

MNWR

MORBIDITY AND MORTALITY WEEKLY REPORT

Epidemiologic Notes and Reports

97 Reye Syndrome — United States

105 International Importation of Measles — New Mexico

International Notes

98 Cholera Surveillance — Japan

99 Quarantine Measures

100 Severe Illness in Children — Naples, Italy

Current Trends

106 Viral Hepatitis — United States

Epidemiologic Notes and Reports

Reye Syndrome — United States

MAR 13 1979

Since December 1978, 159 cases of Reye syndrome have been reported to CDC (1-3), including 6 clusters in areas with concurrent widespread influenza A activity. Eighteen deaths have been reported in 98 patients where the outcome is known.

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Utah: Four children from the Salt Lake City area were hospitalized with Reye syndrome in a 2-week period in early December. One Reye syndrome patient had a 4-fold rise in hemagglutination inhibition (HI) antibody titer to influenza A (H1N1), and a second had a single convalescent titer of 1:64; serologic results are pending on 2 patients.

Arizona: Eight patients with Reye syndrome, 5 from the Phoenix area, were hospitalized in a 5-day period in mid-December. In 4 patients evidence of recent influenza A infection was demonstrated by a 4-fold rise in HI titers; in 2 patients single HI titers ≥ 128 were demonstrated. Two deaths occurred, both in 12-year-old females.

Colorado: Sixteen cases of Reye syndrome, including 3 deaths, have been confirmed. Fifteen of these cases occurred during the 6-week period from mid-December through January. Nine had a 4-fold rise in HI antibody titers to influenza A (H1N1). Laboratory results are pending on additional cases.

Michigan: Thirty-two cases have been confirmed since January 27. Most of these cases are from the southeastern section of the state, where influenza activity has been reported. Influenza A (H1N1) has been isolated from the nasopharyngeal swab of a 20-month-old boy with Reye syndrome. There have been 3 deaths.

Ohio: Since the beginning of December, 19 cases have been reported, 14 with onset in February. These 14 cases occurred in a 3-county area in northwestern Ohio that borders the area in Michigan where most of the cases of Reye syndrome have occurred.

Minnesota: Seven cases of Reye syndrome following respiratory prodromes and 1 following chicken pox were reported in a 10-day period in January; 6 were residents of the Twin Cities area, where increased influenza activity was concurrently reported. Two 10-year-old boys died.

Georgia: Since January 1, 14 cases of Reye syndrome have been reported, including a cluster of 6 cases from the northwestern portion of the state and 4 (1 following chicken pox) from 1 county in southern Georgia. Two patients had a 4-fold rise to influenza A (H1N1), and 1 patient had a single convalescent titer of 1:128. Four deaths were reported.

Oklahoma: Nine cases have been reported since mid-January, 6 following influenza-like prodromes and 3 following chicken pox. Seven are from the Tulsa area, where influenza activity was also reported. The ages of these patients ranged from 7 to 15 years; 1 death has been reported in a 12-year-old boy.

Investigations of these clusters are continuing.

Reported by T Fukushima, MD, State Epidemiologist, Utah State Dept of Social Services; A Kelter, MD, State Epidemiologist, W Stromberg, MA, Arizona State Dept of Health Services; T Edell, MD,

Reye Syndrome — Continued

Acting State Epidemiologist, N Halsey, MD, G Meiklejohn, MD, Colorado State Dept of Health; NS Hayner, MD, State Epidemiologist, Michigan State Dept of Public Health; TJ Halpin, MD, State Epidemiologist, F Holtzhauer, BS, Ohio State Dept of Health; A Dean, MD, State Epidemiologist, M Osterholm, MS, J Washburn, BA, Minnesota State Dept of Health; JE McCroan, PhD, State Epidemiologist, D Smith, Georgia Dept of Human Resources; S Fennell, MD, MA Roberts, MPH, Acting State Epidemiologist, Oklahoma State Dept of Health; Bur of State Services, Bur of Laboratories, Enteric and Neurotropic Viral Diseases Br, Viral Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: The clusters which have been reported suggest a temporal and geographic association with influenza A (H1N1) activity. Laboratory data now available from patients in 4 clusters (Arizona, Utah, Colorado, and Georgia) demonstrate evidence of recent infection with influenza A. Continued surveillance and investigation of clusters during this period of influenza A activity are needed to determine the extent of this association.

References

1. MMWR 28:39, 1979
2. MMWR 28:64, 1979
3. MMWR 28:81, 1979

International Notes

Cholera Surveillance — Japan

The Yokohama Quarantine Sanitation Laboratory in Japan regularly undertakes bacteriologic examination of sea water for *Vibrio cholerae*. On March 22, 1978, water samples were collected from 5 sites in the port of Yokohama, an industrial city (population: 2,279,000) 18 miles south of Tokyo. A *Vibrio* organism was found in a sample from the mouth of the Tsurumi River. The organism was confirmed to be *V. cholerae*, biotype El Tor, serotype Inaba.

A survey was conducted to determine whether a carrier or cholera patient was excreting *V. cholerae* somewhere along the river or if the crew from a ship coming from a cholera-infected area was discharging the organism through the ship's toilets. When this initial examination did not lead to the identification of the source of the organism, the search was continued along the river. The source was finally located in the Saginuma area; from there the *Vibrio* organism was apparently carried by the Arima River, a tributary of the Yagami, to eventually reach the Tsurumi River (Figure 1).

The Arima River collects household and ditch water coming from 2 channels, one from the eastern and the other from the western sections of the Saginuma area. Bacteriological examination of the ditch water from the eastern part was positive for *V. cholerae* organisms.

Sewage affluent was sampled at a number of points in the roadside drainage system that serves houses and residential apartments in the eastern area of Saginuma. Liquid from 400 septic tanks was also examined, and on April 15 the septic tank of a hospital clinic was found to be positive for *V. cholerae*. The tank in question was used for the disposal of artificial kidney dialysate but could also have been contaminated by human excreta. It was found that the liquid in the tank had a temperature of 24 C (75.2 F) and contained as many as 10^6 *V. cholerae* and 10^8 *Escherichia coli* per ml. In the absence of any case or carrier of cholera in the clinic, it is believed that multiplication of *V. cholerae* had occurred within the tank following its seeding with the *Vibrio* organism at some earlier period.

No cholera cases or carriers were found despite an intensive search among travelers coming from cholera-infected areas outside of Japan as well as among local patients suffering from diarrheal disease.

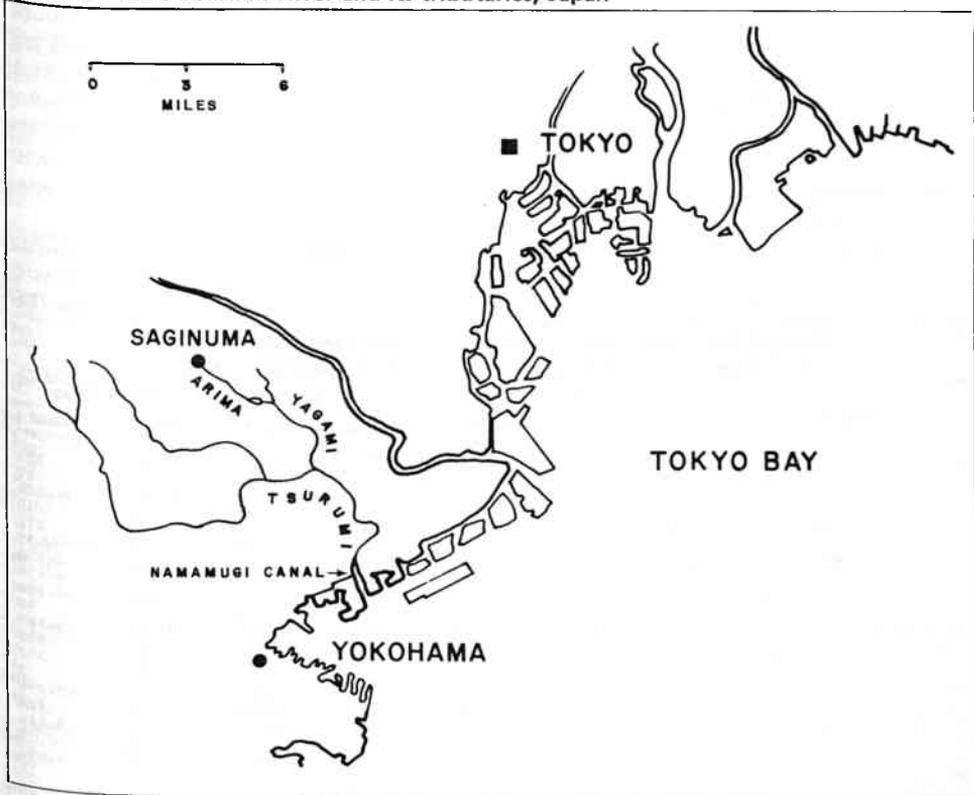
Cholera – Continued

The authorities disinfected the tank with phenol solution, but at the time of reporting *V. cholerae* organisms were still being isolated at the mouth of the Tsurumi River and particularly in the adjacent Namamugi Canal (Figure 1), where the stagnant water is turbid and rich in algae. Disinfection in this area is being carried out by means of chlorination.

This recent report from Japan indicates what an efficient surveillance system can achieve.

Reported by the National Institute of Health, Tokyo, Japan, in the World Health Organization's Weekly Epidemiological Record, December 15, 1978.

FIGURE 1. The Tsurumi River and its tributaries, Japan



Quarantine Measures

The following changes should be made in the *Supplement – Health Information for International Travel*, MMWR, Vol. 27, September 1978:

SAINT KITTS-NEVIS-ANGUILLA

Smallpox – Under code insert >3 mos.

SAINT VINCENT

Smallpox – Delete all information. Insert code III >3 mos. ALSO on page 17 change code to III.

SAUDI ARABIA

Delete: During the period of mass congregation, usually about September to December. *Insert*: During the period of mass congregation from 23 August to 19 November 1979. *Delete*: During the period from 1 December 1978, until amended. *Insert*: During the period from 1 December 1978 to 22 August 1979.

International Notes

Severe Illness in Children — Naples, Italy

From June 1, 1978, through February 6, 1979, 66 children, with a mean age of 13 months, were admitted to the intensive care unit of the Santobono Hospital in Naples, Italy, after the rapid onset of coma or deep stupor of unknown etiology. Santobono has the only modern pediatric intensive care unit in southern Italy, and the unit receives children from throughout the province and, to a lesser extent, the Campania Region.

Epidemiologic investigation by representatives of the Regional Epidemiological Center in Naples and by the Laboratory of Epidemiology and Biostatistics, Higher Institute of Health, Rome, demonstrated that the patients could be divided into 2 groups.

The first group, representing the majority of patients admitted between June 1 and December 6, presented with unexplained encephalopathy. A cluster of 6 who presented in June, July, and August had been vaccinated against diphtheria immediately preceding onset. The vaccine had come from several different manufacturers, however, and the cause of these encephalopathies remains unclear. Approximately 21 other patients with encephalopathy were hospitalized in the autumn. These children had been convalescing from upper respiratory infections, and no relationship to vaccination was found.

The second group consisted of at least 37 cases—including most of those occurring from December through February—in which the clinical course was of a progressive

(Continued on page 105)

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

DISEASE	9th WEEK ENDING		MEDIAN 1974-1978**	CUMULATIVE, FIRST 9 WEEKS		
	March 3, 1979	March 4, 1978*		March 3, 1979	March 4, 1978*	MEDIAN 1974-1978**
Aseptic meningitis	35	35	33	424	347	324
Brucellosis	2	6	3	11	27	27
Chickenpox	7,218	3,950	4,393	50,232	32,359	34,086
Diphtheria	—	6	3	33	18	18
Encephalitis: Primary (arthropod-borne & unspec.)	10	11	13	86	88	110
Post-infectious	6	2	3	24	25	35
Hepatitis, Viral: Type B	264	349	249	2,160	2,566	2,236
Type A	603	612	687	4,911	4,631	6,110
Type unspecified	242	202	161	1,841	1,406	1,406
Malaria	3	8	5	68	76	47
Measles (rubeola)	398	615	792	1,900	3,147	4,367
Meningococcal infections: Total	93	57	40	561	463	310
Civilian	93	57	40	561	460	307
Military	—	—	1	—	3	3
Mumps	462	500	1,491	2,899	3,633	10,796
Pertussis	23	44	23	258	416	224
Rubella (German measles)	261	298	300	1,518	1,559	2,216
Tetanus	1	1	—	7	6	7
Tuberculosis	576	526	628	4,508	4,139	4,691
Tularemia	4	2	2	23	15	15
Typhoid fever	12	14	7	60	78	56
Typhus fever, tick-borne (Rky. Mt. spotted)	—	1	1	18	7	10
Venereal diseases:						
Gonorrhoea: Civilian	17,330	17,059	17,059	161,590	155,443	162,871
Military	639	360	453	4,604	4,057	4,818
Syphilis, primary & secondary: Civilian	498	370	370	4,052	3,413	3,839
Military	8	4	5	52	52	58
Rabies in animals	77	48	48	467	400	384

TABLE II. Notifiable diseases of low frequency, United States

	CUM 1978		CUM 1978
Anthrax	—	Poliomyelitis: Total	2
Botulism †	3	Paralytic †	2
Congenital rubella syndrome †	3	Psittacosis † (Tex. 1, Calif. 1)	18
Leptosy † (La. 1, Hawaii 2)	33	Rabies in man	1
Leptospirosis	10	Trichinosis (La. 9)	17
Plague	1	Typhus fever, flea-borne (endemic, murine)	2

*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.

†Delayed reports: Leptosy: Pac. Tr. Terr. +1 (1979); Botulism: Pa. —1, Colo. +5, Ariz. +2 (1978), Cong. rub. syn.: Wis. +1 (1978), Polio: Va. +1 para. —1 non-para., Colo. +1 non-para. (1978), Psittacosis: Md. +3, Va. —1, Colo. +1 (1978).

TABLE III. Cases of specified notifiable diseases, United States, weeks ending March 3, 1979, and March 4, 1978 (9th week)

REPORTING AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKENPOX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS (VIRAL), BY TYPE			MALARIA	
	1979	1978	1978	1979	CUM. 1978	Primary		Post-infectious	B	A	Unspecified	1979	CUM. 1978
						1979	1978*	1979	1978	1978	1978		
UNITED STATES	35	2	7,218	-	33	10	11	6	264	603	242	3	68
NEW ENGLAND	-	1	1,031	-	-	-	-	-	10	14	10	-	3
Maine †	-	-	147	-	-	-	-	-	1	-	-	-	-
N.H.	-	-	-	-	-	-	-	-	-	1	-	-	-
Vt.	-	-	7	-	-	-	-	-	-	1	-	-	-
Mass. †	-	-	294	-	-	-	-	-	7	1	2	-	-
R.I.	-	-	125	-	-	-	-	-	-	5	8	-	-
Conn. †	-	1	458	-	-	-	-	-	3	2	-	-	3
	-	-	-	-	-	-	-	-	4	5	-	-	-
MID. ATLANTIC	9	-	1,061	-	-	3	4	1	46	56	24	1	7
Maryland	5	-	889	-	-	1	-	-	10	19	6	-	2
N.Y. City	2	-	78	-	-	2	2	-	18	9	7	1	5
N.J. †	1	-	NN	-	-	-	-	-	5	17	7	-	-
Pa.	1	-	94	-	-	-	2	1	13	11	4	-	-
E.N. CENTRAL	3	-	3,031	-	-	1	-	3	45	80	18	1	3
Ohio	-	-	207	-	-	-	-	3	12	8	-	-	1
Ind. †	1	-	456	-	-	-	-	-	4	8	6	-	-
Ill.	-	-	969	-	-	-	-	-	7	9	2	-	-
Mich.	2	-	847	-	-	1	-	-	16	42	10	1	2
Wis.	-	-	552	-	-	-	-	-	6	13	-	-	-
W.N. CENTRAL	-	-	626	-	-	-	-	1	13	41	6	-	4
Minn. †	-	-	-	-	-	-	-	-	6	17	-	-	3
Iowa	-	-	310	-	-	-	-	-	2	1	4	-	-
Mo.	-	-	158	-	-	-	-	-	2	12	1	-	1
N. Dak.	-	-	26	-	-	-	-	-	1	3	-	-	-
S. Dak.	-	-	1	-	-	-	-	1	1	4	-	-	-
Nebr.	-	-	20	-	-	-	-	-	1	4	1	-	-
Kans.	-	-	111	-	-	-	-	-	-	-	-	-	-
S. ATLANTIC	6	-	431	-	-	2	1	-	38	49	24	1	16
Del.	-	-	-	-	-	-	-	-	1	1	-	-	-
Md. †	1	-	45	-	-	-	-	-	-	2	1	-	3
D.C.	-	-	4	-	-	-	-	-	-	-	-	-	4
Va. †	1	-	20	-	-	1	-	-	12	10	7	-	5
W. Va.	-	-	191	-	-	-	-	-	1	5	-	-	1
N.C. †	1	-	NN	-	-	1	1	-	9	13	6	-	-
S.C.	-	-	4	-	-	-	-	-	3	5	4	-	-
Ga.	-	-	-	-	-	-	-	-	6	3	-	-	1
Fla. †	3	-	167	-	-	-	-	-	6	10	6	1	2
E.S. CENTRAL	3	1	305	-	-	-	1	-	13	39	6	-	-
Ky.	1	-	273	-	-	-	-	-	3	6	2	-	-
Tenn.	2	-	NN	-	-	-	-	-	4	15	1	-	-
Ala.	-	1	21	-	-	-	-	-	4	14	3	-	-
Miss.	-	-	11	-	-	-	1	-	2	4	-	-	-
W.S. CENTRAL	2	-	234	-	-	1	4	-	21	83	53	-	5
Ark.	2	-	2	-	-	-	-	-	-	9	5	-	1
La.	-	-	NN	-	-	-	-	-	10	12	7	-	-
Okla.	-	-	-	-	-	-	1	-	1	14	7	-	-
Tex.	-	-	232	-	-	1	3	-	10	48	34	-	4
MOUNTAIN	1	-	170	-	1	-	-	1	13	91	60	-	-
Mont.	1	-	31	-	-	-	-	-	3	8	-	-	-
Idaho	-	-	2	-	-	-	-	-	1	1	2	-	-
Wyo.	-	-	-	-	-	-	-	-	-	-	-	-	-
Colo.	-	-	70	-	-	-	-	1	5	18	5	-	-
N. Mex. †	-	-	-	-	-	-	-	-	-	31	2	-	-
Ariz.	-	-	NN	-	1	-	-	-	3	27	45	-	-
Utah	-	-	64	-	-	-	-	-	-	2	5	-	-
Nev.	-	-	3	-	-	-	-	-	1	4	1	-	-
PACIFIC	11	-	329	-	32	3	1	-	65	150	41	-	30
Wash.	-	-	298	-	31	-	-	-	2	9	2	-	1
Oreg.	-	-	2	-	-	1	-	-	6	22	1	-	2
Calif. †	5	-	-	-	-	2	1	-	56	118	36	-	26
Alaska	-	-	4	-	-	-	-	-	-	-	1	-	-
Hawaii	-	-	25	-	-	-	-	-	1	1	1	-	1
Guam	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
P.R.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
V.I.	-	-	15	-	-	-	-	-	1	2	5	-	-
Pac. Trust Terr. †	-	-	29	-	-	-	-	-	-	-	-	-	-

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.: Mass. -1, Fla. +7; Chickenpox: Ma. +1, Fla. +266, Calif. +219, Pac. Tr. Terr. +3; Hep. B: Conn. -1 N.J. -1, Ind. -1, Va. -1, Fla. +28; Hep. A: Conn. +1, Ind. -1, N.C. -1, Fla. +46, N. Mex. -1; Hep. unsp.: N.J. -4, Ind. -1, Va. -1, Fla. +14, Pac. Tr. Terr. +5; Malaria: Minn. -1.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending March 3, 1979, and March 4, 1978 (9th week)

REPORTING AREA	MEASLES (RUBELLA)			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	398	1,900	3,147	93	561	463	462	2,899	23	261	1,518	7
NEW ENGLAND	5	107	189	4	12	32	22	143	3	15	177	-
Maine †	3	3	95	1	1	3	12	71	1	1	11	-
N.H.	-	2	9	-	1	3	-	2	-	-	14	-
Vt.	-	2	5	-	-	1	-	4	-	-	68	-
Mass.	-	-	45	1	4	10	1	7	-	-	59	-
R.I.	2	100	-	1	1	6	-	6	2	1	4	-
Conn.	-	-	35	1	5	9	9	53	-	6	21	-
MID. ATLANTIC	20	111	270	12	84	60	39	182	3	30	176	1
Upstate N.Y.	3	59	166	3	32	25	7	36	1	11	57	1
N.Y. City	17	45	60	5	24	16	8	28	2	7	18	-
N.J.	-	-	1	3	22	9	18	78	-	-	42	-
Pa.	-	7	43	1	6	10	6	40	-	12	59	-
E.N. CENTRAL	80	392	1,400	13	50	34	190	1,225	2	76	364	1
Ohio	2	4	11	4	16	2	32	399	-	5	16	-
Ind.	6	39	32	2	12	9	-	84	-	5	74	-
Ill.	5	60	253	-	-	4	96	213	-	2	23	-
Mich. †	43	204	1,010	4	16	15	23	188	2	61	214	1
Wis. †	24	85	94	3	6	2	39	341	-	3	37	-
W.N. CENTRAL	42	279	29	3	15	18	69	215	2	7	53	-
Minn.	29	100	3	2	3	3	-	1	-	1	9	-
Iowa	-	1	8	-	3	1	8	62	-	2	4	-
Mo.	11	167	1	-	7	11	49	87	1	2	8	-
N. Dak.	1	2	-	-	-	-	-	1	-	-	4	-
S. Dak.	1	1	-	1	1	-	-	1	-	-	-	-
Nebr.	-	-	1	-	-	-	1	3	1	-	-	-
Kans.	-	8	16	-	1	3	11	60	-	2	28	-
S. ATLANTIC	62	180	667	18	137	136	11	97	1	20	114	1
Del.	4	-	3	-	2	-	-	5	-	-	-	-
Md.	4	5	1	-	9	4	2	13	-	-	-	-
D.C.	-	-	-	-	-	-	-	1	-	-	-	-
Va. †	5	18	423	4	23	16	1	26	-	1	5	-
W. Va.	2	29	143	-	3	4	5	26	-	-	34	-
N.C. †	39	41	25	4	27	33	2	6	1	14	31	1
S.C.	6	15	47	6	23	12	-	1	-	3	4	-
Ga.	-	2	2	1	26	17	-	2	-	1	1	-
Fla. †	6	70	23	3	29	50	1	17	-	1	39	-
E.S. CENTRAL	11	41	237	10	47	35	29	415	-	4	53	2
Ky.	1	8	41	1	11	11	28	357	-	-	16	-
Tenn.	1	7	166	1	13	11	1	38	-	3	20	-
Ala.	4	20	1	6	12	9	-	4	-	-	9	2
Miss.	5	6	29	2	11	4	-	16	-	1	8	-
W.S. CENTRAL	65	234	195	14	98	63	27	310	6	5	40	2
Ark.	-	7	2	3	8	6	-	78	-	-	-	2
La.	19	61	107	7	54	19	2	10	1	1	6	-
Okla.	2	3	5	2	8	5	-	-	-	-	4	-
Tex.	44	163	81	2	28	33	25	222	5	4	30	-
MOUNTAIN	7	60	37	4	32	6	54	120	3	17	85	-
Mont.	-	16	22	-	2	1	-	5	-	3	18	-
Idaho	-	1	1	1	3	1	-	1	-	8	48	-
Wyo.	-	-	-	-	-	-	-	-	-	-	-	-
Colo.	-	4	7	-	1	-	1	39	3	-	9	-
N. Max.	-	9	-	-	2	2	-	-	-	-	-	-
Ariz.	5	11	4	3	21	2	2	8	-	2	6	-
Utah	-	15	1	-	2	-	51	61	-	4	4	-
Nev.	2	4	2	-	1	-	-	6	-	-	-	-
PACIFIC	106	496	123	15	86	79	21	192	3	87	456	-
Wash.	63	259	22	2	9	16	10	82	-	6	41	-
Oreg.	-	3	19	2	6	4	3	16	-	-	19	-
Calif.	40	202	81	10	67	55	5	79	2	81	393	-
Alaska	-	-	-	-	1	3	-	4	1	-	-	-
Hawaii	3	37	1	1	3	1	3	11	-	-	3	-
Guam	NA	-	1	-	-	-	NA	-	NA	NA	-	-
P.R. †	30	53	34	-	-	-	34	156	1	-	8	2
V.I.	-	1	1	-	-	-	-	-	-	-	-	-
Pac. Trust Terr. †	-	2	238	-	1	2	2	6	5	-	-	-

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: Mich. -3, Wis +1, N.C. -1, Fla. +27, Pac. Tr. Terr. +1; Men. Inf. Fla. +2; Mumps: Me. +1, Fla. +8, Pac. Tr. Terr. +3; Pertussis: Va. -1; Rubella: Wis. +5, Va. -1, Fla. +7; Tetanus: P.R. +1.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending March 3, 1979, and March 4, 1978 (9th 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*	
UNITED STATES	576	4,508	23	12	60	-	18	17,330	161,590	155,443	498	4,052	3,413	467
NEW ENGLAND	14	129	1	-	6	-	-	427	4,449	3,869	4	75	107	10
Maine	-	9	-	-	-	-	-	34	297	296	-	1	1	9
N.H.	-	1	-	-	-	-	-	22	131	177	-	2	1	1
Vt.	2	5	-	-	-	-	-	8	72	108	-	-	-	-
Mass.	10	79	1	-	4	-	-	202	1,842	1,752	1	49	75	-
R.I.	-	12	-	-	1	-	-	25	347	217	1	2	3	-
Conn.†	2	23	-	-	1	-	-	136	1,760	1,319	2	21	27	-
MID. ATLANTIC	104	745	-	3	11	-	3	2,430	17,971	17,328	76	638	442	2
Upstate N.Y.	21	170	-	-	3	-	3	601	3,306	2,309	9	48	34	2
N.Y. City	25	278	-	2	4	-	-	893	6,538	7,140	45	431	306	-
N.J.	20	131	-	1	3	-	-	388	3,233	3,275	11	81	53	-
Pa.	38	216	-	-	1	-	-	638	4,894	4,604	11	78	49	-
E.N. CENTRAL	86	631	-	1	5	-	2	2,021	22,434	20,946	78	475	332	30
Ohio†	13	118	-	-	-	-	2	554	6,534	5,711	19	114	54	2
Ind.†	16	99	-	-	-	-	-	157	1,637	2,406	3	25	18	1
Ill.†	36	248	-	1	3	-	-	523	6,118	5,574	36	243	222	17
Mich.	18	142	-	-	2	-	-	590	5,993	5,237	17	72	29	-
Wis.†	3	24	-	-	-	-	-	197	2,152	2,018	3	21	9	10
W.N. CENTRAL	16	158	8	-	1	-	1	926	7,900	7,822	6	54	63	107
Minn.	1	20	-	-	1	-	-	142	1,384	1,583	-	19	14	28
Iowa	-	18	-	-	-	-	-	90	1,028	992	2	6	6	32
Mo.	13	87	7	-	1	-	-	345	3,293	2,884	1	18	27	23
N. Dak.	-	6	-	-	-	-	-	21	127	187	-	-	-	8
S. Dak.	-	6	-	-	-	-	-	23	279	320	-	-	1	8
Nebr.	-	2	1	-	-	-	-	92	508	581	-	-	1	-
Kans.	2	19	-	-	-	-	1	213	1,281	1,275	3	11	14	8
S. ATLANTIC	144	1,018	1	1	4	-	7	4,484	39,367	37,938	95	1,014	914	58
Del.†	-	10	-	-	-	-	-	76	574	728	-	7	3	-
Md.	16	147	-	-	1	-	4	450	4,594	5,266	11	68	64	-
D.C.	4	50	-	-	1	-	-	356	2,389	2,436	5	69	78	-
Va.	21	120	-	1	1	-	-	392	3,759	3,288	16	110	93	-
W. Va.	7	41	-	-	-	-	-	47	576	588	1	18	1	-
N.C.†	14	159	-	-	-	-	2	797	6,336	4,819	5	103	80	-
S.C.	7	33	1	-	-	-	1	296	3,226	3,439	3	55	40	17
Ga.	24	167	-	-	-	-	-	873	7,287	7,277	33	260	216	41
Fla.†	51	291	-	-	1	-	-	1,197	10,626	10,097	21	324	339	-
E.S. CENTRAL	63	434	4	1	4	-	4	1,598	14,561	13,254	20	291	154	17
Ky.	27	90	2	-	2	-	-	244	2,000	1,457	6	30	16	7
Tenn.	18	119	2	1	1	-	1	524	5,089	4,703	4	132	51	5
Ala.†	11	96	-	-	1	-	3	495	4,356	4,217	4	53	23	5
Miss.	7	129	-	-	-	-	-	335	3,116	2,877	6	76	64	-
W.S. CENTRAL	68	529	3	1	3	-	-	1,846	21,970	21,926	104	710	523	188
Ark.	2	26	2	-	-	-	-	168	1,786	1,417	3	22	24	44
La.	6	123	-	-	-	-	-	292	3,753	3,561	31	164	105	1
Okla.†	8	79	-	-	-	-	-	192	1,931	1,958	1	10	23	35
Tex.	52	301	1	1	3	-	-	1,194	14,500	14,990	69	514	371	108
MOUNTAIN	12	120	5	-	2	-	1	608	6,379	5,549	10	57	74	3
Mont.†	1	4	-	-	-	-	-	22	289	389	1	2	6	-
Idaho†	1	3	-	-	-	-	-	14	269	187	-	3	-	-
Wyo.†	-	4	-	-	-	-	-	17	168	110	-	3	3	-
Colo.†	-	-	-	-	-	-	-	203	1,749	1,563	3	23	25	-
N. Mex.†	1	22	1	-	1	-	-	52	835	799	-	7	16	2
Ariz.	9	70	-	-	-	-	-	187	1,837	1,326	5	11	15	1
Utah	-	3	4	-	-	-	-	30	307	355	1	1	2	-
Nev.	-	14	-	-	1	-	1	83	925	820	-	7	7	-
PACIFIC	69	744	1	5	24	-	-	2,990	26,559	26,811	105	738	804	52
Wash.	4	8	-	-	-	-	-	294	2,344	1,719	NA	19	30	-
Oreg.	4	38	-	-	-	-	-	211	1,903	1,905	7	38	17	-
Calif.	40	626	1	5	20	-	-	2,392	20,991	21,860	95	669	746	50
Alaska	16	25	-	-	-	-	-	111	850	825	-	2	4	2
Hawaii	5	47	-	-	4	-	-	72	471	502	3	10	7	-
Guam	NA	2	-	NA	-	NA	-	NA	6	23	NA	-	-	-
P.R.	12	53	-	-	1	-	-	25	285	486	13	94	74	4
V.I.	-	-	-	-	-	-	-	4	30	44	-	-	4	-
Pac. Trust Terr.†	1	7	-	-	-	-	-	4	38	89	-	-	-	-

NA: Not available.
 *Delayed reports received for 1978 are not shown below but are used to update last year's weekly and cumulative totals.
 †The following delayed reports will be reflected in next week's cumulative totals: TB: N.C. -1, Ala. -1, Mont. +1, Idaho +1, Wyo. -1, Colo. +5, Pac. Tr. Terr. +1; T. fever: Fla. +2; GC: Conn. +2 civ, Ind. +74 civ, Wis. -1 civ, Del. +1 civ, Okla. +126 mil., Wyo. +6 mil., Pac Tr. Terr. +5 civ.; Syphilis: Ill. +102, Okla. -1 civ., -1 mil., Mont. +2; An rabies: Ohio +1, N. Mex. +1.

TABLE IV. Deaths in 121 U.S. cities,* week ending
March 3, 1979 (9th 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	
NEW ENGLAND	722	471	162	31	30	37	S. ATLANTIC	1,618	917	467	109	60	77
Boston, Mass.	212	120	54	9	13	15	Atlanta, Ga.	150	91	32	19	-	6
Bridgeport, Conn.	66	45	16	1	3	3	Baltimore, Md.	488	265	165	32	5	8
Cambridge, Mass.	27	19	5	2	-	2	Charlotte, N.C.	78	40	26	6	1	6
Fall River, Mass.	36	24	8	1	1	-	Jacksonville, Fla.	109	61	26	8	5	10
Hartford, Conn.	45	24	15	3	2	-	Miami, Fla.	140	80	34	9	12	9
Lowell, Mass.	38	29	7	-	1	2	Norfolk, Va.	64	35	23	2	3	7
Lynn, Mass.	23	16	6	1	-	-	Richmond, Va.	114	62	29	5	18	9
New Bedford, Mass.	30	20	6	3	-	3	Savannah, Ga.	41	23	11	3	3	2
New Haven, Conn.	35	21	9	2	1	-	St. Petersburg, Fla.	117	89	24	2	3	5
Providence, R.I.	70	44	17	4	5	5	Tampa, Fla.	86	49	27	6	2	9
Somerville, Mass.	17	9	1	1	1	-	Washington, D.C.	135	64	46	9	10	5
Springfield, Mass.	32	26	4	-	1	3	Wilmington, Del.	96	58	24	8	1	1
Waterbury, Conn.	27	22	4	-	-	-							
Worcester, Mass.	69	52	10	4	2	4							
							E.S. CENTRAL	733	450	173	37	38	34
MID. ATLANTIC	2,288	1,485	533	151	56	97	Birmingham, Ala.	129	75	35	6	7	2
Albany, N.Y.	59	39	11	7	-	2	Chattanooga, Tenn.	52	35	13	2	2	7
Allentown, Pa.	25	22	3	-	-	-	Knoxville, Tenn.	49	34	9	3	-	2
Buffalo, N.Y.	124	79	38	4	2	10	Louisville, Ky.	115	75	29	5	3	9
Camden, N.J.	52	33	12	1	3	5	Memphis, Tenn.	151	81	30	9	15	21
Elizabeth, N.J.	25	17	8	-	-	-	Mobile, Ala.	51	31	15	-	2	5
Erie, Pa.†	39	29	7	2	1	1	Montgomery, Ala.	49	34	11	4	-	2
Jersey City, N.J.	67	47	11	5	4	1	Nashville, Tenn.	137	79	31	8	9	6
Newark, N.J.	90	43	26	9	5	3							
N.Y. City, N.Y.	1,454	945	336	109	25	60	W.S. CENTRAL	1,126	655	281	84	58	25
Paterson, N.J.	41	26	8	3	4	1	Austin, Tex.	63	42	10	4	5	-
Philadelphia, Pa.†	402	252	106	28	10	23	Baton Rouge, La.	22	9	9	1	1	1
Pittsburgh, Pa.†	64	37	21	3	1	5	Corpus Christi, Tex.	37	25	9	3	-	4
Reading, Pa.	28	23	5	-	-	3	Dallas, Tex.	181	105	38	16	15	3
Rochester, N.Y.	125	74	33	8	7	7	El Paso, Tex.	39	23	14	1	1	1
Schenectady, N.Y.	23	17	5	-	1	-	Fort Worth, Tex.	93	54	25	6	4	4
Scranton, Pa.†	32	19	9	-	3	-	Houston, Tex.	144	73	37	14	9	2
Syracuse, N.Y.	77	49	19	3	4	2	Little Rock, Ark.	52	33	10	5	-	2
Trenton, N.J.	48	34	9	2	1	-	New Orleans, La.	166	85	50	14	8	-
Utica, N.Y.	71	18	3	-	-	-	San Antonio, Tex.	180	107	46	12	9	1
Yonkers, N.Y.	25	19	6	-	-	3	Shreveport, La.	66	42	19	3	1	3
							Tulsa, Okla.	83	57	14	5	5	4
E.N. CENTRAL	2,363	1,392	656	123	93	62	MOUNTAIN	571	364	122	36	24	16
Akron, Ohio	43	26	9	1	4	-	Albuquerque, N. Mex.	45	26	9	5	2	3
Canton, Ohio	46	28	15	2	1	1	Colo. Springs, Colo.	29	20	3	3	-	2
Chicago, Ill.	570	315	164	31	35	11	Denver, Colo.	116	74	23	6	8	3
Cincinnati, Ohio	142	87	38	7	4	4	Las Vegas, Nev.	67	37	17	7	-	1
Cleveland, Ohio	164	88	56	8	6	4	Ogden, Utah	18	12	3	-	1	-
Columbus, Ohio	167	102	47	6	6	3	Phoenix, Ariz.	143	96	29	9	6	1
Dayton, Ohio	98	62	28	4	1	3	Pueblo, Colo.	18	14	3	1	-	3
Detroit, Mich.	278	167	78	16	6	4	Salt Lake City, Utah	40	30	4	-	6	3
Evansville, Ind.	50	33	13	3	1	1	Tucson, Ariz.	95	55	31	5	1	-
Fort Wayne, Ind.	63	42	10	5	1	2							
Gary, Ind.	18	9	6	1	1	1	PACIFIC	2,073	1,361	478	105	65	48
Grand Rapids, Mich.	70	46	15	5	2	2	Berkeley, Calif.	12	7	2	2	1	-
Indianapolis, Ind.	173	96	51	9	7	2	Fresno, Calif.	50	37	5	2	4	1
Madison, Wis.	26	17	3	-	1	1	Glendale, Calif.	36	28	7	1	-	1
Milwaukee, Wis.	132	75	38	8	6	4	Honolulu, Hawaii	61	36	16	7	-	2
Peoria, Ill.	42	22	12	4	1	10	Long Beach, Calif.	108	71	30	3	3	7
Rockford, Ill.	40	24	12	1	-	3	Los Angeles, Calif.	728	491	154	37	21	14
South Bend, Ind.	48	32	11	3	-	1	Oakland, Calif.	80	46	20	6	6	3
Toledo, Ohio	117	77	32	4	4	1	Pasadena, Calif.	35	22	6	2	4	-
Youngstown, Ohio	76	44	18	5	6	4	Portland, Oreg.	152	102	41	3	2	-
							Sacramento, Calif.	63	43	14	2	3	2
W.N. CENTRAL	811	535	194	29	21	33	San Diego, Calif.	163	104	40	6	6	-
Des Moines, Iowa	76	51	19	2	1	3	San Francisco, Calif.	174	114	42	9	3	-
Duluth, Minn.	28	20	4	1	2	1	San Jose, Calif.	144	79	43	11	2	3
Kansas City, Kans.	33	17	11	1	-	-	Seattle, Wash.	171	114	36	12	6	4
Kansas City, Mo.	115	67	32	5	4	7	Spokane, Wash.	43	30	10	1	2	7
Lincoln, Nebr.	28	24	1	2	-	1	Tacoma, Wash.	53	37	12	1	2	4
Minneapolis, Minn.	113	73	29	3	2	3							
Omaha, Nebr.	82	52	17	6	5	2							
St. Louis, Mo.	200	139	47	4	3	10							
St. Paul, Minn.	78	53	20	4	-	2							
Wichita, Kans.	58	39	14	1	4	4							
							TOTAL	12,305	7,630	3,066	705	445	429
							Expected Number	11,511	7,206	2,876	678	412	472

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza

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

Severe Illness in Children – Continued

respiratory infection, terminating in respiratory failure and coma. Available epidemiologic and microbiological evidence suggests that respiratory syncytial virus (RSV) was the most important etiologic agent in the cases of respiratory disease, but other viruses played a role in some cases.

On February 15, an international group of experts, including representatives from CDC and the National Institutes of Health invited as consultants by the Italian Ministry of Health, presented a series of recommendations to the Minister of Health covering clinical, laboratory, and public health measures pertinent to the problem. The group suggested, for example, that a systematic virological study of children admitted to the hospital with lower respiratory disease be undertaken. Such a study could provide early warning of the appearance of RSV and other etiologic agents in the community. Likewise, it recommended that local and nationally coordinated surveillance programs to detect and monitor disease in the community continue to be developed.

Reported by G Ortolani, MD, Health Officer, Naples; R D'Ambrosio, MD, M Triassi, MD, V Romano, MD, N de Ruggiero, MD, Regional Epidemiologic Center, Commission for the Study of Infant Mortality, Campania Region; D Greco, MD, M Grandolfo, PhD, A Zampieri, MD, Director, Laboratory of Epidemiology and Biostatistics, F Pochiari, PhD, Director General, Istituto Superiore di Sanita, Italy.

Epidemiologic Notes and Reports

International Importation of Measles – New Mexico

On January 27, 1979, the New Mexico State Health and Environment Department learned of the first case of confirmed measles occurring in New Mexico since October 1977.

The patient was a 3-year-old female Vietnamese refugee who had arrived in Albuquerque on December 20, 1978. On December 23, she developed the first symptoms of measles. Her 2-year-old brother had onset of measles 2 days later. The family had been staying in a refugee camp in Kuala Lumpur, where measles was prevalent. While there, they received a standard screening medical examination. They departed on December 19. The same day they arrived in Honolulu, where the family was interviewed by the quarantine station before departing for the continental United States.

Additional investigation revealed 9 additional cases with spread through 3 generations arising from exposure to these 2 index patients. All of the patients were Vietnamese children living in the same apartment complex as the index patients. Two immunization clinics were held at the apartment complex. Despite the fact that this complex contains a total of 558 families, only 41 of whom are refugees, there has been no spread outside the Vietnamese families. Extensive interviews with the patients have revealed that all belong to the same extended family, and there is virtually no contact between the refugee and the non-refugee populations within the apartment complex or community. In addition, all of the school-age siblings of the patients had either been vaccinated or already acquired natural measles in Vietnam and therefore were not a source of spread to the school population.

Reported by T Benvides, Albuquerque Catholic Social Services; A Dao, MD, American Asian Human Services Project; M McCutchen, New Mexico Refugee Association; Albuquerque Public School System; S Kennedy, PHN, R Licht, PHN, K Lundvall, PHN, A Pressman, MD, Bernalillo County Health Dept; M Burkhard, MPH, J Constantine, MA, J Crowe, MPA, R Hoffman, MD, L Hughes, PhD, J Mann, MD, State Epidemiologist, J Montes, J Salazar, M Stromei, New Mexico State Health and Environment Dept; Immunization Div, Bur of State Services, CDC.

Editorial Note: This outbreak again demonstrates the potential for international importation of measles into a measles-free community. Unlike the recent experience in Utah,

Measles — Continued

where contact with the imported case led to numerous other cases in the general community (1), this outbreak was confined to the refugee population despite spread through 3 generations of disease within that population. This lack of spread appears to be related to the relative social isolation of the refugees and their high levels of immunity, rather than to specific control measures.

At present, refugees from Malaysia are given a medical examination abroad, and the state health departments are subsequently notified of their arrival. In New Mexico newly-arrived refugees were being brought to the local health center for screening for tuberculosis; however, they were not being offered vaccination at that time. This policy has been changed, and refugees are currently being offered measles vaccine at the time of their initial visit to the health center. Other states should be aware that there may be similar problems with vaccine delivery to international travelers from countries where measles is uncontrolled.

1. MMWR 28:23-24, 1979

*Current Trends***Morbidity Trends for Viral Hepatitis — United States, 1977**

The downward trend in hepatitis A cases, which has been observed since 1971 in the United States, continued in 1977. The case rate for 1977 (14.40 cases/100,000) was one-half that observed 6 years earlier (28.90 cases/100,000). The actual decrease is even larger, however, because the earlier figure for hepatitis A included unspecified cases, which account for approximately 3.44-3.99 cases/100,000 per year. By contrast, the long-term trend for heightened hepatitis B morbidity continued, reaching its highest case rate (7.78 cases/100,000) since 1966, when hepatitis B was first reported separately.

The total number of cases of viral hepatitis reported to the MMWR for 1977 was 56,623—slightly more than the annual total reported for 1976 and 1975 (Table 2). The increase of 874 cases over the 1976 total can be attributed to the additional 1,858 hepatitis B and 1,151 unspecified cases, which exceeded the decrease of 2,135 reported hepatitis A cases.

TABLE 2. Reported cases of viral hepatitis, by type and year, United States, 1966-1977*

Year	Hepatitis A		Hepatitis B		Unspecified		Total	
	No.	Rate [‡]	No.	Rate	No.	Rate	No.	Rate
1966	32,859	16.77	1,497	1.79	†	†	34,356	18.56
1967	38,909	19.67	2,458	1.28	†	†	41,367	20.95
1968	45,893	22.96	4,829	2.49	†	†	50,722	25.45
1969	48,416	23.98	5,909	3.02	†	†	54,325	27.00
1970	56,797	27.87	8,310	4.08	†	†	65,107	31.95
1971	59,606	28.90	9,556	4.74	†	†	69,162	33.64
1972	54,074	25.97	9,402	4.52	†	†	63,476	30.49
1973	50,749	24.18	8,451	4.03	†	†	59,200	28.21
1974	40,358	19.54	10,631	5.15	8,351	3.95	59,340	28.07
1975	35,855	16.82	13,121	6.30	7,158	3.44	56,134	26.34
1976	33,288	15.51	14,973	7.14	7,488	3.57	55,749	25.97
1977	31,153	14.40	16,831	7.78	8,639	3.99	56,623	26.17

*Source: CDC: Reported Morbidity and Mortality in the United States, 1977. MMWR (53 Annual Suppl):2, 1978

‡Cases per 100,000 population

†Not reported nationally until 1974

Viral Hepatitis - Continued

For the 2-year period from May 1976 to May 1978, reported hepatitis A morbidity trends within the 9 U.S. Census Divisions* varied considerably. For the entire United States the incidence of such cases for the 27, 4-week report periods has decreased. In the New England, Middle Atlantic, and both North Central Divisions the average incidence was significantly lower than that for the nation as a whole. On the other hand, the Mountain and Pacific states reported significantly higher than average incidence (Table 3). Areas with case rates below the U.S. average formed a contiguous region, as did the areas with above average and average rates. In terms of trends over the 2-year period, the North Central areas showed little change, and the West South Central and Mountain areas increased sharply, contrary to the morbidity in the more populous parts of the nation.

For the same 2-year period, hepatitis B incidence has shown little monthly change, although the annual rate for 1977 is the highest recorded to date. As with type A hepatitis, there were substantial geographic differences in morbidity (Table 3). New England, while exhibiting the lowest average 4-week incidence, had a notable increase in cases. Another area with an upward trend, the West South Central Division, also exhibited a relatively low average incidence. The South Atlantic Division also showed an increase, although not as steep a one as in the 2 previously mentioned areas. The Middle Atlantic Division was the only area with a downward trend in reported hepatitis B incidence. The Pacific Division continued to demonstrate the highest average 4-week incidence, 1.08/100,000 cases—a figure that is nearly twice the national average. The average incidence for the New England, East North Central, West North Central, and West South Central Divisions was significantly lower than the U.S. average.

Reported by the Viral Hepatitis Surveillance Activity, Hepatitis Laboratories Div, Bur of Epidemiology, CDC.

*The states within each division are listed on page 101, under Reporting Area.

TABLE 3. Average incidence of hepatitis A and B, by U.S. Census Division, May 1976 through May 1978

Division	Hepatitis A		Hepatitis B	
	Average incidence†	Trend	Average incidence	Trend
New England	0.49	Down	0.29	Up
Middle Atlantic	0.73	Down	0.60	Down
East North Central	0.84	No change	0.43	No change
West North Central	0.80	No change	0.37	No change
South Atlantic	0.98	Down	0.55	Up
East South Central	1.17	Down	0.52	No change
West South Central	1.15	Up	0.37	Up
Mountain	2.02	Up	0.57	No change
Pacific	2.07	Down	1.08	No change
United States	1.09	Down	0.56	No change

†4-week incidence/100,000 population is based on 4-week totals of cases reported to MMWR in 1976-1978.

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

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