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MORBIDITY AND MORTALITY WEEKLY REPORT

	<b>Epidemiologic Notes and Reports</b>
367	<i>Vibrio cholerae</i> Infection — La.
368	Legionnaires' Disease — Tenn.
369	Measles — Ind.
	<b>Current Trends</b>
375	Human Arboviral Activity — United States, Caribbean, Central America
	<b>International Notes</b>
376	Quarantine Measures

## Epidemiologic Notes and Reports

### Follow-up on *Vibrio cholerae* Infection — Louisiana

A fourth person clinically ill with cholera has been identified in Louisiana. The patient, a 19-year-old woman who lives near Abbeville, had onset of diarrhea on September 18. She was hospitalized on September 21, treated with tetracycline, and has recovered. Isolates from this case, the other 3 clinically ill persons, and 1 asymptomatic case have all been confirmed as *Vibrio cholerae*, biotype El Tor, serotype Inaba.

The 4 clinically ill persons had a history of ingesting steamed or boiled crab in the 2- to 5-day period before onset of illness; the asymptomatic case had also recently eaten such food. For each of the 4 ill cases, 2 matched controls were questioned about eating seafood. None of these 8 controls had recently eaten steamed or boiled crab.

An isolate of *V. cholerae*, serotype Inaba, has been made from a sample of shrimp collected in the area where crabs eaten by 1 patient were collected.

*Reported by HB Bradford, PhD, Director, Bur of Laboratories, CT Caraway, DVM, State Epidemiologist, Louisiana Dept of Health and Human Resources; Enteric Diseases Br and Epidemiologic Investigations Laboratory Br, Bacterial Diseases Div, Quarantine Div, Bur of Epidemiology, CDC.*

**Editorial Note:** These 5 persons come from 2 adjacent towns and have no single common contact or water supply. The seafoods eaten by these persons came from different locations along 60 miles of the Louisiana Gulf Coast. If the steamed crabs were a vehicle, they were insufficiently cooked to destroy *V. cholerae* organisms or they were re-contaminated after cooking. Until further information is available, residents of the area should take extra care with the preparation of crabs to insure that they are adequately cooked and not subsequently contaminated.

Since the United States will now be listed by the World Health Organization as having a cholera-infected area, the following countries will now require International Certificates of Vaccination against Cholera from travelers arriving from Vermilion Parish, Louisiana: Albania, Angola, Brunei, Cape Verde, China (People's Republic), China (Republic of), Egypt, Fiji, Iran, Iraq, Lao People's Democratic Republic, Libyan Arab Jamahiriya, Madagascar, Mali, Nauru, Pakistan, Panama, Pitcairn Island, Qatar, Ryukyu Islands, Saint Helena, Seychelles, Swaziland, Yemen, and Zambia. Five countries that always require cholera vaccination from all travelers are Malawi, Maldives, Mozambique, Papua New Guinea, and Saudi Arabia. The following countries will require a Certificate only from travelers proceeding to a country with a cholera requirement: Burma, India, and Nigeria.

An area is considered infected until 10 days has passed "since the last case identified has died, recovered, or been isolated, and there is no epidemiological evidence of spread of that disease to any contiguous area." (1)

#### Reference

1. World Health Organization: International Health Regulations (1969). 2nd ed. Geneva, World Health Organization, 1974

## Isolation of Organisms Resembling Legionnaires' Disease Bacterium — Tennessee

Organisms closely resembling the Legionnaires' disease bacterium (LDB) have been isolated from water from an auxiliary air conditioning cooling tower at Baptist Memorial Hospital in Memphis, Tennessee. Nine confirmed and 6 presumptive\* cases of Legionnaires' disease (LD) with dates of onset from August 12 through September 1, 1978, have been identified either by the laboratory of that hospital or by the state public health laboratory. Prior to the isolation of the organism, a case-control study had found a significant association between cases and working or being a patient at the hospital during the 2 weeks before onset of illness.

The auxiliary air conditioning system was employed from August 8 to September 7 because a flood had inactivated the hospital's main air conditioning unit. The auxiliary cooling tower was sealed off with polyethylene sheeting on September 15, and its fan disconnected. Water in the tower has been sufficiently chlorinated to maintain free residual levels of greater than or equal to 3 parts per million.

The isolate, made by the Bacteriology Laboratory at the hospital, is pathogenic on passage to guinea pigs and embryonated eggs; grows on charcoal-yeast extract agar but not on conventional media; stains faintly gram-negative; resembles LDB in smears stained by the Gimenez method; and stains strongly in direct immunofluorescence testing using conjugated antiserum from rabbits immunized with LDB. A subculture submitted to CDC showed a pattern of cellular fatty acids on gas-liquid chromatography typical of the LDB. Further taxonomic studies at CDC are in progress.

Despite intensive surveillance, no case of suspected LD has been identified in the Memphis area with onset after September 16.

*Reported by RT Kelly, MD, R Rendtorff, MD, WA Rightsel, PhD, Baptist Memorial Hospital, Memphis; J Levy, MD, G Lovejoy, MD, Memphis-Shelby County Health Dept; RH Hutcheson Jr, MD, State Epidemiologist, Tennessee Dept of Public Health; Bacteriology Div, Bur of Laboratories, Field Services Div, Epidemiologic Investigations Laboratory Br, Hospital Infections Br, Special Pathogens Br, Bacterial Diseases Div, Bur of Epidemiology, CDC.*

**Editorial Note:** This represents the third isolation of organisms resembling the LDB from water from an air conditioning cooling tower at the site of an outbreak (1,2). In Pontiac and Memphis, there was a temporal correlation between the interval of cooling tower use and the occurrence of cases of LD. Possible explanations of this association may be that the cooling towers and cases were both exposed to airborne organisms from other sources; that LDB in the cooling tower water was a coincidental finding unrelated to these outbreaks; or that the organisms from the cooling towers were in fact responsible for some or all of the cases in the outbreaks. Although the temporal association in Memphis with the use of the auxiliary air conditioning system makes the third hypothesis appear the most plausible, outbreaks apparently spread by the airborne route have occurred in Washington, D.C. and Spain (3,4) that were not associated with cooling towers or air conditioning systems. Studies are in progress with cooling tower water from sites not associated with an outbreak to test the second hypothesis.

The ability of chlorine concentrations of 3 ppm to eliminate LDB from in-use cooling tower water, which is exposed to ultraviolet light, organic material, and aeration, has not been documented. Studies are in progress to define the need for decontaminating cooling towers and the best means for decontamination if it is indicated.

\*presumptive: X-ray evidence of pneumonia and indirect fluorescent antibody titer  $\geq$ 1:256

*Legionnaires' Disease — Continued**References*

1. MMWR 27:283, 1978
2. Glick TH, Gregg MB, Berman B, et al: Pontiac fever: An epidemic of unknown etiology in a health department: I. Clinical and epidemiologic aspects. *Am J Epidemiol* 107:149-160, 1978
3. MMWR 26:10, 1977
4. MMWR 26:344, 1977

**Measles — Indiana**

During the period from July 3, 1977, to August 26, 1978, 314 cases of measles were reported to the Indiana State Board of Health. Epidemiologic data and vaccine histories were available for analysis from 175 persons (55.7%) (1,2).

Cases in children less than 5 years old represented 31.4% of the total; 38.3% were in persons 10 or more years old.

Seventy-five (42.9%) of these 175 cases occurred in unvaccinated persons; 55 cases (31.4%) were reported in persons with documented histories of vaccination; in the remaining 45 cases (25.7%), vaccine history was either uncertain, unknown, or not verifiable (Table 1).

**TABLE 1. Vaccine histories of 175 reported measles cases, July 3, 1977, through August 26, 1978, Indiana**

Vaccination status and details	Cases	Percent of total
<b>Not vaccinated</b>	75	42.9%
A. egg allergy	2	
B. no reason given	54	
C. less than 15 months old	17	
D. more than 30 years old	2	
<b>Vaccinated—documented</b>	55	31.4%
E. live vaccine $\geq$ 1 year	34	
F. killed vaccine	8	
G. live vaccine <1 year	11	
H. live vaccine—unknown age	1	
I. live vaccine—during incubation period	1	
<b>Other</b>	45	25.7%
J. vaccinated—undocumentable	12	
K. unknown or uncertain history	33	

*Reported by CL Barrett, Director, Div of Communicable Disease Control, Indiana State Board of Health; Immunization Div, Bur of State Services, CDC.*

**Editorial Note:** The majority of reported measles cases in Indiana during this time period occurred in persons whose measles vaccination status was uncertain or otherwise inadequate prior to their measles exposure. Similar findings have recently been reported from Massachusetts, Michigan, North Carolina, and Utah (3-6). Susceptibles to measles have been defined as persons who lack either (1) physicians certificate or other acceptable evidence of having had measles or (2) certification of adequate immunization with live measles vaccine when 12 or more months of age (7). Use of this definition would have allowed identification and vaccination of 122 (69.7%) of these persons (Table 1, all categories except C-E). Many cases could thus have been prevented.

An approach to measles control that emphasizes proof of immunity requires the cooperation of private physicians, public health personnel, and school officials. Such an approach has been associated with a substantially lower incidence of disease (8).

## Measles — Continued

Careful review of office, clinic, and school health records, as recommended by the American Academy of Pediatrics (9), is necessary to ensure protection of all susceptible children, adolescents, and young adults against measles.

## References

1. Indiana State Board of Health. Measles in Indiana 1 (1-12), 1977-78
2. Indiana State Board of Health, Measles in Indiana 2(1-2), 1978
3. MMWR 26:233-234, 1977
4. MMWR 27:42, 1978
5. MMWR 27:244-245, 1978
6. MMWR 27:344-345, 1978
7. MMWR 26:294, 299, 1977
8. MMWR 27:303-304, 1978
9. American Academy of Pediatrics, Task Force on Immunization Policy: Implementing the immunization policy. News and Comments, October 1977

## Notice to Readers

Beginning this week, data reported from the Trust Territory of the Pacific Islands will be included in Table III, Cases of Specified Notifiable Diseases. As is the case with Guam, Puerto Rico, and the Virgin Islands, these data will not be incorporated into the U.S. totals.

Reported by MMWR Statistical Activity, Consolidated Surveillance and Communications Activity, Bur of Epidemiology, CDC.

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

DISEASE	38th WEEK ENDING		MEDIAN 1973-1977**	CUMULATIVE, FIRST 38 WEEKS		
	September 23, 1978	September 24, 1977*		September 23, 1978	September 24, 1977*	MEDIAN 1973-1977**
Aseptic meningitis	269	194	165	3,743	3,219	2,556
Brucellosis	3	4	5	110	168	168
Chickenpox	294	268	294	122,884	161,036	145,479
Diphtheria	—	3	1	60	70	127
Encephalitis: Primary (arthropod-borne & unspec.)	35	52	52	650	726	1,016
Post-infectious	5	5	3	149	159	208
Hepatitis, Viral: Type B	269	306	239	10,685	12,046	8,410
Type A	649	607	693	20,840	22,458	25,458
Type unspecified	200	176	—	6,517	6,426	—
Malaria	11	13	13	513	403	306
Measles (rubeola)	84	122	88	23,170	52,988	24,296
Meningococcal infections: Total	21	13	14	1,795	1,330	1,097
Civilian	21	13	14	1,774	1,321	1,072
Military	—	—	—	21	9	24
Mumps	87	140	278	13,328	16,191	44,828
Pertussis	60	63	—	1,453	1,161	—
Rubella (German measles)	41	56	76	15,290	18,668	14,902
Tetanus	1	1	3	40	54	65
Tuberculosis	637	631	631	22,006	22,014	22,892
Tularemia	4	8	4	91	121	113
Typhoid fever	10	21	13	327	278	290
Typhus fever, tick-borne (Rky. Mt. spotted)	21	36	19	856	1,002	712
Veneral diseases:						
Gonorrhea: Civilian	23,752	24,121	22,255	726,847	721,379	721,379
Military	549	713	651	18,528	19,948	21,841
Syphilis, primary & secondary: Civilian	515	357	533	15,323	14,989	17,660
Military	12	10	9	216	219	253
Rabies in animals	64	70	53	2,255	2,271	2,186

TABLE II. Notifiable diseases of low frequency, United States

	CUM. 1978		CUM. 1978
Anthrax	5	Poliomyelitis: Total	2
Botulism (Kansas 1)	59	Paralytic	1
Congenital rubella syndrome	23	Psittacosis† (Fla. 1, Wash. 1, Calif. 3)	83
Leprosy (Iowa 1, Calif. 1)	114	Rabies in man	—
Leptospirosis† (Tex. 2, Calif. 1)	44	Trichinosis	42
Plague	6	Typhus fever, flea-borne (endemic, murine) (Tex. 1)	32

\* Delayed reports received for calendar year 1977 are used to update last year's weekly and cumulative totals.

\*\* Medians for gonorrhea and syphilis are based on data for 1975-1977.

† The following delayed reports will be reflected in next week's cumulative totals: Leptospirosis: Mo. +1, Psittacosis: N.H. — 1

TABLE III. Cases of specified notifiable diseases, United States, weeks ending September 23, 1978, and September 24, 1977 (38th week)

REPORTING AREA	ASEPTIC MENIN- GITIS	BRU- CEL- LOSIS	CHICKEN- POX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS (VIRAL), BY TYPE			MALARIA	
						Primary		Post-in- fectious	B	A	Unspecified		
						1978	1977*						
UNITED STATES	269	3	294	-	60	35	52	5	269	649	200	11	513
NEW ENGLAND	8	-	53	-	-	3	1	-	11	22	8	2	24
Maine	1	-	17	-	-	-	-	-	1	9	2	-	1
N.H.†	1	-	1	-	-	1	-	-	1	3	-	-	5
Vt.	-	-	-	-	-	-	-	-	-	-	-	-	-
Mass.†	2	-	11	-	-	2	1	-	1	4	6	-	3
R.I.	-	-	13	-	-	-	-	-	1	3	-	-	5
Conn.	4	-	11	-	-	-	-	-	7	3	-	1	10
MID. ATLANTIC	41	-	20	-	1	6	6	-	48	61	26	1	109
Upstate N.Y.	7	-	2	-	-	1	1	-	7	15	15	-	17
N.Y. City	5	-	11	-	1	-	1	-	3	4	4	1	48
N.J.†	13	-	NN	-	-	3	-	-	15	9	5	-	20
Pa.†	16	-	7	-	-	2	4	-	23	33	2	-	24
E.N. CENTRAL	43	-	92	-	-	13	31	1	57	82	14	1	27
Ohio†	10	-	10	-	-	7	17	1	16	26	-	1	5
Ind.†	1	-	21	-	-	-	11	-	10	9	6	-	3
Ill.†	4	-	20	-	-	-	-	-	12	16	1	-	4
Mich.	17	-	13	-	-	-	2	-	14	24	7	-	13
Wis.	11	-	28	-	-	6	1	-	5	7	-	-	2
W.N. CENTRAL	8	2	33	-	2	1	4	-	21	74	9	-	21
Minn.	-	-	-	-	-	-	4	-	3	31	-	-	4
Iowa	-	2	26	-	-	-	-	-	7	2	3	-	-
Mo.†	-	-	-	-	1	-	-	-	-	10	6	-	7
N. Dak.†	-	-	4	-	-	-	-	-	-	4	-	-	-
S. Dak.	-	-	-	-	-	-	-	-	1	15	-	-	1
Nebr.	4	-	1	-	1	-	-	-	-	-	-	-	4
Kans.	4	-	2	-	-	1	-	-	10	12	-	-	5
S. ATLANTIC	65	-	30	-	-	2	1	2	31	74	29	1	92
Del.	-	-	-	-	-	1	-	-	-	6	-	-	1
Md.	39	-	-	-	-	-	-	-	7	14	2	-	21
D.C.	-	-	-	-	-	-	-	-	1	2	-	-	2
Va.†	11	-	-	-	-	1	-	1	6	5	4	1	20
W. Va.†	1	-	9	-	-	-	-	-	1	7	-	-	1
N.C.	4	-	NN	-	-	-	1	-	5	5	-	-	8
S.C.†	1	-	1	-	-	-	-	-	-	2	1	-	4
Ga.	-	-	-	-	-	-	-	-	-	-	-	-	7
Fla.†	9	-	20	-	-	-	-	1	11	33	22	-	28
E.S. CENTRAL	4	-	6	-	-	-	6	-	14	39	2	1	5
Ky.	1	-	2	-	-	-	1	-	-	-	-	-	1
Tenn.†	3	-	NN	-	-	-	1	-	11	8	2	-	1
Ala.	-	-	1	-	-	-	-	-	3	15	-	-	1
Miss.	-	-	3	-	-	-	4	-	-	16	-	1	2
W.S. CENTRAL	15	-	7	-	1	1	1	1	11	59	31	1	25
Ark.	1	-	-	-	1	1	1	-	-	1	12	-	1
La.	-	-	NN	-	-	-	-	-	-	-	-	-	3
Okla.†	1	-	-	-	-	-	-	-	3	11	6	-	-
Tex.†	13	-	7	-	-	-	-	1	8	47	13	1	21
MOUNTAIN	12	-	15	-	3	4	2	-	16	82	34	-	4
Mont.†	1	-	1	-	-	4	-	-	4	3	-	-	-
Idaho	-	-	-	-	-	-	-	-	-	2	1	-	-
Wyo.	-	-	-	-	-	-	-	-	-	-	-	-	-
Colo.	5	-	12	-	2	-	2	-	5	7	9	-	1
N. Mex.†	1	-	-	-	-	-	-	-	2	7	2	-	1
Ariz.	-	-	NN	-	-	-	-	-	5	54	19	-	1
Utah	5	-	2	-	-	-	-	-	-	7	3	-	-
Nev.	-	-	-	-	1	-	-	-	-	2	-	-	1
PACIFIC	73	1	38	-	53	5	-	1	60	156	47	4	206
Wash.	35	-	22	-	49	4	-	-	5	29	7	-	7
Oreg.	4	-	-	-	-	-	-	-	5	21	2	-	5
Calif.†	28	-	-	-	1	1	-	1	46	105	38	4	172
Alaska	-	1	8	-	3	-	-	-	3	-	-	-	4
Hawaii †	6	-	8	-	-	-	-	-	1	1	-	-	18
Guam †	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	-
Pac. Trust Terr.	-	-	5	-	-	-	-	-	-	-	2	-	-
P.R.†	-	-	8	-	-	-	-	-	1	2	6	-	4
V.I.	-	-	-	-	-	-	-	-	-	-	-	-	1

NN: Not notifiable. NA: Not available.

\*Delayed reports received for 1977 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. mening. Mass. +4, Pa. -2, Ohio +1, Ind. +9, Ill. +1, Fla. -1, N. Mex. +1, Guam +1; Chickenpox: Mass. +1, Ill. +7, Mo. +70, W. Va. +40, Fla. +1, Calif. +5, Guam +3, P.R. +2; Enceph. prim.: Mass. -1, Ind. +6, Mo. -1, S.C. -1; Enceph. Post: S.C. +1, Fla. +3, Hep. B: N.H. +1, Mass. +84, Ill. +3, Mo. +4, N.Dak. -2, Fla. -10, Tenn. +7, Okla. -1, Tex. +1, N. Mex. -10, Hawaii -1, Guam +1; Hep. A: Mass. +72, N.J. +1, Ill. +17, Mo. -6, S.C. -1, Fla. -12, Tenn. -11, Okla. -1, Tex. -1, Mont. -1, N.Mex. +2, Guam +2; Hep. unsp.: Mass. -159, N.J. -2, Mo. +2, Va. -1, S.C. +1, Fla. -1, Tenn. -3, N. Mex. -1, Guam +2; Malaria: N.H. -1, Mass. +4.

TABLE III (Cont'd). Cases of specified notifiable diseases, United States, weeks ending September 23, 1978, and September 24, 1977 (38th week)

REPORTING AREA	MEASLES (RUBEOLA)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBEOLA		TETANUS
	1978	CUMULATIVE 1978	CUMULATIVE 1977*	1978	CUMULATIVE 1978	CUMULATIVE 1977*	1978	CUMULATIVE 1978	1978	1978	CUMULATIVE 1978	1978
UNITED STATES	64	23,170	52,568	21	1,795	1,330	87	13,328	60	41	15,290	60
NEW ENGLAND	2	1,971	2,467	—	90	55	7	730	2	3	743	2
Maine	—	1,314	170	—	8	3	—	486	—	—	149	—
N.H.†	—	46	511	—	9	3	—	15	1	—	101	—
Vt.	2	27	253	—	2	6	—	5	—	—	27	2
Mass.†	—	249	623	—	28	17	1	87	1	2	221	—
R.I.	—	8	64	—	17	1	3	35	—	—	42	—
Conn.	—	327	826	—	27	25	3	102	—	1	203	—
MID. ATLANTIC	7	2,175	6,338	4	306	169	6	615	11	7	2,991	4
Upstate N.Y.	1	1,394	3,863	2	97	43	2	200	5	1	521	1
N.Y. City	5	351	126	—	71	46	1	149	4	3	128	—
N.J.	—	74	165	2	58	37	2	134	—	3	1,404	—
Pa.	1	356	3,614	—	80	46	1	132	2	—	738	3
E.N. CENTRAL	42	10,119	11,247	—	165	149	35	5,329	10	14	7,072	2
Ill.†	4	483	1,850	—	66	54	4	932	2	3	1,365	1
Ind.	3	194	4,325	—	31	9	5	315	7	5	589	1
Mo.†	2	633	1,717	—	7	35	16	1,673	—	—	423	—
Mich.	20	7,336	941	—	50	38	4	1,356	—	5	3,161	—
Wis.	3	1,473	2,414	—	11	13	6	1,053	1	1	1,534	—
W.N. CENTRAL	3	386	5,451	1	57	57	1	1,907	5	—	658	4
Miss.	—	34	2,620	—	14	19	—	20	2	—	128	1
Iowa	—	53	4,276	—	5	8	—	121	—	—	53	—
Mo.†	—	11	1,043	—	23	10	—	1,155	—	—	98	—
N. Dak.	—	193	23	—	3	1	—	15	3	—	81	—
S. Dak.	—	—	67	1	3	4	—	7	—	—	111	1
Nebr.	—	5	214	—	—	2	—	23	—	—	34	—
Kans.	3	90	1,268	—	9	5	1	566	—	—	153	4
S. ATLANTIC	13	4,962	4,567	8	459	300	7	768	11	3	1,044	14
Del.	—	6	22	—	16	21	1	56	—	—	35	—
Md.	—	51	371	—	28	19	1	68	—	—	7	2
D.C.	—	—	14	—	1	—	—	2	—	—	1	—
Va.†	1	2,825	2,719	—	53	25	—	135	1	1	243	1
W. Va.†	2	1,043	243	1	14	9	1	169	—	2	342	—
N.C.	2	115	64	—	89	62	1	68	2	—	180	3
S.C.†	—	197	152	—	27	29	—	17	—	—	28	1
Ge.	—	28	767	—	47	47	—	68	—	—	24	—
Fla.†	8	693	235	7	187	88	3	185	8	—	184	7
E.S. CENTRAL	6	1,406	2,028	2	146	137	11	1,135	4	1	503	3
Ky.	—	119	1,189	—	28	26	6	188	2	—	129	2
Tenn.†	6	972	723	2	37	34	—	450	2	1	202	—
Ala.	—	89	78	—	44	51	4	419	—	—	22	—
Miss.	—	226	38	—	37	26	1	78	—	—	150	1
W.S. CENTRAL	2	1,053	2,063	1	277	263	7	1,691	4	—	920	15
Ark.	—	16	29	—	22	13	1	600	—	—	58	1
La.†	—	343	74	—	118	121	—	65	—	—	485	1
Okla.†	—	13	58	—	16	10	—	4	1	—	12	4
Tex.	2	681	1,522	1	121	119	6	1,022	3	—	365	9
MOUNTAIN	—	248	2,515	—	40	32	4	407	4	3	203	1
Mont.	—	105	1,162	—	2	2	—	141	—	—	18	—
Idaho	—	1	161	—	4	4	—	20	—	—	2	—
Wyo.	—	—	19	—	—	2	—	1	—	—	—	—
Colo.	—	25	562	—	3	1	3	92	—	—	47	—
N. Mex.†	—	—	256	—	7	9	—	16	—	—	3	—
Ariz.	—	50	364	—	15	10	1	15	2	1	93	—
Utah	—	44	18	—	5	3	—	116	2	2	29	1
Nev.	—	15	53	—	4	1	—	6	—	—	11	—
PACIFIC	9	850	10,252	5	255	168	9	746	9	10	1,156	13
Wash.	4	169	536	1	41	20	3	173	—	1	106	1
Ore.	—	148	364	1	28	17	1	88	6	—	115	—
Calif.	4	523	9,255	3	176	101	5	451	3	9	918	12
Alaska	1	1	60	—	6	28	—	8	—	—	7	—
Hawaii†	—	5	35	—	4	2	—	26	—	—	10	—
Guam	NA	24	8	—	—	1	NA	37	NA	NA	4	1
Pac. Trust Terr.	7	—	—	—	—	—	1	—	—	2	—	—
P.R.†	1	246	970	1	7	1	21	1,230	—	—	15	5
V.I.	—	6	14	—	1	—	—	1	—	—	1	—

NA: Not available.

\*Delayed reports received for 1977 are not shown below but are used to update last year's cumulative totals.

†The following delayed reports will be reflected in next week's cumulative totals: Measles: Mass. —5, Ill. +6, Fla. +3, Tenn. —23; Men. inf.: N.H. —1, Mass. +12, Mo. +1, Va. —3, Nev. +3, W. Va. +1, S.C. —1, Fla. —6, La. —5, Hawaii —1; Mumps: Mass. —2, Ill. +2, Mo. +12, W. Va. +1, P.R. +3; Pertussis: Mass. —1, Mo. —4, Tenn. —1, N. Mex. —2; Rubella: Mass. —4, Ill. +1, Mo. +5, W. Va. —30, Fla. —1, Tenn. —1; Tetanus: Okla. —1.

TABLE III (Cont'd). Cases of specified notifiable diseases, United States, weeks ending September 23, 1978, and September 24, 1977 (38th week)

REPORTING AREA	TUBERCULOSIS		TULA-REMIJA	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. 1977*	1978	CUM. 1978	CUM. 1977*	CUM. 1978
UNITED STATES	637	22,006	91	10	327	21	856	23,752	726,847	721,379	515	15,323	14,989	2,255
NEW ENGLAND	32	729	-	-	41	1	13	531	18,911	19,341	14	433	602	82
Maine	3	55	-	-	-	-	-	46	1,488	1,427	-	7	19	67
N.H.†	2	15	-	-	5	-	-	21	871	770	-	5	3	2
Vt.	1	30	-	-	1	-	-	23	459	485	-	3	6	2
Mass.†	19	425	-	-	24	1	5	240	8,314	8,194	10	264	424	6
R.I.	2	50	-	-	4	-	1	58	1,370	1,547	1	18	8	-
Conn.	5	154	-	-	7	-	7	143	6,409	6,918	3	136	142	5
MID. ATLANTIC	83	3,737	5	2	45	1	50	2,822	78,444	74,307	83	1,994	2,072	78
Upstate N.Y.†	11	554	4	-	6	1	28	355	13,038	12,709	8	147	196	53
N.Y. City	19	1,335	1	1	30	-	3	823	29,795	29,012	55	1,375	1,305	-
N.J.	12	888	-	-	5	-	11	759	14,723	13,219	9	243	266	13
P.A.	41	960	-	1	4	-	8	885	20,888	19,367	11	229	305	12
E.N. CENTRAL	137	3,446	1	1	25	-	29	3,673	110,645	113,585	46	1,679	1,580	131
Ohio	34	639	1	-	6	-	19	946	28,909	30,235	10	311	377	11
Ind.	8	395	-	-	1	-	1	258	11,406	10,252	-	118	128	12
Ill.	57	1,295	-	-	6	-	9	1,348	34,806	36,773	35	1,051	809	41
Mich.†	26	956	-	1	12	-	-	840	25,599	26,142	1	151	184	7
Wis.	12	161	-	-	-	-	-	281	9,925	10,183	-	48	82	60
W.N. CENTRAL	34	723	17	2	15	2	34	1,063	36,715	37,943	2	340	332	467
Minn.	-	127	-	2	7	-	-	69	6,219	6,789	-	133	100	147
Iowa	5	84	-	2	-	-	-	133	4,010	4,430	-	36	30	96
Mo.†	27	312	15	-	4	-	18	566	16,220	15,745	2	104	127	57
N. Dak.	-	31	-	-	-	-	1	14	673	730	-	2	3	78
S. Dak.	-	59	-	-	-	-	2	4	1,271	1,104	-	3	9	58
Nehr.	-	16	-	-	-	-	7	59	2,678	3,304	-	11	25	6
Kans.†	2	94	2	-	2	-	4	196	5,644	5,836	-	51	38	25
S. ATLANTIC	103	4,683	8	1	47	7	461	6,258	178,287	178,702	139	4,066	4,200	331
Del.†	1	39	-	-	3	-	5	59	2,491	2,464	1	7	18	3
Md.†	16	712	5	1	10	2	103	1,165	22,878	22,235	11	307	268	-
D.C.	16	488	-	-	1	-	-	420	11,931	11,749	7	310	433	-
Va.†	8	178	-	-	3	2	97	513	17,010	18,647	9	347	410	11
W. Va.†	8	178	-	-	3	-	10	93	2,456	2,369	-	15	3	10
N.C.†	26	732	-	-	3	3	160	598	25,608	26,528	21	430	587	9
S.C.†	5	405	-	-	5	-	50	718	17,467	16,750	10	209	185	76
Ga.	12	650	-	-	3	-	36	1,244	34,221	34,888	40	1,018	927	211
Fla.†	18	1,232	-	-	15	-	-	1,448	44,225	43,072	40	1,423	1,369	11
E.S. CENTRAL	63	2,090	6	1	8	9	168	2,298	62,189	64,191	36	807	562	112
Ky.	27	473	2	-	2	1	40	362	8,131	8,704	4	101	74	59
Tenn.†	12	644	3	-	3	8	109	863	23,060	25,891	9	277	173	24
Ala.	14	511	1	1	2	-	11	762	17,804	17,503	5	138	119	29
Miss.	10	460	-	-	1	-	8	311	13,194	12,093	18	291	196	-
W.S. CENTRAL	88	2,564	45	-	34	1	88	2,807	98,388	90,945	114	2,496	2,132	696
Ark.	10	285	32	-	5	1	14	96	7,148	7,071	3	57	52	115
La.	15	437	6	-	3	-	1	540	16,002	13,430	22	531	495	12
Okla.	8	255	4	-	2	-	51	267	9,305	8,677	4	72	59	147
Tex.	55	1,587	3	-	24	-	22	1,904	65,933	61,767	85	1,836	1,526	422
MOUNTAIN	18	628	6	1	19	-	9	744	27,289	29,186	4	306	317	68
Mont.	-	43	-	1	3	-	2	39	1,545	1,529	-	8	4	12
Idaho†	1	25	2	-	5	-	3	58	1,118	1,361	1	12	10	-
Wyo.	-	14	2	-	-	-	1	18	654	700	-	8	2	-
Colo.	2	72	-	-	4	-	2	253	7,633	7,633	3	102	98	25
N. Mex.†	7	103	-	-	2	-	-	112	3,851	4,284	-	65	67	13
Ariz.	8	288	-	-	3	-	-	93	6,949	6,134	-	68	115	12
Utah	-	30	2	-	1	-	-	45	1,513	1,726	-	11	8	6
Nev.	-	53	-	-	1	-	1	126	4,026	3,819	-	32	13	-
PACIFIC	75	3,406	3	2	93	-	4	3,556	115,979	113,179	77	3,202	3,192	290
Wash.	-	221	-	-	6	-	1	277	9,332	8,500	-	151	185	1
Oreg.	5	138	-	-	1	-	2	233	8,011	7,824	3	111	100	10
Calif.	59	2,589	3	2	79	-	1	2,898	92,974	90,841	72	2,902	2,860	271
Alaska	-	57	-	-	-	-	-	89	3,573	3,628	-	8	19	8
Hawaii	15	402	-	-	7	-	-	59	2,089	2,386	2	30	28	-
Guam †	NA	41	-	NA	-	NA	-	NA	148	161	NA	-	2	-
Pac. Trust Terr.	1	-	-	-	-	-	-	17	-	-	-	-	-	-
P.R.	18	291	-	1	3	-	-	45	1,635	2,375	23	362	412	29
V.I.	-	4	-	-	2	-	-	4	148	159	-	14	7	-

NA: Not available.

\*Delayed reports received for 1977 are not shown below but are used to update last year's weekly and cumulative totals.

†The following delayed reports will be reflected in next week's cumulative totals: TB: N.H. -2, Mich. -2, Mo. -14, Kan. -1, Md. -2, Va. -28, N.C. -2, S.C. +1, Fla. -1, Tenn. -9, Idaho -1, Guam +5; T. fever: Mass. +33, W.Va. +2, RMSF: Mo. +1, Tenn. -2; GC: Mass. -36, Fla. +2, Tenn. -1, N. Mex. -2, Guam +18; Syphilis: Del. +1, Fla. -3, Tenn. -2; An. rabies: N.H. +1, Ups. NY +3, S.C. +2, Fla. +2.

TABLE IV. Deaths in 121 U.S. cities,\* week ending  
September 23, 1978 (38th week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL	REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL
	ALL AGES	≥65	45-64	25-44	<1			ALL AGES	≥65	45-64	25-44	<1	
<b>NEW ENGLAND</b>	6.8	4.06	1.48	2.0	2.4	2.9	<b>S. ATLANTIC</b>	1,138	6.61	3.07	8.7	4.1	4.9
Boston, Mass.	1.96	1.18	5.5	1.0	1.0	1.2	Atlanta, Ga.	1.19	6.4	2.9	1.6	4.2	2
Bridgeport, Conn.	3.5	2.6	7	-	2	1	Baltimore, Md.	1.53	8.5	4.5	1.1	6.2	-
Cambridge, Mass.	2.5	2.1	4	-	-	1	Charlotte, N.C.	5.6	2.8	1.3	8.4	4	-
Fall River, Mass.	2.3	1.8	4	-	1	1	Jacksonville, Fla.	9.0	5.1	2.2	1.0	2	7
Hartford, Conn.	4.0	2.5	5	2	3	2	Miami, Fla.	1.30	7.0	4.3	8	7	6
Lowell, Mass.	2.3	2.0	2	1	-	-	Norfolk, Va.	6.5	3.7	1.9	5	2	2
Lynn, Mass.	1.8	1.4	3	1	-	1	Richmond, Va.	7.4	4.6	2.1	3	1	5
New Bedford, Mass.	3.1	2.5	6	-	-	-	Savannah, Ga.	4.1	2.7	7	4	2	3
New Haven, Conn.	5.4	3.5	1.5	2	1	1	St. Petersburg, Fla.	6.9	6.0	7	1	1	1
Providence, R.I.	5.1	3.3	1.6	-	-	3	Tampa, Fla.	1.01	6.4	2.3	4	4	9
Somerville, Mass.	5	3	2	-	-	-	Washington, D.C.	1.78	9.0	5.9	1.7	7	11
Springfield, Mass.	3.9	2.5	1.0	-	4	5	Wilmington, Del.	6.2	3.9	1.9	-	1	1
Waterbury, Conn.	2.6	1.2	8	3	-	-							
Worcester, Mass.	4.2	3.1	7	1	3	1							
							<b>E.S. CENTRAL</b>	713	4.26	1.74	4.8	2.8	3.5
<b>MID. ATLANTIC</b>	2,459	1,574	6.20	1.37	5.4	1.15	Birmingham, Ala.	9.5	6.1	2.2	2	7	1
Albany, N.Y.	5.3	3.2	1.2	1	5	1	Charlottesville, Va.	5.5	3.3	1.3	4	4	4
Allentown, Pa.	2.1	1.3	5	3	-	2	Chattanooga, Tenn.	4.1	2.9	8	3	-	3
Buffalo, N.Y.	1.15	7.4	2.8	5	1	7	Knoxville, Tenn.	1.20	6.7	3.5	5	4	9
Camden, N.J.	3.6	2.7	6	-	1	1	Louisville, Ky.	1.68	1.03	4.5	9	2	5
Elizabeth, N.J.	2.3	1.1	1.0	2	-	-	Memphis, Tenn.	9.1	5.5	1.9	8	3	2
Erie, Pa.	3.0	1.7	1.1	2	-	2	Mobile, Ala.	4.2	2.5	1.1	1	3	4
Jersey City, N.J.	3.4	2.4	8	2	-	1	Montgomery, Ala.	1.01	5.3	2.1	1.6	5	7
Newark, N.J.	4.4	2.0	1.1	7	3	-							
N.Y. City, N.Y.	1,390	9.04	3.41	7.1	3.0	6.0	<b>W.S. CENTRAL</b>	1,045	5.83	2.70	7.3	5.5	3.5
Paterson, N.J.	2.5	1.7	1	3	2	1	Austin, Tex.	5.9	3.6	1.1	6	2	8
Philadelphia, Pa.	2.86	1.74	8.6	1.3	5	1.5	Baton Rouge, La.	3.9	2.0	9	5	2	7
Pittsburgh, Pa.	7.7	4.0	3.0	5	1	2	Corpus Christi, Tex.	3.7	1.9	7	1	7	1
Reading, Pa.	3.0	2.3	5	-	1	-	Dallas, Tex.	1.43	7.8	3.7	1.0	1.0	4
Rochester, N.Y.	1.12	7.7	2.2	1.0	1	1.0	El Paso, Tex.	5.2	1.9	1.6	1	6	3
Schenectady, N.Y.	1.7	1.2	4	-	-	-	Fort Worth, Tex.	1.10	6.0	3.3	5	8	3
Scranton, Pa.	1.4	8	6	-	-	2	Houston, Tex.	1.38	6.5	4.1	1.7	4	2
Syracuse, N.Y.	6.5	3.8	1.6	9	2	2	Little Rock, Ark.	6.0	3.4	1.5	5	2	2
Trenton, N.J.	4.2	2.7	1.0	4	-	7	New Orleans, La.	1.65	1.04	3.5	1.4	6	-
Utica, N.Y.	2.4	2.0	3	-	1	-	San Antonio, Tex.	1.43	8.9	3.5	7	5	3
Yonkers, N.Y.	2.1	1.6	3	2	-	2	Shreveport, La.	3.6	1.7	1.5	1	1	1
							Tulsa, Okla.	6.3	4.2	1.6	1	2	4
<b>E.N. CENTRAL</b>	2,197	1,255	6.07	1.53	1.01	4.9	<b>MOUNTAIN</b>	578	3.44	1.37	4.5	2.7	1.3
Akron, Ohio	5.9	3.8	1.1	6	3	-	Albuquerque, N.Mex.	6.5	3.3	1.5	9	2	3
Canton, Ohio	4.3	2.5	1.6	-	1	2	Colorado Springs, Colo.	3.0	1.6	5	6	3	4
Chicago, Ill.	5.41	2.81	1.66	4.2	2.3	8	Denver, Colo.	1.33	8.9	2.7	5	3	2
Cincinnati, Ohio	1.34	7.7	3.4	1.1	7	1	Las Vegas, Nev.	6.0	3.1	1.7	7	3	2
Cleveland, Ohio	1.72	9.0	5.3	1.5	5	5	Ogden, Utah	1.7	1.0	7	-	-	-
Columbus, Ohio	1.35	7.9	4.2	3	7	3	Phoenix, Ariz.	1.21	7.3	2.7	1.0	8	-
Dayton, Ohio	9.3	4.4	3.5	9	3	2	Pueblo, Colo.	1.9	1.5	4	-	-	-
Detroit, Mich.	2.79	1.48	8.0	2.6	1.7	3	Salt Lake City, Utah	5.9	3.0	1.8	3	6	2
Evansville, Ind.	4.6	3.2	1.2	-	-	2	Tucson, Ariz.	7.4	4.7	1.7	5	2	-
Fort Wayne, Ind.	6.0	3.9	1.5	2	2	2							
Gary, Ind.	2.7	6	5	1.1	1	1	<b>PACIFIC</b>	1,513	9.36	3.68	1.04	4.6	3.7
Grand Rapids, Mich.	4.9	3.8	6	1	1	2	Berkeley, Calif.	1.6	1.1	2	3	-	-
Indianapolis, Ind.	1.38	7.6	4.4	7	5	2	Fresno, Calif.	6.5	3.7	1.7	3	4	8
Madison, Wis.	2.6	1.6	3	5	2	1	Glendale, Calif.	1.6	1.2	3	-	-	-
Milwaukee, Wis.	1.30	8.7	2.8	5	6	2	Honolulu, Hawaii	6.1	3.1	1.4	8	3	-
Peoria, Ill.	2.8	2.1	3	1	3	8	Long Beach, Calif.	1.11	6.9	2.8	7	3	1
Rockford, Ill.	5.4	3.8	5	2	3	4	Los Angeles, Calif.	4.16	2.59	1.11	2.0	1.5	1.2
South Bend, Ind.	4.5	3.2	5	2	2	1	Oakland, Calif.	7.1	3.8	2.1	7	2	-
Toledo, Ohio	1.00	7.1	1.7	4	5	-	Pasadena, Calif.	2.5	1.8	5	2	-	-
Youngstown, Ohio	3.8	1.7	1.5	1	5	-	Portland, Oreg.	9.7	6.3	1.9	5	5	-
							Sacramento, Calif.	6.0	3.9	1.2	4	2	3
<b>W.N. CENTRAL</b>	7.04	4.37	1.49	4.5	4.1	3.3	San Diego, Calif.	1.10	6.5	2.8	1.1	2	1
Des Moines, Iowa	6.2	4.0	1.4	4	3	1	San Francisco, Calif.	1.42	8.1	4.0	1.3	4	3
Duluth, Minn.	3.2	2.4	3	2	1	6	San Jose, Calif.	5.9	3.5	1.6	5	-	2
Kansas City, Kans.	3.6	1.7	1.0	3	-	3	Seattle, Wash.	1.77	1.20	3.7	1.1	2	3
Kansas City, Mo.	1.28	8.0	2.2	8	1.0	5	Spokane, Wash.	4.5	3.1	9	2	1	3
Lincoln, Neb.	2.1	1.2	7	-	2	3	Tacoma, Wash.	4.2	2.7	6	3	3	-
Minneapolis, Minn.	5.7	5.8	2.0	7	7	3							
Omaha, Neb.	6.4	3.9	7	1.0	4	-							
St. Louis, Mo.	1.39	8.1	3.5	5	1.0	3							
St. Paul, Minn.	6.3	4.6	1.3	3	1	3	<b>TOTAL</b>	10,955	6,622	2,780	7.12	4.17	3.95
Wichita, Kans.	6.2	4.0	1.4	3	3	7							
							<b>Expected Number</b>	10,779	6,527	2,767	6.94	4.26	3.71

\*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

Current Trends**Human Arboviral Activity – United States, Caribbean, Central America**

The 1978 arboviral season has been notably less active in the continental United States than in recent years. Only 3 cases of St. Louis Encephalitis (SLE) and 3 of Western Equine Encephalitis (WEE) have been identified since June. A total of 43 California Encephalitis (CE) cases including 2 deaths have been reported from 7 states; although 4 Eastern Equine Encephalitis (EEE) cases have been diagnosed in Florida, they were scattered in place and time. In contrast, substantial dengue activity has been noted in Puerto Rico and Central America.

**California Encephalitis**

**Arkansas:** CE infection has been serologically confirmed in an 8-year-old girl who had onset of acute encephalitis on July 13.

**Illinois:** The first report of the season involved a 3-year-old girl from Wabash County, Illinois, who had onset of disease on June 30 and was hospitalized with acute encephalitis in Indiana. Two subsequent cases of CE from Illinois involved 5- and 6-year old boys from Peoria County.

**Ohio:** Six cases have been reported in children from 6 counties across the state.

**Minnesota and Wisconsin:** On July 18, a 3-year-old girl who had been hospitalized in LaCrosse, Wisconsin, with acute encephalitis died (7). Virus isolated from brain tissue was identified as LaCrosse or a closely related strain of CE on July 24. The child's death and the flooding, earlier, in southeastern Minnesota and southwestern Wisconsin led to concern that arboviral outbreaks might be developing. On request from the Minnesota and Wisconsin State Epidemiologists, CDC teams assisted in investigating the situation and planning for appropriate controls. Surveillance for suspected cases was intensified, and diagnostic tests identified a total of 11 confirmed CE cases from Minnesota and 9 from Wisconsin (4 confirmed, 5 presumptive). Most cases involved rural children in the area hyperendemic for LaCrosse virus. Close surveillance for further CE and other arboviral activity is continuing in both states.

**New York:** One confirmed and 11 presumptive CE cases have been reported—more than for any other year. The confirmed case was in an 11-year-old girl from Erie County. Eight of the 12 cases were reported from northeastern New York.

**Tennessee:** CE infection has been confirmed in a 5-year-old boy from Memphis.

**Eastern Equine Encephalitis**

A total of 4 cases of EEE has been reported from widely scattered counties in Florida (Pasco, Collier, Alachua, Volusia). The case in Alachua County involved a 7-year-old boy with onset of acute encephalitis on July 2. Positive serum specimens were collected on July 10; he died on July 11. More than 100 laboratory-diagnosed EEE cases in horses have been reported from 37 counties in Florida. Sentinel chickens maintained for SLE surveillance have shown evidence of EEE infection in 8 counties. EEE activity has also been noted in juvenile birds collected in Mississippi near the Gulf Coast.

**St. Louis Encephalitis**

Three confirmed cases of SLE have been reported—1 from southern Arizona and 2 from western Tennessee. The Vector-Borne Diseases Division, CDC, at Fort Collins, Colorado, has reported that little evidence of recent transmission has been found in birds or mosquitos tested by surveillance systems across the United States.

*Human Arboviral Infection – Continued***Western Equine Encephalitis**

Three cases of WEE, all from Minnesota, have been laboratory-confirmed, although a number of suspected cases are under investigation. Equine cases have been documented by state laboratories in Arizona, California, and Colorado.

**Dengue**

**Caribbean:** Over 10,000 cases of dengue-like illness have been reported from Puerto Rico this year. Increased dengue transmission during the rainy season, which began the week of September 18, may result in increasing numbers of cases (2). Although no large outbreaks have been reported from other major Caribbean islands, dengue remains endemic in much of the area.

**Central America:** For the first time in nearly 40 years, dengue activity has been confirmed in Central America. An abrupt outbreak with attack rates reported to exceed 30% has been documented in the coastal areas of Honduras. Serum samples collected from cases in the major port city of San Pedro Sula indicate recent dengue infection, and viral isolates have been identified as type 1. Cases are suspected in Tegucigalpa, the inland capital, and extensive mosquito control efforts have been undertaken. In addition, there appears to be a dengue outbreak in El Salvador; viral isolates from suspected cases have been confirmed as type 1 dengue.

**United States (imported cases):** A total of 52 cases involving residents of 17 states have been reported from the continental United States in 1978. Cases were imported from Puerto Rico, Tahiti, and several locations in the Caribbean. Six of the imported cases are in 5 of the 10 southeastern states with known *A. aegypti* infestation.

*Reported by W Reeves, MD, Gorgas Memorial Laboratory, Panama; Vector Biology and Control Div, Bur of Tropical Diseases, San Juan Laboratories, Vector-Borne Diseases Div, Bur of Laboratories, and Viral Diseases Div, Bur of Epidemiology, CDC.*

**References**

1. MMWR 27:279, 1978
2. MMWR 27:304-306, 1978

**International Notes****Quarantine Measures**

The following changes should be made in the *Supplement – Health Information for International Travel*, MMWR, Vol. 26, August 1977:

**ARGENTINA**

Smallpox – Delete code I. Insert code II. Insert: A Certificate is required ALSO from travelers who within the preceding 14 days have been in a country any part of which is infected.

**OMAN**

Cholera – Delete code II >1 yr. Insert: None. Insert: Travelers who intend to reside in Oman will be subject to preventive measures, including vaccination, prescribed by the health administration.

Smallpox – Insert: Except NO Certificate is required from travelers arriving from:  
Americas: USA  
Europe: All countries

**SEYCHELLES**

Cholera – Delete code I. Insert code II.

*Quarantine Measures – Continued***SAINT HELENA**

Smallpox – Delete all information. Insert code II. Insert: A Certificate is required ALSO of travelers who within the preceding 14 days have been in a country any part of which is infected.

**SAUDI ARABIA**

Delete all information. Insert: *During the period of mass congregation from 3 September to 30 November 1978:*

Cholera – Code I. A Certificate showing a single dose of vaccine administered not less than 1 week and not more than 6 months before arriving in Saudi Arabia is required of ALL travelers.

Smallpox – Code I.

Yellow fever – Code II. A Certificate is required ALSO from travelers arriving from all countries any part of which is infected.

*During the period 11 December 1977 to 2 September 1978:*

Cholera – Code II. A Certificate showing a single dose of vaccine administered not less than 1 week and not more than 6 months prior to arrival is required ONLY from travelers arriving from a country any part of which is infected.

Yellow fever – Code II. A Certificate is required ALSO from travelers arriving from all countries any part of which is infected.

Smallpox – Code II. A Certificate is required ALSO from travelers who within the preceding 14 days have been in a country any part of which is infected.

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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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