CENTERS FOR DISEASE CONTROL

May 24, 1985 / Vol. 34 / No. 20

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

Perspectives in Disease Prevention and Health Promotion

Drownings — Georgia, 1981-1983

Drownings are the second most frequent cause of death from unintentional injuries in Georgia among persons under 30 years of age. Data obtained from the Georgia Office of Vital Records and the Georgia Department of Natural Resources show that, overall, from 1981 through 1983, 573 drownings occurred in Georgia. Excluding 26 drownings among residents of other states, the annual fatality rate (drownings per 100,000 population) for Georgia residents was 3.2/100,000. These drownings accounted for an estimated 17,616 potential years of life lost among Georgia residents. Most drownings (66%) occurred from May through August, and 40% occurred on Saturdays and Sundays.

Although it is generally assumed that most aquatic deaths occur in swimming pools, pools accounted for only 75 (14%) of all reported drownings among Georgia residents (Table 1). Lakes, ponds, farm ponds, and borrow pits accounted for 249 (46%), and rivers and creeks, for 140 (26%) of all drownings.

Forty-five percent of drownings occurred while the person was swimming—the most for any category—and males accounted for 91% of these. The other activities that led to drowning included falling into the water (18%); boating (12%), which includes water skiing; bathtub use (6%); wading (5%); fishing (1%); attempts to rescue a drowning victim (1%); and other or unknown causes (12%).

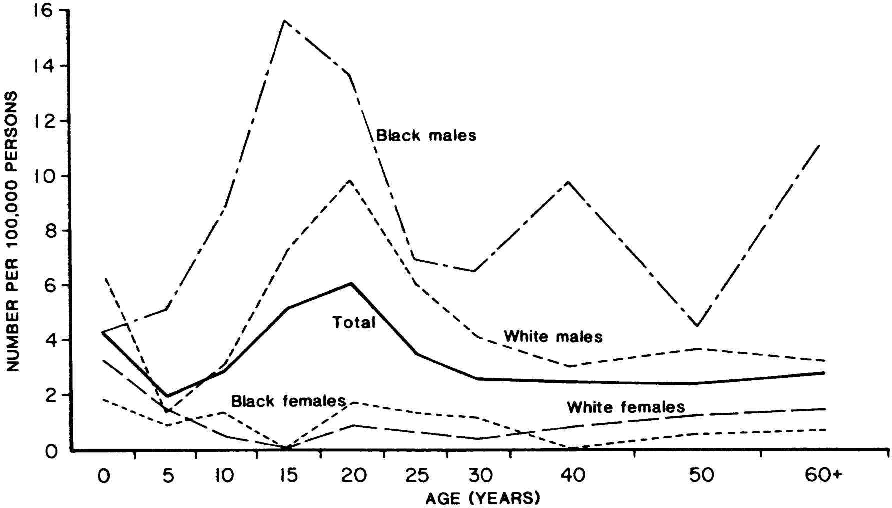
TABLE 1. Drownings, by type of water body — Georgia, 1981-1983

Body of water	No.	(%)
Lake*	249	(45.5)
River/creek	140	(25.6)
Swimming pool	75	(13.7)
Bathtub	32	(5.9)
Ocean	22	(4.0)
Canal	8	(1.5)
Drainage ditch	6	(1.1)
Other/unknown	15	(2.7)
Total	**547**	**(100.0)**

*Includes: lakes (160 drownings), farm ponds (53), ponds (24), and borrow pits (12).

Drownings—Continued

FIGURE 1. Drowning rates, by age, race, and sex — Georgia, 1981-1983



Drowning fatality rates differed by the age, race, and sex of the victim (Figure 1). Overall, rates were highest for children under 5 years of age and for young adults aged 15-24 years. Although not shown in Figure 1, the highest rate was for children under 1 year of age (6.2/100,000 children in that age group). Sixty-nine percent of the drowning victims under 1 year of age drowned in a bathtub. Except for children under 5 years old, black males had the highest drowning fatality rates for each age group. Overall, the rate for black males was 1.9 times greater than that for white males (8.6 deaths/100,000 black males, compared with 4.6 deaths/100,000 white males, respectively) ($p < 0.005$). Forty-four percent of all swimming-related fatalities occurred among black males.

Regardless of race, males were at greater risk of drowning than females (5.7 deaths/100,000 males, compared with 0.9 deaths/100,000 females, respectively) ($p < 0.001$). There was no appreciable difference in risk between white females and black females. However, the drowning fatality rate for all blacks was 1.7 times greater than that for all whites (4.5 deaths/100,000 blacks, compared with 2.7 deaths/100,000 whites, respectively) ($p < 0.001$). This difference in risk is due to the much greater risk for black males than for white males.

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Editorial Note: Nationwide, drowning ranks third among causes of death from unintentional injury among all age groups and ranks second for ages 5-44 years. Also, the overall drowning rate for blacks is about twice that for whites. The fatality rates reported here for Georgia are similar to national rates. Of the 7,000 unintentional drownings occurring each year in the United States, about 17% involve boats, primarily recreational craft, and about 10% occur in and around the home. Most home-related drownings occur in swimming pools and bathtubs; each year, about 250 children aged 1-4 years drown in swimming pools, predominantly home pools. However, a 1971 survey suggested that about 80% of drownings occur at other than designated swimming areas (*1,2*).

Many complex factors, host as well as environmental, are associated with drownings. Previous studies found that alcohol use was associated with about 50% of drownings among teenagers and adults (*3,4*).

Drownings—Continued

The rates per 100,000 persons of both boat-related drownings and drownings not related to boats have remained relatively stable over the past 2 decades (*1*). However, this may be a reflection of progress in controlling drownings. For example, U.S. Coast Guard data indicate that, despite a 59% increase in the number of recreational craft in operation from 1973 to 1983, the recreational boating fatality rate (about 90% of which is represented by drownings) has decreased steadily from 18.3 fatalities/100,000 recreational craft in 1973 to 8.1/100,000 in 1983. Although the causes for this decrease have not been determined, they may include industry and government initiatives that have resulted in safety improvements in boats, increased use of personal flotation devices, and regulations that promote safe boating (*5*).

The broader application and evaluation of a similar comprehensive mix of strategies that includes surveillance, education, the application of available control technologies, the development and enforcement of regulations, and the improvement of emergency response capability may lead to equally impressive reductions in fatality rates not associated with boats (*1,6-8*). For example, child-proof fencing with self-latching gates around dangerous bodies of water, including swimming pools, may reduce the rate of drowning among young children (*9*).

Many drownings occur among young people, and fatality rates are especially high among males 15-24 years of age. The reasons for the high fatality rate in otherwise healthy, physically capable young males are unclear. Further studies should focus on swimming ability, hazardous activities, behavior, alcohol and other drug exposures, and the estimated amount of exposure to bodies of water as possible influences on the drowning rate.

References

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Current Trends

Arboviral Infections of the Central Nervous System — United States, 1984

In 1984, arboviral infections of the central nervous system (CNS) occurred in 109 persons (Figures 2 and 3). An outbreak of 26 St. Louis encephalitis (SLE) cases in southern California was the first urban-centered SLE outbreak in the western United States. Elsewhere, few SLE cases were reported, and enzootic SLE activity was minimal. Two sporadic western equine encephalitis (WEE) cases were reported from South Dakota. Five eastern equine encephalitis (EEE) cases occurred in recognized endemic foci in the eastern United States. CNS infections from LaCrosse virus were reported in record numbers from Indiana (15 cases) but occurred in usual numbers elsewhere in the upper Midwest.

Arboviral Infections—Continued

FIGURE 2. Arboviral infections of the central nervous system — United States, 1984

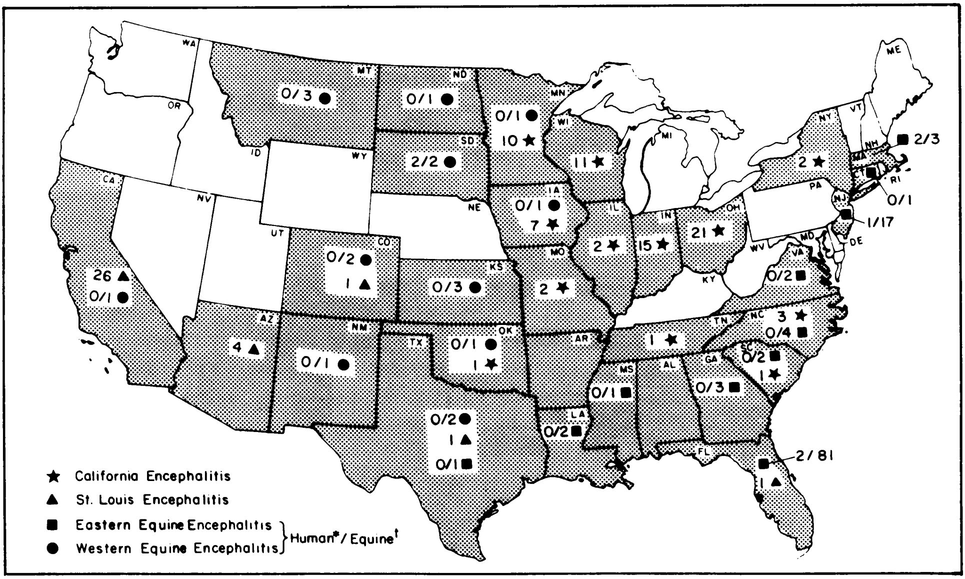
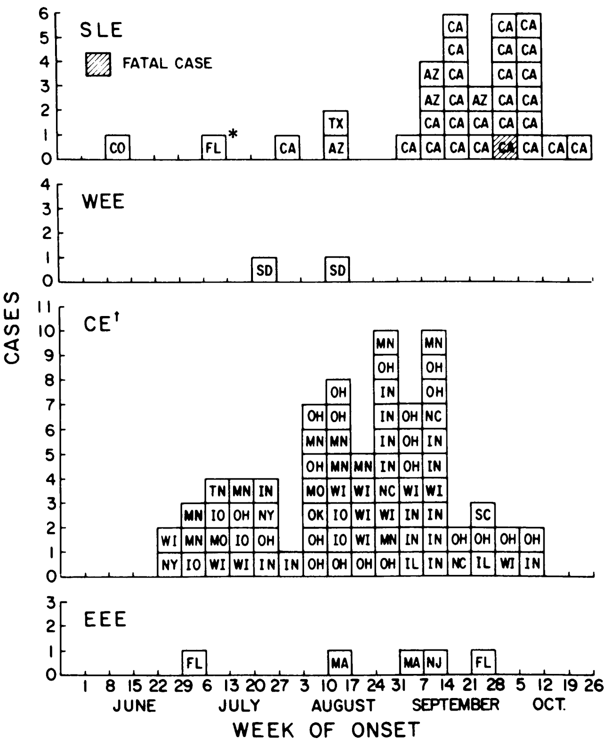


FIGURE 3. Arboviral infections of the central nervous system — United States, 1984



*See text.

†Two Iowa cases with unknown dates of onset.

Arboviral Infections—Continued

ST. LOUIS ENCEPHALITIS

Twenty-six confirmed or presumptive SLE cases were reported in California in 1984, the largest annual reported number since 1959, when 40 cases were reported (*1*). The outbreak was focused in the greater Los Angeles area, which previously had reported only one SLE case between 1945 and 1982. The crude attack rates and standardized morbidity ratios (SMRs) were highest in Riverside County and lowest in San Diego County (Table 2); these extremes in counties distant from the epicenter in greater Los Angeles are unexplained, although surveillance artifact may have contributed to the low attack rate in San Diego. The high attack

TABLE 2. St. Louis encephalitis age-specific rates and standardized morbidity ratios, (SMRs) by county — southern California,* 1984

Age (yrs)	Total cases	Overall attack rate/million population*	Observed and expected cases, by county			
			Los Angeles	Orange	Riverside	San Diego
≤24	3	0.61	2 (1.86)†	1 (0.49)	(0.16)	(0.48)
25-34	2	0.94	1 (1.26)	(0.32)	1 (0.10)	(0.32)
35-44	3	2.13	1 (1.89)	1 (0.53)	1 (0.15)	(0.43)
45-54	6	5.01	5 (3.81)	1 (1.03)	(0.31)	(0.85)
55-64	8	7.29	5 (5.08)	1 (1.20)	2 (0.51)	(1.21)
≥65	4	3.35	2 (2.49)	1 (0.54)	(0.33)	1 (0.64)
Total	**26**	**2.18**	**16 (16.39)**	**5 (4.11)**	**4 (1.56)**	**1 (3.93)**
Standardized morbidity ratio ± S.E.			0.98 ± 0.24	1.22 ± 0.54	2.56 ± 1.28	0.25 ± 0.25
Crude attack rate/million population		2.18	2.14	2.59	6.03	0.54

*Includes Riverside County and the following SMSA's: Los Angeles County, San Diego County, and Orange County.

†Expected number of cases that would have occurred if overall age-specific attack rates were applied to age stratum of underlying county population.

TABLE 3. St. Louis encephalitis cases,by sex and county of residence — California, 1984

Sex	County		
	Los Angeles*	Orange*	Riverside
Male†	6/3,648,361 (1.65)§	3/953,605 (3.15)	4/323,236 (12.37)
Female¶	10/3,829,142 (2.61)	2/979,104 (2.04)	0/339,930 (0)

*County SMSA.

†The attack rates for males in Los Angeles, Orange, and Riverside Counties were significantly different ($p = 0.007$).

§Rate/million population.

¶The attack rates for females in Los Angeles, Orange, and Riverside Counties were not significantly different ($p > 0.05$).

Arboviral Infections—Continued

rate in the Riverside County population may have been related to more intense exposure to vectors in a rural transmission cycle (see below). Attack rates rose with age but declined in the elderly (65 years of age or older) (Table 2). The only fatality occurred in a 62-year-old woman. An analysis of attack rate by sex and county of residence (Table 3) showed a gradient of increasing attack rate for males from Los Angeles County eastward through Orange County to Riverside County. No significant trend was observed in attack rates for females. Cases in Riverside County occurred earlier than those in other counties. However, the index patient was a Los Angeles city resident.

In Arizona, four human cases were reported in August and September. Two cases were reported from Maricopa County, and one each, from Navajo and Pinal Counties. All four cases occurred in females; one was a 25-year-old woman, and the others were children.

In Texas, Colorado, and Florida, sporadic SLE cases occurred in the absence of notable enzootic activity. A case of SLE occurred in a 20-year-old man from New Providence, Bahamas, who became ill 10 days after arriving in Tampa, Florida. The interval between his arrival in Florida and onset of illness was consistent with exposure in either Nassau or Florida. No coincident SLE activity was observed in sentinel birds in the Tampa area or elsewhere in Florida.

(Continued on page 291)

TABLE I. Summary—cases of specified notifiable diseases, United States

Disease	20th Week Ending			Cumulative, 20th Week Ending		
	May 18, 1985	May 19, 1984	Median 1980-1984	May 18, 1985	May 19, 1984	Median 1980-1984
Acquired Immunodeficiency Syndrome (AIDS)	189	101	N	2,666	1,441	N
Aseptic meningitis	65	52	66	1,360	1,491	1,491
Encephalitis: Primary (arthropod-borne & unspec.)	11	12	12	333	310	310
Post-infectious	2	2	2	53	38	38
Gonorrhea: Civilian	16,598	16,066	17,353	302,988	307,026	356,129
Military	662	316	568	7,250	7,854	10,451
Hepatitis: Type A	327	371	377	8,018	8,005	8,704
Type B	435	475	461	9,450	9,525	8,025
Non A, Non B	69	94	N	1,561	1,437	N
Unspecified	101	108	166	2,058	1,853	3,246
Legionellosis	8	12	N	198	196	N
Leprosy	1	5	5	128	85	83
Malaria	25	14	14	272	277	325
Measles: Total*	44	95	95	1,031	1,333	1,333
Indigenous	35	93	N	772	1,194	N
Imported	9	2	N	259	139	N
Meningococcal infections: Total	50	62	58	1,169	1,359	1,359
Civilian	50	62	58	1,166	1,356	1,356
Military	-	-	-	3	3	5
Mumps	47	87	107	1,566	1,465	2,119
Pertussis	31	67	23	493	824	413
Rubella (German measles)	13	28	44	193	309	1,169
Syphilis (Primary & Secondary): Civilian	426	524	591	9,520	10,803	11,555
Military	1	8	6	69	135	137
Toxic Shock syndrome	7	16	N	146	188	N
Tuberculosis	413	459	503	7,575	7,886	9,460
Tularemia	2	1	2	28	39	46
Typhoid fever	2	6	8	104	127	130
Typhus fever, tick-borne (RMSF)	17	26	30	55	86	91
Rabies, animal	102	140	140	1,894	1,882	2,485

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1985		Cum. 1985
Anthrax	-	Leptospirosis	9
Botulism: Foodborne	2	Plague	1
Infant (Calif. 1)	18	Poliomyelitis: Total	1
Other	-	Paralytic	1
Brucellosis (Tex. 1)	32	Psittacosis (Upstate N.Y. 1, N.Y. City 1, Mich. 2)	48
Cholera	-	Rabies, human	-
Congenital rubella syndrome	-	Tetanus	21
Congenital syphilis, ages < 1 year	52	Trichinosis	28
Diphtheria	2	Typhus fever, flea-borne (endemic, murine)	1

*Nine of the 44 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending May 18, 1985 and May 19, 1984 (20th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1985	1985	Cum. 1985	Cum. 1985	Cum. 1985	Cum. 1984	1985	1985	1985	1985	1985	Cum. 1985
UNITED STATES	2,666	65	333	53	302,988	307,026	327	435	69	101	8	128
NEW ENGLAND	78	2	11	-	9,250	8,844	9	30	2	14	-	3
Maine	4	-	-	-	356	339	1	2	-	-	-	-
N.H.	-	-	3	-	197	242	-	-	-	-	-	-
Vt.	-	-	-	-	98	148	-	1	-	-	-	-
Mass.	46	1	8	-	3,437	3,551	7	18	-	14	-	3
R.I.	3	-	-	-	696	556	-	2	1	-	-	-
Conn.	25	1	-	-	4,466	4,008	1	7	1	-	-	-
MID ATLANTIC	1,054	10	52	2	42,450	42,137	19	30	10	4	-	10
Upstate N.Y.	126	5	18	2	6,193	6,365	7	12	5	2	-	-
N.Y. City	708	1	3	-	19,861	17,904	4	3	-	-	-	10
N.J.	152	4	13	-	7,922	6,948	8	15	5	2	-	-
Pa.	68	U	18	-	8,474	10,920	U	U	U	U	U	-
E.N. CENTRAL	106	-	75	11	43,444	41,088	9	43	2	2	1	3
Ohio	23	-	29	4	11,270	10,741	6	14	2	1	1	2
Ind.	4	-	12	1	4,122	4,661	-	9	-	-	-	-
Ill.	43	-	8	4	12,037	9,080	-	-	-	-	-	-
Mich.	23	-	22	-	12,382	11,907	3	20	-	1	-	1
Wis.	13	-	4	2	3,633	4,699	-	-	-	-	-	-
W.N. CENTRAL	29	1	26	3	14,967	14,647	11	9	4	-	3	-
Minn.	5	-	11	1	2,201	2,111	4	6	2	-	1	-
Iowa	3	-	9	-	1,604	1,715	-	1	1	-	-	-
Mo.	17	-	-	-	6,996	6,900	1	2	1	-	-	-
N. Dak.	-	-	-	1	105	154	-	-	-	-	-	-
S. Dak.	-	-	-	-	274	382	5	-	-	-	-	-
Nebr.	1	-	1	-	1,438	1,046	-	-	-	-	-	-
Kans.	3	1	5	1	2,349	2,339	1	-	-	-	2	-
S. ATLANTIC	367	26	36	15	65,445	77,807	26	114	20	11	2	3
Del.	7	-	1	-	1,457	1,354	-	2	-	-	1	-
Md.	41	4	10	1	10,494	8,957	2	25	3	6	-	1
D.C.	46	-	-	-	5,411	5,619	-	2	-	-	-	-
Va.	22	4	6	4	6,904	7,249	5	14	5	1	-	-
W. Va.	1	-	2	-	967	951	-	1	-	-	-	-
N.C.	20	3	14	-	11,956	12,535	-	7	2	1	-	1
S.C.	4	1	3	-	8,315	7,403	1	12	-	-	-	-
Ga.	65	9	-	-	-	15,529	7	19	-	-	1	-
Fla.	161	5	-	10	19,941	18,210	11	32	10	3	-	1
E.S. CENTRAL	25	6	12	4	26,103	26,281	5	16	3	3	-	-
Ky.	9	-	4	-	2,875	3,150	1	2	-	-	-	-
Tenn.	4	1	4	-	10,386	10,712	1	8	3	2	-	-
Ala.	11	2	4	4	8,283	8,502	-	5	-	1	-	-
Miss.	1	3	-	-	4,559	3,917	3	1	-	-	-	-
W.S. CENTRAL	206	9	31	1	43,427	42,654	50	28	9	17	-	12
Ark.	2	-	1	1	4,040	3,760	-	-	-	-	-	1
La.	37	-	1	-	9,640	9,325	5	6	1	3	-	1
Okla.	2	5	11	-	4,414	4,570	10	5	5	1	-	-
Tex.	165	4	18	-	25,333	24,999	35	17	3	13	-	10
MOUNTAIN	37	-	11	3	9,716	9,750	37	27	4	5	2	1
Mont.	-	-	-	-	290	447	3	1	-	-	-	-
Idaho	-	-	-	-	331	438	-	1	-	-	-	-
Wyo.	-	-	1	-	249	311	-	-	-	-	-	-
Colo.	12	-	3	-	2,983	2,770	3	5	1	2	-	-
N. Mex.	4	-	-	-	1,157	1,094	9	5	1	-	2	-
Ariz.	16	-	2	-	2,757	2,642	-	-	-	-	-	-
Utah	2	-	5	3	397	506	9	9	-	3	-	-
Nev.	3	-	-	-	1,552	1,542	13	6	2	-	-	1
PACIFIC	764	11	79	14	48,186	43,818	161	138	15	45	-	96
Wash.	40	1	8	-	3,201	3,110	7	7	2	-	-	20
Oreg.	13	-	-	-	2,427	2,469	28	5	7	-	-	2
Calif.	694	9	71	14	40,692	36,369	126	124	6	45	-	66
Alaska	2	-	-	-	1,138	1,127	-	-	-	-	-	-
Hawaii	15	1	-	-	728	743	-	2	-	-	-	8
Guam	-	U	-	-	42	97	U	U	U	U	U	-
P.R.	32	-	3	1	1,444	1,321	1	12	-	15	-	2
V.I.	2	-	-	-	183	196	-	-	-	-	-	-
Pac. Trust Terr.	-	U	-	-	146	-	U	U	U	U	U	20

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending May 18, 1985 and May 19, 1984 (20th Week)

Reporting Area	Malaria	Measles (Rubeola)						Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total										
	Cum. 1985	1985	Cum. 1985	1985	Cum. 1985	Cum. 1984		Cum. 1985	1985	Cum. 1985	1985	Cum. 1985	Cum. 1984	1985	Cum. 1985	Cum. 1984
UNITED STATES	272	35	772	9	259	1,333		1,169	47	1,566	31	493	824	13	193	309
NEW ENGLAND	13	2	13	5	84	81		55	-	32	2	29	15	-	6	15
Maine	-	-	-	-	-	-		2	-	5	-	2	-	-	-	1
N.H.	2	-	-	-	-	32		5	-	5	-	16	3	-	2	-
Vt.	-	-	-	-	-	4		8	-	2	-	2	7	-	-	-
Mass.	8	2	13	5†	82	36		11	-	15	-	4	4	-	4	14
R.I.	1	-	-	-	-	-		9	-	3	2	3	1	-	-	-
Conn.	2	-	-	-	2	9		20	-	2	-	2	-	-	-	-
MID ATLANTIC	44	5	68	2	18	71		195	7	167	-	51	54	2	44	90
Upstate N.Y.	16	4	35	2†	8	16		83	2	97	-	21	35	-	8	67
N.Y. City	12	1	23	-	5	46		25	-	14	-	9	2	1	17	16
N.J.	4	-	2	-	5	5		34	5	22	-	1	3	1	7	7
Pa.	12	U	8	U	-	4		53	U	34	U	20	14	U	12	-
E.N. CENTRAL	15	-	154	-	94	471		201	15	643	2	61	226	2	19	52
Ohio	3	-	-	-	13	2		66	10	194	2	15	37	-	-	2
Ind.	1	-	-	-	1	3		30	-	25	-	11	152	-	-	1
Ill.	1	-	75	-	66	153		39	5	122	-	9	16	-	5	28
Mich.	9	-	35	-	14	299		48	-	248	-	8	11	2	13	14
Wis.	1	-	44	-	-	14		18	-	54	-	18	10	-	1	7
W.N. CENTRAL	6	1	3	-	4	1		58	-	48	2	46	69	-	8	19
Minn.	1	-	-	-	2	1		16	-	1	-	11	5	-	1	1
Iowa	1	-	-	-	-	-		7	-	7	-	3	3	-	-	-
Mo.	1	-	-	-	2	-		24	-	8	-	9	13	-	-	-
N. Dak.	1	1	2	-	-	-		-	-	1	-	6	-	-	-	3
S. Dak.	1	-	-	-	-	-		1	-	-	1	1	1	-	-	-
Nebr.	-	-	-	-	-	-		2	-	-	-	-	2	-	-	-
Kans.	1	-	1	-	-	-		8	-	31	1	16	45	-	7	15
S. ATLANTIC	35	21	146	-	6	20		222	3	128	11	108	57	2	27	17
Del.	-	-	-	-	-	-		5	-	1	-	-	-	-	-	-
Md.	10	-	16	-	4	8		26	1	16	4	29	3	-	1	1
D.C.	3	-	-	-	1	-		6	-	-	-	-	-	-	-	-
Va.	7	-	15	-	1	2		33	-	21	-	3	7	-	1	-
W. Va.	1	21	26	-	-	-		4	2	42	-	-	6	-	8	-
N.C.	3	-	1	-	-	-		31	-	8	1	8	17	-	-	-
S.C.	-	-	-	-	-	-		24	-	6	-	-	2	-	2	-
Ga.	1	-	8	-	-	-		34	-	12	-	38	6	-	4	2
Fla.	10	-	80	-	-	10		59	-	22	6	30	16	2	11	14
E.S. CENTRAL	3	-	-	-	-	3		55	1	12	-	6	4	-	1	5
Ky.	1	-	-	-	-	1		4	-	1	-	1	1	-	1	1
Tenn.	-	-	-	-	-	2		19	1	10	-	1	2	-	-	-
Ala.	2	-	-	-	-	-		18	-	-	-	2	-	-	-	1
Miss.	-	-	-	-	-	-		14	-	1	-	2	1	-	-	3
W.S. CENTRAL	19	6	66	-	6	268		107	6	176	5	56	213	2	17	6
Ark.	-	-	-	-	-	-		10	-	4	-	9	10	-	1	3
La.	-	-	7	-	-	-		18	-	2	-	2	3	-	-	-
Okla.	-	-	-	-	-	5		21	N	N	5	45	191	1	1	-
Tex.	19	6	59	-	6	263		58	6	170	-	-	9	1	15	3
MOUNTAIN	12	-	245	-	24	113		57	2	143	2	25	57	-	3	11
Mont.	-	-	121	-	17	-		3	1	6	-	3	16	-	-	-
Idaho	-	-	-	-	1	-		-	-	5	-	-	1	-	1	1
Wyo.	-	-	-	-	-	-		5	-	2	-	-	3	-	-	2
Colo.	4	-	-	-	5	-		16	-	14	1	9	20	-	-	2
N. Mex.	4	-	1	-	1	86		8	N	N	1	4	5	-	1	-
Ariz.	3	-	123	-	-	-		16	-	62	-	5	8	-	1	-
Utah	-	-	-	-	-	27		7	-	2	-	4	2	-	-	6
Nev.	1	-	-	-	-	-		2	1	52	-	-	2	-	-	-
PACIFIC	125	-	77	2	23	305		219	13	217	7	111	129	5	68	94
Wash.	9	-	1	-	-	81		37	-	12	1	18	17	-	2	1
Oreg.	5	-	3	-	-	-		22	N	N	-	16	9	-	2	-
Calif.	94	-	70	2†	19	222		153	13	194	5	72	41	3	44	91
Alaska	2	-	-	-	-	-		5	-	2	1	2	-	-	-	-
Hawaii	15	-	3	-	4	2		2	-	9	-	3	62	2	20	2
Guam	-	U	10	U	-	84		-	U	3	U	-	-	U	1	2
P.R.	-	-	46	-	-	1		7	5	70	1	2	-	1	9	4
V.I.	-	-	4	-	6	-		-	-	3	-	-	-	-	-	-
Pac. Trust Terr.	-	U	2	U	-	-		-	U	3	U	-	-	U	-	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending May 18, 1985 and May 19, 1984 (20th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1985	Cum. 1984	1985	Cum. 1985	Cum. 1984	Cum. 1985	Cum. 1985	Cum. 1985	Cum. 1985
UNITED STATES	9,520	10,803	7	7,575	7,886	28	104	55 +19	1,894
NEW ENGLAND	208	224	-	255	227	-	6	1 +1	4
Maine	7	1	-	18	12	-	-	-	-
N.H.	3	2	-	6	14	-	-	-	-
Vt.	-	1	-	4	2	-	-	-	-
Mass.	110	137	-	158	122	-	5	1 1	1
R.I.	6	8	-	21	18	-	-	-	-
Conn.	82	75	-	48	59	-	1	-	3
MID ATLANTIC	1,276	1,494	-	1,387	1,473	1	16	-	155
Upstate N.Y.	96	124	-	239	234	-	6	-	33
N.Y. City	798	908	-	711	602	1	4	-	-
N.J.	268	273	-	151	310	-	5	-	7
Pa.	114	189	U	286	327	-	1	-	115
E.N. CENTRAL	431	513	1	934	1,027	-	9	6 +5	47
Ohio	56	99	-	167	212	-	2	5 4	10
Ind.	36	61	1	112	107	-	3	-	6
Ill.	218	154	-	395	426	-	1	-	9
Mich.	100	166	-	210	218	-	2	1 1	2
Wis.	21	33	-	50	64	-	1	-	20
W.N. CENTRAL	103	179	1	202	209	7	3	1 +1	341
Minn.	26	49	-	40	34	1	3	-	63
Iowa	14	10	-	31	29	-	-	-	74
Mo.	44	95	-	94	93	5	-	-	18
N. Dak.	-	1	-	2	5	-	-	1 1	37
S. Dak.	4	-	-	7	8	-	-	-	109
Nebr.	5	8	-	10	14	1	-	-	17
Kans.	10	16	1	18	26	-	-	-	23
S. ATLANTIC	2,382	3,281	-	1,583	1,646	5	11	23 +5	521
Del.	16	10	-	15	19	1	-	-	-
Md.	154	218	-	140	193	-	2	3 1	268
D.C.	137	127	-	73	50	-	-	-	-
Va.	127	167	-	127	151	-	2	3 1	72
W. Va.	4	9	-	39	59	-	-	1	9
N.C.	265	323	-	200	254	4	1	10 1	2
S.C.	297	314	-	181	187	-	-	4 1	30
Ga.	-	569	-	250	230	-	-	1 1	71
Fla.	1,382	1,544	-	558	503	-	6	1	69
E.S. CENTRAL	844	656	-	642	725	2	2	7 +1	94
Ky.	32	37	-	107	153	-	-	-	12
Tenn.	244	172	-	199	233	2	-	3	22
Ala.	269	234	-	231	232	-	2	4 1	58
Miss.	299	213	-	105	107	-	-	-	2
W.S. CENTRAL	2,405	2,543	-	829	848	4	6	14 +4	379
Ark.	122	79	-	87	96	1	-	2 1	62
La.	397	470	-	96	105	-	-	-	4
Okla.	67	71	-	104	87	3	-	10 1	48
Tex.	1,819	1,923	-	542	560	-	6	2 2	265
MOUNTAIN	294	251	1	191	195	7	4	2 +2	144
Mont.	1	-	-	19	10	2	-	-	77
Idaho	3	10	-	11	9	-	-	1 1	-
Wyo.	4	3	1	4	-	-	-	1 1	3
Colo.	69	57	-	18	23	1	3	-	-
N. Mex.	36	29	-	38	42	2	1	-	1
Ariz.	164	107	-	89	82	-	-	-	63
Utah	3	8	-	6	16	2	-	-	-
Nev.	14	37	-	6	13	-	-	-	-
PACIFIC	1,577	1,662	4	1,552	1,536	2	47	1	209
Wash.	51	57	-	81	76	-	-	-	1
Oreg.	33	46	-	49	63	1	-	-	-
Calif.	1,464	1,527	4	1,303	1,298	1	46	1	208
Alaska	1	3	-	51	22	-	-	-	-
Hawaii	28	29	-	68	77	-	1	-	-
Guam	2	-	U	10	22	-	-	-	-
P.R.	331	333	-	118	154	-	1	-	12
V.I.	1	6	-	1	3	-	-	-	-
Pac. Trust Terr.	13	-	U	16	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending May 18, 1985 (20th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	667	493	105	30	13	25	49
Boston, Mass.	158	106	31	8	5	8	9
Bridgeport, Conn.	39	33	4	2	-	-	1
Cambridge, Mass.	34	28	5	1	-	-	8
Fall River, Mass.	40	31	5	2	2	-	1
Hartford, Conn.	60	36	11	5	1	7	5
Lowell, Mass.	24	20	3	1	-	-	2
Lynn, Mass.	15	13	-	-	2	-	-
New Bedford, Mass.	22	20	1	1	-	-	3
New Haven, Conn.	69	47	9	6	1	6	4
Providence, R.I.	74	55	15	1	1	2	11
Somerville, Mass.	6	6	-	-	-	-	-
Springfield, Mass.	44	33	10	1	-	-	2
Waterbury, Conn.	20	13	6	-	-	-	-
Worcester, Mass.	62	52	5	2	1	2	3
MID ATLANTIC	2,783	1,820	599	206	73	85	102
Albany, N.Y.	56	36	12	2	2	4	1
Allentown, Pa.	27	22	3	-	2	-	-
Buffalo, N.Y.	117	74	27	10	2	4	11
Camden, N.J.	50	29	16	1	1	3	1
Elizabeth, N.J.	24	11	8	5	-	-	-
Erie, Pa.†	44	31	9	3	1	-	4
Jersey City, N.J.	37	27	8	2	-	-	-
N.Y. City, N.Y.	1,416	950	272	124	41	29	43
Newark, N.J.	60	28	15	10	1	6	5
Paterson, N.J.	31	18	7	2	3	1	1
Philadelphia, Pa.	494	288	131	30	11	34	24
Pittsburgh, Pa.†	62	37	20	1	2	2	-
Reading, Pa.	27	22	4	-	1	-	3
Rochester, N.Y.	109	80	18	7	4	-	5
Schenectady, N.Y.	29	25	3	1	-	-	1
Scranton, Pa.†	33	26	5	2	-	-	1
Syracuse, N.Y.	88	58	25	1	2	2	1
Trenton, N.J.	35	24	10	1	-	-	1
Utica, N.Y.	14	11	1	2	-	-	-
Yonkers, N.Y.	30	23	5	2	-	-	-
E.N. CENTRAL	2,323	1,621	375	153	74	98	83
Akron, Ohio	73	51	10	7	1	4	-
Canton, Ohio	42	37	3	-	1	1	-
Chicago, Ill.§	553	462	11	26	16	37	16
Cincinnati, Ohio	145	81	47	9	5	3	13
Cleveland, Ohio	190	115	43	13	8	11	4
Columbus, Ohio	132	84	27	12	3	6	2
Dayton, Ohio	127	79	36	7	1	4	1
Detroit, Mich.	243	148	46	34	8	7	3
Evansville, Ind.	33	26	5	1	1	-	-
Fort Wayne, Ind.	61	31	14	8	6	2	2
Gary, Ind.	11	7	2	1	-	-	1
Grand Rapids, Mich.	61	51	7	2	1	-	5
Indianapolis, Ind.	145	89	34	10	5	7	2
Madison, Wis.	47	28	9	3	3	4	5
Milwaukee, Wis.	147	112	22	5	1	7	7
Peoria, Ill.	53	35	15	3	-	-	5
Rockford, Ill.	52	34	5	4	5	4	3
South Bend, Ind.	39	29	6	2	2	-	5
Toledo, Ohio	120	85	25	3	7	-	8
Youngstown, Ohio	49	37	8	3	-	1	1
W.N. CENTRAL	712	485	145	33	29	19	47
Des Moines, Iowa	51	34	12	1	3	1	4
Duluth, Minn.	20	17	-	2	-	1	2
Kansas City, Kans.	34	19	8	3	3	-	1
Kansas City, Mo.	132	87	27	6	8	4	11
Lincoln, Nebr.	28	19	6	2	1	-	3
Minneapolis, Minn.	81	53	20	2	3	3	2
Omaha, Nebr.	89	54	27	3	3	2	11
St. Louis, Mo.	142	103	21	9	5	4	1
St. Paul, Minn.	66	49	12	1	2	2	5
Wichita, Kans.	69	50	12	4	1	2	7
S. ATLANTIC	1,250	764	282	121	36	44	54
Atlanta, Ga.	131	81	34	12	3	1	5
Baltimore, Md.	217	137	50	18	6	6	5
Charlotte, N.C.	53	30	18	3	-	2	8
Jacksonville, Fla.	111	73	26	6	2	4	11
Miami, Fla.	95	54	25	7	7	2	-
Norfolk, Va.	73	39	18	8	3	5	6
Richmond, Va.	72	44	16	4	1	7	2
Savannah, Ga.	49	27	14	6	1	1	3
St. Petersburg, Fla.	115	101	9	2	-	3	1
Tampa, Fla.	55	36	9	3	4	3	5
Washington, D.C.	251	120	60	51	8	9	5
Wilmington, Del.	28	22	3	1	1	1	3
E.S. CENTRAL	727	471	177	43	15	21	34
Birmingham, Ala.	109	68	31	5	3	2	4
Chattanooga, Tenn.	45	31	11	1	1	1	3
Knoxville, Tenn.	85	58	14	7	2	4	4
Louisville, Ky.	109	74	27	4	1	3	8
Memphis, Tenn.	159	100	41	15	-	3	5
Mobile, Ala.	58	41	12	4	-	1	4
Montgomery, Ala.	42	27	12	1	-	2	2
Nashville, Tenn.	120	72	29	6	8	5	4
W.S. CENTRAL	1,119	662	270	81	51	55	45
Austin, Tex.	52	35	9	4	1	3	7
Baton Rouge, La.	40	22	10	3	2	3	-
Corpus Christi, Tex.	37	21	8	4	2	2	-
Dallas, Tex.	187	105	41	17	12	12	4
El Paso, Tex.	78	40	27	5	4	2	1
Fort Worth, Tex.	112	64	26	8	2	12	6
Houston, Tex.	171	92	42	18	9	10	5
Little Rock, Ark.	54	37	12	4	1	-	5
New Orleans, La.	99	55	29	6	7	2	-
San Antonio, Tex.	168	112	38	5	6	7	9
Shreveport, La.	40	26	8	3	3	-	3
Tulsa, Okla.	81	53	20	4	2	2	5
MOUNTAIN	615	391	119	56	26	23	25
Albuquerque, N.Mex.	86	57	15	9	2	3	3
Colo. Springs, Colo.	34	21	6	2	3	2	4
Denver, Colo.	97	65	14	10	5	3	3
Las Vegas, Nev.	91	55	16	9	9	2	3
Ogden, Utah	16	10	6	-	-	-	4
Phoenix, Ariz.	149	85	36	19	3	6	3
Pueblo, Colo.	16	11	4	-	-	1	-
Salt Lake City, Utah	45	27	8	4	2	4	2
Tucson, Ariz.	81	60	14	3	2	2	3
PACIFIC	1,696	1,089	338	146	59	59	103
Berkeley, Calif.	21	14	4	2	-	1	-
Fresno, Calif.	57	35	12	4	1	5	13
Glendale, Calif.	17	15	1	1	-	-	1
Honolulu, Hawaii	75	55	16	2	-	2	7
Long Beach, Calif.	79	55	14	6	2	2	2
Los Angeles, Calif.	374	216	74	42	21	17	9
Oakland, Calif.	68	47	10	5	3	3	6
Pasadena, Calif.	23	15	3	4	-	1	1
Portland, Oreg.	122	87	21	9	1	4	8
Sacramento, Calif.	138	87	32	10	3	6	12
San Diego, Calif.	131	79	31	7	6	7	13
San Francisco, Calif.	151	94	26	20	7	4	1
San Jose, Calif.	155	97	32	20	3	3	18
Seattle, Wash.	151	104	32	7	7	1	4
Spokane, Wash.	64	46	13	4	-	1	4
Tacoma, Wash.	70	43	17	3	5	2	4
TOTAL	11,892††	7,796	2,410	869	376	429	542

*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 4 weeks.

Arboviral Infections—Continued

In Ohio, Indiana, Illinois, Kentucky, Tennessee, and Iowa, no human SLE cases were reported. Remarkably little evidence of SLE virus infections in wild birds was adduced in any of the surveillance schemes in place in these states. Overall, less than 0.1% of all birds in these surveillance efforts had SLE virus antibody.

EASTERN EQUINE ENCEPHALITIS

In Massachusetts, two human and three equine cases were reported. The putative but unproven site of exposure for one patient, a boy from Farmington, was southern coastal New Jersey. Infections in a 63-year-old woman from Foxboro and three equine cases from Taunton, Brockton, and Middleboro were presumably acquired in eastern Massachusetts counties where EEE occurs perennially.

In Maryland, no human cases were reported. However, a dramatic epornitic occurred at the Patuxent Wildlife Research Station, where whooping cranes (*Grus americana*) and sandhill cranes (*G. canadensis*) are bred to produce eggs that are placed in the wild for rearing. Only 150 whooping cranes are extant. Of 39 whooping cranes in the colony, precipitous deaths occurred in seven between September 17 and November 4. Four were found dead in their pens, and three were moribund and died within hours of discovery. EEE was confirmed as the cause of death by the U.S. Department of Agriculture Laboratory at Ames, Iowa, which isolated the virus from liver and spleen of the dead cranes. Pathologic examination at the National Zoo in Washington, D.C., disclosed widespread visceral involvement with diffuse and focal hepatic, renal, and splenic necrosis, necrotizing enterocolitis, and orchitis or oophoritis. Histopathologic findings of encephalitis were absent. One of 17 whooping crane sera collected and stored frozen since 1974 had EEE antibody, indicating that enzootic infections had occurred in previous years. However, no clusters of unexplained deaths had been noted before.

In New Jersey, a record number of encephalitis cases in horses was reported in 1984. Nineteen confirmed or presumptive cases were reported, chiefly in southern counties where EEE occurs perennially. A single human EEE case (nonfatal) was reported in a 6-year-old boy from Dividing Creek, in southern Cumberland County.

In Florida, two human EEE cases occurred in 1984—in a 55-year-old Polk County man and a 52-year-old Jacksonville woman. Eighty-one confirmed or presumptive equine cases were reported, chiefly in northeast counties, where a hyperenzootic focus exists.

WESTERN EQUINE ENCEPHALITIS

Nationwide, little epizootic activity was observed (Figure 2).

The only human WEE cases in the United States were reported in two South Dakota men. Since 1964, North Dakota and South Dakota have had the highest WEE incidence, with crude average annual rates of 0.598/100,000 and 0.293/100,000, respectively. In 1984, evidence of *Culex tarsalis* activity and WEE virus transmission were unremarkable in the two states. Two equine cases were reported from North Dakota, and one equine case was reported from South Dakota. No WEE virus was isolated from *Cx. tarsalis* collected in South Dakota or Minnesota. The low minimum infection rate of *Cx. tarsalis* collected in North Dakota, 0.48/1,000, was consistent with the observed low level of epizootic activity.

VIRUSES OF THE CALIFORNIA SEROGROUP

In the United States, LaCrosse virus is the principal agent of morbidity from infections by California serogroup viruses. From 1963 to 1983, the states with the highest annual incidence of reported CNS infections from LaCrosse virus have been in the upper midwest (in declining order): Wisconsin—0.434/100,000/year (average crude rate); Minnesota—0.308; Ohio—0.236; Iowa—0.144; and Indiana—0.083.

In 1984, 15 cases were reported from Indiana (0.282/100,000), the largest annual number of cases notified since 1982, when 12 were reported. Seven cases were reported

Arboviral Infections—Continued

from Iowa (0.244/100,000), chiefly from central and eastern counties. Twenty-one confirmed and five presumptive cases of CNS infection from LaCrosse virus were reported from Ohio (0.195/100,000). Two cases were reported from Illinois, an unusually low number. These changes probably reflect surveillance artifact, e.g., recent increased interest in Jamestown Canyon virus infections in Indiana (*2*).

In Wisconsin, 11 cases were reported from counties in recognized endemic areas, principally in southwestern counties. In LaCrosse County, where intensive control activities have been focused, a gradual decline in reported cases began in 1980, and no cases have been reported in the last 3 years. However, a secular decline in reports of LaCrosse CNS infections has also been observed in surrounding counties, where control programs have not been as aggressive.

In New York, two confirmed cases of LaCrosse encephalitis and six other suspected Jamestown Canyon or LaCrosse virus infections were reported. South Carolina reported its first LaCrosse case in the last 20 years. Oklahoma reported its first case of CNS infection from LaCrosse virus in 1984. North Carolina reported three cases, all in western counties near Asheville.

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Editorial Note: In the United States, two transmission cycles of SLE virus occur. Endemic SLE occurs in the western United States, where *Cx. tarsalis* is the principal mosquito vector. In the Mississippi valley and Atlantic states, epidemic, often urban-centered, outbreaks occur through the agency of *Cx. pipiens*-complex mosquitoes. The SLE outbreak in southern California was unusual because both urban and rural endemic cycles appeared to play roles in the epidemic. The epidemiologic observations suggest that SLE viral transmission in Riverside County, California, followed a different pattern than those in Los Angeles and Orange Counties. The epidemiologic features of cases from Riverside County were typical of spread by *Cx. tarsalis* in a rural agricultural setting, in which early amplification of virus in the enzootic cycle and intensive human exposure to vectors results in high attack rates, disproportionate risk in males, and the appearance of cases comparatively early (*3*). In Los Angeles, the higher attack rate for females suggests that urban peridomestic sites may have been important sources of exposure—a phenomenon previously reported in urban SLE outbreaks in the east (*4*) associated with *Cx. pipiens*-complex mosquitoes. The observed gradient of increasing attack rate for males (and corresponding declining attack rate for females) from urban Los Angeles to relatively rural Riverside County—with intermediate attack rates in Orange County, which is also intermediate in its rural/urban composition—is further supportive evidence that both urban and rural cycles of SLE transmission contributed to the outbreak.

The early appearance of cases in Riverside County suggests that the virus might have been introduced into Los Angeles from the rural transmission cycle. Such an interaction between rural and urban cycles of SLE transmission was previously hypothesized in the Dallas, Texas, SLE outbreak in 1966 (*5*).

The age distribution of cases with increasing attack rate with age was typical of previous urban SLE outbreaks in nonimmune populations (*4*). The limited data suggested no difference in age-specific attack rates in Riverside and more urban counties, indicating low levels of immunity to SLE virus in all areas, in contradistinction to high levels of immunity in the rural population of the central valley in the 1940s and 1950s (*3*).

The attack rate in the outbreak was approximately 200-fold lower than typical rates associated with urban outbreaks in the east; however, case finding in this outbreak was entirely passive. Possible risk factors associated with illness, such as outdoor exposure and occupation in Riverside County cases and peridomestic activities in urban cases, could not be evaluated without controls.

Although the urban setting of the 1984 outbreak was unusual (in contrast to the previous chiefly rural pattern of SLE transmission in the state) in 1983, three cases occurred in Los Angeles and San Diego Counties recalling the pattern of premonitory outbreaks of urban SLE in the East (*4*).

Arboviral Infections—Continued

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Epidemiologic Notes and Reports

Testing Donors of Organs, Tissues, and Semen for Antibody to Human T-Lymphotropic Virus Type III/Lymphadenopathy-Associated Virus

The U.S. Public Health Service has recommended that all donated blood and plasma be tested for antibody to human T-lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV), the virus that causes acquired immunodeficiency syndrome (AIDS) (*1*). It is additionally recommended that blood or serum from donors of organs, tissues, or semen intended for human use be similarly tested and that the test result be used to evaluate the appropriate use of such materials from these donors. Although AIDS has not been reported to have been associated with such use, semen and other body fluids, including blood, may harbor the virus. Thus, organs, tissues, and semen obtained from HTLV-III/LAV antibody-positive persons must be considered as potentially infectious. Persons in groups having an increased risk for AIDS should not donate organs, tissues, or semen, regardless of the result of the antibody test; this is the same policy currently followed for blood donations. It is recognized that the circumstances of organ procurement and the logistics of transplantation may in some instances not permit the use of an HTLV-III/LAV test. However, when feasible such testing is prudent.

Reported by U.S. Food and Drug Administration; Alcohol, Drug Abuse, and Mental Health Administration; National Institutes of Health; Health Resources and Svcs Administration; CDC.

Reference
1. CDC. Provisional Public Health Service inter-agency recommendations for screening donated blood and plasma for antibody to the virus causing acquired immunodeficiency syndrome. MMWR 1985;34:1-5.

Reported Measles Cases — United States, Past 4 Weeks

The following states have reported measles during the past 4 weeks: Arizona, California, Colorado, Connecticut, Florida, Illinois, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Montana, New Jersey, New Mexico, upstate New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Texas, Virginia, West Virginia, and Wisconsin; New York City has also reported measles.

The *Morbidity and Mortality Weekly Report* is prepared by the Centers for Disease Control, Atlanta, Georgia, and 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.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

☆U.S. Government Printing Office: 1985-746-149/10054 Region IV

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HHS Publication No. (CDC) 85-8017

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