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MORBIDITY AND MORTALITY WEEKLY REPORT

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Epidemiologic Notes and Reports

Plague — Arizona, California, New Mexico

Three bacteriologically confirmed bubonic plague cases have thus far been reported to CDC for 1978. One case was acquired in Arizona, 1 in California, and 1 in New Mexico (Table 1). None of the cases had secondary pneumonic involvement; there were no deaths.

TABLE 1. Reported confirmed cases of plague, United States, 1978

Case	Age	Sex	Onset	County	State
1	22	F	March	Coconino	Arizona
2	57	F	May	Siskiyou	California
3	14	M	June	Bernalillo	New Mexico

The case history of the third patient is of particular interest because it is fairly characteristic of the majority of plague cases acquired in New Mexico. On the evening of June 11, 1978, a 14-year-old boy had onset of fever, chills, headache, dizziness, and left inquinal pain and swelling. On June 12, nausea, vomiting, and abdominal pain developed, and he was seen by his physician. The initial evaluation did not result in a specific diagnosis, and the patient was sent home with instructions to return the following day if unimproved. The patient returned on June 13 and was admitted to the hospital. Admission physical examination revealed a blood pressure of 95/50, pulse of 95, respiratory rate of 22, and temperature of 39.4 C (102.9 F). An extremely painful, left inguinal lymph node, 1½ X 2 cm in diameter, was detected; it was non-fluctuant and associated with overlying soft tissue edema without erythema. Several scratches on the trunk and extremities, not suggestive of insect bites, were attributed to working with bales of hay. The remainder of the examination was unremarkable. Clinical laboratory data revealed a white blood cell count of 11,600/mm^3; the differential was 6 metamyelocytes, 51 bands, 39 segmented neutrophils, 3 lymphocytes, and 1 eosinophile. There was a mild elevation of SGOT and LDH, but the bilirubin and alkaline phosphatase were normal. A chest X ray was also normal.

Based on the history, physical examination, and preliminary laboratory studies, a tentative diagnosis of bubonic plague was made, and the patient was placed in strict isolation. Streptomycin and tetracycline therapy was begun after 2 blood cultures and a bubo aspirate were obtained. Both blood cultures and the bubo aspirate—tentatively positive for *Yersinia pestis* by direct fluorescent antibody testing on the day of admission—subsequently yielded *Y. pestis* on culture.

The patient's hospital course was unremarkable; inguinal pain remained the predominant symptom. He was removed from isolation after receiving specific antimicrobial

Plague — Continued

therapy for 48 hours. His temperature gradually returned to normal by June 18, and he was discharged on June 19.

No additional illness was detected in the patient's family, in a friend with whom he worked, or in that friend's family. The patient and his family resided on a ranch in Bernalillo County. They owned, in addition to horses, 2 cats and 4 dogs, a number of which were allowed to roam freely. All pet cats and dogs wore flea collars, but none of the animals had been dusted with insecticides this year. No illness was reported in any of the domestic animals.

The patient specifically denied contact with wild animals. Although he hunts, he had not done so this season. In the week before onset of illness, he had spent most of his time in or around his home. On June 9, the patient, his father, and the boy's friend had transferred hay from a storage barn to feeder stables, where horses are kept. On June 10, they replenished the storage barn with a fresh supply of hay. Although the patient denied receiving flea bites, he noted generalized pruritis after working with the hay.

Environmental investigation revealed that the ranch was located in piñon-juniper habitat. Numerous sources of man-made and naturally occurring rodent harborage were found. Although several abandoned rodent burrows were found on the premises, one, located at an unused stable adjacent to the storage barn, had numerous fleas at its entrance. Of the rodent and flea specimens submitted for culture, only pools of fleas which were obtained from the abandoned burrow at the stable have thus far been positive for *Y. pestis* on culture. No fleas were recovered from the dogs or cats.

Reported by W Milburn, MD, Albuquerque; F Malone, C Montman, Albuquerque Environmental Health Dept; J Mann, MD, State Epidemiologist, A Pressman, MD, G Graves, P Matzner, New Mexico Health and Environmental Dept; A Kelter, MD, State Epidemiologist, Arizona State Dept of Health Services; SB Werner, MD, California Dept of Health; Plague Br, Vector-borne Diseases Div, Bur of Laboratories, Field Services Div, Bacterial Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: A review of potential exposures for plague cases from 1949-1976 in New Mexico reveals that often no history of exposure (e.g., eviscerating or skinning wild animals or traveling to plague-endemic areas to work) was given for the week before onset of illness. In many, the immediate vicinity of the home would have to be considered the most likely source of infection. Man-made sources of rodent harborage and food may be important in attracting wild rodents to their homes and is an area presently being investigated. The role of domestic pets in transporting infective wild rodent fleas to the home is an area requiring further investigation.

Nosocomial Respiratory Syncytial Virus Infections in an Intensive Care Nursery — California

An outbreak of upper respiratory infection and pneumonia involving 9 infants and caused by respiratory syncytial virus (RSV) occurred in a 16-bed intensive care nursery (ICN) of a hospital and medical center in San Francisco, California, from February 25 through March 19, 1978 (Table 2).

On February 25, an 18-week-old premature infant with hyaline membrane disease and bronchopulmonary dysplasia developed fever with respiratory distress and had a convulsion. A nasopharyngeal viral culture taken then was subsequently positive for RSV. Two days later 2 other premature infants (aged 13 and 35 weeks) developed sneezing, cough, rhonchi, and rales. The 13-week-old was in isolation for a previously documented cytomegalovirus infection. Nasopharyngeal viral cultures from both of these infants were reported positive for RSV on March 2.

RSV Infection — Continued

TABLE 2. Clinical data on 9 infants with nosocomial RSV infection, California, Feb. 25-March 19, 1978

Patient	Age (weeks)	Sex	Date of first symptom	FA results	Culture results	Interval between +FA and +culture (days)	Fever	Upper respiratory symptoms	Pneumonia	Severity of illness
1	18	M	2/25	+	+	N/A*	yes	no	yes	severe
2	13	F	2/27	+	+	N/A*	yes	no	yes	severe
3	35	M	2/24	N/D†	+	N/A	yes	yes	yes	moderate
4	3	M	2/28	+	+	8	yes	yes	yes	moderate
5	11	F	unknown	+	—	N/A	no	no	no	unknown
6	6	F	3/2	+	+	5	no	yes	no	mild
7	6	M	3/7	+	+	2	no	yes	no	mild
8	6 days	M	3/19	—	+	N/A	no	yes	no	mild
9**	2	F	3/10	+	+	5	no	yes	no	mild

*N/A = not applicable. Patients 1 and 2 had positive RSV cultures reported before FA screening was begun.

†N/D = not done

**This patient was not in the Intensive Care Nursery.

At that time the following procedures were instituted: (1) RSV fluorescent antibody (FA) screening and viral cultures were performed on nasopharyngeal swabs from all ICN patients; (2) all positive patients were isolated in a separate room; (3) strict handwashing, gowning, and gloving procedures were required before contact with all ICN patients (masking was not required); (4) certain nursing staff were assigned exclusively to infected infants; and (5) all nursing staff with upper respiratory symptoms were considered infected with RSV. If well enough to work, they were allowed to care only for already-infected infants.

On the basis of direct FA screening, 2 additional infants were found positive for RSV on March 2 and were isolated. One (patient 4, Table 2) had a collapsed right upper lobe; a culture was positive for RSV. The other (patient 5) had no respiratory symptoms; 2 of 3 FA studies were borderline-positive for RSV, and none of 8 viral cultures was positive.

FA screening was repeated March 6 on the remaining 11 patients in the unit, but no new cases were identified. The following day 2 patients, both aged 6 weeks, developed mild upper respiratory symptoms. Repeat FA testing was positive on both; cultures taken at this time subsequently grew RSV.

On March 19, a 6-day-old infant who had been in the ICN since birth developed nasal congestion. FA studies were negative, and he was discharged from the hospital 2 days later. Viral cultures taken before discharge were later positive for RSV.

One additional infant developed RSV infection in association with this outbreak. The child, born on February 28, remained in the newborn nursery, a room adjoining the ICN, for 6 days because of neonatal hyperbilirubinemia. She was discharged on March 7 but was readmitted to another hospital ward on March 15 because of rhinorrhea and cough of 5 days' duration. FA studies and viral culture were both positive for RSV at the time of readmission. The child had had no direct contact with ICN babies during her first hospitalization. The nursing staffs of the intensive care and newborn nurseries are separate, but patients in both units are cared for by the same house staff members.

Routine viral screening of nursing and house staff members was not performed. However, from March 7-March 21 FA studies and viral cultures were performed on 2 pediatric house officers, 11 ICN nurses, 1 nursery X-ray technician, and 1 phlebotomist, who regularly bled patients in the ICN. All 15 reported upper respiratory illnesses with onset occurring from 1 to 13 days (mean 4.9 days) before viral testing. The RSV FA test was strongly positive in 1 nurse and weakly positive in 4 additional nurses and the phleboto-

RSV Infection – Continued

mist. None of the adults was positive by culture, perhaps owing to the delay in obtaining cultures after onset of symptoms.

Reported by R Ballard, MD, WL Drew, MD, PhD, L Mintz, MD, R Roth, MD, S Sniderman, MD, Mount Zion Hospital and Medical Center, San Francisco; Respiratory Section, Respiratory and Special Pathogens Br, Viral Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: Nosocomial RSV infections have been described in pediatric wards (*1*) and in newborn (*2*) and premature infant (*3*) nurseries. In these settings, transmission appears to occur primarily via the hands and clothing of staff members rather than by direct patient-to-patient contact or aerosol spread (*1*). Preventive measures such as handwashing, gowning and gloving, and isolation of infected children appear to be effective in reducing nosocomial spread (*4*).

Identification of RSV-infected patients by viral culture necessarily entails a delay of several days until culture results are known. The speed and sensitivity of viral isolation can be enhanced by direct bedside inoculation of tissue culture cells (*5*). This technique was utilized in the present outbreak and resulted in viral isolation within 3 to 8 days of culture (mean 4.9 days). The use of direct FA staining of nasopharyngeal smears, on the other hand, permitted identification of infected infants within hours of receipt of the specimen. This technique identified 7 of 8 culture-positive infants (87.5%). Direct fluorescent antibody staining was extremely useful in the rapid detection of RSV infection in infants and permitted prompt institution of specific infection-control measures.

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

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

DISEASE	29th WEEK ENDING		MEDIAN 1973-1977**	CUMULATIVE, FIRST 29 WEEKS		
	July 22, 1978	July 23, 1977*		July 22, 1978	July 23, 1977*	MEDIAN 1973-1977**
Aseptic meningitis	124	146	88	1,523	1,542	1,335
Brucellosis	2	7	6	84	113	113
Chickenpox	1,017	899	938	119,386	157,715	142,640
Diphtheria	–	–	2	48	54	119
Encephalitis: Primary (arthropod-borne & unspec.)	22	28	22	346	378	466
Post-infectious	6	2	5	113	116	169
Hepatitis, Viral: Type B	258	371	240	8,154	9,171	6,221
Type A	510	566	646	15,820	17,337	19,540
Type unspecified	146	187		4,861	4,954	
Malaria	19	14	14	356	267	209
Measles (rubeola)	278	499	289	21,532	51,159	23,240
Meningococcal infections: Total	41	23	26	1,512	1,122	938
Civilian	40	23	26	1,493	1,115	914
Military	1	–	–	19	7	21
Mumps	138	181	530	12,359	15,092	42,245
Pertussis	39	44	---	997	533	---
Rubella (German measles)	135	410	122	14,353	17,992	14,274
Tetanus	1	2	3	41	35	35
Tuberculosis	673	596	644	16,548	16,772	17,682
Tularemia	13	5	5	57	76	79
Typhoid fever	10	7	9	238	188	206
Typhus fever, tick-borne (Rky. Mt. spotted)	51	72	48	501	609	411
Venereal diseases:						
Gonorrhea: Civilian	22,490	22,265	21,423	527,339	530,099	530,099
Military	472	541	541	13,693	15,135	15,758
Syphilis, primary & secondary: Civilian	393	391	448	11,373	11,418	13,531
Military	6	1	7	160	167	190
Rabies in animals	30	61	61	1,658	1,673	1,639

TABLE II. Notifiable diseases of low frequency, United States

	CUM. 1978		CUM. 1978
Anthrax	4	Poliomyelitis: Total	–
Botulism	51	Paralytic	–
Congenital rubella syndrome	20	Psittacosis (Calif. 1)	58
Leprosy (Tex. 3, Calif. 1)	79	Rabies in man	–
Leptospirosis (Tex. 2)	33	Trichinosis (Mo. 1)	37
Plague	2	Typhus fever, flea-borne (endemic, murine) (Tex. 1)	24

*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.

†Delayed report: Leptospirosis: Va. +1 (1977)

TABLE III. Cases of specified notifiable diseases, United States, weeks ending July 22, 1978, and July 23, 1977 (29th week)

REPORTING AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKENPOX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS (VIRAL), BY TYPE			MALARIA	
						Primary		Post-infectious	B	A	Unspecified		
	1978	1978	1978	1978	CUM. 1978	1978	1977*	1978	1978	1978	1978	1978	CUM. 1978
UNITED STATES	124	2	1,017	–	48	22	28	6	258	510	146	19	356
NEW ENGLAND	1	–	60	–	–	–	2	–	4	10	2	–	14
Maine	1	–	8	–	–	–	–	–	–	2	–	–	1
N.H.†	–	–	1	–	–	–	–	–	–	2	–	–	2
Vt.	–	–	–	–	–	–	–	–	–	2	–	–	–
Mass.	–	–	27	–	–	–	2	–	3	3	2	–	3
R.I.	–	–	17	–	–	–	–	–	1	–	–	–	1
Conn.	–	–	7	–	–	–	–	–	–	1	–	–	7
MID. ATLANTIC	23	–	356	–	1	2	3	1	47	43	16	2	69
Upstate N.Y.	9	–	251	–	–	2	–	1	5	15	4	1	10
N.Y. City	4	–	96	–	1	–	1	–	3	2	2	–	29
N.J.†	8	–	NN	–	–	–	–	–	27	18	7	1	15
Pa.	2	–	9	–	–	–	2	–	12	8	3	–	15
E.N. CENTRAL	7	–	364	–	–	3	7	–	21	85	16	–	17
Ohio†	2	–	66	–	–	–	1	–	11	25	–	–	3
Ind.†	1	–	–	–	–	2	5	–	2	12	8	–	3
Ill.	–	–	144	–	–	–	–	–	2	22	–	–	4
Mich.	4	–	40	–	–	1	1	–	6	15	8	–	6
Wis.	–	–	114	–	–	–	–	–	–	11	–	–	1
W.N. CENTRAL	7	1	9	–	1	1	2	–	14	26	3	–	17
Minn.	–	–	–	–	–	–	–	–	7	12	–	–	4
Iowa	–	–	4	–	–	–	–	–	1	2	–	–	–
Mo.†	6	–	3	–	1	1	–	–	5	8	1	–	6
N. Dak.	–	–	1	–	–	–	1	–	–	–	–	–	–
S. Dak.	–	–	–	–	–	–	–	–	–	–	–	–	1
Nebr.	1	–	–	–	–	–	1	–	1	2	1	–	3
Kans.	–	1	1	–	–	–	–	–	–	2	1	–	3
S. ATLANTIC	26	1	77	–	–	3	5	2	59	82	15	7	71
Del.	2	–	1	–	–	–	–	–	–	–	1	–	1
Md.	1	–	–	–	–	–	2	–	2	4	3	–	15
D.C.	–	–	–	–	–	–	–	–	–	–	–	–	–
Va.	5	–	12	–	–	–	–	–	10	5	1	1	17
W. Va.	–	1	15	–	–	–	–	–	3	2	–	–	1
N.C.	11	–	NN	–	–	3	1	–	2	3	1	3	6
S.C.	1	–	5	–	–	–	2	–	3	3	–	–	4
Ga.	–	–	–	–	–	–	–	–	6	19	–	–	6
Fla.	6	–	44	–	–	–	–	2	33	46	9	3	21
E.S. CENTRAL	11	–	10	–	–	6	–	2	27	38	1	–	3
Ky.	–	–	6	–	–	1	–	–	2	–	–	–	1
Tenn.	5	–	NN	–	–	3	–	1	17	26	–	–	1
Ala.	4	–	3	–	–	1	–	1	4	4	1	–	1
Miss.	2	–	1	–	–	1	–	–	4	8	–	–	–
W.S. CENTRAL	27	–	37	–	1	5	1	–	20	58	31	1	19
Ark.	2	–	2	–	1	–	–	–	3	5	4	–	–
La.†	10	–	NN	–	–	–	–	–	3	10	4	–	3
Okla.	5	–	–	–	–	1	–	–	9	5	4	–	–
Tex.†	10	–	35	–	–	4	1	–	5	38	19	1	16
MOUNTAIN	–	–	75	–	3	–	–	–	14	70	16	–	4
Mont.†	–	–	10	–	–	–	–	–	1	3	–	–	–
Idaho	–	–	–	–	–	–	–	–	–	15	–	–	–
Wyo.	–	–	–	–	–	–	–	–	–	1	–	–	–
Colo.	–	–	30	–	2	–	–	–	3	10	3	–	1
N. Mex.	–	–	–	–	–	–	–	–	2	9	–	–	1
Ariz.	–	–	NN	–	–	–	–	–	7	27	12	–	1
Utah	–	–	34	–	–	–	–	–	–	2	–	–	–
Nev.	–	–	1	–	1	–	–	–	1	3	1	–	1
PACIFIC	22	–	29	–	42	2	8	1	52	98	46	9	142
Wash.	–	–	11	–	39	–	2	–	3	14	1	–	6
Oreg.	4	–	–	–	–	–	–	–	8	18	3	–	3
Calif.†	17	–	–	–	–	2	6	1	41	61	39	8	115
Alaska	1	–	10	–	3	–	–	–	–	2	2	1	3
Hawaii	–	–	8	–	–	–	–	–	–	3	1	–	15
Guam†													
P.R.	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	–
V.I.	–	–	2	–	–	–	–	–	–	3	1	–	4
	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	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. meng.: N.H. –1, La. –1; Chickenpox: N.H. +3, Ind. +34, Calif. +1, Guam +8; Enceph.: Ind. +1; Hep. B: N.J. +2, Mo. –2, La. –1, Tex. +1; Hep. A: N.H. –1, N.J. +3, Ohio –1, La. –5, Mont +1; Hep. unsp.: Mo. –2, Tex. –1, Mont. –1.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending July 22, 1978, and July 23, 1977 (29th week)

REPORTING AREA	MEASLES (RUBEOLA)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1978	CUM. 1978	CUM. 1977*	1978	CUM. 1978	CUM. 1977*	1978	CUM. 1978	1978	1978	CUM. 1978	CUM. 1978
UNITED STATES	278	21,532	51,159	41	1,512	1,122	138	12,359	39	135	14,353	41
NEW ENGLAND	10	1,951	2,461	4	72	49	4	706	–	9	700	1
Maine	2	1,335	164	–	6	3	–	483	–	1	146	–
N.H.	–	45	510	1	7	3	–	11	–	1	98	–
Vt.	–	25	290	–	2	4	–	5	–	–	27	1
Mass.†	8	247	618	1	18	17	2	82	–	5	203	–
R.I.	–	7	61	–	16	1	2	31	–	–	40	–
Conn.	–	318	818	2	23	21	–	94	–	2	186	–
MID. ATLANTIC	47	2,013	8,111	7	254	147	3	529	7	23	2,805	2
Upstate N.Y.	19	1,317	3,696	3	82	32	–	184	3	2	488	1
N.Y. City	24	295	662	1	62	40	3	127	4	9	105	–
N.J. †	4	69	193	1	44	32	–	126	–	9	1,577	–
Pa.	–	332	3,560	2	66	43	–	92	–	3	635	1
E.N. CENTRAL	83	9,274	10,399	2	136	120	52	4,902	1	50	6,664	2
Ohio†	–	466	1,337	2	49	37	16	771	1	12	1,327	1
Ind. †	–	165	4,276	–	26	8	–	271	–	–	523	1
Ill.	8	581	1,515	–	6	31	9	1,619	–	2	411	–
Mich.	62	6,652	908	–	44	32	7	1,320	–	20	2,923	–
Wis.	13	1,410	2,363	–	11	12	20	921	–	16	1,480	–
W.N. CENTRAL	5	375	9,376	2	53	52	10	1,880	4	10	620	5
Minn.	–	34	2,596	2	12	19	2	17	4	3	127	1
Iowa	2	51	4,259	–	5	7	–	120	–	2	49	–
Mo. †	–	11	1,033	–	23	15	8	1,148	–	1	91	–
N. Dak.	–	185	22	–	3	1	–	11	–	1	80	–
S. Dak.	–	–	66	–	2	4	–	6	–	–	110	–
Nebr.	–	5	192	–	–	1	–	18	–	–	34	–
Kans.	3	85	1,208	–	8	5	–	560	–	3	129	4
S. ATLANTIC	64	4,667	4,383	14	389	259	19	663	5	19	966	6
Del.	–	5	22	–	12	17	3	48	–	–	34	–
Md.	5	42	371	2	19	17	3	60	–	1	6	1
D.C.	–	–	14	–	1	–	–	1	–	–	1	–
Va.	9	2,787	2,595	1	48	19	4	119	–	1	230	–
W. Va.	3	1,009	206	1	8	9	1	153	–	3	322	–
N.C.	2	111	60	3	78	58	–	56	2	10	178	1
S.C.	–	193	146	–	24	26	–	15	–	–	26	1
Ga.	2	17	760	1	45	37	1	62	3	1	3	–
Fla.	43	503	209	6	154	76	7	149	–	3	166	3
E.S. CENTRAL	13	1,349	1,921	4	121	127	25	1,050	–	3	479	1
Ky.	–	115	1,156	–	23	26	–	179	–	–	122	1
Tenn.	11	937	657	1	30	30	2	433	–	3	189	–
Ala.	–	89	77	2	37	47	20	373	–	–	21	–
Miss.	2	208	31	1	31	24	3	65	–	–	147	–
W.S. CENTRAL	7	933	2,017	5	233	197	10	1,587	12	4	878	13
Ark.	–	16	29	1	21	9	–	577	3	–	57	1
La. †	2	316	74	2	93	76	2	60	–	–	482	1
Okla.	–	13	54	–	16	10	–	4	–	–	11	2
Tex.	5	588	1,860	2	103	102	8	946	9	4	328	9
MOUNTAIN	3	235	2,474	1	32	29	10	366	4	1	186	1
Mont.	–	102	1,152	–	1	2	–	136	2	–	17	–
Idaho	–	1	161	–	3	4	–	20	–	–	2	–
Wyo.	–	–	15	–	–	1	–	–	–	–	–	–
Colo.	1	29	496	–	2	1	–	74	1	–	43	–
N. Mex. †	–	–	253	–	7	7	–	15	–	–	3	–
Ariz.	1	44	296	–	11	10	–	10	1	1	99	–
Utah	–	44	8	–	4	3	10	107	–	–	23	1
Nev.	1	15	93	1	4	1	–	4	–	–	9	–
PACIFIC	46	735	10,017	2	222	142	5	676	6	16	1,055	10
Wash.	36	134	524	–	39	18	–	164	1	1	93	–
Oreg.	–	140	347	1	20	17	–	76	–	–	91	–
Calif.	9	456	9,052	1	154	80	5	406	5	15	863	10
Alaska	–	–	60	–	5	25	–	6	–	–	2	–
Hawaii	1	5	34	–	4	2	–	24	–	–	6	–
Guam †	NA	24	4	–	–	–	NA	31	NA	NA	1	1
P.R.	4	199	827	–	2	1	25	1,034	–	–	15	5
V.I.	NA	6	14	–	1	–	NA	1	NA	NA	1	–

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: Measles: Mass. –2, Ind. +1; Men. inf.: La. –2; Mumps: Ind. +2, Mo. –1; Pertussis: N.J. +1, Ind. +2, Mo. +5, N. Mex. +2; Rubella: Ohio –86, Ind. +9, La. –3, Guam +2.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending July 22, 1978, and July 23, 1977 (29th week)

REPORTING AREA	TUBERCULOSIS		TULAREMIA	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	673	16,548	57	10	238	51	501	22,490	527,339	530,099	393	11,373	11,418	1,658
NEW ENGLAND	16	535	–	2	38	–	9	396	13,568	13,725	12	337	479	65
Maine†	2	38	–	–	–	–	–	40	1,031	987	–	8	14	58
N.H.	–	10	–	–	5	–	–	24	626	545	–	4	3	1
Vt.	–	23	–	–	1	–	–	5	314	362	–	3	6	–
Mass.	6	305	–	2	23	–	4	136	5,949	5,910	7	207	338	4
R.I.	4	39	–	–	4	–	1	44	966	1,154	2	16	7	–
Conn.	4	120	–	–	5	–	4	147	4,682	4,767	3	99	111	2
MID. ATLANTIC	109	2,843	3	3	26	3	28	2,316	56,681	53,706	44	1,528	1,598	42
Upstate N.Y.	15	427	2	–	7	1	15	278	9,454	8,914	–	111	151	35
N.Y. City†	53	1,004	1	3	13	–	2	841	22,220	21,323	33	1,086	1,004	–
N.J.	14	711	–	–	4	2	4	596	10,717	9,268	5	170	207	5
Pa.	27	701	–	–	2	–	7	601	14,290	14,201	6	161	236	2
E.N. CENTRAL	119	2,528	1	–	11	1	14	3,733	78,819	82,272	34	1,227	1,225	86
Ohio	16	463	1	–	5	1	9	906	20,680	21,394	2	228	279	11
Ind.	11	305	–	–	–	–	1	621	8,121	7,638	8	67	92	6
Ill.	40	962	–	–	1	–	4	1,125	24,572	26,750	16	770	660	25
Mich.†	52	692	–	–	5	–	–	764	18,231	18,919	6	123	138	3
Wis.	–	106	–	–	–	–	–	317	7,215	7,571	2	39	56	41
W.N. CENTRAL	15	557	10	–	11	1	12	1,170	26,631	27,565	7	272	255	362
Minn.	1	105	–	–	4	–	–	282	4,630	4,985	2	113	81	121
Iowa	3	61	–	–	2	–	–	101	3,002	3,214	–	32	24	72
Mo.†	2	233	9	–	3	1	8	517	11,397	11,684	4	74	88	44
N. Dak.	1	27	–	–	–	–	1	27	489	513	–	2	2	58
S. Dak.	1	47	–	–	–	–	–	59	954	743	–	1	2	46
Nebr.†	–	11	–	–	–	–	–	34	1,940	2,363	1	8	24	2
Kans.	7	73	1	–	2	–	3	150	4,219	4,063	–	42	34	19
S. ATLANTIC	167	3,580	5	4	34	31	289	5,544	127,330	131,764	107	3,027	3,250	221
Del.	3	29	–	–	1	–	4	57	1,750	1,810	1	6	17	1
Md.†	26	549	4	2	5	5	63	741	16,308	16,386	4	240	211	–
D.C.	3	192	–	–	1	–	–	314	8,378	8,707	8	241	339	–
Va.†	32	383	1	–	6	14	66	458	12,056	13,451	5	255	323	4
W. Va.	6	156	–	–	2	1	9	78	1,842	1,814	–	8	1	2
N.C.†	33	542	–	–	2	8	94	1,100	18,382	19,440	12	291	465	5
S.C.†	6	312	–	1	4	3	30	540	12,622	12,108	9	156	143	48
Ga.	19	483	–	1	3	–	23	1,406	23,674	25,858	21	733	651	150
Fla.†	39	934	–	–	10	–	–	850	32,318	32,190	47	1,097	1,100	11
E.S. CENTRAL	66	1,552	5	–	5	11	90	1,933	45,662	47,714	20	578	401	84
Ky.	16	352	2	–	2	2	28	176	5,580	6,557	5	74	50	46
Tenn.	10	463	3	–	1	8	54	615	16,715	19,283	5	199	124	17
Ala.	16	374	–	–	1	1	5	526	13,235	12,981	1	88	73	21
Miss.	24	363	–	–	1	–	3	616	10,132	8,893	9	217	154	–
W.S. CENTRAL	80	1,939	28	–	27	4	54	2,968	73,081	67,381	112	1,827	1,571	543
Ark.	3	213	19	–	2	–	8	336	5,530	5,056	–	46	37	78
La.†	20	324	5	–	2	1	1	487	12,065	10,135	44	396	362	11
Okla.†	8	202	3	–	2	3	33	234	6,871	6,291	2	53	43	122
Tex.†	49	1,200	1	–	21	–	12	1,911	48,615	45,929	66	1,332	1,129	332
MOUNTAIN	30	486	3	–	12	–	4	900	19,668	21,444	9	223	227	27
Mont.	–	31	–	–	–	–	2	49	1,163	1,067	–	7	3	4
Idaho	–	20	2	–	5	–	1	36	733	1,007	–	6	5	–
Wyo.	1	12	–	–	–	–	–	17	440	517	–	4	2	–
Colo.†	1	43	–	–	2	–	–	229	5,442	5,519	5	65	70	–
N. Mex.	2	76	–	–	1	–	–	101	2,861	3,188	–	54	40	9
Ariz.	22	238	–	–	2	–	–	324	5,083	6,164	–	48	94	12
Utah	2	25	1	–	1	–	–	27	1,059	1,186	–	11	5	2
Nev.	2	41	–	–	1	–	1	117	2,887	2,796	4	28	8	–
PACIFIC	71	2,528	2	1	74	–	1	3,530	85,899	84,528	48	2,354	2,412	228
Wash.†	–	112	–	–	6	–	–	233	6,685	6,276	–	80	127	1
Oreg.	7	111	–	–	1	–	–	228	5,921	5,802	–	79	68	4
Calif.	51	1,930	2	1	60	–	1	2,924	68,945	67,878	48	2,165	2,177	217
Alaska†	–	46	–	–	–	–	–	83	2,749	2,770	–	7	16	6
Hawaii	13	329	–	–	7	–	–	62	1,599	1,802	–	23	24	–
Guam†														
P.R.	NA	33	–	NA	–	NA	–	NA	108	130	NA	–	1	–
V.I.	5	240	–	–	1	–	–	29	1,268	1,788	6	249	310	15
	NA	4	–	NA	2	NA	–	NA	112	115	NA	9	5	–

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: NYC +71, Mich. –2, Nebr. +1, Md. –3, N.C. –2, S.C. –1, Fla. –3, Guam +2; T. fever: Mo. +1, Va. –1, Tex. –1, Colo. +1; RMSF: Md. –1, Va. –1; GC: Md. +32 civ., La. –2 civ., Okla +100 mil., Wash. +84 mil., Alaska –1 civ +1 mil., Guam +5; Syphilis: Maine –1 civ., Md. –5 civ., Wash. +22 civ. +2 mil.; An. rabies: Wash. –1.

TABLE IV. Deaths in 121 U.S. cities,* week ending July 22,1978 (29th week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL
	ALL AGES	≥65	45-64	25-44	<1	
NEW ENGLAND	596	391	132	35	17	24
Boston, Mass.	175	97	47	14	9	9
Bridgeport, Conn.	41	31	9	1	–	3
Cambridge, Mass.	14	5	9	–	–	1
Fall River, Mass.	23	21	2	–	–	–
Hartford, Conn.	43	26	11	1	3	1
Lowell, Mass.	18	12	5	1	–	–
Lynn, Mass.	23	18	4	–	–	1
New Bedford, Mass.	23	14	6	1	1	–
New Haven, Conn.	42	30	5	4	–	–
Providence, R.I.	58	41	11	4	2	5
Somerville, Mass.	6	3	3	–	–	–
Springfield, Mass.	52	35	10	4	1	1
Waterbury, Conn.	32	27	2	2	1	2
Worcester, Mass.	46	31	8	3	–	1
MID. ATLANTIC	2,456	1,535	605	167	69	85
Albany, N.Y.	52	35	12	2	1	–
Allentown, Pa.	29	9	11	7	–	–
Buffalo, N.Y.	121	70	25	14	4	9
Camden, N.J.	39	21	12	1	1	–
Elizabeth, N.J.	22	16	5	1	–	–
Erie, Pa.	24	16	7	–	–	–
Jersey City, N.J.	37	22	11	3	1	1
Newark, N.J.	57	23	16	8	9	3
N.Y. City, N.Y.	1,251	795	307	85	24	36
Paterson, N.J.	33	22	7	2	2	3
Philadelphia, Pa.†	339	148	94	24	12	12
Pittsburgh, Pa.	68	45	19	1	2	2
Reading, Pa.	42	33	6	3	–	1
Rochester, N.Y.	125	85	25	6	6	6
Schenectady, N.Y.	25	17	5	2	–	1
Scranton, Pa.	31	21	9	–	1	3
Syracuse, N.Y.	85	54	16	4	5	–
Trenton, N.J.	32	16	13	3	–	4
Utica, N.Y.	18	17	–	–	1	3
Yonkers, N.Y.	26	20	5	1	–	1
E.N. CENTRAL	2,174	1,291	546	154	78	49
Akron, Ohio	71	40	21	5	1	–
Canton, Ohio	33	22	8	2	1	1
Chicago, Ill.	532	302	140	50	17	12
Cincinnati, Ohio	157	109	37	6	4	3
Cleveland, Ohio	156	83	41	10	13	2
Columbus, Ohio	136	83	34	9	5	8
Dayton, Ohio	117	60	37	11	5	1
Detroit, Mich.	247	131	74	21	4	5
Evansville, Ind.	32	23	6	2	–	–
Fort Wayne, Ind.	56	37	9	2	3	–
Gary, Ind.	24	14	4	4	–	1
Grand Rapids, Mich.	40	25	13	1	1	2
Indianapolis, Ind.	131	73	34	6	6	–
Madison, Wis.	39	25	8	1	3	4
Milwaukee, Wis.	121	89	21	4	–	1
Peoria, Ill.	47	27	9	4	3	3
Rockford, Ill.	44	28	9	4	1	1
South Bend, Ind.	35	16	13	1	4	4
Toledo, Ohio	95	61	20	8	2	1
Youngstown, Ohio	61	43	8	3	5	–
W.N. CENTRAL	750	468	167	47	36	22
Des Moines, Iowa	71	49	13	4	3	–
Duluth, Minn.	26	20	4	2	–	1
Kansas City, Kans.	33	19	6	2	3	1
Kansas City, Mo.	113	78	22	6	3	7
Lincoln, Nebr.	21	11	7	2	–	1
Minneapolis, Minn.	98	55	26	5	8	2
Omaha, Nebr.	68	41	13	5	8	2
St. Louis, Mo.	187	117	35	16	8	2
St. Paul, Minn.	68	42	20	3	1	–
Wichita, Kans.	65	36	21	2	2	6

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL
	ALL AGES	≥65	45-64	25-44	<1	
S. ATLANTIC	1,151	645	338	85	29	61
Atlanta, Ga.	128	55	52	15	1	6
Baltimore, Md.	259	142	80	23	6	7
Charlotte, N.C.	55	35	9	2	1	1
Jacksonville, Fla.	112	63	31	5	4	6
Miami, Fla.	71	34	28	6	2	8
Norfolk, Va.	64	32	20	4	6	7
Richmond, Va.	68	36	22	6	2	11
Savannah, Ga.	39	29	5	–	–	3
St. Petersburg, Fla.	88	66	18	1	1	4
Tampa, Fla.	67	43	16	6	1	5
Washington, D.C.	154	86	44	14	4	1
Wilmington, Del.	46	24	13	3	1	2
E.S. CENTRAL	772	459	214	54	15	28
Birmingham, Ala.	137	80	35	9	7	1
Chattanooga, Tenn.	57	35	17	3	1	3
Knoxville, Tenn.	50	40	9	1	–	3
Louisville, Ky.	120	72	34	3	2	7
Memphis, Tenn.	158	87	39	21	2	5
Mobile, Ala.	88	52	27	7	–	4
Montgomery, Ala.	35	22	11	1	1	1
Nashville, Tenn.	127	71	42	9	2	4
W.S. CENTRAL	1,364	754	354	113	61	31
Austin, Tex.	62	43	13	3	–	4
Baton Rouge, La.	39	21	11	4	1	1
Corpus Christi, Tex.	33	14	9	5	4	1
Dallas, Tex.	216	118	59	17	9	2
El Paso, Tex.	61	28	15	5	6	–
Fort Worth, Tex.	106	60	25	10	5	1
Houston, Tex.	291	134	86	34	15	4
Little Rock, Ark.	57	34	13	4	3	6
New Orleans, La.	155	82	51	7	8	–
San Antonio, Tex.	187	115	39	13	6	4
Shreveport, La.	61	40	14	5	2	3
Tulsa, Okla.	96	65	19	6	2	5
MOUNTAIN	559	329	142	38	26	16
Albuquerque, N.Mex.	61	27	16	8	4	3
Colo. Springs, Colo.	24	14	6	3	1	3
Denver, Colo.	107	66	21	8	5	4
Las Vegas, Nev.	46	26	14	4	–	–
Ogden, Utah	22	16	4	1	1	3
Phoenix, Ariz.	149	87	39	12	6	1
Pueblo, Colo.	17	10	7	–	–	–
Salt Lake City, Utah	71	41	22	–	6	2
Tucson, Ariz.	62	42	13	2	3	–
PACIFIC	1,562	965	367	108	58	31
Berkeley, Calif.	15	13	2	–	–	1
Fresno, Calif.	65	35	19	3	2	1
Glendale, Calif.	10	9	1	–	–	–
Honolulu, Hawaii	36	15	12	4	–	–
Long Beach, Calif.	97	52	30	7	4	3
Los Angeles, Calif.	505	330	102	37	11	6
Oakland, Calif.	72	44	18	5	4	–
Pasadena, Calif.	20	16	2	–	2	1
Portland, Oreg.	118	82	24	6	4	–
Sacramento, Calif.	55	30	16	5	–	–
San Diego, Calif.	126	81	28	9	4	3
San Francisco, Calif.	151	93	40	12	5	3
San Jose, Calif.	56	30	14	9	2	2
Seattle, Wash.	143	80	34	6	16	7
Spokane, Wash.	57	34	14	4	2	4
Tacoma, Wash.	36	21	11	1	2	–
TOTAL	11,384	6,837	2,865	801	389	347
Expected Number	10,923	6,509	2,918	716	426	353

*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

†Data not availabe this week. Figures are estimates based on average percent of regional totals.

RSV Infection -- Continued

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Epidemiologic Notes and Reports

Human Rabies -- Texas

On June 17, 1978, a 25-year-old male Mexican national died of rabies in Fort Bend County, near Houston, Texas. The diagnosis was confirmed by fluorescent microscopy by the Texas Department of Health Regional Laboratory in Houston.

The patient and 3 of his companions, residents of the State of Guanajuato, Mexico, had departed their home on approximately May 22 and had reached the Fort Bend area approximately June 1. There they found employment on a ranch.

On June 13 the patient complained of sore throat and vomiting; symptoms worsened the next day, and he was taken to a physician. At that time he was perspiring profusely, salivating excessively, gagging, and complaining of stomach pains and air blowing on his face. The physician noted an inflamed throat but no other specific signs. The following day the patient again visited the physician at which time he appeared apprehensive and unable to swallow. No fever or other positive findings except inflamed throat were noted. He was treated symptomatically.

By June 16, he had convulsive-type seizures, was at time irrational, complained of severe headache, and had difficulty breathing. He was taken to the emergency room of a nearby hospital where he was afebrile and found to have an inflamed throat and enlarged cervical lymph nodes. He was treated symptomatically and released. By evening the patient became violent and was exhibiting bizarre behavior. He became comatose the next day and died at 3:45 PM.

Fourteen persons are receiving antirabies treatment as a result of exposure to this individual: 9 ranch employees with whom he shared eating utensils and had continuous close contact for the 2 weeks before his death, as well as 3 physicians and 2 deputy sheriffs who were exposed during treatment and restraint of the patient.

Extensive questioning of the patient, his companions who traveled with him from Mexico, and fellow ranch hands in Texas, failed to identify any animal bite or other kind of possible rabies exposure.

Reported by RE Pope, DVM, NM Sisley, MD, Public Health Region 8, CR Webb Jr, MD, State Epidemiologist, Texas Dept of Health; Viral Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: Since 1966 (12 years) a total of 19 other human cases of rabies have been reported in the United States. In 1 instance the source of exposure, as in this case, was unknown. For the other cases the sources of exposure were dog bites (7), wildlife (8), a cat (1), and laboratory accidents (2).

Recommendation of Public Health Service
Advisory Committee on Immunization Practices

Yellow Fever Vaccine

INTRODUCTION

At present, cases of yellow fever are reported only from Africa and South America. Two forms of yellow fever—urban and jungle—are distinguishable epidemiologically. Clinically and etiologically, they are identical.

Urban yellow fever is an epidemic viral disease of man transmitted from infected to susceptible persons by a vector, the *Aedes aegypti* mosquito. With the elimination or suppression of *A. aegypti*, urban yellow fever has disappeared from previously epidemic foci.

Jungle yellow fever is an enzootic viral disease transmitted among non-human hosts by a variety of mosquito vectors. It is currently observed only in the jungles of South America and Africa, but in the past it extended into parts of Central America as well. Human cases are rare. The disease can ostensibly disappear from an area for years and then reappear. Delineation of affected areas depends upon surveillance of animal reservoirs and vectors, accurate diagnosis, and prompt reporting of all cases.

Urban yellow fever can be prevented by eradicating *A. aegypti* mosquitos or by suppressing their numbers to the point that they no longer perpetuate infection. At the present time, jungle yellow fever can most effectively be prevented in humans by immunization.

YELLOW FEVER VACCINE

Yellow fever vaccine* is a live, attenuated virus preparation made from 1 or 2 strains of virus: 17D and Dakar (also referred to as French neurotropic). The Dakar strain has been associated with a significant (0.5%) incidence of meningoencephalitic reactions and is not recommended. The 17D strain has caused no significant complications.

Licensed vaccine available in the United States is prepared from the 17D strain, which is grown in chick embryo inoculated with a seed virus of a fixed passage level. The vaccine is freeze-dried supernate of centrifuged embryo homogenate.

Vaccine should be stored at the temperature recommended by the manufacturer (<5 C) until it is reconstituted by the addition of sterile physiologic saline. Unused vaccine should be discarded within approximately 1 hour of reconstitution.

VACCINE USAGE

Vaccine Recipients

1. Persons 6 months of age or older traveling or living in areas where yellow fever infection exists—currently parts of Africa and South America. (These are listed in the Weekly Summary of Countries with Areas Infected with Quarantinable Diseases—available in most health departments.)
2. Laboratory personnel who might be exposed to virulent yellow fever virus.

Vaccination for International Travel

For purposes of international travel, the yellow fever vaccines used must be approved by the World Health Organization and administered at an approved Yellow Fever Vaccination Center. (Centers can be identified by contacting state and local health departments and/or the Public Health Service.) Vaccinees should have an international Certifi-

*Official name: Yellow Fever Vaccine

Yellow Fever Vaccine — Continued

cate of Vaccination filled in, signed, and validated with the stamp of the center where the vaccine is given.

Vaccination for international travel may be required under circumstances other than those specified herein. Some countries in Africa require evidence of vaccination from all entering travelers. Some countries may waive the requirements for travelers coming from non-infected areas and staying less than 2 weeks. These requirements may change, so all travelers should seek current information from health departments, travel agencies, international airlines, or shipping lines.

Some countries require an individual, even if only in transit, to have a valid International Certificate of Vaccination if he or she has been in countries either known or thought to harbor yellow fever virus.

Primary Immunization

For both adults and children, a single subcutaneous injection of 0.5 ml of reconstituted vaccine is used.

Booster Doses

Yellow fever immunity following vaccination with 17D strain virus persists for more than 10 years; the International Health Regulations do not require revaccination more often than every 10 years.

PRECAUTIONS AND CONTRAINDICATIONS

Reactions to 17D yellow fever vaccine are generally mild. Five to 10% of vaccinees have mild headache, myalgia, low-grade fever, or other minor symptoms 5-10 days after vaccination. Fewer than 0.2% curtail regular activities. Although more than 34 million doses of vaccine have been distributed, only 2 cases of encephalitis have been reported in the United States.

Contraindications

Pregnancy: Although specific information is not available concerning adverse effects of yellow fever vaccine on the developing fetus, it is prudent on theoretical grounds to avoid vaccinating pregnant women and to postpone travel until after delivery.

The morbidity and mortality from yellow fever disease are not altered by pregnancy. Therefore, pregnant women who **must** travel to areas where the risk of yellow fever is high should be vaccinated. It is believed that under these circumstances, the small theoretical risk for mother and fetus from vaccination is far outweighed by the risk from yellow fever infection.

Altered immune states: Infection with the yellow fever vaccine virus could pose excessive risk to patients with leukemia, lymphoma, or generalized malignancy or to those whose immunologic responses are suppressed by steroids, alkylating drugs, antimetabolites, or radiation.

Hypersensitivity: Live yellow fever vaccine is produced in chick embryo cell culture and should not be given to persons clearly hypersensitive to eggs. Furthermore, it should

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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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Yellow Fever Vaccine — Continued

not be given to persons hypersensitive to other vaccine components such as trace amounts of particular antibiotics. (See the manufacturer's labeling.)

If international travel regulations are the only reason to vaccinate a patient hypersensitive to eggs, efforts should be made to obtain a waiver. A physician's letter clearly stating the contraindication to vaccination has been acceptable to some governments. (Ideally, it should be written on letterhead stationery and bear the stamp used by health departments and official immunization centers to validate International Certificates of Vaccination.) Under these conditions, it is also useful for the traveler to obtain specific and authoritative advice from the country or countries he or she plans to visit. Their embassies or consulates may be contacted. Subsequent waiver of requirements should be documented by appropriate letters.

SIMULTANEOUS ADMINISTRATION OF LIVE VIRUS VACCINES

See the Advisory Committee on Immunization Practice Statement, "General Recommendations on Immunization," in MMWR 25:349-350, 355, 1976.

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