CDC
CENTERS FOR DISEASE CONTROL

July 17, 1992 / Vol. 41 / No. 28

MMWR
MORBIDITY AND MORTALITY WEEKLY REPORT

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Effectiveness in Disease and Injury Prevention

Lyme Disease Knowledge, Attitudes, and Behaviors — Connecticut, 1992

Lyme disease (LD), caused by infection with the spirochete *Borrelia burgdorferi*, is the most commonly reported tickborne illness in the United States (*1*). Because no vaccine is available and effective measures to control tick populations are experimental, education is the most important approach to preventing LD. LD was identified in Connecticut in 1975 (*2*); in 1991, Connecticut had the highest rate of LD in the United States (36 per 100,000 population), and cases were reported in residents from 134 of Connecticut's 169 cities. To assess knowledge, attitudes, and behaviors related to LD, the State of Connecticut Department of Health Services and the University of Connecticut conducted a telephone survey of adults in Connecticut during the first 2 weeks of May 1992. This report summarizes the results of the survey.

A random sample of 200 households, stratified by the proportion of the state's households in each of Connecticut's eight counties, was contacted. Respondents were identified as the male or female head of household. The results may be interpreted with a ±7% error margin.

The median age of respondents was 43 years (range: 18–88 years); 109 (55%) were women, and 181 (91%) were white. Nearly two thirds (122 [61%]) resided in a suburban setting, 56 (28%) in a rural setting, and 22 (11%) in an urban setting. Nearly half (86 [43%]) reported knowing someone who has or had LD, and four (2%) reported having been told they have or had LD.

Fifty (25%) respondents reported they knew "a lot" about LD; 81 (41%), "some"; and 69 (34%), "a little." Most (194 [97%]) believed a person can acquire LD from the bite of an infected tick; 170 (85%), that LD is not transmitted by touching or other direct contact with a person with LD; and 125 (63%), that LD is not transmitted by touching or other contact with infected pets or other animals.

One hundred forty-five (73%) respondents believed that an expanding red rash was the most recognizable early symptom of LD. Most (127 [64%]) respondents believed that appropriate treatment of LD includes antibiotics and will result in

Lyme Disease Knowledge — Continued

recovery; 60 (30%) believed treatment of LD includes medication but that the infected person may not recover. Thirteen (6%) believed there was no treatment of LD or did not know of any treatment.

Respondents categorized their chances of acquiring LD in the coming year as high (15 [8%]), medium (60 [30%]), low (109 [54%]), or none (16 [8%]). Most (163 [82%]) believed LD is either fairly common or extremely common in Connecticut; 31 (15%), that it occurs rarely; and six (3%), did not know. Most (170 [85%]) believed LD is a serious or very serious disease; 22 (11%), that it is a problem but not a serious disease; and eight (4%), that it is either not a problem to worry about or that they were unsure of whether it is a problem.

Most (177 [89%]) respondents believed they could protect themselves from acquiring LD by looking for and removing ticks after they have been in wooded or grassy areas; 173 (87%), by wearing long pants in the woods; 171 (86%), by removing ticks from pets; 170 (85%), by avoiding wooded areas; and 113 (57%), by using insect repellent on their skin. Eighty-six (43%) had taken steps to prevent LD during the past year.

Respondents who reported they knew "a lot" about LD were more likely to have taken precautions to prevent LD during the past year (60% [30/50]) than were those who reported they knew "some" (54% [44/81]) or "a little" (17% [12/69]) about the disease ($p<0.001$; chi-square test for trend). Respondents who categorized their chances of acquiring LD in the coming year as high were more likely to have taken precautions to prevent LD during the past year (60% [9/15]) than were those who categorized their chance as medium (50% [30/60]), low (40% [44/109]), or none (21% [3/14]) ($p=0.02$; chi-square test for trend). Respondents who have personally known someone with LD were more likely to have taken precautions during the past year (53% [46/86]) than were those who did not know someone with LD (35% [40/114]) (relative risk = 1.5; 95% confidence interval = 1.1–2.1).

Most (110 [55%]) respondents believed the general public has been given "too little" information about LD; 82 (41%), that the right amount of information has been given; and two (1%), that too much information has been given; six (3%) respondents did not know. Respondents reported the most helpful sources of information on LD were articles in newspapers (81 [41%]), public service announcements (56 [28%]), and pamphlets and other written materials (47 [23%]). Sixteen (8%) believed no source was helpful.

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Editorial Note: This is the first statewide survey of knowledge, attitudes, and behaviors related to LD. The preliminary findings in Connecticut support the importance of educating persons about LD and suggests that those who believe they are well-informed about, and at risk for acquiring, the disease are more likely to take precautions than are persons who do not. Additional studies can assist in targeting and evaluating the effectiveness of educational programs for LD.

Persons who live or travel in areas in which LD is endemic should be aware of the need to avoid tick bites, the importance of recognizing the early symptoms of LD (especially the expanding red rash known as erythema migrans), and the need to seek treatment for the disease as soon as symptoms develop.

Lyme Disease Knowledge — Continued

The week of July 26–August 1, 1992, is National Lyme Disease Awareness Week. Many state and local health departments distribute educational materials on LD. Information about LD, including availability of educational materials, is available from many state and local health departments or CDC (telephone [303] 221-6453). Information about LD is also provided by the CDC Voice Information System; telephone (404) 332-4555.

References

1. CDC. Lyme disease surveillance—United States, 1989–1990. MMWR 1991;40:417–21.
2. Steere AC, Malawista SE, Snydman DR, et al. An epidemic of oligoarticular arthritis in children and adults in three Connecticut communities. Arthritis Rheum 1977;20:7–17.

Epidemiologic Notes and Reports

Transmission of Multidrug-Resistant Tuberculosis Among Immunocompromised Persons in a Correctional System — New York, 1991

During 1990 and 1991, nosocomial transmission of multidrug-resistant tuberculosis (MDR-TB) was documented in four hospitals in New York and Florida (*1,2*). Subsequently, additional MDR-TB outbreaks have been investigated by CDC. This report summarizes preliminary results of an investigation of transmission of MDR-TB in a correctional facility in New York.

From June 17 through August 8, 1991, four inmates from a state correctional facility (SCF) in New York died from tuberculosis (TB) at one hospital. *Mycobacterium tuberculosis* strains isolated from these inmates were reported to be resistant to isoniazid (INH), rifampin (RIF), pyrazinamide (PZA), ethambutol (EMB), streptomycin (SM), kanamycin (KM) and ethionamide (ETH). In a retrospective epidemiologic investigation covering the period from January 1 through November 16, 1991, eight persons (including the above four) were identified at the SCF as having MDR-TB. Seven were inmates, all of whom had positive human immunodeficiency virus (HIV)-antibody tests and CD4+ T-lymphocyte counts (CD4 counts) of ≤60 cells/μL. One was a correctional facility worker who had been recently treated for cancer with radiation therapy and whose CD4 counts were ≤110 cells/μL. All eight patients with MDR-TB died within a mean of 25 days (range: 3–42 days) from the date of collection of their first culture-positive sputum.

For seven (including the correctional facility worker) of the eight patients, primary isolation and identification of *M. tuberculosis* strains were performed at local laboratories, and drug-susceptibility testing was performed at the state laboratory. Confirmatory drug-susceptibility testing on these seven isolates at CDC indicated all seven were resistant to INH, RIF, EMB, SM, KM, ETH, and rifabutin and susceptible to PZA. The specimen for the eighth patient, sent to a laboratory in another state for primary isolation, identification, and susceptibility testing, was reported as resistant to INH, RIF, and SM and susceptible to EMB. Confirmatory drug-susceptibility test results by CDC for this specimen are pending. The mean duration from collection of sputum specimens to identification of the isolates as resistant to first-line TB drugs was 13 weeks (range: 9–16 weeks). The mean duration from collection of sputum specimens to notification of the referring hospital that the isolates were multidrug resistant was 18 weeks (range: 13–23 weeks).

MDR-TB — Continued

Restriction fragment length polymorphism (RFLP), a method of DNA analysis used to identify genetic similarities between *M. tuberculosis* strains, was identical for isolates from seven of the eight patients. The RFLP result for the eighth patient is pending.

Two patients were inmates who had been transferred from other state correctional facilities housing an inmate identified in a prior outbreak at a hospital in New York City (*2*) as having MDR-TB with the same drug resistance and RFLP pattern. Both were clinically ill at the time of arrival at the SCF but refused evaluation by the infirmary staff. They were incarcerated with the general prison population for 4–5 weeks before they sought medical care and were isolated from other inmates. One of these two inmates had been assigned to the same cell block as two of the other inmates who later developed MDR-TB. When the latter two inmates became ill, they were guarded at the hospital by the correctional facility worker who subsequently became a patient.

Preliminary results of the ongoing contact investigation at the SCF have identified 51 inmates with documented tuberculin skin test (TST) conversions during June 1990–November 1991. Twenty-six (51%) had TST conversions while at the SCF, of whom 22 (85%) had documented exposure to MDR-TB; for eight of these, the sole known TB exposure was to inmates with MDR-TB. All recent TST converters were counseled to have HIV tests performed. Of the 22 with known exposure to MDR-TB, two were HIV-positive, 15 were HIV-negative, and five refused HIV testing.

While definitive guidelines for management of contacts of patients with MDR-TB are being developed by CDC, the New York State Department of Corrections (NYSDC), in conjunction with the New York State Department of Health (NYSDH), has offered a prophylactic regimen of PZA and ofloxacin to the 22 inmates with known exposure to MDR-TB.

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Editorial Note: Although transmission of MDR-TB in health-care settings has been described previously, this is the first documentation of transmission in a correctional system. The epidemiologic and laboratory findings in this investigation strongly suggest that the transfer of clinically ill inmates resulted in both the spread of MDR-TB between correctional facilities and transmission of MDR-TB within the SCF. Factors that probably contributed to this outbreak include 1) transfer of inmates who were clinically ill but not yet identified as having TB, 2) length of time required to identify and isolate inmates with active TB from the general prison population, 3) length of time required for identification of *M. tuberculosis* and the performance of drug-susceptibility tests, and 4) occurrence of MDR-TB infection in patients with HIV infection and other conditions characterized by immunodeficiency.

The difference, if any, in risk for TB infection between persons with and without HIV infection is not known. However, the rapid progression of TB among the patients in this report is consistent with previous reports of increased susceptibility of immunocompromised persons, particularly those with HIV infection, to develop clinical symptoms more rapidly following infection with *M. tuberculosis* (*3–5*). Moreover, the death rate for persons in this report underscores the risk for a fatal outcome in immunosuppressed persons who become newly infected with *M. tuberculosis*.

MDR-TB — Continued

No effective drug regimen was identified to treat the patients in this outbreak. Anti-TB drugs available to treat multidrug-resistant strains of *M. tuberculosis* have substantially lower rates of cure than regimens that include INH, RIF, and other first-line agents. This lower effectiveness emphasizes the need to develop additional anti-TB drugs and to test *M. tuberculosis* against a broader spectrum of available drugs, including quinolones, among populations in which MDR-TB has been identified.

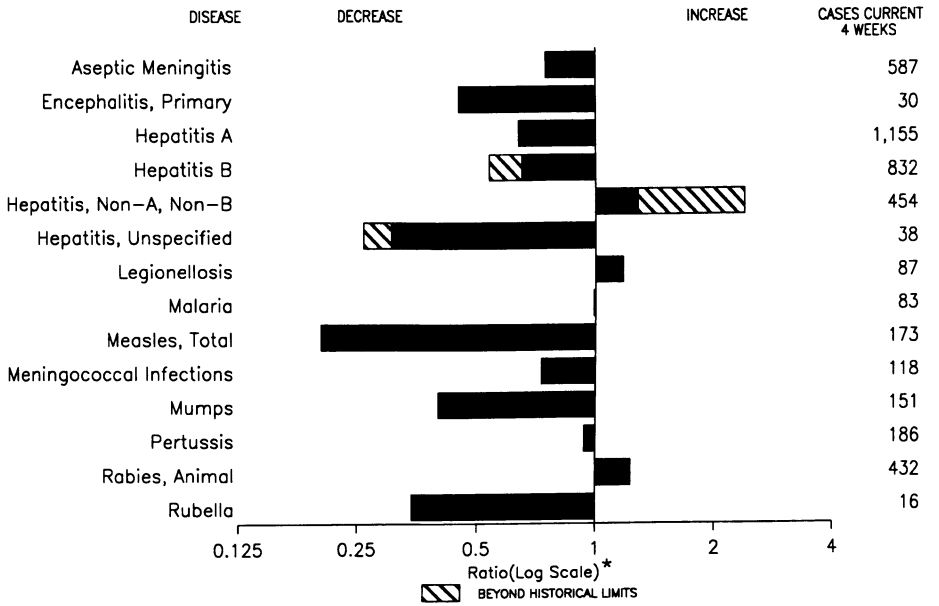
The findings in this outbreak investigation underscore the need to 1) develop more rapid methods for identification and drug-susceptibility testing of *M. tuberculosis*; 2) perform HIV testing for persons exposed to TB or likely to have latent TB infection, and perform anergy and TB testing for those with HIV infection to identify persons at high risk for rapid progression to clinical disease and a potentially fatal outcome; and 3) develop and implement comprehensive guidelines for the management of all MDR-TB patients and their contacts. CDC has recently developed guidelines for the management of persons exposed to MDR-TB (*6*). Health practitioners encountering such cases are encouraged to notify local health departments and CDC.

In response to this outbreak, the NYSDC and the NYSDH have instituted special TB-control measures throughout the NYSDC. These include restriction of transfers of inmates with respiratory symptoms; mandatory annual TSTs for all previously tuberculin-negative inmates and staff; use of anergy panels with TSTs for all contact investigations (*7*); encouragement of HIV testing for anergic inmates and/or inmates with positive TSTs; modification of patient rooms in prison infirmaries to provide for full capacity for acid-fast bacillus isolation and use of these rooms for all suspected TB cases; directly observed therapy for treatment of active TB cases and for preventive therapy for persons with positive TSTs; and drug-susceptibility testing on isolates of *M. tuberculosis* from all patients with culture-positive TB.

References

1. CDC. Nosocomial transmission of multidrug-resistant tuberculosis to health-care workers and HIV-infected patients in an urban hospital— Florida. MMWR 1990;39:718–22.
2. CDC. Nosocomial transmission of multidrug-resistant tuberculosis among HIV-infected persons—Florida and New York, 1988–1991. MMWR 1991;40:585–91.
3. Barnes PF, Bloch AB, Davidson PT, et al. Tuberculosis in patients with human immunodeficiency virus infection. N Engl J Med 1991;324:1644–50.
4. Di Perri G, Cruciani M, Danzi MC, et al. Nosocomial epidemic of active tuberculosis among HIV-infected patients. Lancet 1989;2:1502–4.
5. Daley CL, Small PM, Schecter GF, et al. An outbreak of tuberculosis with accelerated progression among persons infected with the human immunodeficiency virus. N Engl J Med 1992;326:231–5.
6. Villarino ME, Dooley SW, Geiter LJ, Castro KG, Snider DE Jr. Management of persons exposed to multidrug-resistant tuberculosis. MMWR 1992;41(no. RR-11) (in press).
7. CDC. Screening for tuberculosis and tuberculous infection in high-risk populations, and the use of preventive therapy for tuberculous infection in the United States: recommendations of the Advisory Committee for Elimination of Tuberculosis. MMWR 1990;39(no. RR-8).

FIGURE I. Notifiable disease reports, comparison of 4-week totals ending July 11, 1992, 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 — cases of specified notifiable diseases, United States, cumulative, week ending July 11, 1992 (28th Week)

	Cum. 1992		Cum. 1992
AIDS*	23,872	Measles: imported	82
Anthrax	-	indigenous	1,189
Botulism: Foodborne	8	Plague	2
Infant	30	Poliomyelitis, Paralytic†	-
Other	1	Psittacosis	50
Brucellosis	34	Rabies, human	-
Cholera	37	Syphilis, primary & secondary	18,035
Congenital rubella syndrome	7	Syphilis, congenital, age < 1 year§	697
Diphtheria	3	Tetanus	8
Encephalitis, post-infectious	81	Toxic shock syndrome	138
Gonorrhea	255,311	Trichinosis	16
Haemophilus influenzae (invasive disease)	826	Tuberculosis	11,152
Hansen Disease	96	Tularemia	66
Leptospirosis	16	Typhoid fever	167
Lyme Disease	2,751	Typhus fever, tickborne (RMSF)	155

*Updated monthly; last update July 4, 1992.
†Two cases of suspected poliomyelitis have been reported in 1992; 6 of the 9 suspected cases with onset in 1991 were confirmed and 5 of the 8 suspected cases with onset in 1990 were confirmed; all were vaccine associated.
§Updates for first quarter 1992.

TABLE II. Cases of selected notifiable diseases, United States, weeks ending July 11, 1992, and July 13, 1991 (28th Week)

Reporting Area	AIDS*	Aseptic Meningitis	Encephalitis		Gonorrhea		Hepatitis (Viral), by type				Legionellosis	Lyme Disease
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1991	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992
UNITED STATES	23,872	3,052	268	81	255,311	311,373	10,424	8,322	3,939	357	670	2,751
NEW ENGLAND	755	141	17	-	5,378	7,702	315	304	36	16	37	477
Maine	27	14	1	-	41	85	23	17	5	-	1	4
N.H.	25	6	2	-	12	154	25	22	11	1	3	14
Vt.	11	7	2	-	14	26	4	8	4	-	2	2
Mass.	431	57	9	-	1,997	3,262	159	227	13	15	21	48
R.I.	61	57	3	-	405	615	71	17	3	-	10	61
Conn.	200	-	-	-	2,909	3,560	33	13	-	-	-	348
MID. ATLANTIC	6,001	322	15	7	26,587	38,310	783	1,088	192	13	199	1,723
Upstate N.Y.	736	149	-	-	5,216	6,541	198	256	122	6	82	1,180
N.Y. City	3,309	63	4	1	8,844	15,199	278	178	3	-	3	1
N.J.	1,214	-	-	-	3,801	6,202	122	288	48	-	23	193
Pa.	742	110	11	6	8,726	10,368	185	366	19	7	91	349
E.N. CENTRAL	2,192	412	73	24	48,154	56,873	1,510	1,258	678	20	148	56
Ohio	414	111	23	2	14,755	17,454	238	129	58	4	69	24
Ind.	222	64	8	11	4,503	5,633	439	438	321	5	16	18
Ill.	979	87	22	6	15,859	16,795	268	121	35	4	10	4
Mich.	457	143	19	5	11,073	13,010	74	333	222	7	34	10
Wis.	120	7	1	-	1,964	3,981	491	237	42	-	19	-
W.N. CENTRAL	675	147	16	4	11,030	15,069	1,219	337	147	18	40	101
Minn.	120	14	1	-	1,553	1,554	379	38	12	2	2	29
Iowa	50	22	-	2	837	1,064	20	20	4	2	12	9
Mo.	347	54	8	-	5,814	9,223	401	227	114	13	13	44
N. Dak.	1	1	1	-	39	33	66	1	3	1	1	1
S. Dak.	6	6	-	1	94	178	176	4	-	-	-	-
Nebr.	29	10	2	1	8	982	88	13	5	-	11	10
Kans.	122	40	4	-	2,685	2,035	89	34	9	-	1	8
S. ATLANTIC	5,678	603	51	34	81,616	93,892	651	1,392	557	55	102	173
Del.	64	21	6	-	856	1,297	23	138	109	1	16	79
Md.	669	75	10	-	7,769	9,773	126	207	21	5	18	26
D.C.	417	13	1	-	3,723	5,288	11	45	233	-	7	-
Va.	322	93	11	9	9,330	9,276	56	97	20	19	10	29
W. Va.	29	6	3	-	484	617	4	31	1	12	-	3
N.C.	370	71	16	-	13,567	18,279	51	230	54	-	16	20
S.C.	166	7	-	-	5,962	7,234	14	30	-	-	16	-
Ga.	759	76	2	-	25,287	23,058	87	169	55	-	5	2
Fla.	2,882	241	2	25	14,638	19,070	279	445	64	18	14	14
E.S. CENTRAL	739	200	10	-	24,793	29,109	163	712	1,187	2	29	41
Ky.	105	59	7	-	2,601	3,107	45	43	1	-	15	14
Tenn.	227	48	1	-	7,693	10,570	71	593	1,177	-	10	22
Ala.	272	54	1	-	8,382	8,041	27	73	8	1	4	5
Miss.	135	39	1	-	6,117	7,391	20	3	1	1	-	-
W.S. CENTRAL	2,174	383	25	4	28,769	36,441	996	1,044	66	84	11	64
Ark.	112	5	7	-	4,236	4,139	52	45	6	3	-	10
La.	390	31	2	1	8,101	8,405	86	79	25	2	1	2
Okla.	147	-	1	2	2,831	3,539	111	103	21	3	5	15
Tex.	1,525	347	15	1	13,601	20,358	747	817	14	76	5	37
MOUNTAIN	686	100	12	4	5,908	6,558	1,492	380	155	33	51	4
Mont.	12	-	1	1	56	60	47	22	29	-	8	-
Idaho	15	17	-	-	63	80	33	50	3	-	3	2
Wyo.	2	-	1	-	29	53	3	2	9	-	1	1
Colo.	236	31	6	1	1,832	1,915	432	60	52	17	10	-
N. Mex.	58	8	3	1	492	613	145	103	15	7	2	-
Ariz.	203	26	1	-	2,267	2,457	614	76	16	4	14	-
Utah	54	1	-	1	154	178	171	9	19	5	2	1
Nev.	106	17	-	-	1,015	1,202	47	58	12	-	11	-
PACIFIC	4,972	744	49	4	23,076	27,419	3,295	1,807	921	116	53	112
Wash.	255	-	-	-	2,023	2,399	366	177	72	6	8	3
Oreg.	146	-	-	-	868	1,088	191	162	41	7	-	-
Calif.	4,484	691	46	3	19,534	23,121	2,575	1,449	653	96	44	109
Alaska	8	5	3	-	390	397	28	8	2	1	-	-
Hawaii	79	48	-	1	261	414	135	11	153	6	1	-
Guam	-	2	-	-	45	-	5	1	-	6	-	1
P.R.	876	90	1	-	98	345	19	239	67	16	1	-
V.I.	2	-	-	-	57	256	2	5	-	-	-	-
Amer. Samoa	-	-	-	-	21	24	1	1	-	-	-	-
C.N.M.I.	-	-	-	-	38	37	-	-	-	-	-	-

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending July 11, 1992, and July 13, 1991 (28th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
	Cum. 1992	1992	Cum. 1992	1992	Cum. 1992	Cum. 1991	Cum. 1992	1992	Cum. 1992	1992	Cum. 1992	Cum. 1991	1992	Cum. 1992	Cum. 1991
UNITED STATES	435	23	1,189	1	82	7,697	1,293	34	1,600	46	827	1,186	6	116	1023
NEW ENGLAND	23	-	45	-	7	57	79	-	10	5	79	184	-	6	3
Maine	-	-	-	-	-	-	7	-	-	-	3	44	-	1	-
N.H.	3	-	15	-	-	-	5	-	2	4	24	12	-	-	1
Vt.	-	-	-	-	-	5	3	-	-	-	1	3	-	-	-
Mass.	10	-	11	-	3	27	31	-	2	-	36	109	-	-	2
R.I.	4	-	19	-	-	2	-	-	-	-	-	-	-	4	-
Conn.	6	-	-	-	4	23	33	-	6	1	15	16	-	1	-
MID. ATLANTIC	113	-	165	-	9	4,349	145	3	109	2	78	118	-	15	559
Upstate N.Y.	19	-	78	-	3	374	73	-	46	2	25	65	-	11	535
N.Y. City	60	-	38	-	5	1,525	12	-	18	-	11	16	-	-	2
N.J.	18	-	44	-	1	1,011	17	-	11	-	14	9	-	3	1
Pa.	16	-	5	-	-	1,439	43	3	34	-	28	28	-	1	21
E.N. CENTRAL	28	2	26	-	9	75	197	-	212	2	63	229	-	7	165
Ohio	4	-	2	-	3	1	52	-	82	-	29	65	-	-	147
Ind.	8	-	20	-	-	1	27	-	7	2	14	44	-	-	2
Ill.	8	-	1	-	4	25	56	-	59	-	6	47	-	7	4
Mich.	7	2	3	-	1	39	47	-	56	-	3	23	-	-	11
Wis.	1	-	-	-	1	9	15	-	8	-	11	50	-	-	1
W.N. CENTRAL	25	1	6	1	5	39	60	2	55	7	68	80	-	4	16
Minn.	13	1	5	1§	4	10	7	1	18	2	24	28	-	-	6
Iowa	2	-	-	-	1	15	7	-	9	-	3	9	-	-	5
Mo.	7	-	-	-	-	-	18	1	20	-	21	28	-	-	5
N. Dak.	-	U	-	U	-	-	-	U	2	U	8	2	U	-	-
S. Dak.	1	-	-	-	-	-	1	-	-	1	5	2	-	-	-
Nebr.	-	-	-	-	-	1	13	-	4	1	3	5	-	-	-
Kans.	2	-	1	-	-	13	14	-	2	3	4	6	-	4	-
S. ATLANTIC	83	1	113	-	10	421	239	10	610	2	69	101	2	13	6
Del.	4	-	3	-	-	21	2	-	4	1	1	-	-	-	-
Md.	24	-	9	-	7	165	26	2	57	-	15	16	-	5	1
D.C.	6	-	-	-	-	-	1	-	5	-	-	-	-	1	1
Va.	17	-	8	-	3	25	35	-	33	-	4	12	-	-	-
W. Va.	-	-	-	-	-	-	14	-	22	-	2	6	-	-	-
N.C.	7	-	25	-	-	35	50	2	126	-	13	18	-	-	1
S.C.	-	-	29	-	-	12	18	-	46	-	9	9	-	2	-
Ga.	3	-	-	-	-	14	36	-	56	-	8	22	-	-	-
Fla.	22	1	39	-	-	149	57	6	261	1	17	18	2	5	3
E.S. CENTRAL	13	4	441	-	18	2	90	1	40	1	16	38	-	1	100
Ky.	1	4	439	-	1	1	27	-	-	-	-	-	-	-	-
Tenn.	8	-	-	-	-	1	27	-	13	-	5	15	-	1	100
Ala.	4	-	-	-	-	-	27	-	7	1	10	22	-	-	-
Miss.	-	-	2	-	17	-	9	1	20	-	1	1	-	-	-
W.S. CENTRAL	17	10	302	-	-	127	97	10	282	1	30	29	-	-	5
Ark.	-	-	-	-	-	5	8	-	6	-	9	3	-	-	1
La.	1	-	-	-	-	-	21	-	15	-	-	9	-	-	-
Okla.	4	-	11	-	-	-	12	-	15	1	21	11	-	-	-
Tex.	12	10	291	-	-	122	56	10	246	-	-	6	-	-	4
MOUNTAIN	11	-	3	-	6	901	65	1	90	5	152	129	-	5	4
Mont.	-	U	-	U	-	-	12	U	2	U	1	-	U	-	-
Idaho	-	-	-	-	-	342	8	-	3	-	17	20	-	1	-
Wyo.	-	U	1	U	-	-	2	U	-	U	-	3	U	-	-
Colo.	5	-	2	-	6	5	12	1	13	-	24	66	-	-	1
N. Mex.	1	-	-	-	-	97	5	N	N	-	33	12	-	-	1
Ariz.	4	-	-	-	-	312	14	-	49	5	61	8	-	2	-
Utah	-	-	-	-	-	129	4	-	16	-	15	18	-	1	-
Nev.	1	-	-	-	-	16	8	-	7	-	1	2	-	1	2
PACIFIC	122	5	88	-	18	1,726	321	7	192	21	272	278	4	65	165
Wash.	7	-	-	-	10	4	44	-	8	8	69	67	-	6	-
Oreg.	10	-	4	-	1	59	45	N	N	-	14	37	-	2	2
Calif.	98	1	46	-	-	1,646	221	7	172	8	172	127	-	36	157
Alaska	1	-	8	-	1	1	6	-	1	-	1	12	-	-	-
Hawaii	6	4	30	-	6	16	5	-	11	5	16	35	4	21	6
Guam	1	U	10	U	-	-	-	U	7	U	-	-	U	1	-
P.R.	-	9	253	-	-	81	3	-	1	-	8	27	-	-	1
V.I.	-	-	-	-	-	2	-	-	16	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	24	-	-	-	-	6	-	-	-	-
C.N.M.I.	-	U	-	U	-	-	-	U	-	U	1	-	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 selected notifiable diseases, United States, weeks ending July 11, 1992, and July 13, 1991 (28th Week)

Reporting Area	Syphilis (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1992	Cum. 1991	Cum. 1992	Cum. 1992	Cum. 1991	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992
UNITED STATES	18,035	22,884	138	11,152	11,626	66	167	155	4,243
NEW ENGLAND	319	595	10	188	319	-	18	5	386
Maine	2	-	-	14	27	-	-	-	-
N.H.	-	12	6	-	5	-	1	-	1
Vt.	1	1	-	3	3	-	-	-	17
Mass.	166	278	3	74	155	-	11	3	4
R.I.	19	33	1	24	33	-	-	1	-
Conn.	131	271	-	73	96	-	6	1	364
MID. ATLANTIC	2,678	4,068	18	2,621	2,700	-	45	9	1,231
Upstate N.Y.	176	358	8	174	275	-	6	3	660
N.Y. City	1,432	1,975	-	1,626	1,635	-	20	3	-
N.J.	351	716	-	477	451	-	12	-	390
Pa.	719	1,019	10	344	339	-	7	3	181
E.N. CENTRAL	2,599	2,580	38	1,156	1,168	1	19	15	74
Ohio	404	338	12	176	169	-	3	10	6
Ind.	137	78	9	92	94	-	-	2	9
Ill.	1,204	1,231	5	570	617	1	15	-	11
Mich.	537	653	12	271	234	-	1	1	8
Wis.	317	280	-	47	54	-	-	2	40
W.N. CENTRAL	588	389	23	246	291	26	2	12	726
Minn.	43	44	5	62	57	-	1	-	105
Iowa	25	35	5	21	41	-	-	-	129
Mo.	437	264	3	106	123	20	1	11	7
N. Dak.	1	1	1	2	6	-	-	-	88
S. Dak.	-	1	-	15	23	4	-	-	75
Nebr.	1	9	3	13	11	1	-	-	8
Kans.	81	35	6	27	30	1	-	1	314
S. ATLANTIC	5,066	6,779	13	2,080	2,168	3	12	34	953
Del.	111	84	3	19	16	-	-	3	126
Md.	381	557	1	142	201	1	2	2	284
D.C.	236	419	-	69	114	-	1	1	11
Va.	370	536	1	148	191	2	-	2	162
W. Va.	7	18	1	40	40	-	1	3	23
N.C.	1,287	1,028	3	265	290	-	-	16	2
S.C.	679	836	1	217	226	-	1	2	75
Ga.	1,042	1,657	1	465	426	-	-	3	200
Fla.	953	1,644	2	715	664	-	7	2	70
E.S. CENTRAL	2,361	2,476	1	749	765	6	3	27	73
Ky.	80	44	-	204	180	1	-	3	40
Tenn.	659	837	1	160	203	5	-	23	-
Ala.	918	920	-	226	213	-	-	1	33
Miss.	704	675	-	159	169	-	3	-	-
W.S. CENTRAL	3,273	4,180	1	1,107	1,350	14	6	46	443
Ark.	446	339	-	96	108	8	-	7	19
La.	1,363	1,346	-	87	104	-	-	-	-
Okla.	145	99	-	73	91	6	-	39	221
Tex.	1,319	2,396	1	851	1,047	-	6	-	203
MOUNTAIN	202	310	10	302	312	15	2	5	85
Mont.	3	2	-	-	3	8	-	2	11
Idaho	1	3	1	13	4	-	1	1	-
Wyo.	1	3	-	-	3	2	-	-	23
Colo.	24	52	4	29	33	2	1	-	5
N. Mex.	24	19	1	47	39	3	-	1	5
Ariz.	102	200	2	129	166	-	-	-	38
Utah	6	4	2	43	25	-	-	1	1
Nev.	41	27	-	41	39	-	-	-	2
PACIFIC	949	1,507	24	2,703	2,553	1	60	2	272
Wash.	49	102	-	168	159	-	4	-	-
Oreg.	25	44	1	63	58	-	-	-	-
Calif.	867	1,354	23	2,315	2,188	1	53	2	260
Alaska	3	3	-	30	40	-	-	-	12
Hawaii	5	4	-	127	108	-	3	-	-
Guam	2	-	-	34	-	-	3	-	-
P.R.	170	253	-	135	99	-	1	-	31
V.I.	35	69	-	3	2	-	-	-	-
Amer. Samoa	-	-	-	-	2	-	1	-	-
C.N.M.I.	4	-	-	28	6	-	1	-	-

U: Unavailable

TABLE III. Deaths in 121 U.S. cities,* week ending July 11, 1992 (28th Week)

Reporting Area	All Causes, By Age (Years)						P&I†
	All Ages	≥65	45-64	25-44	1-24	<1	Total
NEW ENGLAND	625	421	127	58	10	9	47
Boston, Mass.	187	110	43	25	3	6	25
Bridgeport, Conn.	33	24	6	2	-	1	2
Cambridge, Mass.	25	15	3	7	-	-	2
Fall River, Mass.	16	15	1	-	-	-	-
Hartford, Conn.	65	39	16	9	1	-	1
Lowell, Mass.	15	11	3	1	-	-	-
Lynn, Mass.	19	15	4	-	-	-	2
New Bedford, Mass.	32	25	7	-	-	-	-
New Haven, Conn.	39	21	8	6	3	1	2
Providence, R.I.	41	29	8	3	1	-	-
Somerville, Mass.	6	3	3	-	-	-	-
Springfield, Mass.	46	35	8	2	-	1	4
Waterbury, Conn.	33	27	5	1	-	-	2
Worcester, Mass.	68	52	12	2	2	-	7
MID. ATLANTIC	2,537	1,600	497	327	49	64	93
Albany, N.Y.	43	29	11	1	1	1	2
Allentown, Pa.	22	17	3	-	2	-	1
Buffalo, N.Y.	100	72	19	4	1	4	3
Camden, N.J.	45	29	7	4	4	1	2
Elizabeth, N.J.	25	17	1	7	-	-	-
Erie, Pa.§	35	26	7	1	1	-	1
Jersey City, N.J.	46	29	5	10	2	-	-
New York City, N.Y.	1,497	913	295	229	28	32	46
Newark, N.J.	50	24	10	13	-	3	8
Paterson, N.J.	25	11	6	6	1	1	1
Philadelphia, Pa.	232	135	56	23	5	13	5
Pittsburgh, Pa.§	49	38	6	3	1	1	3
Reading, Pa.	25	17	7	1	-	-	1
Rochester, N.Y.	136	94	28	10	2	2	6
Schenectady, N.Y.	31	28	2	1	-	-	-
Scranton, Pa.§	35	28	7	-	-	-	2
Syracuse, N.Y.	79	52	18	5	1	3	3
Trenton, N.J.	46	28	7	9	-	2	8
Utica, N.Y.	16	13	2	-	-	1	1
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	2,256	1,360	445	256	137	58	117
Akron, Ohio	42	30	6	3	-	3	-
Canton, Ohio	43	30	9	3	-	1	2
Chicago, Ill.	492	186	101	109	79	17	14
Cincinnati, Ohio	113	76	25	6	2	4	14
Cleveland, Ohio	180	109	38	21	8	4	2
Columbus, Ohio	154	94	33	22	4	1	9
Dayton, Ohio	136	94	26	10	5	1	14
Detroit, Mich.	255	142	54	35	15	9	8
Evansville, Ind.	58	52	4	1	-	1	4
Fort Wayne, Ind.	70	49	15	3	3	-	7
Gary, Ind.	21	10	5	4	-	2	-
Grand Rapids, Mich.	52	38	9	3	1	1	6
Indianapolis, Ind.	165	107	37	10	5	6	17
Madison, Wis.	38	27	2	4	4	1	2
Milwaukee, Wis.	124	85	31	6	1	1	7
Peoria, Ill.	34	21	9	-	3	1	2
Rockford, Ill.	39	24	9	4	1	1	1
South Bend, Ind.	62	50	3	4	3	2	1
Toledo, Ohio	112	88	16	4	2	2	6
Youngstown, Ohio	66	48	13	4	1	-	1
W.N. CENTRAL	740	511	121	60	31	17	40
Des Moines, Iowa	75	54	10	10	1	-	10
Duluth, Minn.	22	16	2	2	2	-	1
Kansas City, Kans.	35	23	5	3	3	1	1
Kansas City, Mo.	107	74	17	8	7	1	6
Lincoln, Nebr.	37	31	4	2	-	-	-
Minneapolis, Minn.	164	113	30	11	6	4	11
Omaha, Nebr.	77	52	13	8	4	-	6
St. Louis, Mo.	124	79	22	12	5	6	2
St. Paul, Minn.	28	21	4	-	1	2	2
Wichita, Kans.	71	48	14	4	2	3	1
S. ATLANTIC	1,336	794	255	168	48	42	66
Atlanta, Ga.	135	74	29	23	6	3	4
Baltimore, Md.	236	141	52	35	7	1	11
Charlotte, N.C.	99	57	22	15	1	4	6
Jacksonville, Fla.	124	84	26	5	3	6	8
Miami, Fla.	102	46	28	19	8	1	-
Norfolk, Va.	64	36	11	11	1	5	5
Richmond, Va.	87	51	14	11	3	8	3
Savannah, Ga.	51	34	11	2	4	-	2
St. Petersburg, Fla.	59	45	8	3	1	2	2
Tampa, Fla.	213	140	24	14	5	1	21
Washington, D.C.	155	80	28	27	9	11	4
Wilmington, Del.	11	6	2	3	-	-	-
E.S. CENTRAL	587	375	137	47	13	15	40
Birmingham, Ala.	72	39	17	11	1	4	1
Chattanooga, Tenn.	76	52	17	6	-	1	1
Knoxville, Tenn.	56	34	17	2	1	2	7
Louisville, Ky.	U	U	U	U	U	U	U
Memphis, Tenn.	138	80	42	11	3	2	18
Mobile, Ala.	62	40	11	5	5	1	3
Montgomery, Ala.	49	38	5	2	1	3	-
Nashville, Tenn.	134	92	28	10	2	2	10
W.S. CENTRAL	1,451	849	311	171	66	54	71
Austin, Tex.	80	57	7	12	2	2	5
Baton Rouge, La.	27	17	7	1	1	1	1
Corpus Christi, Tex.	76	49	16	5	2	4	-
Dallas, Tex.	180	96	41	18	18	7	3
El Paso, Tex.	92	55	21	11	4	1	6
Ft. Worth, Tex.	92	51	17	11	6	7	2
Houston, Tex.	383	199	81	70	18	15	35
Little Rock, Ark.	84	55	22	4	1	2	6
New Orleans, La.	85	42	21	17	2	3	-
San Antonio, Tex.	191	124	42	11	5	9	5
Shreveport, La.	68	42	15	5	5	1	4
Tulsa, Okla.	93	62	21	6	2	2	4
MOUNTAIN	730	467	139	77	28	19	39
Albuquerque, N.M.	83	45	16	13	9	-	1
Colo. Springs, Colo.	36	24	5	4	2	1	1
Denver, Colo.	121	80	22	14	3	2	11
Las Vegas, Nev.	147	89	37	13	5	3	6
Ogden, Utah	16	11	1	3	-	1	-
Phoenix, Ariz.	132	81	26	16	3	6	11
Pueblo, Colo.	22	20	-	-	2	-	-
Salt Lake City, Utah	77	52	14	4	2	5	6
Tucson, Ariz.	96	65	18	10	2	1	3
PACIFIC	1,964	1,292	352	202	68	43	105
Berkeley, Calif.	26	20	6	-	-	-	5
Fresno, Calif.	91	57	23	6	3	2	5
Glendale, Calif.	17	13	1	2	-	1	2
Honolulu, Hawaii	64	44	13	5	1	1	-
Long Beach, Calif.	100	64	18	12	5	1	6
Los Angeles, Calif.	510	311	90	70	25	7	22
Pasadena, Calif.	42	29	7	4	-	2	2
Portland, Oreg.	119	89	20	5	2	3	3
Sacramento, Calif.	152	96	30	12	7	7	7
San Diego, Calif.	179	115	32	20	7	5	13
San Francisco, Calif.	151	95	25	23	4	4	5
San Jose, Calif.	152	106	31	7	3	5	10
Santa Cruz, Calif.	36	27	5	4	-	-	7
Seattle, Wash.	166	114	19	22	9	2	4
Spokane, Wash.	55	40	10	3	-	2	7
Tacoma, Wash.	104	72	22	7	2	1	7
TOTAL	12,226¶	7,669	2,384	1,366	450	321	618

*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.

Current Trends

Sudden Infant Death Syndrome — United States, 1980–1988

Sudden infant death syndrome (SIDS) (the abrupt and unexplained death of an apparently healthy infant) is the second leading cause of infant mortality in the United States (*1*) and the eighth leading cause of years of potential life lost (*2*). This report analyzes race- and region-specific data for SIDS during 1980–1988.

This analysis examined death certificate data from public-use mortality data tapes compiled by CDC's National Center for Health Statistics (*3*) and included infants aged ≤364 days at the time of death from SIDS (*International Classification of Diseases, Ninth Revision,* code 798.0) who were born to U.S. residents. Neonatal deaths were defined as deaths among infants aged <28 days; postneonatal deaths were those among infants aged 28–364 days. Data on live-born infants were obtained from published natality statistics (*4*) and were used as the denominator for determining mortality rates. Rates of SIDS were calculated by dividing the number of SIDS cases in a year by the number of live-born infants in that calendar year.

From 1980 through 1988, 47,932 infants born to U.S. residents died from SIDS (Table 1). During that time, overall SIDS rates declined 3.5% for white infants and 19.2% for black infants; the decline was significant for black infants ($p<0.001$; chi-square test for trend). In addition, throughout the 9-year period, SIDS rates were higher for black infants than for white infants. However, the black-to-white rate ratio declined from 2.2 in 1980 to 1.8 in 1988 ($p<0.002$); this decline occurred primarily among postneonatal infants.

TABLE 1. Number of cases and rate* of sudden infant death syndrome, by race of child, age period, and year of death — United States, 1980–1988

Age period at death/race	1980		1988		1980–1988	
	No.	Rate	No.	Rate	No.	Rate
Neonatal†						
White	271	9.4	248	8.1	**2,255**	**8.5**
Black	135	22.9	108	16.1	**1,084**	**19.8**
Other	12	9.7	12	6.3	**124**	**8.9**
All races	**418**	**11.6**	**368**	**9.4**	**3,463**	**10.4**
Postneonatal§						
White	3,448	119.0	3,523	115.7	**30,828**	**116.0**
Black	1,516	257.1	1,412	210.1	**12,238**	**223.3**
Other	128	103.3	173	90.4	**1,403**	**101.1**
All races	**5,092**	**141.0**	**5,108**	**130.7**	**44,469**	**132.9**
Total						
White	3,719	128.3	3,771	123.8	**33,083**	**124.5**
Black	1,651	280.0	1,520	226.2	**13,322**	**243.1**
Other	140	112.9	185	96.7	**1,527**	**110.0**
All races	**5,510**	**152.5**	**5,476**	**140.1**	**47,932**	**143.3**

*Per 100,000 live-born infants.
†Aged <28 days.
§Aged 28–364 days.

SIDS — Continued

Of all SIDS cases, 92.4% in 1980 and 93.2% in 1988 were postneonatal deaths. Neonatal SIDS cases represented a relatively small proportion of total SIDS cases: from 1980 through 1988, this proportion declined from 7.2% to 6.5% among whites and from 8.2% to 7.1% among blacks.

Autopsy rates for deaths diagnosed as resulting from SIDS increased from 82.3% in 1980 to 92.5% in 1988; percent increases were similar for both black and white infants. Autopsy rates for neonatal deaths increased from 79.0% in 1980 to 91.6% in 1988.

For white infants, overall SIDS rates for 1980–1988 were highest in the West, followed by the Midwest, the South, and the Northeast. For black infants, in 1980 SIDS rates were highest in the Midwest, followed by the West, Northeast, and South; in 1988, rates were lowest in the Northeast.

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Editorial Note: In 1990, the National Institute of Child Health and Human Development (NICHD) defined SIDS as "the sudden death of an infant under one year of age which remains unexplained after a thorough case investigation, including performance of a complete autopsy, examination of the death scene, and review of the clinical history" (*5*). The previous definition of SIDS, adopted at the Second International Conference of Sudden Death in Infants in 1969, did not require death scene examination (*6*).

The NICHD definition of SIDS emphasizes the importance of autopsies and death scene investigations in ruling out other causes of death before a SIDS diagnosis is assigned. The increased autopsy rates among reported SIDS cases during 1980–1988 indicates the availability of more complete data for diagnostic purposes. However, in this analysis, to what extent autopsy data were used in the classification of cause of death could not be determined.

Throughout 1980–1988, the risk for SIDS was higher for black infants than white infants, although the differences in risk narrowed somewhat during the period. However, the larger decline in SIDS rates for black infants cannot be explained by changes in autopsy rates, which were similar for both races in 1980 and increased equally during the period.

The consistent regional variations in SIDS rates during the study period remain unexplained. A recent report from Denmark ascribed such differences in SIDS rates to varying postmortem protocols and interpretation of history and autopsy information (*7*).

Although many risk factors have been associated with SIDS (*8*)—including the possible role of prone sleeping position (*9,10*)—neither a specific etiology nor a pathophysiology has been delineated. The diagnosis thus remains one of exclusion. The complexity of this syndrome is illustrated by the varying risks for SIDS among geographically and racially defined infant populations. A greater understanding of the etiologic mechanisms of SIDS and an evaluation of cause-of-death assignment by geographic area may identify factors that affect the mortality rates found in this analysis.

References

1. CDC. Infant mortality—United States, 1989. MMWR 1992;41:81–5.
2. CDC. Years of potential life lost before ages 65 and 85—United States, 1989–1990. MMWR 1992;41:313–5.

SIDS — Continued

3. NCHS. Vital statistics mortality data, multiple cause-of-death detail (machine-readable public-use data tapes). Hyattsville, Maryland: US Department of Health and Human Services, Public Health Service, CDC, 1980–1988.
4. NCHS. Vital statistics of the United States—1980–1988 [annual]. Vol 1. Natality. Hyattsville, Maryland: US Department of Health and Human Services, Public Health Service, CDC.
5. Willinger M, James LS, Catz C. Defining the sudden infant death syndrome (SIDS): deliberations of an expert panel convened by the National Institute of Child Health and Human Development. Pediatr Pathol 1991;11:677–84.
6. Beckwith JB. Discussion of terminology and definition of sudden infant death syndrome. In: Bergman AB, Beckwith JB, Ray CG, eds. Proceedings of the Second International Conference on Causes of Sudden Death in Infants. Seattle: University of Washington Press, 1970.
7. Helweg-Larson K, Knudsen LB, Gregersen M, Simonsen J. Sudden infant death syndrome (SIDS) in Denmark: evaluation of increasing incidence of registered SIDS in the period 1972 to 1983 and results of a prospective study in 1987 through 1988. Pediatr 1992;89:855–9.
8. Haglund B, Cnattingius S. Cigarette smoking as a risk factor for sudden infant death syndrome: a population based study. Am J Public Health 1990;80:29–32.
9. Hunt CE, Shannon DC. Sudden infant death syndrome and sleeping position. Pediatrics 1992;90:115–8.
10. Dwyer T, Ponsonby A-LB, Newman NM, Gibbons LE. Prospective cohort study of prone sleeping position and sudden infant death syndrome. Lancet 1991;337:1244–7.

Notices to Readers

Establishment of National Center for Injury Prevention and Control

On June 25, 1992, CDC established the National Center for Injury Prevention and Control. The National Center for Environmental Health and Injury Control was renamed the National Center for Environmental Health.

Fifth National Environmental Health Conference

CDC will sponsor the Fifth National Environmental Health Conference on December 3–5, 1992, in Atlanta. Cosponsors are the American Public Health Association, the Association of State and Territorial Health Officials, the Association of State and Territorial Public Health Laboratory Directors, the Council of State and Territorial Epidemiologists, the National Association of County Health Officials, the National Environmental Health Association, the U.S. Conference of Local Health Officers, the Agency for Toxic Substances and Disease Registry, the Health Resources and Services Administration, and the U.S. Environmental Protection Agency. The conference is directed toward health professionals, environmental health scientists, and others involved with environmental health programs.

The theme of the conference is "The Health of Environmental Health." The following topics will be addressed: the roles of environmental health protection in public health agencies, setting priorities for environmental health, resource allocation, and evaluating environmental health programs.

Additional information is available from Lisa Townsend, PACE Enterprises, Inc., 17 Executive Park Drive, Suite 200, Atlanta, GA 30329; telephone (404) 633–8610; fax (404) 633–8745.

Erratum: Vol. 41, No. 26

In the article "Human Rabies—California, 1992," in the third paragraph on page 461 the second sentence should read "Carnitine and acyclovir were administered for cardiomyopathy and *herpes* encephalitis, respectively."

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

The 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 succeeding Friday. Inquiries about the *MMWR* Series, including material to be considered for publication, should be directed to: Editor, *MMWR* Series, Mailstop C-08, Centers for Disease Control, Atlanta, GA 30333; telephone (404) 332-4555.

☆U.S. Government Printing Office: 1992-631-123/67017 Region IV

HHS Publication No. (CDC) 92-8017