

# MORBIDITY AND MORTALITY WEEKLY REPORT

MORBIDITY AND MORTALITY WEEKLY REPORT

- International Notes**  
 545 Health Status of Kampuchean Refugees — Sakaeo, Thailand  
 546 Follow-up on Diphtheria in Indo-chinese Refugees from Thailand  
**Current Trends**  
 547 National Surveillance for Guillian-Barre Syndrome — January, 1978-March 1979  
**Epidemiologic Notes and Reports**  
 653 Measles In Air Force Recruits — Texas

## International Notes

NOV 26 1979

### Health Status of Kampuchean Refugees — Sakaeo, Thailand

In October, conflict along the western border of Kampuchea (Cambodia) caused thousands of Khmers to flee into Thailand for safety. On October 24, 31,000 refugees were brought together in a camp near Sakaeo, a town 250 kilometers northeast of Bangkok and 50 kilometers from the Kampuchean-Thai border. The International Committee of the Red Cross (ICRC) and the Thai Red Cross (TRC) were made responsible for the provision of health care in this population. Within 4 days, a field hospital accommodating more than 1,000 patients was set up and staffed by doctors and nurses from ICRC-affiliated and voluntary organizations. The hospital provides intensive feeding to the severely malnourished as well as obstetric services. To date, more than 40 infants have been delivered there. An outpatient department operated by the TRC provides care to more than 3,000 people a day.

A team of CDC epidemiologists has assisted ICRC in assessing the health needs of this population and in monitoring reported outbreaks of disease. Initially, mortality in the camps exceeded 1 death per 1,000 people per day, reflecting the poor nutritional status, severe anemia, and malaria among this group. After 1 week, this rate decreased by one-third and in 2 weeks, by one-third again. While initially deaths were occurring primarily out of the hospital, an ICRC program to extend casefinding into the community has reversed this trend, and more than 80% of deaths now occur in hospitals. Malaria and malnutrition are the first and second causes of death.

A surveillance system to monitor causes of hospital admissions is being used to detect suspected outbreaks. Malaria, malnutrition, and upper respiratory infections are the 3 main reasons for admission. No outbreaks of diarrhea, typhoid, cholera, diphtheria, or measles have been noted.

A random survey of the community was performed to examine the age structure of the population, the prevalence of malaria, and the nutritional status of non-hospitalized refugees. The population is predominantly young adults, age 10-34 years (213/319), with few children under 5 years of age (27/319) (Table 1).

Falciparum malaria was observed on thick smears of 30 of 80 people screened: 20 with ring forms with or without gametocytes, and 10 with gametocytes alone. No other strain of *Plasmodium* was observed. A random survey of children who were under 110 centimeters identified 10% who were less than 80% of the Harvard reference median weight for height. Of 177 children examined in random and non-random surveys, none had evidence of vitamin A deficiency and only 2 had to be referred for supplementary feeding, an indication that children in need of intensive feeding have already been identified.

*Health Status of Refugees — Continued***TABLE 1. Age and sex of random sample of 319 Kampuchean refugees at Sakaeo I, Thailand, November 8, 1979**

Age	Male	Female	Total (%)
<1	9	3	12 (4)
1	1	1	2 (1)
2	1	1	2 (1)
3	3	1	4 (1)
4	5	2	7 (2)
5-9	12	19	31 (10)
10-14	24	24	48 (15)
15-24	54	68	122 (38)
25-34	19	24	43 (13)
35-44	12	14	26 (8)
45-54	6	6	12 (4)
55+	5	5	10 (3)
	<b>151</b>	<b>168</b>	<b>319 (100)</b>

Further surveys are planned to examine other health problems, such as tuberculosis and anemia, in this population. This experience will be particularly useful in considering intervention if additional refugees arrive in Thailand.

*Reported by R Russbach, MD, Chief Medical Officer, ICRC, Geneva; H Norddorft, MD, Medical Coordinator, ICRC, Sakaeo; S Peel, League of the Red Cross Society, ICRC, Sakaeo; Dr. Brajop, Sakaeo Provincial Health Dept; Dr. Siri, TRC; R Williams, MD, P Echeveria, MD, Armed Forces Research Institute of Medical Sciences, Bangkok; Bur of Epidemiology, and Office of the Director, CDC.*

**Editorial Note:** An estimated 300,000 to 600,000 Khmers are presently living along the Thai-Kampuchean border and may come into Thailand, if fighting intensifies. Plans to deal with this influx are being made by the ICRC, the United Nations High Commission on Refugees, the Thai military and health authorities, and voluntary organizations.

Public health plans to deal with these populations will include morbidity and mortality surveillance and investigation of outbreaks. In a second, smaller refugee camp set up at Kamput, mass treatment for malaria, using a fixed combination of pyrimethamine and sulfadoxine (Falcidar\*), has begun and is being evaluated. Immunizations for measles have been temporarily withheld because of the small population at-risk in this non-measles season.

For additional copies of this article, write Center for Disease Control, Attn: Ferdinand Tedesco, Bldg. 3 - SB 15, Quarantine Division, Bureau of Epidemiology, Atlanta, GA 30333.

\*Use of trade names is for identification only and does not constitute endorsement by the Public Health Service, United States Department of Health, Education, and Welfare.

### Follow-up on Diphtheria in Indochinese Refugees from Thailand

A screening program was instituted on October 22 to evaluate the risk of diphtheria among refugees arriving in this country from Thailand, where a clinically diagnosed case had recently occurred (1). From October 22 through November 12, 4,560 persons, who arrived on 19 flights, were screened in this country. No clinically suspected cases were identified. Cultures were taken on 56 individuals; 2 were positive for *Corynebacterium diphtheriae*, but both isolates were non-toxigenic.

### *Diphtheria — Continued*

During the same period, attempts were made to immunize and screen all persons in the refugee camp in Thailand before embarkation. Cultures of individuals who were detained because they had pharyngitis and/or fever have all been negative, to date. The screening program has therefore demonstrated no evidence of clinical diphtheria among refugees entering this country. Surveillance will be continued in Thailand, but the active screening program has been suspended.

*Reported by V Chong, MD, David Grant Medical Center, Travis Air Force Base, California; S Fannin, MD, Los Angeles County Health Dept; J Chin, MD, State Epidemiologist, California Dept of Health Services; RS Hopkins, MD, State Epidemiologist, Colorado State Dept of Health; K Wells, MD, USPHS Outpatient Clinic, Honolulu; NH Wiebenga, MD, State Epidemiologist, Hawaii State Dept of Health; Quarantine Div, Field Services Div, and Special Pathogens Br, Bacterial Diseases Div, Bur of Epidemiology, CDC.*

#### *Reference*

1. MMWR 28:509, 1979

### Current Trends

#### **National Surveillance for Guillain-Barré Syndrome — January 1978-March 1979**

As of September 1, 1979, a total of 1,019 cases of Guillain-Barré syndrome (GBS) were reported to CDC with dates of onset from January 1, 1978 through March 31, 1979. The reports were obtained by 1,813 physicians from the American Academy of Neurology, which has been participating with CDC and State and Territorial Epidemiologists in a GBS surveillance system since early 1978 (1).\* The attack rate among reported cases was significantly higher in males than in females. A positive correlation between advancing age and attack rate was also noted.

A major purpose of this surveillance effort was to determine whether or not an increased risk of vaccine-related GBS existed for the approximately 12.5 million doses of influenza vaccine administered in the 1978-79 campaign when compared to the previously documented risk associated with A/New Jersey (swine) influenza vaccine administered during the 1976 National Influenza Immunization Program (1). To evaluate the possible association between GBS and the 1978-79 influenza vaccine, cases reported with onset between September 1, 1978 (the start of the influenza vaccine campaign) and March 31, 1979 (approximately 8 weeks after most of the vaccine had been administered) were analyzed.

During this period, CDC received reports of 12 adults<sup>†</sup> who had onset of GBS within 8 weeks after receiving the influenza vaccine. A total of 391 cases of GBS in adults who had not recently been vaccinated were also reported. The rates and risks of GBS in adults not recently vaccinated and in those vaccinated within 8 weeks before onset of GBS were calculated and compared, using estimates of the number of adults vaccinated between September 1978 and January 1979. These estimates were obtained from a national survey conducted by the Opinion Research Corporation (2) and from the Census Bureau's mid-year estimates of the U.S. population. For the 1978-79 influenza vaccine, the relative

\*The original surveillance system involved 1,990 sentinel physicians (1). The continued participation of the 1,813 physicians whose reports are summarized here was confirmed by telephone between December 1978 and March 1979.

<sup>†</sup> ≥18 years of age.

## Guillian-Barré Syndrome — Continued

risk of vaccine-associated GBS was 1.4 (0.7-2.7).<sup>‡</sup> The risk associated with the 1978-79 vaccine was statistically significantly below that associated with A/New Jersey influenza vaccine for the equivalent 8-week period (6.2). The relative risk of 1.4 is not significantly different from 1.0, suggesting that a statistically significant excess risk of GBS following receipt of the influenza vaccine administered in 1978 could not be demonstrated.

Reported by Viral Diseases Div, Bur of Epidemiology, CDC.

**Editorial Note:** This system has provided a means of monitoring the relationship between GBS and the use of influenza vaccine. These data are based on reports from voluntarily participating neurologists, and, as in any broad surveillance effort, case reporting is not complete. However, it is probable that recently vaccinated cases would be at least as likely (if not more likely) to be reported as would unvaccinated cases.

The American Academy of Neurology's use of sentinel neurologists to detect GBS cases is continuing, and similar information will be available on the relationship between GBS and the 1979-80 influenza vaccine.

## References

- Schonberger LB, Bregman DJ, Sullivan-Bolyai JZ, et al: Guillain-Barré syndrome following vaccination in the National Influenza Immunization Program, United States, 1976-1977. *Am J Epidemiol* 100:105-123, 1979
- CDC: 1979 Immunization Survey, June 1979

<sup>‡</sup>95% confidence interval. Relative risk equals the rate in adults vaccinated within 8 weeks before onset of GBS divided by the rate in adults not vaccinated within the same time period.

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

(Cumulative totals include revised and delayed reports through previous weeks.)

DISEASE	46 WEEK ENDING		MEDIAN 1974-1978**	CUMULATIVE, FIRST 46 WEEKS		
	November 17, 1978	November 18, 1978*		November 17, 1978	November 18, 1978*	MEDIAN 1974-1978**
Aseptic meningitis	223	171	100	7,330	5,807	3,691
Brucellosis	3	2	2	143	153	196
Chickenpox	1,416	1,835	1,976	178,442	132,394	132,394
Diphtheria	-	1	2	64	64	135
Encephalitis: Primary (arthropod-borne & unsp.)	22	22	27	922	1,070	1,070
Post-infectious	3	5	5	198	208	227
Hepatitis, Viral: Type B	321	307	280	12,859	13,192	13,192
Type A	492	606	606	25,795	25,820	29,443
Type unspecified	202	154	166	9,463	7,449	7,327
Malaria	17	16	120	661	671	417
Measles (rubeola)	87	397	292	12,769	25,397	25,397
Meningococcal infections: Total	44	55	48	2,247	2,149	1,363
Civilian	44	53	48	2,235	2,123	1,345
Military	-	2	-	12	26	26
Mumps	288	242	532	12,434	14,811	35,407
Pertussis	22	46	46	1,201	1,878	1,536
Rubella (German measles)	50	103	120	11,148	17,540	15,584
Tetanus	1	2	2	64	72	72
Tuberculosis	532	656	574	24,586	25,694	26,951
Typhemia	4	1	1	181	117	125
Typhoid fever	17	16	7	447	469	372
Typhus fever, tick-borne (Riky. Mt. spotted)	5	5	5	1,004	1,019	861
Veneral diseases:						
Gonorrhoea: Civilian	19,045	19,429	19,472	884,204	897,783	894,662
Military	336	669	549	24,287	23,128	23,777
Syphilis, primary & secondary: Civilian	490	452	452	21,938	19,149	19,149
Military	7	7	7	280	262	269
Rabies in animals	59	60	52	4,435	2,840	2,664

TABLE II. Notifiable diseases of low frequency, United States

	CUM. 1978		CUM. 1978
Anthrax	-	Poliomyelitis: Total	25
Botulism (Calif. 1)	28	Paralytic †	21
Cholera	2	Prntacosis †(Oreg. 1)	89
Congenital rubella syndrome (Ups. NY 1)	40	Rabies in man	3
Leprosy †(Mich. 1, Calif. 2, Hawaii 1)	153	Trichinosis (Va. 1)	130
Leptospirosis (Fla. 1)	42	Typhus fever, flea-borne (endemic, murine)	53
Plague	10		

\*Delayed reports received for calendar year 1978 are used to update last year's weekly and cumulative totals.

\*\*Medians for gonorrhoea and syphilis are based on data for 1976-1978.

†The following delayed reports will be reflected in next week's cumulative totals: Leprosy: Calif. +1, Pac.Tr.Terr. +1; Polio: NYC -1 unsp. +1 para.; Psittacosis: Calif. +1.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending November 17, 1979, and November 18, 1978 (46th week)

REPORTING AREA	ASEPTIC MENIN- GITIS	BRU- CEL- LOSIS	CHICKEN- POX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS (VIRAL), BY TYPE			MALARIA	
						Primary		Post-in- fectious	B	A	Unspecified		
						1979	CUM. 1978	1979	1978*	1979	1979		
UNITED STATES	223	3	1,416	-	64	22	22	3	321	492	202	17	661
NEW ENGLAND	17	-	202	-	-	-	1	-	13	5	10	-	40
Maine	-	-	45	-	-	-	-	-	-	-	-	-	3
N.H.†	2	-	46	-	-	-	-	-	2	1	-	-	1
Vt.	-	-	5	-	-	-	-	-	1	1	-	-	-
Mass.	8	-	43	-	-	-	-	-	4	-	9	-	12
R.I.	1	-	19	-	-	-	-	-	1	2	-	-	9
Conn.	6	-	44	-	-	-	1	-	5	1	1	-	15
MID. ATLANTIC	30	1	97	-	-	9	9	-	49	32	11	2	91
Upstate N.Y.	12	-	19	-	-	3	5	-	8	15	6	-	13
N.Y. City	4	1	15	-	-	-	2	-	16	4	2	2	42
N.J.	1	-	NN	-	-	-	1	-	25	13	3	-	16
Pa.	13	-	63	-	-	6	1	-	NA	NA	NA	-	20
E.N. CENTRAL	45	-	552	-	2	2	4	-	36	74	10	-	47
Ohio†	-	-	42	-	-	1	1	-	6	12	-	-	12
Ind.†	1	-	68	-	1	-	-	-	7	18	6	-	1
Ill.†	-	-	84	-	-	1	2	-	7	22	1	-	20
Mich.	24	-	212	-	-	-	1	-	10	15	3	-	12
Wis.†	20	-	146	-	1	-	-	-	6	7	-	-	2
W.N. CENTRAL	11	-	235	-	1	-	-	1	10	13	7	2	27
Minn.†	-	-	1	-	-	-	-	-	1	3	-	2	13
Iowa†	1	-	110	-	-	-	-	-	4	3	4	-	2
Mo.	-	-	7	-	1	-	-	-	2	3	2	-	4
N. Dak.†	-	-	4	-	-	-	-	-	-	4	-	-	2
S. Dak.	-	-	29	-	-	-	-	-	-	4	-	-	1
Nebr.	2	-	4	-	-	-	-	-	3	-	-	-	2
Kans.	8	-	80	-	-	-	-	1	-	-	1	-	3
S. ATLANTIC	16	1	101	-	1	-	4	-	65	64	20	-	79
Dell.	-	-	1	-	-	-	-	-	3	2	-	-	1
Md.	-	-	6	-	-	-	2	-	13	8	5	-	16
D.C.	-	-	-	-	-	-	-	-	1	-	-	-	6
Va.	9	1	5	-	1	-	1	-	10	5	4	-	24
W. Va.	-	-	73	-	-	-	-	-	-	5	1	-	3
N.C.	5	-	NN	-	-	-	1	-	6	5	1	-	6
S.C.	1	-	-	-	-	-	-	-	9	5	3	-	1
Ga.	-	-	-	-	-	-	-	-	11	11	-	-	3
Fla.	1	-	16	-	-	-	-	-	12	23	6	-	19
E.S. CENTRAL	29	-	10	-	-	4	-	-	26	25	3	-	11
Ky.	3	-	7	-	-	1	-	-	6	7	-	-	-
Tenn.	1	-	NN	-	-	-	-	-	13	7	2	-	-
Ala.	23	-	1	-	-	1	-	-	4	4	1	-	3
Miss.†	2	-	2	-	-	2	-	-	3	7	-	-	8
W.S. CENTRAL	4	-	57	-	-	-	1	1	13	77	31	4	49
Ark.	1	-	-	-	-	-	-	-	1	5	2	-	-
La.	-	-	NN	-	-	-	1	-	-	-	-	-	5
Okla.†	1	-	-	-	-	-	-	-	3	3	1	2	9
Tex.	2	-	57	-	-	-	-	1	9	69	28	2	35
MOUNTAIN	5	1	65	-	1	1	-	-	12	45	41	1	18
Mont.	-	-	37	-	-	1	-	-	-	2	-	-	2
Idaho	-	-	3	-	-	-	-	-	-	2	-	-	-
Wyo.	-	-	-	-	-	-	-	-	-	-	-	-	-
Colo.†	1	1	20	-	-	-	-	-	4	10	-	1	8
N. Mex.	2	-	-	-	-	-	-	-	-	-	-	-	1
Ariz.	-	-	NN	-	1	-	-	-	7	23	31	-	5
Utah	1	-	1	-	-	-	-	-	-	3	5	-	-
Nev.	1	-	4	-	-	-	-	-	1	5	5	-	1
PACIFIC	66	-	97	-	59	6	3	1	97	157	69	8	299
Wash.†	7	-	93	-	56	-	-	1	8	14	6	-	12
Oreg.	3	-	2	-	-	1	-	-	4	4	1	1	13
Calif.†	49	-	-	-	3	5	3	-	83	138	62	6	268
Alaska	-	-	-	-	-	-	-	-	-	1	-	-	-
Hawaii	7	-	2	-	-	-	-	-	2	-	-	1	6
Guam	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
P.R.	9	-	2	-	-	-	-	-	-	4	18	1	3
V.I.	-	-	-	-	-	-	-	-	-	-	-	-	-
Pac. Trust Terr.†	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

† 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, Ohio +15, Ind. +10, Wis. -2, Colo. -1, Wash. -1, Calif. +31; Chickenpox: Ill. +7, Calif. +26, Pac. Tr. Terr. +25; Diph.: Calif. +1, Enceph., prim.: N.H. -1, Wis. +6, Iowa +1, Calif. +1; Enceph., post.: Ind. +1, Hep. B: Ohio +1, Wis. +1, Minn. +1, Calif. +57; Hep. A: Ohio -1, Ill. +13, Wis. -1, Minn. +5, Va. -1, Miss. -1, Colo. -2, Wash. -1, Calif. +100, Pac. Tr. Terr. +3; Hep. unsp.: Wash. -1, Calif. +33; Malaria: N. Dak. +5, Okla. -1, Calif. +3.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending November 17, 1979, and November 18, 1978 (46th 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	1978	CUM. 1979	CUM. 1979
UNITED STATES	87	12,769	25,397	44	2,247	2,149	288	12,434	22	50	11,148	64
NEW ENGLAND	2	292	2,030	1	117	120	45	584	-	2	1,433	5
Maine	2	19	1,318	-	7	9	31	241	-	1	62	1
N.H.†	-	33	71	-	13	9	1	6	-	-	127	-
Vt.	-	119	52	-	7	3	-	9	-	-	407	-
Mass.	-	15	253	-	36	47	12	94	-	1	488	3
R.I.	-	102	8	1	9	18	1	45	-	-	93	-
Conn.	-	4	328	-	45	34	-	189	-	-	256	1
MID. ATLANTIC	12	1,531	2,224	15	365	335	10	1,186	2	5	1,980	9
Upstate N.Y.	9	632	1,415	4	122	106	4	176	2	3	1,112	2
N.Y. City	3	794	377	4	84	78	1	136	-	1	275	4
N.J.	-	58	74	3	91	72	4	575	-	1	327	1
Pa.	-	47	358	4	68	79	1	299	-	-	266	2
E.N. CENTRAL	15	3,329	11,135	5	239	307	63	5,228	5	24	2,613	4
Ohio	12	294	489	1	85	81	27	1,856	-	-	140	3
Ind.†	1	224	214	-	43	49	9	320	4	12	762	-
Ill.†	-	1,447	1,152	-	22	92	14	936	-	-	190	-
Mich.	-	840	7,800	4	72	69	5	953	1	4	1,236	1
Wis.†	2	524	1,480	-	17	16	8	1,163	-	8	285	-
W.N. CENTRAL	3	1,805	408	-	66	85	9	701	1	2	491	2
Minn.	-	1,218	40	-	14	25	1	23	-	-	43	-
Iowa	-	16	57	-	13	10	-	236	-	-	52	-
Mo.	-	420	14	-	29	32	1	197	-	1	67	1
N. Dak.	-	21	202	-	1	3	-	2	-	-	8	1
S. Dak.	-	2	-	-	2	3	-	7	-	-	5	-
Nebr.	3	54	5	-	-	-	-	7	-	-	202	-
Kans.	-	74	90	-	7	12	7	229	1	1	114	-
S. ATLANTIC	26	2,016	5,387	11	552	514	29	670	5	1	1,247	11
Del.	-	1	7	-	3	2	2	61	-	-	5	-
Md.	-	16	52	4	58	37	4	172	-	-	28	1
D.C.	-	-	48	-	2	2	-	2	-	-	1	-
Va.	-	276	2,830	1	79	63	3	92	-	-	204	1
W. Va.	1	61	1,063	-	9	16	3	111	-	-	109	-
N.C.	-	114	122	1	86	98	-	78	-	-	532	3
S.C.	3	177	199	2	61	37	-	3	1	-	65	-
Ga.	12	539	36	2	83	60	-	7	3	-	11	-
Fla.	10	832	1,030	1	171	199	17	144	1	1	292	6
E.S. CENTRAL	7	224	1,429	1	163	168	43	1,461	1	1	306	8
Ky.	2	39	122	-	34	30	41	1,214	-	1	70	-
Tenn.	5	76	960	1	46	42	-	104	1	-	100	-
Ala.	-	85	101	-	38	49	-	24	-	-	44	5
Miss.	-	24	246	-	45	47	2	119	-	-	92	2
W.S. CENTRAL	4	943	1,247	-	336	293	46	1,420	1	1	262	21
Ark.	-	9	16	-	27	22	43	530	-	-	7	4
La.	2	256	344	-	118	119	-	36	-	-	30	2
Oklia.	-	22	15	-	35	17	-	-	-	-	24	2
Tex.	2	656	872	-	156	135	3	854	1	1	201	12
MOUNTAIN	-	329	266	4	93	50	14	317	3	1	542	-
Mont.†	-	60	106	1	11	4	2	12	-	-	70	-
Idaho	-	18	1	1	10	4	-	9	-	-	205	-
Wyo.	-	36	-	-	1	-	-	-	-	-	-	-
Calif.	-	68	39	2	7	3	11	111	3	-	67	-
N. Mex.	-	39	-	-	6	12	-	13	-	-	11	-
Ariz.	-	77	56	-	36	15	-	62	-	-	145	-
Utah	-	19	44	-	9	6	-	96	-	1	41	-
Nev.	-	12	20	-	13	6	1	14	-	-	3	-
PACIFIC	18	2,300	1,271	7	316	277	29	867	4	13	2,274	4
Wash.	-	1,140	307	4	58	44	6	226	-	2	193	-
Oreg.	4	66	364	-	24	29	7	103	-	-	112	-
Calif.†	14	1,009	590	3	218	191	14	409	4	11	1,946	4
Alaska	-	17	1	-	6	9	1	13	-	-	4	-
Hawaii	-	68	9	-	10	4	1	116	-	-	19	-
Guam	NA	12	26	-	1	2	NA	11	NA	NA	4	-
P.R.	2	372	285	-	6	8	2	582	-	-	38	11
V.I.	-	4	6	-	3	1	-	20	-	-	-	-
Pac. Trust Terr.†	NA	9	619	-	1	3	NA	40	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: Ill. +1, Wis. -4, Calif. +4; Men. inf.: N.H. +1, Ind. +1, Calif. +2; Mumps: Ill. +3, Calif. +4, Pac.Tr.Terr. +5; Pertussis: Calif. +2, Pac. Tr. Terr. +6; Rubella: Mont. +1, Calif. +5.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending  
November 17, 1979, and November 18, 1978 (46th week)

REPORTING AREA	TUBERCULOSIS		TULA- REMIA	TYPHOID FEVER		TYPHUS FEVER (Tick-borne) (RMSF)		VENEREAL DISEASES (Civilian)						RABIES (in Animals)
	1979	CUM. 1979	CUM. 1979	1979	CUM. 1979	1979	CUM. 1979	GONORRHEA			SYPHILIS (Pri. & Sec.)			
								1979	CUM. 1979	CUM. 1978*	1979	CUM. 1979	CUM. 1978*	
UNITED STATES	532	24,586	181	17	447	5	1,004	19,045	884,204	897,783	490	21,938	19,149	4,435
NEW ENGLAND	29	723	3	-	21	-	9	400	21,777	23,006	5	434	519	46
Maine	1	52	-	-	1	-	-	24	1,530	1,896	-	10	9	28
N.H.†	3	20	-	-	-	-	-	22	807	1,052	-	18	5	4
Vt.†	-	29	-	-	-	-	1	561	561	555	-	2	3	-
Mass.	16	383	3	-	13	-	4	185	8,632	10,111	3	246	315	10
R.I.	6	64	-	-	2	-	-	39	1,769	1,660	2	19	23	2
Conn.	3	175	-	-	5	-	4	109	8,478	7,732	-	139	164	2
MID. ATLANTIC	73	3,818	1	5	77	-	45	2,085	96,958	96,665	78	3,284	2,553	67
Upstate N.Y.†	10	674	1	2	15	-	28	529	17,079	16,266	13	246	184	47
N.Y. City †	26	1,419	-	-	34	-	1	923	37,449	36,613	49	2,211	1,767	-
N.J.	25	730	-	-	16	-	5	149	17,038	17,988	8	438	315	5
Pa.	12	995	-	3	12	-	11	484	25,392	25,798	8	389	287	15
E.N. CENTRAL	83	3,670	-	-	27	-	58	2,593	138,512	139,607	63	2,782	2,173	405
Ohio †	11	655	-	-	3	-	21	891	38,351	36,471	36	559	397	36
Ind.	12	462	-	-	-	-	2	239	11,614	14,234	-	188	155	65
Ill.	37	1,493	-	-	8	-	31	904	44,042	44,339	26	1,562	1,367	197
Mich.†	15	888	-	-	12	-	3	559	32,434	32,368	1	401	197	14
Wis.†	8	172	-	-	4	-	1	NA	12,071	12,195	NA	72	57	93
W.N. CENTRAL	18	827	26	1	21	-	54	855	44,040	45,253	5	282	393	898
Minn.	3	130	-	-	4	-	2	59	7,227	7,580	-	77	145	154
Iowa	-	61	1	-	5	-	14	73	5,220	5,008	-	29	34	172
Mo.	8	450	22	-	8	-	25	423	19,050	19,987	3	128	126	274
N. Dak.	-	18	-	-	-	-	-	28	777	790	-	2	3	74
S. Dak.	-	46	2	-	-	-	-	26	1,445	1,542	-	2	3	103
Nebr.†	-	22	1	-	1	-	5	82	3,108	3,264	1	7	13	-
Kans.	7	100	-	1	3	-	8	164	7,213	7,082	1	37	69	121
S. ATLANTIC	93	5,479	11	1	44	3	574	4,416	213,679	218,392	100	5,212	5,061	611
Del.	1	52	-	-	-	-	3	32	3,506	3,098	-	27	10	-
Md.†	10	680	-	-	8	-	75	526	25,832	28,042	5	328	385	37
D.C.	NA	255	2	-	1	-	2	303	14,217	14,723	10	400	380	-
Va.†	16	655	2	1	5	-	90	322	20,414	21,240	9	420	428	21
W. Va.†	4	209	-	-	5	-	12	59	2,908	2,987	3	48	28	-
N.C.	17	877	-	-	2	2	225	727	31,149	30,999	8	395	537	25
S.C.	2	415	1	-	3	1	78	410	20,022	21,382	2	268	258	164
Ge.	20	883	6	-	2	-	81	768	40,284	42,128	28	1,452	1,274	317
Fla.	23	1,453	-	-	18	-	8	1,269	55,347	53,793	35	1,874	1,761	47
E.S. CENTRAL	46	2,254	14	-	22	2	138	2,015	75,789	76,171	17	1,466	1,001	298
Ky.†	13	589	2	-	7	-	20	282	10,153	10,108	-	144	133	126
Tenn.	16	659	12	-	3	-	76	776	27,456	27,722	3	607	336	99
Ala.	7	528	-	-	8	1	20	451	22,248	21,893	1	266	172	72
Miss.	10	478	-	-	4	1	22	506	15,932	16,448	13	449	360	1
W.S. CENTRAL	69	2,994	73	2	75	-	103	2,194	113,997	119,772	120	4,035	3,040	1,643
Ark.	8	270	46	-	5	-	22	240	8,903	8,960	2	140	67	301
La.	19	593	5	-	5	-	3	395	20,395	19,340	51	1,026	621	30
Okla.	-	322	14	-	-	-	62	165	11,257	11,311	-	80	86	260
Tex.	42	1,809	8	2	65	-	16	1,394	73,442	80,161	67	2,789	2,266	1,052
MOUNTAIN	27	744	43	1	27	-	17	796	35,636	34,436	12	443	394	141
Mont.	-	32	14	-	-	-	5	51	1,767	1,975	-	8	7	8
Idaho	-	15	1	-	1	-	3	20	1,560	1,405	-	25	13	8
Wyo.†	2	9	-	-	1	-	-	30	1,029	849	-	8	9	-
Colo.	6	109	12	-	15	-	4	300	9,578	9,510	4	93	111	51
N. Mex.	4	137	4	1	5	-	1	149	4,416	4,986	1	79	78	41
Ariz.	12	362	-	-	3	-	109	9,816	8,822	-	125	91	23	
Utah	2	29	10	-	-	-	1	43	1,821	1,864	-	4	13	10
Nev.	1	57	2	-	2	-	3	94	5,649	5,025	7	101	72	-
PACIFIC	94	4,077	10	7	133	-	6	3,691	143,816	144,481	90	4,000	4,015	326
Wash.†	8	257	5	-	8	-	-	NA	12,327	11,891	NA	186	235	-
Oreg.†	-	173	2	1	3	-	-	262	9,201	9,873	2	152	152	15
Calif.†	84	3,295	3	6	113	-	6	3,284	114,944	115,780	85	3,552	3,577	309
Alaska	-	68	-	-	2	-	-	73	4,497	4,415	1	24	11	2
Hawaii	2	284	-	-	7	-	-	72	2,797	2,524	2	86	40	-
Guam	NA	53	-	NA	-	NA	-	NA	94	133	NA	1	-	-
P.R.	2	270	-	-	6	-	-	40	1,943	1,993	9	511	447	21
V.I.†	-	4	-	-	1	-	-	4	139	183	1	8	16	-
Pac. Trust Terr.†	NA	32	-	NA	-	NA	-	NA	370	382	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: TB: N.H. +1, Vt. -1, Mich. -1, Wash. -3, Calif. +72, Pac.Tr.Terr. +9; T. fever: Oreg. +2, Calif. +3; GC: NYC: +701 civ., Wis. +285 civ., Md. +519 civ. +2 mil., Wyo. +2 mil., Calif. +2122 civ. +32 mil., V.I. +3 civ., Pac.Tr.Terr. +59 civ., Syphilis: NYC: +53, Wis. +1, Md. +3, Calif. +99; An. rabies: Ups. NY +1, Ohio +1, Nebr. +3, Va. -1, W.Va. +11, Ky. +1, Calif. +10.

TABLE IV. Deaths in 121 U.S. cities,\* week ending November 17, 1979 (46th week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL	REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL
	ALL AGES	>65	45-64	25-44	<1			ALL AGES	>65	45-64	25-44	<1	
<b>NEW ENGLAND</b>	674	432	179	33	13	46	<b>S. ATLANTIC</b>	1,115	662	287	77	50	40
Boston, Mass.	189	110	57	9	2	21	Atlanta, Ga.	129	66	34	9	16	3
Bridgeport, Conn.	61	44	12	3	2	4	Baltimore, Md.	188	108	46	15	9	7
Cambridge, Mass.	20	16	2	2	-	2	Charlotte, N.C.	78	42	22	9	3	5
Fall River, Mass.	19	14	5	-	-	-	Jacksonville, Fla.	85	58	16	2	6	2
Hartford, Conn.	65	37	16	4	3	2	Miami, Fla.	97	54	31	9	-	2
Lowell, Mass.	33	27	6	-	-	1	Norfolk, Va.	38	22	10	3	2	6
Lynn, Mass.	26	21	2	2	1	-	Richmond, Va.	78	44	26	5	1	2
New Bedford, Mass.	24	19	5	-	-	2	Savannah, Ga.	33	22	6	2	2	2
New Haven, Conn.	56	36	15	4	1	3	St. Petersburg, Fla.	73	60	8	-	3	2
Providence, R.I.	49	25	21	3	-	1	Tampa, Fla.	70	47	16	1	2	3
Somerville, Mass.	8	4	3	-	-	-	Washington, D.C.	199	112	61	17	5	3
Springfield, Mass.	44	31	8	3	2	6	Wilmington, Del.	47	27	11	5	1	3
Waterbury, Conn.	19	13	4	1	1	2							
Worcester, Mass.	61	35	23	2	1	2							
							<b>E.S. CENTRAL</b>	654	372	175	49	41	30
<b>MID. ATLANTIC</b>	2,575	1,639	648	160	73	106	Birmingham, Ala.	103	49	33	8	11	3
Albany, N.Y.	78	48	22	2	4	1	Chattanooga, Tenn.	39	20	12	6	1	3
Allentown, Pa.	19	17	2	-	-	-	Knoxville, Tenn.	33	25	6	1	-	2
Buffalo, N.Y.	106	72	22	4	5	8	Louisville, Ky.	117	76	27	7	4	10
Camden, N.J.	35	21	11	1	2	1	Memphis, Tenn.	168	86	44	15	18	5
Elizabeth, N.J.	20	13	6	1	-	-	Mobile, Ala.	65	40	15	5	4	2
Erie, Pa.†	41	23	12	1	3	4	Montgomery, Ala.	34	23	9	2	-	3
Jersey City, N.J.	66	44	17	4	1	1	Nashville, Tenn.	95	53	29	5	3	2
Newark, N.J.	67	41	12	8	4	3							
N.Y. City, N.Y.	1,364	873	334	101	29	51	<b>W.S. CENTRAL</b>	1,453	810	376	121	61	29
Paterson, N.J.	27	18	3	2	3	-	Austin, Tex.	53	34	12	3	2	1
Philadelphia, Pa.†	319	174	98	23	12	14	Baton Rouge, La.	38	23	10	3	1	-
Pittsburgh, Pa.†	63	38	18	2	3	5	Corpus Christi, Tex.	32	19	4	4	-	2
Reading, Pa.	33	28	5	-	-	2	Dallas, Tex.	185	100	48	16	8	2
Rochester, N.Y.	105	75	19	4	5	10	El Paso, Tex.	73	35	21	5	4	2
Schenectady, N.Y.	20	15	5	-	-	-	Fort Worth, Tex.	106	66	27	6	1	6
Scranton, Pa.†	35	26	9	-	-	-	Houston, Tex.	497	260	131	46	30	7
Syracuse, N.Y.	97	63	27	4	1	4	Little Rock, Ark.	49	33	12	3	-	1
Trenton, N.J.	47	27	17	2	1	1	New Orleans, La.	132	65	41	14	8	-
Utica, N.Y.	14	10	3	1	-	-	San Antonio, Tex.	148	83	39	13	5	1
Yonkers, N.Y.	19	13	6	-	-	1	Shreveport, La.	65	42	14	5	1	4
							Tulsa, Okla.	75	50	17	3	1	
<b>E.N. CENTRAL</b>	2,260	1,378	576	134	80	66	<b>MOUNTAIN</b>	588	359	129	42	23	34
Akron, Ohio	73	47	14	7	4	2	Albuquerque, N. Mex.	58	33	13	4	3	4
Canton, Ohio	33	21	9	3	-	2	Colo. Springs, Colo.	28	19	7	1	1	4
Chicago, Ill.	526	327	129	34	17	12	Denver, Colo.	134	73	32	13	5	11
Cincinnati, Ohio	141	85	38	8	2	2	Las Vegas, Nev.	70	43	14	7	1	4
Cleveland, Ohio	153	86	36	12	11	1	Ogden, Utah	22	11	8	1	-	-
Columbus, Ohio	133	82	37	6	4	7	Phoenix, Ariz.	122	75	27	14	3	6
Dayton, Ohio	114	74	29	1	4	3	Pueblo, Colo.	18	16	1	-	1	-
Detroit, Mich.	300	166	91	24	7	3	Salt Lake City, Utah	46	23	15	-	5	-
Evansville, Ind.	39	26	12	-	1	2	Tucson, Ariz.	90	66	12	2	4	
Fort Wayne, Ind.	55	32	11	3	2	1							
Gary, Ind.	24	11	11	1	-	-	<b>PACIFIC</b>	1,892	1,243	392	125	62	58
Grand Rapids, Mich.	52	35	12	2	-	9	Berkeley, Calif.	22	15	5	2	-	3
Indianapolis, Ind.	165	89	49	13	9	3	Fresno, Calif.	71	44	11	7	4	-
Madison, Wis.	50	31	8	3	3	6	Glendale, Calif.	16	11	3	2	-	4
Milwaukee, Wis.	139	91	34	5	5	1	Honolulu, Hawaii	52	34	14	2	2	2
Peoria, Ill.	45	36	6	1	2	10	Long Beach, Calif.	70	42	19	7	1	24
Rockford, Ill.	33	20	8	2	1	2	Los Angeles, Calif.	734	474	162	51	21	3
South Bend, Ind.	40	27	8	1	1	1	Oakland, Calif.	81	54	15	4	3	3
Toledo, Ohio	81	52	17	4	5	-	Pasadena, Calif.	24	16	5	-	3	-
Youngstown, Ohio	64	40	17	4	2	1	Portland, Ore.	120	89	19	1	8	3
							Sacramento, Calif.	91	59	20	8	2	1
<b>W.N. CENTRAL</b>	804	534	157	48	28	36	San Diego, Calif.	101	61	20	9	4	5
Des Moines, Iowa	63	40	17	3	1	1	San Francisco, Calif.	159	110	33	9	2	4
Duluth, Minn.	30	23	4	-	2	4	San Jose, Calif.	148	91	29	13	5	2
Kansas City, Kans.	34	19	5	5	2	-	Seattle, Wash.	120	83	22	6	3	3
Kansas City, Mo.	126	90	25	9	1	4	Spokane, Wash.	51	38	10	1	2	-
Lincoln, Nebr.	45	30	7	4	1	1	Tacoma, Wash.	32	22	5	3	2	
Minneapolis, Minn.	101	58	20	10	4	4							
Omaha, Nebr.	104	69	28	2	1	1	<b>TOTAL</b>	12,015	7,429	2,919	789	431	445
St. Louis, Mo.	156	99	29	10	10	5							
St. Paul, Minn.	68	51	12	2	2	1							
Wichita, Kans.	77	55	10	3	4	15							

\*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.

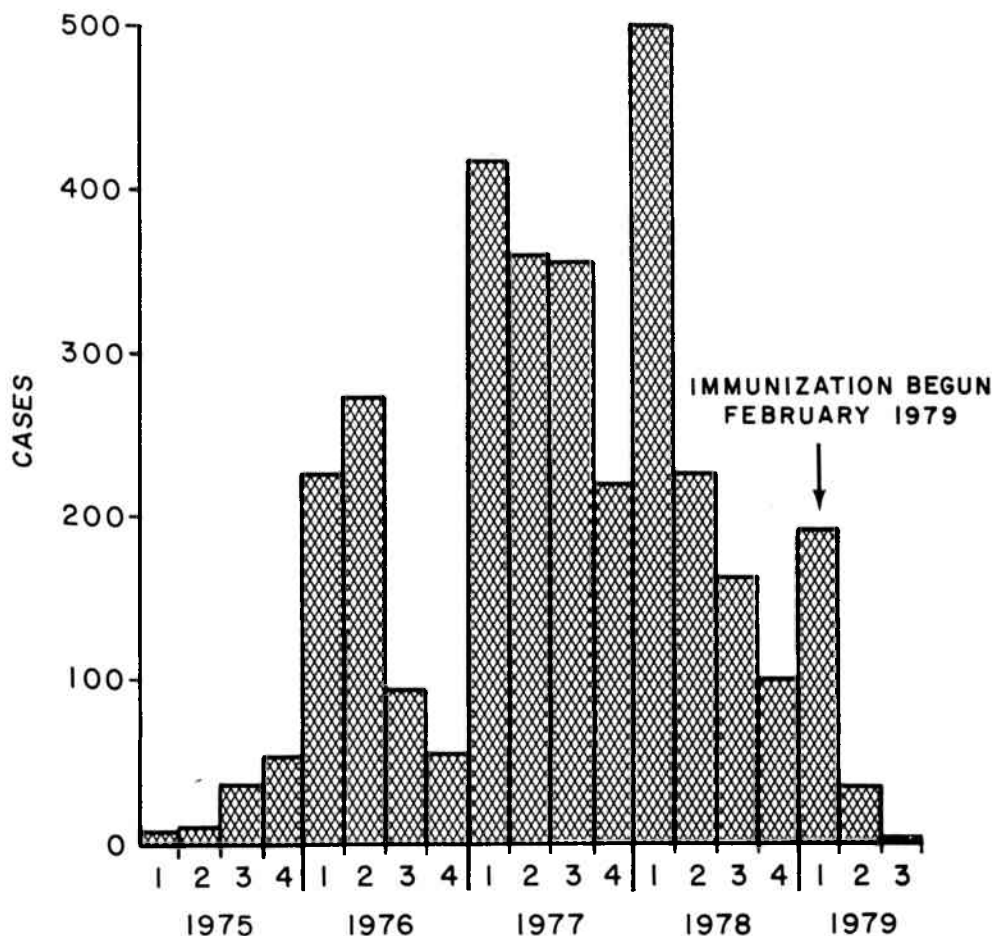


*Epidemiologic Notes and Reports***Measles in Air Force Recruits – Texas**

During the 5-year period ending October 1979, 3,323 cases of measles were seen in recruits at Lackland Air Force Base, Texas. This contrasts sharply with the preceding 5-year period, when 70 cases occurred. The years of highest activity were 1977 (1,356 cases) and 1978 (992 cases). Although cases occurred throughout the year, seasonal peaks occurred in March and April. Complications were frequent and included pneumonia (4.3%), otitis media (4.3%), sinusitis (2.2%), and encephalitis (2 cases).

Since March 1979, all susceptible recruits (that is, those with hemagglutination inhibition tests  $\leq 1:10$ ) have been immunized with live, further attenuated vaccine on their eighth day of training, and there has been a subsequent sharp decline in measles cases.

**FIGURE 1. Cases of measles in U.S. Air Force recruits, by quarter, January 1975-September, 1979**



*Measles — Continued*

Because of concern about potential reactions to the vaccine in young adults, 220 aircraft personnel who were immunized against measles and 435 who were not but were vaccinated against other diseases, were surveyed by questionnaire 4 weeks after immunization for local and systemic reactions. These aircraft personnel, who were all from the same training group, complained of less pain and local swelling at the measles vaccination site than at the tetanus-diphtheria, influenza, and meningococcal polysaccharide vaccination sites. There was no significant difference in the incidence of dispensary visits, hospitalizations, eye pain, pharyngitis, coryza, cough, myalgias, joint pain, diarrhea, or headache in those who received measles vaccine compared with those who did not; there was a small increase in reports of fever.

*Reported by V Martinez, MD, G Crawford, MD, D Gremillion, MD, Wilford Hall Medical Center, Lackland Air Force Base, Texas; Immunization Div, Bur of State Services, CDC.*

**Editorial Note:** In this population of young military recruits, selective immunization of susceptibles is proving to be an effective method of measles control that is not associated with serious reactions.

The Morbidity and Mortality Weekly Report, circulation 92,800, is published by the Center for Disease Control, Atlanta, Georgia. The data in this report are provisional, based on weekly telegraphs 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. Send reports to: Center for Disease Control, Attn: Editor, Morbidity and Mortality Weekly Report, Atlanta, Georgia 30333.

Send mailing list additions, deletions, and address changes to: Center for Disease Control, Attn: Distribution Services, GSO, 1-SB-36, Atlanta, Georgia 30333. When requesting changes be sure to give your former address, including zip code and mailing list code number, or send an old address label.

**U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
PUBLIC HEALTH SERVICE / CENTER FOR DISEASE CONTROL  
ATLANTA, GEORGIA 30333 OFFICIAL BUSINESS**

Postage and Fees Paid  
U.S. Department of HEW  
HEW 396



Director, Center for Disease Control  
William H. Foege, M.D.  
Director, Bureau of Epidemiology  
Philip S. Brachman, M.D.  
Editor  
Michael B. Gregg, M.D.  
Managing Editor  
Anne D. Mather, M.A.

HCA55 MILLSMA0007097921SXXX  
MRS MARY ALICE MILLS  
DIRECTOR, LIBRARY  
BLDG 1-4007