CENTER FOR DISEASE CONTROL

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

December 7, 1979 / Vol. 28 / No. 48

International Notes

Health Status of Kampuchean Refugees — Khao I-Dang

On November 19, 1979, the holding camp at Khao I-Dang, which is capable of accomodating 200,000 refugees, was established by the Thai Government in cooperation with the United Nations High Commission for Refugees (UNHCR). Two days later, trucks and buses from the UNHCR and the International Committee of the Red Cross (ICRC) delivered the first Khmers from border villages to the new camp, located 30 kilometers north of Aranyaprathet. The population, which has grown by 2,000-8,000 each day, was 38,000, as of December 2.

To assess the health problems of the incoming population, the epidemiology unit of the ICRC, with the cooperation of voluntary relief agencies, organized a mass screening program. Basic demographic data are being collected from all new arrivals to the camp. Malnourished and otherwise severely ill refugees are referred directly to the camp's field hospital, which initially will have 2,000 beds. A register of births, deaths, and causes of admission has been established in the hospital. A representative sample of young children are weighed and measured. Pregnant women are registered with a midwife and immediately begun on a prenatal-care program. Thick smears for malaria were obtained on a representative sample of the population to assess the need for mass treatment suggested by the clinical experience and the survey conducted in the older camp in Sakaeo* (*1*).

The age structure of the Khmer population arriving in Khao I-Dang approximates that of a developing country: 44% are younger than 15 years of age, 15% are under 5 years. Five percent of the 163 children weighed and measured were below 80% of the median weight-for-height (Harvard Standard) indicative of undernutrition. Of 100 blood smears stained for malaria, 4 were positive for *Plasmodium vivax*. Treatment of new arrivals with pyrimethamine-sulfadoxine (Fansidar†) was discontinued, and the hospital has changed its drug therapy for malaria.

During the first 8 days of the camp's operation, approximately 1% of the arriving refugees required hospitalization—a rate one-fourth of that originally seen at Sakaeo. Major reasons for admission were pneumonia, diarrhea/dehydration, and malnutrition. Twenty-six deaths occurred during this period, including 8 associated with pneumonia, 5 with diarrhea/dehydration, 2 with malnutrition, and 2 with premature birth. There were no malaria-associated deaths. To date, there have been no deaths outside of the hospital, suggesting that the severely ill are being appropriately treated.

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*Sa-Kaeo is also an acceptable spelling.
†Inclusion of trade names is for identification only and does not imply endorsement by the Public Health Service or the U.S. Department of Health, Education, and Welfare.

Health Status of Refugees — Continued

Editorial Note: This first group of Khmers to arrive at Khao I-Dang is from the border population, which numbers more than 300,000; more refugees are expected to follow. The first arrivals represent a selection, but one of unknown bias. For example, sick people are reported to be the first to be leaving, while many healthy adults of military age are remaining behind. The Khmers who have arrived thus far not only are from a different political group (Khmer-Serei or Free Khmer) than those in Sakaeo (Khmer Rouge), but also are better nourished, have a lower incidence of malaria and malnutrition, and have lower death rates and hospitalization than those at Sakaeo.

Planning for health care in a large refugee population requires a surveillance network capable of rapidly and systematically collecting, analyzing, and interpreting health data. Once the prevalence and type of malaria at Khao I-Dang were identified, the mass treatment program could be immediately discontinued and in-patient treatment altered to deal with *P. vivax* malaria. Knowledge of rates of hospitalization, pregnancy, and undernutrition will allow improved planning for the health-care services which will be required. Monitoring causes of hospitalizations will help with the early identification of outbreaks of disease (*1*).

Reference

1. MMWR 28:545-546, 1979

Surveillance Summary

Malaria — United States, 1978

In 1978, malaria in civilians continued its upward trend. The number of infected civilians was 616, a 67% increase over 1977 and a 4-fold increase over 1970. This total reflects the worldwide resurgence of malaria, the increased travel to malarious areas, and the increasing number of immigrants from malarious areas, particularly from the Indian subcontinent.

Of last year's 616 malaria cases with onset in the United States and Puerto Rico, 95% occurred in U.S. and foreign civilians (Table 1). Most of the 270 cases among U.S. civilians occurred in tourists, students or teachers, business people, and missionaries. Thirty-one cases occurred among military personnel.

Of the countries where the 616 patients contracted malaria, Asia accounted for 52.1% of the cases (India, alone, for 39%), Africa for 28.9%, Central America and the Caribbean for 12.0%, South America for 2.2%, Oceania for 1.8%, and North America for 3.0%.

After India (where 241 cases were acquired), the largest number of imported cases were acquired in Nigeria (47), the Philippines (24), Kenya (17), and El Salvador (16).

TABLE 1. Malaria cases, by category, 1969-1978

Category	Year									
	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
Military	3,914	4,096	2,975	454	41	21	17	5	11	31
Civilian	139	134	148	160	181	302	431	405	470	585
U.S.	90	90	79	106	103	158	199	178	233	270
Foreign	49	44	69	54	78	144	232	227	237	315

Malaria – Continued

Six deaths attributed to malaria were reported, compared with 3 in 1977. Four of the deaths occurred in civilians who had traveled to Africa, 1 in a seaman who was infected in Brazil, and 1 in a civilian who received a transfusion in Mexico. The latter case was caused by *Plasmodium malariae*, the rest, by *P. falciparum*. The *P. falciparum* malaria case-fatality ratio of 4% was higher than the ratio of 1.6% for the 10-year period 1966-1975.

The states with the largest number of imported malaria cases in 1978 were California (222), Virginia (37), Pennsylvania (28), and Texas (27).

In 1978, as in 1977, the seasonal distribution of malaria cases showed a distinct pattern: a definite peak in cases* was apparent in the late spring and in the summer months. For cases in which the exact date of arrival and date of onset were available, clinical malaria developed within 30 days after arrival into the United States in 79.5% of persons with *P. falciparum* infection and in 30.9% of those with *P. vivax* infection; these figures are consistent with those of previous years. Within 6 months after returning to this country, 96.2% of patients with *P. falciparum* malaria and 70.2% of those with *P. vivax* malaria developed clinical symptoms. Twenty-one patients (4.1%) became ill with malaria 12 months or longer after their last possible exposure to malaria abroad.

An increase in imported malaria cases is being reported in Western Europe as well as the United States (*1,2*).

Reported by the Parasitic Diseases Div, Bur of Epidemiology, CDC.

References

1. Hatz B, Stahel E, Weiss N, Begremont A: La malaria importée en Suisse de 1974-1976. Schweiz Med Wochenschr 108:1495-1499, 1978
2. World Health Organization: Malaria surveillance. Weekly Epidemiological Record 54:223-225, 1979

▲A copy of this report from which these data were derived will be available on request from CDC, Attn: Malaria Surveillance, Parasitic Diseases Div, Bur of Epidemiology, Atlanta, Ga. 30333.

*excluding cases with unknown date of onset.

Epidemiologic Notes and Reports

Non-01 *Vibrio cholerae* Infections – Florida

Since November 8, 1979, non-01 *Vibrio cholerae* organisms have been isolated from the stools of 3 persons who presented to a single hospital in northern Florida. Raw oysters harvested from or near Oyster Bay, Wakulla County, Florida, have been epidemiologically incriminated as the vehicle of transmission.

The first patient, a 24-year-old woman, became ill with nausea, vomiting, abdominal cramps, and bloody diarrhea on November 8, 30 hours after consuming raw oysters harvested at Mashes Sand near Oyster Bay. She was admitted to the hospital on November 9, was treated with intravenous fluids, and recovered.

On November 12, a 25-year-old man developed watery diarrhea, vomiting, and abdominal cramps 15 hours after he had eaten raw oysters harvested at Purify Creek on Oyster Bay. He was seen in the hospital emergency room, but he was not clinically dehydrated and was discharged after receiving symptomatic therapy.

Vibrio cholerae – Continued

The third patient, a 23-year-old man, became ill with nausea, vomiting, abdominal cramps, and bloody diarrhea on November 18, 12 hours after consuming raw oysters obtained from a supplier in Wakulla County. These oysters were thought to have been harvested from Oyster Bay. He was admitted to the hospital on November 18. He was mildly dehydrated and was discharged after 24 hours of intravenous fluid therapy.

The raw oysters were consumed by these 3 patients at family and social gatherings. Another 8 persons were identified who had onset of diarrheal illness within 48 hours after eating raw oysters at these occasions.

Investigation of 11 adult control patients with diarrhea, admitted to the same hospital during November 8-24, but with stool cultures negative for *V. cholerae* non-01, revealed that none had consumed raw oysters within 48 hours prior to admission ($p<.01$). Water and oyster samples collected from the areas where oysters were harvested by the first 2 patients had elevated fecal coliform counts. These areas have been temporarily closed to oyster harvesting by state regulatory authorities, and the open and closed areas in and around Oyster Bay are being monitored for fecal coliform bacteria twice a week.

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(Continued on page 577)

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

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

DISEASE	48th WEEK ENDING		MEDIAN	CUMULATIVE, FIRST 48 WEEKS		
	December 1, 1979	December 2, 1978*	1974-1978**	December 1, 1979	December 2, 1978*	MEDIAN 1974-1978**
Aseptic meningitis	186	140	79	7,712	6,074	3,855
Brucellosis	8	1	4	152	156	210
Chickenpox	2,563	2,498	2,293	182,796	137,218	137,218
Diphtheria	–	6	1	65	71	137
Encephalitis: Primary (arthropod-borne & unspec.)	19	18	20	969	1,113	1,113
Post-infectious	8	2	4	211	217	234
Hepatitis, Viral: Type B	300	320	271	13,490	13,777	13,746
Type A	549	625	625	26,919	26,984	30,648
Type unspecified	221	259	152	9,931	7,879	7,612
Malaria	27	8	8	707	691	428
Measles (rubeola)	109	267	237	12,997	25,859	25,859
Meningococcal infections: Total	50	45	31	2,328	2,231	1,416
Civilian	49	45	31	2,315	2,204	1,397
Military	1	–	–	13	27	27
Mumps	234	288	462	12,834	15,315	36,149
Pertussis	23	34	34	1,238	1,933	1,608
Rubella (German measles)	89	89	109	11,287	17,752	15,770
Tetanus	1	2	2	66	75	76
Tuberculosis	616	688	579	25,607	26,803	28,077
Tularemia	3	4	1	186	124	128
Typhoid fever	15	10	6	472	490	380
Typhus fever, tick-borne (Rky. Mt. spotted)	11	6	5	1,028	1,029	873
Venereal diseases:						
Gonorrhea: Civilian	18,886	21,857	20,172	922,614	935,575	930,856
Military	393	437	476	25,295	23,933	24,663
Syphilis, primary & secondary: Civilian	575	464	464	23,036	19,982	19,982
Military	5	10	10	291	282	289
Rabies in animals	72	77	42	4,596	2,957	2,737

TABLE II. Notifiable diseases of low frequency, United States

	CUM. 1979		CUM. 1979
Anthrax	–	Poliomyelitis: Total	25
Botulism (Wash. 1)	29	Paralytic	22
Cholera†	2	Psittacosis (N.C. 1)	91
Congenital rubella syndrome	41	Rabies in man	3
Leprosy (N.C. 1, Calif. 2)	157	Trichinosis†	130
Leptospirosis (NYC 1, N.C. 1, Hawaii 3)	48	Typhus fever, flea-borne (endemic, murine) (Texas 2)	55
Plague	10		

*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.

†The following delayed reports will be reflected in next week's cumulative totals: Cholera: Kans. –1; Trichinosis: Va. –1

TABLE III. Cases of specified notifiable diseases, United States, weeks ending December 1, 1979, and December 2, 1978 (48th 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	186	8	2,563	–	65	19	18	8	300	549	221	27	707
NEW ENGLAND	6	1	200	–	–	1	–	–	9	8	8	1	41
Maine†	1	–	104	–	–	–	–	–	1	2	1	–	3
N.H.†	1	–	20	–	–	–	–	–	–	–	1	–	1
Vt.	–	–	15	–	–	1	–	–	–	–	–	–	–
Mass.	2	1	–	–	–	–	–	–	1	3	3	–	12
R.I.	–	–	1	–	–	–	–	–	–	2	–	1	10
Conn.	2	–	60	–	–	–	–	–	7	1	3	–	15
MID. ATLANTIC	25	1	167	–	–	1	1	–	31	39	29	1	94
Upstate N.Y.	11	–	46	–	–	–	1	–	5	13	13	1	14
N.Y. City	5	1	22	–	–	–	–	–	7	8	6	–	43
N.J.†	5	–	NN	–	–	–	–	–	19	18	10	–	16
Pa.†	4	–	99	–	–	1	–	–	NA	NA	NA	–	21
E.N. CENTRAL	20	–	1,155	–	2	3	4	–	23	57	16	–	47
Ohio†	–	–	134	–	–	2	2	–	6	21	–	–	12
Ind.†	–	–	257	–	1	–	2	–	7	5	8	–	1
Ill.	7	–	253	–	–	–	–	–	3	13	1	–	20
Mich.	6	–	355	–	–	1	–	–	6	14	6	–	12
Wis.	7	–	156	–	1	–	–	–	1	4	1	–	2
W.N. CENTRAL	7	1	359	–	1	4	5	–	7	29	6	1	34
Minn.†	–	–	1	–	–	–	–	–	3	12	–	–	13
Iowa†	3	–	228	–	–	4	5	–	1	4	–	–	2
Mo.	2	–	–	–	1	–	–	–	2	7	5	–	4
N. Dak.†	–	–	2	–	–	–	–	–	–	–	–	–	7
S. Dak.†	–	1	6	–	–	–	–	–	–	2	–	–	1
Nebr.	1	–	–	–	–	–	–	–	–	–	–	–	2
Kans.	1	–	122	–	–	–	–	–	1	4	1	1	5
S. ATLANTIC	19	1	372	–	1	2	3	5	78	108	24	7	88
Del.	–	–	32	–	–	–	–	–	5	2	2	–	1
Md.	–	–	14	–	–	–	1	–	1	2	1	4	20
D.C.	–	–	2	–	–	–	–	–	4	1	–	–	6
Va.	4	–	–	–	1	–	1	–	10	2	3	3	27
W. Va†	3	–	247	–	–	–	–	–	5	6	1	–	3
N.C.	8	1	NN	–	–	2	1	2	9	13	3	–	6
S.C.	2	–	3	–	–	–	–	–	8	4	1	–	1
Ga.	–	–	–	–	–	–	–	–	16	35	–	–	4
Fla.	2	–	74	–	–	–	–	3	20	43	13	–	20
E.S. CENTRAL	10	1	5	–	–	1	–	–	14	24	8	–	12
Ky.	1	–	–	–	–	–	–	–	2	–	–	–	–
Tenn.	2	–	NN	–	–	1	–	–	6	4	1	–	–
Ala.	3	1	4	–	–	–	–	–	6	9	7	–	4
Miss.	4	–	1	–	–	–	–	–	–	11	–	–	8
W.S. CENTRAL	15	1	65	–	–	1	1	–	28	58	42	3	51
Ark.	–	–	7	–	–	–	–	–	2	7	3	1	1
La.	–	–	NN	–	–	–	–	–	11	13	4	–	5
Okla.	1	–	–	–	–	–	–	–	1	7	4	–	8
Tex.	14	1	58	–	–	1	1	–	14	31	31	2	37
MOUNTAIN	3	–	63	–	1	1	–	–	9	55	31	–	18
Mont.	–	–	10	–	–	1	–	–	–	2	–	–	2
Idaho	–	–	2	–	–	–	–	–	–	3	–	–	–
Wyo.	1	–	–	–	–	–	–	–	–	–	–	–	1
Colo.	–	–	48	–	–	–	–	–	4	17	2	–	8
N. Mex.	–	–	–	–	–	–	–	–	–	5	–	–	1
Ariz.	–	–	NN	–	1	–	–	–	4	23	25	–	5
Utah	1	–	1	–	–	–	–	–	–	–	4	–	–
Nev.	1	–	2	–	–	–	–	–	1	5	–	–	1
PACIFIC	81	2	177	–	60	5	4	3	101	171	57	14	322
Wash.	15	–	167	–	56	–	–	1	14	25	8	3	18
Oreg.	5	–	–	–	–	–	–	–	6	11	–	1	14
Calif.†	53	2	–	–	4	4	4	2	76	132	48	10	284
Alaska	1	–	8	–	–	–	–	–	2	1	–	–	–
Hawaii	7	–	2	–	–	1	–	–	3	2	1	–	6
Guam†													
P.R.	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	–
V.I.	4	–	13	–	–	–	–	–	4	2	8	1	4
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.: Pa. –1, Ind. +7; Chickenpox: Maine +1, N.H. +30, Calif. +10, Guam +3; Enceph.: Pa. +1, Iowa +2; Hep. B: N.H +1, N.J. –1, Minn. +1, S. Dak. +1; Hep. A: N.H. +1, Ohio –1, Minn. +1, N.Dak. +1, S.Dak. –1, W.Va. –1; Hep. unsp.: W.Va. +1.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending December 1, 1979, and December 2, 1978 (48th 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	109	12,997	25,859	50	2,328	2,231	234	12,834	23	89	11,287	66
NEW ENGLAND	–	292	2,038	3	124	124	14	637	1	2	1,438	5
Maine	–	19	1,319	1	9	9	4	252	–	1	66	1
N.H.†	–	33	78	–	14	9	–	6	–	–	127	–
Vt.	–	119	52	–	8	3	–	9	–	–	407	–
Mass.	–	15	253	2	39	48	9	133	1	1	489	3
R.I.	–	102	8	–	9	18	1	47	–	–	93	–
Conn.	–	4	328	–	45	37	–	190	–	–	256	1
MID. ATLANTIC	16	1,555	2,245	9	378	342	29	1,223	2	–	1,993	9
Upstate N.Y.	3	636	1,421	1	125	107	1	182	1	–	1,114	2
N.Y. City	13	814	391	1	85	81	6	143	–	–	276	4
N.J.†	–	58	74	1	94	73	10	587	–	–	337	1
Pa.	–	47	359	6	74	81	12	311	1	–	266	2
E.N. CENTRAL	45	3,383	11,258	3	249	326	49	5,320	6	62	2,686	4
Ohio	–	294	489	2	89	84	13	1,871	3	–	140	3
Ind.†	–	225	215	–	44	52	7	330	2	6	773	–
Ill.	44	1,495	1,209	–	25	97	15	958	–	55	245	–
Mich.	–	846	7,858	1	74	75	12	984	–	–	1,242	1
Wis.	1	523	1,487	–	17	18	2	1,177	1	1	286	–
W.N. CENTRAL	4	1,830	463	1	70	89	5	708	1	3	496	2
Minn.	–	1,218	42	–	17	25	–	23	–	–	43	–
Iowa	–	16	58	–	13	10	1	239	–	1	53	–
Mo.	–	424	54	–	29	36	1	198	–	–	69	1
N. Dak.	–	21	211	–	1	3	–	2	–	–	8	1
S. Dak.	–	2	–	–	2	3	–	7	–	–	5	–
Nebr.	4	74	5	–	–	–	–	7	–	–	202	–
Kans.	–	75	93	1	8	12	3	232	1	2	116	–
S. ATLANTIC	20	2,077	5,476	18	574	532	29	721	2	5	1,257	12
Del.	–	1	7	–	3	2	6	70	–	–	7	–
Md.	–	16	52	–	58	38	–	176	–	–	28	1
D.C.	–	–	48	–	2	2	–	2	–	–	1	–
Va.†	–	282	2,834	–	80	66	3	95	–	1	204	2
W. Va.	1	62	1,065	3	13	17	14	126	–	1	110	–
N.C.	–	114	122	4	90	102	4	85	–	1	533	3
S.C.	–	182	199	2	63	37	–	3	–	1	66	–
Ga.	3	570	36	1	86	64	–	7	1	–	14	–
Fla.†	16	850	1,113	8	179	204	2	157	1	1	294	6
E.S. CENTRAL	–	241	1,431	2	167	178	60	1,543	1	1	308	8
Ky.	–	39	122	1	35	31	59	1,291	–	–	71	1
Tenn.	–	76	962	1	48	45	1	105	–	1	101	–
Ala.	–	102	101	–	39	49	–	26	–	–	44	5
Miss.	–	24	246	–	45	53	–	121	1	–	92	2
W.S. CENTRAL	5	952	1,272	3	344	300	12	1,446	1	1	265	21
Ark.	–	9	16	–	29	23	–	531	–	–	7	4
La.	1	257	351	1	121	121	–	36	–	–	30	3
Okla.	–	22	19	–	35	19	–	–	1	–	24	2
Tex.	4	664	886	2	159	137	12	879	–	1	204	12
MOUNTAIN	3	334	269	5	98	52	3	321	2	1	545	–
Mont.	–	60	106	3	14	6	–	13	–	–	71	–
Idaho	–	18	1	–	10	4	–	9	–	–	206	–
Wyo.	–	36	–	–	1	–	–	–	–	–	–	–
Colo.	–	70	41	1	8	3	3	114	–	–	67	–
N. Mex.†	–	39	–	–	6	12	–	13	2	–	11	–
Ariz.	3	80	57	–	36	15	–	62	–	1	146	–
Utah	–	19	44	1	10	6	–	96	–	–	41	–
Nev.	–	12	20	–	13	6	–	14	–	–	3	–
PACIFIC	16	2,333	1,407	6	324	288	33	915	7	14	2,299	5
Wash.	13	1,153	388	3	60	47	12	238	1	8	201	–
Oreg.	–	66	405	–	24	31	5	110	–	–	112	–
Calif.	3	1,029	604	3	224	196	16	438	3	6	1,963	5
Alaska	–	17	1	–	6	10	–	13	3	–	4	–
Hawaii	–	68	9	–	10	4	–	116	–	–	19	–
Guam†	NA	12	26	–	1	2	NA	11	NA	NA	4	–
P.R.	1	374	288	1	7	10	6	592	–	–	39	11
V.I.†	–	4	6	–	3	1	–	20	–	–		–
Pac. Trust Terr.	NA	9	645	–	1	3	NA	45	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: Va. –3, N.Mex. –1, V.I. +1; Men. inf.: Ind. +2, N.Mex. –1; Mumps: Guam +1; Rubella: N.H. +2, N.J. +1; Tetanus: Fla. +1.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending December 1, 1979, and December 2, 1978 (48th 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	616	25,607	186	15	472	11	1,028	18,886	922,614	935,575	575	23,036	19,982	4,596
NEW ENGLAND	22	755	3	–	22	–	9	440	22,670	23,806	16	456	538	48
Maine	1	53	–	–	1	–	–	27	1,588	1,945	–	10	9	29
N.H.	3	24	–	–	–	–	–	23	842	1,096	3	21	5	5
Vt. †	1	29	–	–	–	–	1	13	595	583	–	2	3	–
Mass.	1	390	3	–	14	–	4	132	8,890	10,488	10	261	328	10
R.I.	4	69	–	–	2	–	–	66	1,853	1,768	–	20	24	2
Conn.	12	190	–	–	5	–	4	179	8,902	7,926	3	142	169	2
MID. ATLANTIC	100	3,972	1	3	82	–	45	2,549	101,993	101,102	92	3,507	2,694	68
Upstate N.Y.	5	698	1	1	18	–	28	527	17,863	16,934	3	260	193	48
N.Y. City †	54	1,493	–	1	35	–	1	1,079	40,029	38,213	67	2,381	1,871	–
N.J.†	25	761	–	1	17	–	5	591	17,701	18,785	6	455	328	5
Pa.	16	1,020	–	–	12	–	11	352	26,400	27,170	16	411	302	15
E.N. CENTRAL	55	3,791	–	–	27	–	58	2,894	144,376	145,837	32	2,853	2,279	429
Ohio	17	681	–	–	3	–	21	825	39,763	38,012	–	564	430	38
Ind. †	9	477	–	–	–	–	2	453	12,256	14,596	4	192	162	67
Ill.	14	1,534	–	–	8	–	31	1,000	45,910	46,463	26	1,615	1,422	209
Mich.	11	916	–	–	12	–	3	616	33,826	33,845	2	409	203	14
Wis.†	4	183	–	–	4	–	1	NA	12,621	12,921	NA	73	62	101
W.N. CENTRAL	17	872	27	1	23	5	59	1,047	46,002	47,175	6	292	404	928
Minn.	–	134	1	1	5	–	2	188	7,543	7,935	4	82	147	157
Iowa	4	65	1	–	5	–	14	136	5,452	5,228	1	30	35	181
Mo.	5	475	22	–	8	5	30	423	19,977	20,860	1	132	133	277
N. Dak.	–	21	–	–	–	–	–	18	801	812	–	2	3	81
S. Dak.	5	51	2	–	–	–	–	29	1,488	1,596	–	2	3	104
Nebr. †	–	22	1	–	1	–	5	117	3,283	3,401	–	7	13	3
Kans.†	3	104	–	–	4	–	8	136	7,458	7,343	–	37	70	125
S. ATLANTIC	162	5,695	12	2	46	3	590	4,588	222,518	226,890	155	5,480	5,263	636
Del.	1	53	–	–	–	–	3	67	3,643	3,219	–	27	13	–
Md.	–	691	–	1	9	–	75	165	27,097	29,168	35	367	401	37
D.C.	13	268	2	–	1	–	2	364	14,790	15,359	13	429	396	–
Va.	18	673	2	–	5	–	90	489	21,385	22,102	19	447	441	20
W. Va.	8	220	–	–	5	–	12	53	3,007	3,126	2	50	30	13
N.C.†	26	908	1	–	2	2	240	688	32,503	32,234	5	406	562	25
S.C. †	9	436	1	1	4	1	79	312	20,752	22,328	6	288	268	170
Ga.	40	923	6	–	2	–	81	889	41,851	43,994	29	1,502	1,316	324
Fla.†	47	1,523	–	–	18	–	8	1,561	57,490	55,360	46	1,964	1,836	47
E.S. CENTRAL	27	2,311	14	–	22	1	139	1,060	78,095	79,345	10	1,514	1,047	307
Ky.	–	589	2	–	7	–	20	227	10,566	10,597	3	151	141	133
Tenn.	10	688	12	–	3	1	77	436	28,363	29,203	4	631	346	101
Ala.	17	556	–	–	8	–	20	NA	22,693	22,725	NA	273	186	72
Miss.	–	478	–	–	4	–	22	397	16,473	16,820	3	459	374	1
W.S. CENTRAL	48	3,080	75	1	76	1	104	2,743	118,710	124,171	93	4,188	3,198	1,696
Ark.	9	285	48	–	5	–	22	235	9,378	9,149	8	150	67	314
La.	8	604	5	–	5	–	3	466	21,236	20,325	17	1,069	660	33
Okla.†	–	322	14	–	–	–	62	319	11,785	11,723	1	81	89	265
Tex.†	31	1,869	8	1	66	1	17	1,723	76,311	82,974	67	2,888	2,382	1,084
MOUNTAIN	34	788	44	3	31	–	17	846	37,180	35,956	39	486	420	142
Mont.	1	35	14	–	–	–	5	40	1,844	2,024	1	9	8	8
Idaho †	1	16	1	2	4	–	3	33	1,639	1,494	–	25	13	8
Wyo.†	–	9	–	–	1	–	–	28	1,057	892	–	8	9	–
Colo.†	10	124	12	–	15	–	4	220	9,984	9,938	5	100	115	51
N. Mex.†	–	139	4	–	5	–	1	96	4,598	5,194	9	90	82	42
Ariz.	19	381	–	–	3	–	–	253	10,255	9,233	22	147	105	23
Utah	3	33	11	1	1	–	1	33	1,903	1,938	1	5	13	10
Nev. †	–	51	2	–	2	–	3	143	5,900	5,243	1	102	75	–
PACIFIC	151	4,343	10	5	143	1	7	2,719	151,070	151,293	132	4,260	4,139	342
Wash.†	15	271	5	–	8	–	–	NA	13,214	12,342	NA	186	241	–
Oreg.	2	178	2	–	5	–	–	207	9,598	10,206	5	158	160	15
Calif.	121	3,525	3	5	121	1	7	2,329	120,648	121,466	126	3,804	3,686	325
Alaska	8	76	–	–	2	–	–	98	4,658	4,636	–	25	12	2
Hawaii	5	293	–	–	7	–	–	85	2,952	2,643	1	87	40	–
Guam †														
P.R.	NA	53	–	NA	–	NA	–	NA	94	137	NA	1	1	–
V.I.	2	273	–	–	6	–	–	47	2,039	2,050	17	537	462	23
Pac. Trust Terr.	–	4	–	–	1	–	–	5	147	192	1	9	16	–
	NA	41	–	NA	–	NA	–	NA	429	407	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: Vt. –1, NYC –48, Kans. –3, N.C. –2, S.C. –1, Fla. –3, Wash. –7, Guam +2; Typhoid fever: N.J. +1, Ind. +1, N.Mex. –1; GC: Wis. +126 civ., Nebr. –1 mil., Idaho –1 civ., Colo. –2 civ., Guam +2 civ. +3 mil., Syphilis: Wis. +2 civ., Texas. –1 civ., Idaho +1 civ., Nev. –1 civ.; An. rabies: Vt. +1, Okla. –1, Wyo. +11, N.Mex. +6.

TABLE IV. Deaths in 121 U.S. cities,* week ending December 1, 1979 (48th week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P&I** TOTAL
	ALL AGES	>65	45-64	25-44	<1	
NEW ENGLAND	743	497	153	44	22	45
Boston, Mass.	211	128	55	9	10	16
Bridgeport, Conn.	38	23	9	5	1	–
Cambridge, Mass.	26	21	4	1	–	3
Fall River, Mass.	24	16	6	1	–	1
Hartford, Conn.	57	37	12	4	2	4
Lowell, Mass.	15	7	5	–	1	1
Lynn, Mass.	27	24	1	1	–	–
New Bedford, Mass	24	20	4	–	–	1
New Haven, Conn.	72	46	16	4	3	–
Providence, R.I.	76	51	12	8	3	7
Somerville, Mass.	14	10	3	1	–	–
Springfield, Mass.	65	40	15	3	2	4
Waterbury, Conn.	42	32	4	5	–	5
Worcester, Mass.	52	42	7	2	–	3
MID. ATLANTIC	2,897	1,906	678	187	62	125
Albany, N.Y.	65	46	12	3	1	–
Allentown, Pa.	20	16	4	–	–	–
Buffalo, N.Y.	103	65	29	7	2	6
Camden, N.J.	49	32	10	3	2	1
Elizabeth, N.J.	32	23	8	1	–	2
Erie, Pa.†	31	20	7	3	–	–
Jersey City, N.J.	45	30	13	1	–	2
Newark, N.J.	95	52	24	6	5	3
N.Y. City, N.Y.	1,607	1,060	365	115	33	65
Paterson, N.J.	26	18	6	1	1	2
Philadelphia, Pa.†	304	187	79	22	9	20
Pittsburgh, Pa.†	104	64	32	4	2	5
Reading, Pa.	45	39	4	–	2	3
Rochester, N.Y.	108	80	20	6	1	5
Schenectady, N.Y.	32	24	7	1	–	–
Scranton, Pa.†	28	18	8	1	1	1
Syracuse, N.Y.	93	55	27	7	2	1
Trenton, N.J.	49	29	12	5	1	3
Utica, N.Y.	27	21	5	–	–	3
Yonkers, N.Y.	34	27	6	1	–	3
E.N. CENTRAL	2,660	1,626	675	151	98	83
Akron, Ohio	75	50	13	3	5	–
Canton, Ohio	56	39	12	1	1	2
Chicago, Ill.	580	325	164	50	18	7
Cincinnati, Ohio	221	138	53	11	10	8
Cleveland, Ohio	203	108	59	15	6	1
Columbus, Ohio	175	112	40	6	6	4
Dayton, Ohio	144	90	36	12	3	6
Detroit, Mich.	325	180	93	24	17	8
Evansville, Ind.	38	30	6	–	1	2
Fort Wayne, Ind.	68	45	16	4	2	1
Gary, Ind.	21	9	5	2	3	–
Grand Rapids, Mich.	76	47	19	1	5	11
Indianapolis, Ind.	142	78	48	3	7	3
Madison, Wis.	39	26	9	1	1	7
Milwaukee, Wis.	182	122	43	5	6	3
Peoria, Ill.	48	32	9	2	2	9
Rockford, Ill.	40	30	4	4	1	1
South Bend, Ind.	60	42	13	1	3	6
Toledo, Ohio	103	79	17	4	–	1
Youngstown, Ohio	64	44	16	2	1	3
W.N. CENTRAL	913	599	191	46	42	41
Des Moines, Iowa	76	51	15	6	–	8
Duluth, Minn.	33	24	4	3	2	7
Kansas City, Kans.	47	29	8	4	3	3
Kansas City, Mo.	144	91	33	7	9	3
Lincoln, Nebr.	32	24	6	–	1	3
Minneapolis, Minn.	111	82	19	5	3	2
Omaha, Nebr.	110	71	27	3	5	4
St. Louis, Mo.	198	130	38	14	8	6
St. Paul, Minn.	87	53	25	4	3	2
Wichita, Kans.	75	44	16	–	8	3

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P&I** TOTAL
	ALL AGES	>65	45-64	25-44	<1	
S. ATLANTIC	1,232	740	311	101	29	32
Atlanta, Ga.	118	65	30	16	4	3
Baltimore, Md.	177	101	47	19	2	1
Charlotte, N.C.	66	39	13	6	4	4
Jacksonville, Fla.	124	75	34	7	2	5
Miami, Fla.	140	81	38	13	2	2
Norfolk, Va.	67	30	24	6	2	2
Richmond, Va.	96	54	27	10	3	4
Savannah, Ga.	27	18	7	2	–	2
St. Petersburg, Fla.	100	83	12	–	1	2
Tampa, Fla.	116	82	21	4	4	4
Washington, D.C.	162	85	49	16	5	2
Wilmington, Del.	39	27	9	2	–	1
E.S. CENTRAL	805	452	242	57	28	20
Birmingham, Ala.	122	69	37	6	5	1
Chattanooga, Tenn.	67	35	22	8	1	3
Knoxville, Tenn.	54	33	16	3	–	–
Louisville, Ky.	112	59	35	7	8	6
Memphis, Tenn.	199	126	56	8	8	2
Mobile, Ala.	38	24	11	3	–	1
Montgomery, Ala.	43	27	10	3	1	2
Nashville, Tenn.	170	79	55	19	5	5
W.S. CENTRAL	1,309	764	336	106	50	56
Austin, Tex.	60	41	11	4	1	7
Baton Rouge, La.	49	27	12	7	3	5
Corpus Christi, Tex.	26	17	6	3	–	–
Dallas, Tex.	190	114	50	15	3	3
El Paso, Tex.	54	32	15	2	4	7
Fort Worth, Tex.	74	44	23	–	3	6
Houston, Tex.	192	98	47	25	13	2
Little Rock, Ark.	84	45	28	5	3	4
New Orleans, La.	181	105	50	15	3	–
San Antonio, Tex.	202	115	51	15	10	6
Shreveport, La.	91	64	17	6	3	5
Tulsa, Okla.	106	62	26	9	4	11
MOUNTAIN	652	398	147	50	30	16
Albuquerque, N.Mex.	74	49	15	4	1	2
Colo. Springs, Colo.	34	19	8	6	–	3
Denver, Colo.	136	83	29	10	8	4
Las Vegas, Nev.	105	49	34	11	4	4
Ogden, Utah	23	15	3	3	1	1
Phoenix, Ariz.	114	77	24	6	5	1
Pueblo, Colo.	20	14	3	1	–	1
Salt Lake City, Utah	47	25	8	7	6	–
Tucson, Ariz.	99	67	23	2	5	–
PACIFIC	2,149	1,364	511	136	72	80
Berkeley, Calif.	22	16	5	1	–	1
Fresno, Calif.	68	40	15	6	5	3
Glendale, Calif.	42	27	12	1	1	3
Honolulu, Hawaii	60	43	10	5	–	8
Long Beach, Calif.	89	63	18	6	1	3
Los Angeles, Calif.	745	462	188	54	18	28
Oakland, Calif.	125	77	32	6	4	5
Pasadena, Calif.	43	39	4	–	–	4
Portland, Oreg.	137	84	33	9	6	1
Sacramento, Calif.	85	52	19	4	7	2
San Diego, Calif.	136	83	32	10	5	1
San Francisco, Calif.	164	108	39	9	5	4
San Jose, Calif.	155	94	39	8	7	3
Seattle, Wash.	165	94	45	14	6	5
Spokane, Wash.	71	54	9	1	6	7
Tacoma, Wash.	42	28	11	2	1	2
TOTAL	13,360	8,346	3,244	878	433	498

*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.

Vibrio cholerae – Continued

Editorial Note: The species *V. cholerae* now includes not only the strains that cause cholera epidemics (*V. cholerae* 0 group 1) but also organisms that are similar biochemically and by DNA homology to the epidemic strains but which have not been associated with epidemic disease (*V. cholerae* of other 0 groups, or non-01 *V. cholerae*). The latter were formerly referred to as non-agglutinating vibrios (NAGs) or non-cholera vibrios (NCVs).

Sporadic cases of disease associated with isolation of non-01 *V. cholerae* do occur in the United States (*1*). Although some such cases have been anecdotally associated with eating raw shellfish, in this instance raw oysters were epidemiologically incriminated. In the first 2 cases reported here, the incriminated oysters came from areas with elevated fecal coliform counts, suggesting that there was fecal contamination of the areas. Consumption of raw shellfish from contaminated waters carries a significant risk to health. Other diseases, including hepatitis and viral gastroenteritis, have occurred after consumption of contaminated shellfish (*2*). In Florida and other states, regulatory authorities monitor, under the National Shellfish Sanitation Program, the fecal coliform counts of oyster beds harvested for commercial distribution. At the federal level, this program is administered by the U.S. Food and Drug Administration.

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1. Hughes JM, Hollis DG, Gangarosa EJ, Weaver RE: Non-cholera vibrio infections in the United States: Clinical, epidemiologic and laboratory features. Ann Intern Med 88: 602-606, 1978
2. Earampamoorthy S, Koff RS: Health hazards of bivalve-mollusk ingestion. Ann Intern Med 83: 107-110, 1975

Current Trends

Hospital Inpatient-Education Survey, 1978 – Preliminary Report

The number of hospitals with operational inpatient-education programs and a coordinating department (one designated to coordinate patient-education activities) increased from 1,218 in 1975 to 2,009 in 1978, according to a recently completed survey. This is a 64.9% increase. An additional 296 hospitals in 1978 reported that they had coordinating departments but that their programs were still in the planning stages.

The survey is the second in a series conducted by the American Hospital Association's Center for Health Promotion in cooperation with CDC's Bureau of Health Education.* It was mailed in November 1978 to 5,815 U.S. non-federal, short-term, general or specialty hospitals; 4,678 hospitals (80.4%) responded.†

Of the respondents, 72.5% (3,393 hospitals) have or are in the process of planning patient-education programs. Of these, 504 or 14.9% indicated that they use closed-circuit television for patient education; 942 or 27.8% are planning to use it.

The number of hospitals listing adult operational programs increased overall by 240 (9.1%), from 2,643 in 1975 to 2,883 in 1978. The most frequently reported adult operational programs for 1978 were diabetes, heart attack, and prenatal care (Table 2). The adult programs increased in 6 areas: diabetes, hypertension, heart attack, open heart surgery, prenatal care, and preoperative care. The largest absolute decreases in adult programs occurred in the areas of nutrition, mastectomy, stroke, exercise, and respiratory care.

*The final report will be available from the Bureau of Health Education, CDC, and the American Hospital Association in January 1980.

†The first survey, conducted in 1975 (*1*), involved 5,770 hospitals, of which 4,669 (80.9%) responded.

Inpatient Education — Continued

The most common types of pediatric operational programs for 1978 were diabetes, preoperative care, and orientation (Table 3). The number of pediatric programs experienced an overall decrease of 181 (13.9%), from 1,302 in 1975 to 1,121 in 1978. The largest decreases in these programs occurred in the areas of nutrition, diabetes, exercise, respiratory care, and postoperative care. Pediatric programs also tended to decrease among hospitals under 300 beds (Table 4).

The reasons for this decline in a wide variety of specific programs, when other indicators of patient-education activities have increased, are difficult to identify. In an attempt to determine these reasons, a small sample of hospitals—ones that had responded to both surveys and that had listed in 1975 specific operational programs that were not operation-

TABLE 2. Ten most frequently reported adult education programs in 1978 and number of same programs in 1975

Type of program	Number of hospitals reporting	
	1978	1975
Diabetes	2,263	2,097
Heart attack	1,581	1,263
Prenatal care	1,483	1,426
Preoperative care	1,190	1,186
Ostomy	1,136	1,337
Postnatal care	1,079	1,200
Nutrition	886	1,453
Mastectomy	728	1,275
Pacemaker §	715	794
Postoperative care	692	894

§Not in first 10 in 1975.

TABLE 3. Five most frequently reported pediatric inpatient-education programs in 1978 and number of these programs in 1975

Type of program	Number of hospitals reporting	
	1978	1975
Diabetes	779	960
Preoperative care	416	484
Orientation	389	485
Nutrition	241	537
Postoperative care	214	348

TABLE 4. Changes in numbers of hospitals reporting adult and pediatric operational programs, by bed size, 1975-1978

Bed-size category	Change in number of reported adult programs	Change in number of reported pediatric programs
<25	−2	−1
25-49	+26	−30
50-99	+16	−48
100-199	+51	−80
200-299	+58	−26
300-399	+33	−2
400-499	+33	+7
≥500	+25	−1

Inpatient Education — Continued

al in 1978—were called. Most apparent decreases in programs appeared to be due to misunderstanding of the questionnaire or to the administrative re-designations of programs to other departments which the department completing the questionnaire did not include or consider in its response.

"Nursing inservice education" was the most frequently reported name for the patient-education coordinating department. This was followed by nursing administration (452), education (448), other (229),‡ administration (40), social service (12), personnel (11), and public relations (6).

Reported by the Bur of Health Education, CDC.

References

1. MMWR 26:99, 1977

‡"Other" included health education, discharge planning, home care, human resource development, committee, staff development, shared (more than 1 department), and patient care.

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.

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HEW Publication No. (CDC) 80-8017