CENTER FOR DISEASE CONTROL

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

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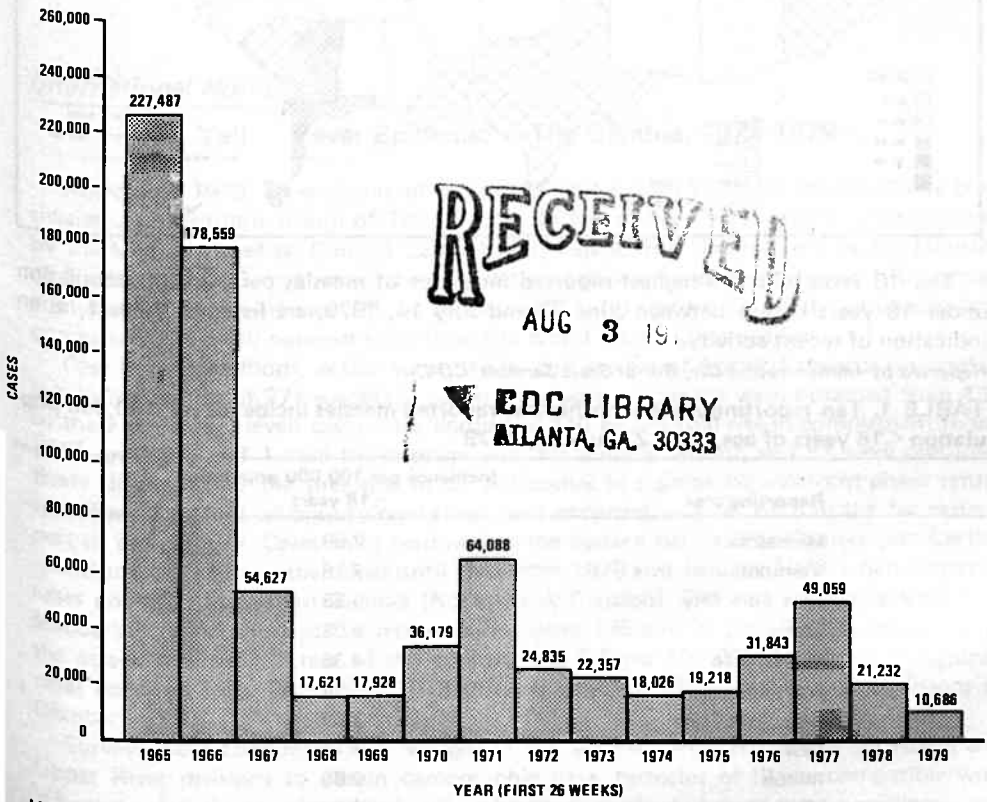
Current Trends

Measles — United States, First 26 Weeks, 1979

A total of 10,686 measles cases were reported for the first 6 months (26 weeks) of calendar year 1979, a 49.7% decrease from the 21,232 cases reported for the same time period of 1978 (Figure 1). The 1979 total is lower than that for any corresponding period in recorded U.S. history. Before 1979, and during the last 14 years, the lowest total number of measles cases for the first half of any calendar year was in 1968, when 17,621 cases were reported. This year's total is more than one-third lower than that figure. All but one of the first 26 weeks in 1979 had a lower number of reported cases than the corresponding week in 1978, and all but 4 weeks this year had lower totals than the

FIGURE 1. Reported measles cases, first 26 weeks, 1965-1979, United States

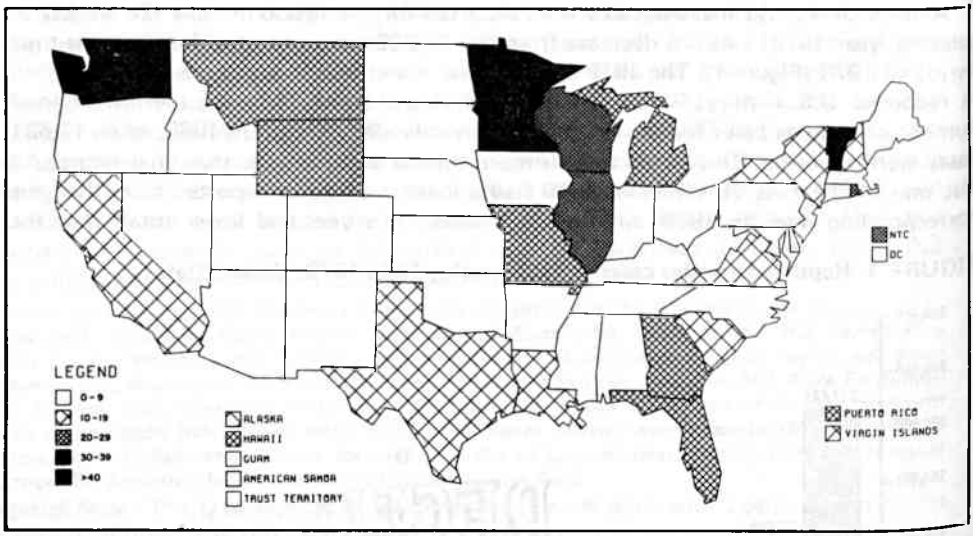


Measles – Continued

corresponding weeks in any previous year.

During the first 26 weeks, 40 of 57 reporting areas had at least 4 consecutive weeks without reported measles. During this 6-month period, only 3 states—Washington, Vermont, and Minnesota—reported incidence rates of measles above 40 cases per 100,000 persons below 18 years of age (Figure 2). Almost half of the reporting areas had rates below 10 per 100,000. Nine areas reported more than 500 cases in the first half of the year (New York, New York City, Florida, Michigan, Illinois, Minnesota, Texas, Washington, and California). Two of these states—Illinois and Washington—reported in excess of 1,000 cases. Thirty-four reporting areas had less than 100 cases each.

FIGURE 2. Measles incidence rates per 100,000 persons under 18 years old, January 1–June 30, 1979



The 10 areas with the highest reported incidence of measles per 100,000 population under 18 years of age between June 23 and July 14, 1979, are listed in Table 1, as an indication of recent activity.

Reported by Immunization Div, Bur of State Services, CDC.

TABLE 1. Ten reporting areas with highest reported measles incidence per 100,000 population <18 years of age, June 23-July 14, 1979

Reporting area	Incidence per 100,000 population <18 years
Minnesota	7.98
Vermont	7.38
New York City	6.53
Idaho	5.05
Puerto Rico	4.36
Washington	3.24
New York State	3.22
Florida	3.19
Illinois	2.99
Virginia	2.97

Special Summer Program for Measles Search and Elimination — Regions VII and VIII

On June 27, 1979, representatives from the states in HEW Regions VII and VIII met in Utah, to discuss a strategy for increased search for and control of measles cases during the summer low-transmission period. On August 1, as a result of this meeting and subsequent bi-regional planning, the states in these 2 regions (Iowa, Kansas, Missouri, Nebraska, Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming) announced a cooperative intensified program to increase surveillance and measles-control activities for at least the next 2 months. Major components of the program include:

(1) Improved surveillance by increasing the number of reporting sources and the frequency of contacts with these sources;
(2) Intensive investigation of cases to identify contacts and the source of infection and to immunize all susceptible persons that are discovered;
(3) Increased public and professional awareness of measles and the plans for its elimination; and
(4) Increased interstate communication regarding measles activity.

It is hoped that by increasing efforts to break chains of transmission of indigenous measles during this low-incidence period, a lasting reduction will be achieved in the number of new cases occurring when school resumes in the fall.

Reported by Immunization Projects and Regional Divisions of Preventive Health Services, HEW Regions VII and VIII, and Immunization Div, Bur of State Services, CDC.

International Notes

Yellow Fever Epidemic — The Gambia, 1978-1979

In October 1978, an epidemic of suspected yellow fever (YF) was recognized by physicians in the eastern region of The Gambia. In November, investigations were initiated by the Medical Research Council Laboratories, Fajara, The Gambia, and by the Ministry of Health, and in December a mass vaccination campaign was begun, using 17D vaccine administered by jet-injector (*1*). In January 1979, further studies of the outbreak were conducted by a multi-national team from the World Health Organization.

Case-finding methods, active surveillance, and review of hospital records resulted in the identification of 271 suspected cases; diagnostic specimens were obtained from 131 of these patients. Eleven cases were confirmed (10 by ⩾4-fold rise in complement-fixing [CF] antibody and 1 case by serology and YF virus isolation), and 83 were presumptively diagnosed by the presence of CF antibodies in a single convalescent-phase serum specimen. The first laboratory-confirmed case occurred in June 1978 in the far eastern part of the country. Cases were confined to the eastern half of The Gambia (MacCarthy Island and Upper River divisions) until December 1978 and January 1979, when scattered cases appeared in western Gambia (North Bank Division). The estimated attack rates in MacCarthy Island and Upper River divisions were 135 and 94 per 100,000, respectively; the attack rate for the rest of the country was 5.5 per 100,000. Nearly all recognized cases occurred from September 1978 through January 1979, with a peak incidence in October.

Surveys were conducted in 9 villages in the severely affected MacCarthy Island and Upper River divisions to obtain demographic data, histories of illness compatible with YF, and serologic samples. When only laboratory-confirmed cases were considered, the

Yellow Fever -- Continued

attack rate was 2.6% in these villages. However, when clinical cases were included (with a case being defined as acute febrile illness with jaundice), the attack rate was 4.4%. The incidence was highest (6.7%) in children 0-9 years old and declined with age to 1.7% in persons over 40 years. Both the attack rate and CF-antibody prevalence were slightly higher in males than in females. The case-fatality rate was 19.4%, and the mortality rate, 0.9%. The overall prevalence of CF antibodies, indicating recent YF infection, was 32.6%.

On the basis of the YF attack rate in the 9 survey villages, an estimated 5,000 to 8,000 cases occurred in eastern Gambia during the outbreak, with 1,000-1,700 deaths.

High prevalence of CF antibodies and several seroconversions to Orungo virus (an orbivirus, probably *Anopheles*-borne, reported to cause nonspecific human illness) were also found. However, there was no evidence that Orungo virus was responsible for the illness with jaundice encountered during this epidemic.

Most of the entomologic investigations were conducted during the dry season (January), when populations of sylvatic vectors of YF virus were markedly reduced or absent. However, limited human-bait studies by the Medical Research Council in November, as well as the recovery of larvae from artificially-flooded tree holes in January, confirmed the presence of the potential sylvatic vectors *Aedes luteocephalus* and *A. furcifer-taylori* in the epidemic zone. Surveys for *A. aegypti* were made in January 1979. Of 21 villages in MacCarthy Island and the Upper River divisions, Breteau indices* ⩾5 were

*Number of containers positive for *A. aegypti* larvae per 100 houses.

(Continued on page 357)

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

[Cumulative totals include revised and delayed reports through previous weeks.]

DISEASE	30th WEEK ENDING		MEDIAN 1974-1978**	CUMULATIVE, FIRST 30 WEEKS		
	July 28, 1979	July 29, 1978*		July 28, 1979	July 29, 1978*	MEDIAN 1974-1978**
Aseptic meningitis	188	182	97	2,173	1,778	1,407
Brucellosis	1	5	8	77	99	121
Chickenpox	735	777	777	168,673	121,666	121,666
Diphtheria	-	1	1	61	48	120
Encephalitis: Primary (arthropod-borne & unspec.)	26	23	23	343	399	404
Post-infectious	8	6	7	146	130	159
Hepatitis, Viral: Type B	285	325	292	8,030	8,711	8,573
Type A	544	550	624	16,558	16,486	20,164
Type unspecified	175	173	160	6,002	4,640	4,847
Malaria	19	22	13	361	393	243
Measles (rubeola)	95	214	268	11,318	22,650	22,650
Meningococcal infections: Total	52	44	23	1,735	1,558	1,030
Civilian	51	43	23	1,726	1,536	1,014
Military	1	1	-	9	22	21
Mumps	60	150	223	10,904	12,710	31,532
Pertussis	23	41	47	719	1,157	768
Rubella (German measles)	86	142	108	10,252	16,021	14,380
Tetanus	1	4	4	35	45	44
Tuberculosis	524	720	630	16,235	16,744	17,512
Tularemia	-	3	4	96	65	80
Typhoid fever	7	10	10	255	283	216
Typhus fever, tick-borne (Rky. Mt. spotted)	57	56	50	538	564	463
Venereal diseases:						
Gonorrhea: Civilian	19,599	22,608	21,669	553,528	550,680	551,768
Military	424	579	579	15,441	14,761	15,629
Syphilis, primary & secondary: Civilian	443	501	486	13,652	11,843	11,843
Military	10	7	9	171	169	176
Rabies in animals	85	75	75	2,726	1,789	1,692

TABLE II. Notifiable diseases of low frequency, United States

	CUM. 1979		CUM. 1979
Anthrax	-	Poliomyelitis: Total	22
Botulism (Alaska 1)	13	Paralytic (Pa. 1)	19
Congenital rubella syndrome (Illinois 1)	33	Psittacosis	67
Leprosy † (Tex. 1, Calif. 2)	98	Rabies in man	2
Leptospirosis (Mo. 1)	21	Trichinosis	76
Plague (N.Mex. 1)	9	Typhus fever, flea-borne (endemic, murine) (Hawaii 1)	29

*Delayed reports received for calendar year 1978 are used to update last year's weekly and cumulative totals.
**Medians for gonorrhea and syphilis are based on data for 1976-1978.
†Delayed report: Leprosy: Pac.Tr.Terr.: +2

TABLE III. Cases of specified notifiable diseases, United States, weeks ending July 28, 1979, and July 29, 1978 (30th week)

REPORTING AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKENPOX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS (VIRAL), BY TYPE			MALARIA	
						Primary		Post-infectious	B	A	Unspecified		
	1979	1979	1979	1979	CUM. 1979	1979	1978*	1979	1979	1979	1979	1979	CUM. 1979
UNITED STATES	188	1	735	–	61	26	23	8	285	544	175	19	361
NEW ENGLAND	11	–	153	–	–	–	1	–	6	12	5	1	22
Maine	5	–	21	–	–	–	–	–	–	–	1	–	1
N.H.†	–	–	–	–	–	–	1	–	–	–	–	–	–
Vt.	–	–	1	–	–	–	–	–	–	4	–	–	–
Mass.	3	–	62	–	–	–	–	–	2	3	4	–	4
R.I.	2	–	18	–	–	–	–	–	1	2	–	1	6
Conn.	1	–	51	–	–	–	–	–	3	3	–	–	11
MID. ATLANTIC	14	–	159	–	–	1	4	2	26	25	11	1	45
Upstate N.Y.	3	–	99	–	–	–	–	–	6	4	3	–	9
N.Y. City	3	–	58	–	–	–	1	–	3	6	2	1	25
N.J.†	8	–	NN	–	–	–	–	2	17	15	6	–	4
Pa.†	–	–	2	–	–	1	3	–	NA	NA	NA	–	7
E.N. CENTRAL	16	1	233	–	2	5	4	1	38	49	15	2	27
Ohio†	–	1	9	–	–	1	2	1	5	16	–	1	6
Ind.	4	–	3	–	1	1	2	–	8	4	4	–	1
Ill.	–	–	97	–	–	–	–	–	5	8	2	1	10
Mich.	12	–	34	–	–	3	–	–	16	19	9	–	8
Wis.	–	–	90	–	1	–	–	–	4	2	–	–	2
W.N. CENTRAL	7	–	18	–	1	1	2	–	30	40	12	–	12
Minn.	–	–	–	–	–	–	2	–	2	6	–	–	3
Iowa	2	–	7	–	–	1	–	–	8	7	3	–	2
Mo.	–	–	4	–	1	–	–	–	17	12	9	–	3
N. Dak.	–	–	3	–	–	–	–	–	–	–	–	–	–
S. Dak.	–	–	1	–	–	–	–	–	2	8	–	–	–
Nebr.	–	–	3	–	–	–	–	–	–	1	–	–	2
Kans.	5	–	–	–	–	–	–	–	1	6	–	–	2
S. ATLANTIC	30	–	103	–	–	5	3	4	54	47	25	3	48
Del.	–	–	–	–	–	–	–	–	–	–	1	–	1
Md.	10	–	56	–	–	2	1	2	14	13	5	3	8
D.C.	–	–	–	–	–	–	–	–	–	1	–	–	5
Va.†	4	–	10	–	–	1	–	–	5	6	6	–	16
W. Va.†	–	–	16	–	–	–	1	–	1	2	–	–	2
N.C.	9	–	NN	–	–	2	1	–	15	4	2	–	3
S.C.	–	–	–	–	–	–	–	–	1	2	–	–	1
Ga.	–	–	–	–	–	–	–	–	–	–	–	–	2
Fla.	7	–	21	–	–	–	–	2	18	19	11	–	10
E.S. CENTRAL	31	–	1	–	–	4	1	1	17	50	8	–	6
Ky.	1	–	1	–	–	1	1	1	3	25	2	–	–
Tenn.	7	–	NN	–	–	3	–	–	8	9	2	–	–
Ala.	23	–	–	–	–	–	–	–	5	1	4	–	2
Miss.	–	–	–	–	–	–	–	–	1	15	–	–	4
W.S. CENTRAL	32	–	21	–	–	3	2	–	35	104	28	–	22
Ark.	2	–	–	–	–	–	–	–	3	3	–	–	–
La.	3	–	NN	–	–	–	–	–	9	5	4	–	2
Okla.	–	–	–	–	–	1	–	–	4	3	4	–	3
Tex.	27	–	21	–	–	2	2	–	19	93	20	–	17
MOUNTAIN	8	–	25	–	1	2	–	–	10	59	42	1	11
Mont.	–	–	11	–	–	–	–	–	1	2	–	–	1
Idaho	–	–	–	–	–	–	–	–	–	6	–	–	–
Wyo.	–	–	–	–	–	–	–	–	–	–	–	–	1
Colo.†	8	–	14	–	–	2	–	–	3	13	3	1	5
N. Mex.	–	–	–	–	–	–	–	–	1	6	–	–	–
Ariz.	–	–	NN	–	1	–	–	–	2	24	30	–	4
Utah	–	–	–	–	–	–	–	–	1	5	8	–	–
Nev.	–	–	–	–	–	–	–	–	2	3	1	–	–
PACIFIC	39	–	22	–	57	5	6	–	69	158	29	11	168
Wash.	5	–	12	–	55	1	1	–	10	24	2	–	7
Oreg.	4	–	1	–	–	1	–	–	4	17	2	2	8
Calif.†	24	–	–	–	2	2	5	–	54	109	24	9	151
Alaska	2	–	2	–	–	1	–	–	–	2	1	–	–
Hawaii	4	–	7	–	–	–	–	–	1	6	–	–	2
Guam†	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	–
P.R.	–	–	18	–	–	–	1	–	2	–	3	–	1
V.I.†	–	–	–	–	–	–	–	–	–	–	–	–	–
Pac. Trust Terr.†	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	–

NN: Not notifiable. NA: Not available.

*Delayed reports received for 1978 are not shown below but are used to update last year's weekly and cumulative totals.

†The following delayed reports will be reflected in next week's cumulative totals: Asep. meng.: N.H. +1, Pa. –1, Ohio +8; Chickenpox: Calif. +11, Guam +4, V.I. +1; Pac.Tr.Terr. +13; Enceph. post.: Colo. –1; Hep. B: N.H. –1, N.J. +24, Pa. +21, Va. –1, W.Va. +1; Hep. A: N.H. +1, N.J. +35, Pa. +16, W.Va. –1; Hep. unsp.: N.H. –1, N.J. +33, Pa. +1.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending July 28, 1979, and July 29, 1978 (30th week)

REPORTING AREA	MEASLES (RUBEOLA)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1979	CUM. 1979	CUM. 1978*	1979	CUM. 1979	CUM. 1978*	1979	CUM. 1979	1979	1979	CUM. 1979	CUM. 1979
UNITED STATES	95	11,318	22,650	52	1,735	1,558	60	10,904	23	86	10,252	35
NEW ENGLAND	1	289	1,939	3	84	90	4	371	1	11	1,410	4
Maine	–	17	1,309	1	5	5	1	131	–	–	61	–
N.H.†	–	37	45	–	9	7	–	4	–	–	117	–
Vt.†	–	116	25	–	5	2	1	7	–	–	405	–
Mass.	1	13	234	–	24	37	–	31	1	8	491	3
R.I.†	–	103	7	–	6	15	1	25	–	2	88	–
Conn.	–	3	319	2	35	24	1	173	–	1	248	1
MID. ATLANTIC	12	1,402	2,065	9	255	250	15	1,034	–	12	1,856	6
Upstate N.Y.	3	627	1,334	3	90	76	4	150	–	3	1,025	1
N.Y. City	6	679	317	–	63	60	2	105	–	6	250	3
N.J.	–	53	69	2	61	50	3	515	–	3	318	1
Pa.†	3	43	345	4	41	64	6	264	–	–	263	1
E.N. CENTRAL	17	2,971	10,134	7	165	165	24	4,640	3	26	2,400	3
Ohio	–	243	463	5	63	50	10	1,670	–	–	128	2
Ind.†	1	193	175	1	38	31	3	259	–	3	701	–
Ill.	3	1,312	1,089	–	4	28	2	829	3	2	168	–
Mich.	11	784	6,991	1	46	45	–	870	–	20	1,177	1
Wis.	2	439	1,416	–	14	11	9	1,012	–	1	226	–
W.N. CENTRAL	9	1,500	380	1	50	57	1	634	1	2	405	–
Minn.	9	994	36	–	10	12	–	8	–	–	35	–
Iowa	–	16	54	1	9	9	–	223	–	–	51	–
Mo.	–	413	9	–	23	23	1	188	–	1	41	–
N. Dak.	–	16	191	–	1	3	–	2	–	–	8	–
S. Dak.	–	1	–	–	2	2	–	5	–	1	4	–
Nebr.†	–	–	5	–	–	–	–	7	–	–	183	–
Kans.	–	60	85	–	5	8	–	201	1	–	83	–
S. ATLANTIC	21	1,640	4,806	11	426	380	7	468	6	10	1,158	7
Del.	–	1	5	–	3	1	2	32	–	–	4	–
Md.	6	13	43	–	38	20	2	124	–	4	28	–
D.C.	–	1	47	–	2	1	–	1	–	–	1	–
Va.	4	250	2,792	1	62	50	1	78	2	–	192	1
W. Va.	–	50	1,011	–	8	9	1	87	1	2	101	–
N.C.	–	108	114	4	61	78	–	58	1	1	514	3
S.C.	–	149	194	4	54	23	–	2	–	–	59	–
Ga.	–	357	17	–	64	46	–	3	–	–	8	–
Fla.	11	711	583	2	134	152	1	83	2	3	251	3
E.S. CENTRAL	14	180	1,375	5	131	129	4	1,296	3	3	257	6
Ky.	13	37	115	3	27	25	4	1,071	2	–	64	–
Tenn.	–	48	926	–	38	31	–	91	1	–	82	–
Ala.	1	76	101	2	32	40	–	20	–	3	41	4
Miss.	–	19	233	–	34	33	–	114	–	–	70	2
W.S. CENTRAL	6	893	950	10	300	231	1	1,590	5	–	206	9
Ark.	–	7	14	–	27	20	–	755	–	–	6	2
La.	2	245	320	6	122	86	1	37	2	–	26	2
Okla.	–	22	12	1	23	16	–	–	–	–	22	–
Tex.	4	619	604	3	128	109	–	798	3	–	152	5
MOUNTAIN	2	292	244	–	68	33	–	247	2	6	495	–
Mont.†	–	57	103	–	6	2	–	10	–	1	64	–
Idaho	–	18	1	–	5	3	–	8	–	–	199	–
Wyo.	–	36	–	–	1	–	–	–	–	–	–	–
Colo.	2	54	30	–	4	2	–	69	2	–	64	–
N. Mex.	–	31	–	–	4	7	–	12	–	–	9	–
Ariz.	–	70	50	–	31	11	–	47	–	2	126	–
Utah	–	15	44	–	8	4	–	90	–	3	32	–
Nev.	–	11	16	–	9	4	–	11	–	–	1	–
PACIFIC	13	2,151	757	6	256	223	4	624	2	16	2,065	–
Wash.†	–	1,117	134	1	43	39	–	182	–	–	169	–
Oreg.	–	63	142	–	15	21	2	64	–	5	88	–
Calif.	13	890	474	5	185	154	1	286	1	11	1,788	–
Alaska	–	17	–	–	5	6	–	9	–	–	2	–
Hawaii	–	64	7	–	8	3	1	83	1	–	18	–
Guam	NA	3	25	–	1	–	NA	8	NA	NA	3	–
P.R.	5	311	204	–	2	3	10	505	–	–	33	5
V.I.	–	4	6	–	3	1	–	15	–	–	–	–
Pac. Trust Terr.†	NA	6	552	–	1	2	NA	22	NA	NA	1	–

NA: Not available.

*Delayed reports received for 1978 are not shown below but are used to update last year's weekly and cumulative totals.

†The following delayed reports will be reflected in next week's cumulative totals: Measles: Ind. –1, Wash. +2; Men. inf.: R.I. +1, Pa. –1; Mumps: Pac.Tr.Terr. +4; Rubella: N.H. +2, Vt. –9, Nebr. –4, Mont. +1.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending July 28, 1979, and July 29, 1978 (30th week)

REPORTING AREA	TUBERCULOSIS		TULAREMIA	TYPHOID FEVER		TYPHUS FEVER (Tick-borne) (RMSF)		VENEREAL DISEASES (Civilian)						RABIES (in Animals)
								GONORRHEA			SYPHILIS (Pri. & Sec.)			
	1979	CUM. 1979	CUM. 1979	1979	CUM. 1979	1979	CUM. 1979	1979	CUM. 1979	CUM. 1978*	1979	CUM. 1979	CUM. 1978*	CUM. 1979
UNITED STATES	524	16,235	96	7	255	57	538	19,599	553,528	550,680	443	13,652	11,843	2,726
NEW ENGLAND	16	437	1	1	17	–	6	506	14,021	14,236	6	259	341	33
Maine	1	33	–	–	1	–	–	29	969	1,088	–	7	7	21
N.H.	–	8	–	–	–	–	–	24	518	660	–	12	5	3
Vt.	1	21	–	–	–	–	–	15	331	329	–	1	3	–
Mass.	9	236	1	–	10	–	3	154	5,569	6,297	5	152	210	8
R.I.	2	38	–	–	2	–	–	50	1,154	1,015	–	9	16	–
Conn.	3	101	–	1	4	–	3	234	5,480	4,847	1	78	100	1
MID. ATLANTIC	82	2,587	1	2	41	1	20	2,687	60,069	58,692	75	2,111	1,582	26
Upstate N.Y.†	16	463	1	–	7	1	17	390	9,706	9,628	14	152	118	22
N.Y. City	34	955	–	–	17	–	1	1,052	23,591	23,124	40	1,437	1,119	–
N.J.	9	469	–	–	11	–	2	555	11,138	10,916	12	281	179	4
Pa.	23	700	–	2	6	–	–	690	15,634	15,024	9	241	166	–
E.N. CENTRAL	75	2,351	–	–	21	1	28	2,633	85,007	81,921	33	1,836	1,276	230
Ohio	12	432	–	–	3	1	9	609	23,633	21,490	–	339	245	18
Ind.	15	313	–	–	–	–	2	310	7,782	8,489	4	126	76	51
Ill.	34	915	–	–	6	–	14	609	25,849	25,540	25	1,057	790	113
Mich.	14	598	–	–	10	–	2	879	20,231	18,981	3	262	125	5
Wis.†	–	93	–	–	2	–	1	226	7,512	7,421	1	52	40	43
W.N. CENTRAL	26	549	14	–	10	3	30	1,252	26,714	27,946	5	178	268	542
Minn.	4	85	–	–	2	–	–	262	4,472	4,865	1	48	116	102
Iowa	3	47	–	–	2	–	13	45	3,194	3,180	1	24	26	106
Mo.	13	301	12	–	4	3	10	633	11,591	11,932	2	78	72	173
N. Dak.	–	14	–	–	–	–	–	31	469	514	–	2	2	33
S. Dak.	5	36	1	–	–	–	–	29	900	1,006	–	1	2	50
Nebr.†	–	3	1	–	1	–	–	115	1,891	2,114	–	1	8	–
Kans.	1	63	–	–	1	–	7	137	4,197	4,335	1	24	42	78
S. ATLANTIC	100	3,706	4	–	29	33	293	5,293	134,700	134,197	116	3,305	3,141	350
Del.	2	34	–	–	–	1	3	72	2,165	1,805	–	17	6	–
Md.	16	485	–	–	7	13	31	747	16,467	17,082	3	219	241	9
D.C.	6	194	–	–	1	–	2	343	8,672	8,731	6	251	240	–
Va.	5	418	–	–	4	4	59	452	12,774	12,627	6	288	262	8
W. Va.	2	142	–	–	2	–	8	87	1,869	1,886	1	41	8	–
N.C.†	16	572	–	–	–	14	107	715	19,178	19,244	7	274	308	3
S.C.†	1	283	1	–	3	1	45	457	12,507	13,018	5	158	160	114
Ga.	30	570	3	–	–	–	37	810	25,832	25,647	42	906	760	192
Fla.†	22	1,008	–	–	12	–	1	1,610	35,236	34,157	46	1,151	1,156	24
E.S. CENTRAL	54	1,507	12	–	12	11	78	1,415	47,661	47,745	59	908	602	191
Ky.†	4	392	2	–	5	–	10	278	6,332	5,907	5	96	80	83
Tenn.†	11	424	10	–	2	6	49	275	16,872	17,673	17	389	202	67
Ala.	17	340	–	–	5	2	13	365	14,215	13,657	6	168	91	40
Miss.	22	351	–	–	–	3	6	497	10,242	10,508	31	255	229	1
W.S. CENTRAL	79	1,959	38	–	32	–	70	2,459	71,654	75,728	94	2,460	1,870	1,095
Ark.	8	153	24	–	1	–	20	214	5,600	5,608	10	91	45	232
La.	24	428	4	–	3	–	1	315	12,679	12,306	16	567	388	17
Okla.	8	210	5	–	–	–	38	246	6,724	7,238	7	54	58	175
Tex.†	39	1,168	5	–	28	–	11	1,684	46,651	50,576	61	1,748	1,379	671
MOUNTAIN	21	487	22	–	21	7	12	754	21,512	20,610	18	270	233	65
Mont.	–	21	5	–	–	1	3	50	1,016	1,227	–	6	7	5
Idaho	–	6	–	–	1	2	2	20	885	758	–	19	7	3
Wyo.	–	3	–	–	1	–	–	20	531	475	–	5	4	–
Colo.†	–	68	10	–	12	4	4	331	5,775	5,698	3	58	64	17
N. Mex.	2	89	1	–	2	–	1	103	2,797	2,942	–	49	59	25
Ariz.	19	244	–	–	3	–	–	109	5,958	5,372	8	84	51	14
Utah†	–	18	5	–	–	–	–	14	1,096	1,118	–	3	11	1
Nev.	–	38	1	–	2	–	2	107	3,454	3,020	7	46	30	–
PACIFIC	71	2,652	4	4	72	1	1	2,600	92,190	89,605	37	2,325	2,530	194
Wash.†	9	148	3	–	2	–	–	320	7,993	7,023	NA	118	118	–
Oreg.	3	115	–	–	1	–	–	120	5,887	6,147	2	105	85	2
Calif.	58	2,153	1	4	61	1	1	2,008	73,657	71,947	31	2,024	2,294	190
Alaska	–	52	–	–	1	–	–	77	2,978	2,829	–	16	7	2
Hawaii	1	184	–	–	7	–	–	75	1,675	1,659	4	62	26	–
Guam†	NA	34	–	NA	–	NA	–	NA	48	68	NA	–	–	–
P.R.	–	179	–	–	3	–	–	22	1,157	1,307	17	284	252	15
V.I.†	–	3	–	–	1	–	–	3	97	128	–	6	12	–
Pac. Trust Terr.†	NA	17	–	NA	–	NA	–	NA	207	281	NA	–	–	–

NA: Not available.
*Delayed reports received for 1978 are not shown below but are used to update last year's weekly and cumulative totals.
†The following delayed reports will be reflected in next week's cumulative totals: TB: N.C –1, S.C. +1, Fla. –1, Ky. –1, Colo. +1, Wash. –1, Guam +2, Pac. Tr.Terr. +1; GC: Wis. +356 civ., Ky. –1 civ., Tenn. –1 civ., Tex. –4 civ., Colo. +2 civ., Utah –1 civ., Guam +2 civ. +3 mil., V.I. +2 civ., Pac.Tr.Terr. +35 civ.; Syphilis: Wis. +2, Nebr. +1, Tex. –2, Pac.Tr.Terr. +1; An. rabies: Ups. NY +2, Fla. +3.

TABLE IV. Deaths in 121 U.S. cities,* week ending July 28, 1979 (30th week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P&I** TOTAL
	ALL AGES	>65	45-64	25-44	<1	
NEW ENGLAND	622	410	145	28	23	31
Boston, Mass.	176	103	52	8	7	8
Bridgeport, Conn.	33	24	7	1	1	1
Cambridge, Mass.	27	21	4	2	–	–
Fall River, Mass.	38	34	2	1	–	–
Hartford, Conn.	43	28	8	1	2	1
Lowell, Mass.	18	12	5	1	–	–
Lynn, Mass.	16	11	3	2	–	1
New Bedford, Mass.	27	20	5	1	1	–
New Haven, Conn.	36	22	8	3	2	–
Providence, R.I.	66	46	14	2	3	10
Somerville, Mass.	10	6	4	–	–	–
Springfield, Mass.	46	26	11	4	3	–
Waterbury, Conn.	33	24	6	1	2	2
Worcester, Mass.	53	33	16	1	2	8
MID. ATLANTIC	2,673	1,701	639	166	81	111
Albany, N.Y.	43	31	9	2	1	1
Allentown, Pa.	25	20	4	1	–	–
Buffalo, N.Y.	121	80	30	5	2	12
Camden, N.J.	37	21	13	1	2	–
Elizabeth, N.J.	28	20	6	1	–	1
Erie, Pa.†	30	23	5	–	1	3
Jersey City, N.J.	54	32	15	4	3	1
Newark, N.J.	45	21	10	8	3	2
N.Y. City, N.Y.	1,354	869	309	88	35	41
Paterson, N.J.	39	25	8	3	3	2
Philadelphia, Pa.†	493	277	152	35	16	27
Pittsburgh, Pa.†	48	32	8	2	4	1
Reading, Pa.	30	24	5	1	–	4
Rochester, N.Y.	133	91	22	6	8	9
Schenectady, N.Y.	20	14	5	1	–	–
Scranton, Pa.†	31	23	6	1	–	–
Syracuse, N.Y.	65	41	17	4	3	1
Trenton, N.J.	32	21	9	2	–	3
Utica, N.Y.	23	18	3	–	–	1
Yonkers, N.Y.	22	18	3	1	–	2
E.N. CENTRAL	2,303	1,347	613	156	94	71
Akron, Ohio	74	43	19	5	7	–
Canton, Ohio	40	26	11	–	–	2
Chicago, Ill.	526	290	129	57	25	14
Cincinnati, Ohio	123	73	36	8	2	1
Cleveland, Ohio	177	93	60	13	4	2
Columbus, Ohio	180	107	44	15	7	5
Dayton, Ohio	103	62	26	6	6	1
Detroit, Mich.	247	148	62	17	10	6
Evansville, Ind.	44	26	14	1	2	4
Fort Wayne, Ind.	64	42	16	1	2	–
Gary, Ind.	16	9	3	3	–	1
Grand Rapids, Mich.	61	41	11	1	3	3
Indianapolis, Ind.	165	90	55	10	6	3
Madison, Wis.	41	17	11	4	4	5
Milwaukee, Wis.	120	81	27	4	4	3
Peoria, Ill.	56	30	18	1	7	11
Rockford, Ill.	56	33	16	1	2	4
South Bend, Ind.	38	20	15	1	1	2
Toledo, Ohio	101	71	20	5	1	4
Youngstown, Ohio	71	45	20	3	1	–
W.N. CENTRAL	760	481	167	48	33	20
Des Moines, Iowa	58	34	12	5	3	–
Duluth, Minn.	31	19	7	3	1	1
Kansas City, Kans.	30	14	8	4	4	2
Kansas City, Mo.	131	86	36	3	3	3
Lincoln, Nebr.	29	20	6	1	–	1
Minneapolis, Minn.	88	61	18	4	2	1
Omaha, Nebr.	80	45	20	6	3	–
St. Louis, Mo.	171	104	40	12	8	5
St. Paul, Minn.	71	49	14	6	1	3
Wichita, Kans.	71	49	6	4	8	4

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P&I** TOTAL
	ALL AGES	>65	45-64	25-44	<1	
S. ATLANTIC	1,257	715	334	100	61	34
Atlanta, Ga.	146	72	41	12	14	1
Baltimore, Md.	303	165	84	29	12	4
Charlotte, N.C.	69	38	17	5	5	5
Jacksonville, Fla.	75	42	19	10	1	1
Miami, Fla.	141	81	41	9	5	4
Norfolk, Va.	48	29	9	1	8	2
Richmond, Va.	68	41	15	7	3	5
Savannah, Ga.	47	26	15	1	3	1
St. Petersburg, Fla.	87	74	6	2	3	2
Tampa, Fla.	57	36	17	2	–	4
Washington, D.C.	154	76	56	13	5	3
Wilmington, Del.	62	35	14	9	2	2
E.S. CENTRAL	683	402	198	38	22	25
Birmingham, Ala.	105	56	38	5	2	1
Chattanooga, Tenn.	42	23	9	3	3	1
Knoxville, Tenn.	50	34	12	2	–	–
Louisville, Ky.	109	62	40	3	1	10
Memphis, Tenn.	150	89	39	9	8	2
Mobile, Ala.	73	48	17	6	2	4
Montgomery, Ala.	54	34	14	4	1	2
Nashville, Tenn.	100	56	29	6	5	5
W.S. CENTRAL	1,295	697	359	107	51	26
Austin, Tex.	37	22	11	1	2	–
Baton Rouge, La.	27	15	10	–	–	2
Corpus Christi, Tex.	35	20	10	1	1	2
Dallas, Tex.	170	90	47	15	5	3
El Paso, Tex.	59	31	20	5	–	1
Fort Worth, Tex.	95	57	25	5	2	4
Houston, Tex.	371	189	100	44	13	6
Little Rock, Ark.	64	37	15	5	3	3
New Orleans, La.	135	73	41	8	7	–
San Antonio, Tex.	163	85	41	15	11	2
Shreveport, La.	49	23	16	4	3	–
Tulsa, Okla.	90	55	23	4	4	3
MOUNTAIN	559	314	143	42	27	20
Albuquerque, N.Mex.	69	40	20	4	1	8
Colo. Springs, Colo.	35	22	9	2	1	2
Denver, Colo.	116	61	29	9	12	2
Las Vegas, Nev.	56	28	15	7	2	4
Ogden, Utah	24	19	2	1	2	3
Phoenix, Ariz.	105	60	27	6	5	–
Pueblo, Colo.	24	16	6	2	–	1
Salt Lake City, Utah	51	26	13	4	3	–
Tucson, Ariz.	79	42	22	7	1	–
PACIFIC	1,724	1,099	401	112	52	48
Berkeley, Calif.	16	14	–	2	–	–
Fresno, Calif.	49	24	13	3	7	1
Glendale, Calif.	28	22	5	1	–	1
Honolulu, Hawaii	64	45	15	2	2	4
Long Beach, Calif.	88	55	24	3	2	–
Los Angeles, Calif.	606	372	145	48	20	23
Oakland, Calif.	48	30	8	5	4	3
Pasadena, Calif.	34	26	7	–	1	1
Portland, Oreg.	124	85	26	6	2	1
Sacramento, Calif.	74	46	19	2	4	1
San Diego, Calif.	118	75	30	8	1	–
San Francisco, Calif.	128	85	29	9	1	3
San Jose, Calif.	152	94	37	13	3	3
Seattle, Wash.	118	76	29	5	4	2
Spokane, Wash.	45	28	10	1	1	3
Tacoma, Wash.	32	22	4	4	–	2
TOTAL	11,876	7,166	2,999	797	444	386
Expected Number						

*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 4 Pennsylvania cities, there will now be 117 cities involved in the generation of the expected values used to monitor pneumonia and influenza activity in the United States. Data from these 4 cities will appear in the tables but will not be included in the totals for the United States and the Middle Atlantic Region.

Yellow Fever — Continued

found in 7 villages and indices ≥50 in 2; potential sites which would be expected to yield large numbers of *A. aegypti* during the rainy season were numerous. In the North Bank Division, several villages were positive, including one (Minteh Kunda) with a high Breteau index (104). In this village YF virus was isolated from an acutely ill man on January 10, and 2 isolates were also recovered from *A. aegypti* collected from human bait.

Evidence for sylvatic YF transmission was obtained from a survey of monkeys collected in MacCarthy Island and North Bank divisions. Of 19 *Colobus badius* and *Cercopithecus aethiops,* 16 had serologic evidence of YF infection.

It is believed that during the rainy season, human infections were acquired from *A. luteocephalus* and possibly other species, as well as, in certain localities, *A. aegypti*, breeding in domestic and peridomestic situations. In December and January, however, when the sylvatic vector populations were markedly reduced, YF transmission continued in localities with high *A. aegypti* indices, such as in Minteh Kunda.

The YF mass vaccination campaign was completed by January 31, when approximately 546,000 vaccinations had been given, representing 95.5% of the population. Neutralization tests, performed on prevaccination and postvaccination serum specimens from 58 individuals, showed a seroconversion rate of 93%. Vaccine lots returned to the Pasteur Institute in Dakar, Senegal, after field use had retained adequate potency.

Reported by the Ministry of Health, Banjul, the Medical Research Council, Fajara, The Gambia; Office de la Recherche Scientifique et Technique Outre-mer, Dakar, Senegal; the World Health Organization in the Weekly Epidemiological Record 54:182, June 8, 1979; Vector-Borne Diseases Div, Bur of Laboratories, Bur of Smallpox Eradication, Viral Diseases Div, Bur of Epidemiology, CDC.

Reference

1. MMWR 27:520-521, 1978

Epidemiologic Notes and Reports

Outbreak of Trichinosis — Louisiana

In the period February 5- March 19, 1979, 19 cases of trichinosis occurred in Louisiana. All of the patients lived in rural areas in the western part of the state, and all had consumed raw or smoked sausage made by one of the patients, who had bought his hogs at a local livestock auction. The hogs were killed shortly after purchase, were made into sausage, and then sold to neighbors and friends. Upon investigation, it was learned that the hogs had been garbage fed, a violation of existing Louisiana sanitary laws. *Trichinella spiralis* larvae were identified in 2 samples of leftover smoked sausage obtained from different patients.

A total of 31 people ate the sausage, and 19 (61%) became ill. The mean incubation period between consumption of sausage and onset of illness was 17 days, with a range of 5 to 31 days. The illness was characterized by periorbital edema (84%), fever (74%), and myalgia (68%). A case was defined as a person who exhibited at least 2 of these symptoms within 1 month of consumption of implicated meat or 1 symptom together with a positive bentonite flocculation test (≥1:5). Six of the 19 patients had symptoms severe enough to require hospitalization. All were treated with steroids and recovered completely. Sixteen of the patients had blood drawn for bentonite flocculation tests; all had positive titers, ranging from 1:5 to 1:320. Twelve of the 19 patients had elevated eosinophilic counts (8% to 52%).

Reported by JJ Storer, MD, Kinder, Louisiana; B Salamone, DVM, Tulane School of Tropical Medicine and Public Health; CT Caraway, DVM, State Epidemiologist, LM McFarland, MPH, HB Bradford,

Trichinosis – Continued

PhD, R Conley, MD, Louisiana Dept of Health and Human Resources; Parasitic Serology Br, Parasitology Div, Bur of Laboratories, Parasitic Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: Although the number of reported cases of trichinosis has declined from a peak of 487 in 1948, an average mean of nearly 150 cases per year has been reported in the United States for the last 10 years (*1*). Pork products, especially sausage, have been implicated in the majority of cases, although bear meat has also been implicated and accounted for a recent outbreak in Alaska and California (*2*).

The incidence of trichinosis in garbage-fed hogs is much higher than in farm-raised (presumably grain-fed) hogs (5.1 per 1,000 vs. 1.25 per 1,000) (*1*). Despite laws, in most states, that prohibit feeding raw garbage to hogs, this practice still occurs sporadically. Some individuals, especially of certain ethnic groups, prefer raw or only partially cooked sausage. A history of improper cooking is found in the investigation of most outbreaks.

References

1. CDC: Trichinosis Surveillance Annual Summary 1977. Issued August 1978
2. MMWR 28:12, 1979

Infant Metabolic Alkalosis and Soy-Based Formula – United States

Three cases of a Bartter-like syndrome in infants were reported to CDC from Memphis, Tennessee, on July 26, 1979. The infants were less than 10 months of age and were failing to gain weight. They had poor appetites, and one had a history of constipation. All were hypochloremic and hypokalemic, with varying degrees of alkalosis and microhematuria. The 3 infants were taking the same brand of soy-based formula.

To further investigate this possible association, CDC surveyed a sample of pediatric nephrologists throughout the country for cases of metabolic alkalosis diagnosed since January 1, 1979, in infants with a history of failure to thrive, anorexia, or constipation. Infants known to have pyloric stenosis, cystic fibrosis, or diuretic therapy were excluded.

An additional 15 cases were ascertained through the survey, and another 16 cases were determined from other sources. Cases were scattered throughout the country. The infants ranged in age from 2 to 9 months; none died. There was no unusual sex distribution.

Feeding history was available in 27 of the 31 cases. Of these, 26 were on Neo-Mull-Soy (Syntex, Palo Alto, California), the same formula used by the 3 index cases. Neo-Mull-Soy represents 10%-12% of the soy-based formula market. After diagnosis of the alkalosis, infants who were placed on chloride supplement responded favorably; those who, after treatment for and recovery from the alkalosis, went back on the formula—but without chloride supplementation—had a recurrence.

The manufacturer of Neo-Mull-Soy has voluntarily stopped manufacturing this product, halted its distribution to wholesalers, and requested that wholesalers stop sales to retailers. Syntex has also issued a mailgram to pediatricians and pediatric residents notifying them of the problem.

Reported by JS Levy, MD, Memphis-Shelby County Health Dept, Memphis, Tennessee; S Roy, MD, Memphis; RH Hutcheson Jr, MD, State Epidemiologist, Tennessee State Dept of Public Health; AB Gruskin, MD, Philadelphia, Pennsylvania; S Hellerstein, MD, Kansas City, Missouri; M Linshaw, MD, Kansas City, Kansas; S Alexander, MD, JD Liberti, MD, Portland, Oregon; H Harrison, MD, Louisville, Kentucky; G Lum, MD, Denver, Colorado; LJ Cunningham, MD, Galveston, Texas; EH Garin, MD, Gainesville, Florida; Div of Nutrition, Bur of Foods, Food and Drug Administration; Birth Defects Br, Chronic Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: Bartter syndrome is characterized by hypochloremic, hypokalemic alkalosis; normal blood pressure; and increased serum levels of renin and aldosterone. The onset is usually during the first year of life. The pathogenesis is not known.

Infant Metabolic Alkalosis – Continued

The high percentage of affected infants on Neo-Mull-Soy formula and the fact that infants who were switched to other soy formulas did not have recurrence both support the causal association between Neo-Mull-Soy formula and this outbreak.

Insufficient intake of chloride is a known cause of metabolic alkalosis. The cause of this outbreak is not yet clear, but it is possible that the chloride concentration in this formula falls below the daily requirement for infants, if they are not also receiving chloride from other dietary sources. The current tendencies to delay the addition of solids to infants' diets and to remove sodium chloride from commercial and home-prepared baby foods might be additional contributing factors.

There are no regulations pertaining to the optimal level of chloride in infant formulas. The Committee on Nutrition of the American Academy of Pediatrics recommends a minimum of 11 milliequivalents per liter in infant formula (*1*).

Reference

1. Committee on Nutrition, American Academy of Pediatrics: Commentary on breast-feeding and infant formulas, including proposed standards for formula. Pediatrics 57:278-285, 1976

Erratum, Vol. 28, No. 27

p 322 In the table accompanying the article "Surveillance of Childhood Lead Poisoning—United States," the Region VII figures in the columns under the heading "Number of dwellings related to children with lead toxicity" were transposed. Below is the correct version of this portion of the table.

	Number of dwellings related to children with lead toxicity		
	Inspected	Found with lead	Reduced
Linn Co. (Cedar Rapids, Iowa)	0	0	0
Scott Co. (Davenport, Iowa)	25	23	28
Kansas City, Kans.	12	8	5
St. Louis, Mo.	659	410	416
Omaha-Douglas Co., Neb.	25	13	4
Springfield, Mo.†	2	1	1
REGION VII TOTAL	723	455	454

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The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Send reports to: Center for Disease Control, Attn: Editor, Morbidity and Mortality Weekly Report, Atlanta, Georgia 30333.

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