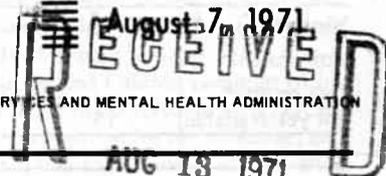




# Morbidity and Mortality

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE / PUBLIC HEALTH SERVICE HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION

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EPIDEMIOLOGIC NOTES AND REPORTS

**FOLLOW-UP ON VENEZUELAN EQUINE ENCEPHALITIS**  
Texas

Since the epidemic of Venezuelan equine encephalitis (VEE) began in Texas (MMWR, Vol. 20, No. 30), 66 viral isolates from equine cases have been identified as VEE by the complement fixation (CF) test. One other virus isolation was made at Texas A. & M. This isolate, from a horse in Dimmit County, was identified as VEE by the serum neutralization test and was lethal for weanling mice\* (Table 1). Twenty-seven of the 66 horses had either not been vaccinated or the isolates from them were virulent for guinea pigs (Figure 1). It is assumed that these horses were infected with the epidemic virus. Six isolates were from vaccinated horses and were not virulent for guinea pigs. Guinea pig inoculation test results are pending for 15 equines that had been vaccinated and for 18 with an unknown vaccination history. The U.S. Department of Agriculture (USDA) has estimated that since

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the epidemic began, there have been 1,989 sick and 1,426 dead horses reported to them from Texas.

There have been 60 laboratory confirmed human cases of VEE reported from the following counties: Cameron and Hidalgo (57), Kleberg (1), Nueces (1), and San Patricio (1).

As of August 9, approximately 1.3 million equines in Texas, the four adjoining states, and Arizona, Florida, and

(Continued on page 276)

**TABLE I. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES**  
(Cumulative totals include revised and delayed reports through previous weeks)

DISEASE	31st WEEK ENDED		MEDIAN 1966 - 1970	CUMULATIVE, FIRST 31 WEEKS		
	August 7, 1971	August 8, 1970		1971	1970	MEDIAN 1966 - 1970
Aseptic meningitis	152	181	93	1,977	1,673	1,179
Brucellosis	3	-	7	93	123	131
Diphtheria	-	-	1	94	192	99
Encephalitis, primary:						
Arthropod-borne & unspecified	35	37	39	780	722	722
Encephalitis, post-infectious	8	5	13	248	287	328
Hepatitis, serum	159	152	95	5,050	4,233	2,498
Hepatitis, infectious	1,135	1,087	906	36,068	33,206	25,979
Malaria	20	37	37	1,986	2,030	1,268
Measles (rubeola)	368	291	288	67,552	38,521	38,521
Meningococcal infections, total	20	26	26	1,634	1,709	1,840
Civilian	20	26	26	1,450	1,535	1,667
Military	-	-	-	184	174	174
Mumps	701	826	-	96,686	72,577	-
Poliomyelitis, total	-	1	1	7	17	20
Paralytic	-	1	1	5	17	17
Rubella (German measles)	370	328	328	37,288	48,134	42,181
Tetanus	2	4	4	61	67	85
Tularemia	8	6	2	99	79	94
Typhoid fever	10	11	10	180	160	185
Typhus, tick-borne (Rky. Mt. spotted fever)	19	18	16	232	217	168
Rabies in animals	67	43	58	2,602	1,888	2,210

**TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY**

	Cum.		Cum.
Anthrax	2	Psittacosis	21
Botulism	6	Rabies in Man	1
Leprosy: Tex.-1	81	Rubella congenital syndrome	35
Leptospirosis	21	Trichinosis: Calif.-1, N.Y.C.-1	40
Plague: N. Mex.-1	1	Typhus, murine: Va.-2	12

VENEZUELAN EQUINE ENCEPHALITIS - (Continued from front page)

**Table 1**  
Equine Viral Isolates by Virulence and Equine Vaccination History  
Texas - August 1970

	Vaccinated	Unvaccinated	Vaccination History Unknown	Total
Virulent	6	7	3	16
Nonvirulent	6	0	0	6
Test results* not yet available	15	12	18	45
<b>Total</b>	<b>27</b>	<b>19</b>	<b>21</b>	<b>67</b>

\*Guinea pig or weanling mice inoculation test.

Mississippi had been vaccinated. The USDA estimates that approximately 90 percent of the horses in Texas, Louisiana, Oklahoma, and Arkansas have been vaccinated. In addition, about 8 million acres near the Gulf Coast were sprayed with ultra-low-volume malathion to reduce the adult mosquito population.

(Reported by L. P. Jones, D.V.M., Head, Pathology Department, Texas Veterinary Medicine Diagnostic Laboratory,

Texas A. & M., College Station, Texas; M. S. Dickerson, M.D., Chief, Communicable Diseases Services, J. E. Peavy, M.D., Commissioner, Texas State Department of Health; Richard E. Omohundro, D.V.M., Coordinator of Regional VEE Eradication Program, U.S. Department of Agriculture; the Laboratory Division, and the Epidemiology Program, CDC.)

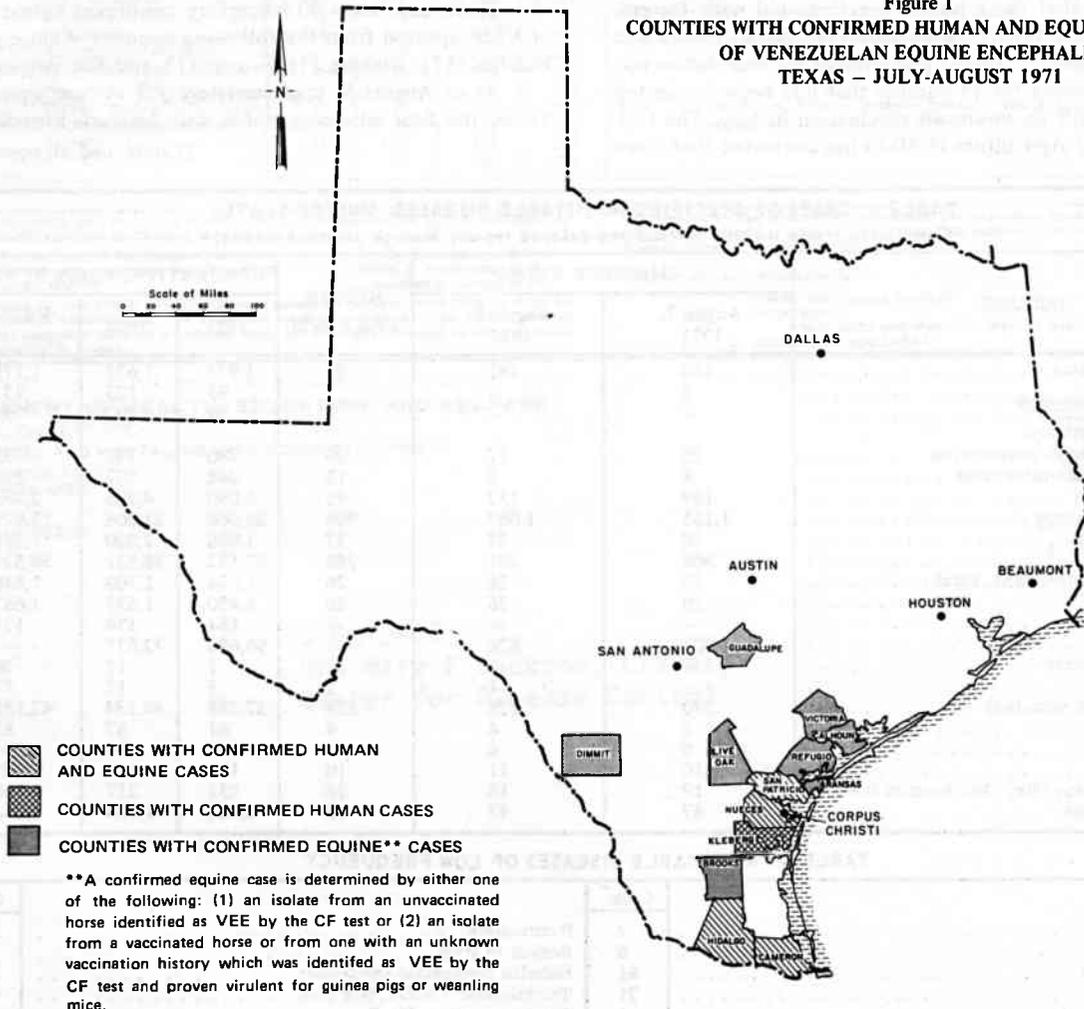
**Editorial Note**

Isolates from vaccinated horses can be either the vaccine strain or the epidemic strain which was present when the animal was vaccinated. This does not indicate, however, that the vaccine is ineffective or that it causes clinical illness in horses.

The epidemic appears to have leveled off recently. There have been fewer cases of VEE in humans and horses in the past week. However, recent reports of virus isolations and serology indicate that virus was present in several more counties of Texas than was previously reported. These represent specimens collected earlier in the epidemic.

\*The intraperitoneal inoculation of virus into guinea pigs or weanling mice is a crude test of the degree of pathogenicity of the virus. If the isolate is virulent for guinea pigs or weanling mice, it is more likely to be the epidemic strain.

**Figure 1**  
COUNTIES WITH CONFIRMED HUMAN AND EQUINE\*\* CASES OF VENEZUELAN EQUINE ENCEPHALITIS TEXAS - JULY-AUGUST 1971



## LOIASIS — Washington, D.C.

In early 1971, two unrelated cases of loiasis were reported in Washington, D.C. The case reports are summarized below.

**Case 1:** On Jan. 5, 1971, a 51-year-old Belgian agricultural engineer consulted an ophthalmologist and had a *Loa-loa* adult female worm removed from his right eye. He was seen by another physician the following day, and a blood smear taken at 1 p.m. revealed numerous *Loa-loa* microfilariae. Skin snips examined for onchocerciasis were negative. The intradermal test using *Dirofilaria immitis* as the antigen was positive. The serologic indirect hemagglutination (IHA) test for filariasis was 1:160, and he had a 3 percent eosinophilia. Examination of stool specimens revealed *Entamoeba histolytica* cysts for which treatment was given.

From 1946 to 1961, the patient had worked on a plantation in the former Belgian Congo near the mouth of the Congo River. He recalled having been bitten frequently by *Chrysops* flies and having had Calabar swellings in this period. From 1961 to 1965, he worked in Tunisia and in 1965 had a worm removed from his eye in Tunis, but no antifilarial drug treatment was given then. The next 2 years he spent in Belgium. In 1967 and 1968, he worked in Kinshasa, Democratic Republic of the Congo, and denies having traveled outside that city. In 1969, he was employed in Algeria and late in that year came to work in Washington, D.C. In March 1970, he made a field trip to Dahomey and Ivory Coast, and in October 1970, he made another trip to Dahomey. He claimed that for a number of years he had periodically had red, raised outlines of migrating worms on his trunk; the last time this occurred was in November 1970. He had had no Calabar swellings in the past few years. He has been followed since he was seen in Washington, D.C., but due to frequent trips abroad, treatment of his loiasis has not been possible.

**Case 2:** On Jan. 14, 1971, another 34-year-old Belgian agricultural engineer consulted the same physician complaining of periodic Calabar swellings on his arms. A *D. immitis* skin test was positive, filariasis IHA liter was positive at 1:2,560, and eosinophilia was 4 percent. Repeated afternoon Knott's concentration tests\* were negative for microfilariae as were skin snips for onchocerciasis.

From 1963 to 1965, the patient had worked on plantations west of Kinshasa, Democratic Republic of the Congo. In 1965 and 1966, he was in Belgium, and late in 1966, he returned to Kinshasa to teach at the University of Kinshasa. In 1966, he first experienced Calabar swellings on the dorsum of the left hand and received a 6-week course of antifilarial therapy. The patient left Kinshasa in 1968 and came to work in Washington, D.C. On a field trip to Senegal, West Africa, in September 1970, he experienced Calabar swellings of his left wrist and lower arm. Studies there revealed a 10 percent eosinophilia, but his blood was negative for microfilariae, and no treatment was given. On a trip to Indonesia in December 1970, he had pain in his left shoulder and Calabar swellings on the left arm. At no time had a worm moved across his eye.

Due to his classical Calabar swellings, prior residence in a highly endemic area, and the positive skin test and serology for filariasis, a clinical diagnosis of loiasis was made. He received a 3-week course of diethylcarbamazine. In the final week of treatment, he experienced Calabar swellings over his wrists and hands. Since the treatment was completed, he has had no recurrence of these swellings.

(Reported by Martin S. Wolfe, M.D., Specialist in Tropical Medicine, Office of Medical Services, Department of State, Washington, D.C.)

**Editorial Note**

Loiasis is endemic in West and Central Africa, particularly the Congo River basin, and is caused by the filarial worm *Loa loa*. The mangrove fly (*Chrysops* sp.) transmits the parasite to man. Adult parasites inhabit the subcutaneous tissues of man; occasionally they migrate across the eye beneath the bulbar conjunctivae. Microfilariae exhibit a diurnal periodicity in the peripheral blood. Since the vector does not exist in the United States, there is no danger of transmission of this disease from imported cases.

\*This method uses a mixture of 2 ml of whole blood and 10 ml of 2 percent formalin. This solution is centrifuged and decanted. The sediment is then stained and microscopically examined for microfilariae.

## Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED  
AUGUST 7, 1971 AND AUGUST 8, 1970 (31st WEEK)

AREA	ASEPTIC MENIN- GITIS	BRUCEL- LOSIS	DIPH- THERIA	ENCEPHALITIS			HEPATITIS			MALARIA	
				Primary including unsp. cases		Post In- fectious	Serum	Infectious		1971	Cum. 1971
				1971	1970	1971	1971	1971	1970		
UNITED STATES.....	152	3	-	35	37	8	159	1,135	1,087	20	1,986
NEW ENGLAND.....	2	-	-	2	2	-	2	56	62	-	55
Maine.....	-	-	-	-	-	-	-	6	5	-	3
New Hampshire.....	-	-	-	-	-	-	-	2	5	-	1
Vermont.....	-	-	-	-	-	-	-	8	2	-	1
Massachusetts.....	2	-	-	1	-	-	2	19	19	-	37
Rhode Island.*.....	-	-	-	1	1	-	-	10	11	-	6
Connecticut.....	-	-	-	-	1	-	-	11	20	-	7
MIDDLE ATLANTIC.....	28	-	-	1	5	2	49	242	211	2	198
New York City.....	-	-	-	-	-	-	28	82	66	-	21
New York, Up-State....	12	-	-	-	1	-	4	55	29	2	54
New Jersey.*.....	8	-	-	-	1	-	13	93	61	-	79
Pennsylvania.....	8	-	-	1	3	2	4	12	55	-	44
EAST NORTH CENTRAL.....	17	1	-	11	11	1	34	178	195	4	133
Ohio.....	11	-	-	8	5	-	6	55	33	-	17
Indiana.....	-	-	-	-	-	-	-	3	-	-	11
Illinois.....	-	-	-	1	-	1	1	32	56	1	39
Michigan.....	6	1	-	2	6	-	26	83	87	3	41
Wisconsin.....	-	-	-	-	-	-	1	5	19	-	25
WEST NORTH CENTRAL.....	6	-	-	3	4	2	11	32	35	2	188
Minnesota.....	4	-	-	1	-	2	9	3	3	-	22
Iowa.....	-	-	-	-	1	-	-	7	6	-	23
Missouri.....	1	-	-	1	1	-	-	6	16	-	24
North Dakota.....	1	-	-	-	-	-	-	2	-	-	1
South Dakota.....	-	-	-	1	-	-	-	2	-	-	-
Nebraska.*.....	-	-	-	-	-	-	-	2	2	-	12
Kansas.....	-	-	-	-	2	-	2	10	8	2	106
SOUTH ATLANTIC.....	40	-	-	7	8	-	18	129	113	5	315
Delaware.....	-	-	-	-	-	-	1	1	6	-	1
Maryland.....	3	-	-	1	-	-	6	12	14	2	46
Dist. of Columbia....	-	-	-	-	-	-	1	1	2	-	4
Virginia.....	13	-	-	1	-	-	5	31	15	1	45
West Virginia.....	1	-	-	-	-	-	-	10	7	-	7
North Carolina.....	5	-	-	2	1	-	1	20	5	-	108
South Carolina*.....	-	-	-	-	1	-	1	10	4	2	17
Georgia.....	-	-	-	-	-	-	-	19	10	-	57
Florida.....	18	-	-	3	6	-	3	25	50	-	30
EAST SOUTH CENTRAL.....	14	1	-	1	1	1	2	76	45	1	124
Kentucky.....	1	1	-	-	-	-	-	21	16	1	100
Tennessee.....	7	-	-	1	1	-	1	46	13	-	-
Alabama.....	1	-	-	-	-	1	1	6	12	-	18
Mississippi.....	5	-	-	-	-	-	-	3	4	-	6
WEST SOUTH CENTRAL.....	18	1	-	4	-	2	2	97	82	1	434
Arkansas.....	6	-	-	2	-	-	-	5	4	-	17
Louisiana*.....	3	-	-	1	-	2	-	6	8	-	35
Oklahoma.....	1	-	-	1	-	-	-	12	11	-	64
Texas.....	8	1	-	-	-	-	2	74	59	1	318
MOUNTAIN.....	-	-	-	2	-	-	3	50	73	-	103
Montana.....	-	-	-	1	-	-	-	5	3	-	1
Idaho.....	-	-	-	-	-	-	-	3	-	-	4
Wyoming.....	-	-	-	-	-	-	-	1	2	-	1
Colorado.....	-	-	-	-	-	-	-	-	23	-	77
New Mexico.....	-	-	-	1	-	-	1	7	5	-	7
Arizona.*.....	-	-	-	-	-	-	-	21	17	-	8
Utah.....	-	-	-	-	-	-	2	13	12	-	3
Nevada.....	-	-	-	-	-	-	-	-	11	-	2
PACIFIC.....	27	-	-	4	6	-	38	275	271	5	436
Washington.....	-	-	-	-	-	-	-	27	45	-	1
Oregon.....	-	-	-	-	-	-	2	38	13	-	18
California.....	26	-	-	4	5	-	36	199	203	5	370
Alaska.....	-	-	-	-	-	-	-	-	-	-	3
Hawaii*.....	1	-	-	-	1	-	-	11	10	-	44
Puerto Rico.....	-	-	-	-	-	-	-	-	21	-	18
Virgin Islands.....	-	-	-	-	-	-	-	-	-	-	-

\*Delayed reports: Aseptic meningitis: La. delete 1

Hepatitis, serum: R.I. 6, N.J. delete 3

Hepatitis, infectious: R.I. delete 6, N.J. delete 2, S.C. delete 2, Ariz. 1, Hawaii 2

Malaria: Nebr. 4 (1970) 4 (1971)

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

AUGUST 7, 1971 AND AUGUST 8, 1970 (31st WEEK) - CONTINUED

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS		POLIOMYELITIS		
	1971	Cumulative		1971	Cumulative		1971	Cum. 1971	Total	Paralytic	
		1971	1970		1971	1970				1971	1971
UNITED STATES.....	368	67,552	38,521	20	1,634	1,709	701	96,686	-	-	5
NEW ENGLAND.....	15	3,403	836	-	71	74	57	5,903	-	-	-
Maine.....	2	1,453	197	-	8	3	2	1,167	-	-	-
New Hampshire.....	1	197	50	-	11	7	3	647	-	-	-
Vermont.....	-	109	8	-	-	6	33	336	-	-	-
Massachusetts.....	3	258	381	-	28	33	9	1,433	-	-	-
Rhode Island.....	1	238	118	-	3	5	4	1,157	-	-	-
Connecticut.....	8	1,148	82	-	21	20	6	1,163	-	-	-
MIDDLE ATLANTIC.....	34	7,369	4,720	2	217	301	31	6,080	-	-	-
New York City.....	12	3,693	836	-	41	74	21	1,616	-	-	-
New York, Up-State...	12	631	257	1	61	59	NN	NN	-	-	-
New Jersey.....	-	1,157	1,679	1	52	114	5	1,652	-	-	-
Pennsylvania.....	10	1,888	1,948	-	63	54	5	2,812	-	-	-
EAST NORTH CENTRAL.....	98	14,915	9,545	6	185	194	301	39,436	-	-	-
Ohio.....	26	3,966	3,749	2	56	77	65	7,606	-	-	-
Indiana.....	2	2,657	264	1	14	19	21	5,048	-	-	-
Illinois.....	20	2,877	3,019	1	53	43	35	4,125	-	-	-
Michigan.....	15	2,213	1,634	2	51	46	22	9,364	-	-	-
Wisconsin.....	35	3,202	879	-	11	9	158	13,293	-	-	-
WEST NORTH CENTRAL.....	17	6,780	3,782	-	122	89	21	6,384	-	-	-
Minnesota.....	9	61	37	-	20	13	3	1,092	-	-	-
Iowa.....	6	2,236	1,096	-	9	12	8	2,899	-	-	-
Missouri.....	1	2,590	1,250	-	44	51	5	1,010	-	-	-
North Dakota.....	1	231	316	-	5	3	4	309	-	-	-
South Dakota.....	-	214	91	-	5	-	1	222	-	-	-
Nebraska.....	-	62	924	-	14	5	-	86	-	-	-
Kansas.....	-	1,386	68	-	25	5	-	766	-	-	-
SOUTH ATLANTIC.....	62	7,347	7,049	3	288	352	42	6,908	-	-	1
Delaware.....	1	36	258	-	2	3	3	161	-	-	-
Maryland.....	-	524	1,374	-	44	33	7	620	-	-	-
Dist. of Columbia....	-	15	343	-	10	3	2	87	-	-	-
Virginia.....	34	1,533	1,962	1	29	37	3	923	-	-	-
West Virginia.....	-	486	303	-	7	8	17	1,785	-	-	-
North Carolina.....	5	1,919	839	2	51	73	NN	NN	-	-	-
South Carolina.....	3	898	558	-	20	44	4	834	-	-	-
Georgia.....	-	201	13	-	23	30	-	11	-	-	1
Florida.....	19	1,735	1,399	-	102	121	6	2,487	-	-	-
EAST SOUTH CENTRAL.....	6	8,111	1,261	1	140	132	77	7,559	-	-	-
Kentucky.....	5	3,872	717	-	37	45	-	2,304	-	-	-
Tennessee.....	1	999	367	-	53	57	67	4,249	-	-	-
Alabama.....	-	1,829	89	-	28	21	10	874	-	-	-
Mississippi.....	-	1,411	88	1	22	9	-	132	-	-	-
WEST SOUTH CENTRAL.....	27	12,264	7,380	1	144	231	52	7,811	-	-	2
Arkansas.....	2	777	30	-	5	19	2	80	-	-	-
Louisiana.....	1	1,665	92	-	50	59	1	132	-	-	-
Oklahoma.....	1	749	440	-	7	19	-	179	-	-	-
Texas.....	23	9,073	6,818	1	82	134	49	7,420	-	-	2
MOUNTAIN.....	17	3,137	1,462	1	49	34	16	3,847	-	-	-
Montana.....	1	905	52	-	6	1	4	373	-	-	-
Idaho.....	-	270	32	-	7	5	2	117	-	-	-
Wyoming.....	-	84	11	-	2	1	-	274	-	-	-
Colorado.....	2	809	168	-	7	12	2	1,244	-	-	-
New Mexico.....	1	332	188	-	3	-	1	618	-	-	-
Arizona.....	11	402	958	-	8	13	7	1,071	-	-	-
Utah.....	2	328	32	1	13	2	-	150	-	-	-
Nevada.....	-	7	21	-	3	-	-	-	-	-	-
PACIFIC.....	92	4,226	2,486	6	418	302	104	12,758	-	-	2
Washington.....	10	981	514	-	23	41	3	5,221	-	-	1
Oregon.....	1	368	223	2	31	23	19	1,260	-	-	1
California.....	59	2,483	1,432	4	358	236	59	5,380	-	-	-
Alaska.....	-	52	136	-	-	-	-	75	-	-	-
Hawaii.....	22	342	181	-	6	2	23	822	-	-	-
Puerto Rico.....	29	438	869	-	5	4	26	895	-	-	-
Virgin Islands.....	-	15	6	-	-	1	1	41	-	-	-

\*Delayed reports: Measles: Mass. delete 9, Hawaii 1

Mumps: Me. 5, Hawaii 2

## Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDED  
AUGUST 7, 1971 AND AUGUST 8, 1970 (31st WEEK) - CONTINUED

AREA	RUBELLA		TETANUS		TULAREMIA		TYPHOID FEVER		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
	1971	Cum. 1971	1971	Cum. 1971	1971	Cum. 1971	1971	Cum. 1971	1971	Cum. 1971	1971	Cum. 1971
UNITED STATES.....	370	37,288	2	61	8	99	10	180	19	232	67	2,602
NEW ENGLAND.....	11	1,667	-	4	-	-	-	9	-	-	4	174
Maine.....	1	253	-	-	-	-	-	-	-	-	2	162
New Hampshire.....	-	46	-	1	-	-	-	-	-	-	-	1
Vermont.....	-	94	-	-	-	-	-	-	-	-	-	9
Massachusetts.....	6	808	-	1	-	-	-	6	-	-	2	2
Rhode Island.....	-	91	-	-	-	-	-	-	-	-	-	-
Connecticut.....	4	375	-	2	-	-	-	3	-	-	-	-
MIDDLE ATLANTIC.....	14	2,427	-	6	-	-	5	27	1	25	4	113
New York City.....	12	488	-	5	-	-	1	8	-	1	-	-
New York, Up-State..	-	389	-	1	-	-	1	12	1	14	3	103
New Jersey.....	1	571	-	-	-	-	-	2	-	6	-	-
Pennsylvania.....	1	979	-	-	-	-	3	5	-	4	1	10
EAST NORTH CENTRAL....	88	8,021	1	7	-	4	2	22	-	15	6	268
Ohio.....	8	939	-	1	-	1	1	9	-	12	2	76
Indiana.....	10	1,948	-	1	-	-	-	4	-	-	2	59
Illinois.....	22	1,224	-	3	-	1	1	6	-	3	-	51
Michigan.....	14	2,550	1	2	-	-	-	3	-	-	-	36
Wisconsin.....	34	1,360	-	-	-	2	-	-	-	-	2	46
WEST NORTH CENTRAL....	9	3,129	-	4	2	15	1	2	-	4	22	695
Minnesota.....	-	270	-	2	-	-	-	-	-	-	7	143
Iowa.....	3	660	-	-	-	-	-	-	-	-	2	159
Missouri.....	1	1,319	-	2	2	12	1	2	-	2	2	103
North Dakota.....	4	93	-	-	-	-	-	-	-	-	5	129
South Dakota.....	-	95	-	-	-	1	-	-	-	-	1	79
Nebraska.....	1	81	-	-	-	-	-	-	-	-	1	3
Kansas.....	-	611	-	-	-	2	-	-	-	2	4	79
SOUTH ATLANTIC.....	20	2,912	-	14	-	17	-	29	9	116	11	280
Delaware.....	-	46	-	-	-	-	-	1	-	2	-	-
Maryland.....	1	127	-	1	-	3	-	3	-	18	-	1
Dist. of Columbia..	-	7	-	-	-	-	-	1	-	-	-	-
Virginia.....	3	201	-	1	-	8	-	3	4	19	-	61
West Virginia.....	12	539	-	-	-	-	-	3	-	3	1	100
North Carolina.....	-	45	-	-	-	4	-	3	4	62	-	3
South Carolina.....	1	427	-	-	-	-	-	-	1	9	-	-
Georgia.....	-	-	-	2	-	-	-	2	-	3	9	82
Florida.....	3	1,520	-	10	-	2	-	13	-	-	1	33
EAST SOUTH CENTRAL....	14	3,136	-	8	1	10	-	23	6	33	8	245
Kentucky.....	2	1,085	-	-	-	2	-	5	1	5	1	131
Tennessee.....	11	1,784	-	5	1	5	-	14	5	23	5	76
Alabama.....	1	197	-	2	-	2	-	4	-	3	2	38
Mississippi.....	-	70	-	1	-	1	-	-	-	2	-	-
WEST SOUTH CENTRAL....	48	4,476	-	8	3	40	1	22	2	30	6	549
Arkansas.....	1	329	-	1	1	14	1	6	2	4	2	66
Louisiana.....	-	280	-	1	2	7	-	6	-	-	-	20
Oklahoma.....	-	65	-	1	-	12	-	2	-	21	-	235
Texas.....	47	3,802	-	5	-	7	-	8	-	5	4	228
MOUNTAIN.....	8	1,850	-	2	2	13	-	7	1	9	2	44
Montana.....	-	111	-	-	-	1	-	-	-	3	-	-
Idaho.....	-	39	-	1	-	1	-	-	1	2	-	-
Wyoming.....	-	858	-	-	-	-	-	-	-	-	-	8
Colorado.....	-	259	-	-	-	-	-	-	-	2	-	11
New Mexico.....	1	202	-	-	-	-	-	5	-	-	-	7
Arizona.....	4	313	-	1	-	-	-	2	-	-	-	14
Utah.....	3	54	-	-	2	11	-	-	-	1	2	3
Nevada.....	-	14	-	-	-	-	-	-	-	1	-	1
PACIFIC.....	158	9,670	1	8	-	-	1	39	-	-	4	234
Washington.....	9	1,329	-	1	-	-	-	-	-	-	-	-
Oregon.....	2	701	1	1	-	-	-	-	-	-	1	5
California.....	138	7,456	-	6	-	-	1	37	-	-	3	195
Alaska.....	-	43	-	-	-	-	-	1	-	-	-	34
Hawaii, I.....	9	141	-	-	-	-	-	1	-	-	-	-
Puerto Rico.....	2	59	-	5	-	-	-	2	-	-	-	47
Virgin Islands.....	-	-	-	-	-	-	-	-	-	-	-	-

\*Delayed reports: Rubella: Hawaii 2  
RMSF: Okla. delete 1  
Rabies in animals: Me. 1 (1970) 1 (1971)

# Morbidity and Mortality Weekly Report

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Week No.  
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**TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED AUGUST 7, 1971**

(By place of occurrence and week of filing certificate. Excludes fetal deaths)

Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes	Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes
	All Ages	65 years and over				All Ages	65 years and over		
<b>NEW ENGLAND:</b>	680	400	39	33	<b>SOUTH ATLANTIC:</b>	1,148	563	36	43
Boston, Mass.-----	252	134	11	15	Atlanta, Ga.-----	111	53	1	3
Bridgeport, Conn.-----	48	28	8	4	Baltimore, Md.-----	206	102	4	11
Cambridge, Mass.-----	24	14	9	—	Charlotte, N. C.-----	49	25	—	3
Fall River, Mass.-----	31	19	1	—	Jacksonville, Fla.-----	95	38	5	5
Hartford, Conn.-----	60	37	1	3	Miami, Fla.-----	98	52	1	5
Lowell, Mass.-----	28	20	3	1	Norfolk, Va.-----	55	26	4	2
Lynn, Mass.-----	13	7	—	—	Richmond, Va.-----	90	34	1	6
New Bedford, Mass.-----	24	14	—	—	Savannah, Ga.-----	29	10	2	2
New Haven, Conn.-----	38	23	—	3	St. Petersburg, Fla.-----	81	56	2	—
Providence, R. I.-----	48	28	2	1	Tampa, Fla.-----	78	43	4	1
Somerville, Mass.-----	5	5	—	—	Washington, D. C.-----	212	100	7	3
Springfield, Mass.-----	36	23	3	2	Wilmington, Del.-----	44	24	5	2
Waterbury, Conn.-----	26	17	—	—	<b>EAST SOUTH CENTRAL:</b>	562	297	19	32
Worcester, Mass.-----	47	31	1	3	Birmingham, Ala.-----	79	46	—	3
<b>MIDDLE ATLANTIC:</b>	3,066	1,770	97	87	Chattanooga, Tenn.-----	43	21	4	2
Albany, N. Y.-----	44	25	2	2	Knoxville, Tenn.-----	43	28	3	1
Allentown, Pa.-----	21	17	3	—	Louisville, Ky.-----	96	63	6	5
Buffalo, N. Y.-----	138	81	3	7	Memphis, Tenn.-----	134	63	—	9
Camden, N. J.-----	33	21	1	—	Mobile, Ala.-----	41	22	1	—
Elizabeth, N. J.-----	22	10	1	—	Montgomery, Ala.-----	48	20	2	6
Erie, Pa.-----	32	23	—	1	Nashville, Tenn.-----	78	34	3	6
Jersey City, N. J.-----	68	38	3	1	<b>WEST SOUTH CENTRAL:</b>	1,058	524	35	65
Newark, N. J.-----	81	37	8	4	Austin, Tex.-----	44	25	6	—
New York City, N. Y.†	1,428	825	45	35	Baton Rouge, La.-----	27	15	—	—
Paterson, N. J.-----	42	22	2	1	Corpus Christi, Tex.-----	17	8	—	—
Philadelphia, Pa.-----	592	318	7	24	Dallas, Tex.-----	149	78	4	10
Pittsburgh, Pa.-----	183	96	5	5	El Paso, Tex.-----	42	18	1	7
Reading, Pa.-----	39	30	—	—	Fort Worth, Tex.-----	68	36	2	6
Rochester, N. Y.-----	115	85	7	4	Houston, Tex.-----	238	101	8	9
Schenectady, N. Y.-----	14	7	—	—	Little Rock, Ark.-----	43	22	1	—
Scranton, Pa.-----	40	27	2	—	New Orleans, La.-----	161	76	2	14
Syracuse, N. Y.-----	84	55	2	2	Oklahoma City, Okla.-----	49	31	1	1
Trenton, N. J.-----	36	21	1	—	San Antonio, Tex.-----	123	58	5	14
Utica, N. Y.-----	30	16	2	1	Shreveport, La.-----	48	28	4	2
Yonkers, N. Y.-----	24	16	3	—	Tulsa, Okla.-----	49	28	1	2
<b>EAST NORTH CENTRAL:</b>	2,359	1,297	53	117	<b>MOUNTAIN:</b>	462	264	18	24
Akron, Ohio-----	58	33	—	2	Albuquerque, N. Mex.-----	47	20	3	3
Canton, Ohio-----	41	23	1	1	Colorado Springs, Colo.-----	42	29	4	2
Chicago, Ill.-----	627	295	12	36	Denver, Colo.-----	128	63	3	7
Cincinnati, Ohio-----	153	83	1	11	Ogden, Utah-----	17	10	2	2
Cleveland, Ohio-----	179	100	—	6	Phoenix, Ariz.-----	97	51	—	5
Columbus, Ohio-----	98	53	3	6	Pueblo, Colo.-----	15	12	—	—
Dayton, Ohio-----	92	46	4	5	Salt Lake City, Utah-----	60	43	5	3
Detroit, Mich.-----	314	183	3	16	Tucson, Ariz.-----	56	36	1	2
Evansville, Ind.-----	43	32	1	2	<b>PACIFIC:</b>	1,587	971	28	61
Flint, Mich.-----	37	22	2	1	Berkeley, Calif.-----	17	13	—	—
Fort Wayne, Ind.-----	53	26	5	1	Fresno, Calif.-----	53	30	1	5
Gary, Ind.-----	21	8	3	2	Glendale, Calif.-----	38	31	—	—
Grand Rapids, Mich.-----	36	23	4	—	Honolulu, Hawaii-----	78	47	—	4
Indianapolis, Ind.-----	127	70	2	8	Long Beach, Calif.-----	101	60	1	1
Madison, Wis.-----	34	17	3	—	Los Angeles, Calif.-----	469	282	7	17
Milwaukee, Wis.-----	134	91	—	6	Oakland, Calif.-----	83	43	1	5
Peoria, Ill.-----	54	34	1	4	Pasadena, Calif.-----	35	24	2	1
Rockford, Ill.-----	34	18	4	2	Portland, Oreg.-----	126	77	1	4
South Bend, Ind.-----	52	33	3	—	Sacramento, Calif.-----	68	35	3	6
Toledo, Ohio-----	101	65	—	5	San Diego, Calif.-----	89	50	2	5
Youngstown, Ohio-----	71	42	1	3	San Francisco, Calif.-----	153	95	4	7
<b>WEST NORTH CENTRAL:</b>	760	464	24	45	San Jose, Calif.-----	46	27	2	2
Des Moines, Iowa-----	56	37	5	2	Seattle, Wash.-----	148	103	1	2
Duluth, Minn.-----	27	21	—	1	Spokane, Wash.-----	55	37	1	2
Kansas City, Kans.-----	41	12	—	8	Tacoma, Wash.-----	28	17	2	—
Kansas City, Mo.-----	116	73	1	6	<b>Total</b>	<b>11,682</b>	<b>6,550</b>	<b>349</b>	<b>507</b>
Lincoln, Nebr.-----	26	17	—	1	<b>Expected Number</b>	<b>12,245</b>	<b>6,922</b>	<b>389</b>	<b>531</b>
Minneapolis, Minn.-----	103	61	3	9	<b>Cumulative Total</b> (includes reported corrections for previous weeks)	<b>403,487</b>	<b>232,338</b>	<b>15,353</b>	<b>18,017</b>
Omaha, Nebr.-----	56	32	—	3					
St. Louis, Mo.-----	229	139	5	11					
St. Paul, Minn.-----	55	38	—	1					
Wichita, Kans.-----	51	34	10	3					
Las Vegas, Nev.*	10	2	1	1					

\*Mortality data are being collected from Las Vegas, Nev., for possible inclusion in this table, however, for statistical reasons, these data will be listed only and not included in the total, expected number, or cumulative total, until 5 years of data are collected.

## INTERNATIONAL NOTES

## CHOLERA — Spain

In mid-July 1971, seven cases of El tor cholera, serotype Ogawa, were reported from two neighboring villages in Spain, Epila and Reuda de Jalon, in the Province of Zaragoza. The cases were very mild clinically; no deaths occurred. Epidemiologic investigation and bacteriologic examination of 41 persons with a recent history of diarrhea failed to reveal further cases. Widespread and comprehensive control measures, including surveillance of diarrheal disease, have been implemented. Although the origin of the imported infection is unknown, it is significant that the two villages in question are on one of the routes crossing Spain used by immigrant workers from North African countries. The nature of this localized outbreak is such that it is not considered to constitute a health hazard to international travelers.

(Reported by the World Health Organization [Weekly Epidemiological Record, Vol. 46, No. 30, 1971].)

## Editorial Note

On July 22, 1971, these seven confirmed cases were reported to the World Health Organization. On July 29, Spain reported that it was free of cholera; i.e., that for 10 days following onset of the confirmed cases, there were no new cases.

## Erratum, Vol. 20, No. 30, page 268

In Figure 1 of the article "Follow-up on Venezuelan Equine Encephalitis — Texas," Willacy County should not have been shown.

## QUARANTINE MEASURES

*Changes in the "Supplement — United States Designated Yellow Fever Vaccination Centers," MMWR, Vol. 20, No. 9*

The following additions should be made in the list of United States Designated Yellow Fever Vaccination Centers:

## CALIFORNIA

## San Francisco

Financial District Medical Center  
311 California St., 94104  
415, 398-5300  
Clinic hours: Mon.-Fri., 8:30 a.m. -  
5:30 p.m.  
Fee charged

## OHIO

## Columbus

Family Medicine Clinic  
University Hospitals  
410 West 10th Ave., 43210  
614, 422-6900  
Clinic hours: Wed., 6-9 p.m.  
Fee charged

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The data in this report are provisional, based on weekly telegraphs to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

In addition to the established procedures for reporting morbidity and mortality, the editor welcomes accounts of interesting outbreaks or case investigations of current interest to health officials.

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