

MMWR™

MORBIDITY AND MORTALITY WEEKLY REPORT

- 365 Tuberculosis Morbidity — United States, 1995
- 370 Progress Toward Poliomyelitis Eradication — India, December 1995 and January 1996
- 373 National Arthritis Month—May 1996
- 373 Prevalence and Impact of Arthritis By Race and Ethnicity — United States, 1989–1991
- 378 Notice to Readers

Tuberculosis Morbidity — United States, 1995

During 1995, a total of 22,813 cases of tuberculosis (TB) (8.7 cases per 100,000 population) were reported to CDC from the 50 states, the District of Columbia (DC), and New York City—a 6.4% decrease from 1994 (24,361 cases [9.4 per 100,000]) (1); an additional 262 cases were reported from Puerto Rico. This represents the third consecutive year the number of reported TB cases has decreased (Table 1) (2), resulting in the lowest rate for reported TB cases since national surveillance began in 1953. This report summarizes TB surveillance data for 1995 and compares these data with selected data for 1986–1994, and indicates a decreased number of TB cases among U.S.-born persons and increased number among foreign-born persons.

During 1995, a total of 32 states and DC reported fewer TB cases than in 1994; in comparison, during 1994, a total of 26 states and DC reported fewer cases than in 1993, and during 1993, a total of 31 states reported fewer cases than in 1992 (Table 1). Nine states (California, Connecticut, Hawaii, Illinois, Michigan, Mississippi, New Jersey, New York, and North Carolina) reported fewer cases each year since 1992, a total of 18 states (36%) reported no change or more cases in 1995 compared with 1994, and two (Iowa and Kansas) reported more cases in each year since 1992 (Table 1). Compared with 1994, the number of reported TB cases in 1995 decreased in each sex and age group and all racial/ethnic groups except Asians/Pacific Islanders, for whom a 2.9% increase was reported (Table 2).

During 1995, TB cases reported among persons born outside the United States and its territories (i.e., foreign-born) accounted for 35.7% of total reported cases, compared with 31.3% in 1994 (Table 2). The number and proportion of persons reported with TB who were classified as foreign-born have increased 63.3% since 1986, the first year information on the country of origin was collected for each case (Figure 1). In 1995, the country of origin was known for 7592 (94.4%) cases reported in foreign-born persons; six countries (Haiti, India, Mexico, People's Republic of China, Philippines, and Vietnam) accounted for 63.6% of the cases. Of the 4804 foreign-born persons reported in 1995 whose records contained information about month and year of arrival in the United States, 1441 (30.0%) had TB diagnosed within 1 year and 2567 (53.4%) within 5 years after entering the United States. Compared with 1994, the number of cases reported in U.S.-born persons in 1995 decreased 10.8%, and the number of cases in foreign-born persons increased 5.4% (Table 2). During 1995, the number of cases in U.S.-born persons decreased in all age groups; the decrease was largest

*Tuberculosis Morbidity — Continued***TABLE 1. Number of reported tuberculosis cases and percentage change, by state and year — United States, 1992–1995**

State	No. cases				% Change		
	1992	1993	1994	1995	1992–1993	1993–1994	1994–1995
Alabama	418	487	433	420	+16.5	-11.1	- 3.0
Alaska	57	57	93	81	0	+63.2	-12.9
Arizona	259	231	249	319	-10.8	+ 7.8	+28.1
Arkansas	257	209	264	271	-18.7	+26.3	+ 2.7
California	5,382	5,170	4,859	4,622	- 3.9	- 6.0	- 4.9
Colorado	104	104	94	95	0	- 9.6	+ 1.1
Connecticut	156	155	148	140	- 0.6	- 4.5	- 5.4
Delaware	55	66	57	56	+20.0	-13.6	- 1.8
District of Columbia	146	161	121	102	+10.3	-24.8	-15.7
Florida	1,707	1,655	1,762	1,557	- 3.0	+ 6.5	-11.6
Georgia	893	812	740	746	- 9.1	- 8.9	+ 0.8
Hawaii	273	251	247	193	- 8.1	- 1.6	-21.9
Idaho	26	11	13	14	-57.7	+18.2	+ 7.7
Illinois	1,270	1,237	1,117	1,024	- 2.6	- 9.7	- 8.3
Indiana	247	248	211	199	+ 0.4	-14.9	- 5.7
Iowa	49	59	66	72	+20.4	+11.8	+ 9.1
Kansas	56	80	84	89	+42.9	+ 5.0	+ 6.0
Kentucky	402	404	347	327	+ 0.5	-14.1	- 5.8
Louisiana	373	367	433	476	- 1.6	+18.0	+ 9.9
Maine	24	28	35	28	+16.7	+25.0	-20.0
Maryland	442	417	363	370	- 5.7	-13.0	+ 1.9
Massachusetts	428	370	329	330	-13.6	-11.1	+ 0.3
Michigan	495	480	462	424	- 3.0	- 3.8	- 8.2
Minnesota	165	144	140	156	-12.7	- 2.8	+11.4
Mississippi	281	279	278	271	- 0.7	- 0.4	- 2.5
Missouri	245	257	260	245	+ 4.9	+ 1.2	- 5.8
Montana	16	22	24	21	+37.5	+ 9.1	-12.5
Nebraska	28	23	22	24	-17.9	- 4.4	+ 9.1
Nevada	99	99	126	115	0	+27.3	- 8.7
New Hampshire	18	26	17	23	+44.4	-34.6	+35.3
New Jersey	984	912	855	848	- 7.3	- 6.3	- 0.8
New Mexico	88	74	81	84	-15.9	+ 9.5	+ 3.7
New York*	4,574	3,953	3,636	3,066	-13.6	- 8.0	-15.7
North Carolina	604	594	566	519	- 1.7	- 4.7	- 8.3
North Dakota	11	7	10	5	-36.4	+42.9	-50.0
Ohio	358	315	337	280	-12.0	+ 7.0	-16.9
Oklahoma	216	209	261	237	- 3.2	+24.9	- 9.2
Oregon	145	154	165	156	+ 6.2	+ 7.1	- 5.5
Pennsylvania	758	749	621	680	- 1.2	-17.1	+ 9.5
Rhode Island	54	64	56	50	+18.5	-12.5	-10.7
South Carolina	387	401	387	334	+ 3.6	- 3.5	-13.7
South Dakota	32	16	28	28	-50.0	+75.0	0
Tennessee	527	556	520	465	+ 5.5	- 6.5	-10.6
Texas	2,510	2,396	2,542	2,369	- 4.5	+ 6.1	- 6.8
Utah	78	46	55	48	-41.0	+19.6	-12.7
Vermont	7	7	10	4	0	+42.9	-60.0
Virginia	457	458	372	359	+ 0.2	-18.8	- 3.5
Washington	306	285	264	278	- 6.9	- 7.4	+ 5.3
West Virginia	92	75	80	71	-18.5	+ 6.7	-11.3
Wisconsin	106	100	109	117	- 5.7	+ 9.0	+ 7.3
Wyoming	8	7	12	5	-12.5	+71.4	-58.3
Total	26,673	25,287	24,361	22,813	- 5.2	- 3.7	- 6.4

*Includes New York City.

*Tuberculosis Morbidity — Continued***TABLE 2. Number of persons with reported cases of tuberculosis, by selected characteristics and year — United States, 1994–1995**

Characteristic	No. reported cases		% Change, 1994–1995
	1994	1995	
Sex*			
Male	15,833	14,482	– 8.5
Female	8,517	8,301	– 4.9
Age group (yrs)†			
0–14	1,695	1,551	– 8.5
15–24	1,825	1,700	– 6.9
25–44	9,106	8,227	– 9.7
45–64	6,141	5,985	– 2.5
≥65	5,546	5,332	– 3.9
Race/Ethnicity‡			
White, non-Hispanic	6,494	5,950	
Black, non-Hispanic	8,345	7,521	
Hispanic	5,074	4,808	– 5.2
Asian/Pacific Islander	3,821	3,932	+ 2.9
American Indian/ Alaskan Native	332	323	– 2.7
Country of origin¶			
United States	16,278	14,515	–10.8
Other	7,627	8,042	+ 5.4
Initial drug regimen**			
Isoniazid and rifampin	1,626	1,083	–33.4
Isoniazid, rifampin, and pyrazinamide	5,332	4,325	–18.9
Isoniazid, rifampin, pyrazinamide, and ethambutol or streptomycin	12,768	13,439	+ 5.3
Other	3,019	2,373	–21.4
Total	24,361	22,813	– 6.4

*Excludes persons for whom sex was unknown (11 in 1994 and 30 in 1995).

†Excludes persons with unknown or missing age (48 in 1994 and 18 in 1995).

‡Excludes persons with unknown race/ethnicity (295 in 1994 and 279 in 1995).

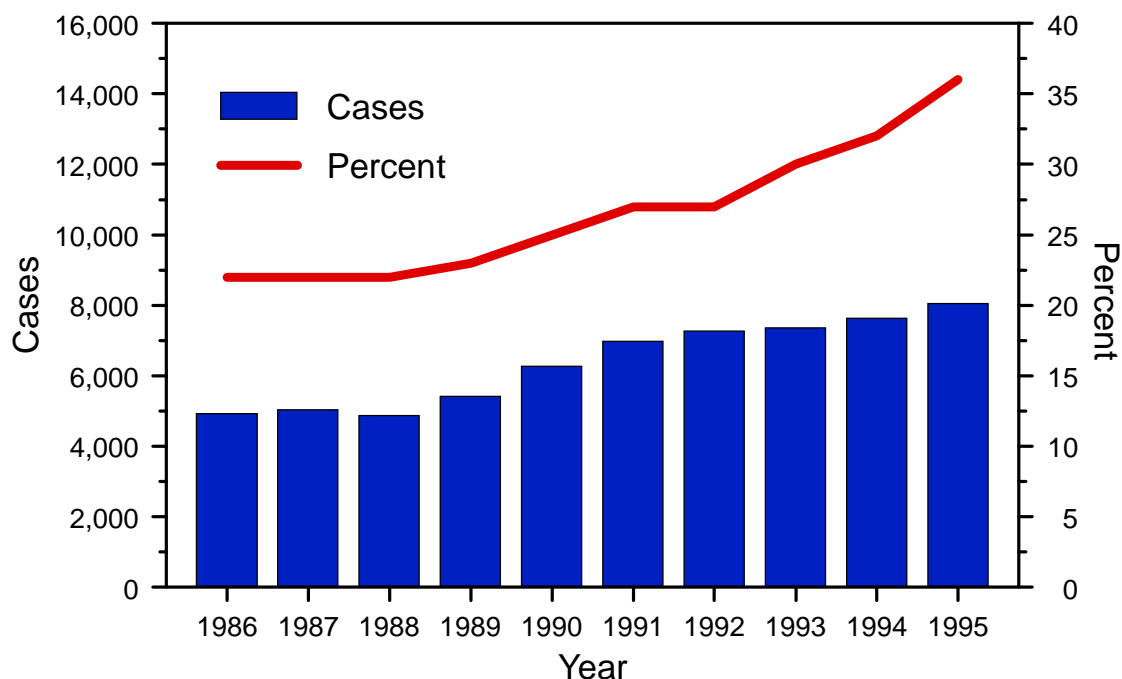
¶Excludes persons with unknown country of origin (456 in 1994 and 256 in 1995).

**Excludes persons with unknown or no drug regimen (1616 in 1994 and 1593 in 1995).

(17.0%) among persons aged 25–44 years. In comparison, the number of cases in foreign-born persons reported in 1995 increased in all age groups except for children aged <15 years (decreased 7.4%) and persons aged 15–24 years (decreased 5.1%).

Human immunodeficiency virus (HIV)-antibody test results were available in 1994 for 3317 (36.4%) of 9106 patients aged 25–44 years (nine states reported this information for ≥75% of records) and in 1995 for 2925 (35.6%) of 8227 such patients (eight states reported information for ≥75% of records). Information about the prescribed initial drug regimen for each TB case was available for 98.0% of cases reported in both 1994 and 1995. Compared with 1994, in 1995 there was a 5.3% increase in the proportion of cases for which the initial four-drug regimen was prescribed as recommended by the Advisory Council for the Elimination of Tuberculosis, the American Thoracic

Tuberculosis Morbidity — Continued

FIGURE 1. Number and percentage of tuberculosis cases in foreign-born persons — United States*, 1986–1995

*Comprises the 50 states, the District of Columbia, and New York City.

Society, and CDC (isoniazid [INH], rifampin [RIF], pyrazinamide [PZA], and either ethambutol or streptomycin) (3,4) (Table 2).

The proportion of patients for whom drug-susceptibility results for *Mycobacterium tuberculosis* isolates were reported was larger in 1995 than in 1994 (14,052 [77.3%] of 18,168 patients and 14,509 [74.3%] of 19,537 patients, respectively). In 1995, a total of 37 states reported drug-susceptibility results for isolates from $\geq 75\%$ of cases; of these, 806 (7.6%) of 10,621 isolates were resistant to at least INH, and 145 (1.4%) of 10,611 were resistant to at least INH and RIF. Compared with 1994, when only 23 states reported drug-susceptibility results for isolates from $\geq 75\%$ of cases, the proportion of cases with isolates resistant to at least INH decreased from 8.5%, and resistance to at least INH and RIF decreased from 1.5%. The 37 states reporting drug-susceptibility results accounted for 71% of all culture-positive cases reported in the United States in 1995.

Reported by: Div of Tuberculosis Elimination, National Center for HIV, STD, and TB Prevention (proposed), CDC.

Editorial Note: The substantial decline in the number of TB cases reported annually in the United States during 1992–1995 (14.5%) reflects at least six factors: 1) improved laboratory methods to allow prompt identification of *M. tuberculosis*; 2) broader use of drug-susceptibility testing; 3) expanded use of preventive therapy in high-risk groups; 4) decreased transmission of *M. tuberculosis* in congregative settings (e.g., hospitals and correctional facilities) by implementing infection-control guidelines (5,6); 5) improved follow-up of persons with TB initially reported to the health department, leading to subsequent removal from the surveillance database of cases for

Tuberculosis Morbidity — Continued

which a disease other than TB was diagnosed; and 6) increased federal resources for state and local TB-control efforts. Beginning in 1992, federal resources for assisting state and local TB-control efforts were increased (1,7). Some of the states with the largest decreases (e.g., New York and California) had high rates of HIV infection and acquired immunodeficiency syndrome (AIDS); resources directed to these states also have supported TB-screening efforts and preventive therapy for HIV-infected persons at high risk for TB infection. The increased funding enabled state and local TB-control programs to improve management of TB cases, in part by ensuring that all patients complete an adequate course of therapy and by expanding the use of directly observed therapy (7,8).

Preliminary analyses of national surveillance data and TB-control program management reports indicate that the decrease in cases in U.S.-born persons largely reflected improvement in program performance (CDC, unpublished data, 1995). Since 1986, the number and proportion of reported TB cases among foreign-born persons have increased substantially (9). Most of these persons develop TB disease within the first 5 years of arrival in the United States because of reactivation of latent *M. tuberculosis* infection acquired in their country of origin, inadequate screening for and/or treatment of TB before entering the United States, or inadequate follow-up of those who have entered the United States with noninfectious TB (i.e., abnormal chest radiograph with negative sputum smears). Control of TB among foreign-born persons in the United States can be strengthened through improved screening and services for immigrants and refugees, prompt reporting of immigrants and refugees with suspected TB to public health programs and health-care providers, and early identification and treatment of TB in foreign-born persons from countries with a high prevalence of TB (9).

Assessment of the relation between HIV infection and TB has been limited by the incomplete reporting of information on HIV test results for TB cases: during 1994–1995, this information was available for only 36% of reported persons aged 25–44 years. During 1996 and 1997, CDC, in collaboration with selected state and local health departments, will assess HIV-testing and HIV-counseling practices for TB patients, measure the prevalence of testing, and determine barriers to reporting HIV results for patients who are tested. Results of this assessment will be used to develop strategies to improve HIV testing and counseling of TB patients and reporting of HIV results to state and local TB and HIV/AIDS surveillance programs.

The recent national decreases in TB morbidity in the United States can be sustained through efforts by federal agencies and state and local health departments to ensure that all persons with TB are promptly identified and treated. These efforts especially must include the identification and treatment of cases in foreign-born persons and persons who are HIV infected. In addition, TB skin tests of high-risk persons will enable identification of persons who could benefit from preventive therapy.

References

1. CDC. Tuberculosis morbidity—United States, 1994. MMWR 1995;44:387–9,395.
2. CDC. Reported tuberculosis in the United States, 1993. Atlanta: US Department of Health and Human Services, Public Health Service, CDC, 1994.
3. CDC. Initial therapy for tuberculosis in the era of multidrug resistance: recommendations of the Advisory Council for the Elimination of Tuberculosis. MMWR 1993;42(no. RR-7):1–8.

Tuberculosis Morbidity — Continued

4. American Thoracic Society. Treatment of tuberculosis and tuberculosis infection in adults and children. *Am J Respir Crit Care Med* 1994;149:1359–74.
5. Stroud LA, Tokars JI, Grieco MH, et al. Evaluation of infection control measures in preventing the nosocomial transmission of multidrug-resistant *Mycobacterium tuberculosis* in a New York City hospital. *Infect Control Hosp Epidemiol* 1995;16:141–7.
6. Blumberg HM, Watkins DL, Bersching JD, et al. Preventing the nosocomial transmission of tuberculosis. *Ann Intern Med* 1995;122:658–63.
7. Frieden TR, Fujiwara PI, Washko RM, Hamburg MA. Tuberculosis in New York City: turning the tide. *N Engl J Med* 1995;333:229–33.
8. Chaulk CP, Moore-Rice K, Rizzo R, Chaisson RE. Eleven years of community-based directly observed therapy for tuberculosis. *JAMA* 1995;274:945–51.
9. McKenna MT, McCray E, Onorato I. The epidemiology of tuberculosis among foreign-born persons in the United States, 1986–1993. *N Engl J Med* 1995;332:1071–6.

Progress Toward Poliomyelitis Eradication — India, December 1995 and January 1996

Monitoring efforts to eradicate poliomyelitis by the year 2000 continues to indicate this goal can be achieved: in 1995, the incidence of reported polio cases worldwide was the lowest ever (6179 cases)—representing an 82% decline from the 35,251 cases in 1988. In addition, from 1988 to 1995, the number of countries conducting national immunization days (NIDs)* increased from 17 to 62. In India (1994 population: 919 million), the first NIDs (“pulse polio immunization days” [PPIDs]) were conducted on December 9, 1995, and January 20, 1996, with a target of vaccinating approximately 75 million children aged <3 years with one dose of oral poliovirus vaccine (OPV) in each of two rounds. This report summarizes progress toward polio eradication in India and indicates that the target to vaccinate 75 million children aged <3 years with OPV was exceeded by 4.3 million (6%) during the first round of PPIDs and by 10.4 million (14%) during the second round.

In India, nearly 2 million health-care workers and volunteers participated in PPIDs and used a network of approximately 500,000 vaccination posts. Vaccination posts were the locations where OPV was offered to children by a staff consisting of at least one trained health-care worker and at least three volunteers (1).

On December 9, 1995, the government of India conducted the first round of PPIDs, vaccinating 87.8 million children with one dose of OPV. Of the children vaccinated, 79.3 million (91%) were aged <3 years, and 8.5 million (9%) were aged ≥3 years. All but one of the 32 states and union territories reported coverage to be >90% for children aged <3 years; Nagaland (population: 1.3 million) reported coverage of 86%.

During the second round of PPIDs on January 20, 1996, a total of 93.6 million children were vaccinated with one dose of OPV; of these, 85.4 million (90%) were aged <3 years and 8.2 million (10%) aged ≥3 years. All 32 states and union territories reported coverage to be >90% for children aged <3 years.

To monitor vaccination posts, on December 9, 1995, participating agencies (the Indian Ministry of Health and Family Welfare, the United Nations Children’s Fund

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

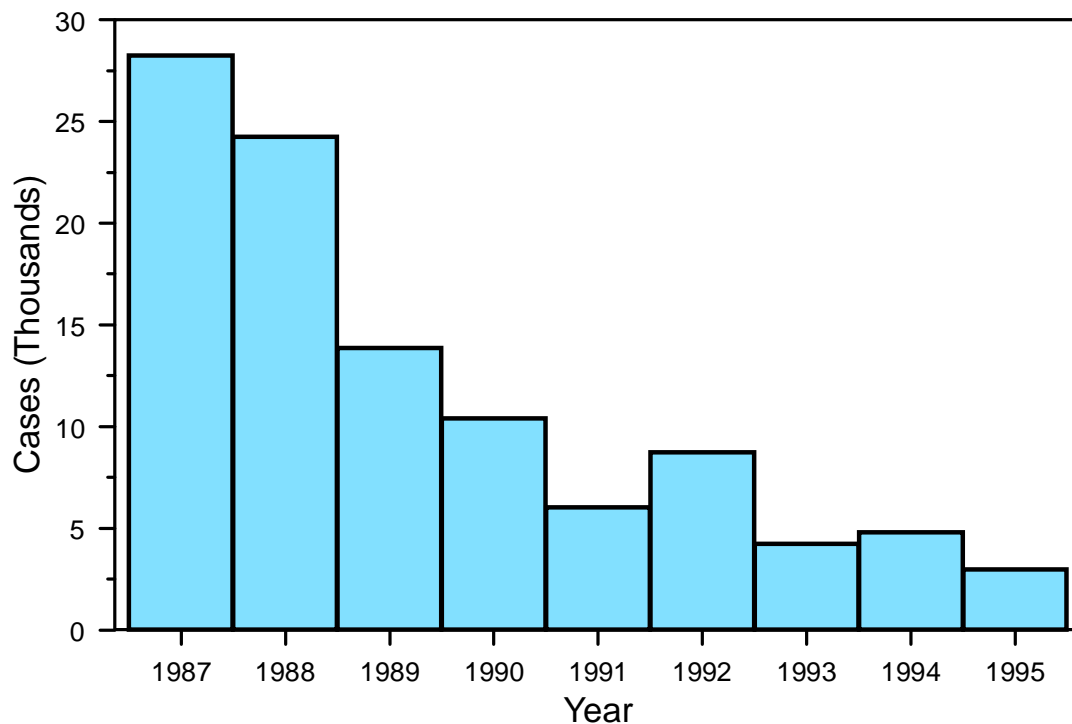
Poliomyelitis Eradication — Continued

[UNICEF], Rotary International, the World Health Organization [WHO], and other partner agencies) surveyed a nonrandom sample of 1070 posts located in 25 of the 32 states and union territories. A standardized survey instrument was used to record information about the ages of children receiving OPV, staffing, vaccine cold chain, and vaccine supply. The findings suggested that 1) posts were adequately staffed; 2) cold chain was well-maintained; and 3) when vaccine supply diminished, contingency measures were initiated to ensure supplies were replenished. In addition, of the 3716 children observed receiving OPV, 605 (16%) were aged ≥ 3 years, suggesting that measures to screen the age of children were incomplete, and substantial quantities of OPV were administered to children aged ≥ 3 years.

From 1987 to 1991, reported cases of polio in India declined 79%, from 28,264 to 6028 (Figure 1). From 1991 to 1995, reported cases further declined 50%, from 6028 to 2993. As recently as 1994, however, large outbreaks of paralytic polio have occurred in the states of Gujarat, Karnataka, and Maharashtra, indicating that endemic and epidemic transmission of polio continued to occur despite substantial improvements in routine vaccination coverage with three doses of OPV among children aged 1 year (from 63% in 1988 to 90% in 1993).

Reported by: A Misra, Joint Secretary; K Banerjee, MD, Assistant Commissioner (Immunization), Dept of Maternal and Child Health, Ministry of Health and Family Welfare, New Delhi, India. Expanded Program on Immunization, South East Asia Regional Office, World Health Organization, New Delhi, India. Respiratory and Enterovirus Br, National Center for Infectious Diseases; Polio Eradication Activity, National Immunization Program, CDC.

FIGURE 1. Number of reported cases of paralytic poliomyelitis — India, 1987–1995*



*Data for 1995 are provisional.

Source: Indian Ministry of Health and Family Welfare

Poliomyelitis Eradication — Continued

Editorial Note: On January 20, 1996, the government of India vaccinated approximately 93 million children with OPV on 1 day—marking the largest number of vaccinations ever administered during a single-day public health event. India is committed to sustaining the massive effort of conducting annual PPIDs (consisting of two rounds) for at least 3 consecutive years or until wild poliovirus circulation is eliminated from that country.

Although most cases of polio in India have occurred among children aged <4 years (88% in 1992 and 91% in 1993) (2), during 1992–1994, persons aged ≥4 years accounted for 9%–12% of cases. Therefore, PPIDs scheduled for December 1996 and January 1997 will target children aged <5 years, increasing the total number of children in the target age group from 75 million to 125 million. Future efforts to focus measures for screening the age of children should assist in reducing vaccine costs during PPIDs.

The role of Rotary International, UNICEF, and other partner agencies has been critical in enabling polio eradication in the South East Asia Region (SEAR) (2–4). The estimated cost of India's first PPIDs was \$30.3 million and included contributions from India (\$18.0 million), the British Overseas Development Agency (\$6.1 million), Rotary International (\$5.0 million), and the United States Agency for International Development (\$1.2 million). In addition to financial contributions, partner agencies have promoted evaluation efforts as a means for improving vaccination coverage during future PPIDs and have strengthened coordination between governmental and nongovernmental agencies. Surveillance systems also require strengthening to maximize the use of resources (2) to achieve the goal of polio eradication by the year 2000.

During August 1994–April 1996, seven of the eight SEAR member countries in which polio is endemic conducted their first polio NIDs; Thailand conducted NIDs first, followed by Bangladesh, Indonesia, Sri Lanka, India, Myanmar, and Democratic People's Republic of Korea. Nepal will implement NIDs in December 1996. During December 1996, six of eight contiguous SEAR member countries with endemic polio (Bangladesh, India, Myanmar, Nepal, Sri Lanka, and Thailand) will conduct NIDs synchronously. In addition, another contiguous country (in the Eastern Mediterranean Region), Pakistan, also plans to conduct NIDs again in December.

Progress toward polio eradication reported from the SEAR builds on the experience of the Americas (5)—which has been free of wild poliovirus since 1991 (6)—and the more recent substantial progress in the Western Pacific Region, including China (7). By the end of 1996, all polio-endemic countries in Europe and Asia, except Yemen, will have conducted NIDs, and approximately half of the children aged <5 years worldwide will have received supplemental OPV doses administered during NIDs. In addition, 29 countries in the African Region are planning to conduct NIDs or Sub-National Immunization Days in 1996. Progress reported from many areas of the world suggests the goal of global eradication of polio by the year 2000 is feasible.

References

1. Ministry of Health and Family Welfare. Pulse polio immunization in India: operational guide. New Delhi: Ministry of Health and Family Welfare (India), 1995.
2. Andrus JK, Banerjee K, Hull B, Mochny I. Polio eradication in South-East Asia by the year 2000: mid-way assessment of progress and future challenges. *J Infect Dis* 1996 (in press).
3. CDC. Progress toward poliomyelitis eradication—South East Asia Region, 1988–1994. *MMWR* 1995;44:791,797–801.

Poliomyelitis Eradication — Continued

4. World Health Organization. Progress towards poliomyelitis eradication, 1994. *Wkly Epidemiol Rec* 1995;70:97–104.
5. de Quadros CA, Andrus JK, Olive J-M, de Macedo CG, Henderson DA. Polio eradication from the Western Hemisphere. *Annu Rev Publ Health* 1992;13:239–52.
6. CDC. Certification of poliomyelitis eradication—the Americas, 1994. *MMWR* 1994;43:720–2.
7. Yang B, Zhang J, Otten MW, et al. Eradication of poliomyelitis in the People's Republic of China. *Pediatr Infect Dis J* 1995;14:308–14.

National Arthritis Month — May 1996

May is National Arthritis Month. Arthritis, the leading cause of disability in the United States, affects an estimated 40 million persons and may affect nearly 60 million persons by 2020. The primary goal of the 1996 arthritis month is to encourage patients to Stay Active with ArthritisSM. Benefits of regular physical activity to persons with arthritis include decreasing fatigue, strengthening muscles and bones, increasing flexibility and stamina, and improving the general sense of well-being.

Information about arthritis can be obtained from the Arthritis Foundation, telephone (800) 283-7800 or (404) 872-7100 and from the foundation's World Wide Web site at <http://www.arthritis.org>. An Arthritis Month promotion kit is available from the foundation, telephone (404) 872-7100, ext. 6319.

**Prevalence and Impact of Arthritis By Race and Ethnicity —
United States, 1989–1991**

Arthritis and other rheumatic conditions are among the most prevalent chronic conditions in the United States, affecting an estimated 40 million persons in 1995 and a projected 60 million by 2020 (1). Previous reports have documented marked differences in the prevalence rates of arthritis and related activity limitations by race and ethnicity (1,2), suggesting the relative importance of arthritis might vary among these groups. In addition, race and ethnicity are associated with important differences in health characteristics and must be addressed in efforts to reduce health disparities as specified by the national health objectives for the year 2000 (3). To examine the relative importance of arthritis among these groups, data from the 1989–1991 National Health Interview Survey (NHIS) were used to estimate the prevalence of self-reported arthritis and related activity limitation by race and ethnicity, compare these estimates to those for other chronic conditions, and estimate these prevalences for 2020.

Prevalences of Arthritis and Activity Limitation

The NHIS is an annual national probability sample of the civilian, noninstitutionalized population of the United States (4). Estimates of the prevalence of arthritis were

Arthritis — Continued

based on a one-sixth random sample of 1989–1991 respondents (n=59,289) who answered questions about the presence of any musculoskeletal condition during the preceding 12 months and provided details about these conditions. Each condition was assigned a code from the *International Classification of Diseases, Ninth Revision* (ICD-9). This analysis used the definition of arthritis, which included arthritis and other rheumatic conditions, developed by the National Arthritis Data Workgroup (1).^{*} Data were weighted to estimate the average annual number of cases and prevalence rates. Because age and sex are strongly associated with arthritis prevalence rates, adjusted rates were estimated using eight age categories (0–24, 25–34, 35–44, 45–54, 55–64, 65–74, 75–84, and ≥85 years) and by sex. Race (white, black, American Indian/Alaskan Native, and Asian/Pacific Islander) and ethnicity (Hispanic, non-Hispanic white, and non-Hispanic black) were determined by the respondent's description of his or her background.

Activity limitation caused by arthritis was estimated by using all respondents in the 1989–1991 NHIS (n=356,592). Respondents were asked if they were unable to perform, or were limited in, their major activity (play or school for children and adolescents; working or keeping house for persons aged 18–69 years; independent living for those aged ≥70 years) as a result of health condition(s), and if so, to specify the condition(s) they considered to be responsible for their limitations. Data from those attributing activity limitation to arthritis were weighted to estimate the average annual number of affected persons, prevalence rate, and age- and sex-adjusted rates.

Unadjusted race-specific prevalence rates for arthritis varied from 5.6% (Asians/Pacific Islanders) to 16.0% (whites) (Table 1). Age- and sex-adjusted rates were significantly lower for Asians/Pacific Islanders (7.2% [95% confidence interval (CI)=±1.6%]) than for other races (15.2% [95% CI=±0.3%] for whites, 15.3% [95% CI=±0.8%] for blacks, and 16.5% [95% CI=±3.3%] for American Indians/Alaskan Natives). The unadjusted population prevalence rates for activity limitation attributable to arthritis varied from 0.7% (Asians/Pacific Islanders) to 3.0% (blacks and American Indians/Alaskan Natives). Age- and sex-adjusted rates were significantly higher for American Indians/Alaskan Natives (4.2% [95% CI=±1.0%]) and blacks (4.0% [95% CI=±0.2%]) and significantly lower for Asians/Pacific Islanders (1.1% [95% CI=±0.3%]) than for whites (2.7% [95% CI=±0.1%]). The proportion of persons with arthritis who had activity limitation attributable to arthritis was lower among whites (17.6%) and Asians/Pacific Islanders (13.0%) than among blacks (24.5%) and American Indians/Alaskan Natives (22.6%).

Unadjusted prevalence rates for arthritis by ethnicity were 6.5% for Hispanics, 12.4% for non-Hispanic blacks, and 16.9% for non-Hispanic whites (Table 1). Age- and sex-adjusted rates were significantly lower for Hispanics (11.2% [95% CI=±1.0%]) than for non-Hispanic whites and non-Hispanic blacks (15.5% [95% CI=±0.3%] and 15.4% [95% CI=±0.8%], respectively). Unadjusted population prevalence rates for activity limitation were 1.4% for Hispanics and 3.0% for non-Hispanic whites and non-Hispanic blacks. Age- and sex-adjusted rates for activity limitation were similar for Hispanics and non-Hispanic whites (2.7%), and for both groups were significantly lower than for non-Hispanic blacks (3.9% [95% CI=±0.2%]). The proportions of persons with arthritis who had activity limitation attributable to arthritis were similar for Hispanics (22.2%)

^{*} *International Classification of Diseases, Ninth Revision, Clinical Modification*, codes 95.6, 95.7, 98.5, 99.3, 136.1, 274, 277.2, 287.0, 344.6, 353.0, 354.0, 355.5, 357.1, 390, 391, 437.4, 443.0, 446, 447.6, 696.0, 710–716, 719.0, 719.2–719.9, 720–721, 725–727, 728.0–728.3, 728.6–728.9, 729.0–729.1, and 729.4.

TABLE 1. Estimated average annual numbers and prevalence rates* of persons with self-reported arthritis† and related activity limitation in the total population, by race and ethnicity§ — National Health Interview Survey, United States, 1989–1991

Characteristic	Race				Ethnicity		
	White	Black	American Indian/ Alaskan Native	Asian/ Pacific Islander	Hispanic	Non-Hispanic white	Non-Hispanic black
Self-reported arthritis							
No. (thousands)	31,864	3,672	270	401	1,412	30,662	3,533
Rate (95% CI¶)							
Unadjusted	16.0% (±0.5%)	12.3% (±0.7%)	13.4% (±3.5%)	5.6% (±1.4%)	6.5% (±0.8%)	16.9% (±0.4%)	12.4% (±0.7%)
Age- and sex-adjusted	15.2% (±0.3%)	15.3% (±0.8%)	16.5% (±3.3%)	7.2% (±1.6%)	11.2% (±1.0%)	15.5% (±0.3%)	15.4% (±0.8%)
Self-reported activity limitation attributable to arthritis							
No. (thousands)	5,620	899	61	52	314	5,364	858
Rate (95% CI)							
Unadjusted	2.8% (±0.1%)	3.0% (±0.2%)	3.0% (±0.8%)	0.7% (±0.2%)	1.4% (±0.2%)	3.0% (±0.1%)	3.0% (±0.2%)
Age- and sex-adjusted	2.7% (±0.1%)	4.0% (±0.2%)	4.2% (±1.0%)	1.1% (±0.3%)	2.7% (±0.3%)	2.7% (±0.1%)	3.9% (±0.2%)
Proportion of persons with arthritis who have activity limitation attributable to arthritis	17.6%	24.5%	22.6%	13.0%	22.2%	17.5%	24.3%

*Unadjusted rates are estimated for the 1989–1991 National Health Interview Survey (NHIS) civilian, noninstitutionalized population (CNI), using the appropriate weights. Age- and sex-adjusted rates use eight age categories (0–24, 25–34, 35–44, 45–54, 55–64, 65–74, 75–84, and ≥85 years) to adjust to the 1989–1991 CNI population. To generate national numbers, unadjusted NHIS rates were applied to the total population.

†Arthritis is defined by using the National Arthritis Data Workgroup's definition, which is based on the *International Classification of Diseases, Ninth Revision, Clinical Modification*, codes 95.6, 95.7, 98.5, 99.3, 136.1, 274, 277.2, 287.0, 344.6, 353.0, 354.0, 355.5, 357.1, 390, 391, 437.4, 443.0, 446, 447.6, 696.0, 710–716, 719.0, 719.2–719.9, 720–721, 725–727, 728.0–728.3, 728.6–728.9, 729.0–729.1, and 729.4.

§Race and ethnicity are self-reported by the respondent.

¶Confidence interval. CIs were calculated using SUDAAN.

Arthritis — Continued

and non-Hispanic blacks (24.3%) and were higher than that for non-Hispanic whites (17.5%).

Comparison with Other Chronic Conditions

Average annual prevalence estimates of chronic conditions other than arthritis were based on a one-sixth random sample of NHIS respondents in 1989–1991 who answered questions (on six separate condition lists) regarding the presence of these conditions. Analyses included the 21 most common conditions in the NHIS that were defined as chronic (i.e., a condition lasting >3 months or assumed to be chronic [e.g., diabetes]). These data were weighted to estimate average annual numbers of persons affected. Average annual numbers of persons with activity limitation caused by these chronic conditions were estimated as they were for arthritis.

Arthritis was the most common self-reported chronic condition among whites, the second most common among American Indians/Alaskan Natives and Hispanics, the third most common condition among blacks, and the fourth most common condition among Asian/Pacific Islanders (Table 2). For all groups, arthritis prevalence was higher than self-reported hearing impairment, heart disease, chronic bronchitis, asthma, and diabetes. Among the conditions reported to account for activity limitations, arthritis ranked first among blacks and second among the other groups.

Projections for 2020

Arthritis prevalence was projected for 2020 by applying the average annual arthritis prevalence rate for 1989–1991, stratified by age and sex, to the relevant U.S. population projected by the Bureau of the Census (5). Based on these projections, in 2020, self-reported arthritis will affect an estimated 49.7 million whites, 7.0 million blacks, 442,000 American Indians/Alaskan Natives, 1.6 million Asians/Pacific Islanders, and 5.1 million Hispanics. In 2020, activity limitation attributable to arthritis will affect an estimated 9.3 million whites, 1.8 million blacks, 115,000 American Indians/Alaskan Natives, 264,000 Asians/Pacific Islanders, and 1.2 million Hispanics.

Reported by: National Arthritis Data Workgroup. Div of Adult and Community Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.

Editorial Note: The findings in this report indicate that during 1989–1991, arthritis was the first or among the top four self-reported chronic conditions among all racial/ethnic groups in the United States. As a cause of activity limitation, arthritis ranked either first or second within each group. For these racial groups and for Hispanics, both the large numbers and percentages of persons affected in 1989–1991 probably will increase markedly by 2020, reflecting projected increases in the average age of these populations. Potential explanations for group-specific differences may include variations in cultural thresholds for reporting arthritis (6) and group-specific differences in factors associated with the prevalence of arthritis (e.g., overweight, low socioeconomic status, and occupations involving knee-bending) (7,8). In addition, major histocompatibility genes—especially molecularly defined alleles—vary among ethnic groups and are associated with diseases such as rheumatoid arthritis (9).

Although NHIS self-reported data enable more accurate estimates of activity limitation attributable to arthritis than do other sources (e.g., physician-based data) (10), neither the self-reported data nor the assigned ICD-9 codes were validated by a health-care provider. To improve understanding of arthritis and reduce its occurrence and activity limitation attributable to it, public health research and intervention efforts

Arthritis — Continued

TABLE 2. Estimated average annual numbers* of persons with self-reported chronic conditions† and related activity limitations in the civilian, noninstitutionalized population, by race, ethnicity‡, and condition — National Health Interview Survey, United States — 1989–1991

Condition	No. (thousands), by race/ethnicity				
	White	Black	American Indian/ Alaskan Native	Asian/ Pacific Islander	Hispanic
Top five and selected self-reported conditions					
Arthritis¶	31,612	3,678	275	335	1,492
Chronic sinusitis	28,089	3,745	212	260	1,439
Deformity or orthopedic impairment	24,786	2,556	279	429	1,857
High blood pressure (hypertension)	22,516	4,185	188	338	1,315
Hearing impairment	19,780	1,486	156	329	979
Hay fever or allergic rhinitis without asthma	19,572	1,823	187	556	1,447
Heart disease	13,919	1,712	84	154	648
Chronic bronchitis	10,862	1,093	100	117	731
Asthma	9,064	1,578	140	205	926
Diabetes	5,163	1,082	91	109	491
Top five and selected self-reported conditions as a cause of activity limitation					
Deformity or orthopedic impairment	6,272	785	96	108	544
Arthritis	5,646	908	64	47	327
Heart disease	4,107	564	40	39	225
High blood pressure (hypertension)	1,972	797	32	36	205
Intervertebral disk disorders	1,831	170	20	14	115
Diabetes	1,733	497	31	26	216
Asthma	1,661	423	23	33	257
Visual impairment	1,027	151	21	18	87
Hearing impairment	954	79	11	14	66
Cerebrovascular disease	841	166	9	6	42

*The average annual number of persons affected in the civilian, noninstitutionalized population was estimated by using the appropriate weights in the 1989–1991 National Health Interview Survey (NHIS). Data in this table reflect the internal weights of the 1989–1991 NHIS, which are based on civilian, noninstitutionalized population estimates that differ slightly from those of the 1990 census total population estimates. Using the internal weights of the 1989–1991 NHIS allows easier comparison among the different chronic conditions.

†A condition lasting >3 months or that is assumed to be chronic (e.g., diabetes).

‡Race and Hispanic ethnicity are self-reported by the respondent.

¶Arthritis is defined by using the National Arthritis Data Workgroup's definition, which is based on the *International Classification of Diseases, Ninth Revision, Clinical Modification*; other chronic conditions are defined by using NHIS chronic condition recode C. Impairments are coded according to a special classification system for the NHIS.

Arthritis — Continued

must focus on groups at greatest risk, better define the reasons for these differences among groups, better characterize the epidemiology and natural history of the different types of arthritis, more accurately estimate their economic and societal burden, and evaluate the effectiveness of interventions among these groups. In 1996, six state health departments have initiated use of an optional Behavioral Risk Factor Surveillance System arthritis module to obtain state-level information about arthritis, including data by race and ethnicity. Primary-care providers and state programs can decrease the impact of arthritis among affected groups by 1) promoting primary prevention of arthritis through weight reduction and prevention of sports- or occupational-associated joint injury and 2) encouraging early detection and appropriate education and exercise interventions.

References

1. CDC. Arthritis prevalence and activity limitations—United States, 1990. *MMWR* 1994;43:433–8.
2. CDC. Prevalence and impact of arthritis among women—United States, 1989–1991. *MMWR* 1995;44:329–34.
3. CDC. Chronic disease in minority populations. Atlanta, Georgia: US Department of Health and Human Services, Public Health Service, CDC, National Center for Chronic Disease Prevention and Health Promotion, 1994:1-1.
4. Massey JT, Moore TF, Parsons VL, Tadros W. Design and estimation for the National Health Interview Survey, 1985–1994. *Vital Health Stat [2]* 1989;1–5.
5. Day JC. Population projections of the United States, by age, sex, race, and Hispanic origin: 1993–2050. Washington, DC: US Department of Commerce, Bureau of the Census, 1993. (Current population reports; series P25, no. 1104).
6. Berkanovic E, Telesky C. Mexican-American, Black-American, and White-American differences in reporting illnesses, disability, and physician visits for illnesses. *Soc Sci Med* 1985;20:567–77.
7. Felson DT. Weight and osteoarthritis. *J Rheumatol* 1995;22(suppl 43):7–9.
8. Leigh JP, Fries JF. Occupation, income, and education as independent covariates of arthritis in four national probability samples. *Arthritis Rheum* 1991;34:984–95.
9. Schumacher HR Jr, Klippel JG, Koopman WJ. Primer of the rheumatic diseases. 10th ed. Atlanta, Georgia: Arthritis Foundation, 1993:39–40.
10. Edwards S. Evaluation of the National Health Survey diagnostic reporting. Rockville, Maryland: Westat, Inc., December 21, 1992. [Report to NCHS].

*Notice to Readers***Alcohol and Other Drug-Related Birth Defects Awareness Week,
May 12–18, 1996**

The National Council on Alcoholism and Drug Dependence (NCADD) has designated May 12–18, 1996, as Alcohol and Other Drug-Related Birth Defects Awareness Week. One of the leading causes of birth defects in the United States is fetal alcohol syndrome (FAS), which results from in utero alcohol exposure. In the United States each year, an estimated 12,000 children are born with FAS (1). The prevalence of FAS ranges from 0.7 cases per 1000 live births for the total U.S. population to 2.7 for American Indians/Alaskan Natives (2–4).

A congressionally mandated report prepared by the Institute of Medicine (IOM) indicated that, although the overall prevalence of any reported alcohol use during pregnancy has declined since the mid-1980s, the proportion of women who drink heavily during pregnancy has remained constant (1). However, a recent study documented

Notice — Continued

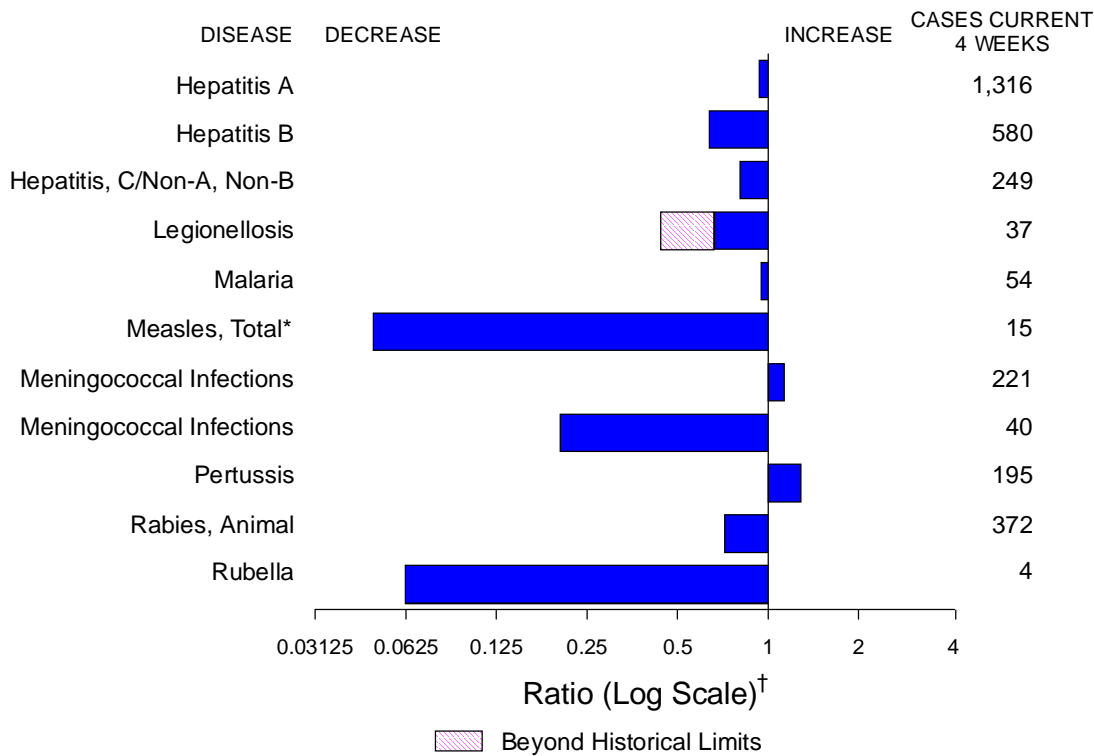
that a high proportion of women with certain characteristics (i.e., nonwhite, smoker, low income, and no prenatal care) are more likely to consume more than six drinks per week during their last pregnancy (5). The IOM report recommended the creation of an interagency task force to facilitate research directed toward 1) estimating the true prevalence of FAS and of alcohol use among pregnant and reproductive-aged women; 2) improving understanding of the risk factors for drinking heavily during pregnancy; and 3) developing a model for preventing drinking during pregnancy, which includes the participation of the woman's partner, family members, and health-care providers. CDC-sponsored prevention projects being evaluated include prenatal interventions for pregnant women who report alcohol use and reproductive-health education and counseling for women in drug- and alcohol-treatment centers.

Additional information about Alcohol and Other Drug-Related Birth Defects Awareness Week is available from NCADD, 12 West 21 Street, New York, NY 10010; telephone (212) 206-6770. Copies of the IOM executive summary are available free of charge from the Institute of Medicine, 2101 Constitution Avenue, NW, Washington, DC, 20418.

References

1. Institute of Medicine. Fetal alcohol syndrome diagnosis, epidemiology, prevention, and treatment. Stratton K, Howe C, Battaglia S, eds. Washington, DC: National Academy Press, 1996.
2. CDC. Trends in fetal alcohol syndrome—United States, 1979–1993. *MMWR* 1995;44:249–51.
3. CDC. Linking multiple data sources in fetal alcohol syndrome surveillance—Alaska. *MMWR* 1993;42:312–4.
4. CDC. Use of International Classification of Diseases coding to identify fetal alcohol syndrome—Indian Health Service facilities, 1981–1992. *MMWR* 1995;44:253–5,261.
5. CDC. Sociodemographic and behavioral characteristics associated with alcohol consumption during pregnancy—United States, 1988. *MMWR* 1995;44:261–4.

FIGURE I. Selected notifiable disease reports, comparison of 4-week totals ending May 4, 1996, with historical data — United States



*The large apparent decrease in the number of reported cases of measles (total) reflects dramatic fluctuations in the historical baseline.

[†] 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 — cases of selected notifiable diseases, United States, cumulative, week ending May 4, 1996 (18th Week)

	Cum. 1996		Cum. 1996
Anthrax	-	HIV infection, pediatric [§]	92
Brucellosis	24	Plague	-
Cholera	1	Poliomyelitis, paralytic [¶]	-
Congenital rubella syndrome	2	Psittacosis	8
Cryptosporidiosis*	485	Rabies, human	-
Diphtheria	1	Rocky Mountain spotted fever (RMSF)	41
Encephalitis: California*	-	Streptococcal toxic-shock syndrome*	9
eastern equine*	1	Syphilis, congenital**	-
St. Louis*	-	Tetanus	4
western equine*	-	Toxic-shock syndrome	47
Hansen Disease	30	Trichinosis	10
Hantavirus pulmonary syndrome* [†]	4	Typhoid fever	92

*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, National Center for HIV, STD, and TB Prevention (NCHSTP) (proposed), last update April 30, 1996.

[¶] No suspected cases of polio reported for 1996.

**Updated quarterly from reports to the Division of STD Prevention, NCHSTP. First quarter 1996 is not yet available.

-: no reported cases

TABLE II. Cases of selected notifiable diseases, United States, weeks ending May 4, 1996, and May 6, 1995 (18th Week)

Reporting Area	AIDS*		Chlamydia	Escherichia coli O157:H7		Gonorrhea		Hepatitis C/NA,NB		Legionellosis	
	Cum. 1996	Cum. 1995		Cum. 1996	NETSS [†]	PHLIS [‡]	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996
			Cum. 1996		Cum. 1996						
UNITED STATES	21,920	24,547	79,002	267	113	92,811	129,892	1,147	1,389	230	403
NEW ENGLAND	878	1,308	3,263	27	16	2,585	1,843	42	36	12	4
Maine	15	23	-	3	-	15	23	-	-	1	-
N.H.	25	43	224	1	1	41	34	1	5	-	-
Vt.	8	12	-	5	5	22	17	18	4	1	-
Mass.	490	634	2,297	11	10	761	1,027	20	26	5	3
R.I.	61	87	742	2	-	192	189	3	1	5	1
Conn.	279	509	-	5	-	1,554	553	-	-	N	N
MID. ATLANTIC	5,707	6,096	12,505	40	20	9,861	14,943	112	127	50	53
Upstate N.Y.	568	685	N	21	10	1,963	3,423	99	62	10	12
N.Y. City	3,281	3,063	4,121	-	-	2,608	5,501	1	1	-	1
N.J.	1,143	1,460	1,893	12	5	1,827	1,185	-	54	7	11
Pa.	715	888	6,491	N	5	3,463	4,834	12	10	33	29
E.N. CENTRAL	1,874	2,066	12,844	45	23	14,246	27,219	147	114	72	133
Ohio	438	473	3,237	21	8	1,833	8,430	4	4	34	54
Ind.	309	164	3,358	12	6	2,495	2,847	6	-	17	34
Ill.	758	887	-	2	2	5,922	7,148	10	40	2	15
Mich.	257	420	4,101	10	7	2,911	6,532	127	70	16	14
Wis.	112	122	2,148	N	-	1,085	2,262	-	-	3	16
W.N. CENTRAL	548	545	8,433	40	19	5,122	7,211	90	24	14	26
Minn.	109	119	-	6	12	U	1,040	-	1	-	-
Iowa	44	32	1,261	7	4	372	532	71	3	3	8
Mo.	237	214	4,745	6	-	2,784	4,188	14	10	1	8
N. Dak.	4	1	2	1	1	1	11	-	-	-	2
S. Dak.	7	7	476	1	-	74	69	-	1	2	-
Nebr.	40	51	388	4	-	57	351	1	6	6	6
Kans.	107	121	1,561	15	2	835	1,020	4	3	2	2
S. ATLANTIC	5,803	6,684	18,365	17	3	35,007	37,750	58	91	31	65
Del.	114	131	-	-	-	499	703	1	-	-	-
Md.	658	994	1,935	N	1	4,407	4,516	-	2	6	14
D.C.	373	438	N	-	-	1,515	1,703	-	-	1	3
Va.	317	520	4,136	N	1	3,314	3,778	5	2	9	4
W. Va.	31	30	-	N	-	160	223	4	20	1	3
N.C.	266	310	-	5	1	6,765	8,642	18	23	3	11
S.C.	283	322	-	1	-	3,961	4,016	13	4	3	13
Ga.	871	869	4,178	3	-	7,932	6,848	-	11	-	8
Fla.	2,890	3,070	8,116	5	-	6,454	7,321	17	29	8	9
E.S. CENTRAL	776	815	9,518	9	4	10,192	15,247	227	488	20	12
Ky.	120	81	2,235	-	-	1,378	1,589	10	11	2	3
Tenn.	283	347	4,096	N	4	3,548	4,661	192	475	9	5
Ala.	244	230	2,989	2	-	4,655	5,964	1	2	-	3
Miss.	129	157	198	3	-	611	3,033	24	-	9	1
W.S. CENTRAL	2,096	2,220	4,448	11	4	6,775	11,413	126	76	2	6
Ark.	97	86	-	5	2	916	1,707	1	1	-	1
La.	559	360	2,388	N	2	2,732	4,197	58	43	-	2
Okla.	55	100	2,060	1	-	1,299	10	38	20	2	3
Tex.	1,385	1,674	-	1	-	1,828	5,499	29	12	-	-
MOUNTAIN	648	818	5,480	31	15	2,400	3,248	211	160	10	48
Mont.	8	8	-	-	-	10	30	8	7	1	2
Idaho	10	22	571	11	4	32	46	62	22	-	1
Wyo.	2	4	246	-	-	10	17	72	62	2	2
Colo.	181	268	-	11	5	591	1,036	4	30	4	22
N. Mex.	43	71	-	2	-	313	375	29	22	-	4
Ariz.	197	201	3,737	N	6	1,210	1,170	25	7	2	5
Utah	79	52	254	5	-	49	82	7	5	-	3
Nev.	128	192	672	2	-	185	492	4	5	1	9
PACIFIC	3,590	3,995	4,146	47	9	6,623	11,018	134	273	19	56
Wash.	313	416	3,427	10	5	815	883	26	66	1	4
Oreg.	189	158	-	12	-	143	165	3	18	-	-
Calif.	3,025	3,280	-	21	-	5,351	9,432	44	179	18	47
Alaska	10	39	N	-	-	192	299	2	1	-	-
Hawaii	53	102	430	N	4	122	239	59	9	-	5
Guam	3	-	90	N	-	22	32	-	-	-	-
P.R.	423	952	N	N	U	98	199	16	52	-	-
V.I.	6	19	N	N	U	-	14	-	-	-	-
Amer. Samoa	-	-	N	N	U	-	8	-	-	-	-
C.N.M.I.	-	-	N	N	U	11	10	-	-	-	-

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, National Center for HIV, STD, and TB Prevention (proposed), last update April 30, 1996.

†National Electronic Telecommunications System for Surveillance.

‡Public Health Laboratory Information System.

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending May 4, 1996, and May 6, 1995 (18th Week)

Reporting Area	Lyme Disease		Malaria		Meningococcal Disease		Syphilis (Primary & Secondary)		Tuberculosis		Rabies, Animal	
	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995
UNITED STATES	1,134	1,555	313	328	1,322	1,248	3,777	5,823	5,150	5,546	1,647	2,316
NEW ENGLAND	47	115	9	14	47	59	59	75	132	122	189	621
Maine	-	1	3	1	7	3	-	2	4	-	-	-
N.H.	1	10	1	1	1	12	1	1	3	4	23	75
Vt.	-	1	1	-	2	6	-	-	-	1	56	84
Mass.	20	15	3	3	18	18	27	26	54	62	33	240
R.I.	21	10	1	2	-	-	-	1	18	15	20	86
Conn.	5	78	-	7	19	20	31	45	53	40	57	136
MID. ATLANTIC	946	1,176	79	74	105	136	152	343	897	1,174	250	518
Upstate N.Y.	464	642	19	12	31	43	14	34	107	111	135	199
N.Y. City	154	34	35	35	16	13	54	181	457	672	-	-
N.J.	72	141	22	18	31	32	48	67	218	213	51	116
Pa.	256	359	3	9	27	48	36	61	115	178	64	203
E.N. CENTRAL	15	16	29	47	183	187	585	968	605	486	11	2
Ohio	13	5	6	2	67	51	222	337	87	91	2	1
Ind.	2	7	4	3	27	31	86	94	58	45	1	-
Ill.	-	3	7	33	46	48	178	354	400	332	-	1
Mich.	-	1	8	4	25	32	41	113	39	-	4	-
Wis.	U	U	4	5	18	25	58	70	21	18	4	-
W.N. CENTRAL	38	26	5	8	115	71	157	293	135	198	164	107
Minn.	1	-	1	3	10	14	27	17	24	37	9	6
Iowa	16	1	1	-	24	14	7	24	17	28	84	34
Mo.	2	11	2	4	53	25	116	236	55	78	10	12
N. Dak.	-	-	-	-	2	-	-	-	2	1	14	10
S. Dak.	-	-	-	-	3	3	-	-	11	8	37	24
Nebr.	-	1	-	1	10	6	3	7	7	8	2	-
Kans.	19	13	1	-	13	9	4	9	19	38	8	21
S. ATLANTIC	46	161	60	69	249	207	1,229	1,498	846	875	818	757
Del.	1	17	2	1	2	2	13	7	-	18	18	39
Md.	24	110	19	19	24	13	197	134	92	150	193	153
D.C.	-	1	3	7	4	2	58	46	44	37	2	5
Va.	-	8	7	13	22	26	177	250	43	62	192	129
W. Va.	3	7	1	-	6	3	1	1	20	35	33	35
N.C.	10	8	7	6	33	37	382	400	122	89	203	150
S.C.	2	5	3	-	28	29	159	248	40	102	20	47
Ga.	-	4	7	9	74	50	109	265	213	7	106	105
Fla.	6	1	11	14	56	45	133	147	272	375	51	94
E.S. CENTRAL	15	9	7	7	88	74	970	1,516	401	473	59	98
Ky.	2	1	-	-	14	21	53	81	86	97	17	8
Tenn.	5	5	5	2	7	22	366	290	74	154	19	40
Ala.	1	1	1	5	35	16	198	217	155	146	23	49
Miss.	7	2	1	-	32	15	353	928	86	76	-	1
W.S. CENTRAL	5	25	10	5	156	144	440	777	492	677	21	44
Ark.	3	2	-	1	22	17	106	162	20	74	3	22
La.	-	-	-	1	31	20	201	397	-	-	10	9
Okla.	2	13	-	-	14	15	59	-	30	-	8	13
Tex.	-	10	10	3	89	92	74	218	442	603	-	-
MOUNTAIN	-	1	22	23	84	101	39	99	182	135	23	34
Mont.	-	-	1	2	1	2	-	3	7	3	-	15
Idaho	-	-	-	1	10	4	1	-	3	6	-	-
Wyo.	-	-	2	-	3	5	1	-	1	1	10	9
Colo.	-	-	12	12	12	21	14	59	25	5	1	-
N. Mex.	-	-	1	3	18	21	-	1	28	22	1	-
Ariz.	-	-	3	2	26	36	20	16	77	87	9	9
Utah	-	-	2	2	8	5	-	3	10	10	-	-
Nev.	-	1	1	1	6	7	3	17	31	1	2	1
PACIFIC	22	26	92	81	295	269	146	254	1,460	1,406	112	135
Wash.	-	-	5	8	39	38	2	6	83	89	-	-
Oreg.	6	1	8	6	57	51	3	6	35	21	-	-
Calif.	15	25	75	59	193	174	141	241	1,265	1,209	104	129
Alaska	-	-	1	1	4	4	-	1	19	29	8	6
Hawaii	1	-	3	7	2	2	-	-	58	58	-	-
Guam	-	-	-	-	1	2	2	1	28	4	-	-
P.R.	-	-	-	-	3	12	57	114	20	53	9	26
V.I.	-	-	-	-	-	-	-	1	-	-	-	-
Amer. Samoa	-	-	-	-	-	-	-	-	-	2	-	-
C.N.M.I.	-	-	-	-	-	-	1	-	-	11	-	-

N: Not notifiable

U: Unavailable

-: no reported cases

TABLE III. Cases of selected notifiable diseases preventable by vaccination, United States, weeks ending May 4, 1996, and May 6, 1995 (18th Week)

Reporting Area	<i>H. influenzae</i> , invasive		Hepatitis (viral), by type				Measles (Rubeola)			
	Cum. 1996*	Cum. 1995	A		B		Indigenous		Imported†	
			Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	1996	Cum. 1996	1996	Cum. 1996
UNITED STATES	471	490	8,474	8,728	2,821	3,232	5	89	1	9
NEW ENGLAND	12	26	103	64	53	73	-	5	-	1
Maine	2	1	10	13	2	2	-	-	-	-
N.H.	7	6	3	4	2	8	U	-	U	-
Vt.	-	1	2	3	2	1	-	1	-	-
Mass.	3	7	53	19	16	22	-	3	-	1
R.I.	-	-	3	9	4	7	-	-	-	-
Conn.	-	11	32	16	27	33	-	1	-	-
MID. ATLANTIC	69	48	566	494	444	383	-	2	-	2
Upstate N.Y.	21	14	139	107	115	111	-	-	-	-
N.Y. City	7	8	244	219	203	87	-	2	-	1
N.J.	25	8	123	76	88	118	-	-	-	-
Pa.	16	18	60	92	38	67	-	-	-	1
E.N. CENTRAL	69	90	723	1,222	298	399	-	3	-	2
Ohio	45	47	348	698	45	35	-	2	-	-
Ind.	2	14	121	56	45	90	-	-	-	-
Ill.	14	22	99	240	42	109	-	-	-	-
Mich.	3	7	116	138	144	138	-	-	-	2
Wis.	5	-	39	90	22	27	-	1	-	-
W.N. CENTRAL	20	30	665	488	176	224	-	4	-	1
Minn.	7	12	27	51	6	16	-	4	-	1
Iowa	6	2	168	24	68	15	-	-	-	-
Mo.	5	13	301	345	78	160	-	-	-	-
N. Dak.	-	-	17	10	-	2	-	-	-	-
S. Dak.	1	-	29	11	-	1	-	-	-	-
Nebr.	1	1	76	12	6	14	-	-	-	-
Kans.	-	2	47	35	18	16	-	-	-	-
S. ATLANTIC	113	133	290	367	393	449	-	2	-	-
Del.	1	-	5	6	1	3	-	1	-	-
Md.	27	37	73	71	103	93	-	1	-	-
D.C.	1	-	12	3	14	9	-	-	-	-
Va.	3	12	52	69	52	34	-	-	-	-
W. Va.	4	6	8	10	10	21	-	-	-	-
N.C.	13	18	42	42	129	116	-	-	-	-
S.C.	3	-	29	13	35	19	-	-	-	-
Ga.	57	28	7	39	5	47	-	-	-	-
Fla.	4	32	62	114	44	107	-	-	-	-
E.S. CENTRAL	8	4	716	484	291	365	-	-	-	-
Ky.	2	1	8	23	21	38	-	-	-	-
Tenn.	-	-	513	391	189	285	-	-	-	-
Ala.	5	3	81	40	20	42	-	-	-	-
Miss.	1	-	114	30	61	-	-	-	-	-
W.S. CENTRAL	14	20	1,464	873	269	334	-	-	-	1
Ark.	-	4	206	60	30	12	-	-	-	-
La.	-	1	47	32	39	64	-	-	-	-
Okla.	14	13	643	191	33	42	-	-	-	-
Tex.	-	2	568	590	167	216	-	-	-	1
MOUNTAIN	56	42	1,089	1,488	326	244	1	6	1	1
Mont.	-	-	50	24	4	8	-	-	-	-
Idaho	1	2	116	160	48	34	-	-	-	-
Wyo.	29	2	13	54	12	6	-	-	-	-
Colo.	5	7	22	187	8	45	-	1	1	1
N. Mex.	7	6	183	284	138	90	-	-	-	-
Ariz.	7	12	350	421	59	32	1	2	-	-
Utah	5	4	296	310	43	19	-	-	-	-
Nev.	2	9	59	48	14	10	-	3	-	-
PACIFIC	110	97	2,858	3,248	571	761	4	67	-	1
Wash.	1	4	200	193	40	57	-	4	-	-
Oreg.	15	12	422	654	27	41	-	-	-	-
Calif.	92	79	2,179	2,329	500	652	-	1	-	-
Alaska	-	-	26	15	2	5	4	62	-	-
Hawaii	2	2	31	57	2	6	-	-	-	1
Guam	-	-	2	2	-	-	U	-	U	-
P.R.	-	3	31	14	118	106	-	1	-	-
V.I.	-	-	-	-	-	1	U	-	U	-
Amer. Samoa	-	-	-	5	-	-	U	-	U	-
C.N.M.I.	10	-	1	12	5	5	U	-	U	-

*Of 99 cases among children aged <5 years, serotype was reported for 23 and of those, 4 were type B.

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

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

TABLE III. (Cont'd.) Cases of selected notifiable diseases preventable by vaccination, United States, weeks ending May 4, 1996, and May 6, 1995 (18th Week)

Reporting Area	Measles (Rubeola), cont'd.		Mumps			Pertussis			Rubella		
	Total		1996	Cum. 1996	Cum. 1995	1996	Cum. 1996	Cum. 1995	1996	Cum. 1996	Cum. 1995
	Cum. 1996	Cum. 1995									
UNITED STATES	98	189	16	211	310	44	870	937	2	63	29
NEW ENGLAND	6	4	-	-	4	7	159	148	-	8	3
Maine	-	-	-	-	2	-	8	17	-	-	-
N.H.	-	-	U	-	-	U	17	8	U	-	1
Vt.	1	-	-	-	-	-	6	3	-	1	-
Mass.	4	2	-	-	1	7	125	114	-	5	2
R.I.	-	2	-	-	-	-	-	-	-	-	-
Conn.	1	-	-	-	1	-	3	6	-	2	-
MID. ATLANTIC	4	3	1	26	43	4	82	82	-	4	3
Upstate N.Y.	-	-	-	7	12	-	44	46	-	3	-
N.Y. City	3	-	-	4	6	-	13	14	-	1	2
N.J.	-	3	-	-	7	-	-	6	-	-	1
Pa.	1	-	1	15	18	4	25	16	-	-	-
E.N. CENTRAL	5	6	4	55	55	1	127	103	-	3	-
Ohio	2	-	2	23	18	1	54	36	-	-	-
Ind.	-	-	-	5	5	-	10	8	-	-	-
Ill.	-	-	1	11	15	-	46	20	-	1	-
Mich.	2	4	1	16	17	-	12	27	-	2	-
Wis.	1	2	-	-	-	-	5	12	-	-	-
W.N. CENTRAL	5	1	-	2	20	3	37	59	-	1	-
Minn.	5	-	-	-	2	3	30	22	-	-	-
Iowa	-	-	-	-	3	-	2	1	-	1	-
Mo.	-	1	-	-	12	-	1	12	-	-	-
N. Dak.	-	-	-	2	-	-	-	5	-	-	-
S. Dak.	-	-	-	-	-	-	1	6	-	-	-
Nebr.	-	-	-	-	3	-	-	3	-	-	-
Kans.	-	-	-	-	-	-	3	10	-	-	-
S. ATLANTIC	2	1	2	21	52	22	99	95	1	11	5
Del.	1	-	-	-	-	-	7	5	-	-	-
Md.	1	-	1	9	12	2	37	9	-	-	-
D.C.	-	-	-	-	-	-	-	2	-	-	-
Va.	-	-	-	3	12	2	5	7	-	-	-
W. Va.	-	-	-	-	-	-	2	-	-	-	-
N.C.	-	-	-	-	16	16	25	49	-	-	-
S.C.	-	-	-	3	5	1	5	10	1	1	-
Ga.	-	-	-	1	-	-	2	-	-	-	-
Fla.	-	1	1	5	7	1	16	13	-	10	5
E.S. CENTRAL	-	-	-	10	9	-	17	24	-	2	-
Ky.	-	-	-	-	-	-	5	1	-	-	-
Tenn.	-	-	-	1	-	-	7	4	-	-	-
Ala.	-	-	-	4	3	-	1	19	-	-	-
Miss.	-	-	-	5	6	-	4	-	N	N	N
W.S. CENTRAL	1	2	1	9	20	1	18	47	-	1	2
Ark.	-	2	-	-	5	-	2	6	-	-	-
La.	-	-	1	8	6	1	3	1	-	1	-
Okla.	-	-	-	-	-	-	4	7	-	-	-
Tex.	1	-	-	1	9	-	9	33	-	-	2
MOUNTAIN	7	57	1	18	11	3	113	224	-	1	3
Mont.	-	-	-	-	-	-	3	3	-	-	-
Idaho	-	-	-	-	2	3	44	70	-	-	-
Wyo.	-	-	-	-	-	-	-	-	-	-	-
Colo.	2	17	1	1	-	-	17	32	-	-	-
N. Mex.	-	29	N	N	N	-	25	20	-	-	-
Ariz.	2	10	-	1	1	-	4	93	-	1	3
Utah	-	-	-	1	1	-	3	5	-	-	-
Nev.	3	1	-	15	7	-	17	1	-	-	-
PACIFIC	68	115	7	70	96	3	218	155	1	32	13
Wash.	4	16	1	8	5	3	72	27	-	1	-
Oreg.	-	1	N	N	N	-	23	11	-	-	1
Calif.	1	97	3	47	78	-	115	109	1	29	11
Alaska	62	-	-	2	12	-	-	-	-	-	-
Hawaii	1	1	3	13	1	-	8	8	-	2	1
Guam	-	-	U	2	3	U	-	-	U	-	-
P.R.	1	3	-	1	1	-	-	5	-	-	-
V.I.	-	-	U	-	1	U	-	-	U	-	-
Amer. Samoa	-	-	U	-	-	U	-	-	U	-	-
C.N.M.I.	-	-	U	-	-	U	-	-	U	-	-

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

TABLE IV. Deaths in 121 U.S. cities,* week ending
May 4, 1996 (18th Week)

Reporting Area	All Causes, By Age (Years)						P&J†	Total	Reporting Area	All Causes, By Age (Years)						P&J†	Total
	All Ages	≥65	45-64	25-44	1-24	<1				All Ages	≥65	45-64	25-44	1-24	<1		
NEW ENGLAND	527	369	89	44	13	10	26	S. ATLANTIC	1,312	814	283	156	35	22	80		
Boston, Mass.	118	62	29	20	3	2	9	Atlanta, Ga.	165	94	39	27	2	3	7		
Bridgeport, Conn.	37	28	3	3	-	3	3	Baltimore, Md.	255	141	59	39	8	8	28		
Cambridge, Mass.	21	18	3	-	-	-	1	Charlotte, N.C.	123	81	29	13	-	-	12		
Fall River, Mass.	29	24	5	-	-	-	-	Jacksonville, Fla.	122	84	24	11	3	-	2		
Hartford, Conn.	59	35	16	3	3	2	3	Miami, Fla.	100	63	20	14	3	-	-		
Lowell, Mass.	24	15	7	-	2	-	-	Norfolk, Va.	65	38	13	8	2	4	3		
Lynn, Mass.	11	8	1	2	-	-	-	Richmond, Va.	76	51	16	5	3	1	4		
New Bedford, Mass.	19	15	3	1	-	-	1	Savannah, Ga.	47	29	10	6	1	1	3		
New Haven, Conn.	34	26	1	4	-	3	-	St. Petersburg, Fla.	71	58	7	3	2	1	3		
Providence, R.I.	42	31	4	6	1	-	1	Tampa, Fla.	185	123	38	16	4	2	16		
Somerville, Mass.	5	5	-	-	-	-	-	Washington, D.C.	88	42	25	14	5	2	2		
Springfield, Mass.	50	36	10	1	3	-	2	Wilmington, Del.	15	10	3	-	2	-	-		
Waterbury, Conn.	18	14	3	-	1	-	1	E.S. CENTRAL	819	558	167	62	19	13	68		
Worcester, Mass.	60	52	4	4	-	-	5	Birmingham, Ala.	132	86	25	10	7	4	1		
MID. ATLANTIC	2,243	1,517	459	193	37	35	102	Chattanooga, Tenn.	74	50	14	7	-	3	7		
Albany, N.Y.	52	39	6	4	-	3	1	Knoxville, Tenn.	85	54	25	6	-	-	12		
Allentown, Pa.	21	16	5	-	-	-	-	Lexington, Ky.	64	44	11	7	2	-	7		
Buffalo, N.Y.	84	67	10	5	2	-	3	Memphis, Tenn.	182	134	33	13	2	-	19		
Camden, N.J.	35	21	8	4	1	1	2	Mobile, Ala.	88	58	23	4	3	-	7		
Elizabeth, N.J.	32	23	5	3	-	1	-	Montgomery, Ala.	62	42	10	6	-	4	4		
Erie, Pa.§	52	42	4	1	3	2	5	Nashville, Tenn.	132	90	26	9	5	2	11		
Jersey City, N.J.	48	26	15	5	-	2	1	W.S. CENTRAL	1,508	980	293	135	50	50	98		
New York City, N.Y.	1,177	748	273	118	22	16	46	Austin, Tex.	70	40	18	8	-	4	7		
Newark, N.J.	59	27	13	13	4	1	3	Baton Rouge, La.	49	38	8	2	1	-	2		
Paterson, N.J.	19	16	1	2	-	-	2	Corpus Christi, Tex.	52	37	11	3	-	1	4		
Philadelphia, Pa.	300	222	54	19	1	4	14	Dallas, Tex.	246	164	38	26	8	10	9		
Pittsburgh, Pa.§	50	33	13	2	-	2	8	El Paso, Tex.	97	67	20	6	3	1	10		
Reading, Pa.	23	17	6	-	-	-	1	Ft. Worth, Tex.	95	60	20	13	1	1	1		
Rochester, N.Y.	121	91	19	8	1	2	6	Houston, Tex.	326	201	73	37	10	5	32		
Schenectady, N.Y.	27	22	2	3	-	-	2	Little Rock, Ark.	91	55	11	4	5	16	6		
Scranton, Pa.§	29	24	2	2	1	-	-	New Orleans, La.	121	74	31	9	5	2	-		
Syracuse, N.Y.	77	54	16	4	2	-	4	San Antonio, Tex.	205	138	32	19	10	6	15		
Trenton, N.J.	17	12	4	-	-	1	4	Shreveport, La.	44	29	8	4	2	1	2		
Utica, N.Y.	20	17	3	-	-	-	-	Tulsa, Okla.	112	77	23	4	5	3	10		
Yonkers, N.Y.	U	U	U	U	U	U	U	MOUNTAIN	924	630	170	77	25	21	70		
E.N. CENTRAL	2,093	1,360	425	188	56	63	133	Albuquerque, N.M.	98	68	18	7	5	-	10		
Akron, Ohio	55	41	7	3	2	2	-	Colo. Springs, Colo.	55	43	7	5	-	-	3		
Canton, Ohio	28	23	2	2	-	1	5	Denver, Colo.	114	73	20	14	2	5	12		
Chicago, Ill.	434	241	102	63	17	10	31	Las Vegas, Nev.	188	125	46	10	3	4	12		
Cincinnati, Ohio	107	73	15	11	3	5	9	Ogden, Utah	27	20	6	-	1	-	2		
Cleveland, Ohio	177	92	47	23	5	10	1	Phoenix, Ariz.	176	109	31	20	9	6	4		
Columbus, Ohio	160	107	31	13	2	7	10	Pueblo, Colo.	25	21	2	-	1	1	5		
Dayton, Ohio	124	98	18	5	2	1	12	Salt Lake City, Utah	95	64	21	7	-	3	9		
Detroit, Mich.	230	125	62	30	7	6	16	Tucson, Ariz.	146	107	19	14	4	2	13		
Evansville, Ind.	35	25	7	1	1	1	2	PACIFIC	1,890	1,325	326	169	38	31	148		
Fort Wayne, Ind.	72	50	19	3	-	1	7	Berkeley, Calif.	19	17	1	1	-	-	3		
Gary, Ind.	20	7	4	5	3	1	-	Fresno, Calif.	79	61	8	7	1	2	7		
Grand Rapids, Mich.	66	50	11	1	-	4	4	Glendale, Calif.	37	29	6	1	1	-	11		
Indianapolis, Ind.	156	109	25	14	3	5	11	Honolulu, Hawaii	90	65	16	5	2	1	2		
Madison, Wis.	10	9	-	-	1	-	1	Long Beach, Calif.	93	66	18	5	4	-	10		
Milwaukee, Wis.	129	90	26	5	5	3	1	Los Angeles, Calif.	629	440	113	56	9	11	25		
Peoria, Ill.	41	29	10	-	-	2	5	Pasadena, Calif.	47	32	6	7	-	2	1		
Rockford, Ill.	50	42	4	1	-	3	9	Portland, Ore.	102	77	10	12	2	1	8		
South Bend, Ind.	45	34	9	1	1	-	1	Sacramento, Calif.	U	U	U	U	U	U	U		
Toledo, Ohio	90	74	8	4	3	1	7	San Diego, Calif.	159	104	29	18	5	3	24		
Youngstown, Ohio	64	41	18	3	1	1	1	San Francisco, Calif.	158	104	30	21	2	1	12		
W.N. CENTRAL	761	560	101	58	11	22	43	San Jose, Calif.	173	123	28	14	4	4	22		
Des Moines, Iowa	U	U	U	U	U	U	U	Santa Cruz, Calif.	30	23	6	-	-	1	4		
Duluth, Minn.	20	16	4	-	-	-	-	Seattle, Wash.	140	93	27	11	5	4	3		
Kansas City, Kans.	52	30	14	5	1	2	-	Spokane, Wash.	54	37	11	4	1	1	7		
Kansas City, Mo.	126	88	15	7	1	6	4	Tacoma, Wash.	80	54	17	7	2	-	9		
Lincoln, Nebr.	44	33	4	5	2	-	3	TOTAL	12,077 [†]	8,113	2,313	1,082	284	267	768		
Minneapolis, Minn.	170	126	21	17	2	4	15										
Omaha, Nebr.	77	58	10	7	-	2	4										
St. Louis, Mo.	113	90	9	7	4	3	6										
St. Paul, Minn.	68	58	6	4	-	-	8										
Wichita, Kans.	91	61	18	6	1	5	3										

*Mortality data in this table are voluntarily reported from 121 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 these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages.

U: Unavailable - -: no reported cases

Contributors to the Production of the *MMWR* (Weekly)

Weekly Notifiable Disease Morbidity Data and 121 Cities Mortality Data

Denise Koo, M.D., M.P.H.

Deborah A. Adams

Timothy M. Copeland

Patsy A. Hall

Carol M. Knowles

Sarah H. Landis

Myra A. Montalbano

Graphics Support

Sandra L. Ford

Beverly J. Holland

Desktop Publishing

Jolene W. Altman

Morie M. Higgins

Peter M. Jenkins

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

Data in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the following Friday. Address inquiries about the *MMWR* Series, including material to be considered for publication, to: Editor, *MMWR* Series, Mailstop C-08, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333; telephone (404) 332-4555.

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

Director, Centers for Disease Control
and Prevention
David Satcher, M.D., Ph.D.
Deputy Director, Centers for Disease Control
and Prevention
Claire V. Broome, M.D.
Director, Epidemiology Program Office
Stephen B. Thacker, M.D., M.Sc.

Editor, *MMWR* Series
Richard A. Goodman, M.D., M.P.H.
Managing Editor, *MMWR* (weekly)
Karen L. Foster, M.A.
Writers-Editors, *MMWR* (weekly)
David C. Johnson
Darlene D. Rumph-Person
Caran R. Wilbanks

☆ U.S. Government Printing Office: 1996-733-175/47001 Region IV