CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

September 19, 1997 / Vol. 46 / No. 37

MMWR™

MORBIDITY AND MORTALITY WEEKLY REPORT

Update: Trends in AIDS Incidence — United States, 1996

Provisional surveillance data about acquired immunodeficiency syndrome (AIDS) for the first 6 months of 1996 indicated a decrease in deaths among persons with AIDS, attributed primarily to the effect of antiretroviral therapies on the survival of persons infected with human immunodeficiency virus (HIV) (*1*). This report describes a decline in AIDS incidence during 1996 compared with 1995 and the continued decline in AIDS deaths; the findings indicate that HIV therapies are having a widespread beneficial impact on the rate of HIV disease progression in the United States.*

Cumulative AIDS cases among persons aged ≥13 years reported to CDC through June 1997 from the 50 states, the District of Columbia, and the U.S. territories were analyzed by sex, age, race/ethnicity, and mode of risk/exposure† (*2*). Estimates of AIDS incidence and deaths were adjusted for delays in reporting. For analyses by risk/exposure, estimates were adjusted for the anticipated reclassification of cases initially reported without an HIV risk/exposure (*2*). To adjust for the 1993 expansion of the AIDS reporting criteria§, estimates of the incidence of AIDS-opportunistic illnesses (AIDS-OIs) were calculated from the sum of cases reported with an AIDS-OI and cases with estimated dates of diagnosis of an AIDS-OI that were reported based only on immunologic criteria (*2*). AIDS-OI incidence was estimated quarterly through December 1996 (the most recent period for which reliable estimates were available). Deaths among persons with AIDS were identified by review of medical records and death certificates and represent both deaths from HIV-related and other causes. AIDS prevalence was estimated as the cumulative incidence of AIDS based on the 1993 expanded AIDS case criteria minus cumulative deaths. Populations with <500 estimated cases were excluded because the estimates of annual percentage change from 1995 to 1996 in AIDS-OI incidence, deaths, and prevalence are not reliable.

*Single copies of this report will be available until September 19, 1998, from the CDC National AIDS Clearinghouse, P.O. Box 6003, Rockville, MD 20849-6003; telephone (800) 458-5231 or (301) 217-0023.

†Categories included persons aged 20–64 years of white, black, or Hispanic race/ethnicity but excluded persons infected through receipt of contaminated blood/blood products and persons with other or no risks reported.

§Conditions in HIV-infected persons that were added to the AIDS case definition in 1993 included laboratory measures of severe immunosuppression (i.e., CD4+ T-lymphocyte count <200 cells/μL or percentage of total lymphocytes <14) and three clinical conditions: pulmonary tuberculosis, recurrent pneumonia, and invasive cervical cancer.

AIDS Incidence — Continued

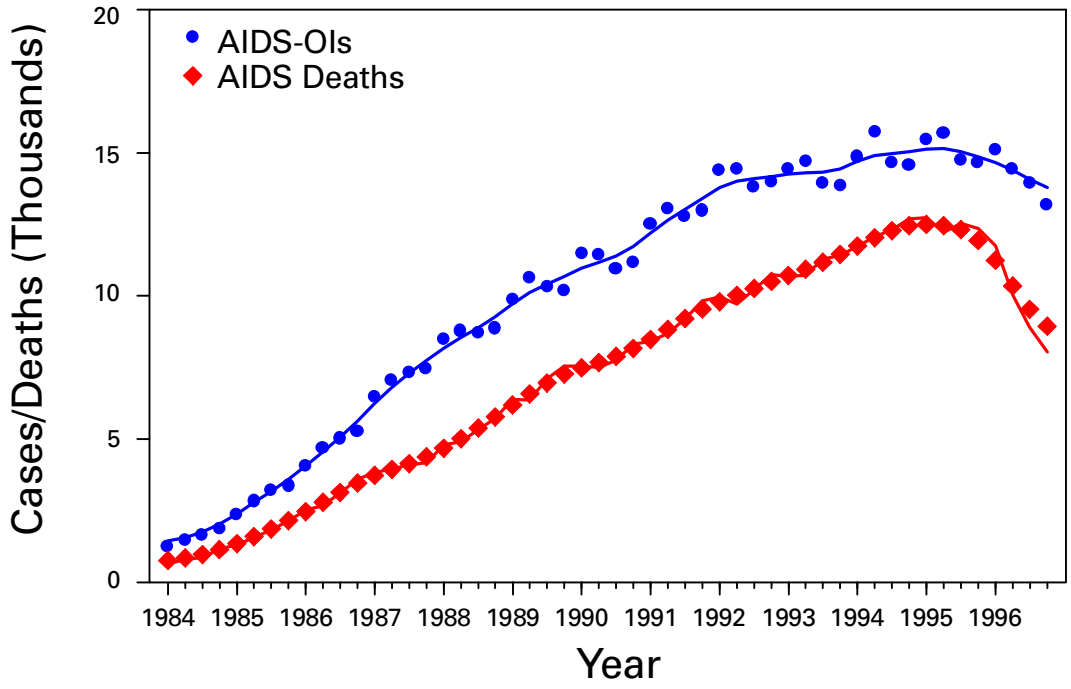
AIDS-OI Incidence

During 1996, AIDS-OIs were diagnosed in an estimated 56,730 persons, a decline of 6% compared with 1995 (Figure 1). This represents the first calendar year during which AIDS-OI incidence overall did not increase in the United States.

From 1995 to 1996, AIDS-OI incidence declined in all four geographic regions of the United States (West [12%], Midwest [10%], Northeast [8%], and South [1%])¶. AIDS-OI incidence decreased in all 5-year age groups; men; non-Hispanic whites and Hispanics; men who have sex with men (MSM); injecting-drug users (IDUs); and men who reported both of these exposures (MSM-IDUs) (Table 1). The largest proportionate declines occurred among non-Hispanic white MSM (Figure 2) and non-Hispanic white and black MSM-IDUs (Table 2). AIDS-OI incidence leveled among non-Hispanic blacks. The greatest proportionate increases in AIDS-OI incidence occurred among non-Hispanic black men (19%), Hispanic men (13%), and non-Hispanic black women (12%) who had heterosexual risk/exposures (Table 2).

¶ *Northeast*=Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; *Midwest*=Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; *South*=Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia; and *West*=Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

FIGURE 1. Estimated incidence of AIDS-opportunistic illnesses (AIDS-OIs) and estimated number of deaths among persons aged ≥13 years with AIDS (AIDS deaths), adjusted for delays in reporting, by quarter year of diagnosis/death — United States, 1984–1996*



*Points represent quarterly incidence; lines represent "smoothed" incidence. Estimates are not adjusted for incomplete reporting of AIDS cases.

AIDS Incidence — Continued

TABLE 1. Estimated incidence* of AIDS-opportunistic illnesses (AIDS-OIs) and estimated number of deaths among persons aged ≥13 years reported with AIDS, by sex, race/ethnicity†, exposure category, and percentage change in AIDS-OIs and deaths from 1995 to 1996 — United States

Characteristic	AIDS-OIs			Deaths		
	1995 No.	1996 No.	% Change from 1995 to 1996	1995 No.	1996 No.	% Change from 1995 to 1996
Sex						
Men	49,360	45,240	– 8	42,000	31,440	–25
Women	11,260	11,490	2	8,140	7,340	–10
Race/Ethnicity						
White, non-Hispanic	24,370	21,130	–13	21,700	14,670	–32
Black, non-Hispanic	24,090	24,030	0	18,840	16,460	–13
Hispanic	11,410	10,800	– 5	9,010	7,220	–20
Exposure category						
MSM§	28,640	25,530	–11	24,880	17,310	–30
MSM-IDU¶	3,580	3,030	–15	3,310	2,490	–25
Male-IDU	12,880	12,140	– 6	10,790	8,970	–17
Female-IDU	4,950	4,750	– 4	3,830	3,440	–10
Heterosexual contact						
Male	3,420	3,790	11	2,300	2,120	– 8
Female	5,900	6,320	7	3,980	3,640	– 8
Total**	**60,620**	**56,730**	**– 6**	**50,140**	**38,780**	**–23**

*Estimates are presented rounded to the nearest 10 because they do not represent exact counts of persons with AIDS-OIs but are estimates that are approximately ±3% of the true value.
†Numbers for races other than black and white were too small for meaningful analysis. Persons of Hispanic origin may be of any race.
§Men who have sex with men.
¶Injecting-drug user.
**Includes persons aged ≥13 years with hemophilia/coagulation disorders, transfusion recipients, or with other or no risks reported.

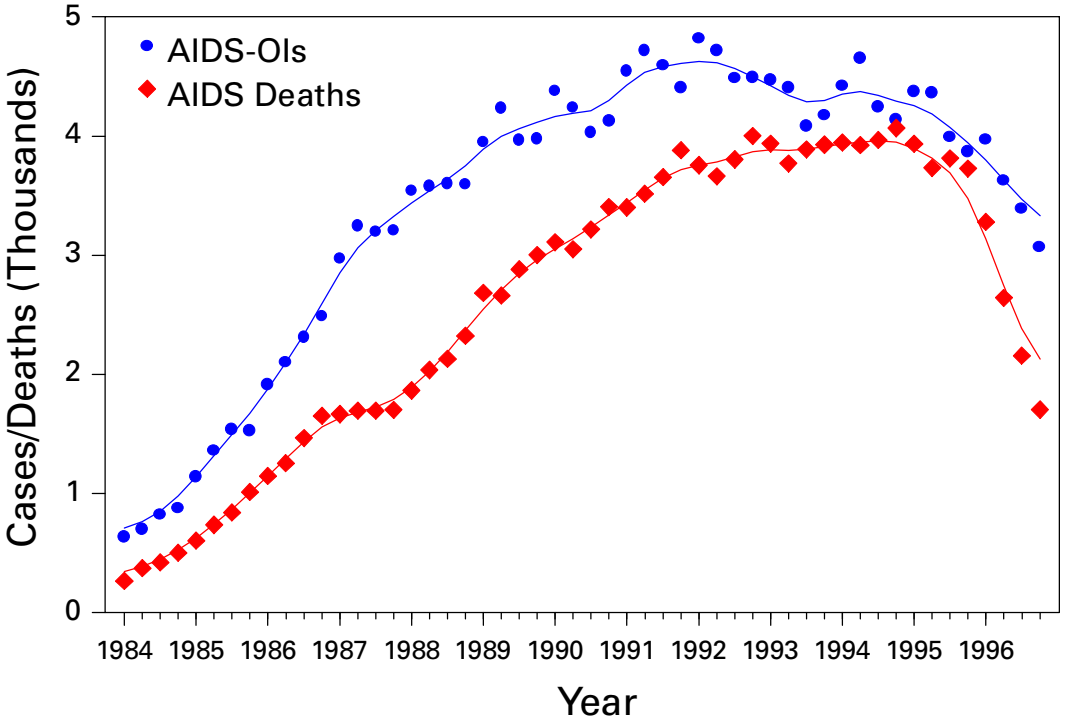
From 1995 to 1996, annual AIDS incidence changed abruptly compared with the magnitude and direction of the average annual changes in AIDS-OI incidence during 1992–1995. During these years, AIDS-OI incidence increased but was characterized by a slowing in the growth of the epidemic overall (average annual change from 1992 to 1995 was 2%) (*1,2*). The magnitude and/or the direction of the average annual change in AIDS-OI incidence from 1992 to 1995 was substantially different from the change from 1995 to 1996 among men (1% versus –8%) and women (10% versus 2%); whites (–2% versus –13%), non-Hispanic blacks (7% versus 0), and Hispanics (4% versus –5%); MSM (–1% versus –11%), men and women IDUs (3% versus –6% and 5% versus –4% , respectively), and MSM-IDUs (–3% versus –15%).

Deaths Among Persons Reported with AIDS

Deaths among persons reported with AIDS declined 23% in 1996 compared with 1995, with the largest declines occurring during the last three quarters of 1996 (Figure 1). From 1995 to 1996, deaths declined in all four geographic regions (West

AIDS Incidence — Continued

FIGURE 2. Estimated incidence of AIDS-opportunistic illnesses (AIDS-OIs) and estimated number of deaths among non-Hispanic white men who have sex with men aged ≥13 years with AIDS (AIDS deaths), adjusted for delays in reporting, by quarter year of diagnosis/death — United States, 1984–1996*



*Points represent quarterly incidence; lines represent "smoothed" incidence. Estimates are not adjusted for incomplete reporting of AIDS cases.

TABLE 2. Estimated incidence* of AIDS-opportunistic illnesses (AIDS-OIs) among persons aged ≥13 years, by race/ethnicity†, sex, and exposure category, and percentage change from 1995 to 1996 — United States

Exposure category	White, non-Hispanic			Black, non-Hispanic			Hispanic		
	1995	1996	% Change from 1995 to 1996	1995	1996	% Change from 1995 to 1996	1995	1996	% Change from 1995 to 1996
Men									
MSM§	16,600	14,060	–15	7,330	7,110	– 3	4,250	3,900	– 8
IDU¶	2,470	2,280	– 8	6,840	6,540	– 4	3,470	3,240	– 7
MSM-IDU	1,690	1,410	–17	1,290	1,120	–13	**	**	**
Heterosexual	640	620	– 2††	1,970	2,340	19	780	880	13
Women									
IDU	1,090	1,030	– 5††	2,920	2,860	– 2	900	820	– 9
Heterosexual	1,270	1,220	– 4	3,300	3,700	12	1,270	1,330	5

*Estimates are presented rounded to the nearest 10 because they do not represent exact counts of persons with AIDS-OIs but are estimates that are approximately ±3% of the true value.
†Numbers for races other than black and white were too small for meaningful analysis. Persons of Hispanic origin may be of any race.
§Men who have sex with men.
¶Injecting-drug user.
**Excluded because estimates were <500.
††The annual percentage changes were calculated from modeled point estimates before rounding.

AIDS Incidence — Continued

[33%], Midwest [25%], Northeast [22%], and South [19%]); among men and women; among all racial/ethnic groups; and in all risk/exposure categories (Table 1).

AIDS Prevalence

Approximately 235,470 persons in whom AIDS has been diagnosed are still living, and from 1995 to 1996, the prevalence of AIDS increased 11% (Table 3). MSM accounted for the largest proportion (48%) of persons with AIDS, and the largest proportionate increases in prevalence occurred among men and women who acquired AIDS through heterosexual contact (28% and 23%, respectively), the only risk/exposure category that experienced increases in AIDS-OI incidence.

Reported by: State and local health depts. Div of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, CDC.

Editorial Note: The findings in this report document the first overall decline in the annual incidence of AIDS-OIs in the United States. Concurrently, annual deaths among persons aged ≥13 years reported with AIDS also have decreased. Temporal trends in AIDS cases and deaths are the result of changes in the rate of new HIV infections, AIDS diagnoses resulting from progression of HIV disease to AIDS, and deaths of HIV-infected persons. The declines in AIDS-OI incidence and deaths reflect the impact of both HIV prevention efforts and the use of antiretroviral therapies and AIDS-OI prophylaxis.

During 1996, AIDS-OI incidence declined for almost all populations and in all regions of the country, and deaths declined substantially (23%) compared with 1995. The actual decline in AIDS-OI incidence is probably greater than the estimates in this report because there are insufficient longitudinal clinical data to model the impact of the newly available antiretroviral therapies on AIDS-OI incidence. However, the 1996 AIDS surveillance data are consistent with reports that recent improvements in HIV

TABLE 3. Estimated prevalence* of AIDS among persons aged ≥13 years, by sex and exposure category, and percentage change from 1995 to 1996 — United States

Exposure category	1995		1996		% Change from 1995 to 1996
	No.	(%)	No.	(%)	
Men					
MSM†	101,970	(48)	111,860	(48)	10
IDU§	43,800	(21)	48,000	(20)	10
MSM-IDU	14,170	(7)	14,660	(6)	3
Heterosexual	9,620	(5)	12,300	(5)	28
Total	**173,560**	**(82)**	**191,040**	**(81)**	**10**
Women					
IDU	17,840	(8)	19,700	(8)	10
Heterosexual	18,610	(9)	22,860	(10)	23
Total	**38,080**	**(18)**	**44,440**	**(19)**	**17**
Total¶	**211,650**	**(100)**	**235,470**	**(100)**	**11**

*Estimates are presented rounded to the nearest 10 because they do not represent exact counts of persons with AIDS-OIs but are estimates that are approximately ±3% of the true value.
†Men who have sex with men.
§Injecting-drug users.
¶Includes persons aged ≥13 years with hemophilia/coagulation disorders, transfusion recipients, or with other or no risks reported. The sum of the estimates for men and women may not equal total annual estimates because of rounding.

AIDS Incidence — Continued

care are preventing or delaying the onset of AIDS-OI and deaths among many populations of HIV-infected persons (*3*). Recent declines in AIDS incidence also have been reported in several western European countries and have been attributed to widespread use of combination antiretroviral therapies (*4*).

Data from CDC's Adult/Adolescent Spectrum of Disease (ASD) (*5*) project indicate that an increasing proportion of HIV-infected persons are receiving combination antiretroviral therapy. Among HIV-infected persons observed in clinical care in ASD during 1995–1996, the prescribed use of combination antiretroviral therapy increased from 24% of 5027 persons in the second half of 1995 to 65% of 2973 persons in the second half of 1996 (CDC, unpublished data, 1997). Use of these therapies is expected to increase because revised HIV treatment guidelines recommend earlier initiation of combination antiretroviral therapy in HIV-infected persons without AIDS-defining conditions (*6*).

Ensuring timely access to HIV-care services for HIV-infected persons remains important because in many persons HIV infection is not diagnosed until AIDS is diagnosed (*7*). To enable HIV-infected persons to benefit from treatment advances, HIV counseling and testing programs in screening and health-care settings must better facilitate early diagnosis of HIV infection and ensure that HIV-infected persons have access to care and treatment services.

Despite the decreases in AIDS-OI incidence and deaths in 1996, AIDS-OI incidence remained high, and HIV infection remained a leading cause of death among persons aged 25–44 years (*8*). AIDS-OI incidence continued to increase among persons who were infected through heterosexual contact. Until effective vaccines are developed, continued emphasis on behavioral risk-reduction and other prevention strategies targeted to these populations is the most effective way to reduce HIV infections.

The 1996 AIDS surveillance trends illustrate how surveillance data are now affected by both patterns of HIV incidence and HIV treatment advances. In comparison, surveillance based on a diagnosis of HIV infection is not affected by changes in the progression of HIV disease. CDC supports both HIV and AIDS surveillance in 30 states. Among these states, the number of prevalent HIV and AIDS cases combined is approximately 2.5 times greater than the number of prevalent AIDS cases alone (*1,2*). HIV/AIDS surveillance programs in these states provide a more timely measure of emerging patterns of HIV transmission, a more complete estimate of the number of persons with HIV infection and disease, and a better mechanism to evaluate access to HIV testing and medical and prevention services than AIDS surveillance alone (*9*).

Although AIDS surveillance continues to be essential for understanding reasons for the lack of timely access to HIV testing and care and the failure of treatment regimens to delay HIV disease progression, HIV surveillance is becoming increasingly important as more infected persons receive effective antiretroviral therapy. In June 1997, the Council of State and Territorial Epidemiologists (CSTE) recommended that all states implement HIV case reporting by name from health-care providers and laboratories (*10*). The Association of State and Territorial Health Officers has provisionally endorsed the CSTE recommendation pending a vote of its full membership. CDC recently provided additional resources to state and local surveillance programs that plan to or are conducting HIV case surveillance in addition to AIDS surveillance.

All states and territories should conduct HIV case surveillance as an extension of their AIDS Surveillance programs, and CDC is developing HIV surveillance policy and

AIDS Incidence — Continued

technical guidance to assist all states and territories to conduct HIV/AIDS case surveillance. CDC and CSTE recently convened a consultation** to discuss the objectives and methods of conducting HIV/AIDS case surveillance. CDC will continue to foster a collaborative approach among public health authorities, health-care providers, and the community to meet their information needs and to ensure the confidentiality of HIV/AIDS surveillance data.

References

1. CDC. Update: trends in AIDS incidence, deaths, and prevalence—United States, 1996. MMWR 1997;46:165–73.
2. CDC. HIV/AIDS surveillance report. Atlanta: US Department of Health and Human Services, Public Health Service, 1996; (vol 8, no. 2).
3. Hammer SM, Squires KE, Hughes MD, et al. A controlled trial of two nucleoside analogues plus indinavir in persons with human immunodeficiency virus infection and CD4 cell counts of 200 per cubic millimeter or less. N Engl J Med 1997;337:725–33.
4. Hamers F, Downs A, Alix J, Brunet JB. AIDS trends in Europe: decrease in the west, increase in the east. Eurosurveillance 1997;2:36–7.
5. Farizo KM, Buehler JW, Chamberland ME, et al. Spectrum of disease in persons with human immunodeficiency virus infection in the United States. JAMA 1992;267:1798–805.
6. Carpenter CC, Fischl MA, Hammer SM, et al. Antiretroviral therapy for HIV infection in 1997: updated recommendations of the International AIDS Society–USA panel. JAMA 1997;277:1962–9.
7. Wortley PM, Chu SY, Diaz T, et al. HIV testing patterns: where, why, and when were persons with AIDS tested for HIV? AIDS 1995;9:487–92.
8. Ventura SJ, Peters KD, Martin JA, Maurer JD. Births and deaths: United States, 1996. Hyattsville, Maryland: US Department of Health and Human Services, Public Health Service, CDC, National Center for Health Statistics, 1997. (Monthly vital statistics report; vol 45, no. 12, suppl).
9. CDC. Public health uses of HIV infection reports—South Carolina, 1986-1991. MMWR 1992;41:245–9.
10. Council of State and Territorial Epidemiologists. CSTE: position statement ID-4. National HIV surveillance: addition to the National Public Health Surveillance System. Atlanta: Council of State and Territorial Epidemiologists, 1997.

** The Consultation on the Future of HIV/AIDS Surveillance was held in Atlanta on May 21–22, 1997, sponsored by CSTE and CDC. Documents presented at the meeting and a meeting transcript can be obtained from the CDC National AIDS Clearinghouse after October 31, 1997.

Impact of Promotion of the Great American Smokeout and Availability of Over-the-Counter Nicotine Medications, 1996

The 1996 Great American Smokeout (GASO), sponsored by the American Cancer Society (ACS), was held on November 21 and included a national promotional campaign in collaboration with a distributor of over-the-counter (OTC) nicotine medications. The 1996 GASO was the first to use a national promotion that included paid advertising of the GASO through television, magazines, and newspapers; direct-to-consumer promotions; and educational activities about GASO in retail stores that sell OTC nicotine medications.* To estimate the impact of this promotional partnership between ACS and a distributor of OTC nicotine medications on smoking-cessation

* Standard promotion of the GASO is organized and promoted by ACS volunteers and staff and consists of local activities in malls, businesses, restaurants, hospitals, colleges, and military bases.

GASO Promotion and OTC Nicotine Medications — Continued

activity, the collaborators[†] analyzed data from three sources. This report summarizes the findings, which suggest that the promotional campaign, combined with OTC availability of nicotine medications, encouraged smoking-cessation activity.

The 1996 GASO promotion encouraged quitting in general and did not promote any specific brand of nicotine medications; the focus of the promotion was on quitting on the day of the GASO, November 21. In addition, brand-specific nicotine medication advertising largely did not change during the 1996 promotion. To estimate the number of persons exposed to television promotions of the GASO, A.C. Nielsen's National TV Index Service assessed the number of times viewers in the study sample were exposed to an advertisement (*1*); such exposures are known as impressions.

To estimate awareness of and participation in the GASO, including efforts to quit smoking on the day of the GASO, ACS commissioned Lieberman Research, Inc., to conduct random-digit–dialed telephone surveys in 1995 and 1996. In 1995, a survey of 5504 adults aged ≥21 years, including 1366 smokers, was conducted from November 17 through November 26. The nationally representative sample comprised ≥100 interviews in each of 48 states; the District of Columbia; Long Island, New York; and the cities of Philadelphia, Pennsylvania, and New York, New York. Data were weighted to produce national estimates. In 1996, a nationwide survey of 983 adults aged ≥21 years was conducted from November 22 through November 26. Smokers were oversampled (n=379), and the data were weighted to produce nationally representative estimates (*2*). Respondents in the 1995 and 1996 surveys were asked, "On the day of the Great American Smokeout, which of these things did you do: not smoke cigarettes at all; cut down the number of cigarettes you usually smoke; or smoke as much as usual?"

Retail sales of OTC nicotine medications (i.e., Nicorette® nicotine chewing gum, NicoDerm® CQ™ nicotine patches, and Nicotrol® nicotine patches)[§] in 1996 were estimated by A.C. Nielsen's InFact Service, which tallies purchases entered at the cash registers of food, drug, and mass merchandisers by electronic Universal Product Code (UPC) scanner. Data were collected from a nationally representative sample of 10,000 outlets located primarily in the top 50 major markets. Purchases from retail outlets without scanner technology were estimated by a sample of those stores. The sample was then weighted to estimate total unit purchases from all outlets. The resulting figures underestimate actual sales (by comparison with factory shipments); therefore, this analysis assumes a 5% underestimation of sales. Projected sales of all three OTC nicotine medications were adjusted to account for underestimation. The baseline period was defined as the 4-week period ending November 2, and the GASO promotion period was the 4-week period ending November 30.

The National TV Index Service reported that the paid advertising specifically for the GASO reached 122.1 million adults aged ≥18 years an average of 2.9 times during the 3 weeks before and the week of the GASO, representing a total of approximately 354 million television impressions nationally. Assuming equal distribution of these impressions among smokers and nonsmokers, an estimated 30.5 million smokers (64% of all U.S. smokers) (*2*) were exposed to GASO promotions.

[†] SmithKline Beecham Consumer Healthcare; Smoking Research Group, University of Pittsburgh; Pinney Associates; ACS; and CDC.

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

GASO Promotion and OTC Nicotine Medications — Continued

Responses to the 1995 and 1996 Lieberman surveys were compared to determine whether GASO-related smoking-reduction and smoking-cessation rates changed from 1995 to 1996. During this period, the percentage of respondents who initiated any action during the GASO (either reducing or quitting smoking) increased from 18% in 1995 to 26% in 1996) (Table 1). The percentage who reported quitting remained the same (5% in 1995 versus 6% in 1996); however, the percentage who reported reducing their smoking during the GASO increased significantly, from 13% in 1995 to 20% in 1996. In 1996, reports of smoking behavior were examined at the time of the interview (1–5 days following the GASO): 6% of respondents reported quitting smoking, while 15% reduced their smoking.

Smoking-cessation activity involving the use of nicotine medications was estimated using retail sales of such products as reported by InFact. During the 4-week GASO promotional period, sales of nicotine medications increased by 11% (136,000 units), compared with sales during the baseline period. The proportion of units purchased by new users or by repeat purchasers cannot be determined precisely; however, the smallest package of OTC nicotine medication provides approximately 7 days of therapy; therefore, in this analysis, only the increase in sales during the week ending November 23 was assumed to be due to new purchasers and thus new quit attempts.[¶] Compared with weekly average sales during the entire 4-week baseline period (306,400 units), sales during the week ending November 23 increased 30% (92,600 units), representing a total of 399,000 units. Thus, the enhanced promotional activities and the GASO promotion were associated with an estimated 92,600 attempts at quitting smoking using nicotine medications.

Reported by: SL Burton, KE Kemper, TA Baxter, SmithKline Beecham Consumer Healthcare; S Shiffman, Smoking Research Group, Dept of Psychology, Univ of Pittsburgh, Pittsburgh, Pennsylvania. J Gitchell, Pinney Associates, Bethesda, Maryland. C Currence, American Cancer Society, Atlanta, Georgia. Epidemiology Br, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.

Editorial Note: Based on nationally representative data for 1965–1994, the prevalence of cigarette smoking in the United States appears to have reached a plateau of approximately 25% (*2,3*). Reducing the initiation of smoking among youth is a priority reflected in the Food and Drug Administration's final tobacco rule, as well as in ongoing public education and awareness efforts such as the GASO. In addition, encouraging cessation is a priority; reducing adult smoking produces substantial

[¶]No evidence suggests the promotion increased repeat purchases.

TABLE 1. Percentage of respondents who participated in the Great American Smokeout, by selected characteristics and year — United States, 1995 and 1996*

Characteristic	1995	1996	Odds ratio	(95% CI[†])	Chi square	D*f*[§]	p value
Quit smoking	5%	6%	1.2	(0.7–2.0)	0.7	1	<0.41
Reduced smoking	13%	20%	1.7	(1.2–2.3)	11.8	1	<0.001
Any participation[¶]	**18%**	**26%**	**1.6**	**(1.2–2.1)**	**11.7**	**1**	**<0.001**

*In 1995, a survey of 5504 adults aged ≥21 years was conducted, and in 1996, a survey of 983 adults aged ≥21 years was conducted. Data for each year were weighted to produce national estmates for the respective year.
[†]Confidence interval
[§]Degrees of freedom.
[¶]Either attempts to reduce or quit smoking.

GASO Promotion and OTC Nicotine Medications — Continued

short-term and long-term benefits in health improvements and cost savings (*4*). Since 1977, ACS has sponsored the annual GASO to encourage smokers to stop smoking for at least 24 hours. Evaluation of mass media campaigns and previous GASO efforts suggests that public promotions can increase smoking-cessation activity (*5,6*).

The findings in this report suggest that the GASO promotional campaign and OTC availability of nicotine medications encouraged smoking-cessation activity. These findings illustrate the substantial impact of an intensive event-related campaign in promoting smoking-cessation activity. In comparison, data from another source on the use of nicotine medications in 1995 indicated only a 2% monthly increase in nicotine medication prescriptions for November over the annual average; however, there was no promotional campaign nor OTC availability of the products (*7*). OTC availability of the nicotine patch and nicotine gum appears to remove a possible barrier to their use (i.e., obtaining a prescription) and allows more direct promotion of these products and smoking cessation to the general public.

A recent analysis conducted in a setting that simulated OTC availability of three currently available OTC nicotine medications found a continuous (biochemically validated) quit rate of 8% at 12 months using data pooled across studies (*8*). Using the single-week comparison as the most valid indicator of initial quitting attempts (rather than repurchase) and assuming that any product purchased was used for a quit attempt, the increase in nicotine medication use attributable to the 1996 GASO promotion produced an estimated 7400 additional former smokers.

The findings in this report are subject to at least three limitations. First, because no record was maintained of nonrespondents for the Lieberman surveys, response rates could not be calculated. As a result, the level of response bias cannot be determined. Second, the sampling methods of the 1995 and 1996 surveys were different; however, data from both surveys were weighted to produce nationally representative data and, therefore, were considered comparable. Third, the estimate of the impact of the promotional campaign on smoking cessation may not be precise because all purchasers of nicotine medications were assumed to be the user of the product and because retail sales data comprise both new and repeat purchases.

The findings in this report suggest that promoting smoking cessation can increase quit attempts. Smokers interested in quitting smoking should be strongly encouraged to do so and should optimize their chances for quitting by using effective treatments as outlined by the Agency for Health Care Policy and Research (*9*). Marketing and promotion efforts designed to promote attempts to quit, along with OTC availability of nicotine medications, are a useful part of a national strategy to decrease the prevalence of smoking.

References

1. A.C. Nielsen. National TV Index Service. Schaumburg, Illinois: A.C. Nielsen, 1996.
2. CDC. Cigarette smoking among adults—United States, 1994. MMWR 1996;45:588–90.
3. Giovino GA, Schooley MW, Zhu BP, et al. Surveillance for selected tobacco-use behaviors—United States, 1900–1994. In: CDC surveillance summaries (November). MMWR 1994;43(no. SS-3).
4. Lightwood JM, Glantz SA. Short-term economic and health benefits of smoking cessation. Circulation 1997;96:1089–96.
5. Flay BR. Mass media and smoking cessation: a critical review. Am J Public Health 1987;77: 153–60.

GASO Promotion and OTC Nicotine Medications — Continued

6. Hantula DA, Stillman FA, Waranch HR. Can a mass media campaign modify tobacco smoking in a large organization? Evaluation of the Great American Smokeout in an urban hospital. Journal of Organizational Behavior Management 1992;13:33–47.
7. Scott-Levin. Source prescription audit. Newtown, Pennsylvania; Scott-Levin, 1995.
8. Winchell CJ, Wright C, Burke L, et al. Long-term abstinence in users of OTC nicotine replacement. Clin Pharmacol and Ther 1997;61:191.
9. US Department of Health and Human Services. Smoking cessation: clinical practice guideline [no. 18]. Washington, DC: US Department of Health and Human Services, Public Health Service, Agency for Health Care Policy and Research, 1996; DHHS publication no. (AHCPR)96-0692.

As part of its continuing commemoration of CDC's 50th anniversary in June 1996, MMWR *is reprinting selected* MMWR *articles of historical interest to public health, accompanied by a current editorial note. Reprinted below is the first published report (published December 8, 1973) of a large-scale systematic study of community exposure to emissions from a lead smelter.*

EPIDEMIOLOGIC NOTES AND REPORTS

HUMAN LEAD ABSORPTION — Texas

In December 1971, the City-County Health Department in El Paso, Texas, discovered that an ore smelter in El Paso was discharging large quantities of lead and other metallic wastes into the air. Between 1969 and 1971, this smelter had released 1,116 tons of lead, 560 tons of zinc, 12 tons of cadmium, and 1.2 tons of arsenic into the atmosphere through its stacks (Table 1).

Twenty-four hour air samples to determine the amounts of lead and other heavy metals suspended in the atmosphere were collected throughout 1971 and again between July 1972 and June 1973 by the local health department. Both series of tests showed that mean concentrations of metallic wastes in the air were highest immediately downwind of the smelter and that levels decreased logarithmically with distance from the smelter. The annual mean lead level immediately downwind of the smelter in 1971 was 92 $\mu G/m^3$ and in 1972-73 was 43 $\mu G/m^3$; the U.S. Environmental Protection Agency's proposed safe upper limit for airborne lead content is 2.0 $\mu G/m^3$ of air *(1)*. No metallic emissions were found near any of 15 other industrial establishments studied in El Paso.

Table 1
Particulate Waste Stack Emissions (in Tons [t]), by Year
El Paso Smelter, 1969–1971

Year	Total Particulates	Lead	Cadmium	Zinc	Arsenic
1969	1,443t	292t	3.3t	139t	0.3t
1970	2,274	511	4.9	264	0.6
1971	1,282	313	3.8	157	0.3
Total	4,999t	1,116t	12.0t	560t	1.2t

Source: El Paso City-County Health Department

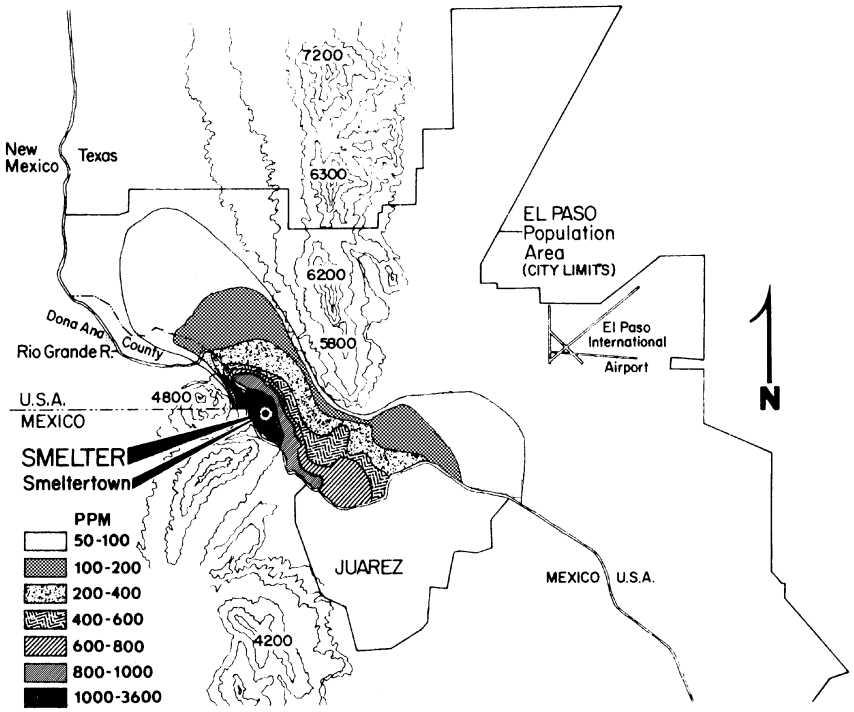
Human Lead Absorption — Continued

Similarly, soil samples taken by the health department at selected sites within the urban area between June and December 1972 showed the highest concentrations of lead and other metals to be in surface soil from within 0.2 miles of the smelter (Figure 1). Samples of drinking water, milk, and food obtained from homes in El Paso between January and March 1972 by the health department were uniformly free of lead.

Preliminary testing programs to evaluate the effect of the environmental contamination on human blood lead levels were conducted in El Paso between January and March 1972 by the local health department, the smelting company, and CDC. These initial studies showed that 43% of persons in all age groups and 62% of children through age 10 years living within 1 mile of the smelter had blood lead levels ≥40 μG%, a level considered to be evidence of undue lead absorption *(2)*. There was a lower prevalence among persons living at greater distances from the smelter. No cases of overt lead poisoning were noted.

In August 1972, a random survey of the entire population living within 4.1 miles of the smelter in south and west El Paso was conducted by the health department and CDC. The area was divided along census tract lines into 3 strata, roughly concentric about the smelter and each with a radius of 1.0-1.5 miles. In the small, innermost stratum, all households were visited; in the 2 outer strata, approximately 2% of households were selected. Of 833 occupied households included in the survey, 672 (80.6%) were reached for the interview. A venous blood sample for lead analysis by atomic

Figure 1
LEAD SURFACE SOIL LEVELS
EL PASO, TEXAS, AND DONA ANA COUNTY, NEW MEXICO — 1972



Human Lead Absorption — Continued

absorption spectrophotometry (AAS) was obtained from all persons up to age 20 years and from every other person above that age; samples of paint, soil, household dust, and pottery were also collected in each home for lead analysis by AAS. In all age groups, the percentage of blood levels ≥40 μG% was found to be highest in those persons living nearest the smelter (Figure 2), and the prevalence was highest in the youngest individuals; migration rates among these persons were low. In area I, 5 (8.5%) of 59 persons 1-19 years of age with blood lead levels ≥40 μG% had moved into the area in the 2 years preceding the survey. In areas II and III, the migration rate for persons 1-19 years of age with blood levels ≥40 μG% was 8.2% (4 of 49); 1 person in this group had moved from area I.

A total of 1,971 paint samples were collected for lead analysis. In area I, 9 (39.1%) of 23 children 1-4 years had exposure to at least 1 paint sample with a lead content of 1.0% or more; the comparable figures for areas II and III were 11 (33.3%) of 33 and 17 (34.0%) of 50 children, respectively. These three rates were virtually identical ($p>0.9$ by Chi-square).

Analysis of over 4,000 soil and household dust samples indicated that the mean content of lead in these specimens was significantly higher in area I than in areas II and III. Furthermore, persons 1-19 years with blood lead levels ≥40 μG% were found to have been exposed to soil and dust samples with significantly higher ($p<0.001$) mean lead contents (3,264 ppm for soil, 3,522 ppm for dust) than persons with blood lead levels below 40 μG% (means: 1,032 ppm and 1,279 ppm).

Pottery vessels were used for food storage or preparation in 37 homes visited. After 1% hydrochloric acid incubation for 6 hours, 2 of 6 vessels from sector I, 6 of 19 from sector II, and 4 of 12 from sector III had a lead content ≥100 G per ml in the eluate.

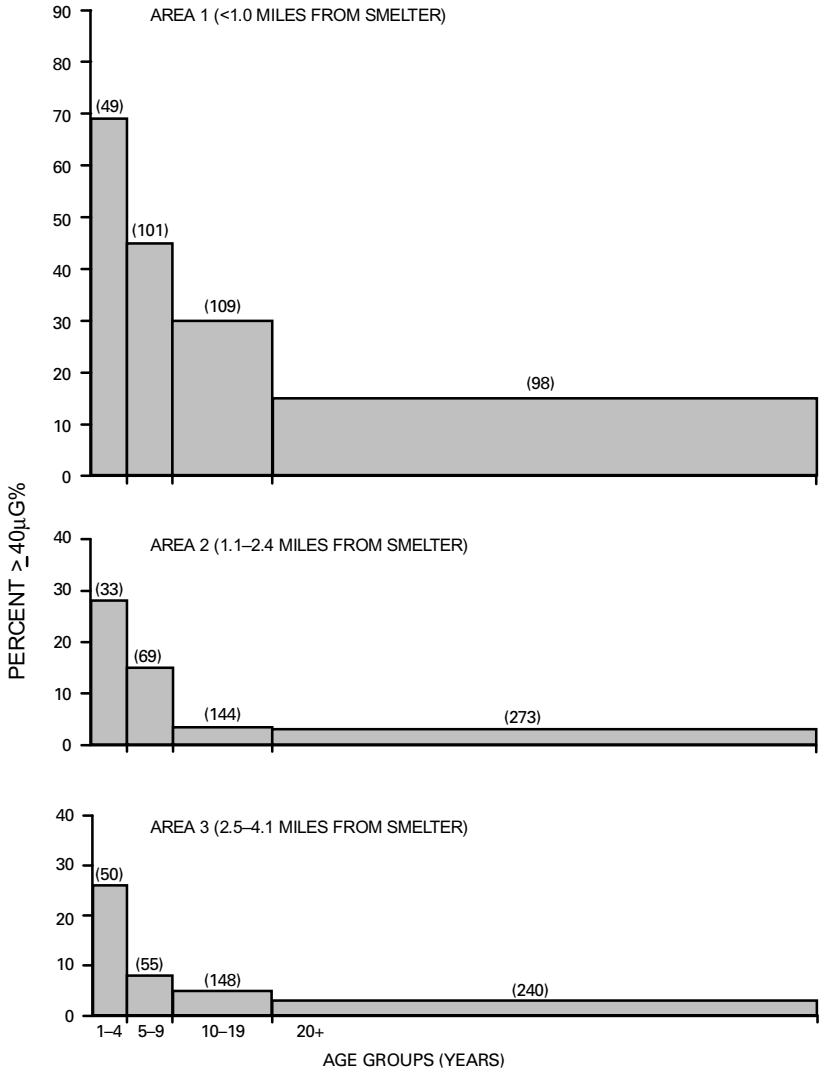
(Reported by Bernard F. Rosenblum, M.D., M.P.H., Director, El Paso City-County Health Department; James M. Shoults, Acting Environmental Engineer, El Paso City-County Health Department; J. Julian Chisolm, Jr,. M.D., Chief of Pediatrics, Baltimore City Hospitals; Community and Environmental Management Activities, Bureau of State Services, CDC; the Field Services Branch, Bureau of Epidemiology, the Toxicology Section, Clinical Chemistry, Hematology, and Pathology Branch, Bureau of Laboratories, CDC; and a team of EIS Officers.)

Editorial Note: It may be estimated from this prevalence survey, using 1970 U.S. Census data, that at least 2,700 persons 1-19 years of age in El Paso had blood lead levels ≥40 μG% at the time of the survey (Table 2). These results indicate that the problem of undue lead absorption affects persons across all of south and west El Paso to a distance of at least 4 miles from the smelter. Lead emitted by the smelter and deposited in soil and dust would appear to be the major source of the lead absorbed by humans; the accumulation in the soil and dust of emitted lead is facilitated by several features of the local environment, particularly the aridity, the sheltering effect of the high mountains, and the frequent thermal inversions. Ingestion of lead-based paint may account for a small fraction of cases of undue absorption (at most 1/3) in the youngest children. Careful neurologic and psychologic studies of persons in El Paso with blood lead levels ≥40 μG% have been conducted and are being compared with results of similar studies in a matched group with lower lead levels. This story will make it possible to ascertain objectively whether any persons are suffering subtle but possibly permanent neurologic or psychologic sequelae from prolonged lead absorption.

Control measures undertaken to date include partial reduction of smelter emission and relocation to more distant public housing of approximately 500 persons who had lived closely adjacent to the smelter property.

Human Lead Absorption — Continued

Figure 2
PERCENT OF HUMAN BLOOD SAMPLES* WITH LEAD LEVELS ≥40 μG%, EL PASO, TEXAS — 1972



( ) NUMBER OF PEOPLE TESTED
*RANDOM SAMPLE SURVEY

References

1. Written Communication. U.S. Environmental Protection Agency, 1972
2. Medical Aspects of Childhood Lead Poisoning. Pediat 48:464–468, 1971

Editorial Note—1997: When a team of Epidemic Intelligence Service officers from CDC, led by Dr. Philip Landrigan, joined the local health department in El Paso, Texas, in March 1971 to investigate lead exposure associated with an ore smelter, the scientific understanding of pediatric lead toxicity was about to enter a period of rapid progress. Many studies have since documented the public health threat posed by poorly controlled lead emissions from lead smelters around the world (*1*). The range of lead

Human Lead Absorption — Continued

Table 2
Estimated Numbers of Persons 1–19 Years With Blood Lead Levels ≥40 μG%, by Distance from Shelter El Paso, Texas — August 1972

Distance from Smelter (Miles)	Sample Group		Population 1–19 Years*	
	No. Tested	% With Blood Lead ≥40 μG%	No. of Children	Projected No. with Blood Lead ≥40 μG%
0–1.0	259	43.2	723	312
1.1–2.4	246	11.0	12,316	1,355
2.5–4.1	253	9.5	11,486	1,091
Total	758	19.9	24,525	2,758

*1970 Census

exposure produced in populations living near lead smelters has, in turn, facilitated studies of the mechanisms and health consequences of pediatric lead exposure.

A major objective of the El Paso investigation was to determine whether high blood lead levels (BLLs) in children were associated with smelter emissions or were explained by other lead sources also found in the community. A high level of lead emissions in a residential area was not then assumed to be a public health threat, as it is today. A 1972 National Academy of Sciences report on lead, while motivated by growing concern about widespread dispersal of lead in the environment, stated in its preface: "lead attributable to emission and dispersion into the general ambient environment has no known harmful effects" (*2*). In El Paso, the inverse gradient in air (*3*), dust, and soil contamination as one moved away from the smelter, and the parallel blood lead gradient (also found in a complementary investigation of lead exposure in Juarez, Mexico [*4*]) supported the argument that soil and dust are important vehicles of exposure. This finding foreshadowed subsequent research demonstrating the pathway from lead in soil and dust to lead contamination of hands to lead in blood, presumably from normal hand-to-mouth behavior and ingestion of contaminated soil and dust (*5–7*).

In 1975 and 1976, CDC investigators, led by Dr. Edward Baker, documented the potential for exposure to leaded dust among children of workers at a secondary lead smelter in Tennessee (*8*). Their findings and those of other investigations of "take-home" lead exposure that followed brought about provisions in the 1978 Occupational Safety and Health Administration (OSHA) standard for occupational lead exposure requiring hygienic measures in general industry to prevent lead workers from carrying lead dust home on their skin, shoes, and clothing (*9*).

In the 1960s and 1970s, children living near smelters or in the households of smelter workers were only a small part of a widespread national problem of "undue lead absorption" (*10*). In urban areas, deteriorated lead paint in older housing made the problem especially acute. In the same year as the El Paso survey, a door-to-door survey of inner-city children in Rochester, New York, found a mean BLL of 44 μg/dL (*5*), which was close to that measured near the El Paso smelter.

Since the early 1970s, it also has become more clear that lead is a multimedia contaminant and that demonstrating the importance of a given source does not rule out the contribution of other sources. For example, data from the Second National Health

Human Lead Absorption — Continued

and Nutrition Examination Survey (NHANES II) conducted from 1976 through 1980 indicated that the mean BLL among children aged <6 years residing in rural areas was 14 μg/dL (average levels were 3–6 μg/dL higher among children living in more urbanized areas) (*11*). During the same period, widespread population exposure to lead emissions was reflected in average BLLs that declined in close parallel to the decreasing consumption of leaded gasoline (*12*). Thus, children living near the El Paso smelter, children in the homes of lead workers, and children in downtown Rochester probably shared with children across the country a contribution to their BLLs from lead in gasoline. Local sources, added to the higher background exposure prevalent at the time, resulted in BLL distributions that are extremely high by today's standards.

Perhaps the most telling indication of how the scientific view of lead exposure has changed since 1971 is that, in 1971 "undue lead absorption" referred only to BLLs ≥40 μg/dL. Numerous subsequent studies documented that BLLs much lower than 40 μg/dL, then considered acceptable, adversely impact the health of children without causing overt symptoms. For example, investigators from CDC's Bureau of Epidemiology, again led by Dr. Landrigan, found an inverse relation between BLLs and nerve conduction velocities among children exposed to emissions from a smelter near Kellogg, Idaho (*13*). As the decade closed, Dr. Herbert Needleman's landmark study was published, demonstrating lower cognitive test scores and higher teachers' ratings of behavioral problems among children with higher tooth lead levels but no history of clinically overt lead poisoning (*14*).

Epidemiologic studies identified subclinical effects of lead by comparing the health of children with different levels of lead exposure. For most U.S. populations studied in the 1970s, the least exposed children had BLLs well above the average in the U.S. population today. Thus, health effects at lower levels could not be detected. As population BLLs decreased through the 1980s, careful prospective studies found subtle effects of lead on learning and behavior at BLLs well below those of the least exposed children in El Paso (*15*).

In addition to contributing to scientific knowledge about lead exposure and its effects on health, findings from the El Paso survey and others precipitated measures to reduce emissions at lead smelters. In 1977, a follow-up investigation by CDC and the El Paso Health Department found that BLLs among children living nearest the smelter had decreased by approximately 50% (*16*). More importantly, the El Paso survey was a prelude to a large body of continuously refined epidemiologic investigations that provided the impetus for actions to dramatically reduce population lead exposure from lead in gasoline, soldered food cans, drinking water conduits, and other sources in the United States. As a result, mean BLLs among children have declined nationally by >80% overall and by similar amounts in population subgroups defined by age, race, ethnicity, income levels, and urbanization (*17,18*). More recently, international agreements to reduce the use of leaded gasoline may bring about significant reductions in worldwide lead exposure. Ironically, the unfortunate epidemics of lead toxicity near smelters in El Paso and elsewhere ultimately enabled more rapid progress in understanding and controlling lead exposure than might otherwise have been possible.

1997 Editorial Note by Thomas Matte, MD, MPH, Medical Epidemiologist, Henry Falk, MD, Director, Division of Environmental Hazards and Health Effects, National Center for Environmental Health, CDC.

Human Lead Absorption — Continued

References

1. Roberts RM, Hutchinson TC, Paciga J, et al. Lead contamination around secondary smelters: estimation of dispersal and accumulation by humans. Science 1974;186:1120–3.
2. Committee on Biologic Effects of Atmospheric Pollutants. Lead: airborne lead in perspective. Washington, DC: National Academy of Sciences, 1972.
3. Landrigan PJ, Gehlbach SH, Rosenblum BF, et al. Epidemic lead absorption near an ore smelter: the role of particulate lead. N Engl J Med 1975;292:123–9.
4. Ordonez BR, Romero LR, Mora R. Epidemiologic investigation regarding levels of lead in the pediatric population and in the household environment in the city of Juarez, Chihuahua, in relation to a smelter in El Paso, Texas [Spanish]. Boletin de la Oficina Sanitaria Panamericana 1976;80:303–17.
5. Charney E. Lead poisoning in children: the case against household lead dust. In: Chisholm JJ, O'Hara DM, eds. Lead absorption in children—management, clinical, and environmental aspects. Baltimore, Maryland: Urban and Schwarzenberg, 1982.
6. Roels HA, Buchet JP, Lauwerys RR, et al. Exposure to lead by the oral and the pulmonary routes of children living in the vicinity of a primary lead smelter. Environ Res 1980;22:81–94.
7. Clark CS, Bornschein RL, Succop P, Que Hee SS, Hammond PB, Peace B. Condition and type of housing as an indicator of potential environmental lead exposure and pediatric blood lead levels. Environ Res 1985;38:46–53.
8. Baker EL, Folland DS, Taylor TA, et al. Lead poisoning in children of lead workers: home contamination with industrial dust. N Engl J Med 1977;296:260–1.
9. US Department of Labor. Occupational Safety and Health Administration. 29 Code of Federal Regulations 1910.1025 Lead.
10. Lin-Fu JS. Historical perspective on health effects of lead. In: Mahaffey KR, ed. Dietary and environmental lead: human health effects. New York: Elsevier Science Publishers, 1985.
11. Mahaffey KR, Annest JL, Roberts J, Murphy RS. National estimates of blood lead levels: United States, 1976–1980: association with selected demographic and socioeconomic factors. N Engl J Med 1982;307:573–9.
12. Annest JL, Pirkle JL, Makuc D, Neese JW, Bayse DD, Kovar MG. Chronological trend in blood lead levels between 1976 and 1980. N Engl J Med 1983;308:1373–7.
13. Landrigan PJ, Baker EL Jr, Feldman RG, et al. Increased lead absorption with anemia and slowed nerve conduction in children near a lead smelter. J Pediatr 1976;89:904–10.
14. Needleman H, Gunnoe C, Leviton A, et al. Deficits in psychologic and classroom performance in children with elevated dentine lead levels. N Engl J Med 1979;300:689–95.
15. Schwartz J. Low-level lead exposure and children's IQ: a meta-analysis and search for a threshold. Environ Res 1994;65:42–55.
16. Morse DL, Landrigan PJ, Rosenblum BF, Hubert JS, Housworth J. El Paso revisited: epidemiologic follow-up of an environmental lead problem. JAMA 1979;242:739–41.
17. CDC. Update: blood lead levels—United States, 1991–1994. MMWR 1997;46:141–6.
18. Pirkle JL, Brody DJ, Gunter EW, et al. The decline in blood lead levels in the United States: The National Health and Nutrition Examination Surveys (NHANES). JAMA 1994;272:284–91.

Asthma Mortality — Illinois, 1979–1994

Asthma is a chronic inflammatory disorder of airways characterized by variable airflow obstruction with airway hyperresponsiveness. In the United States, the mortality rate associated with asthma has increased steadily since 1979 (*1,2*). Uneven distributions of deaths attributable to asthma have been observed among different racial/ethnic groups (*3,4*). To examine the distribution of asthma deaths in Illinois, trends in asthma death rates were analyzed for 1979–1994 for Illinois residents. This report presents the findings of this analysis, which indicated that, compared with asthma death rates in the United States for 1982–1991, rates in Illinois were higher and the asthma mortality ratio for blacks to whites was higher.

Asthma Mortality — Continued

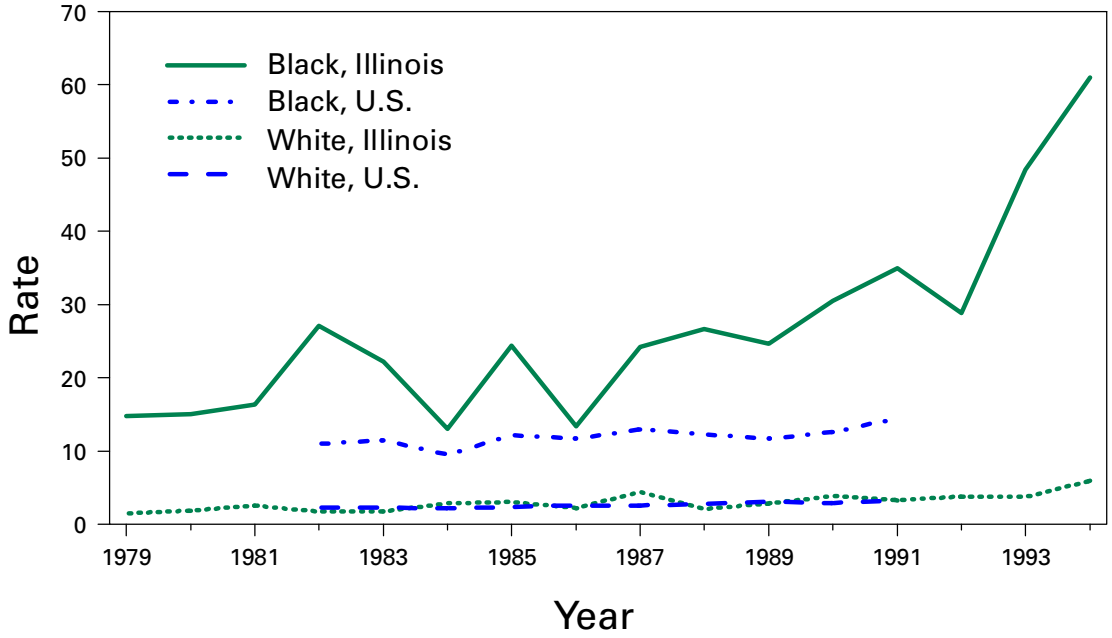
Asthma deaths were abstracted from vital records listing asthma as the underlying cause of death (*International Classification of Diseases, Ninth Revision*, codes 493.0–493.9). Intercensal population estimates for Illinois were obtained from the U.S. Bureau of the Census. Because of the high accuracy of diagnosing asthma in persons aged <35 years (>95%) (*5*), this analysis presents age-adjusted death rates for persons aged 5–34 years. Calculations of race-specific rates were limited to blacks and whites because numbers for other races were too small to enable estimation of stable rates.

During 1979–1994, the annual age-adjusted asthma death rate for persons aged 5–34 years in Illinois increased by 341%, from 3 per million to 15 per million. From 1982 to 1991, the increase was 57%, higher than the national average of 42% for the same period (*1*). Except in 1986, the annual death rate was consistently higher in Illinois than in the United States by an average of 56%. Annual rates and increases were similar for males and females during 1979–1994 in Illinois.

The death rates for asthma were higher among blacks than whites. The asthma death rate for whites in Illinois was indistinguishable from that for whites nationally; however, the death rate for blacks in Illinois was twice as high as the national rate for blacks for most years from 1982 through 1991 (Figure 1). This resulted in a greater black-to-white asthma mortality ratio in Illinois (9) than nationally (<5). This ratio increased to 10 in 1994 in Illinois.

Reported by: HL Howe, PhD, L Landrum, MS, JR Lumpkin, MD, Illinois Dept of Public Health. Div of Applied Public Health Training (proposed), Epidemiology Program Office, CDC.

FIGURE 1. Age-adjusted death rate* for asthma as the underlying cause of death for persons aged 5–34 years, by race† and year — Illinois, 1975–1994, and United States, 1982–1991§



*Per 1 million persons, age standardized to the 1980 U.S. population.
†Data are presented only for blacks and whites because numbers for other races were too small to calculate stable estimates.
§Reference *1*.

Asthma Mortality — Continued

Editorial Note: An estimated 14 million persons in the United States are affected by asthma (*6*), and each year, 4000–5500 deaths are caused by asthma. In addition, morbidity and mortality from asthma have continuously increased and have had a disproportional impact on some population subgroups (*7*). Although acute episodes of asthma can be fatal, most deaths from asthma are preventable with appropriate medical management (*7*).

Changes in both prevalence and severity of asthma could affect mortality. The prevalence of asthma has increased in the United States (*8*) with increased recognition and diagnosis of asthma by physicians; increased exposure to environmental allergens and irritants; and increased exposure of children to maternal smoking, household crowding, and poverty (*1,2,8*). Factors associated with the increased risk for death from asthma include excessive exposure to allergens and air pollution; underestimation of the severity of asthma; psychosocial instability; overuse of inhaled, short-acting β-agonists; underuse of corticosteroids; substance abuse; and inadequate access to appropriate health care (*1–3,7*).

The higher overall rate of asthma mortality and the wider gap between the rates for blacks and whites in Illinois than in the United States primarily were because of the high death rate for blacks rather than a lower death rate for whites. Additional study is needed to determine reasons for the race-specific differences in the rates. Previous studies comparing mortality from asthma between blacks and whites indicate that asthma mortality, regardless of race, is inversely correlated with income (*4,9,10*). This disparity in asthma mortality between blacks and whites is associated with the generally lower socioeconomic status (SES) for blacks and possibly attributable to greater exposure to allergens and pollutants and poor access to and use of appropriate health care among persons of lower SES (*7*).

State and territorial public health agencies have a critical role in the surveillance and prevention of asthma morbidity and mortality. Most states do not have asthma surveillance and prevention programs (*6*). CDC encourages states to actively use existing asthma-related data to assess the local burden of asthma and to use that information to target asthma-control and asthma-prevention programs to at-risk populations (*6,8*).

References

1. CDC. Asthma—United States, 1982–1992. MMWR 1995;43:952–5.
2. CDC. Asthma mortality and hospitalization among children and young adults—United States, 1980–1993. MMWR 1996;45:350–3.
3. Weiss KB, Wagener DK. Changing patterns of asthma mortality: identifying target populations at high risk. JAMA 1990;264:1683–7.
4. Targonski PV, Persky V, Orris P, Addington W. Trends in asthma mortality among African Americans and whites in Chicago, 1968 through 1991. Am J Public Health 1994;84:1830–3.
5. Sears MR, Rea HH, de Boer G, et al. Accuracy of certification of deaths due to asthma: a national study. Am J Epidemiol 1986;124:1004–11.
6. CDC. Asthma surveillance programs in public health departments—United States. MMWR 1996;45:802–4.
7. National Institutes of Health. Global strategy for asthma management and prevention: NHLBI/WHO Workshop Report. Bethesda, Maryland: US Department of Health and Human Services, Public Health Service, National Institutes of Health, National Heart, Lung, and Blood Institute, 1995; publication no. 95-3659.
8. Brown CB, Anderson HA, Etzel RA. Asthma: the states' challenge. Public Health Rep 1997;112:199–205.

Asthma Mortality — Continued

9. Marder D, Targonski P, Orris P, Persky V, Addington W. Effect of racial and socioeconomic factors on asthma mortality in Chicago. Chest 1992;101(suppl 6):426S–429S.
10. Carr W, Zeitel L, Weiss K. Variations in asthma hospitalizations and deaths in New York City. Am J Public Health 1992;82:59–65.

Clarification and Erratum: Vol. 46, No. RR-15

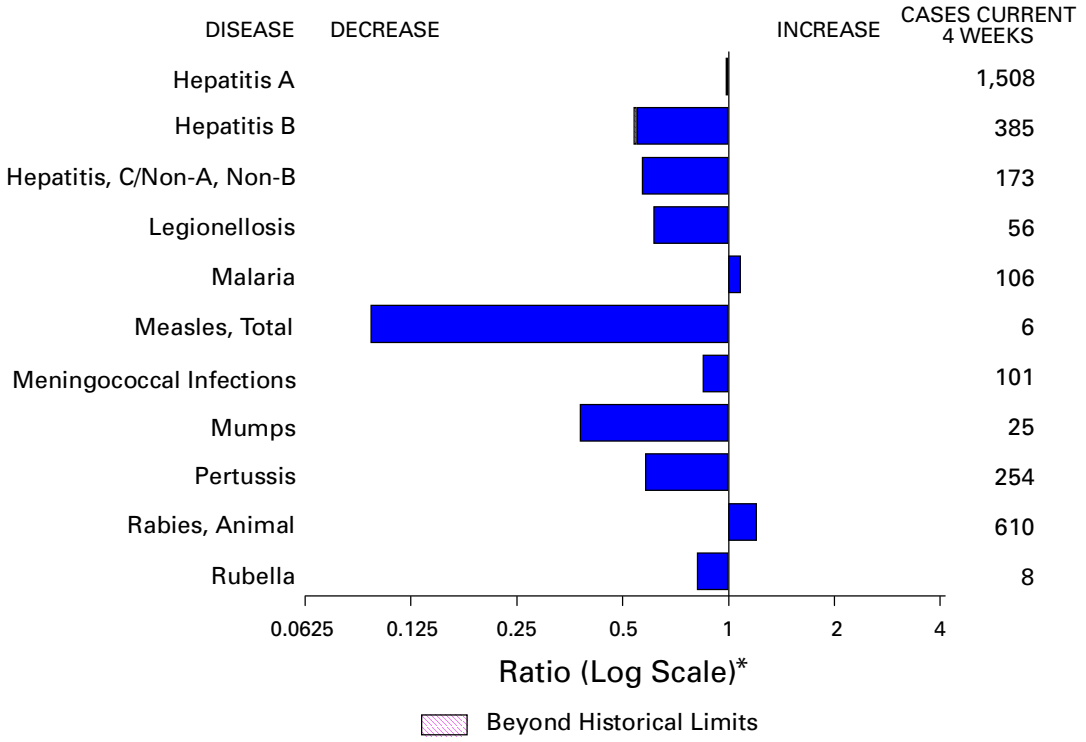
The word "tuberculosis" was omitted in the title of the *MMWR Recommendations and Reports* and should read "Anergy Skin Testing and Tuberculosis Preventive Therapy for HIV-Infected Persons: Revised Recommendations."

On page 1, in the second paragraph under the Summary heading, an incorrect word was used in the second sentence. The sentence should read "Because of the complications associated with TB disease in HIV-infected persons, these persons must be screened for *tuberculosis* infection."

Erratum: Vol. 46, No. 35

In the article "Update: Influenza Activity—Worldwide, March–August 1997," on page 817, the sentence beginning on line 7 should read: "In Asia, of the 65 influenza B viruses associated with sporadic and outbreak activity since March, 21 (32%) were characterized as *B/Beijing/184/93-like*, and 44 (68%) were B/Victoria/02/87-like."

FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending September 13, 1997, with historical data — United States



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

TABLE I. Summary — provisional cases of selected notifiable diseases, United States, cumulative, week ending September 13, 1997 (37th Week)

	Cum. 1997		Cum. 1997
Anthrax	-	Plague	2
Brucellosis	48	Poliomyelitis, paralytic	-
Cholera	6	Psittacosis	36
Congenital rubella syndrome	3	Rabies, human	2
Cryptosporidiosis*	1,088	Rocky Mountain spotted fever (RMSF)	282
Diphtheria	5	Streptococcal disease, invasive Group A	1,063
Encephalitis: California*	53	Streptococcal toxic-shock syndrome*	26
eastern equine*	4	Syphilis, congenital¶	205
St. Louis*	2	Tetanus	29
western equine*	1	Toxic-shock syndrome	87
Hansen Disease	74	Trichinosis	6
Hantavirus pulmonary syndrome*†	15	Typhoid fever	225
Hemolytic uremic syndrome, post-diarrheal*	40	Yellow fever	-
HIV infection, pediatric*§	173		

-:no reported cases
*Not notifiable in all states.
†Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).
§Updated monthly to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), last update August 26, 1997.
¶Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending September 13, 1997, and September 14, 1996 (37th Week)

Reporting Area	AIDS		Chlamydia		*Escherichia coli* O157:H7		Gonorrhea		Hepatitis C/NA,NB	
					NETSS†	PHLIS§				
	Cum. 1997*	Cum. 1996	Cum. 1997	Cum. 1996	Cum. 1997	Cum. 1997	Cum. 1997	Cum. 1996	Cum. 1997	Cum. 1996
UNITED STATES	39,488	47,124	305,281	301,570	1,577	938	192,165	220,938	2,211	2,463
NEW ENGLAND	1,740	1,971	12,352	12,042	139	71	4,183	4,572	47	70
Maine	42	31	659	655	14	-	41	41	-	-
N.H.	26	58	510	517	8	8	67	118	8	7
Vt.	30	14	283	273	6	1	37	42	2	17
Mass.	604	995	5,108	4,736	74	57	1,548	1,537	30	40
R.I.	113	128	1,398	1,387	7	-	321	369	7	6
Conn.	925	745	4,394	4,474	30	5	2,169	2,465	-	-
MID. ATLANTIC	12,364	12,811	41,523	44,145	95	28	25,204	29,268	245	199
Upstate N.Y.	1,935	1,672	N	N	65	-	4,030	5,215	184	156
N.Y. City	6,469	7,053	21,804	22,584	8	6	9,821	10,562	-	3
N.J.	2,526	2,497	6,465	8,848	22	16	5,005	6,199	-	-
Pa.	1,434	1,589	13,254	12,713	N	6	6,348	7,292	61	40
E.N. CENTRAL	2,905	3,751	40,787	60,188	300	184	26,127	40,607	394	348
Ohio	626	834	7,398	14,644	74	38	5,132	10,492	14	25
Ind.	411	460	6,461	6,610	53	27	4,308	4,318	10	7
Ill.	1,186	1,578	7,566	17,241	50	-	3,683	12,162	65	69
Mich.	499	682	13,030	14,129	123	82	10,203	10,180	305	247
Wis.	183	197	6,332	7,564	N	37	2,801	3,455	-	-
W.N. CENTRAL	729	1,153	16,352	22,183	351	248	7,689	10,629	120	68
Minn.	138	188	U	3,560	155	135	U	1,610	3	1
Iowa	79	69	2,857	2,878	92	28	758	741	24	31
Mo.	318	619	8,210	8,948	36	47	5,193	5,955	77	18
N. Dak.	11	11	546	650	9	6	37	23	2	-
S. Dak.	7	9	865	1,034	19	24	94	130	-	-
Nebr.	72	74	1,223	1,945	26	-	447	719	2	6
Kans.	104	183	2,651	3,168	14	8	1,160	1,451	12	12
S. ATLANTIC	9,404	11,845	63,838	34,444	153	96	62,854	65,034	207	135
Del.	175	212	1,276	1,148	3	4	858	1,039	-	-
Md.	1,167	1,551	5,029	U	14	6	9,267	7,647	11	2
D.C.	657	803	N	N	2	-	3,086	3,144	-	-
Va.	769	793	7,960	7,881	N	22	5,574	6,551	21	10
W. Va.	79	83	2,111	1,525	N	1	654	539	13	9
N.C.	598	606	13,005	U	51	29	12,779	12,727	38	34
S.C.	545	625	8,872	U	7	7	8,285	8,038	32	21
Ga.	1,156	1,642	9,242	7,990	34	-	10,532	13,243	U	-
Fla.	4,258	5,530	16,343	15,900	41	27	11,819	12,106	92	59
E.S. CENTRAL	1,370	1,624	23,373	21,502	74	32	23,251	22,894	251	418
Ky.	234	270	4,593	4,787	23	-	2,907	2,982	11	26
Tenn.	576	604	8,930	9,281	37	32	7,629	8,141	177	313
Ala.	333	469	5,894	5,969	11	-	8,218	9,530	7	3
Miss.	227	281	3,956	1,465	3	-	4,497	2,241	56	76
W.S. CENTRAL	4,187	5,021	40,445	38,434	54	8	25,997	26,748	304	270
Ark.	160	205	943	1,276	9	1	2,011	2,902	1	8
La.	716	1,077	6,629	5,164	6	3	6,285	5,406	154	151
Okla.	215	188	5,292	5,464	6	1	3,517	3,491	7	1
Tex.	3,096	3,551	27,581	26,530	33	3	14,184	14,949	142	110
MOUNTAIN	1,114	1,350	16,609	17,927	183	99	5,568	5,479	311	427
Mont.	33	33	734	873	21	-	34	24	16	13
Idaho	37	28	1,043	1,106	24	13	83	80	43	92
Wyo.	13	4	398	440	12	-	40	30	140	130
Colo.	278	360	1,896	1,741	69	50	1,365	1,130	27	41
N. Mex.	112	116	2,299	2,705	7	5	920	547	45	62
Ariz.	273	373	7,321	7,847	N	23	2,428	2,715	24	52
Utah	88	124	1,157	1,106	40	-	181	214	3	19
Nev.	280	312	1,761	2,109	10	8	517	739	13	18
PACIFIC	5,675	7,597	50,002	50,705	228	172	11,292	15,707	332	528
Wash.	457	538	6,408	6,821	58	54	1,362	1,474	20	41
Oreg.	222	338	3,432	3,901	60	63	526	602	3	6
Calif.	4,918	6,564	38,010	37,898	99	48	8,800	13,002	205	330
Alaska	36	23	1,049	844	11	1	273	305	-	3
Hawaii	42	134	1,103	1,241	N	6	331	324	104	148
Guam	2	4	31	271	N	-	3	46	-	6
P.R.	1,382	1,511	U	U	32	U	435	476	90	126
V.I.	75	17	N	N	N	U	-	-	-	-
Amer. Samoa	-	-	-	-	N	U	-	-	-	-
C.N.M.I.	1	-	N	N	N	U	17	11	2	-

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

*Updated monthly to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, last update August 26, 1997.

†National Electronic Telecommunications System for Surveillance.

§Public Health Laboratory Information System.

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending September 13, 1997, and September 14, 1996 (37th Week)

Reporting Area	Legionellosis		Lyme Disease		Malaria		Syphilis (Primary & Secondary)		Tuberculosis		Rabies, Animal
	Cum. 1997	Cum. 1996	Cum. 1997	Cum. 1996	Cum. 1997	Cum. 1996	Cum. 1997	Cum. 1996	Cum. 1997	Cum. 1996	Cum. 1997
UNITED STATES	608	635	6,543	10,244	1,204	1,113	5,634	8,320	12,085	13,308	5,430
NEW ENGLAND	52	37	2,093	3,042	68	42	107	119	308	302	841
Maine	2	2	8	25	1	7	-	-	11	17	150
N.H.	6	2	23	38	7	2	-	1	10	9	28
Vt.	10	4	6	20	2	3	-	-	4	1	95
Mass.	16	20	223	159	24	14	51	57	176	149	180
R.I.	5	9	280	383	5	6	2	1	27	24	24
Conn.	13	N	1,553	2,417	29	10	54	60	80	102	364
MID. ATLANTIC	115	159	3,538	6,001	302	338	267	354	2,233	2,465	1,113
Upstate N.Y.	34	51	1,481	2,782	49	60	24	52	300	283	848
N.Y. City	5	11	34	301	169	207	64	105	1,145	1,291	U
N.J.	15	10	868	1,327	65	50	102	124	459	508	117
Pa.	61	87	1,155	1,591	19	21	77	73	329	383	148
E.N. CENTRAL	176	198	62	346	99	138	462	1,253	1,155	1,429	124
Ohio	81	66	41	19	16	9	133	470	220	208	83
Ind.	30	39	17	19	12	14	107	158	102	125	10
Ill.	7	28	4	8	31	70	47	356	554	764	12
Mich.	50	33	-	6	30	31	102	133	192	260	18
Wis.	8	32	U	294	10	14	73	136	87	72	1
W.N. CENTRAL	47	34	83	121	42	34	113	256	384	342	349
Minn.	1	3	56	38	19	15	U	31	103	80	37
Iowa	11	8	5	15	9	2	6	17	46	44	122
Mo.	15	7	16	37	7	9	80	179	157	143	16
N. Dak.	2	-	-	-	2	1	-	-	8	6	55
S. Dak.	2	2	1	-	-	-	-	-	9	15	51
Nebr.	12	11	2	2	1	2	5	10	14	14	1
Kans.	4	3	3	29	4	5	22	19	47	40	67
S. ATLANTIC	89	83	492	511	251	193	2,334	2,692	2,363	2,439	2,220
Del.	8	10	31	154	4	3	17	30	18	30	47
Md.	17	19	346	234	71	58	642	495	228	205	398
D.C.	3	7	7	3	12	7	82	101	75	98	5
Va.	18	13	39	33	55	32	175	300	220	201	458
W. Va.	N	N	4	11	-	3	3	7	45	45	69
N.C.	11	7	25	58	13	20	520	715	310	326	665
S.C.	4	4	2	4	11	9	280	293	223	265	135
Ga.	-	3	1	1	25	23	387	486	437	440	227
Fla.	27	20	37	13	60	38	228	265	807	829	216
E.S. CENTRAL	37	36	55	60	25	27	1,266	1,795	888	978	214
Ky.	6	4	7	21	5	7	102	99	122	162	27
Tenn.	25	17	31	17	7	11	556	592	304	334	119
Ala.	2	3	5	6	10	3	332	406	306	310	68
Miss.	4	12	12	16	3	6	276	698	156	172	-
W.S. CENTRAL	13	17	59	83	15	25	793	1,311	1,665	1,525	233
Ark.	-	1	15	20	4	-	71	185	134	132	27
La.	2	1	2	1	8	5	257	380	152	13	3
Okla.	3	5	12	13	3	-	88	139	129	122	79
Tex.	8	10	30	49	-	20	377	607	1,250	1,258	124
MOUNTAIN	42	32	14	7	59	45	118	106	346	436	124
Mont.	1	1	-	-	2	6	-	-	7	14	35
Idaho	2	-	3	-	-	-	1	4	8	6	-
Wyo.	1	3	3	3	2	4	-	2	2	6	29
Colo.	15	7	4	-	26	19	9	24	61	54	-
N. Mex.	2	1	1	1	8	2	8	4	18	59	9
Ariz.	9	13	1	-	9	6	86	58	179	172	40
Utah	8	2	-	1	3	4	5	2	25	39	4
Nev.	4	5	2	2	9	4	9	12	46	86	7
PACIFIC	37	39	147	73	343	271	174	434	2,743	3,392	212
Wash.	6	5	6	12	18	16	8	8	211	198	-
Oreg.	-	-	16	14	17	18	5	6	115	126	13
Calif.	30	30	125	46	303	227	159	418	2,232	2,876	177
Alaska	-	1	-	-	3	3	1	-	61	58	22
Hawaii	1	3	-	1	2	7	1	2	124	134	-
Guam	-	1	-	-	-	-	-	3	5	55	-
P.R.	-	-	-	-	5	1	179	159	164	130	53
V.I.	-	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	-	9	1	2	-	-

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

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending September 13, 1997, and September 14, 1996 (37th Week)

Reporting Area	*H. influenzae*, invasive		Hepatitis (Viral), by type				Measles (Rubeola)					
			A		B		Indigenous		Imported†		Total	
	Cum. 1997*	Cum. 1996	Cum. 1997	Cum. 1996	Cum. 1997	Cum. 1996	1997	Cum. 1997	1997	Cum. 1997	Cum. 1997	Cum. 1996
UNITED STATES	759	775	19,271	19,400	5,996	6,773	1	59	2	47	106	441
NEW ENGLAND	42	26	466	263	107	154	-	11	-	6	17	15
Maine	4	-	47	15	6	2	-	-	-	1	1	-
N.H.	5	10	22	11	9	11	-	1	-	-	1	-
Vt.	3	1	9	6	5	11	-	-	-	-	-	2
Mass.	26	13	184	134	43	54	-	10	-	4	14	12
R.I.	2	2	111	13	12	9	-	-	-	-	-	-
Conn.	2	-	93	84	32	67	-	-	-	1	1	1
MID. ATLANTIC	95	159	1,341	1,340	885	1,022	-	14	-	8	22	35
Upstate N.Y.	23	40	223	306	190	244	-	2	-	3	5	9
N.Y. City	25	42	500	411	326	366	-	5	-	2	7	11
N.J.	37	41	193	263	155	195	-	2	-	-	2	3
Pa.	10	36	425	360	214	217	-	5	-	3	8	12
E.N. CENTRAL	125	132	1,866	1,809	637	785	-	6	-	3	9	20
Ohio	73	77	240	582	59	95	-	-	-	-	-	5
Ind.	13	7	215	233	73	104	-	-	-	-	-	-
Ill.	26	35	446	521	162	248	-	6	-	1	7	3
Mich.	12	8	863	315	311	271	-	-	-	2	2	3
Wis.	1	5	102	158	32	67	-	-	-	-	-	9
W.N. CENTRAL	42	36	1,551	1,653	331	350	1	11	2	5	16	22
Minn.	27	23	132	94	28	41	1	2	2	5	7	18
Iowa	7	3	335	256	31	48	-	-	-	-	-	-
Mo.	4	7	779	824	236	203	-	1	-	-	1	3
N. Dak.	-	-	10	80	3	2	U	-	U	-	-	-
S. Dak.	2	1	18	41	1	4	U	8	U	-	8	-
Nebr.	1	1	72	107	10	27	-	-	-	-	-	-
Kans.	1	1	205	251	22	25	-	-	-	-	-	1
S. ATLANTIC	130	140	1,287	842	907	922	-	1	-	10	11	11
Del.	-	2	24	12	4	7	-	-	-	-	-	1
Md.	47	49	172	145	124	120	-	-	-	2	2	2
D.C.	-	5	17	23	25	27	-	-	-	1	1	-
Va.	12	6	162	120	91	100	-	-	-	1	1	3
W. Va.	3	7	8	13	11	18	-	-	-	-	-	-
N.C.	19	22	147	102	180	254	-	-	-	2	2	2
S.C.	4	4	77	42	79	61	-	-	-	1	1	-
Ga.	24	31	267	89	95	10	-	-	-	1	1	2
Fla.	21	14	413	296	298	325	-	1	-	2	3	1
E.S. CENTRAL	37	23	446	998	483	595	-	-	-	-	-	2
Ky.	5	5	59	36	27	54	-	-	-	-	-	-
Tenn.	24	9	277	657	326	338	-	-	-	-	-	2
Ala.	8	8	69	143	50	49	-	-	-	-	-	-
Miss.	-	1	41	162	80	154	-	-	-	-	-	-
W.S. CENTRAL	36	32	3,954	3,758	726	821	-	3	-	4	7	25
Ark.	1	-	190	333	43	61	-	-	-	-	-	-
La.	8	3	152	121	107	89	-	-	-	-	-	-
Okla.	24	25	1,147	1,652	34	24	-	-	-	-	-	-
Tex.	3	4	2,465	1,652	542	647	-	3	-	4	7	25
MOUNTAIN	78	39	3,190	3,129	669	815	-	6	-	2	8	156
Mont.	-	-	59	89	8	10	-	-	-	-	-	-
Idaho	1	1	101	156	27	71	-	-	-	-	-	1
Wyo.	3	-	28	26	32	33	-	-	-	-	-	1
Colo.	12	11	314	325	122	98	-	-	-	-	-	7
N. Mex.	8	9	252	299	198	286	-	-	-	-	-	16
Ariz.	29	12	1,651	1,233	153	186	-	5	-	-	5	8
Utah	3	6	466	706	75	72	-	-	-	1	1	118
Nev.	22	-	319	295	54	59	-	1	-	1	2	5
PACIFIC	174	188	5,170	5,608	1,251	1,309	-	7	-	9	16	155
Wash.	4	2	387	345	49	65	-	1	-	1	2	38
Oreg.	30	24	268	660	76	80	-	-	-	-	-	12
Calif.	128	155	4,403	4,512	1,101	1,147	-	4	-	7	11	38
Alaska	5	5	25	33	17	8	-	-	-	-	-	63
Hawaii	7	2	87	58	8	9	-	2	-	1	3	4
Guam	-	-	-	6	1	1	U	-	U	-	-	-
P.R.	-	1	222	159	1,060	688	-	-	-	-	-	2
V.I.	-	-	-	29	-	26	U	-	U	-	-	-
Amer. Samoa	-	-	-	-	-	-	U	-	U	-	-	-
C.N.M.I.	6	10	1	1	34	5	U	1	U	-	1	-

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

*Of 170 cases among children aged <5 years, serotype was reported for 91 and of those, 37 were type b.

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

TABLE III. (Cont'd.) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending September 13, 1997, and September 14, 1996 (37th Week)

Reporting Area	Meningococcal Disease		Mumps			Pertussis			Rubella		
	Cum. 1997	Cum. 1996	1997	Cum. 1997	Cum. 1996	1997	Cum. 1997	Cum. 1996	1997	Cum. 1997	Cum. 1996
UNITED STATES	2,379	2,329	14	407	505	77	3,535	3,825	3	136	214
NEW ENGLAND	149	95	-	8	1	1	644	835	-	1	25
Maine	17	10	-	-	-	-	6	32	-	-	-
N.H.	13	3	-	-	-	-	80	72	-	-	-
Vt.	4	3	-	-	-	-	187	68	-	-	2
Mass.	73	37	-	2	1	1	345	615	-	1	20
R.I.	14	10	-	5	-	-	12	25	-	-	-
Conn.	28	32	-	1	-	-	14	23	-	-	3
MID. ATLANTIC	215	247	1	42	59	11	265	274	-	29	10
Upstate N.Y.	54	65	-	7	18	-	93	141	-	2	4
N.Y. City	39	37	-	3	14	-	56	25	-	27	4
N.J.	46	53	-	5	2	-	9	20	-	-	2
Pa.	76	92	1	27	25	11	107	88	-	-	-
E.N. CENTRAL	333	340	-	44	104	3	293	469	1	5	3
Ohio	132	124	-	19	38	-	109	165	-	-	-
Ind.	39	49	-	7	6	1	39	34	-	-	-
Ill.	97	92	-	9	19	2	54	111	1	2	1
Mich.	39	35	-	9	39	-	39	30	-	-	2
Wis.	26	40	-	-	2	-	52	129	-	3	-
W.N. CENTRAL	174	191	1	14	14	33	287	229	-	-	-
Minn.	29	25	-	5	5	23	183	171	-	-	-
Iowa	39	40	1	7	1	7	33	11	-	-	-
Mo.	77	72	-	-	5	3	46	27	-	-	-
N. Dak.	2	3	U	-	2	U	2	1	U	-	-
S. Dak.	4	10	U	-	-	U	4	4	U	-	-
Nebr.	8	18	-	2	-	-	6	5	-	-	-
Kans.	15	23	-	-	1	-	13	10	-	-	-
S. ATLANTIC	422	361	2	58	86	8	342	402	1	68	91
Del.	5	2	-	-	-	-	1	18	-	-	-
Md.	38	43	-	4	27	1	101	146	-	3	-
D.C.	-	5	-	-	-	-	3	-	1	1	1
Va.	40	43	-	9	12	-	34	56	-	1	2
W. Va.	14	13	-	-	-	-	6	2	-	-	-
N.C.	78	60	-	9	19	-	89	72	-	52	77
S.C.	45	43	-	10	5	-	21	24	-	9	1
Ga.	78	106	2	8	3	3	11	19	-	-	-
Fla.	124	46	-	18	20	4	76	65	-	2	10
E.S. CENTRAL	188	164	1	20	19	2	80	173	-	-	2
Ky.	38	21	-	3	-	-	21	134	-	-	-
Tenn.	72	48	-	4	1	1	31	15	-	-	-
Ala.	61	56	1	7	3	1	20	17	-	-	2
Miss.	17	39	-	6	15	-	8	7	-	-	N
W.S. CENTRAL	233	261	8	43	36	6	154	99	-	4	8
Ark.	27	28	-	1	1	3	25	4	-	-	-
La.	46	49	1	12	12	-	15	7	-	-	1
Okla.	29	27	-	-	-	1	22	8	-	-	-
Tex.	131	157	7	30	23	2	92	80	-	4	7
MOUNTAIN	144	138	-	51	20	11	891	350	1	6	6
Mont.	8	6	-	-	-	-	16	26	-	-	-
Idaho	8	20	-	2	-	1	541	97	-	1	2
Wyo.	2	3	-	1	-	-	6	4	-	-	-
Colo.	38	28	-	3	3	4	197	112	-	-	2
N. Mex.	23	22	N	N	N	5	72	45	-	-	-
Ariz.	39	31	-	31	1	1	31	24	1	5	1
Utah	11	12	-	7	3	-	14	13	-	-	-
Nev.	15	16	-	7	13	-	14	29	-	-	1
PACIFIC	521	532	1	127	166	2	579	994	-	23	69
Wash.	62	75	-	14	18	2	261	444	-	5	15
Oreg.	102	95	N	N	N	-	17	51	-	-	1
Calif.	350	353	1	93	122	-	276	471	-	10	50
Alaska	2	6	-	3	2	-	14	2	-	-	-
Hawaii	5	3	-	17	24	-	11	26	-	8	3
Guam	-	4	U	1	4	U	-	-	U	-	-
P.R.	9	11	-	7	1	-	-	2	-	-	-
V.I.	-	-	U	-	1	U	-	-	U	-	-
Amer. Samoa	-	-	U	-	-	U	-	-	U	-	-
C.N.M.I.	-	-	U	4	-	U	-	-	U	-	-

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

TABLE IV. Deaths in 122 U.S. cities,* week ending September 13, 1997 (37th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	>65	45-64	25-44	1-24	<1	
NEW ENGLAND	480	346	84	24	12	14	30
Boston, Mass.	128	81	28	9	4	6	12
Bridgeport, Conn.	49	38	9	1	-	1	3
Cambridge, Mass.	12	9	2	-	-	1	1
Fall River, Mass.	19	14	5	-	-	-	2
Hartford, Conn.	43	31	4	4	1	3	-
Lowell, Mass.	35	28	4	2	1	-	1
Lynn, Mass.	6	5	-	1	-	-	-
New Bedford, Mass.	28	25	3	-	-	-	1
New Haven, Conn.	23	17	4	1	-	1	1
Providence, R.I.	36	26	7	1	2	-	-
Somerville, Mass.	1	-	1	-	-	-	-
Springfield, Mass.	34	20	6	3	4	1	1
Waterbury, Conn.	17	13	2	1	-	1	1
Worcester, Mass.	49	39	9	1	-	-	7
MID. ATLANTIC	2,189	1,475	454	187	38	34	126
Albany, N.Y.	49	33	11	3	-	2	2
Allentown, Pa.	13	10	2	1	-	-	-
Buffalo, N.Y.	66	49	14	2	1	-	1
Camden, N.J.	32	19	8	3	2	-	5
Elizabeth, N.J.	16	11	3	2	-	-	-
Erie, Pa.	52	45	7	-	-	-	4
Jersey City, N.J.	31	19	8	2	1	1	3
New York City, N.Y.	1,170	760	255	112	21	22	57
Newark, N.J.	64	34	19	8	2	1	7
Paterson, N.J.	22	12	5	5	-	-	-
Philadelphia, Pa.	300	186	70	30	8	5	23
Pittsburgh, Pa.§	51	38	7	4	2	-	2
Reading, Pa.	23	18	3	1	1	-	-
Rochester, N.Y.	124	91	21	9	-	3	11
Schenectady, N.Y.	27	23	4	-	-	-	1
Scranton, Pa.	32	25	7	-	-	-	1
Syracuse, N.Y.	101	88	9	4	-	-	9
Trenton, N.J.	U	U	U	U	U	U	U
Utica, N.Y.	16	14	1	1	-	-	-
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	2,070	1,365	400	179	65	61	99
Akron, Ohio	39	22	13	2	1	1	-
Canton, Ohio	44	28	14	2	-	-	3
Chicago, Ill.	380	206	82	54	22	16	19
Cincinnati, Ohio	90	72	13	4	1	-	5
Cleveland, Ohio	170	113	28	20	3	6	2
Columbus, Ohio	157	107	28	11	6	5	11
Dayton, Ohio	134	104	22	5	-	3	5
Detroit, Mich.	241	137	55	28	8	13	7
Evansville, Ind.	47	32	8	4	2	1	2
Fort Wayne, Ind.	77	49	18	4	4	2	5
Gary, Ind.	U	U	U	U	U	U	U
Grand Rapids, Mich.	42	31	8	2	1	-	-
Indianapolis, Ind.	205	143	26	22	10	4	10
Lansing, Mich.	38	19	11	2	4	2	3
Milwaukee, Wis.	130	90	25	9	2	4	10
Peoria, Ill.	26	20	5	1	-	-	2
Rockford, Ill.	48	37	9	1	-	1	4
South Bend, Ind.	42	33	7	1	-	1	3
Toledo, Ohio	83	61	16	5	-	1	5
Youngstown, Ohio	77	61	12	2	1	1	3
W.N. CENTRAL	747	522	117	61	19	19	33
Des Moines, Iowa	77	47	16	10	2	2	9
Duluth, Minn.	25	22	3	-	-	-	1
Kansas City, Kans.	42	27	8	3	2	2	1
Kansas City, Mo.	89	56	16	5	2	1	5
Lincoln, Nebr.	32	27	4	-	-	1	2
Minneapolis, Minn.	145	102	25	14	3	1	8
Omaha, Nebr.	99	71	16	5	3	4	2
St. Louis, Mo.	109	84	10	9	3	3	-
St. Paul, Minn.	56	39	7	5	1	4	3
Wichita, Kans.	73	47	12	10	3	1	2

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	>65	45-64	25-44	1-24	<1	
S. ATLANTIC	1,299	801	266	139	51	40	59
Atlanta, Ga.	141	84	25	21	3	8	4
Baltimore, Md.	241	139	57	29	13	3	18
Charlotte, N.C.	76	50	18	7	1	-	2
Jacksonville, Fla.	127	74	30	9	4	10	-
Miami, Fla.	111	61	26	14	5	3	1
Norfolk, Va.	58	35	8	6	3	6	5
Richmond, Va.	70	42	12	11	3	2	3
Savannah, Ga.	44	31	7	3	1	2	3
St. Petersburg, Fla.	79	59	10	8	1	1	3
Tampa, Fla.	200	149	36	11	3	1	18
Washington, D.C.	130	63	32	17	14	4	2
Wilmington, Del.	22	14	5	3	-	-	-
E.S. CENTRAL	685	438	148	58	21	18	42
Birmingham, Ala.	176	112	38	16	3	5	12
Chattanooga, Tenn.	55	37	14	1	2	1	1
Knoxville, Tenn.	70	51	8	7	2	2	5
Lexington, Ky.	51	39	5	6	1	-	8
Memphis, Tenn.	98	56	28	6	6	2	8
Mobile, Ala.	36	23	4	5	2	2	2
Montgomery, Ala.	62	43	10	6	2	1	4
Nashville, Tenn.	137	77	41	11	3	5	2
W.S. CENTRAL	1,459	945	299	124	50	41	72
Austin, Tex.	75	52	11	9	1	2	5
Baton Rouge, La.	39	28	7	1	1	2	-
Corpus Christi, Tex.	57	43	12	2	-	-	4
Dallas, Tex.	203	121	50	16	4	12	5
El Paso, Tex.	95	68	17	6	4	-	3
Ft. Worth, Tex.	121	78	28	8	4	3	9
Houston, Tex.	316	184	70	38	14	10	22
Little Rock, Ark.	75	53	15	5	1	1	2
New Orleans, La.	140	83	27	15	11	4	-
San Antonio, Tex.	180	127	28	14	7	4	6
Shreveport, La.	38	28	6	2	1	1	4
Tulsa, Okla.	120	80	28	8	2	2	12
MOUNTAIN	942	621	200	69	28	22	63
Albuquerque, N.M.	127	84	30	9	3	1	2
Boise, Idaho	31	18	5	3	3	1	2
Colo. Springs, Colo.	60	35	17	5	3	-	4
Denver, Colo.	81	50	15	9	3	4	12
Las Vegas, Nev.	150	100	39	7	3	1	8
Ogden, Utah	24	17	6	1	-	-	2
Phoenix, Ariz.	185	113	38	15	7	11	12
Pueblo, Colo.	28	21	5	1	-	1	-
Salt Lake City, Utah	88	54	18	12	2	2	3
Tucson, Ariz.	168	129	27	7	4	1	18
PACIFIC	2,097	1,456	362	169	61	49	136
Berkeley, Calif.	23	20	1	2	-	-	2
Fresno, Calif.	117	77	22	8	4	6	7
Glendale, Calif.	29	25	3	1	-	-	1
Honolulu, Hawaii	64	51	9	-	4	-	3
Long Beach, Calif.	71	50	10	6	2	3	8
Los Angeles, Calif.	707	493	121	54	23	16	33
Pasadena, Calif.	30	20	6	2	1	1	2
Portland, Oreg.	118	75	18	18	5	2	3
Sacramento, Calif.	141	96	25	16	2	2	17
San Diego, Calif.	172	124	30	11	3	4	20
San Francisco, Calif.	153	107	24	17	4	1	16
San Jose, Calif.	185	122	40	8	8	7	13
Santa Cruz, Calif.	36	24	8	4	-	-	2
Seattle, Wash.	130	92	20	11	4	3	4
Spokane, Wash.	48	31	10	5	1	1	1
Tacoma, Wash.	73	49	15	6	-	3	4
TOTAL	11,968¶	7,969	2,330	1,010	345	298	660

U: Unavailable -: no reported cases

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

†Pneumonia and influenza.

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

¶Total includes unknown ages.

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

Weekly Notifiable Disease Morbidity Data and 122 Cities Mortality Data

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

State Support Team
Robert Fagan
Karl A. Brendel
Siobhan Gilchrist, M.P.H.
Harry Holden
Gerald Jones
Felicia Perry
Carol A. Worsham

CDC Operations Team
Carol M. Knowles
Deborah A. Adams
Willie J. Anderson
Christine R. Burgess
Patsy A. Hall
Myra A. Montalbano
Angela Trosclair, M.S.

Desktop Publishing and Graphics Support

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 *listserv@listserv.cdc.gov*. The body content should read *SUBscribe mmwr-toc*. Electronic copy also is available from CDC's World-Wide Web server at *http://www.cdc.gov/* 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 (888) 232-3228.

☆**U.S. Government Printing Office: 1997-532-228/67027 Region IV**