	211
Conn.	1,305	1,986	-	-	7	13	11	1,109	1,844
MID. ATLANTIC	24,015	24,022	977	461	117	169	43	3,438	5,420
Upstate N.Y.	5,391	4,346	40	25	39	45	18	1,867	1,929
N.Y. City	8,016	7,382	-	-	6	23	7	1	153
N.J.	3,830	4,657	896	404	5	16	7	448	2,084
Pa.	6,778	7,637	41	32	67	85	11	1,122	1,254
E.N. CENTRAL	34,013	45,660	121	171	145	170	33	368	646
Ohio	5,634	11,930	8	7	79	65	11	79	45
Ind.	3,803	3,947	1	-	14	25	4	9	17
Ill.	10,670	13,630	11	17	-	23	1	-	31
Mich.	11,441	11,615	101	147	32	29	15	1	20
Wis.	2,465	4,538	-	-	20	28	2	279	533
W.N. CENTRAL	9,362	11,250	458	395	40	44	8	228	162
Minn.	1,375	2,073	7	5	9	3	-	182	86
Iowa	428	740	-	1	6	11	-	23	18
Mo.	5,034	5,528	443	379	15	21	5	17	41
N. Dak.	19	42	-	-	1	-	-	-	-
S. Dak.	183	187	-	-	3	2	-	-	-
Nebr.	695	936	3	3	5	3	1	3	3
Kans.	1,628	1,744	5	7	1	4	2	3	14
S. ATLANTIC	51,398	58,951	74	64	126	105	50	567	805
Del.	1,039	1,091	-	2	3	5	-	31	162
Md.	4,116	6,034	13	8	26	39	8	372	472
D.C.	1,558	1,603	-	2	7	-	-	8	3
Va.	6,853	6,430	-	3	17	17	10	94	101
W. Va.	410	427	9	12	N	N	5	9	22
N.C.	10,795	11,827	14	13	7	9	2	26	32
S.C.	5,344	5,384	5	1	5	4	4	3	3
Ga.	8,707	11,263	-	2	9	6	7	-	-
Fla.	12,576	14,892	33	21	52	25	14	24	10
E.S. CENTRAL	19,957	23,355	157	316	41	22	15	31	33
Ky.	2,279	2,237	6	28	9	13	4	17	6
Tenn.	6,206	7,347	50	66	21	6	6	8	19
Ala.	6,415	7,872	2	7	9	2	5	6	5
Miss.	5,057	5,899	99	215	2	1	-	-	3
W.S. CENTRAL	32,636	35,551	162	537	5	20	6	7	56
Ark.	2,828	2,426	3	7	-	-	1	-	5
La.	7,603	8,794	75	293	2	7	-	1	5
Okla.	3,185	2,362	3	6	3	2	2	-	-
Tex.	19,020	21,969	81	231	-	11	3	6	46
MOUNTAIN	6,491	6,847	235	52	40	25	26	10	5
Mont.	78	28	1	4	-	1	-	-	-
Idaho	48	59	2	3	2	4	1	4	1
Wyo.	45	36	190	2	4	-	1	3	2
Colo.	1,959	2,060	14	10	11	8	6	1	-
N. Mex.	592	689	11	11	2	1	6	-	-
Ariz.	2,590	2,878	9	13	11	6	6	-	-
Utah	88	157	2	-	7	5	1	1	-
Nev.	1,091	940	6	9	3	-	5	1	2
PACIFIC	17,707	16,284	96	129	47	41	74	84	72
Wash.	1,972	1,448	16	20	6	14	5	5	4
Oreg.	428	605	10	22	N	N	3	5	5
Calif.	14,669	13,713	70	85	37	27	62	72	61
Alaska	249	213	-	-	-	-	-	2	2
Hawaii	389	305	-	2	4	-	4	N	N
Guam	-	34	-	2	-	-	-	-	-
P.R.	392	352	1	1	2	1	-	N	N
V.I.	6	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	-	U	U
C.N.M.I.	7	U	-	U	-	U	-	-	U

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

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending August 25, 2001, and August 26, 2000 (34th Week)

Reporting Area	Malaria		Rabies, Animal		Salmonellosis*			
					NETSS		PHLIS	
	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000
UNITED STATES	699	886	4,001	4,569	20,996	23,606	17,043	20,731
NEW ENGLAND	38	46	437	509	1,479	1,479	1,466	1,526
Maine	4	4	46	90	135	91	121	70
N.H.	2	1	16	9	129	87	116	93
Vt.	-	2	43	41	45	84	45	84
Mass.	12	18	164	168	880	868	754	871
R.I.	3	5	40	33	82	83	113	106
Conn.	17	16	128	168	208	266	317	302
MID. ATLANTIC	167	217	786	818	2,736	3,197	2,554	3,356
Upstate N.Y.	42	43	510	516	757	740	816	868
N.Y. City	79	115	20	8	685	811	790	840
N.J.	21	34	111	109	590	774	527	638
Pa.	25	25	145	185	704	872	421	1,010
E.N. CENTRAL	69	101	75	104	2,951	3,222	2,601	2,229
Ohio	20	13	25	29	895	755	726	937
Ind.	13	5	1	-	320	379	310	417
Ill.	1	52	9	17	740	1,038	704	1
Mich.	22	21	34	47	524	582	546	627
Wis.	13	10	6	11	472	468	315	247
W.N. CENTRAL	25	37	221	395	1,363	1,533	1,424	1,711
Minn.	6	13	25	58	381	357	438	465
Iowa	5	1	49	55	210	223	193	232
Mo.	8	9	25	34	377	464	515	570
N. Dak.	-	2	24	94	37	43	51	56
S. Dak.	-	-	25	75	106	59	92	73
Nebr.	2	6	4	1	100	142	-	107
Kans.	4	6	69	78	152	245	135	208
S. ATLANTIC	196	188	1,422	1,594	5,255	4,520	3,414	3,762
Del.	1	3	25	31	59	78	61	88
Md.	81	69	179	279	517	500	569	458
D.C.	13	13	-	-	55	37	U	U
Va.	38	37	278	388	902	625	678	615
W. Va.	1	2	95	85	79	97	87	96
N.C.	9	16	392	386	744	607	570	702
S.C.	5	1	84	107	541	450	459	355
Ga.	12	4	223	218	821	749	745	1,134
Fla.	36	43	146	100	1,537	1,377	245	314
E.S. CENTRAL	21	28	140	133	1,323	1,379	1,008	1,136
Ky.	8	8	15	17	218	245	143	179
Tenn.	8	6	84	71	352	360	437	513
Ala.	4	13	41	44	392	368	294	368
Miss.	1	1	-	1	361	406	134	76
W.S. CENTRAL	10	57	510	617	1,496	2,971	1,296	1,802
Ark.	3	2	20	20	428	407	92	341
La.	4	10	-	2	270	497	457	405
Okla.	2	4	48	44	252	253	236	190
Tex.	1	41	442	551	546	1,814	511	866
MOUNTAIN	33	34	176	186	1,408	1,768	823	1,686
Mont.	2	1	31	48	49	69	-	-
Idaho	3	2	11	8	93	88	4	79
Wyo.	-	-	21	41	44	46	22	39
Colo.	17	18	-	-	387	484	276	472
N. Mex.	2	-	10	16	173	159	146	148
Ariz.	3	5	95	62	411	413	216	448
Utah	3	4	7	9	153	326	136	329
Nev.	3	4	1	2	98	183	23	171
PACIFIC	140	178	234	213	2,985	3,537	2,457	3,523
Wash.	4	16	-	-	315	339	358	451
Oreg.	9	30	1	5	156	209	217	265
Calif.	119	123	196	183	2,250	2,802	1,701	2,629
Alaska	1	-	37	25	27	37	2	24
Hawaii	7	9	-	-	237	150	179	154
Guam	-	1	-	-	-	20	U	U
P.R.	3	4	67	54	365	404	U	U
V.I.	-	-	-	-	-	-	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	8	U	U	U

N: Not notifiable. U: Unavailable. -: No reported cases.
*Individual cases can be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending August 25, 2001, and August 26, 2000 (34th Week)

Reporting Area	Shigellosis* NETSS Cum. 2001	Shigellosis* NETSS Cum. 2000	Shigellosis* PHLIS Cum. 2001	Shigellosis* PHLIS Cum. 2000	Syphilis (Primary & Secondary) Cum. 2001	Syphilis (Primary & Secondary) Cum. 2000	Tuberculosis Cum. 2001	Tuberculosis Cum. 2000
UNITED STATES	10,280	14,020	4,763	7,873	3,621	3,945	7,709	9,077
NEW ENGLAND	166	257	168	245	36	55	283	263
Maine	6	8	2	11	-	1	7	12
N.H.	4	4	2	7	1	1	11	14
Vt.	6	3	2	-	2	-	2	4
Mass.	113	182	112	163	19	38	160	151
R.I.	15	19	19	22	6	4	22	24
Conn.	22	41	31	42	8	11	81	58
MID. ATLANTIC	916	1,842	582	1,183	306	186	1,495	1,495
Upstate N.Y.	368	515	93	176	19	7	206	200
N.Y. City	252	764	267	509	161	78	785	799
N.J.	145	379	157	318	69	45	323	349
Pa.	151	184	65	180	57	56	181	147
E.N. CENTRAL	2,614	2,902	1,134	843	608	811	799	880
Ohio	1,832	224	731	190	57	53	138	198
Ind.	146	1,084	28	129	111	249	64	84
Ill.	262	822	204	2	154	290	405	397
Mich.	195	534	151	482	269	181	157	143
Wis.	179	238	20	40	17	38	35	58
W.N. CENTRAL	1,020	1,540	807	1,327	47	48	286	327
Minn.	286	480	318	560	21	8	143	102
Iowa	311	343	249	255	1	10	18	25
Mo.	183	491	134	350	8	25	89	127
N. Dak.	16	10	18	20	-	-	3	2
S. Dak.	117	4	59	3	-	-	8	13
Nebr.	54	72	-	59	2	2	25	12
Kans.	53	140	29	80	15	3	-	46
S. ATLANTIC	1,509	1,789	478	669	1,288	1,306	1,569	1,872
Del.	6	11	7	13	8	7	9	8
Md.	93	130	51	68	145	194	136	166
D.C.	37	38	U	U	24	27	48	16
Va.	187	304	110	234	73	85	155	178
W. Va.	7	3	7	3	-	2	20	21
N.C.	244	104	112	83	299	346	216	252
S.C.	199	86	91	66	178	140	134	175
Ga.	149	156	81	128	215	253	276	391
Fla.	587	957	19	74	346	252	575	665
E.S. CENTRAL	910	636	393	356	404	576	487	594
Ky.	333	221	175	51	29	58	78	70
Tenn.	63	247	73	275	214	346	182	224
Ala.	170	37	119	27	87	82	162	195
Miss.	344	131	26	3	74	90	65	105
W.S. CENTRAL	1,053	2,250	711	676	454	540	709	1,338
Ark.	407	142	155	43	23	73	99	139
La.	112	195	129	120	91	146	-	94
Okla.	31	76	15	29	47	79	98	104
Tex.	503	1,837	412	484	293	242	512	1,001
MOUNTAIN	616	673	273	477	159	151	290	328
Mont.	2	6	-	-	-	-	6	10
Idaho	25	41	-	23	-	1	8	4
Wyo.	2	4	-	3	-	1	2	2
Colo.	148	121	80	86	31	6	78	52
N. Mex.	76	83	45	57	13	12	18	29
Ariz.	274	271	99	186	104	126	110	134
Utah	43	50	41	57	7	1	21	32
Nev.	46	97	8	65	4	4	47	65
PACIFIC	1,476	2,131	217	2,097	319	272	1,791	1,980
Wash.	131	340	119	315	36	47	167	159
Oreg.	54	117	70	76	7	10	71	62
Calif.	1,241	1,641	-	1,681	269	214	1,431	1,596
Alaska	4	7	1	3	-	-	28	72
Hawaii	46	26	27	22	7	1	94	91
Guam	-	34	U	U	-	2	-	35
P.R.	7	22	U	U	172	110	76	109
V.I.	-	-	U	U	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	4	U	U	U	-	U	20	U

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

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

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending August 25, 2001, and August 26, 2000 (34th Week)

Reporting Area	*H. influenzae*, Invasive		Hepatitis (Viral), By Type				Measles (Rubeola)					
			A		B		Indigenous		Imported*		Total	
	Cum. 2001†	Cum. 2000	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000	2001	Cum. 2001	2001	Cum. 2001	Cum. 2001	Cum. 2000
UNITED STATES	913	862	6,176	8,342	4,182	4,501	-	46	-	39	85	62
NEW ENGLAND	56	65	325	254	60	75	-	4	-	1	5	6
Maine	1	1	6	14	5	5	-	-	-	-	-	-
N.H.	4	11	12	18	11	11	-	-	-	-	-	3
Vt.	2	5	8	8	3	6	-	1	-	-	1	3
Mass.	34	32	124	98	-	9	-	2	-	1	3	-
R.I.	3	1	19	15	17	14	-	-	-	-	-	-
Conn.	12	15	156	101	24	30	-	1	-	-	1	-
MID. ATLANTIC	128	162	656	912	641	798	-	4	-	10	14	20
Upstate N.Y.	49	65	168	146	90	86	-	1	-	4	5	9
N.Y. City	34	44	196	316	301	390	-	2	-	1	3	10
N.J.	30	31	159	171	64	125	U	-	U	1	1	-
Pa.	15	22	133	279	186	197	-	1	-	4	5	1
E.N. CENTRAL	123	133	652	1,104	585	473	-	-	-	10	10	6
Ohio	51	41	156	186	77	77	-	-	-	3	3	2
Ind.	36	22	59	45	30	33	-	-	-	4	4	-
Ill.	10	45	182	494	95	80	-	-	-	3	3	3
Mich.	7	9	216	318	383	260	-	-	-	-	-	1
Wis.	19	16	39	61	-	23	-	-	-	-	-	-
W.N. CENTRAL	44	46	262	531	125	199	-	4	-	-	4	1
Minn.	25	23	20	148	13	25	-	2	-	-	2	1
Iowa	-	-	25	53	16	20	-	-	-	-	-	-
Mo.	13	15	67	224	64	104	-	2	-	-	2	-
N. Dak.	4	2	2	2	-	2	-	-	-	-	-	-
S. Dak.	-	-	1	-	1	-	-	-	-	-	-	-
Nebr.	1	3	28	23	17	30	-	-	-	-	-	-
Kans.	1	3	119	81	14	18	-	-	-	-	-	-
S. ATLANTIC	266	198	1,420	876	872	774	-	4	-	1	5	2
Del.	-	-	-	10	-	10	U	-	U	-	-	-
Md.	62	55	181	116	92	85	-	2	-	1	3	-
D.C.	-	-	33	20	11	24	-	-	-	-	-	-
Va.	19	32	89	103	101	101	-	1	-	-	1	2
W. Va.	10	5	8	48	20	9	-	-	-	-	-	-
N.C.	37	19	113	108	131	160	-	-	-	-	-	-
S.C.	5	7	56	39	22	7	-	-	-	-	-	-
Ga.	67	50	549	157	210	129	-	1	-	-	1	-
Fla.	66	30	391	275	285	249	-	-	-	-	-	-
E.S. CENTRAL	59	36	244	298	296	314	-	2	-	-	2	-
Ky.	2	12	70	37	31	60	-	2	-	-	2	-
Tenn.	29	15	98	104	151	148	-	-	-	-	-	-
Ala.	26	7	63	43	61	34	-	-	-	-	-	-
Miss.	2	2	13	114	53	72	-	-	-	-	-	-
W.S. CENTRAL	34	51	632	1,593	446	687	-	1	-	-	1	-
Ark.	-	1	51	107	63	71	-	-	-	-	-	-
La.	3	15	53	54	29	101	-	-	-	-	-	-
Okla.	31	33	95	180	64	99	-	-	-	-	-	-
Tex.	-	2	433	1,252	290	416	-	1	-	-	1	-
MOUNTAIN	122	84	556	588	384	347	-	-	-	1	1	12
Mont.	-	1	9	4	2	4	-	-	-	-	-	-
Idaho	1	3	50	19	9	5	-	-	-	1	1	-
Wyo.	17	1	22	4	31	1	-	-	-	-	-	-
Colo.	28	18	53	137	76	54	-	-	-	-	-	2
N. Mex.	15	17	27	56	103	108	-	-	-	-	-	-
Ariz.	45	34	290	285	111	128	-	-	-	-	-	-
Utah	6	7	61	39	21	16	-	-	-	-	-	3
Nev.	10	3	44	44	31	31	U	-	U	-	-	7
PACIFIC	81	87	1,429	2,186	773	834	-	27	-	16	43	15
Wash.	2	5	88	187	88	55	-	13	-	2	15	3
Oreg.	17	24	58	138	50	69	-	3	-	-	3	-
Calif.	34	30	1,268	1,837	613	692	-	8	-	10	18	9
Alaska	5	6	14	11	7	9	-	-	-	-	-	1
Hawaii	23	22	1	13	15	9	-	3	-	4	7	2
Guam	-	1	-	1	-	9	U	-	U	-	-	-
P.R.	1	3	67	185	117	188	-	-	-	-	-	2
V.I.	-	-	-	-	-	-	U	-	U	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	26	U	U	-	U	-	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
*For imported measles, cases include only those resulting from importation from other countries.
† Of 187 cases among children aged <5 years, serotype was reported for 90, and of those, 15 were type b.

TABLE III. (Cont'd) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending August 25, 2001, and August 26, 2000 (34th Week)

Reporting Area	Meningococcal Disease		Mumps			Pertussis			Rubella		
	Cum. 2001	Cum. 2000	2001	Cum. 2001	Cum. 2000	2001	Cum. 2001	Cum. 2000	2001	Cum. 2001	Cum. 2000
UNITED STATES	1,547	1,534	3	146	244	62	2,896	4,005	-	17	107
NEW ENGLAND	83	90	-	-	4	3	263	1,037	-	-	11
Maine	1	7	-	-	-	-	-	30	-	-	-
N.H.	10	9	-	-	-	-	25	79	-	-	2
Vt.	5	2	-	-	-	-	25	168	-	-	-
Mass.	47	52	-	-	1	-	194	709	-	-	8
R.I.	2	7	-	-	1	3	5	14	-	-	-
Conn.	18	13	-	-	2	-	14	37	-	-	1
MID. ATLANTIC	165	173	-	15	19	1	210	375	-	5	8
Upstate N.Y.	46	47	-	3	6	1	116	173	-	1	1
N.Y. City	31	35	-	9	6	-	34	54	-	3	7
N.J.	39	32	U	-	3	U	8	30	U	1	-
Pa.	49	59	-	3	4	-	52	118	-	-	-
E.N. CENTRAL	197	265	-	15	18	16	362	461	-	3	1
Ohio	68	62	-	1	7	15	216	222	-	-	-
Ind.	28	31	-	1	-	-	46	52	-	1	-
Ill.	20	67	-	10	6	-	39	48	-	2	1
Mich.	46	75	-	3	4	1	37	54	-	-	-
Wis.	35	30	-	-	1	-	24	85	-	-	-
W.N. CENTRAL	104	106	-	8	14	2	152	266	-	3	1
Minn.	15	16	-	3	-	-	47	159	-	-	-
Iowa	21	21	-	-	6	-	17	30	-	1	-
Mo.	39	50	-	-	4	2	67	38	-	1	-
N. Dak.	5	2	-	-	-	-	-	2	-	-	-
S. Dak.	4	5	-	-	-	-	3	3	-	-	-
Nebr.	10	5	-	1	1	-	4	8	-	-	1
Kans.	10	7	-	4	3	-	14	26	-	1	-
S. ATLANTIC	296	221	1	24	37	6	155	296	-	4	60
Del.	3	-	U	-	-	U	-	8	U	-	-
Md.	34	22	-	4	8	1	19	77	-	-	-
D.C.	-	-	-	-	-	-	1	3	-	-	-
Va.	31	35	1	6	8	1	28	44	-	-	-
W. Va.	11	10	-	-	-	-	2	1	-	-	-
N.C.	57	31	-	1	5	2	48	69	-	-	52
S.C.	31	17	-	2	10	1	26	23	-	2	6
Ga.	36	37	-	7	2	-	7	25	-	-	-
Fla.	93	69	-	4	4	1	24	46	-	2	2
E.S. CENTRAL	103	106	-	3	4	4	79	88	-	-	5
Ky.	18	22	-	1	-	-	17	44	-	-	1
Tenn.	44	44	-	-	2	4	35	25	-	-	1
Ala.	30	29	-	-	2	-	24	16	-	-	3
Miss.	11	11	-	2	-	-	3	3	-	-	-
W.S. CENTRAL	173	164	-	8	25	2	246	210	-	-	7
Ark.	14	11	-	1	1	1	9	29	-	-	1
La.	56	38	-	2	5	-	2	14	-	-	1
Okla.	23	22	-	-	-	-	1	9	-	-	-
Tex.	80	93	-	5	19	1	234	158	-	-	5
MOUNTAIN	76	70	-	9	14	22	997	476	-	1	2
Mont.	3	4	-	1	1	-	21	24	-	-	-
Idaho	7	6	-	1	-	-	165	45	-	-	-
Wyo.	6	-	-	1	1	-	1	3	-	-	-
Colo.	27	23	-	1	-	5	193	258	-	1	1
N. Mex.	11	6	-	2	1	7	86	76	-	-	-
Ariz.	11	21	-	1	3	6	466	46	-	-	1
Utah	7	7	-	1	4	4	56	15	-	-	-
Nev.	4	3	U	1	4	U	9	9	U	-	-
PACIFIC	350	339	2	64	109	6	432	796	-	1	12
Wash.	53	36	-	1	4	5	99	233	-	-	7
Oreg.	29	43	N	N	N	1	34	85	-	-	-
Calif.	257	246	-	29	77	-	268	429	-	-	5
Alaska	2	6	-	1	8	-	3	18	-	-	-
Hawaii	9	8	2	33	20	-	28	31	-	1	-
Guam	-	-	U	-	11	U	-	3	U	-	1
P.R.	3	8	-	-	-	-	2	5	-	-	-
V.I.	-	-	U	-	-	U	-	-	U	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	U	-	U	U	-	U	U	-	U

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

TABLE IV. Deaths in 122 U.S. cities,* week ending August 25, 2001 (34th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	359	266	66	20	5	2	27
Boston, Mass.	U	U	U	U	U	U	U
Bridgeport, Conn.	23	17	5	1	-	-	1
Cambridge, Mass.	20	17	2	-	1	-	3
Fall River, Mass.	26	24	2	-	-	-	5
Hartford, Conn.	28	20	6	2	-	-	2
Lowell, Mass.	29	20	5	3	-	1	1
Lynn, Mass.	13	7	6	-	-	-	1
New Bedford, Mass.	22	19	2	1	-	-	2
New Haven, Conn.	43	27	12	3	1	-	5
Providence, R.I.	46	35	8	2	-	1	-
Somerville, Mass.	8	6	2	-	-	-	-
Springfield, Mass.	30	19	7	2	2	-	2
Waterbury, Conn.	17	14	-	3	-	-	2
Worcester, Mass.	54	41	9	3	1	-	3
MID. ATLANTIC	1,803	1,262	341	129	42	28	73
Albany, N.Y.	36	26	6	2	1	1	6
Allentown, Pa.	20	17	1	2	-	-	-
Buffalo, N.Y.	80	56	12	6	2	4	3
Camden, N.J.	19	7	7	2	1	2	1
Elizabeth, N.J.	22	17	3	2	-	-	-
Erie, Pa.§	40	35	4	-	-	1	1
Jersey City, N.J.	44	31	8	3	2	-	-
New York City, N.Y.	1,093	765	217	81	21	8	38
Newark, N.J.	41	10	14	10	6	1	-
Paterson, N.J.	24	16	5	2	-	1	1
Philadelphia, Pa.	U	U	U	U	U	U	U
Pittsburgh, Pa.§	51	37	8	2	2	2	1
Reading, Pa.	13	9	2	1	-	1	-
Rochester, N.Y.	128	98	14	6	7	3	5
Schenectady, N.Y.	19	16	1	2	-	-	2
Scranton, Pa.§	26	20	5	1	-	-	1
Syracuse, N.Y.	91	68	16	4	-	3	9
Trenton, N.J.	34	19	13	1	-	1	4
Utica, N.Y.	22	15	5	2	-	-	1
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	1,284	909	222	82	43	28	74
Akron, Ohio	50	31	14	2	1	2	1
Canton, Ohio	43	37	3	2	-	1	4
Chicago, Ill.	U	U	U	U	U	U	U
Cincinnati, Ohio	76	50	8	7	6	5	4
Cleveland, Ohio	147	87	37	13	7	3	8
Columbus, Ohio	165	112	36	12	3	2	7
Dayton, Ohio	108	80	20	6	1	1	6
Detroit, Mich.	U	U	U	U	U	U	U
Evansville, Ind.	U	U	U	U	U	U	U
Fort Wayne, Ind.	65	49	7	4	5	-	7
Gary, Ind.	21	12	4	2	2	1	1
Grand Rapids, Mich.	52	41	2	2	3	4	7
Indianapolis, Ind.	182	136	28	5	10	3	7
Lansing, Mich.	69	43	18	6	1	1	6
Milwaukee, Wis.	111	85	17	8	-	1	7
Peoria, Ill.	63	46	9	6	2	-	4
Rockford, Ill.	U	U	U	U	U	U	U
South Bend, Ind.	U	U	U	U	U	U	U
Toledo, Ohio	77	52	14	5	2	4	3
Youngstown, Ohio	55	48	5	2	-	-	2
W.N. CENTRAL	809	536	144	58	43	27	40
Des Moines, Iowa	49	38	8	1	-	2	8
Duluth, Minn.	37	27	7	1	1	1	2
Kansas City, Kans.	36	16	9	4	6	1	2
Kansas City, Mo.	101	55	21	15	8	1	4
Lincoln, Nebr.	35	27	6	1	1	-	-
Minneapolis, Minn.	146	107	21	9	6	3	6
Omaha, Nebr.	84	63	13	5	-	3	7
St. Louis, Mo.	114	62	26	13	7	6	-
St. Paul, Minn.	94	74	8	3	2	7	9
Wichita, Kans.	113	67	25	6	12	3	2
S. ATLANTIC	1,195	736	264	124	36	35	68
Atlanta, Ga.	136	72	33	15	7	9	1
Baltimore, Md.	218	119	66	25	4	4	17
Charlotte, N.C.	76	49	17	6	3	1	3
Jacksonville, Fla.	151	99	33	11	3	5	6
Miami, Fla.	87	52	21	10	3	1	13
Norfolk, Va.	49	34	5	7	-	3	1
Richmond, Va.	65	34	18	7	2	4	7
Savannah, Ga.	51	38	6	4	-	3	4
St. Petersburg, Fla.	56	46	4	3	3	-	8
Tampa, Fla.	180	131	30	9	6	4	7
Washington, D.C.	100	49	29	16	5	1	1
Wilmington, Del.	26	13	2	11	-	-	-
E.S. CENTRAL	795	507	186	60	18	23	49
Birmingham, Ala.	160	107	34	10	5	3	13
Chattanooga, Tenn.	75	50	16	4	1	4	3
Knoxville, Tenn.	84	56	17	6	2	3	7
Lexington, Ky.	64	43	13	5	2	1	2
Memphis, Tenn.	187	116	45	15	5	6	10
Mobile, Ala.	63	42	13	6	1	1	2
Montgomery, Ala.	U	U	U	U	U	U	U
Nashville, Tenn.	162	93	48	14	2	5	12
W.S. CENTRAL	1,385	892	295	138	37	23	68
Austin, Tex.	79	43	19	12	4	1	3
Baton Rouge, La.	55	37	14	2	1	1	2
Corpus Christi, Tex.	63	45	12	3	2	1	2
Dallas, Tex.	183	105	41	28	4	5	10
El Paso, Tex.	71	50	15	4	1	1	1
Ft. Worth, Tex.	110	66	30	10	2	2	4
Houston, Tex.	418	263	93	43	12	7	21
Little Rock, Ark.	68	47	14	5	2	-	3
New Orleans, La.	U	U	U	U	U	U	U
San Antonio, Tex.	224	158	37	18	8	3	11
Shreveport, La.	U	U	U	U	U	U	U
Tulsa, Okla.	114	78	20	13	1	2	11
MOUNTAIN	823	559	164	55	27	17	51
Albuquerque, N.M.	103	58	27	9	4	5	9
Boise, Idaho	41	29	10	2	-	-	-
Colo. Springs, Colo.	59	46	11	1	1	-	2
Denver, Colo.	101	63	17	8	7	6	6
Las Vegas, Nev.	210	147	46	14	1	2	10
Ogden, Utah	26	17	6	1	1	1	1
Phoenix, Ariz.	U	U	U	U	U	U	U
Pueblo, Colo.	37	29	2	3	3	-	3
Salt Lake City, Utah	99	63	20	5	8	2	12
Tucson, Ariz.	147	107	25	12	2	1	8
PACIFIC	1,169	818	210	76	41	23	73
Berkeley, Calif.	17	15	2	-	-	-	1
Fresno, Calif.	101	77	15	5	4	-	2
Glendale, Calif.	U	U	U	U	U	U	U
Honolulu, Hawaii	76	57	7	7	4	1	7
Long Beach, Calif.	67	49	10	5	1	2	6
Los Angeles, Calif.	U	U	U	U	U	U	U
Pasadena, Calif.	12	7	3	1	-	1	2
Portland, Oreg.	106	62	25	10	7	2	5
Sacramento, Calif.	197	140	38	9	5	4	13
San Diego, Calif.	149	111	26	4	2	6	14
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	171	111	30	21	5	4	10
Santa Cruz, Calif.	33	26	7	-	-	-	3
Seattle, Wash.	115	75	20	8	10	2	6
Spokane, Wash.	38	26	6	4	1	1	3
Tacoma, Wash.	87	62	21	2	2	-	1
TOTAL	9,622	¶6,485	1,892	742	292	206	523

U: Unavailable. -:No reported cases.

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

† Pneumonia and influenza.

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

¶ Total includes unknown ages.

Poliomyelitis Eradication — Continued

Intensive and well-planned supplementary vaccination activity may interrupt wild poliovirus transmission during the next 6–12 months in SEAR following the example of the Region of Americas in 1991, the Western Pacific Region in 1997, and the European Region in 1998 (*6–8*). If interruption of wild poliovirus occurs in SEAR before the end of 2002, global certification is possible in 2005 (*9*).

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