

# MNWR

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## MORBIDITY AND MORTALITY WEEKLY REPORT

### *Epidemiologic Notes and Reports*

#### Gasoline Spill — New York

Discovery of an underground gasoline spill in Long Island, New York, late last year led to a half-year investigation by the Nassau County Health Department (NCHD). Twenty-four families in the area were affected—either by odors, illness, or dangerous levels of fumes in their basements—and were permanently evacuated.

A fire marshall discovered the leak on November 22, 1978, during an inspection of a 3,000-gallon gasoline storage tank under a neighborhood service station in East Meadow, Long Island. The NCHD began an investigation of the spill in December.

Review of records from the station for 1978 indicated that an estimated 50,000 gallons of leaded and unleaded gasoline had been lost over a period of several months during the latter half of the year. The tank was promptly drained and repaired; however, increasing complaints of gas fumes in basements and concurrent illness were reported to the health department in December and January from homeowners living southwest of the station. By the end of January, complaints of odors and illness had been received from 24 families, and they were all subsequently evacuated to local motels, where they are still residing.

Health evaluations were performed on 69 of the 95 evacuees within 10 days of evacuation. Questionnaires, physical examinations, and blood and urine tests were completed on this group. While in their homes, the patients' chief complaints consisted of headache (55%), nausea (46%), diarrhea (19%), and drowsiness (13%). Physical examinations failed to reveal any abnormalities that could be attributed to gasoline exposure. Similarly, blood and urine analysis showed only occasional, slight variations from normal. These were considered medically insignificant and probably unrelated to gasoline-vapor exposure.

Initial air sampling by explosimeter indicated 5 basements with levels above 50% of the lower explosion limit (the level at which ignition of vapor may occur). Additional air sampling, using portable detection meters, showed the highest levels to be near cracks in the basement walls. Extensive air sampling of basements both in affected and control homes was conducted by the NCHD in April and May. Charcoal cartridges were used for collection, and samples were analyzed by gas chromatography with flame ionization detection. Results in the 24 affected homes showed an average of 5,616 parts per billion (ppb) total aliphatic hydrocarbons and 48 ppb benzene, while 20 control homes approximately 1 mile from the service station averaged 209 ppb total aliphatic hydrocarbons and 13 ppb benzene.

### Gasoline Spill — Continued

Reported by T Abruzzo, MD, MPH, JJ Dowling, MD, MPH, NB Schell, MD, MPH, Nassau County Health Dept; P Greenwald, MD, DrPH, New York State Dept of Health; Special Studies Br, Chronic Diseases Div, Bur of Epidemiology, CDC.

**Editorial Note:** Although this incident was particularly severe, such gasoline spills are not infrequent—in part because of the limited lifespans of gasoline storage tanks. Nassau County alone has reported an average of 10 such spills a year for the past 3 years. Currently, there are 218 known active gasoline-spill sites in New York State.

Early detection of such spills is hampered by inadequate methods for rapid and reliable detection of leaks, infrequent testing of tank integrity, and poor inventory techniques at many service stations.

There is no current occupational threshold limit value (TLV) for exposure to gasoline because it has so many individual components (1). However, the major concern with gasoline focuses on benzene, a known leukemogenic agent which generally measures <1% of gasoline. The enforceable Occupational Safety and Health Administration standard for airborne benzene stands at 10 ppm, although attempts are being made to reduce this to 1 ppm.

There are, however, no such guidelines or TLVs for hydrocarbon or benzene exposures in residential environments. In East Meadow, acute symptoms of irritation occurred at levels as low as 200 ppb of total aliphatic hydrocarbons while people were living in their homes. All symptoms disappeared promptly after relocation, and no delayed effects have subsequently been noted. Any environmental exposure to benzene, of course, may involve some potential increase in long-term risk of leukemia. By simple extrapolation from recent risk estimates developed by the U.S. Environmental Protection Agency (2), one may roughly predict an eventual excess lifetime occurrence of about 0.001 leukemia case in this particular exposure setting.

#### References

1. McDermott HJ, Killiany SE, Jr: Quest for a gasoline TLV. *Am Ind Hyg Assoc J* 39:110-117, 1978
2. Carcinogen Assessment Group, Environmental Protection Agency: Final Report on Population Risk to Ambient Benzene Exposures, September 12, 1978

### St. Louis Encephalitis — South Florida

Late in August 1979, sentinel chickens from 5 locations in Collier County, Florida, and separate locations in Charlotte and Hendry counties developed antibodies to the St. Louis encephalitis (SLE) virus, indicating recent infection. When these serologic results were confirmed, the public was warned to avoid mosquitoes, and local medical communities were alerted. Hospital surveillance for SLE cases was increased, and ecological studies for SLE were initiated in south Florida. Control activities for *Culex nigripalpus*, the mosquito vector of human SLE in Florida, were also intensified.

## Encephalitis — Continued

In mid-September the Florida state laboratories confirmed the first human case of SLE and made the first isolation of SLE virus from mosquitoes in Florida since 1977. The case occurred in a 65-year-old woman from Palm Beach County who developed acute encephalitis on August 27. She had traveled widely in peninsular Florida in the weeks before the onset of her illness but not in the counties with evidence of SLE activity. She is recovering. The isolation of SLE virus was from mosquitoes collected in Highlands County, located in south-central Florida.

Surveillance and control activities are continuing in south Florida. Further SLE activity through mid-September has been indicated by additional serologic conversions in sentinel chickens from Charlotte, Collier, and Hendry counties. As a result of recent heavy rains in south Florida, *C. nigripalpus* populations are increasing sharply.

*Reported by county health units and mosquito control districts from Charlotte, Collier, Hendry, Highlands, and Palm Beach counties, Florida; E Buff, MS, RA Gunn, MD, State Epidemiologist, HT Janowski, MPH, JA Mulrennan, Jr, PhD, NJ Schneider, PhD, FM Wellings, ScD, Florida State Dept of Health and Rehabilitative Services; Enteric and Neurotropic Viral Diseases Br, Viral Diseases Div, Bur of Epidemiology, CDC.*

**Editorial Note:** In the fall of 1977, an outbreak of SLE occurred in central Florida. A total of 77 confirmed cases, including 8 deaths, were reported from 20 Florida counties. Following the outbreak, a program of integrated surveillance to monitor possible SLE activity in birds, mosquitoes, and humans throughout the state was developed by the Florida Department of Health and Rehabilitative Services. The surveillance program began operation early in the arbovirus season of 1978, but no evidence of recent SLE activity in sentinel chickens, in mosquito collections, or in human patients was found until the activity reported here.

This represents one of the first times that an animal surveillance system has detected epizootic SLE activity before human cases have been recognized.

## Current Trends

### Health Status of Indochinese Refugees: Malaria and Hepatitis B

#### Malaria

To the recommendations on the "Therapy of Laboratory-Confirmed Cases" of falciparum malaria outlined previously (MMWR 28[33]:389-390), the following should be added:

In considering therapy for laboratory-confirmed cases of *Plasmodium falciparum* emanating from Southeast Asia, quinine in combination with trimethoprim and sulfamethoxazole is an effective, curative regimen. However, hemolytic anemia following the administration of trimethoprim-sulfamethoxazole has been noted in some Asian males who have a G-6PD deficiency. Therefore, screening of patients for G-6PD deficiency before therapy is indicated.

In addition to Bactrim,\* the trimethoprim-sulfamethoxazole combination is available as Septra\* in the United States.

\*Use of trade names does not imply endorsement by the PHS or the U.S. Department of Health, Education, and Welfare.

## Health Status of Indochinese Refugees — Continued

## Hepatitis B

Preliminary data from screening of Indochinese refugees entering Canada indicate that about 12% of them are positive for hepatitis B surface antigen (HBsAg) (1). Most such individuals are asymptomatic and carry the antigen chronically. The following summarizes CDC's assessment of the current situation with respect to hepatitis B in Indochinese refugees and provides recommendations for dealing with chronic HBsAg carriers.

Assuming a 0.3% prevalence of antigenemia in the U.S. population, there are about 600,000 chronic hepatitis B carriers in this country. The additional number of carriers expected among the Indochinese refugees would increase the pool of carriers in the United States by approximately 4%. Most refugees are arriving in family units. Many are immune to hepatitis B and pose no threat of transmitting the disease. In general, therefore, any increased risk of transmitting hepatitis B to the U.S. population is expected to be small. This risk can be minimized by proper care and management.

(Continued on page 469)

**TABLE I. Summary — cases of specified notifiable diseases, United States**  
[Cumulative totals include revised and delayed reports through previous weeks.]

DISEASE	39th WEEK ENDING		MEDIAN 1974-1978**	CUMULATIVE, FIRST 39 WEEKS		
	September 29, 1978	September 30, 1978*		September 29, 1978	September 30, 1978*	MEDIAN 1974-1978**
Aseptic meningitis	333	313	166	5,363	4,431	2,748
Brucellosis	5	2	5	119	132	173
Chickenpox	349	332	364	172,002	124,827	124,827
Diphtheria	—	1	1	63	61	126
Encephalitis: Primary (arthropod-borne & unsp.)	34	48	48	690	896	896
Post-infectious	1	3	3	172	179	201
Hepatitis, Viral: Type B	281	301	301	10,421	11,250	11,250
Type A	617	610	704	21,817	21,588	25,545
Type unspecified	262	176	174	7,884	6,230	6,218
Malaria	10	14	10	519	554	350
Measles (rubeola)	75	98	98	12,269	24,117	24,117
Meningococcal infections: Total	29	26	26	1,995	1,876	1,214
Civilian	29	26	26	1,985	1,853	1,197
Military	—	—	—	10	23	23
Mumps	77	132	197	11,365	13,657	33,031
Pertussis	21	47	40	1,028	1,599	1,252
Rubella (German measles)	49	85	85	10,767	17,005	14,962
Tetanus	—	2	1	51	62	62
Tuberculosis	615	613	613	21,099	21,931	22,951
Tularemia	1	3	2	155	94	106
Typhoid fever	17	11	11	367	385	307
Typhus fever, tick-borne (Rky. Mt. spotted)	21	45	23	906	942	779
Veneral diseases:						
Gonorrhea: Civilian	22,027	21,819	21,244	744,000	748,610	748,610
Military	497	416	508	20,580	19,360	20,500
Syphilis, primary & secondary: Civilian	650	537	484	18,305	15,851	15,851
Military	5	10	10	233	226	234
Rabies in animals	111	60	66	3,766	2,386	2,264

**TABLE II. Notifiable diseases of low frequency, United States**

	CUM. 1978		CUM. 1978
Anthrax	—	Poliomyelitis: Total	23
Botulism (NYC 1)	19	Paralytic	20
Cholera	1	Poliomyelitis (Oregon 2)	78
Congenital rubella syndrome (Mich. 1)	37	Rabies in man	2
Leprosy (Calif. 13, Hawaii 2)	132	Trichinosis (N.J. 1, Va. 3)	122
Leptospirosis (Fla. 1, La. 1)	35	Typhus fever, flea-borne (endemic, murina) (La. 1)	48
Plague †	9		

\* 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 report will be reflected in next week's cumulative total: Plague: Colo. +1.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending September 29, 1979, and September 30, 1978 (39th week)

REPORTING AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKEN-POX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS (VIRAL), BY TYPE			MALARIA	
						Primary	Post-infectious	B	A	Unspecified			
											1978		
UNITED STATES	333	5	349	-	63	34	48	1	281	617	262	10	519
NEW ENGLAND	41	2	33	-	-	1	-	-	9	10	5	-	33
Maine	-	-	6	-	-	-	-	-	-	1	-	-	3
N.H. †	8	-	1	-	-	-	-	-	1	1	-	-	-
Vt.	-	-	-	-	-	-	-	-	-	-	-	-	-
Mass.	10	1	11	-	-	-	-	-	2	3	5	-	9
R.I.	3	-	5	-	-	-	-	-	3	4	-	-	9
Conn.†	20	1	10	-	-	1	-	-	3	1	-	-	12
MID. ATLANTIC	53	-	19	-	-	11	8	-	47	37	24	1	72
Upstate N.Y. †	11	-	7	-	-	4	4	-	9	7	9	-	13
N.Y. City	9	-	9	-	-	-	4	-	7	7	7	1	33
N.J. †	28	-	NN	-	-	3	-	-	31	23	8	-	12
Pa. †	5	-	3	-	-	4	-	-	NA	NA	NA	-	14
E.N. CENTRAL	62	-	112	-	2	5	24	-	41	104	17	1	39
Ohio †	2	-	16	-	-	-	10	-	20	49	-	-	7
Ind. †	2	-	24	-	1	2	1	-	5	15	8	-	1
Ill.	5	-	12	-	-	-	4	-	3	21	6	-	18
Mich.	27	-	8	-	-	3	1	-	10	17	3	1	11
Wis. †	28	-	52	-	1	-	8	-	3	2	-	-	2
W.N. CENTRAL	15	-	26	-	1	-	2	-	10	23	10	-	17
Minn.	-	-	-	-	-	-	2	-	4	4	1	-	6
Iowa	7	-	14	-	-	-	-	-	2	1	5	-	2
Mo.	1	-	-	-	1	-	-	-	3	10	4	-	3
N. Dak.	1	-	-	-	-	-	-	-	-	-	-	-	1
S. Dak.	-	-	1	-	-	-	-	-	1	7	-	-	1
Nebr.	-	-	-	-	-	-	-	-	-	-	-	-	2
Kans.	6	-	11	-	-	-	-	-	-	1	-	-	2
S. ATLANTIC	37	-	29	-	1	5	6	-	49	59	24	-	62
Del.	-	-	2	-	-	-	1	-	1	1	-	-	1
Md.	-	-	-	-	-	-	4	-	14	6	5	-	10
D.C.	-	-	-	-	-	-	-	-	-	-	-	-	6
Va. †	28	-	4	-	1	-	1	-	5	2	0	-	21
W. Va.	3	-	8	-	-	3	-	-	4	4	1	-	2
N.C. †	4	-	NN	-	-	1	-	-	5	6	1	-	5
S.C.	-	-	1	-	-	-	-	-	1	8	-	-	1
Ga.	-	-	-	-	-	1	-	-	7	4	-	-	2
Fla.	2	-	14	-	-	-	-	-	13	28	9	-	14
E.S. CENTRAL	14	1	45	-	-	4	1	-	19	22	11	-	9
Ky.	1	-	42	-	-	-	-	-	1	-	-	-	-
Tenn.	8	-	NN	-	-	-	-	-	11	7	1	-	-
Ala.	3	-	1	-	-	1	-	-	2	2	10	-	3
Miss.	2	1	2	-	-	3	1	-	5	13	-	-	6
W.S. CENTRAL	18	2	27	-	-	2	5	1	30	111	75	1	30
Ark.	1	-	-	-	-	-	-	1	2	1	6	-	-
La.	1	-	NN	-	-	-	1	-	11	23	11	-	3
Okla.	9	-	-	-	-	-	-	-	11	18	8	1	5
Tex.	7	2	27	-	-	2	4	-	6	69	50	-	22
MOUNTAIN	15	-	15	-	1	1	-	-	9	85	50	-	14
Mont.	-	-	13	-	-	1	-	-	-	4	-	-	2
Idaho	1	-	-	-	-	-	-	-	2	3	-	-	-
Wyo. †	-	-	-	-	-	-	-	-	-	-	-	-	1
Colo.	11	-	2	-	-	-	-	-	1	10	2	-	5
N. Mex. †	-	-	-	-	-	-	-	-	1	9	-	-	4
Ariz.	-	-	NN	-	1	-	-	-	1	47	33	-	1
Utah	1	-	-	-	-	-	-	-	2	5	9	-	-
Nev.	2	-	-	-	-	-	-	-	2	7	6	-	1
PACIFIC	78	-	43	-	58	5	2	-	67	166	46	7	243
Wash. †	5	-	41	-	56	-	1	-	2	17	6	-	10
Oreg.	9	-	-	-	-	-	-	-	2	12	3	-	10
Calif. †	57	-	-	-	2	4	1	-	62	135	37	7	221
Alaska	3	-	2	-	-	1	-	-	-	-	-	-	-
Hawaii	4	-	-	-	-	-	-	-	1	2	-	-	2
Guam †	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	-
P.R.	6	-	7	-	-	-	-	-	3	4	-	-	1
V.I. †	-	-	-	-	-	-	-	-	-	-	-	-	-
Pac. Trust Terr.	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	-

NN: Not notifiable. NA: Not available.  
 \*Delayed reports received for 1978 are not shown below but are used to update last year's weekly and cumulative totals.  
 †The following delayed reports will be reflected in next week's cumulative totals: Asep. meng.: N.H. +9, Conn. -1, Ups. NY -1, Ohio +30, Ind. +12, N. Mex. +1, Chickenpox: Ups. N.Y. -4, Ind. +1, Calif. +4, Guam +1; Enceph.: Ohio +25, Ind. +1, Wis. +5, Wash. +1; Hep. B: Conn. -1, Ups. N.Y. -1, N.J. -1, Pa. +12, N.C. -1; Hep. A: Ups. N.Y. +3, N.J. -2, Pa. +16, Va. +1, Wyo. -1; Hep. unsp.: Ups. N.Y. -5, N.J. -1, Pa. +5, V.I. +2; Malaria: Ups. N.Y. -1.

TABLE III (Cont'd). Cases of specified notifiable diseases, United States, weeks ending September 29, 1979, and September 30, 1978 (39th week)

REPORTING AREA	MEASLES (RUBEOLA)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1978	CUM. 1978	CUM. 1978*	1978	CUM. 1978	CUM. 1978*	1978	CUM. 1978	1978	1978	CUM. 1978	CUM. 1978
UNITED STATES	75	12,269	24,117	29	1,995	1,876	77	11,365	21	49	10,767	51
NEW ENGLAND	-	287	1,964	4	103	101	5	413	2	1	1,413	4
Maine	-	17	1,314	1	6	7	1	143	-	1	61	-
N.H.†	-	32	47	-	9	8	-	5	-	-	123	-
Vt.	-	119	27	-	6	2	-	9	-	-	397	-
Mass.	-	13	241	1	34	43	1	37	2	-	483	3
R.I.	-	102	8	-	7	15	2	38	-	-	93	-
Conn.	-	4	327	2	41	26	1	181	-	-	256	1
MID. ATLANTIC	8	1,530	2,177	7	308	296	11	1,105	-	5	1,904	9
Upstate N.Y.†	1	662	1,393	-	101	94	1	158	-	3	1,057	3
N.Y. City	7	766	354	2	77	69	2	121	-	1	260	4
N.J.	-	57	74	1	71	60	6	540	-	1	323	1
Pa.†	-	45	356	4	59	73	2	286	-	-	264	1
E.N. CENTRAL	20	3,179	10,889	3	199	250	25	4,920	6	17	2,508	3
Ohio†	-	265	479	1	72	66	7	1,774	-	3	138	2
Ind.†	-	206	196	-	41	42	5	280	-	3	730	-
Ill.	4	1,421	1,103	-	14	80	3	872	3	3	183	-
Mich.	-	825	7,641	2	56	51	4	889	3	4	1,198	1
Wis.	16	462	1,470	-	16	11	6	1,105	-	4	259	-
W.N. CENTRAL	3	1,736	391	2	59	67	4	661	2	1	462	2
Minn.	1	1,217	36	-	11	16	1	12	-	1	41	-
Iowa	-	16	57	1	10	10	2	233	-	-	52	-
Mo.	-	413	10	-	29	24	-	194	1	-	60	1
N. Dak.	1	21	193	-	1	3	-	2	-	-	8	1
S. Dak.	-	2	-	-	2	3	-	7	-	-	5	-
Nebr.	-	-	5	-	-	-	-	7	-	-	202	-
Kans.	1	67	90	1	6	11	1	206	1	-	94	-
S. ATLANTIC	17	1,851	5,101	5	490	446	3	576	6	2	1,223	8
Del.	-	1	7	-	3	2	-	40	-	-	5	-
Md.	1	16	52	-	42	30	1	158	-	-	28	-
D.C.	-	-	48	-	2	1	-	2	-	-	1	-
Va.	3	273	2,827	1	71	54	-	85	1	1	202	1
W. Va.	1	55	1,048	-	8	12	-	98	-	-	106	-
N.C.	-	112	120	-	76	89	-	72	1	-	528	3
S.C.†	-	152	198	-	59	29	-	3	1	-	62	-
Ga.	9	466	31	1	71	48	-	7	3	-	11	-
Fla.	3	776	770	3	158	181	2	111	-	1	280	4
E.S. CENTRAL	1	205	1,414	1	150	147	7	1,345	1	1	300	8
Ky.	-	37	119	-	29	28	6	1,108	-	-	68	1
Tenn.	1	60	950	-	44	38	1	99	1	1	97	-
Ala.	-	84	101	-	36	46	-	23	-	-	44	5
Miss.	-	24	244	1	41	35	-	115	-	-	91	2
W.S. CENTRAL	14	916	1,070	2	316	274	2	1,348	2	3	239	15
Ark.	-	9	16	-	27	21	1	481	-	-	6	-
La.†	-	247	343	1	117	112	-	36	1	2	31	2
Okl.	-	22	13	1	28	16	-	-	-	-	22	-
Tex.	14	638	698	-	144	125	1	831	1	1	180	9
MOUNTAIN	5	326	252	2	80	42	-	270	-	10	524	-
Mont.	-	57	106	-	8	4	-	10	-	-	69	-
Idaho†	-	21	1	-	7	4	-	9	-	2	201	-
Wyo.	-	36	-	-	1	-	-	-	-	-	-	-
Colo.	2	68	31	-	5	3	-	77	-	-	66	-
N. Mex.	-	39	-	-	5	7	-	12	-	-	11	-
Ariz.	3	76	51	2	35	15	-	54	-	7	139	-
Utah	-	18	44	-	8	5	-	94	-	1	36	-
Nev.	-	11	19	-	11	4	-	14	-	-	2	-
PACIFIC	7	2,239	859	3	290	253	20	727	2	9	2,194	2
Wash.	1	1,129	177	1	47	44	4	193	-	-	181	-
Oreg.	-	61	146	-	23	28	7	87	-	-	101	-
Calif.	6	966	528	2	204	172	9	339	1	9	1,886	2
Alaska	-	17	1	-	6	6	-	9	1	-	3	-
Hawaii	-	66	7	-	10	3	-	99	-	-	23	-
Guam†	NA	7	25	-	1	1	NA	11	NA	NA	4	-
P.R.	2	344	252	-	5	7	2	544	2	2	36	9
V.I.†	-	4	6	-	3	1	-	15	-	-	-	-
Pac. Trust Terr.	NA	8	605	-	1	2	NA	32	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: Ups. N.Y. -65, Ohio +1, Ind. -1, S.C. -1, La. +3, Idaho -3, Guam +3; Men. inf.: Ups. N.Y. +3, Pa. -2; Mumps: V.I. +5; Rubella: N.H. -1, Ups. N.Y. +2, La. -3, Idaho +3, Tetanus: Ups. N.Y. -1.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending September 29, 1979, and September 30, 1978 (39th week)

REPORTING AREA	TUBERCULOSIS		TULA-REMIA	TYPHOID FEVER		TYPHUS FEVER (Tick-borne) (RMSF)		VENEREAL DISEASES (Civilian)				RABIES (In Animals)		
								GONORRHEA		SYPHILIS (Pri. & Sec.)				
	1978	CUM. 1978	CUM. 1978	1978	CUM. 1978	1978	CUM. 1978	1978	CUM. 1978	CUM. 1978*	1978	CUM. 1978	CUM. 1978*	CUM. 1978
UNITED STATES	615	21,099	155	17	367	21	906	22,027	744,000	748,610	650	18,305	15,851	3,766
NEW ENGLAND	23	596	3	-	16	-	8	540	18,441	19,540	9	362	444	40
Maine	3	43	-	-	1	-	-	17	1,279	1,535	-	10	7	24
N.H.	-	13	-	-	-	-	-	16	682	894	-	18	5	3
Vt.	1	25	-	-	-	-	-	8	438	476	-	1	3	-
Mass.	7	315	3	-	9	-	4	272	7,320	8,549	5	202	273	10
R.I.	-	51	-	-	2	-	-	41	1,502	1,427	1	13	19	2
Conn.	12	149	-	-	4	-	4	186	7,220	6,659	3	118	137	1
MID. ATLANTIC	113	3,300	1	6	63	2	38	2,073	81,446	80,316	76	2,756	2,054	65
Upstate N.Y.†	13	612	1	2	12	-	22	403	13,988	13,349	10	208	151	46
N.Y. City	63	1,207	-	1	28	-	1	717	31,964	30,780	46	1,850	1,420	-
N.J.	8	610	-	2	15	-	5	294	14,008	14,956	6	365	250	5
Pa.	29	871	-	1	8	2	10	659	21,486	21,231	14	333	233	14
E.N. CENTRAL	72	3,108	-	1	26	-	57	4,383	116,282	114,149	39	2,379	1,773	333
Ohio†	10	556	-	-	3	-	20	1,295	31,939	29,641	-	457	320	30
Ind.	13	397	-	-	-	-	2	395	10,117	11,850	5	174	118	63
Ill.	22	1,234	-	-	7	-	31	1,591	36,843	35,688	30	1,337	1,127	153
Mich.†	23	782	-	1	12	-	3	753	27,239	26,706	4	363	158	12
Wis.†	4	139	-	-	4	-	1	349	10,144	10,264	-	68	50	75
W.N. CENTRAL	23	719	23	-	15	1	46	1,072	36,791	37,822	6	240	331	734
Minn.	3	115	-	-	3	-	2	169	6,100	6,436	2	64	133	135
Iowa	2	58	-	-	4	-	13	96	4,345	4,145	-	28	29	142
Mo.	9	381	20	-	6	-	19	366	15,900	16,739	3	111	102	222
N. Dak.	1	15	-	-	-	-	-	10	604	695	-	2	3	56
S. Dak.	1	42	2	-	-	-	-	32	1,257	1,307	-	2	2	78
Nebr.	4	22	1	-	1	1	4	70	2,580	2,731	1	4	11	-
Kans.	3	86	-	-	1	-	8	329	6,025	5,789	-	29	51	101
S. ATLANTIC	145	4,767	8	3	38	15	523	4,745	178,971	183,563	121	4,303	4,188	546
Dal.	1	38	-	-	-	-	3	84	2,989	2,570	-	21	8	-
Md.	19	602	-	-	7	-	60	558	21,925	23,468	7	284	325	37
D.C.	1	220	2	-	1	-	2	299	11,870	12,240	10	337	312	-
Va.	23	563	1	-	4	4	86	436	17,304	17,619	4	364	360	16
W. Va.	6	185	-	1	4	-	9	53	2,449	2,543	2	43	15	-
N.C.	21	752	-	1	2	9	208	707	25,870	26,133	11	349	434	14
S.C.	15	364	1	-	3	-	71	465	16,812	18,001	9	223	223	156
Ge.	11	747	4	-	2	2	77	1,019	34,143	35,539	32	1,205	1,047	277
Fla.†	48	1,296	-	1	15	-	7	1,124	45,609	45,450	46	1,477	1,464	46
E.S. CENTRAL	45	1,923	14	-	18	-	124	1,738	63,554	64,031	37	1,202	832	259
Ky.†	17	504	2	-	5	-	19	179	8,379	8,377	5	132	107	105
Tenn.	6	548	12	-	3	-	72	678	22,808	23,824	20	516	284	90
Ala.	14	455	-	-	8	-	17	552	19,068	18,081	-	215	138	63
Miss.	8	416	-	-	2	-	16	329	13,299	13,749	12	339	303	1
W.S. CENTRAL	51	2,542	65	4	61	3	89	2,707	95,873	101,492	155	3,377	2,563	1,425
Ark.	7	222	42	-	5	1	20	146	7,466	7,251	3	109	56	274
La.	1	514	4	1	5	-	1	566	17,077	16,481	78	865	546	23
Okla.	8	274	13	-	-	2	53	330	9,422	9,584	1	70	76	220
Tex.	35	1,532	6	3	51	-	15	1,665	61,908	68,176	73	2,333	1,885	908
MOUNTAIN	16	634	36	1	24	-	16	833	29,910	28,528	34	388	315	105
Mont.	-	29	8	-	-	-	5	38	1,474	1,614	-	8	7	8
Idaho	-	10	1	-	1	-	2	41	1,355	1,165	-	21	12	7
Wyo.†	-	6	-	-	1	-	-	28	834	677	3	8	8	-
Colo.†	-	89	12	1	13	-	4	254	7,918	7,837	3	74	91	24
N. Mex.†	2	112	4	-	4	-	1	53	3,663	4,029	3	81	73	36
Ariz.	14	316	-	-	3	-	-	211	8,408	7,476	20	114	81	23
Utah	-	25	9	-	-	-	1	42	1,528	1,547	-	3	11	7
Nev.	-	47	2	-	2	-	3	166	4,730	4,133	5	79	32	-
PACIFIC	127	3,510	5	2	106	-	5	3,936	122,732	119,169	173	3,298	3,351	259
Wash.	3	195	3	-	5	-	-	281	10,599	9,689	NA	153	176	-
Oreg.	-	140	-	-	1	-	-	159	7,788	8,282	9	138	116	11
Calif.	116	2,868	2	2	91	-	5	3,373	98,229	95,322	164	2,915	3,017	246
Alaska	-	59	-	-	2	-	-	71	3,802	3,732	-	21	9	2
Hawaii	8	248	-	-	7	-	-	52	2,314	2,144	-	71	33	-
Guam†	NA	47	-	NA	-	NA	-	NA	73	93	NA	-	-	-
P.R.	4	228	-	-	4	-	-	102	1,630	1,666	31	421	368	16
V.I.	1	4	-	-	1	-	-	2	125	148	1	7	14	-
Pac. Trust Terr.	NA	25	-	NA	-	NA	-	NA	312	379	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: Ups. N.Y. -14, Ohio -5, Mich. -1, Ky. -1, Guam +2; GC: Ups. N.Y. -141 civ., Wis. +501 civ., Fla. +1109 civ. +20 mil., Wyo. +32 civ. +1 mil., Guam +5 mil.; Syphilis: Ups. N.Y. -1 civ., Fla. +46 civ. +1 mil., N.Mex. -13 civ.; An. rabies: Colo. +22.

TABLE IV. Deaths in 121 U.S. cities,\* week ending  
September 29, 1979 (39th week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL	REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL
	ALL AGES	>85	45-64	25-44	<1			ALL AGES	>85	45-64	25-44	<1	
<b>NEW ENGLAND</b>	644	413	148	37	23	30	<b>S. ATLANTIC</b>	1,115	625	314	74	59	42
Boston, Mass.	183	101	45	17	9	10	Atlanta, Ga.	120	65	30	6	12	1
Bridgeport, Conn.	41	29	8	4	—	—	Baltimore, Md.	162	94	42	13	6	8
Cambridge, Mass.	30	22	6	2	—	—	Charlotte, N.C.	55	33	10	6	5	5
Fall River, Mass.	22	19	3	—	—	2	Jacksonville, Fla.	99	62	29	4	3	3
Hartford, Conn.	63	37	19	4	1	2	Miami, Fla.	82	34	26	7	8	1
Lowell, Mass.	17	12	5	—	—	2	Norfolk, Va.	74	41	22	2	8	4
Lynn, Mass.	20	19	—	1	—	—	Richmond, Va.	57	28	22	3	3	2
New Bedford, Mass.	17	8	9	—	—	—	Savannah, Ga.	51	27	15	3	4	2
New Haven, Conn.	45	29	9	3	1	1	St. Petersburg, Fla.	79	64	11	2	—	5
Providence, R.I.	81	51	16	2	5	3	Tampa, Fla.	58	41	14	1	1	7
Somerville, Mass.	7	6	1	—	—	—	Washington, D.C.	225	113	80	19	6	—
Springfield, Mass.	41	29	10	2	—	4	Wilmington, Del.	53	23	13	8	3	—
Waterbury, Conn.	35	22	8	1	4	1							
Worcester, Mass.	42	29	9	1	3	3							
							<b>E.S. CENTRAL</b>	696	370	201	50	55	20
<b>MID. ATLANTIC</b>	2,240	1,469	519	149	56	112	Birmingham, Ala.	110	63	28	8	6	1
Albany, N.Y.	41	25	9	3	3	1	Chattanooga, Tenn.	62	29	19	6	6	2
Allentown, Pa.	17	14	3	—	—	—	Knoxville, Tenn.	34	25	8	1	—	9
Buffalo, N.Y.	72	48	16	6	—	4	Louisville, Ky.	121	66	35	10	6	2
Camden, N.J.	43	23	16	1	2	3	Memphis, Tenn.	204	100	59	11	30	2
Elizabeth, N.J.	20	15	4	1	—	—	Mobile, Ala.	26	14	8	4	—	2
Erie, Pa.†	31	20	9	2	—	—	Montgomery, Ala.	36	19	13	1	3	4
Jersey City, N.J.	51	34	12	5	—	—	Nashville, Tenn.	103	54	31	9	4	—
Newark, N.J.	57	27	15	5	8	6							
N.Y. City, N.Y.††	1,131	749	249	85	24	49	<b>W.S. CENTRAL</b>	1,152	658	281	95	47	31
Paterson, N.J.	32	22	8	1	—	4	Austin, Tex.	42	24	12	3	1	—
Philadelphia, Pa.†	316	195	78	22	11	20	Baton Rouge, La.	23	9	8	3	2	—
Pittsburgh, Pa.†	63	40	19	2	1	3	Corpus Christi, Tex.	44	31	6	3	—	2
Reading, Pa.	27	22	5	—	—	1	Dallas, Tex.	179	106	42	13	10	4
Rochester, N.Y.	114	80	25	5	3	15	El Paso, Tex.	66	34	14	7	2	2
Schenectady, N.Y.	29	26	3	—	—	—	Fort Worth, Tex.	67	47	15	3	1	3
Scranton, Pa.†	37	27	8	1	—	1	Houston, Tex.	183	94	44	21	9	2
Syracuse, N.Y.	84	47	26	6	3	—	Little Rock, Ark.	59	32	17	4	3	—
Trenton, N.J.	38	26	7	3	1	1	New Orleans, La.	180	92	60	11	6	5
Utica, N.Y.	20	15	4	1	—	2	San Antonio, Tex.	148	83	34	16	5	7
Yonkers, N.Y.	17	14	3	—	—	1	Shreveport, La.	83	56	15	7	4	6
							Tulsa, Okla.	78	50	14	4	4	—
<b>E.N. CENTRAL</b>	2,249	1,356	560	146	93	69	<b>MOUNTAIN</b>	577	332	136	38	37	16
Akron, Ohio	61	33	16	5	3	—	Albuquerque, N. Mex.	64	26	18	10	4	6
Canton, Ohio	32	21	8	2	—	3	Colo. Springs, Colo.	37	22	10	1	3	2
Chicago, Ill.	496	278	137	39	18	8	Denver, Colo.	129	71	34	9	12	5
Cincinnati, Ohio	171	112	39	9	5	6	Las Vegas, Nev.	57	31	17	5	1	2
Cleveland, Ohio	185	88	60	17	12	2	Ogden, Utah	9	7	2	—	—	—
Columbus, Ohio	136	74	39	9	5	2	Phoenix, Ariz.	135	91	20	4	12	1
Dayton, Ohio	110	58	35	7	4	2	Pueblo, Colo.	23	15	5	—	—	—
Detroit, Mich.	249	161	57	14	8	8	Salt Lake City, Utah	54	24	18	5	4	—
Evansville, Ind.	40	27	7	1	4	—	Tucson, Ariz.	69	45	12	4	1	—
Fort Wayne, Ind.	61	35	14	4	4	5							
Gary, Ind.	12	6	3	2	—	—							
Grand Rapids, Mich.	47	32	7	3	4	4							
Indianapolis, Ind.	140	86	36	8	5	4	<b>PACIFIC</b>	1,655	1,032	394	117	47	44
Madison, Wis.	41	23	8	4	2	3	Berkeley, Calif.	23	18	4	1	—	3
Milwaukee, Wis.	134	91	30	3	6	6	Fresno, Calif.	65	48	7	4	2	—
Peoria, Ill.	99	69	14	5	7	6	Glendale, Calif.	26	21	5	—	—	4
Rockford, Ill.	46	36	6	2	1	5	Honolulu, Hawaii	53	30	12	6	1	1
South Bend, Ind.	46	36	9	1	—	4	Long Beach, Calif.	88	47	25	12	1	12
Toledo, Ohio	71	43	18	4	4	1	Los Angeles, Calif.	505	316	116	39	11	1
Youngstown, Ohio	72	47	17	7	1	—	Oakland, Calif.	55	39	10	—	3	1
							Oakland, Calif.	28	19	7	2	—	1
							Portland, Ore.	131	79	39	6	4	4
<b>W.N. CENTRAL</b>	684	448	139	35	33	39	Sacramento, Calif.	72	47	15	6	3	—
Des Moines, Iowa	52	41	18	2	—	4	San Diego, Calif.	154	90	41	13	5	7
Duluth, Minn.	35	22	11	—	1	7	San Francisco, Calif.	141	84	41	8	4	1
Kansas City, Kans.	50	30	13	2	1	3	San Jose, Calif.	116	64	35	7	5	2
Kansas City, Mo.	93	60	20	5	5	2	Seattle, Wash.	115	75	22	8	1	4
Lincoln, Nebr.	30	21	4	—	3	5	Spokane, Wash.	40	25	7	2	5	2
Minneapolis, Minn.	72	50	10	4	4	3	Tacoma, Wash.	43	30	8	3	2	—
Omaha, Nebr.	92	66	18	4	1	1							
St. Louis, Mo.	161	96	35	12	14	9							
St. Paul, Minn.	68	43	13	2	4	3	<b>TOTAL</b>	11,012	6,703	2,692	741	450	403
Wichita, Kans.	31	19	7	4	—	2							

\*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.

††Data not available. Figures are estimates based on average percent of regional totals.



*Health Status of Indochinese Refugees — Continued***Transmission of Hepatitis B**

Hepatitis B virus (HBV) is found in blood and serous body fluids. Transmission is also possible via saliva and semen, but the relative efficiency of such transmission has not yet been determined. Most transmission is thought to occur—in situations of close or intimate contact—when infective blood or serous exudate enters the body of a susceptible person through a break in the skin or penetrates through a mucous membrane or the eye (2). Body fluids containing HBsAg can contaminate environmental surfaces, but there is no evidence that the virus can withstand routine cleaning, disinfection, or sterilization.

Thus, transmission is not likely to occur to school-age contacts of carrier children under normal hygienic circumstances or to social or work contacts of adult carriers. Neither is transmission likely to occur from carriers employed as food handlers or as hospital personnel, or from use of swimming pools, toilet facilities, drinking fountains, restaurants, or other public facilities.

However, there is greater likelihood of transmission to neonates (during childbirth), to certain health-facility personnel, and to host families sponsoring orphans or refugee families with young children. While perinatal transmission and resultant chronic carriage is unusual in European and American populations, it is much more frequent in Asian populations studied (3). The neonate may acquire infection during delivery and thus would not be expected to excrete virus until several weeks later. Dental personnel and oral surgeons are thought to be at some risk because they frequently sustain trauma to their hands while in contact with potentially infectious blood or saliva, which may also come in contact with their eyes and mucous membranes. There are few data concerning prior experience with adopted Indochinese refugees, but those that are available suggest there is some increased risk of transmission to the adopting families (4,5). It is not clear how this risk applies to families who are hosting carrier children for a short time.

**Recommendations**

**Determination of HBsAg Status:** Testing for HBsAg and entering the results into the refugee's medical record should be part of the health assessment or medical care of each Indochinese refugee after arrival in the United States (6). Among the refugees, priority groups for determination of HBsAg status, in descending order, would appear to be 1) women of childbearing age, especially pregnant women, 2) orphans, 3) preschool children, and 4) other refugees. HBsAg positivity should not impede or preclude travel or placement of any individual. Nor should HBsAg testing be considered a substitute for reasonable, appropriate hygienic practices; refugees, host families, and medical and dental personnel should be encouraged to be mindful of both.

**General:** Thorough washing with soap or detergent and water is the most important measure that can be taken to eliminate the virus from contaminated environmental surfaces and from hands, after contact with a carrier. Spills of blood or other infectious material should be contained by cleaning with soap and water to remove any visible traces of the spilled material, followed by application of an appropriate disinfectant solution (7).

Carriers should not donate blood, and they should not share personal toiletries. Care should be taken to minimize breaks in the skin of carriers and their contacts. Items soiled by carriers' blood should be disposed of or washed promptly. Thorough dishwashing with hot soapy water or an electric dishwasher is adequate to decontaminate dishes. Routine laundering of clothes and linens is sufficient.

*Health Status of Indochinese Refugees — Continued*

Certain persons and groups, particularly those involved in health care, are at greater risk than the general population of acquiring hepatitis B; this is because of occupational and environmental exposures (8). In the hospital setting the proper handling of blood and other body fluids of HBsAg carriers by hospital personnel is clearly indicated. To prevent possible exposure, dental personnel may want to consider wearing gloves, face masks, and eyeglasses when treating HBsAg carriers.

Prevention of perinatal transmission would be facilitated by prior knowledge of the HBsAg status of the mother. It is thus reasonable to determine the antigen status of pregnant refugee women. After being thoroughly bathed, the neonate of a carrier mother need not be isolated. The neonate of a carrier mother should receive hepatitis B immune globulin (HBIG)—or immune serum globulin (ISG) if HBIG is not available—as soon as possible after birth, and certainly within 48 hours. Various dosages have been recommended (9,10).

It should be noted that the foregoing general recommendations apply not only in the management of HBsAg-positive Indochinese carriers, but also in the management of all HBsAg carriers and in the prevention of transmission of hepatitis B.

**Hepatitis B Immune Globulin (HBIG) and Immune Serum Globulin (ISG):** Immune globulins HBIG and ISB may be effective when used promptly after acute, percutaneous exposures. Recommendations of the Public Health Service Advisory Committee on Immunization Practices regarding immune globulins for protection against viral hepatitis were recently published in the MMWR (9).

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