CENTERS FOR DISEASE CONTROL

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Topics in Minority Health

Homicide Among Young Black Males – United States, 1978–1987

In 1987, homicide was the 12th leading cause of death in the United States and a leading cause of premature mortality (i.e., years of potential life lost before age 65). Homicide affects all age, race, and sex groups and is the leading cause of death for young black males (15–24 years of age) (*1*). Both the 1990 and Year 2000 Health Objectives for the Nation target a reduction in the homicide rate among this population (*2,3*). This report uses mortality statistics from CDC's National Center for Health Statistics (NCHS) to characterize homicides* among young black males for 1978–1987.

From 1978 though 1987, 20,315 young black males died as a result of homicide, for an average annual rate of 73.1 per 100,000. In 1987, homicides accounted for 42% of deaths among young black males, and the homicide rate for this group was 84.6 per 100,000—the highest rate of the decade and 40% higher than in 1984. From 1978 through 1987, firearms† accounted for 15,781 (78%) homicides among young black males. Yearly fluctuations in total homicides corresponded closely with the pattern for homicides committed with firearms (Figure 1). From 1984 through 1987, the nonfirearm homicide rate for young black males increased 7% (from 14.4 to 15.4 per 100,000), and the firearm homicide rate increased by 50% (from 46.2 to 69.3 per 100,000). Overall, firearm-related homicides accounted for 96% of the increase in the homicide rate for young black males from 1984 through 1987.

The percent increase in homicide rates from 1984 through 1987 was greater for adolescent black males aged 15–19 years (55% [from 38.5 to 59.6 per 100,000]) than for those aged 20–24 years (33% [from 83.3 to 111.1 per 100,000]). For adolescent black males, both the homicide rate and the proportion of homicides committed with firearms were highest in 1987 (59.6 per 100,000 and 83%, respectively). In 1987, 34% of deaths among adolescent black males were homicides committed with a firearm.

*_International Classification of Diseases_, eighth (ICD-8) and ninth (ICD-9) revisions, rubrics E960–E969.

†Firearm-related homicides are defined as ICD-8 and ICD-9 rubric E965. Although this rubric includes deaths from explosives, such deaths account for <0.1% of total homicides from firearms and explosives.

Homicide – Continued

From 1978 through 1987, annual homicide rates for young black males were four to five times higher than for young black females, five to eight times higher than for young white males, and 16–22 times higher than for young white females (Figure 2). Since 1984, the disparity between homicide rates for young black males and other racial/sex groups increased substantially; for example, a comparison of 1984 with 1987 indicates that the ratio of homicide rates for black males to those for white males increased 38%, from 5.6 to 7.7 (Table 1).

In 1987, of the 23 states with a population of young black males sufficient to enable stable estimates for homicide rates (*4*), 14 had a homicide rate for this group that exceeded the 1990 health objective of <60 per 100,000 (Figure 3). Rates exceeded 100 per 100,000 in California, Florida, Michigan, Missouri, New York, and the District of Columbia.[§] In addition, from 1984 to 1987, the homicide rate for young black males increased 22% in Missouri, 40% in the District of Columbia, 64% in New York, 68% in Florida, 71% in California, and 76% in Michigan.

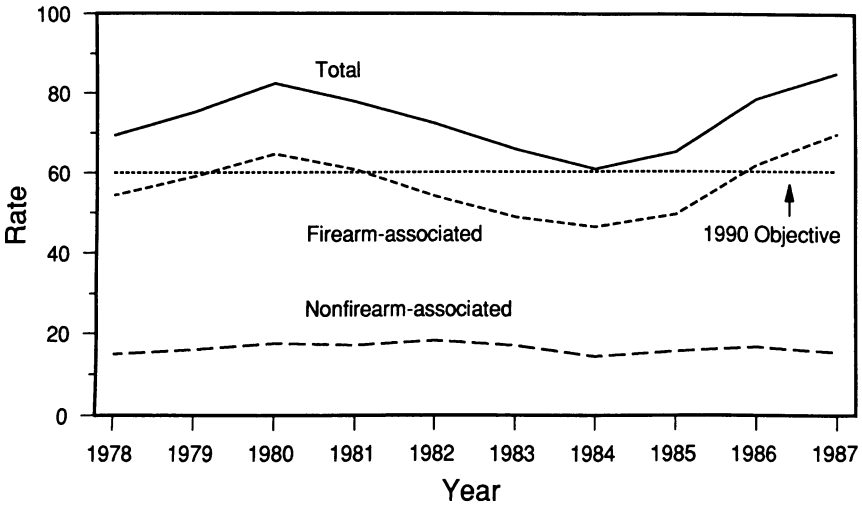
Reported by: Intentional Injuries Section, Epidemiology Br, Div of Injury Control, Center for Environmental Health and Injury Control, CDC.

Editorial Note: The disproportionate impact of homicide among young black males was recognized in the 1990 health objective that targeted a reduction in the homicide rate for this group to <60 per 100,000 (*2*). Although homicides declined among young black males during the early 1980s, from 1984 through 1987, the homicide rate for this group increased sharply. Based on data from the Federal Bureau of Investigation's Uniform Crime Reporting System through June 1990, homicide rates have continued to increase since 1987[¶] (*5*).

[§]Florida, 119.7; Missouri, 130.5; New York, 135.3; the District of Columbia, 135.8; California, 153.9; and Michigan, 231.6.

[¶]Recently released mortality statistics from NCHS indicate that the homicide rate for young black males increased 19% from 1987 to 1988.

FIGURE 1. Firearm- and nonfirearm-associated homicide rates* for black males 15–24 years of age – United States, 1978–1987



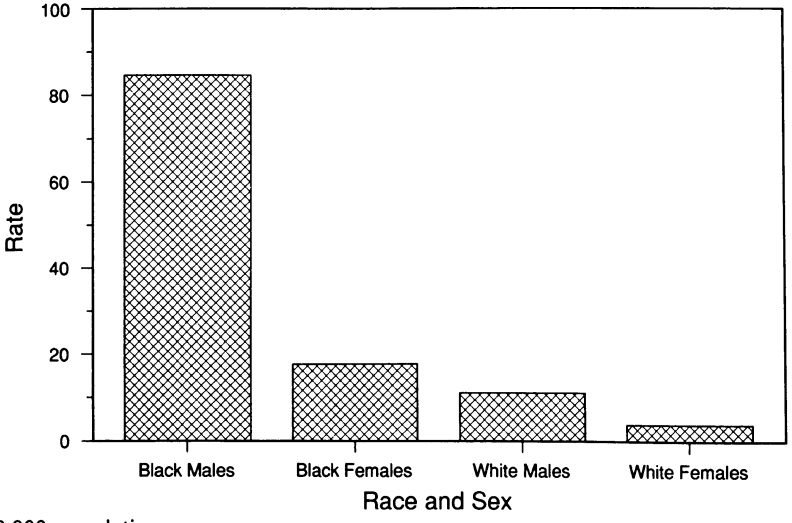
*Per 100,000 population.

Homicide — Continued

This report identified four disturbing features in the epidemiology of homicide in young black males. First, firearm-associated homicides accounted for >80% of deaths and >95% of the recent large increase. Second, the increase since 1984 was especially marked among adolescent black males. Third, the already large disparity in homicide rates between black males and other racial/sex groups has widened. Fourth, certain areas had the highest rates, accounted for most cases, and had considerable recent increases in homicide rates. For example, the six areas with homicide rates >100 per 100,000 persons contained 29% of the young black male population but accounted for 51% of all homicide-attributable deaths in this group in 1987. If these six areas had attained the 1990 health objective for homicide rates for young black males, the homicide rate for this population in 1987 would have decreased 31%.

Homicide among young black males and other groups can result from behaviors such as domestic violence, child abuse, rape, and physical fighting among acquaintances. Despite a common perception that victims of homicide are usually killed by

FIGURE 2. Homicide rates* for persons 15–24 years of age, by race and sex — United States, 1987



*Per 100,000 population.

TABLE 1. Homicide rates* and rate ratios† for persons 15–24 years of age, by race and sex — United States, 1984 and 1987

Race/Sex	1984 Rate	1984 Ratio	1987 Rate	1987 Ratio	% Increase in ratio
Black male	60.6	1.0	84.7	1.0	—
Black female	14.8	4.1	17.7	4.8	16.8
White male	10.9	5.6	11.0	7.7	37.7
White female	4.3	14.1	3.9	21.9	55.3

*Per 100,000 population.
†Ratios compare rates for black males to rates for other racial/sex groups.

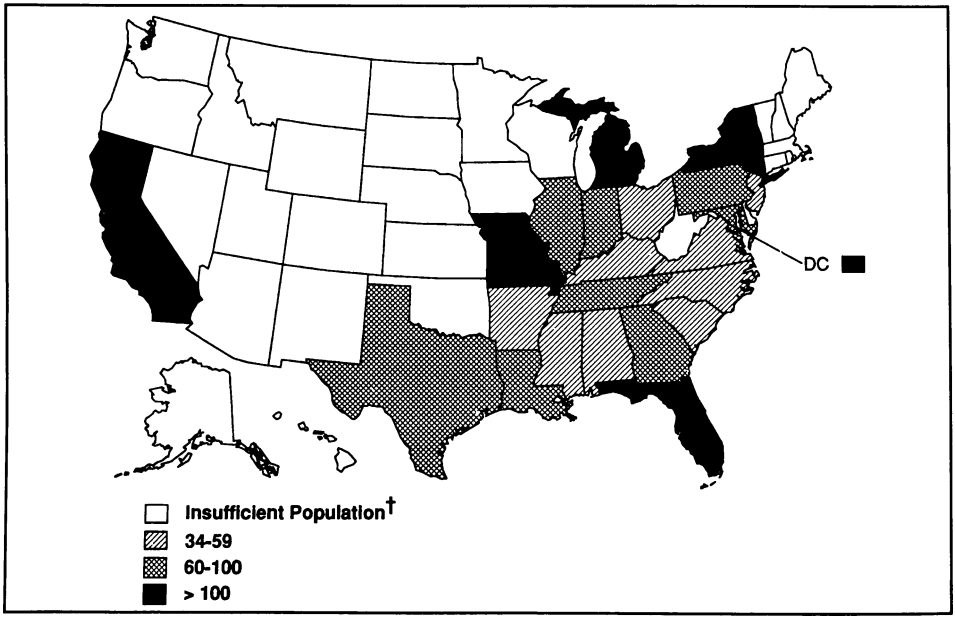
Homicide — Continued

unknown assailants during robberies or drug-related crimes, more than half of all homicide victims are killed by persons known to them. Factors identified as potentially important contributors to homicide include immediate access to firearms, alcohol and substance abuse, drug trafficking, poverty, racial discrimination, and cultural acceptance of violent behavior (*6–8*).

Because research and evaluation efforts have not yet demonstrated effective programmatic approaches to prevent homicide, priority areas for research and intervention should target 1) the causes for the recent rise in homicide among young black males; 2) prevention of firearm-related morbidity and mortality; 3) improved understanding of the role of alcohol, drugs, and drug trafficking in homicide; 4) prevention of violent, aggressive behavior; and 5) identification of modifiable risk factors for homicide among urban youths of lower socioeconomic status.

Compared with other injury-control priorities, public health efforts to prevent homicide among young black males and other persons in high-risk groups have only recently been implemented. In 1987, only two (0.6%) of 325 injury-prevention programs based in state health departments focused on homicide (*9*). Since 1986, only one (0.2%) of 552 award-winning community-based health promotion projects specifically has included homicide (CDC, unpublished data). Proposed interventions to reduce homicides include drug- and alcohol-abuse prevention, firearm control, interventions directed at the effects of television violence, school-based interventions, and public education (*6*). Such projects should be carefully designed and rigorously evaluated so that successful programs can be replicated.

FIGURE 3. Homicide rates* for black males 15–24 years of age, by state — United States, 1987



*Per 100,000 population.
†Population of black males aged 15–24 years was too small to enable stable rate estimates (*4*).

Homicide — Continued

At the national level, 30 of the year 2000 health objectives target a reduction in the incidence of homicide and violent behaviors among young black males and persons in other high-risk groups (*3*). At the local level, communities with high homicide rates can develop and implement projects using established principles of health promotion (*10*). These include the formation of coalitions of community leaders and organizations and reviews of local data concerning homicides and violent behaviors. Local health agencies should consider developing homicide-prevention programs and collaborate with social services, the criminal justice system, and other community services in the planning, implementation, and evaluation of community projects. Coordinated efforts among multiple agencies are likely to be important components of national efforts to reduce homicide rates for young black males and other persons.

The identification of promising approaches to homicide and violence prevention will be the focus of a conference on minority violence cosponsored by Morehouse University and CDC on December 10–12, 1990, in Atlanta.

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Epidemiologic Notes and Reports

Imported Malaria Associated with Malariotherapy of Lyme Disease — New Jersey

In November 1990, a physician in New Jersey reported two cases of imported vivax malaria to the New Jersey State Department of Health. Both of these patients were among five patients who had been diagnosed with late-stage Lyme disease and referred by the physician to sources in Mexico for intramuscular injections of blood containing *Plasmodium vivax* parasites. The malaria donors reportedly had been

Malaria — Continued

screened for serologic evidence of syphilis, hepatitis B, and human immunodeficiency virus infection. On return to New Jersey, the two patients were diagnosed with parasitemia 3 days and 14 days after the injection, respectively. Approximately 3 weeks after onset of malaria, the patients were treated with chloroquine with satisfactory response.

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Editorial Note: Lyme disease, caused by the tick-transmitted spirochete *Borrelia burgdorferi*, is a zoonotic disease with protean clinical manifestations, including late-stage arthritic and neurologic manifestations (*1*). Lyme disease has been reported from 46 states and is highly endemic in some areas of the northeastern and mid-Atlantic regions (including New Jersey), the north central region, and the Pacific coastal region (*2*). Antibiotics are effective in treating both early and late stages of Lyme disease (*1,3*). In some patients, however, symptoms persist despite appropriate treatment (*3,4*). Causes could include persistent spirochetosis (*5*), irreversible tissue damage (*3,4*), autoimmunity (*3*), and misdiagnosis (*6*).

Induced vivax malaria recently was proposed for the treatment of neuroborreliosis (*7*). The precedent for this approach is the obsolete practice of malariotherapy for the treatment of neurosyphilis, which was widely used in the preantibiotic era (*8*). Controlled studies of malariotherapy for neurosyphilis never were done; published results suggested that the response to treatment was unpredictable and primarily clinical and that the duration of remission was variable (*9*). Changes in serologic status generally did not correlate with clinical improvement, suggesting that malariotherapy had minimal, if any, effect on the underlying spirochetal infection (*9*). Malariotherapy for syphilis was discontinued when penicillin and other effective antibiotics became available.

For at least three reasons, induced malaria is not recommended for the treatment of Lyme disease. First, no scientific studies exist of the efficacy of this procedure for the treatment of this disease. Second, malariotherapy causes iatrogenic morbidity and carries a direct risk for death from complications of *P. vivax* infection (*8*) or from coinfection with other, undetected, bloodborne pathogens. Third, a small but finite risk exists of local transmission of malaria when parasitemic persons enter the United States (*10*). Iatrogenic malaria cases should be reported promptly to local and state public health agencies.

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Malaria — Continued

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Current Trends

Trends in Lung Cancer Incidence and Mortality — United States, 1980–1987

Lung cancer is the most common fatal malignant neoplasm in the United States. Based on current smoking patterns, the substantial public health burden of smoking-related lung cancer will continue during the next several decades. This report describes trends in lung cancer incidence from 1980 through 1986 and lung cancer mortality from 1980 through 1987.

Incident cases* for 1980–1986 were determined using data from the Surveillance, Epidemiology, and End Results program of the National Cancer Institute (NCI). Deaths† for 1980–1987 were identified using total mentions from the multiple cause-of-death data files compiled by CDC's National Center for Health Statistics. The denominators for both rates were derived from intercensal population estimates (*1*). Rates were standardized to the 1970 age distribution of the U.S. population. Race-specific rates are not reported for races other than white and black because appropriate denominators were not available.

From 1980 through 1986, the age-adjusted lung cancer incidence rate per 100,000 persons increased from 52.4 to 55.5 (Table 1).§ Although rates fluctuated for males, for females, they increased steadily from 28.4 to 36.3 per 100,000. Incidence in males was higher among blacks than whites; rates for females did not differ by race (Table 1).

(Continued on page 881)

**International Classification of Diseases for Oncology*, rubric 162, which includes trachea, bronchus, and lung.

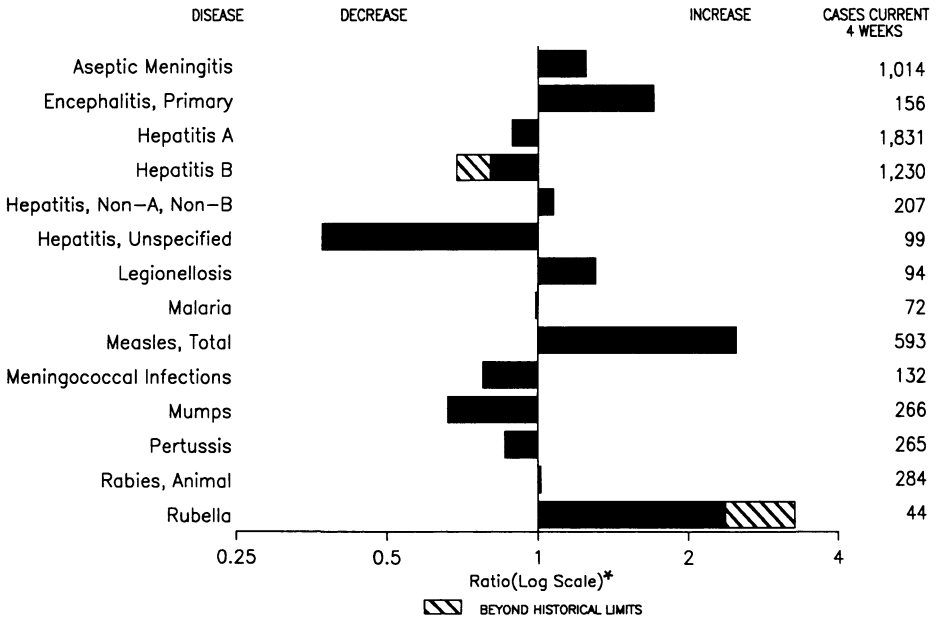
†*International Classification of Diseases, Ninth Revision*, rubric 162, which includes malignant neoplasm of the trachea, bronchus, and lung.

§Rates reported here may not correspond to those published by NCI because of additional data recoding by NCI.

TABLE 1. Age-adjusted incidence of lung cancer per 100,000 persons, by sex and race — Surveillance, Epidemiology, and End Results program, 1980–1986

	Male		Female		
Year	White	Black	White	Black	Total
1980	82.4	131.6	28.4	34.9	**52.4**
1981	83.5	126.0	31.5	33.5	**53.9**
1982	84.0	123.5	33.8	31.8	**55.0**
1983	82.4	130.6	34.6	34.9	**55.0**
1984	84.1	139.1	35.2	40.3	**56.7**
1985	81.6	129.7	35.9	40.9	**55.6**
1986	80.2	130.2	37.2	43.3	**55.5**

FIGURE I. Notifiable disease reports, comparison of 4-week totals ending December 1, 1990, with historical data — United States



*Ratio of current 4-week total to mean of 15 4-week totals (from comparable, previous, and subsequent 4-week periods for past 5 years).

TABLE I. Summary — cases of specified notifiable diseases, United States, cumulative, week ending December 1, 1990 (48th Week)

	Cum. 1990		Cum. 1990
AIDS	38,180	Plague	2
Anthrax	-	Poliomyelitis, Paralytic*	-
Botulism: Foodborne	21	Psittacosis	99
Infant	57	Rabies, human	1
Other	6	Syphilis: civilian	45,200
Brucellosis	72	military	225
Cholera	4	Syphilis, congenital, age < 1 year	685
Congenital rubella syndrome	4	Tetanus	57
Diphtheria	4	Toxic shock syndrome	277
Encephalitis, post-infectious	88	Trichinosis	27
Gonorrhea: civilian	611,932	Tuberculosis	21,414
military	7,870	Tularemia	132
Leprosy	182	Typhoid fever	465
Leptospirosis	50	Typhus fever, tickborne (RMSF)	641
Measles: imported	1,080		
indigenous	24,206		

*Three cases of suspected poliomyelitis have been reported in 1990; five of 13 suspected cases in 1989 were confirmed and all were vaccine-associated.

TABLE II. Cases of specified notifiable diseases, United States, weeks ending December 1, 1990, and December 2, 1989 (48th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1990	Cum. 1990	Cum. 1990	Cum. 1990	Cum. 1990	Cum. 1989	Cum. 1990	Cum. 1990	Cum. 1990	Cum. 1990	Cum. 1990	Cum. 1990
UNITED STATES	38,180	10,366	1,061	88	611,932	646,195	26,669	18,474	2,407	1,539	1,212	182
NEW ENGLAND	1,354	389	27	-	16,866	19,103	569	968	88	61	69	10
Maine	52	22	4	-	184	243	10	25	4	1	5	-
N.H.	63	42	-	-	265	174	7	40	6	3	4	-
Vt.	15	37	2	-	48	62	5	42	6	-	6	-
Mass.	746	122	12	-	7,087	7,538	374	602	62	55	45	9
R.I.	80	121	1	-	1,161	1,359	51	45	-	2	9	1
Conn.	398	45	8	-	8,121	9,727	122	214	10	-	-	-
MID. ATLANTIC	11,413	972	45	7	81,184	91,818	3,433	2,321	214	88	364	20
Upstate N.Y.	1,447	524	37	1	13,415	17,131	1,113	656	80	25	137	1
N.Y. City	6,526	132	3	3	32,561	35,149	487	553	25	43	83	14
N.J.	2,288	-	1	-	13,244	13,570	414	556	41	-	49	4
Pa.	1,152	316	4	3	21,964	25,968	1,419	556	68	20	95	1
E.N. CENTRAL	2,752	3,143	275	15	117,627	121,290	2,308	2,180	390	86	313	2
Ohio	592	625	87	4	36,074	31,486	240	367	83	12	102	-
Ind.	262	342	13	9	10,417	8,983	225	384	19	15	47	-
Ill.	1,175	711	88	2	35,961	39,755	1,116	424	46	18	27	1
Mich.	521	1,069	72	-	28,085	31,194	362	611	40	41	94	1
Wis.	202	396	15	-	7,090	9,872	365	394	202	-	43	-
W.N. CENTRAL	957	556	115	2	31,310	30,734	1,664	842	134	30	73	1
Minn.	175	114	71	1	3,877	3,525	233	102	25	-	9	-
Iowa	55	105	7	-	2,093	2,594	263	51	13	4	4	-
Mo.	535	211	7	1	18,870	18,698	453	544	67	19	37	-
N. Dak.	2	25	3	-	94	139	24	5	2	1	1	-
S. Dak.	9	9	9	-	279	262	365	7	4	-	2	-
Nebr.	55	42	7	-	1,753	1,466	104	31	4	-	12	1
Kans.	126	50	11	-	4,344	4,050	222	102	19	6	8	-
S. ATLANTIC	8,325	1,843	314	29	175,239	173,150	2,920	3,670	328	232	174	6
Del.	91	47	5	-	2,974	3,025	105	93	9	2	11	-
Md.	947	250	25	1	22,234	20,309	939	513	57	14	57	3
D.C.	630	9	-	-	12,545	9,893	15	39	4	-	2	-
Va.	699	350	52	1	16,750	14,993	287	246	43	160	13	-
W. Va.	59	54	61	-	1,242	1,383	21	82	4	10	4	-
N.C.	543	242	40	-	27,293	26,345	626	983	132	-	31	1
S.C.	319	22	1	-	13,580	15,706	40	575	15	9	25	-
Ga.	1,176	294	5	1	37,435	34,164	342	467	11	9	21	-
Fla.	3,861	575	125	26	41,186	47,332	545	672	53	28	10	2
E.S. CENTRAL	981	682	61	2	53,534	51,974	384	1,402	210	8	56	1
Ky.	175	187	25	-	5,313	5,094	89	453	56	6	22	-
Tenn.	323	147	27	2	17,056	17,415	190	773	130	-	20	1
Ala.	218	237	9	-	17,849	16,785	103	157	21	1	14	-
Miss.	265	111	-	-	13,316	12,680	2	19	3	1	-	-
W.S. CENTRAL	3,877	806	75	9	66,079	66,605	3,247	2,021	116	286	50	38
Ark.	194	33	5	-	8,015	7,802	521	82	11	26	9	-
La.	655	88	11	1	11,936	14,031	193	309	5	7	14	1
Okla.	182	79	3	6	5,593	5,924	538	152	26	24	17	-
Tex.	2,846	606	56	2	40,535	38,848	1,995	1,478	74	229	10	37
MOUNTAIN	1,036	379	23	2	12,258	13,610	4,247	1,333	204	125	48	3
Mont.	15	6	-	-	203	177	160	65	7	4	6	-
Idaho	26	9	-	-	130	164	84	76	8	-	3	-
Wyo.	2	10	1	-	135	103	65	16	5	1	2	-
Colo.	328	100	5	-	3,289	2,962	313	178	47	43	9	-
N. Mex.	102	20	1	-	1,133	1,225	894	182	15	10	4	-
Ariz.	292	164	9	-	4,727	5,541	1,873	444	68	50	12	2
Utah	95	27	3	-	349	417	563	97	27	7	5	-
Nev.	176	43	4	2	2,292	3,021	295	275	27	10	7	1
PACIFIC	7,485	1,596	126	22	57,835	77,911	7,897	3,737	723	623	65	101
Wash.	573	-	6	2	4,672	6,198	1,257	562	125	34	14	9
Oreg.	293	-	-	-	2,324	2,921	763	387	53	11	-	-
Calif.	6,457	1,390	112	19	49,410	67,427	5,615	2,658	528	566	49	74
Alaska	24	108	7	-	979	886	189	55	7	5	-	-
Hawaii	138	98	1	1	450	479	73	75	10	7	2	18
Guam	2	2	-	-	218	154	12	4	-	11	-	1
P.R.	1,569	75	8	1	679	1,000	156	557	14	26	-	6
V.I.	11	-	-	-	406	663	1	12	-	-	-	-
Amer. Samoa	-	1	-	31	63	54	34	-	-	-	-	10
C.N.M.I.	-	-	-	-	161	88	10	9	-	15	-	5

N: Not notifiable U: Unavailable C.N.M.I.: Commonwealth of the Northern Mariana Islands

TABLE II. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending December 1, 1990, and December 2, 1989 (48th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
	Cum. 1990	1990	Cum. 1990	1990	Cum. 1990	Cum. 1989	Cum. 1990	1990	Cum. 1990	1990	Cum. 1990	Cum. 1989	1990	Cum. 1990	Cum. 1989
UNITED STATES	1,108	15	24,206	2	1,080	15,263	2,175	65	4,716	76	3,867	3,601	5	1,083	358
NEW ENGLAND	94	-	265	1	28	383	174	6	48	21	409	373	-	8	6
Maine	3	-	28	-	2	1	14	-	-	2	22	25	-	1	-
N.H.	4	-	-	-	9	16	14	-	11	5	66	16	-	1	4
Vt.	7	-	-	-	1	3	13	-	2	1	8	6	-	-	1
Mass.	50	-	23	1†	8	103	79	-	12	9	277	294	-	2	1
R.I.	8	-	27	-	3	41	13	6	11	2	9	11	-	1	-
Conn.	22	-	187	-	5	219	41	-	12	2	27	21	-	3	-
MID. ATLANTIC	231	12	1,375	-	157	997	335	6	333	9	534	304	-	11	37
Upstate N.Y.	48	-	205	-	112	156	125	1	130	-	315	132	-	10	14
N.Y. City	80	-	467	-	21	121	46	-	-	-	-	17	-	-	16
N.J.	76	-	311	-	15	455	66	-	89	-	31	35	-	-	7
Pa.	27	12	392	-	9	265	98	5	114	9	188	120	-	1	-
E.N. CENTRAL	72	-	3,368	-	143	5,504	285	5	506	7	899	574	-	162	30
Ohio	9	-	551	-	3	1,551	87	-	91	-	232	107	-	131	3
Ind.	3	-	417	-	1	112	29	-	21	4	144	46	-	-	-
Ill.	34	-	1,309	-	10	2,959	79	-	173	-	300	177	-	19	23
Mich.	17	-	348	-	125	335	67	5	166	3	84	45	-	9	1
Wis.	9	-	743	-	4	547	23	-	55	-	139	199	-	3	3
W.N. CENTRAL	22	-	902	-	17	814	72	1	157	2	213	230	-	48	7
Minn.	6	-	424	-	6	24	16	-	15	-	51	64	-	42	-
Iowa	2	-	25	-	1	13	1	-	23	-	18	15	-	4	1
Mo.	12	-	99	-	1	524	31	1	58	1	108	129	-	-	4
N. Dak.	-	-	-	-	-	-	1	-	-	-	2	4	-	1	1
S. Dak.	-	-	15	-	8	-	2	-	-	-	1	4	-	-	-
Nebr.	-	-	105	-	1	113	5	-	8	1	8	8	-	1	-
Kans.	2	-	234	-	-	140	16	-	53	-	25	6	-	-	1
S. ATLANTIC	217	2	937	1	376	723	399	14	1,902	2	312	353	-	21	11
Del.	6	-	8	-	3	40	4	-	6	-	9	1	-	-	-
Md.	58	-	195	-	18	104	46	9	1,075	-	62	77	-	2	2
D.C.	10	-	16	-	7	42	11	1	39	-	15	3	-	1	-
Va.	51	-	84	-	2	22	52	3	106	1	25	34	-	1	-
W. Va.	2	-	6	-	-	53	18	-	44	1	30	33	-	-	-
N.C.	20	2	24	-	15	190	69	-	304	-	77	72	-	1	1
S.C.	3	-	4	-	-	15	26	1	64	-	5	-	-	-	-
Ga.	16	-	99	-	259	18	63	-	93	-	41	50	-	1	-
Fla.	51	-	501	1§	72	239	110	-	171	-	48	83	-	15	8
E.S. CENTRAL	22	-	194	-	4	247	133	1	107	3	162	206	-	4	5
Ky.	2	-	41	-	1	44	38	-	-	-	-	1	-	1	-
Tenn.	11	-	104	-	-	147	56	1	61	2	85	118	-	3	4
Ala.	9	-	23	-	2	56	35	-	19	1	69	76	-	-	1
Miss.	-	-	26	-	1	-	4	-	27	-	8	11	-	-	-
W.S. CENTRAL	67	-	4,201	-	95	3,311	147	22	709	10	197	369	-	91	50
Ark.	4	-	18	-	31	22	18	1	140	-	22	30	-	3	-
La.	7	-	10	-	-	109	34	6	119	1	33	26	-	-	5
Okla.	10	-	174	-	-	110	16	4	106	9	62	63	-	1	1
Tex.	46	-	3,999	-	64	3,070	79	11	344	-	80	250	-	87	44
MOUNTAIN	26	1	866	-	100	420	74	3	339	4	304	669	-	110	37
Mont.	1	-	-	-	1	13	11	-	1	1	36	39	-	15	1
Idaho	5	1	17	-	10	7	6	-	143	-	46	74	-	49	32
Wyo.	1	-	-	-	15	-	1	-	2	-	-	-	-	-	2
Colo.	3	-	91	-	47	101	23	-	25	-	112	100	-	4	1
N. Mex.	4	-	81	-	12	31	12	N	N	-	18	35	-	-	-
Ariz.	11	-	300	-	12	145	7	3	139	-	54	398	-	32	-
Utah	-	-	146	-	-	114	7	-	10	3	34	22	-	2	-
Nev.	1	-	231	-	3	9	7	-	19	-	4	1	-	8	1
PACIFIC	357	-	12,098	-	160	2,864	556	7	615	18	837	523	5	628	175
Wash.	29	-	202	-	69	54	71	-	57	-	216	186	-	-	-
Oreg.	19	-	169	-	44	71	67	N	N	-	107	18	-	75	4
Calif.	303	-	11,615	-	41	2,709	402	7	529	5	400	293	5	537	149
Alaska	2	-	78	-	2	1	11	-	4	-	7	1	-	-	-
Hawaii	4	-	34	-	4	32	5	-	25	13	107	25	-	16	22
Guam	3	U	-	U	1	4	4	U	5	U	1	1	U	-	-
P.R.	3	-	1,665	-	-	562	13	-	8	1	19	6	-	-	8
V.I.	-	-	21	-	3	4	-	1	14	-	-	-	-	-	-
Amer. Samoa	35	U	501	U	-	-	-	U	37	U	-	-	U	-	-
C.N.M.I.	-	U	34	U	-	-	-	U	8	U	4	-	U	-	-

*For measles only, imported cases includes both out-of-state and international importations.
N: Not notifiable U: Unavailable †International §Out-of-state

TABLE II. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending December 1, 1990, and December 2, 1989 (48th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1990	Cum. 1989	Cum. 1990	Cum. 1990	Cum. 1989	Cum. 1990	Cum. 1990	Cum. 1990	Cum. 1990
UNITED STATES	45,200	40,695	277	21,414	19,678	132	465	641	3,975
NEW ENGLAND	1,538	1,560	24	564	605	4	33	21	6
Maine	7	13	7	18	25	1	-	-	-
N.H.	49	13	1	3	24	-	-	1	3
Vt.	2	1	1	8	8	-	-	-	-
Mass.	627	464	13	319	338	3	31	18	-
R.I.	23	29	1	65	63	-	-	-	-
Conn.	830	1,040	1	151	147	-	2	2	3
MID. ATLANTIC	8,934	8,374	31	5,080	4,106	2	99	30	995
Upstate N.Y.	835	922	11	349	341	1	18	15	190
N.Y. City	4,016	4,009	5	3,179	2,323	-	54	2	-
N.J.	1,388	1,316	-	860	808	1	23	8	359
Pa.	2,695	2,127	15	692	634	-	4	5	446
E.N. CENTRAL	3,247	1,813	66	2,060	2,000	6	31	49	168
Ohio	519	156	22	374	339	2	6	37	11
Ind.	99	55	1	209	190	1	2	2	17
Ill.	1,336	799	14	1,008	945	3	14	3	30
Mich.	972	643	29	393	407	-	8	7	51
Wis.	321	160	-	76	119	-	1	-	59
W.N. CENTRAL	477	299	32	571	505	43	5	53	604
Minn.	85	51	5	119	99	-	-	-	226
Iowa	70	33	8	63	47	-	1	2	21
Mo.	260	158	9	279	239	33	3	35	28
N. Dak.	1	4	1	18	15	-	-	-	89
S. Dak.	4	1	-	13	28	4	-	2	191
Nebr.	15	24	3	16	21	3	-	1	4
Kans.	42	28	6	63	56	3	1	13	45
S. ATLANTIC	14,299	14,321	18	3,961	4,136	5	75	283	1,087
Del.	181	198	1	34	41	-	-	1	32
Md.	1,103	780	1	325	353	-	33	19	421
D.C.	1,035	781	1	147	149	-	-	2	-
Va.	854	549	3	360	339	2	7	24	188
W. Va.	18	15	-	72	70	-	1	1	37
N.C.	1,606	1,056	4	544	548	2	4	174	8
S.C.	982	811	2	430	468	1	1	41	127
Ga.	3,617	3,529	2	671	684	-	4	18	194
Fla.	4,903	6,602	4	1,378	1,484	-	25	3	80
E.S. CENTRAL	4,284	2,895	14	1,554	1,578	8	4	80	170
Ky.	106	53	3	345	359	2	1	11	49
Tenn.	1,844	1,305	8	471	516	6	1	58	27
Ala.	1,282	858	3	454	423	-	2	11	91
Miss.	1,052	679	-	284	280	-	-	-	3
W.S. CENTRAL	7,794	5,805	12	2,521	2,354	41	20	101	429
Ark.	553	357	-	302	271	31	-	22	34
La.	2,425	1,457	1	251	292	-	1	3	31
Okla.	245	117	8	192	199	9	3	70	125
Tex.	4,571	3,874	3	1,776	1,592	1	16	6	239
MOUNTAIN	830	642	29	500	479	19	20	12	209
Mont.	-	1	-	22	16	-	-	4	45
Idaho	6	1	2	12	25	-	-	1	7
Wyo.	2	6	2	5	-	6	-	1	49
Colo.	46	61	7	27	49	6	-	1	23
N. Mex.	46	26	3	106	88	4	-	1	12
Ariz.	584	334	9	232	225	-	18	1	38
Utah	28	16	5	38	37	3	-	3	16
Nev.	118	197	1	58	39	-	2	-	19
PACIFIC	3,797	4,986	51	4,603	3,915	4	178	12	307
Wash.	312	444	4	268	221	2	23	2	-
Oreg.	127	233	2	119	129	-	4	1	1
Calif.	3,331	4,286	44	3,981	3,341	-	141	4	284
Alaska	17	8	-	57	55	2	-	-	22
Hawaii	10	15	1	178	169	-	10	5	-
Guam	2	4	-	40	81	-	-	-	-
P.R.	304	505	-	102	281	-	3	-	40
V.I.	42	9	-	4	4	-	-	-	-
Amer. Samoa	-	-	-	12	7	-	1	-	-
C.N.M.I.	4	14	-	44	29	-	4	-	-

U: Unavailable

TABLE III. Deaths in 121 U.S. cities,* week ending December 1, 1990 (48th Week)

Reporting Area	All Causes, By Age (Years)						P&I**
	All Ages	≥65	45-64	25-44	1-24	<1	Total
NEW ENGLAND	669	478	118	48	11	14	43
Boston, Mass.	201	137	39	15	2	8	17
Bridgeport, Conn.	55	40	12	3	-	-	5
Cambridge, Mass.	18	12	3	3	-	-	2
Fall River, Mass.	27	24	3	-	-	-	-
Hartford, Conn.	61	38	15	4	2	2	-
Lowell, Mass.	26	19	4	1	1	1	3
Lynn, Mass.	11	8	1	1	1	-	2
New Bedford, Mass.	20	15	2	3	-	-	1
New Haven, Conn.	51	40	5	5	1	-	4
Providence, R.I.	61	45	10	3	1	2	3
Somerville, Mass.	8	5	2	1	-	-	-
Springfield, Mass.	35	24	7	2	1	1	2
Waterbury, Conn.	34	25	6	2	1	-	1
Worcester, Mass.	61	46	9	5	1	-	3
MID. ATLANTIC	3,161	2,037	633	326	78	87	171
Albany, N.Y.	57	40	9	4	2	2	4
Allentown, Pa.	13	10	3	-	-	-	1
Buffalo, N.Y.	140	98	28	10	1	3	8
Camden, N.J.	48	25	11	4	4	4	-
Elizabeth, N.J.	18	13	4	-	1	-	-
Erie, Pa.†	55	39	11	3	2	-	3
Jersey City, N.J.	80	49	17	9	2	3	4
N.Y. City, N.Y.	1,653	1,052	315	211	41	34	73
Newark, N.J.	71	29	23	9	4	6	9
Paterson, N.J.	38	21	12	4	-	1	8
Philadelphia, Pa.	390	243	91	28	9	19	14
Pittsburgh, Pa.†	97	63	21	8	-	5	6
Reading, Pa.	37	26	9	1	1	-	5
Rochester, N.Y.	155	114	21	10	6	4	13
Schenectady, N.Y.	39	29	5	2	1	2	1
Scranton, Pa.†	40	30	7	2	-	1	4
Syracuse, N.Y.	120	82	21	12	3	2	7
Trenton, N.J.	54	33	15	4	1	1	6
Utica, N.Y.	27	21	5	1	-	-	2
Yonkers, N.Y.	29	20	5	4	-	-	3
E.N. CENTRAL	2,626	1,721	534	201	67	103	126
Akron, Ohio	81	57	14	7	1	2	-
Canton, Ohio	50	35	12	1	-	2	4
Chicago, Ill.§	564	362	125	45	10	22	16
Cincinnati, Ohio	115	75	25	6	4	5	9
Cleveland, Ohio	162	98	35	17	3	9	4
Columbus, Ohio	215	133	45	17	10	10	7
Dayton, Ohio	112	77	21	7	6	1	10
Detroit, Mich.	344	184	76	41	13	30	9
Evansville, Ind.	63	46	13	4	-	-	5
Fort Wayne, Ind.	72	53	14	4	-	1	3
Gary, Ind.	10	6	3	1	-	-	-
Grand Rapids, Mich.	69	46	14	4	1	4	5
Indianapolis, Ind.	202	133	40	15	8	6	17
Madison, Wis.	20	14	3	2	-	1	3
Milwaukee, Wis.	179	129	29	13	4	4	11
Peoria, Ill.	53	40	8	4	-	1	7
Rockford, Ill.	65	48	9	2	3	3	4
South Bend, Ind.	60	46	9	2	1	2	5
Toledo, Ohio	137	101	27	8	1	-	6
Youngstown, Ohio	53	38	12	1	2	-	1
W.N. CENTRAL	794	586	130	44	11	23	39
Des Moines, Iowa	62	50	9	1	-	2	4
Duluth, Minn.	39	29	7	-	1	2	1
Kansas City, Kans.	32	23	3	4	-	2	1
Kansas City, Mo.	93	75	11	4	1	2	3
Lincoln, Nebr.	39	30	8	1	-	-	4
Minneapolis, Minn.	153	115	21	11	3	3	7
Omaha, Nebr.	108	78	21	7	-	2	6
St. Louis, Mo.	131	93	22	9	3	4	9
St. Paul, Minn.	66	46	13	4	2	1	2
Wichita, Kans.	71	47	15	3	1	5	2
S. ATLANTIC	1,390	815	307	163	54	50	58
Atlanta, Ga.	178	100	40	27	6	5	1
Baltimore, Md.	51	31	9	6	4	1	2
Charlotte, N.C.	106	67	26	3	3	7	4
Jacksonville, Fla.	165	100	34	14	8	9	9
Miami, Fla.	94	47	23	19	3	2	1
Norfolk, Va.	62	38	14	5	2	3	2
Richmond, Va.	104	60	28	7	7	2	5
Savannah, Ga.	45	29	7	5	2	2	2
St. Petersburg, Fla.	79	64	5	8	1	1	1
Tampa, Fla.	143	98	28	13	2	2	17
Washington, D.C.	344	169	88	55	16	16	14
Wilmington, Del.	19	12	5	1	-	-	-
E.S. CENTRAL	834	532	173	81	38	10	47
Birmingham, Ala.	109	70	19	14	6	-	4
Chattanooga, Tenn.	59	34	16	7	2	-	-
Knoxville, Tenn.	56	33	12	9	1	1	5
Louisville, Ky.	134	93	23	8	6	4	9
Memphis, Tenn.	168	116	30	16	5	1	14
Mobile, Ala.	59	37	13	5	4	-	4
Montgomery, Ala.	66	35	19	7	5	-	3
Nashville, Tenn.	183	114	41	15	9	4	8
W.S. CENTRAL	1,624	1,003	355	173	41	52	76
Austin, Tex.	79	51	14	7	1	6	11
Baton Rouge, La.	51	33	12	5	-	1	3
Corpus Christi, Tex.	42	28	9	2	-	3	1
Dallas, Tex.	230	141	46	27	10	6	7
El Paso, Tex.	93	58	22	7	3	3	5
Fort Worth, Tex.	105	70	18	7	5	5	1
Houston, Tex.	418	237	103	57	8	13	25
Little Rock, Ark.	87	58	18	7	3	1	6
New Orleans, La.	115	65	28	17	2	3	-
San Antonio, Tex.	189	116	42	20	5	6	5
Shreveport, La.	83	53	16	10	-	4	1
Tulsa, Okla.	132	93	27	7	4	1	11
MOUNTAIN	819	514	180	76	27	22	39
Albuquerque, N. Mex.	89	51	22	10	4	2	2
Colo. Springs, Colo.	45	33	7	2	2	1	1
Denver, Colo.	179	111	39	17	7	5	11
Las Vegas, Nev.	138	71	44	21	2	-	8
Ogden, Utah	41	27	7	1	4	2	1
Phoenix, Ariz.	140	90	31	14	2	3	5
Pueblo, Colo.	33	25	6	1	-	1	2
Salt Lake City, Utah	43	22	7	4	5	5	-
Tucson, Ariz.	111	84	17	6	1	3	9
PACIFIC	2,110	1,362	417	212	69	47	125
Berkeley, Calif.	21	17	3	1	-	-	-
Fresno, Calif.	122	76	25	10	7	4	9
Glendale, Calif.	23	18	4	1	-	-	3
Honolulu, Hawaii	107	62	28	8	5	4	8
Long Beach, Calif.	76	52	13	4	6	1	8
Los Angeles Calif.	495	289	106	64	26	7	16
Oakland, Calif.§	65	44	10	7	3	1	4
Pasadena, Calif.	42	28	8	3	2	1	4
Portland, Oreg.	96	72	14	3	4	3	4
Sacramento, Calif.	222	160	33	21	-	8	21
San Diego, Calif.	159	100	30	25	2	2	16
San Francisco, Calif.§	140	80	32	24	1	3	5
San Jose, Calif.	199	128	43	20	4	4	13
Seattle, Wash.	188	130	37	15	4	2	4
Spokane, Wash.	70	50	12	4	3	1	4
Tacoma, Wash.	85	56	19	2	2	6	6
TOTAL	14,027††	9,048	2,847	1,324	396	408	724

*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.

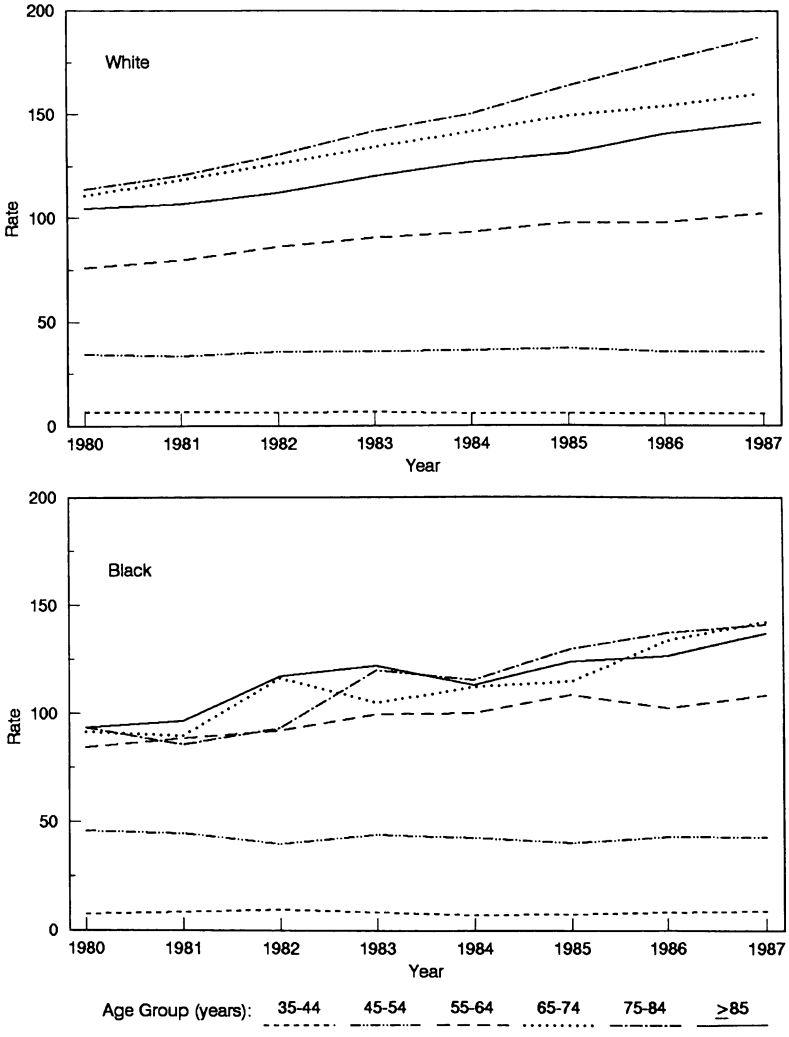
§Data not available. Figures are estimates based on average of past available 4 weeks.

Lung Cancer — Continued

Trends for lung cancer death rates paralleled those for incidence rates. From 1980 through 1987, the age-adjusted death rate per 100,000 persons increased from 46.2 to 52.1. Although death rates for males did not change substantially, rates were consistently higher for blacks than for whites. For females, the rates increased steadily but did not differ by race.

For males, lung cancer death rates were higher for older age groups but did not change substantially for any age group. For women aged ≥55 years, death rates increased consistently for both blacks and whites (Figure 1). The greatest difference by race occurred for men aged 35–44 years; for this age group, the death rate was 2.3 times higher for blacks than for whites (Figure 2).

FIGURE 1. Age-specific lung cancer death rates,* by race — United States, 1980–1987



*Per 100,000 women.

Lung Cancer — Continued

Reported by: Chronic Disease Surveillance Br, Office of Surveillance and Analysis and Program Svcs Activity, Office on Smoking and Health, Center for Chronic Disease Prevention and Health Promotion, CDC.

Editorial Note: Lung cancer is the second leading cause of death among black males (after coronary heart disease) (*2*). The excess morbidity and mortality from lung cancer among black men compared with white men is greatest for the 35- to 64-year age group (*3*).

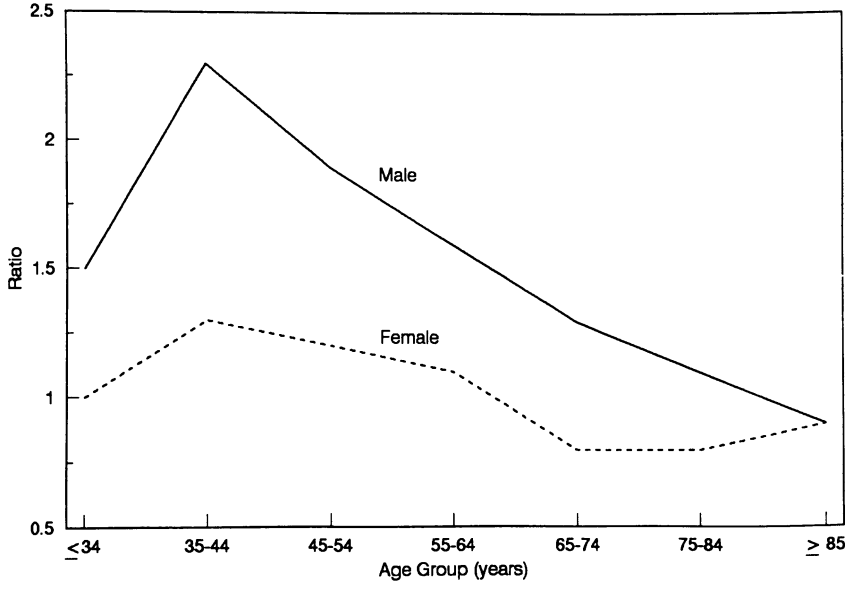
Cigarette smoking accounts for approximately 85% of lung cancer cases (*4*). Since 1914, national surveys have consistently shown that the prevalence of smoking has been higher in black men than in white men (*5*); in addition, blacks tend to use brands with higher tar and nicotine content (*6,7*). However, black men and women initiate smoking at slightly older ages than white men and women (*4*) and smoke fewer cigarettes per day. The extent to which these differences in smoking patterns or other host or environmental factors contribute to the difference in lung cancer mortality is unknown.

The higher prevalence of smoking among black men and women reflects a decreased likelihood of quitting rather than a difference in initiation; this decreased likelihood is characteristic of all socioeconomic levels and ages (*5,6*). Smoking-cessation programs that recognize the smoking patterns of black men and women may be more effective and ultimately assist in lowering the lung cancer death rate.

For both black and white females, the similar increases in age-specific lung cancer incidence and death rates are consistent with historically increasing trends in smoking prevalence. Based on these trends, the increases in lung cancer incidence and mortality for females are not projected to plateau until after the year 2013 (*8*).

Epidemiologic and clinical studies have provided extensive information on the health benefits of smoking cessation (*9*). For example, after 10 years of smoking

FIGURE 2. Average annual black-to-white death rate ratio, by age and sex — United States, 1980–1987



Lung Cancer — Continued

cessation, the risk for lung cancer is reduced to 30%–50% of the risk among continuing smokers (*9*). The national health objectives for the year 2000 include reducing the prevalence of cigarette smoking among adults to ≤15%, from a 1987 baseline of 29% (*10*). Recent declines in smoking prevalence, especially among black males, are encouraging. However, continued progress in both smoking-prevention and smoking-cessation efforts is essential to achieving this objective and protecting the population from the health hazards of tobacco use. These efforts must take into account the adverse effects of marketing strategies by the tobacco industry that target high-risk groups.

References

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Notices to Readers

Availability of "Chronic Disease Reports" Compilation

The "Chronic Disease Reports," a series of 12 articles published in volumes 38 and 39 of *MMWR*, has been amended and published in a compilation. *MMWR* readers may request single copies or make arrangements to borrow a camera-ready copy for reproduction. Write to: Assistant Director for Science, Center for Chronic Disease Prevention and Health Promotion, Mailstop A-37, CDC, Atlanta, GA 30333.

Report on National HIV Seroprevalence Surveys

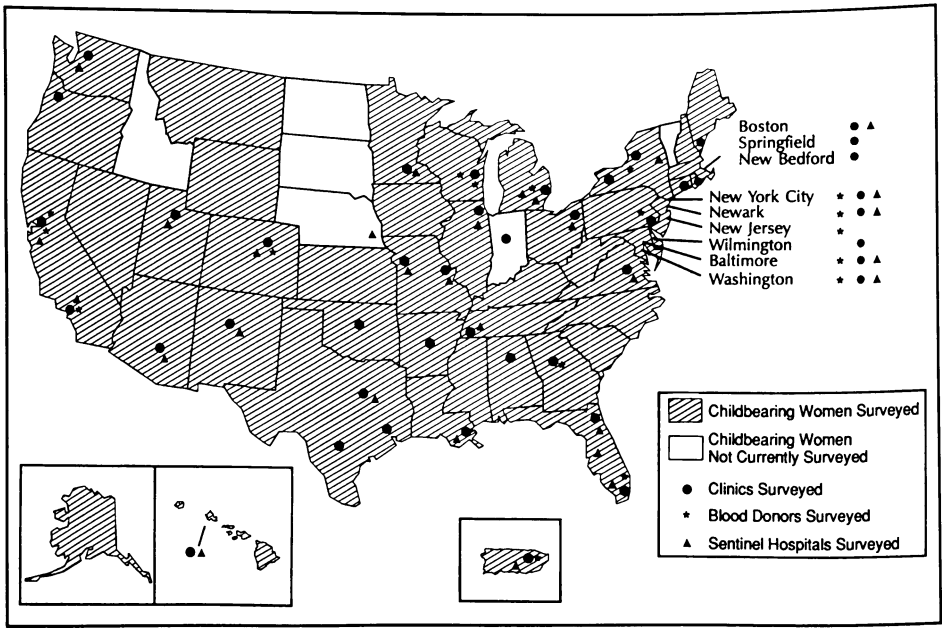
CDC collaborates with state and local health departments, other federal agencies, blood collection agencies, and medical research institutions to conduct human immunodeficiency virus (HIV) seroprevalence surveys in a variety of sentinel populations. Together these surveys constitute a serosurveillance network to monitor the prevalence of HIV infection in the United States. This "family" of surveys includes studies among patients at sexually transmitted disease clinics, drug-treatment centers, women's health clinics, and tuberculosis clinics in 44 cities; patients at sentinel hospitals in 30 cities and in a network of ambulatory-care practices; childbearing women in 44 states, the District of Columbia, and Puerto Rico; and blood donors, applicants for military service, and Job Corps entrants (Figure 1).

Single copies of the publication, *National HIV Seroprevalence Surveys—Summary of Results: Data from Serosurveillance Activities through 1989* (*1*), are available free of charge from the National AIDS Information Clearinghouse, P.O. Box 6003, Rockville, MD 20850; telephone (800) 458-5231.

Reference

1. CDC. National HIV seroprevalence surveys—summary of results: data from serosurveillance activities through 1989. Atlanta: US Department of Health and Human Services, Public Health Service, 1990; DHHS publication no. (CDC)HIV/CID/9-90/006.

FIGURE 1. Metropolitan areas and states participating in national HIV seroprevalence surveys — United States, 1988 and 1989



Fourth Supplement to *NIOSH Manual of Analytical Methods*, Third Edition

CDC's National Institute for Occupational Safety and Health (NIOSH) has issued the fourth supplement (dated August 15, 1990) to the *NIOSH Manual of Analytical Methods* (NMAM), third edition. The supplement contains 51 sampling and analytical methods; it includes reprints of 43 second-edition methods, each with a first-page update sheet attached, and eight third-edition methods that are either new or revised. The supplement also contains revisions of analytical procedures for fluoride and hydrogen cyanide, as well as new sampling and analytical methods for several important air contaminants including 4,4'-methylenedianiline, bromine, chlorine, aspartame (1-methyl N-L-alpha-aspartyl-L-phenylalanine), methyl tert-butyl ether, and lead. The supplement includes a cross-index to the seven-volume second edition of the NMAM.

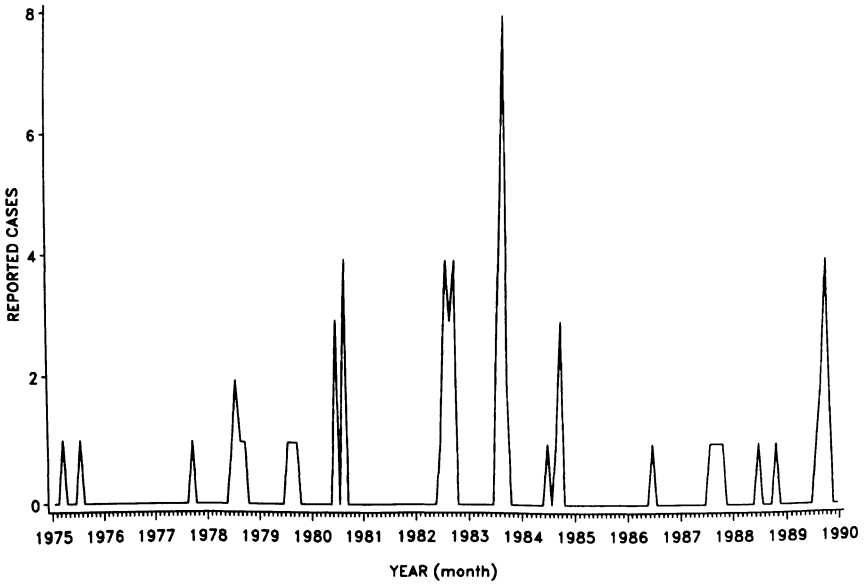
The supplement will be automatically mailed to persons who have previously purchased the NMAM, third edition. For other persons, copies of the NMAM, third edition, and all supplements are available from the U.S. Government Printing Office, Washington, DC 20402; telephone (202) 783-3238. Subscription service consists of a basic manual, Volumes 1 and 2, and four supplements (first supplement, 1985; the second, 1987; the third, 1989; and the fourth, 1990). Subscription price: domestic—$47.00; foreign—$58.75.

Reported by: Div of Physical Sciences and Engineering, National Institute for Occupational Safety and Health, CDC.

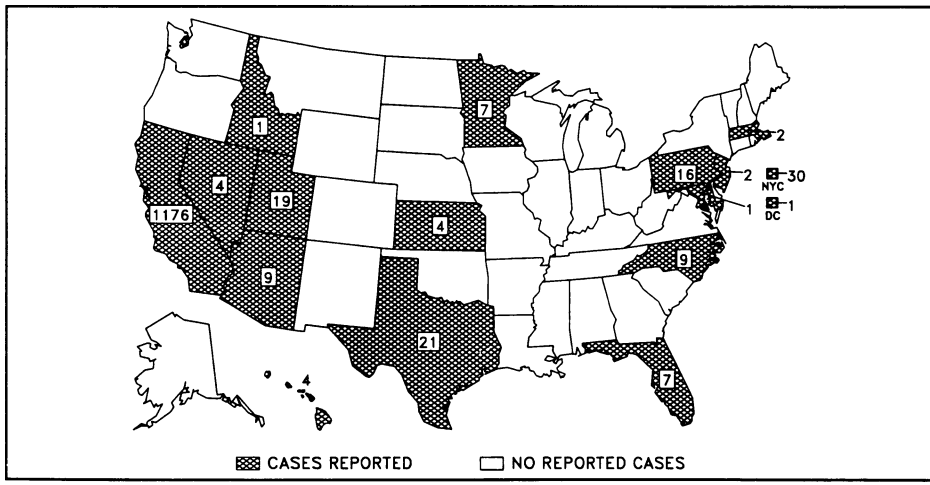
Erratum: Vol. 38, No. 54

The *MMWR Summary of Notifiable Diseases, United States, 1989* (published October 5, 1990) contains an incorrect graph on page 19. The graph titled "ARBOVIRAL INFECTIONS (of the central nervous system)—Cases due to Eastern equine encephalitis virus, by month, United States, 1975–1989" should be replaced by the following graph.

ARBOVIRAL INFECTIONS (of the central nervous system) — Cases due to Eastern equine encephalitis virus, by month, United States, 1975–1989



Reported cases of measles, by state — United States, weeks 44–48, 1990



The *Morbidity and Mortality Weekly Report* is prepared by the Centers for Disease Control, Atlanta, Georgia, and is available on a paid subscription basis from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (202) 783-3238.

The data in this report 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 succeeding Friday. Accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials, as well as matters pertaining to editorial or other textual considerations should be addressed to: Editor, *Morbidity and Mortality Weekly Report*, Mailstop C-08, Centers for Disease Control, Atlanta, Georgia 30333; telephone (404) 332-4555.

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