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MORBIDITY AND MORTALITY WEEKLY REPORT

Epidemiologic Notes and Reports

Imported Malaria — Louisiana, California

The city of New Orleans and the state of California have recently reported cases of malaria in Indochinese refugees.

Louisiana: In the period November 1, 1979-June 11, 1980, 36 (3.6%) Indochinese refugees (out of a total of 1,001 who had arrived in the New Orleans metropolitan area during that period) were diagnosed as having malaria.* All but 1 were admitted to Charity Hospital of New Orleans. The diagnosis of *Plasmodium vivax* malaria was subsequently confirmed in 35, and *P. falciparum*, in 1.

The group included 21 males and 15 females, ranging in age from 2-55 years, with a median of 8 years. A range of 5-98 days (median, 35 days) had passed between their arrival into the United States and presentation at the hospital.

The patients were encamped at various refugee camps in Indonesia; however 25 (69%) had spent some time at Sulgai Walang, a camp on Bintan Island, and 8 (22%) on a nearby island, Galang. All patients denied having malaria before they left Vietnam; most patients became ill while in Indonesia. Some received treatment in Indonesia, but the type and duration of therapy are not known.

Family members of malaria patients are being asked to come to special clinics for screening and/or chloroquine and primaquine treatment if they have a history of fever. Information is also being disseminated to members of the Vietnamese community, urging them to seek medical attention if they have symptoms consistent with malaria. State and parish health authorities and other appropriate agencies are coordinating mosquito-surveillance and control procedures in the areas housing these patients.

The Indonesian Government has closed Bintan Island as a refugee holding center.

California: From January 1-June 7, 1980, California reported 251 cases of malaria, compared to 93 in the same period last year. Most of this year's increase is attributed to Indochinese refugees, who have accounted for 151 (60%) of the cases. Of these, 117 (77%) were Vietnamese, 12 (8%) were Kampuchean, 2 (1%) were Laotian, and 20 (13%) were of other nationalities. Travel histories were not available for all 151 patients; however, 86 (57%) had a history of staying in Indonesian camps.

In 1979, Indochinese refugees accounted for 41 (13%) of the 318 malaria cases reported in California. Almost two-thirds of these cases were in Vietnamese; the remainder were in Kampucheans and Laotians. Patients ranged in age from 5 to 64 years, with a median age of 20 years. The male/female ratio was 4:1; most patients resided in major urban coastal areas of California.

*By contrast, no malaria cases were reported among the thousands of Vietnamese refugees who immigrated to the New Orleans area in 1975-76.

Malaria -- Continued

The distribution of *Plasmodium* species in the refugee cases in 1979 was *P. vivax*, 29 (71%); *P. falciparum*, 8 (20%); *P. malariae*, 2 (5%); mixed *P. falciparum* and *P. vivax*, 1 (2%), and species not determined, 1 (2%). In 1980 refugee cases, the distribution of *Plasmodium* species was *P. vivax*, 125 (83%); *P. falciparum*, 12 (8%); *P. malariae*, 6 (4%); mixed *P. falciparum* and *P. vivax*, 3 (2%) and species not determined, 5 (3%).

In 1979, patients had onset of malaria symptoms an average of 3 weeks after arriving in the United States, with a range of 2 days to 3 months; however, the date of onset for those with *P. falciparum* always occurred within the first 2 weeks.

In 1980, the onset of symptoms ranged from 0-47 weeks after arriving in the United States for *P. vivax*, 0-7 weeks for *P. falciparum*, and 5-10 weeks for *P. malariae.*

Reported by WL Williams, MD, MPH, TM, Charity Hospital of New Orleans; L McFarland, MD, MPH, CT Caraway, DVM, State Epidemiologist, Louisiana State Dept of Health and Human Resources; D Kim Tam, Sister B Lege, Catholic Charities; RR Roberto, MD, DTPH, RA Murray, MPH, the California State Dept of Health Services, in the California Morbidity Weekly Report, March 14, 1980; Parasitic Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: During the first quarter of 1980, an increased number of reported malaria cases has been noted in the United States. This increase has been primarily among Indochinese refugees, with the predominant species being *P. vivax*. The ethnic group most commonly affected is Vietnamese refugees who have been, before their arrival in the United States, in certain Indonesian camps where malaria is endemic. The frequency of clinical illness in Vietnamese from urban areas, once they have been exposed to malaria in Indonesia, reflects their lack of protective immunity to malaria. By contrast, most Laotian and Kampuchean refugees come from rural areas that are hyperendemic for malaria, and thus they are not as susceptible.

CDC is currently assessing the prevalence of malaria parasitemia among refugees. At the present time, there has been no reported transmission of malaria from Indochinese refugees through domestic mosquitoes to U.S. citizens. Suspected cases of introduced malaria should be promptly reported to the state health department and to the Parasitic Diseases Division, Bureau of Epidemiology, CDC.

Follow-up on Mount St. Helens

Mount St. Helens erupted for the third time on June 12-13. The National Institute for Occupational Safety and Health (NIOSH) has begun sampling the ash from this eruption so that its chemical and physical properties can be compared to previous ashfalls.

Meanwhile, surveillance reports from 21 Washington hospitals, all located in areas with ashfall, indicate an increase in emergency room (ER) visits and hospital admissions for pulmonary conditions,* primarily after the first (May 18) eruption in the most heavily affected areas. The survey included 11 eastern and 10 western Washington hospitals for the period May 11-June 7.

*These included pneumonia, asthma, bronchitis, chronic obstructive pulmonary disease, and emphysema; upper respiratory infections were excluded.

Mount St. Helens -- Continued

In the eastern hospitals, located in areas affected by the eruption on May 18, admissions for pulmonary conditions increased abruptly in areas with moderate-to-severe ashfall (Table 1). The greatest increase (from 2 to 13 admissions) occurred in the week immediately following the eruption in Ritzville, the town that received the most ashfall. In Ellensburg and in 1 hospital in Yakima, the increase in admissions for pulmonary conditions persisted through the second and third weeks after the eruption. But in Ritzville, Moses Lake, and Othello, the number of pulmonary admissions returned to pre-eruption ranges by the third week after the eruption (June 1-7).

The eastern Washington hospitals experienced a concurrent increase in ER visits for pulmonary conditions after the May 18 eruption, again primarily during the week May 18-24. The most notable increases were in Ritzville (from 1 to 34 visits), Moses Lake (8 to 21),

TABLE 1. Weekly admissions for hospitals in eastern Washington, May 11-June 7, 1980

Location	Cumulative ashfall (Inches)	Admissions	May 11-17	May 18-24*	May 25-31	June 1-7
Ritzville	2-3	Total	6	25	10	8
		Pulmonary	2	13	1	1
		Other	4	12	9	7
Moses Lake	2-3	Total	67	41	45	50
		Pulmonary	3	5	7	1
		Other	64	36	38	49
Othello	1¼-1½	Total	36	38	32	35
		Pulmonary	9	17	4	6
		Other	27	21	28	29
Yakima - 1	1/2-3/4	Total	195	177	177	207
		Pulmonary	8	19	12	13
		Other	187	158	165	194
Yakima - 2	1/2-3/4	Total	288	237	248	273
		Pulmonary	7	14	7	8
		Other	281	223	241	265
Pullman	3/4	Total	42	58	38	NA†
		Pulmonary	2	1	4	NA
		Other	40	57	34	NA
Soap Lake	1/2	Total	9	2	6	6
		Pulmonary	0	0	1	1
		Other	9	2	5	5
Ellensburg	1/2	Total	21	36	21	36
		Pulmonary	1	5	4	5
		Other	20	31	17	31
Ephrata	3/8-1/2	Total	24	12	24	21
		Pulmonary	3	1	5	0
		Other	21	11	19	21
Spokane - 1	1/4-1/2	Total	316	266	301	NA
		Pulmonary	NA	NA	NA	NA
		Other	NA	NA	NA	NA
Spokane - 2	1/4-1/2	Total	594	468	573	NA
		Pulmonary	NA	NA	NA	NA
		Other	NA	NA	NA	NA

*The first volcanic eruption with ashfall was on May 18.
†NA = not yet available.

Mount St. Helens -- Continued

Othello (10 to 21), Yakima (36 to 89 at 1 hospital, 13 to 61 at the other), and at 1 Spokane hospital (15 to 55).

The 10 western Washington hospitals included in the surveillance system were located in areas affected by the May 25 eruption: Centralia (ashfall, 1 inch); Chehalis (1/2-3/4 inch); Longview (2 hospitals; 1/4 inch); Aberdeen (2 hospitals, 1/8-1/4 inch); McCleary (1/8 inch); Shelton (1/8 inch); and Vancouver (2 hospitals, 1/8 inch). Unlike the eastern hospitals, these hospitals experienced no significant increase in admissions for pulmonary conditions, although Centralia, which had the heaviest ashfall, had a substantial increase in ER visits (from 11 and 17 to 44).

Reported by J Allard, PhD, JA Beare, MD, Washington State Dept of Social and Health Services; NIOSH; Chronic Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: A number of factors may account for the differences in morbidity between the eastern and western hospitals, including the quantity and composition of the ash and the amount of rain after the eruption.

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

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

DISEASE	24th WEEK ENDING		MEDIAN 1975-1979	CUMULATIVE, FIRST 24 WEEKS		
	June 14, 1980	June 16, 1979		June 14, 1980	June 16, 1979	MEDIAN 1975-1979
Aseptic meningitis	99	121	65	1,458	1,289	960
Brucellosis	2	3	3	76	47	87
Chickenpox	5,792	4,687	4,170	139,655	157,700	138,833
Diphtheria	-	-	1	2	4	48
Encephalitis: Primary (arthropod-borne & unspec.)	13	15	15	271	238	289
Post-infectious	6	6	7	88	116	116
Hepatitis, Viral: Type B	409	296	296	7,611	6,399	6,842
Type A	584	527	607	12,110	13,386	14,674
Type unspecified	330	163	184	5,419	4,576	3,969
Malaria	43	14	11	761	246	193
Measles (rubeola)	515	483	1,120	10,743	9,973	19,755
Meningococcal infections: Total	54	63	36	1,463	1,508	1,003
Civilian	54	63	36	1,457	1,493	998
Military	-	-	-	6	15	15
Mumps	185	387	493	6,222	9,458	13,781
Pertussis	31	15	29	492	549	549
Rubella (German measles)	107	360	360	2,700	9,212	13,436
Tetanus	1	2	2	23	26	26
Tuberculosis	605	620	629	12,325	12,509	13,805
Tularemia	8	13	4	52	78	53
Typhoid fever	4	8	8	157	199	152
Typhus fever, tick-borne (Rky. Mt. spotted)	56	37	41	256	239	237
Venereal diseases:						
Gonorrhea: Civilian	19,846	18,342	19,451	432,431	434,391	433,130
Military	370	448	448	12,295	12,551	12,551
Syphilis, primary & secondary: Civilian	562	431	431	11,956	11,008	11,008
Military	2	2	3	144	138	140
Rabies in animals	123	89	64	3,042	2,196	1,353

TABLE II. Notifiable diseases of low frequency, United States

	CUM. 1980		CUM. 1980
Anthrax	-	Poliomyelitis: Total	5
Botulism	20	Paralytic	3
Cholera	8	Psittacosis (Ariz. 2, Calif. 1)	36
Congenital rubella syndrome	38	Rabies in man	-
Leprosy (Md. 1, Fla. 1, Calif. 2)	80	Trichinosis (Maine 1, La. 15)	63
Leptospirosis (Okla. 1)	24	Typhus fever, flea-borne (endemic, murine) (Tex. 3)	23
Plague (N. Mex. 1)	2		

All delayed reports and corrections will be included in the following week's cumulative totals.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending June 14, 1980, and June 16, 1979 (24th week)

REPORTING AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKENPOX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS (VIRAL), BY TYPE			MALARIA	
						Primary		Post-infectious	B	A	Unspecified		
	1980	1980	1980	1980	CUM. 1980	1980	1979	1980	1980	1980	1980	1980	CUM. 1980
UNITED STATES	99	2	5,792	–	2	13	15	6	409	584	330	43	761
NEW ENGLAND	1	1	768	–	–	1	2	–	11	14	6	1	59
Maine	–	–	14	–	–	–	–	–	1	–	–	–	12
N.H.	–	–	27	–	–	–	–	–	–	–	–	–	6
Vt.	–	–	47	–	–	–	–	–	1	5	–	–	–
Mass.	1	1	251	–	–	–	1	–	4	6	6	–	26
R.I.	–	–	46	–	–	–	–	–	1	2	–	–	6
Conn.	–	–	383	–	–	1	1	–	4	1	–	1	9
MID. ATLANTIC	9	–	308	–	1	2	2	1	64	47	30	7	103
Upstate N.Y.	6	–	135	–	–	1	–	1	13	14	5	2	19
N.Y. City	1	–	160	–	1	1	–	–	13	6	4	2	30
N.J.	NA	–	NN	–	–	–	1	–	25	15	19	–	26
Pa.	2	–	13	–	–	–	1	–	13	12	2	3	28
E.N. CENTRAL	5	–	3,567	–	1	–	1	–	42	81	19	7	34
Ohio	–	–	166	–	–	–	–	–	6	13	8	–	5
Ind.	–	–	352	–	–	–	–	–	13	9	3	–	3
Ill.	–	–	1,054	–	–	–	–	–	5	22	2	2	7
Mich.	5	–	1,249	–	1	–	1	–	17	31	4	3	13
Wis.	–	–	746	–	–	–	–	–	1	6	2	2	6
W.N. CENTRAL	4	–	304	–	–	–	–	1	8	15	9	–	29
Minn.	–	–	1	–	–	–	–	1	–	–	–	–	13
Iowa	–	–	102	–	–	–	–	–	1	3	4	–	3
Mo.	–	–	17	–	–	–	–	–	3	2	3	–	7
N. Dak.	–	–	5	–	–	–	–	–	–	–	–	–	–
S. Dak.	2	–	3	–	–	–	–	–	1	1	–	–	1
Nebr.	–	–	–	–	–	–	–	–	1	1	–	–	3
Kans.	2	–	176	–	–	–	–	–	2	8	2	–	2
S. ATLANTIC	18	–	356	–	–	2	4	2	83	91	59	6	87
Del.	–	–	12	–	–	–	–	–	9	–	–	–	–
Md.	1	–	95	–	–	–	–	–	14	4	4	3	18
D.C.	–	–	–	–	–	–	–	–	1	–	–	–	1
Va.	–	–	6	–	–	1	1	–	11	8	3	–	30
W. Va.	–	–	140	–	–	–	1	–	–	1	–	–	3
N.C.	2	–	NN	–	–	–	2	–	6	5	3	–	5
S.C.	3	–	7	–	–	1	–	–	–	9	28	–	3
Ga.	–	–	–	–	–	–	–	–	14	17	–	–	11
Fla.	12	–	96	–	–	–	–	2	28	47	21	3	16
E.S. CENTRAL	12	–	43	–	–	1	–	1	37	43	12	–	6
Ky.	–	–	13	–	–	–	–	–	13	12	3	–	2
Tenn.	–	–	NN	–	–	–	–	–	7	10	1	–	–
Ala.	9	–	23	–	–	1	–	1	12	6	8	–	4
Miss.	3	–	7	–	–	–	–	–	5	15	–	–	–
W.S. CENTRAL	12	–	210	–	–	2	3	–	37	85	71	6	87
Ark.	–	–	1	–	–	–	1	–	1	12	2	1	6
La.	1	–	NN	–	–	–	–	–	5	11	8	4	37
Okla.	3	–	–	–	–	1	1	–	2	6	9	–	9
Tex.	8	–	209	–	–	1	1	–	29	56	52	1	35
MOUNTAIN	2	1	60	–	–	–	1	–	9	56	39	3	34
Mont.	–	–	47	–	–	–	–	–	–	2	–	–	–
Idaho	–	1	–	–	–	–	–	–	1	2	–	–	–
Wyo.	–	–	–	–	–	–	–	–	–	–	–	–	2
Colo.	2	–	12	–	–	–	–	–	1	9	2	–	17
N. Mex.	–	–	–	–	–	–	1	–	–	1	–	–	2
Ariz.	–	–	NN	–	–	–	–	–	7	26	30	2	10
Utah	–	–	1	–	–	–	–	–	–	7	4	–	–
Nev.	–	–	–	–	–	–	–	–	–	9	3	1	3
PACIFIC	36	–	176	–	–	5	2	1	118	152	85	13	322
Wash.	3	–	96	–	–	–	–	–	2	6	–	–	28
Oreg.	4	–	1	–	–	–	–	–	10	9	1	1	20
Calif.	25	–	–	–	–	4	2	1	106	137	84	10	262
Alaska	2	–	11	–	–	1	–	–	–	–	–	–	3
Hawaii	2	–	68	–	–	–	–	–	–	–	–	2	9
Guam	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	1
P.R.	3	–	9	–	–	–	–	–	4	9	12	–	1
V.I.	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	–
Pac. Trust Terr.	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	–

NN: Not notifiable. NA: Not available.

All delayed reports and corrections will be included in the following week's cumulative totals.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending June 14, 1980, and June 16, 1979 (24th week)

REPORTING AREA	MEASLES (RUBEOLA)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1980	CUM. 1980	CUM. 1979	1980	CUM. 1980	CUM. 1979	1980	CUM. 1980	1980	1980	CUM. 1980	CUM. 1980
UNITED STATES	515	10,743	9,973	54	1,463	1,508	185	6,222	31	107	2,700	23
NEW ENGLAND	16	624	261	10	93	75	3	515	1	8	191	–
Maine	3	32	11	–	3	3	–	275	–	2	68	–
N.H.	9	299	29	–	6	8	–	15	–	–	29	–
Vt.	1	226	105	1	11	5	–	5	–	–	3	–
Mass.	3	45	12	9	37	23	3	114	–	3	69	–
R.I.	–	2	102	–	7	4	–	17	–	2	9	–
Conn.	–	20	2	–	29	32	–	89	1	1	13	–
MID. ATLANTIC	98	3,235	1,042	3	260	213	8	686	5	8	402	2
Upstate N.Y.	10	595	454	2	89	75	3	81	4	6	158	1
N.Y. City	36	913	517	1	73	56	2	58	–	2	75	–
N.J.	34	701	50	–	49	56	3	86	–	–	61	–
Pa.	18	1,026	21	–	49	26	–	461	1	–	108	1
E.N. CENTRAL	82	1,747	2,619	7	156	149	85	2,413	7	33	685	–
Ohio	–	187	178	–	56	57	19	1,026	–	–	4	–
Ind.	4	83	159	–	27	32	9	98	4	23	292	–
Ill.	–	260	1,203	5	24	3	15	289	1	–	141	–
Mich.	–	216	683	–	38	41	34	748	1	3	120	–
Wis.	78	1,001	396	2	11	16	8	252	1	7	128	–
W.N. CENTRAL	28	1,178	1,338	3	53	48	7	228	1	1	197	3
Minn.	27	966	876	2	18	9	–	20	–	1	49	2
Iowa	–	–	15	–	5	5	–	35	–	–	4	–
Mo.	1	62	386	1	19	26	1	67	–	–	38	–
N. Dak.	–	–	13	–	1	1	–	3	–	–	5	–
S. Dak.	–	–	1	–	4	2	–	1	–	–	–	–
Nebr.	–	80	–	–	–	–	–	9	–	–	–	–
Kans.	–	70	47	–	6	5	6	93	1	–	101	1
S. ATLANTIC	34	1,664	1,487	10	347	383	18	801	5	15	271	5
Del.	–	1	1	–	2	5	–	36	–	–	–	–
Md.	1	47	7	–	33	32	13	263	–	10	59	–
D.C.	–	–	–	–	1	–	–	3	–	–	–	–
Va.	5	296	202	–	31	54	–	47	–	1	48	1
W. Va.	–	15	49	1	12	7	1	65	–	2	20	1
N.C.	6	113	104	1	69	52	2	79	–	–	40	–
S.C.	–	137	135	1	44	46	2	198	2	–	49	2
Ga.	13	723	343	1	64	58	–	1	3	–	–	–
Fla.	9	332	646	6	91	129	–	109	–	2	55	1
E.S. CENTRAL	10	284	143	5	142	115	31	788	–	–	73	3
Ky.	3	50	23	–	46	22	23	699	–	–	34	1
Tenn.	7	152	47	2	39	35	1	23	–	–	34	1
Ala.	–	21	53	3	36	27	–	13	–	–	4	1
Miss.	–	61	20	–	21	31	7	53	–	–	1	–
W.S. CENTRAL	43	873	843	6	168	246	3	211	4	2	91	3
Ark.	–	11	7	–	13	21	–	19	1	–	2	1
La.	–	13	230	–	62	99	–	62	–	1	9	1
Okla.	39	727	22	2	16	22	–	–	2	–	2	–
Tex.	4	122	584	4	77	104	3	130	1	1	78	1
MOUNTAIN	49	293	251	1	47	64	3	153	2	5	87	–
Mont.	–	1	51	–	2	5	–	45	–	–	22	–
Idaho	–	–	4	–	4	5	–	14	–	–	14	–
Wyo.	–	–	36	–	2	1	–	–	–	–	–	–
Colo.	–	15	33	–	12	4	1	36	2	–	4	–
N. Mex.	–	9	32	–	7	4	–	–	–	–	5	–
Ariz.	49	215	69	1	7	30	2	23	–	4	18	–
Utah	–	46	15	–	2	7	–	26	–	1	20	–
Nev.	–	7	11	–	11	8	–	9	–	–	4	–
PACIFIC	155	845	1,989	9	197	215	27	427	6	35	703	7
Wash.	3	160	1,080	3	36	33	–	113	4	3	66	–
Oreg.	–	1	48	–	37	15	1	49	–	2	44	–
Calif.	152	674	786	6	122	154	23	246	2	30	589	7
Alaska	–	5	16	–	2	5	–	10	–	–	2	–
Hawaii	–	5	59	–	–	8	3	9	–	–	2	–
Guam	NA	3	3	–	1	1	NA	6	NA	NA	–	–
P.R.	7	71	251	–	7	1	4	109	1	1	11	7
V.I.	NA	5	4	–	1	3	NA	2	NA	NA	–	–
Pac. Trust Terr.	NA	3	6	–	–	1	NA	8	NA	NA	1	–

NA: Not available.
All delayed reports and corrections will be included in the following week's cumulative totals.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending June 14, 1980, and June 16, 1979 (24th week)

REPORTING AREA	TUBERCULOSIS		TULAREMIA	TYPHOID FEVER		TYPHUS FEVER (Tick-borne) (RMSF)		VENEREAL DISEASES (Civilian)						RABIES (in Animals)
								GONORRHEA			SYPHILIS (Pri. & Sec.)			
	1980	CUM. 1980	CUM. 1980	1980	CUM. 1980	1980	CUM. 1980	1980	CUM. 1980	CUM. 1979	1980	CUM. 1980	CUM. 1979	CUM. 1980
UNITED STATES	605	12,325	52	4	157	56	256	19,846	432,431	434,391	562	11,956	11,008	3,042
NEW ENGLAND	24	347	1	–	4	2	5	441	11,103	11,211	11	308	208	22
Maine	4	29	–	–	–	–	–	28	662	762	–	4	5	16
N.H.	–	6	–	–	–	–	–	14	364	396	–	1	13	1
Vt.	–	10	–	–	–	–	–	11	266	257	–	3	1	–
Mass.	15	184	–	–	2	1	2	178	4,504	4,522	7	197	124	1
R.I.	3	39	–	–	1	–	1	23	669	901	–	13	6	–
Conn.	2	79	1	–	1	1	2	187	4,638	4,373	4	90	59	4
MID. ATLANTIC	82	2,058	1	–	40	–	8	1,827	47,010	46,013	65	1,711	1,692	15
Upstate N.Y.	19	392	–	–	5	–	2	242	8,625	7,326	4	139	120	7
N.Y. City	36	752	1	–	17	–	–	750	18,435	18,297	46	1,129	1,154	–
N.J.	18	424	–	–	8	–	5	283	8,590	8,589	9	218	225	2
Pa.	9	490	–	–	10	–	1	552	11,360	11,801	6	225	193	6
E.N. CENTRAL	89	1,774	1	1	12	1	3	2,789	67,095	67,763	43	1,131	1,525	458
Ohio	18	307	–	–	4	–	2	981	18,226	18,719	4	177	284	21
Ind.	12	195	–	–	–	–	–	94	6,378	6,066	2	91	98	47
Ill.	27	644	–	–	3	1	1	777	20,909	21,308	33	636	927	273
Mich.	27	525	1	1	4	–	–	733	15,019	15,556	3	180	170	3
Wis.	5	103	–	–	1	–	–	204	6,563	6,114	1	47	46	114
W.N. CENTRAL	24	435	8	1	4	1	5	792	19,160	20,869	12	141	146	981
Minn.	7	66	1	–	1	–	–	152	3,218	3,634	9	54	43	82
Iowa	2	37	1	1	1	–	–	119	2,132	2,542	–	8	21	194
Mo.	12	208	5	–	–	1	4	313	8,159	8,783	1	65	56	248
N. Dak.	–	23	–	–	–	–	–	9	277	350	–	–	1	106
S. Dak.	–	22	–	–	1	–	–	36	598	723	–	1	1	212
Nebr.	–	21	1	–	–	–	–	63	1,602	1,459	2	6	2	44
Kans.	3	58	–	–	1	–	1	100	3,174	3,378	–	7	22	95
S. ATLANTIC	132	2,817	7	1	21	43	176	4,604	105,676	104,407	110	2,814	2,647	199
Del.	–	37	–	–	1	–	–	56	1,469	1,700	–	7	16	–
Md.	10	368	1	–	2	–	22	166	10,809	12,597	8	195	183	3
D.C.	13	163	–	–	3	–	–	398	7,497	6,721	8	193	202	–
Va.	17	325	–	–	3	3	17	370	9,151	10,044	6	251	247	6
W. Va.	2	105	–	–	1	–	1	91	1,318	1,491	1	12	38	5
N.C.	27	478	2	–	1	18	80	661	15,671	15,297	16	210	217	6
S.C.	25	271	–	–	3	14	43	472	10,129	9,684	7	147	122	33
Ga.	2	362	4	–	–	8	11	742	19,759	20,112	29	836	717	106
Fla.	36	708	–	1	7	–	2	1,648	29,873	26,761	35	963	905	40
E.S. CENTRAL	32	1,100	6	–	6	6	22	1,597	35,237	37,814	41	955	709	168
Ky.	–	228	–	–	2	–	2	203	5,186	4,825	1	71	73	74
Tenn.	12	372	6	–	–	3	12	649	12,484	13,501	19	392	299	76
Ala.	6	303	–	–	1	2	6	459	10,359	11,339	13	197	141	18
Miss.	14	197	–	–	3	1	2	286	7,208	8,149	8	295	196	–
W.S. CENTRAL	56	1,231	20	1	17	2	32	2,842	56,339	56,874	101	2,302	1,923	853
Ark.	4	121	15	–	–	–	6	127	4,088	4,315	2	75	60	106
La.	8	223	–	–	–	–	–	616	9,998	10,179	47	556	449	6
Okla.	–	120	3	–	1	1	16	237	5,565	5,178	3	42	35	143
Tex.	44	767	2	1	16	1	10	1,862	36,688	37,202	49	1,629	1,379	598
MOUNTAIN	15	321	6	–	10	1	5	755	16,502	17,255	12	290	202	74
Mont.	–	11	1	–	1	1	2	18	606	875	–	1	6	9
Idaho	–	10	1	–	1	–	1	25	756	719	1	17	15	–
Wyo.	–	15	–	–	–	–	1	21	483	409	–	7	5	–
Colo.	2	40	3	–	2	–	–	236	4,439	4,572	7	73	48	–
N. Mex.	–	66	–	–	2	–	–	110	2,079	2,196	2	54	36	21
Ariz.	8	139	1	–	2	–	–	215	4,434	4,791	–	93	60	44
Utah	3	23	–	–	2	–	1	29	780	919	2	7	3	–
Nev.	2	17	–	–	–	–	–	101	2,925	2,774	–	38	29	–
PACIFIC	151	2,242	2	–	43	–	–	4,199	74,309	72,185	167	2,304	1,956	272
Wash.	11	182	–	–	–	–	–	308	5,753	6,413	–	106	115	–
Oreg.	3	90	–	–	5	–	–	201	5,167	4,612	3	51	86	–
Calif.	136	1,896	2	–	38	–	–	3,536	60,057	57,560	160	2,055	1,698	229
Alaska	–	40	–	–	–	–	–	105	1,780	2,402	–	4	12	43
Hawaii	1	34	–	–	–	–	–	49	1,552	1,198	4	88	45	–
Guam	NA	19	–	NA	–	NA	–	NA	40	48	NA	–	–	–
P.R.	–	71	–	–	1	–	–	84	1,232	964	4	250	222	25
V.I.	NA	–	–	NA	–	NA	–	NA	89	86	NA	10	5	–
Pac. Trust Terr.	NA	23	–	NA	–	NA	–	NA	181	228	NA	–	1	–

NA: Not available.

All delayed reports and corrections will be included in the following week's cumulative totals.

TABLE IV. Deaths in 121 U.S. cities,* week ending June 14, 1980 (24th week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P&I** TOTAL
	ALL AGES	≥65	45-64	25-44	<1	
NEW ENGLAND	644	424	138	38	25	33
Boston, Mass.	184	116	35	13	13	12
Bridgeport, Conn.	33	21	8	2	1	2
Cambridge, Mass.	24	18	5	1	-	2
Fall River, Mass.	30	24	6	-	-	2
Hartford, Conn.	75	48	18	4	2	2
Lowell, Mass.	25	15	6	1	1	1
Lynn, Mass.	18	12	3	3	-	-
New Bedford, Mass.	19	15	2	1	1	-
New Haven, Conn.	51	31	13	4	1	1
Providence, R.I.	60	38	15	2	2	3
Somerville, Mass.	9	8	1	-	-	2
Springfield, Mass.	42	31	7	-	3	3
Waterbury, Conn.	26	18	7	1	-	2
Worcester, Mass.	48	29	12	6	1	1
MID. ATLANTIC	2,424	1,532	555	184	79	98
Albany, N.Y.	52	39	7	2	2	1
Allentown, Pa.	24	17	6	-	-	-
Buffalo, N.Y.	95	62	21	6	4	8
Camden, N.J.	43	28	11	2	2	2
Elizabeth, N.J.	20	15	4	-	-	-
Erie, Pa.†	36	28	5	1	2	3
Jersey City, N.J.	37	20	11	2	2	1
Newark, N.J.	61	27	18	11	4	3
N.Y. City, N.Y.	1,354	846	299	125	42	48
Paterson, N.J.	28	17	8	1	2	-
Philadelphia, Pa.†	222	127	55	17	11	16
Pittsburgh, Pa.†	41	28	11	2	-	1
Reading, Pa.	40	31	7	2	-	2
Rochester, N.Y.	125	87	25	4	3	4
Schenectady, N.Y.	18	11	6	1	-	-
Scranton, Pa.†	20	15	5	-	-	-
Syracuse, N.Y.	117	77	30	4	3	2
Trenton, N.J.	34	17	12	3	1	-
Utica, N.Y.	19	15	4	-	-	2
Yonkers, N.Y.	38	25	10	1	1	5
E.N. CENTRAL	2,153	1,268	550	150	90	55
Akron, Ohio	72	52	11	1	1	-
Canton, Ohio	48	30	12	2	2	2
Chicago, Ill.	521	281	136	55	24	9
Cincinnati, Ohio	146	94	36	5	4	8
Cleveland, Ohio	171	89	54	12	7	2
Columbus, Ohio	134	72	43	7	6	4
Dayton, Ohio	94	58	19	10	2	1
Detroit, Mich.	257	150	71	21	10	3
Evansville, Ind.	44	30	9	3	2	-
Fort Wayne, Ind.	41	27	6	3	3	2
Gary, Ind.	18	10	3	2	-	-
Grand Rapids, Mich.	53	36	11	4	1	2
Indianapolis, Ind.	145	80	42	6	12	3
Madison, Wis.	40	20	8	3	4	4
Milwaukee, Wis.	107	75	19	4	5	3
Peoria, Ill.	32	20	9	1	1	2
Rockford, Ill.	32	18	9	1	1	-
South Bend, Ind.	52	35	11	6	-	5
Toledo, Ohio	94	59	26	3	2	2
Youngstown, Ohio	52	32	15	1	3	3
W.N. CENTRAL	709	457	175	31	19	28
Des Moines, Iowa	45	33	9	-	1	1
Duluth, Minn.	20	11	7	-	-	3
Kansas City, Kans.	51	31	14	2	3	2
Kansas City, Mo.	100	67	20	6	2	5
Lincoln, Nebr.	23	17	5	-	-	2
Minneapolis, Minn.	84	51	22	6	2	2
Omaha, Nebr.	76	56	16	-	1	-
St. Louis, Mo.	141	92	32	7	5	2
St. Paul, Minn.	83	51	23	3	5	1
Wichita, Kans.	86	48	27	7	-	10

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P&I** TOTAL
	ALL AGES	≥65	45-64	25-44	<1	
S. ATLANTIC	1,249	712	342	103	55	52
Atlanta, Ga.	143	81	34	16	9	4
Baltimore, Md.	280	139	98	26	10	2
Charlotte, N.C.	63	39	13	5	4	4
Jacksonville, Fla.	81	46	24	6	3	5
Miami, Fla.	137	76	32	18	4	3
Norfolk, Va.	54	34	11	3	3	3
Richmond, Va.	59	34	18	2	2	4
Savannah, Ga.	33	21	11	-	-	5
St. Petersburg, Fla.	80	66	11	2	1	3
Tampa, Fla.	77	50	17	4	3	14
Washington, D.C.	195	98	57	20	16	4
Wilmington, Del.	47	28	16	1	-	1
E.S. CENTRAL	692	422	178	42	20	19
Birmingham, Ala.	99	57	27	7	5	-
Chattanooga, Tenn.	59	41	9	2	4	2
Knoxville, Tenn.	35	20	11	2	-	-
Louisville, Ky.	112	72	24	9	4	5
Memphis, Tenn.	145	85	48	7	-	4
Mobile, Ala.	58	35	12	4	2	1
Montgomery, Ala.	51	34	12	-	3	3
Nashville, Tenn.	133	78	35	11	2	4
W.S. CENTRAL	1,124	590	321	100	60	35
Austin, Tex.	41	22	8	6	2	3
Baton Rouge, La.	36	14	12	5	3	-
Corpus Christi, Tex.	36	19	11	3	-	-
Dallas, Tex.	166	90	47	16	6	2
El Paso, Tex.	75	36	18	4	10	3
Fort Worth, Tex.	83	40	22	10	7	3
Houston, Tex.	142	67	44	19	3	3
Little Rock, Ark.	74	38	25	7	1	5
New Orleans, La.	198	108	53	11	17	1
San Antonio, Tex.	138	75	43	9	8	9
Shreveport, La.	52	32	14	4	2	2
Tulsa, Okla.	83	49	24	6	1	4
MOUNTAIN	601	332	149	54	29	13
Albuquerque, N. Mex.	45	28	10	4	-	3
Colo. Springs, Colo.	37	22	12	-	-	3
Denver, Colo.	124	63	28	14	11	2
Las Vegas, Nev.	68	31	17	11	2	-
Ogden, Utah	20	11	5	-	2	-
Phoenix, Ariz.	149	83	36	16	6	-
Pueblo, Colo.	22	9	8	1	1	3
Salt Lake City, Utah	47	23	14	5	5	2
Tucson, Ariz.	89	62	19	3	2	-
PACIFIC	1,686	1,057	382	123	66	61
Berkeley, Calif.	17	15	1	-	-	-
Fresno, Calif.	74	42	13	5	9	10
Glendale, Calif.	25	20	4	1	-	-
Honolulu, Hawaii	59	36	11	8	2	3
Long Beach, Calif.	70	45	17	5	2	4
Los Angeles, Calif.	404	253	91	29	18	12
Oakland, Calif.	77	42	22	6	3	4
Pasadena, Calif.	26	16	7	1	-	1
Portland, Oreg.	137	86	31	14	5	2
Sacramento, Calif.	60	37	21	1	1	4
San Diego, Calif.	143	80	40	8	9	1
San Francisco, Calif.	170	108	35	15	4	2
San Jose, Calif.	177	106	40	16	6	6
Seattle, Wash.	148	96	34	11	4	5
Spokane, Wash.	59	42	10	3	2	3
Tacoma, Wash.	40	33	5	-	1	4
TOTAL	11,282	6,794	2,790	825	443	394

*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, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

Chickenpox — Texas

A total of 7,009 cases of chickenpox were reported in 1979 in Texas, a 14% increase over the 1978 figure. Eighty-five percent of the 4,799 cases for which age data were available were in the 1-to 9-year age group. However, there was a 35% increase in the number of cases reported in the 10- to 14-year age group. The majority (76%) of reported cases occurred during the months of February through June, with the highest incidence in March.

In 1980, chickenpox cases continued to increase in this state. In the first 8 weeks of this year, 1,452 cases were reported, a 38% increase over the total number for the same period in 1979. About 25% of the 362 cases reported during the single week ending February 23 occurred in a 5- to 9-year-old group of children residing in 1 small town.

Reported by C Strickland, C Webb, MD, State Epidemiologist, Texas Dept of Health, in Texas Morbidity This Week, March 22, 1980; Respiratory and Special Pathogens Br, Viral Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: The data reported here are in general agreement with those previously published (*1*). Chickenpox is primarily a disease of school-age children that occurs in the winter and spring. The infectious agent, varicella-zoster virus, infects about 95% of the population in urban areas by early adulthood; secondary attack rates vary from 78%-96% in susceptible household contacts. Four percent of infections are subclinical. Infection usually confers lifelong immunity, although rare cases of second attacks have been reported. Children who are not immunosuppressed may transmit the virus from as early as 1-2 days before to as late as 6 days following eruption of the first skin lesions. The incubation period is 10-23 days.

Chickenpox in otherwise-healthy children is almost always benign and self-limited. Possible complications include bacterial superinfection, pneumonia, acute cerebellar ataxia, aseptic meningitis, encephalitis, transverse myelitis, coagulation defects, and Reye syndrome. Persons at risk of severe disseminated disease include newborns whose mothers developed chickenpox less than 5 days before or within 2 days following delivery, and patients who are immunocompromised or have hematologic malignancies. These high-risk persons should be considered for attempted postexposure prophylaxis with varicella-zoster immune globulin (VZIG), which is available, under a CDC contract, from the Sidney Farber Cancer Institute, Boston, Massachusetts (617-732-3121), for patients satisfying previously published criteria (*2*).

Adults who are otherwise healthy are at greater risk than children of developing complications of chickenpox, including pneumonia, encephalitis, and death (*1*). Fortunately, most adults are immune because of previous infection. Truly susceptible healthy adults who are exposed to chickenpox may be considered for prophylaxis with regular gamma globulin, which has been shown, at least in children, to reduce the severity of the incubating disease when given in large doses (0.6 cc/kg) within 3 days of exposure (*4*). True susceptibility may be determined by serologic tests such as the fluorescent-antibody-to-membrane-antigen (FAMA) test. The complement-fixation test is not sensitive enough for screening purposes. If serologic tests are unavailable, a high index of suspicion for true susceptibility should be maintained for those adults denying a history of chickenpox who either 1) grew up in the tropics (where the disease is less common) or 2) had relatively limited contact with children while growing up (e.g., lived in rural areas, had no siblings, or were the youngest in their sibships).

The risk associated with contracting chickenpox during early pregnancy is uncertain,

Chickenpox — Continued

although it is believed to be slight. A distinctive pattern of congenital malformations, including eye defects, cicatricial skin lesions, and hypoplastic limbs, has been reported in infants whose mothers contracted chickenpox during the first and second trimesters of pregnancy. One prospective study (*4*) found major anomalies in 2/27 (7.4%) and 0/32 newborns whose mothers had contracted chickenpox during the first and second trimesters, respectively.

An experimental, live-virus varicella vaccine has been used safely and effectively in small studies in Japan (*5,6*). However, any chickenpox vaccine will require extensive evaluation before licensure because of the potential risk of delaying natural infection until adulthood (when the clinical illness may be more severe) and the unknown risk of possible persistence of the live vaccine strain in a latent state in vaccinated individuals.

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International Notes

Influenza — U.S. Army Medical Facilities, Europe

During the period September 1-December 5, 1979, the U.S. Army medical reference laboratory for Europe isolated 2 influenza A (H1N1) viruses from 33 respiratory-tract specimens submitted for examination. Both isolates were from civilian dependents of military personnel.

The first isolate was from a throat swab taken from a 6-week-old boy who lived in east-central West Germany. The infant became ill on September 9 and was hospitalized 3 days later with extensive bilateral pneumonia. He was discharged after 12 days.

The second isolate was from lung tissue obtained at autopsy from a 13-year-old boy who had lived in the west-central area of West Germany. He presented at a medical clinic on the afternoon of October 29 with hoarseness, croup, and a temperature of 100.2 F. He had a past history of asthma, but he had not had an attack for 6 years. There were no other health problems. Because he was not in acute distress, he was sent home and told to use a cold-mist vaporizer and to force fluids. The hoarseness progressed, and he developed mild dyspnea. He returned to the clinic the same evening, where bilateral, mild wheezes were noted on examination of the chest. He was given an oral bronchodilator and intermittent, positive-pressure breathing treatment; he improved and was again sent home. Eight hours later he developed severe air hunger, and while being transported to the clinic in an ambulance had a cardiac arrest. Although he was resuscitated and sustained 2 more cardiac arrests before being transferred to the hospital, he died shortly after admission.

Influenza – Continued

Pertinent gross autopsy findings included severe edema of the aryepiglottic folds and hemorrhage with focal ulceration of the tracheal mucosa. Microscopically, there was severe lymphocytic inflammation in the false vocal cords and tracheal mucosa. All of these areas showed mucosal ulceration and hemorrhage. No viral inclusions were seen. The epiglottis was normal, and no pneumonia or pneumonitis was found. Specimens for virus culture were taken from the trachea and lungs.

In connection with the first case, hospital and outpatient data for the area where the infant lived, available only for military personnel, showed no appreciable changes in visits for respiratory disease from August 1 through October 31, 1979. Similarly, a review of admission data for the outpatient clinic and the hospital serving the area where the 13-year-old boy had lived revealed no evidence of increased respiratory disease activity.

Reported by JC Gaydos, MD, C Tin Oo, MD, SD Parks, MD, LA Andron, PhD, BA Hill, RN, MPH, DR Swanson, MD, RW Tezak, MD, JW Cutting, MD, U.S. Army 7th Medical Command, Europe; Immunization Div, Bur of State Services, CDC.

Editorial Note: Since the reappearance of the H1N1 subtype of influenza in the United States in early 1978, infections caused by H1N1 strains have not appeared to be associated with significant mortality. One possible reason for this may be that infections have occurred primarily in children and young adults–groups that are considered to be at lower risk of serious complications from influenza. However, the fatal case reported here illustrates that the potential exists for this subtype to cause serious illness among the pediatric age groups. In addition to the occurrence of Reye syndrome associated with H1N1 infections in the United States (*1*), cases of pneumonia and death associated with influenza A (H1N1) infections were reported in England during the 1978-79 influenza season (*2,3*).

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Erratum, Vol. 29, No. 22

p263 In the table to the article "Follow-up on Mount St. Helens," the second number under Idaho should be 609, not 690, as written.

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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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