



# Morbidity and Mortality

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WEEKLY REPORT

For 1970  
Week Ending  
April 25, 1970

ATLANTA, GA. 30333

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**  
**ECHINOCOCCOSIS - Herriman, Utah**

The second demonstration of the complete cycle of transmission of *Echinococcus granulosus* infection in the United States was recently made during the investigation of a case in Herriman, Utah. The patient, an 8-year-old Caucasian boy, was admitted to a hospital in Salt Lake City on July 8, 1969, for investigation and treatment of a chronic pneumonitis. His admission studies revealed bilateral pulmonary nodules and a large hepatic mass that, at laparotomy, was found to be a hydatid cyst. The lesion was sterilized and drained. Several days later during further surgery for removal of the presumably hydatid cyst of the right lung, the patient suffered cardio-respiratory collapse and died. Permission for postmortem examination was not granted; anaphylactic shock was considered the most likely cause of death. The boy had been exposed to sheep and

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sheep dogs in Utah but nowhere else. An investigation was begun to determine the source of his infection as well as to uncover any other cases.

In a skin-test survey, 399 of the town's 502 residents were tested, and two skin-test reactors were identified. Serologic tests, however, of these two individuals and 68 other residents were negative. Chest x-rays of 345 of the originally screened persons showed no evidence of pulmonary, pleural, or osseous cystic disease. When 26 local

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

DISEASE	16th WEEK ENDED		MEDIAN 1965 - 1969	CUMULATIVE, FIRST 16 WEEKS		
	April 25, 1970	April 19, 1969		1970	1969	MEDIAN 1965 - 1969
Aseptic meningitis . . . . .	25	36	26	426	449	449
Brucellosis . . . . .	—	4	6	49	37	60
Diphtheria . . . . .	12	—	2	106	41	48
Encephalitis, primary:						
Arthropod-borne & unspecified . . . . .	15	23	25	316	309	381
Encephalitis, post-infectious . . . . .	12	5	19	128	77	238
Hepatitis, serum . . . . .	138	113	835	2,086	1,601	13,294
Hepatitis, infectious . . . . .	1,146	1,006	37	17,385	14,780	619
Malaria . . . . .	34	50	37	1,035	746	37,359
Measles (rubeola) . . . . .	1,834	1,146	2,084	20,329	9,695	1,382
Meningococcal infections, total . . . . .	66	95	67	1,104	1,391	1,259
Civilian . . . . .	58	87	62	984	1,274	117
Military . . . . .	8	8	5	120	117	—
Mumps . . . . .	2,732	2,745	—	42,862	38,902	6
Poliomyelitis, total . . . . .	—	—	—	1	1	5
Paralytic . . . . .	—	—	—	1	1	—
Rubella (German measles) . . . . .	3,038	2,283	—	27,461	20,521	34
Tetanus . . . . .	4	3	5	28	34	41
Tularemia . . . . .	1	1	1	33	27	81
Typhoid fever . . . . .	5	4	7	70	62	6
Typhus, tick-borne (Rky. Mt. spotted fever) . . . . .	2	1	—	5	2	1,404
Rabies in animals . . . . .	68	90	112	1,044	1,243	—

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

	Cum.		Cum.
Anthrax: . . . . .	1	Psittacosis: Calif.-1 . . . . .	11
Botulism: . . . . .	1	Rabies in Man: . . . . .	—
Leprosy: Calif.-1, Hawaii-1 . . . . .	32	Rubella congenital syndrome: Calif.-1, Md.-2, Mo.-1 . . . . .	24
Leptospirosis: . . . . .	10	Trichinosis: . . . . .	26
Plague: . . . . .	—	Typhus, murine: . . . . .	2

## ECHINOCOCCOSIS - (Continued from front page)

suburban dogs were purged, no adult *Echinococcus* organisms were found. At that time examination of the viscera of over 2,000 sheep slaughtered at the area's largest abattoir failed to show any carcasses infected with hydatid cysts.

Later in the year, on December 8, a flock of 128 ewes raised in Herriman and shipped to California for slaughter was found to be heavily infected with *E. granulosus*. As a result, sheep dogs from Herriman and surrounding pasture lands were purged and one of them was found to harbor many *Echinococcus* tapeworms. This dog came from a ranch near Herriman where the patient was known to have been a frequent visitor.

After the initial skin-test survey in August 1969, three other cases of echinococcosis were reported in the vicinity of Herriman: one was in a person from Herriman and the other two were in persons from within 20 miles. In addition, a review of records from 11 hospitals in Salt Lake City and one institution from a neighboring county identified 35 other cases diagnosed since 1946. Efforts to locate these people are underway to determine their probable source of infection.

An active surveillance and control program for echinococcosis is being continued in Herriman as well as throughout the state. These activities include 1) carrying out a search for infected sheep by state veterinarians and meat inspectors; 2) worming sheep dogs that work infected flocks; 3) requesting reports from local physicians of any newly diagnosed cases; and 4) instructing the population of Herriman in the proper techniques for disposing of sheep carcasses.

(Reported by S. L. Spruance, M.D., Acting Chief, Communicable Disease Section, Utah State Division of Health; the Parasitic Diseases Branch, Epidemiology Program, NCDC; and two EIS Officers.)

## Editorial Comment:

The first demonstration of the complete cycle of transmission of *E. granulosus* in the United States occurred in early 1969 in the Central Valley of California. (1)

## Reference:

- (1) Sawyer, John C., Peter M. Schantz, Calvin W. Schwabe, and Milton W. Newbold: Identification of Transmission Foci of Hydatid Disease in California. *Public Health Rep.*, 84(6): 531-541, June 1969.

SURVEILLANCE SUMMARY  
TETANUS - United States 1968 and 1969\*

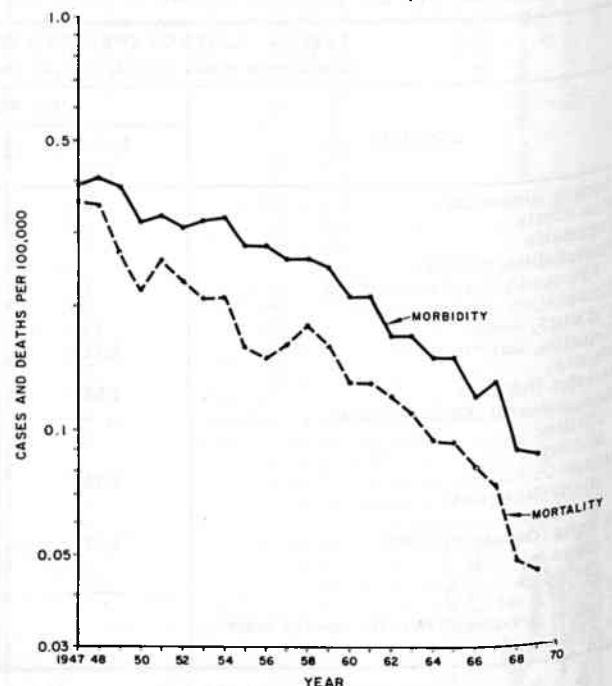
For 1968 and 1969 a total of 352 cases of tetanus (178 in 1968 and 174 in 1969) were reported to NCDC. Individual surveillance forms were submitted on 328 of these cases and provided the data for the following analysis.

The U.S. annual incidence rates of tetanus were 0.087 and 0.086 per 100,000 population and the annual mortality rates were 0.050 and 0.045 for 1968 and 1969, respectively (Figure 1). This parallel decline in both incidence and mortality rates resulted in relatively little change in the case fatality ratio (Figure 2). Most cases occurred in the months from April to October. Although cases were reported from 42 states, the southernmost tier of states continued to have the highest incidence (Figure 3).

Excluding neonates, the median age of patients with tetanus for the 2 years was 53 years. This was essentially unchanged from the median of 54 years in 1967. There was an 8- to 10-fold greater incidence rate in persons 60 years of age and above compared with persons 10 to 19 years of age (Figure 4). The death rate was 25 to 50 times higher in the elderly. The male to female ratio of tetanus was more common in males in all age groups except the 20 to 40 years age group. The lower incidence in this group presumably reflected better immunization levels subsequent to military service.

The incidence rate for Caucasians was approximately one-fifth that for Negroes and other racial groups, except in the 30 to 39 years age group, where the rate in Caucasians was one-fortieth that for Negroes and other racial groups. This marked difference in incidence resulted from a substantially lower incidence among white females as

Figure 1  
TETANUS MORBIDITY AND MORTALITY PER 100,000  
POPULATION - UNITED STATES, 1947-1969\*



compared with females in Negro and other racial groups. Puncture wounds and lacerations were the most frequent tetanus-predisposing injuries and accounted for 29.3 and 28.3 percent of the total, respectively. Drug addiction and lawnmower-related injuries accounted for 12

Figure 2  
TETANUS CASE FATALITY RATIOS  
UNITED STATES, 1950-1969\*



Figure 3  
GEOGRAPHIC DISTRIBUTION OF TETANUS CASES AND  
INCIDENCE RATES (EXCLUDES NEONATAL), BY STATE  
1968-1969\*

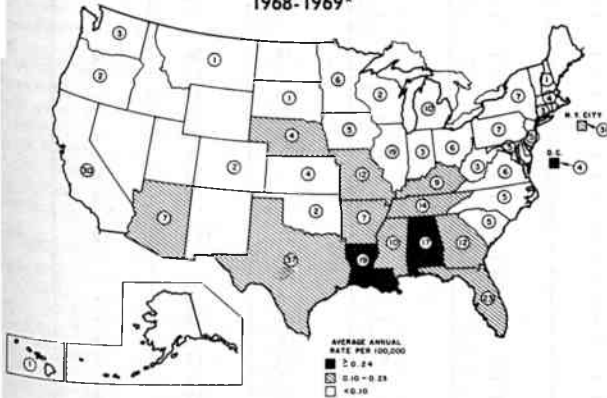
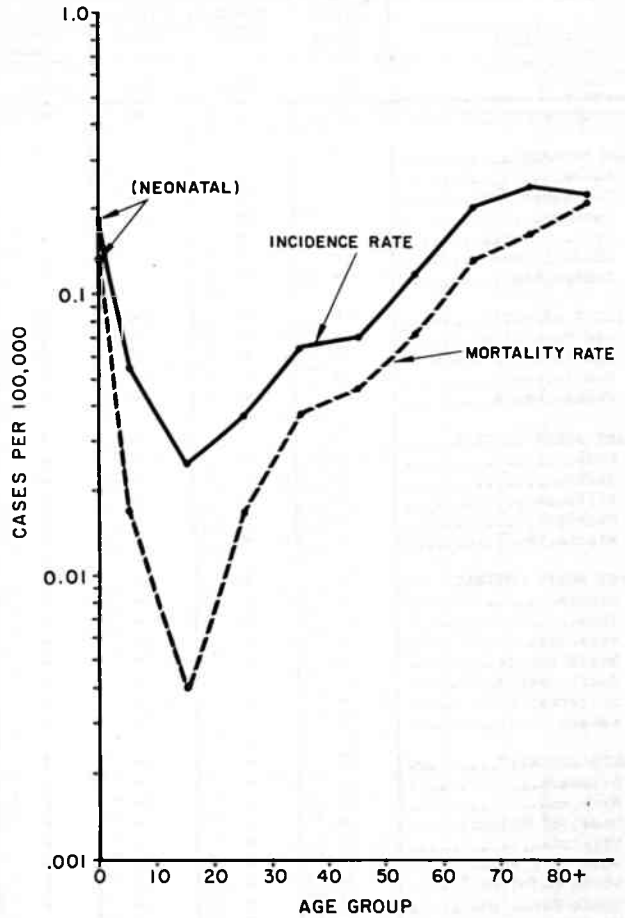


Figure 4  
TETANUS MORBIDITY AND MORTALITY AVERAGE  
ANNUAL RATES, BY AGE GROUP  
UNITED STATES, 1968-1969\*



percent of all the adult cases reported over the 2-year period. Wounds of the hands and feet were the most common sites of injury. The site of injury had no significant influence on case fatality ratios. Tetanus-predisposing injuries occurred most frequently in the home. The median incubation period for fatal and nonfatal tetanus cases with known wounds was 6.2 and 7.6 days, respectively. The only sign in tetanus that correlated significantly with a poor prognosis was convulsions, and these were associated with a significantly poorer prognosis only in persons less than 20 years of age.

Only 16 of the tetanus patients were known to have received prophylactic antitoxin. There was no significant difference in the case fatality ratios between those receiving and not receiving prophylactic antitoxin. The role of prophylactic tetanus antitoxin in the prevention of tetanus could not be assessed because the total number of persons in the United States with tetanus-prone injuries who received prophylactic antitoxin remained unknown.

Ninety-four percent (250 of 265) of the patients with known treatment information had received therapeutic antitoxin. The case fatality ratio for those receiving antitoxin

(59.2 percent) was different from that for the patients who had not received therapeutic tetanus antitoxin (73.3 percent); however, a firm conclusion in this regard is unwarranted in view of the relatively small number of cases (15) in the latter group.

Only 11 patients with tetanus had histories of two or more tetanus toxoid injections. Of these, two were reported to have received complete primary immunization and adequate booster immunization, but on further investigation of them, one had an illness compatible with a disease other than tetanus and had a protective antitoxin titer and conclusive proof of the other person's vaccination status could not be obtained. Thus, no documented cases of tetanus among fully immunized persons were noted among the 328 cases of tetanus analyzed for the 2-year period.

*Clostridium tetani* was recovered from 31 percent (45 of 144) of the patients whose wounds were cultured.

A total of 13 cases (eight fatal) of neonatal tetanus were reported for the 2 years. The annual number and the incidence rates were significantly lower than in previous years (Table 1). Ten of the 13 neonates were Negro and

(Continued on page 168)

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TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

APRIL 25, 1970 AND APRIL 19, 1969 (16th WEEK)

AREA	ASEPTIC MENIN- GITIS	BRUCEL- LOSIS	DIPH- THERIA	ENCEPHALITIS			HEPATITIS			MALARIA	
				Primary including unsp. cases		Post In- fectious	Serum	Infectious		1970	Cum. 1970
				1970	1969	1970	1970	1970	1969		
UNITED STATES.....	25	-	12	15	23	12	138	1,146	1,006	34	1,035
NEW ENGLAND.....	1	-	-	1	1	-	8	109	73	2	34
Maine.....	-	-	-	-	-	-	-	15	1	-	1
New Hampshire.....	-	-	-	-	-	-	-	6	3	-	-
Vermont.....	-	-	-	-	-	-	-	18	2	2	3
Massachusetts.....	1	-	-	-	1	-	4	38	42	-	19
Rhode Island.....	-	-	-	-	-	-	2	13	12	-	5
Connecticut.....	-	-	-	1	-	-	2	19	13	-	6
MIDDLE ATLANTIC.....	4	-	-	5	2	2	51	250	175	2	118
New York City.....	3	-	-	2	-	-	32	77	78	-	25
New York, Up-State...	-	-	-	2	2	-	3	67	20	-	29
New Jersey.....	1	-	-	-	-	-	14	62	33	1	34
Pennsylvania.....	-	-	-	1	-	2	2	44	44	1	30
EAST NORTH CENTRAL.....	2	-	-	1	10	2	29	201	161	3	54
Ohio.....	-	-	-	-	7	1	3	52	38	3	16
Indiana.....	1	-	-	-	-	-	-	18	9	-	3
Illinois.....	1	-	-	-	-	-	7	27	27	-	8
Michigan.....	-	-	-	1	3	1	19	95	72	-	27
Wisconsin.....	-	-	-	-	-	-	-	9	15	-	-
WEST NORTH CENTRAL.....	-	-	-	-	-	-	-	49	66	2	69
Minnesota.....	-	-	-	-	-	-	-	6	12	-	1
Iowa.....	-	-	-	-	-	-	-	5	13	-	7
Missouri.....	-	-	-	-	-	-	-	24	16	-	5
North Dakota.....	-	-	-	-	-	-	-	1	-	-	1
South Dakota.....	-	-	-	-	-	-	-	1	6	-	-
Nebraska.....	-	-	-	-	-	-	-	4	15	-	1
Kansas.....	-	-	-	-	-	-	-	8	4	2	54
SOUTH ATLANTIC.....	5	-	-	1	3	1	8	97	118	12	187
Delaware.....	-	-	-	-	-	-	1	3	3	-	1
Maryland.....	2	-	-	-	-	1	-	13	11	-	21
Dist. of Columbia...	-	-	-	-	-	-	-	2	-	-	-
Virginia.....	-	-	-	-	2	-	-	21	29	-	15
West Virginia.....	-	-	-	-	-	-	-	14	14	-	1
North Carolina.....	-	-	-	1	-	-	6	13	12	7	87
South Carolina.....	1	-	-	-	-	-	-	7	4	1	16
Georgia.....	-	-	-	-	-	-	-	19	17	2	34
Florida.....	2	-	-	-	1	-	1	5	28	2	12
EAST SOUTH CENTRAL.....	2	-	-	2	-	1	3	79	64	-	89
Kentucky.....	1	-	-	1	-	-	-	35	16	-	81
Tennessee.....	-	-	-	-	-	1	2	30	19	-	-
Alabama.....	1	-	-	1	-	-	1	9	17	-	7
Mississippi.....	-	-	-	-	-	-	-	5	12	-	1
WEST SOUTH CENTRAL.....	2	-	10	1	2	1	2	97	92	6	222
Arkansas.....	-	-	-	-	-	-	-	2	4	3	4
Louisiana.....	-	-	2	-	2	-	2	14	21	-	12
Oklahoma.....	-	-	1	-	-	-	-	10	6	3	28
Texas.....	2	-	8	-	-	1	-	71	61	-	178
MOUNTAIN.....	-	-	2	-	1	-	7	36	39	-	77
Montana.....	-	-	2	-	-	-	-	1	3	-	2
Idaho.....	-	-	-	-	-	-	-	4	3	-	1
Wyoming.....	-	-	-	-	-	-	-	-	-	-	-
Colorado.....	-	-	-	-	1	-	5	15	8	-	70
New Mexico.....	-	-	-	-	-	-	-	6	9	-	1
Arizona.....	-	-	-	-	-	-	-	9	10	-	2
Utah.....	-	-	-	-	-	-	2	1	6	-	1
Nevada.....	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	9	-	-	4	4	5	30	228	218	7	185
Washington.....	-	-	-	2	1	1	-	19	8	-	12
Oregon.....	-	-	-	-	-	-	2	19	25	-	9
California.....	9	-	-	2	3	4	28	186	182	7	146
Alaska.....	-	-	-	-	-	-	-	4	3	-	-
Hawaii.....	-	-	-	-	-	-	-	-	-	-	18
Puerto Rico.....	-	-	-	-	-	-	3	18	25	-	-
Virgin Islands.....	-	-	-	-	-	-	-	-	-	-	-

\*Delayed reports: Aseptic meningitis: N.J. 1, Ariz. 1  
Hepatitis, infectious: N.J. delete 3, N.C. delete 1  
Malaria: N.C. delete 1, Okla. 2

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TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

APRIL 25, 1970 AND APRIL 19, 1969 (16th WEEK) - CONTINUED

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS		POLIOMYELITIS		
	Cumulative			Cumulative			1970	Cum. 1970	Total	Paralytic	
	1970	1970	1969	1970	1970	1969			1970	1970	Cum. 1970
UNITED STATES.....	1,834	20,329	9,695	66	1,104	1,391	2,732	42,862	-	-	1
NEW ENGLAND.....	45	471	477	4	42	37	280	5,533	-	-	-
Maine.....	-	2	2	-	-	2	-	528	-	-	-
New Hampshire.....	1	15	160	-	3	-	2	203	-	-	-
Vermont.....	-	1	2	2	5	-	6	470	-	-	-
Massachusetts*.....	41	402	58	2	16	19	104	1,834	-	-	-
Rhode Island.....	1	15	17	-	3	4	44	632	-	-	-
Connecticut.....	2	36	238	-	15	12	124	1,866	-	-	-
MIDDLE ATLANTIC.....	163	2,782	3,321	12	190	205	227	4,465	-	-	-
New York City.....	40	478	2,225	1	46	37	68	1,406	-	-	-
New York, Up-State...	7	109	337	4	38	32	NN	NN**	-	-	-
New Jersey.....	46	1,104	433	6	70	88	36	1,331	-	-	-
Pennsylvania.....	70	1,091	326	1	36	48	123	1,728	-	-	-
EAST NORTH CENTRAL.....	492	4,510	1,022	10	130	173	865	10,840	-	-	-
Ohio.....	236	1,724	116	3	57	65	52	1,663	-	-	-
Indiana.....	11	172	301	1	14	21	82	1,075	-	-	-
Illinois.....	122	1,752	180	3	30	30	77	970	-	-	-
Michigan.....	85	489	104	3	25	48	263	2,617	-	-	-
Wisconsin.....	38	373	321	-	4	9	391	4,515	-	-	-
WEST NORTH CENTRAL.....	114	1,855	295	3	57	67	65	2,523	-	-	-
Minnesota.....	-	24	1	-	6	12	7	241	-	-	-
Iowa.....	12	73	176	-	7	10	19	1,630	-	-	-
Missouri.....	73	559	14	2	39	24	9	67	-	-	-
North Dakota.....	25	219	6	-	2	-	22	207	-	-	-
South Dakota.....	-	64	-	-	-	-	-	2	-	-	-
Nebraska.....	4	871	98	-	2	8	6	295	-	-	-
Kansas.....	-	45	-	1	1	13	2	81	-	-	-
SOUTH ATLANTIC.....	420	3,679	1,478	11	247	251	304	4,478	-	-	-
Delaware.....	10	180	133	-	3	4	9	107	-	-	-
Maryland.....	63	747	13	-	24	21	35	344	-	-	-
Dist. of Columbia...	4	307	-	-	1	5	5	119	-	-	-
Virginia*.....	179	955	595	1	21	31	72	978	-	-	-
West Virginia.....	6	119	131	-	5	12	64	1,265	-	-	-
North Carolina.....	58	377	129	1	50	37	NN	NN	-	-	-
South Carolina.....	55	318	72	5	23	39	71	483	-	-	-
Georgia.....	-	4	1	1	27	40	-	-	-	-	-
Florida.....	45	672	404	3	93	62	48	1,182	-	-	-
EAST SOUTH CENTRAL.....	39	352	49	2	80	77	189	2,652	-	-	-
Kentucky.....	7	184	21	2	30	22	61	980	-	-	-
Tennessee.....	29	122	13	-	33	33	113	1,509	-	-	-
Alabama.....	-	24	-	-	13	13	14	146	-	-	-
Mississippi.....	3	22	15	-	4	9	1	17	-	-	-
WEST SOUTH CENTRAL.....	408	4,853	2,267	12	166	200	221	4,123	-	-	1
Arkansas.....	-	19	3	-	15	22	4	68	-	-	-
Louisiana*.....	4	50	71	6	44	49	3	11	-	-	-
Oklahoma.....	7	180	105	-	10	20	44	1,313	-	-	-
Texas.....	397	4,604	2,088	6	97	109	170	2,731	-	-	1
MOUNTAIN.....	64	850	237	-	15	32	72	1,873	-	-	-
Montana.....	-	14	4	-	-	4	24	345	-	-	-
Idaho.....	3	8	36	-	3	5	3	64	-	-	-
Wyoming.....	-	-	-	-	1	-	-	11	-	-	-
Colorado*.....	8	90	20	-	5	6	-	587	-	-	-
New Mexico.....	20	115	107	-	-	6	20	413	-	-	-
Arizona.....	23	603	68	-	4	8	25	382	-	-	-
Utah.....	7	13	1	-	2	1	-	71	-	-	-
Nevada.....	3	7	1	-	-	2	-	-	-	-	-
PACIFIC.....	89	977	549	12	177	349	509	6,375	-	-	-
Washington.....	23	97	39	1	20	48	258	2,684	-	-	-
Oregon.....	-	120	121	-	15	8	51	478	-	-	-
California.....	65	712	380	11	141	282	163	2,505	-	-	-
Alaska.....	-	2	4	-	-	4	9	253	-	-	-
Hawaii.....	1	46	5	-	1	7	28	455	-	-	-
Puerto Rico.....	17	652	253	-	2	7	22	431	-	-	-
Virgin Islands.....	-	5	2	-	1	-	-	1	-	-	-

\*Delayed reports: Measles: Mass. delete 31, Va. delete 146, La. 2, Colo. 66  
 \*\*Four cases listed in prior 1970 reports should have been listed as post-infections encephalitis and the correction has been made in this issue.

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDED

APRIL 25, 1970 AND APRIL 19, 1969 (16th WEEK) - CONTINUED

AREA	RUBELLA		TETANUS		TULAREMIA		TYPHOID FEVER		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
	1970	Cum. 1970	1970	Cum. 1970	1970	Cum. 1970	1970	Cum. 1970	1970	Cum. 1970	1970	Cum. 1970
UNITED STATES.....	3,038	27,461	4	28	1	33	5	70	2	5	68	1,044
NEW ENGLAND.....	125	1,207	-	3	-	-	-	2	-	-	-	42
Maine.....	31	205	-	-	-	-	-	-	-	-	-	7
New Hampshire.....	8	111	-	-	-	-	-	-	-	-	-	-
Vermont.....	4	28	-	-	-	-	-	-	-	-	-	34
Massachusetts.....	64	535	-	2	-	-	-	1	-	-	-	-
Rhode Island.....	-	39	-	-	-	-	-	-	-	-	-	-
Connecticut.....	18	289	-	1	-	-	-	1	-	-	-	1
MIDDLE ATLANTIC.....	252	1,958	-	3	-	-	-	18	-	-	7	90
New York City.....	28	276	-	1	-	-	-	6	-	-	-	-
New York, Up-State..	42	198	-	-	-	-	-	5	-	-	7	88
New Jersey.....	31	548	-	1	-	-	-	2	-	-	-	-
Pennsylvania.....	151	936	-	1	-	-	-	5	-	-	-	2
EAST NORTH CENTRAL....	507	5,862	1	7	-	15	3	11	-	-	10	68
Ohio.....	91	954	-	-	-	2	1	4	-	-	2	26
Indiana.....	105	1,210	-	1	-	12	1	1	-	-	-	3
Illinois.....	99	724	-	3	-	1	1	1	-	-	1	18
Michigan.....	138	1,585	1	3	-	-	1	5	-	-	3	6
Wisconsin.....	74	1,389	-	-	-	-	-	-	-	-	4	15
WEST NORTH CENTRAL....	119	2,227	-	1	-	4	-	1	-	-	5	138
Minnesota.....	-	77	-	-	-	-	-	1	-	-	3	32
Iowa.....	97	1,430	-	-	-	-	-	-	-	-	-	26
Missouri.....	13	236	-	-	-	3	-	-	-	-	-	35
North Dakota.....	5	87	-	-	-	1	-	-	-	-	1	16
South Dakota.....	-	1	-	1	-	-	-	-	-	-	-	2
Nebraska.....	4	375	-	-	-	-	-	-	-	-	-	27
Kansas.....	-	21	-	-	-	-	-	-	-	-	-	-
SOUTH ATLANTIC.....	564	3,711	-	7	-	4	-	11	-	2	15	256
Delaware.....	1	35	-	-	-	-	-	-	-	-	-	1
Maryland.....	24	170	-	-	-	-	-	3	-	-	-	-
Dist. of Columbia..	-	11	-	1	-	-	-	-	-	-	-	126
Virginia.....	22	450	-	-	-	-	-	1	-	2	7	60
West Virginia.....	68	826	-	-	-	-	-	-	-	-	4	-
North Carolina.....	1	10	-	-	-	3	-	1	-	-	-	-
South Carolina.....	95	397	-	-	-	-	-	-	-	-	-	40
Georgia.....	-	-	-	1	-	-	-	4	-	-	2	29
Florida.....	353	1,812	-	5	-	1	-	2	-	-	2	-
EAST SOUTH CENTRAL....	110	1,366	1	1	-	2	1	3	-	-	3	97
Kentucky.....	12	461	-	-	-	1	1	1	-	-	3	54
Tennessee.....	58	670	-	-	-	1	-	-	-	-	-	28
Alabama.....	33	191	1	1	-	-	-	2	-	-	-	15
Mississippi.....	7	44	-	-	-	-	-	-	-	-	-	-
WEST SOUTH CENTRAL....	734	5,126	2	4	-	7	-	5	1	2	14	190
Arkansas.....	-	24	2	3	-	2	-	3	1	1	2	26
Louisiana.*.....	19	82	-	1	-	-	-	1	-	-	3	38
Oklahoma.....	33	616	-	-	-	4	-	-	-	1	2	33
Texas.....	682	4,404	-	-	-	1	-	1	-	-	7	93
MOUNTAIN.....	89	986	-	-	1	1	-	4	1	1	6	42
Montana.....	23	230	-	-	-	-	-	1	-	-	-	-
Idaho.....	14	44	-	-	-	-	-	-	-	-	-	-
Wyoming.....	3	53	-	-	-	-	-	-	-	-	-	25
Colorado.*.....	3	161	-	-	-	-	-	1	1	1	5	8
New Mexico.....	23	106	-	-	-	-	-	2	-	-	1	9
Arizona.*.....	17	280	-	-	-	-	-	-	-	-	-	-
Utah.....	6	112	-	-	1	1	-	-	-	-	-	-
Nevada.....	-	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	538	5,018	-	2	-	-	1	15	-	-	8	121
Washington.....	271	2,500	-	-	-	-	-	1	-	-	-	1
Oregon.....	26	381	-	1	-	-	-	-	-	-	-	120
California.....	229	1,931	-	1	-	-	-	12	-	-	8	-
Alaska.....	5	70	-	-	-	-	-	1	-	-	-	-
Hawaii.....	7	136	-	-	-	-	1	1	-	-	-	-
Puerto Rico.....	4	17	-	3	-	-	-	2	-	-	-	-
Virgin Islands.....	-	-	-	-	-	-	-	-	-	-	-	16

\*Delayed reports: Rubella: La. delete 2  
Tetanus: La. delete 1  
Rabies in animals: Colo. 20, Ariz. 1

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED APRIL 25, 1970

(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>	687	424	40	26	<b>SOUTH ATLANTIC:</b>	1,294	662	68	58
Boston, Mass.-----	189	100	10	11	Atlanta, Ga.-----	164	74	8	8
Bridgeport, Conn.-----	36	24	7	-	Baltimore, Md.-----	265	146	10	13
Cambridge, Mass.-----	22	16	3	-	Charlotte, N. C.-----	60	24	1	5
Fall River, Mass.-----	29	23	3	-	Jacksonville, Fla.-----	83	44	5	5
Hartford, Conn.-----	54	29	-	4	Miami, Fla.-----	123	54	9	3
Lowell, Mass.-----	35	26	5	2	Norfolk, Va.-----	51	28	3	1
Lynn, Mass.-----	23	16	-	1	Richmond, Va.-----	91	46	9	5
New Bedford, Mass.-----	35	25	2	-	Savannah, Ga.-----	50	16	6	2
New Haven, Conn.-----	65	37	-	2	St. Petersburg, Fla.-----	98	82	5	-
Providence, R. I.-----	63	39	1	3	Tampa, Fla.-----	62	37	5	3
Somerville, Mass.-----	14	8	1	-	Washington, D. C.-----	193	86	7	9
Springfield, Mass.-----	46	31	5	2	Wilmington, Del.-----	54	25	-	4
Waterbury, Conn.-----	28	21	-	-	<b>EAST SOUTH CENTRAL:</b>	635	356	36	29
Worcester, Mass.-----	48	29	3	1	Birmingham, Ala.-----	113	60	6	4
<b>MIDDLE ATLANTIC:</b>	3,199	1,850	109	130	Chattanooga, Tenn.-----	47	26	3	3
Albany, N. Y.-----	43	24	1	3	Knoxville, Tenn.-----	25	18	2	1
Allentown, Pa.-----	35	23	1	4	Louisville, Ky.-----	136	75	12	3
Buffalo, N. Y.-----	146	89	2	4	Memphis, Tenn.-----	132	71	6	8
Camden, N. J.-----	49	26	1	3	Mobile, Ala.-----	45	28	2	3
Elizabeth, N. J.-----	20	10	1	1	Montgomery, Ala.-----	29	17	1	3
Erie, Pa.-----	36	21	3	-	Nashville, Tenn.-----	108	61	4	4
Jersey City, N. J.-----	75	39	4	3	<b>WEST SOUTH CENTRAL:</b>	1,165	642	53	79
Newark, N. J.-----	69	32	2	2	Austin, Tex.-----	45	29	3	2
New York City, N. Y.-----	1,665	975	60	52	Baton Rouge, La.-----	30	16	2	-
Paterson, N. J.-----	27	18	2	2	Corpus Christi, Tex.-----	32	15	1	2
Philadelphia, Pa.-----	401	216	7	27	Dallas, Tex.-----	173	92	4	13
Pittsburgh, Pa.-----	189	101	10	11	El Paso, Tex.-----	47	22	6	6
Reading, Pa.-----	61	33	-	2	Fort Worth, Tex.-----	75	42	5	10
Rochester, N. Y.-----	135	85	2	8	Houston, Tex.-----	201	107	7	15
Schenectady, N. Y.-----	20	16	3	-	Little Rock, Ark.-----	75	34	-	7
Scranton, Pa.-----	35	22	2	1	New Orleans, La.-----	160	84	6	7
Syracuse, N. Y.-----	73	36	1	4	Oklahoma City, Okla.-----	88	57	-	8
Trenton, N. J.-----	54	35	3	-	San Antonio, Tex.-----	117	67	6	5
Utica, N. Y.-----	20	13	3	2	Shreveport, La.-----	59	34	7	1
Yonkers, N. Y.-----	46	36	1	1	Tulsa, Okla.-----	63	43	6	3
<b>EAST NORTH CENTRAL:</b>	2,725	1,484	93	142	<b>MOUNTAIN:</b>	475	257	33	28
Akron, Ohio-----	55	32	-	2	Albuquerque, N. Mex.-----	39	15	8	1
Canton, Ohio-----	31	17	2	3	Colorado Springs, Colo.-----	29	16	2	1
Chicago, Ill.-----	749	379	24	45	Denver, Colo.-----	132	69	11	16
Cincinnati, Ohio-----	166	94	9	5	Ogden, Utah-----	15	9	1	-
Cleveland, Ohio-----	241	124	-	8	Phoenix, Ariz.-----	127	73	4	4
Columbus, Ohio-----	138	66	-	10	Pueblo, Colo.-----	19	10	3	-
Dayton, Ohio-----	86	35	4	12	Salt Lake City, Utah-----	50	28	1	5
Detroit, Mich.-----	386	226	9	19	Tucson, Ariz.-----	64	37	3	1
Evansville, Ind.-----	57	38	2	1	<b>PACIFIC:</b>	1,503	887	30	81
Flint, Mich.-----	61	31	3	2	Berkeley, Calif.-----	22	16	-	-
Fort Wayne, Ind.-----	43	27	5	1	Fresno, Calif.-----	59	38	-	3
Gary, Ind.-----	28	12	4	2	Glendale, Calif.-----	27	16	-	1
Grand Rapids, Mich.-----	35	23	4	2	Honolulu, Hawaii-----	34	10	1	6
Indianapolis, Ind.-----	185	97	2	12	Long Beach, Calif.-----	86	52	3	3
Madison, Wis.-----	45	21	5	4	Los Angeles, Calif.-----	467	273	13	27
Milwaukee, Wis.-----	132	82	1	4	Oakland, Calif.-----	59	40	1	1
Peoria, Ill.-----	37	22	1	2	Pasadena, Calif.-----	41	32	-	1
Rockford, Ill.-----	29	17	6	1	Portland, Oreg.-----	103	70	4	3
South Bend, Ind.-----	37	25	3	1	Sacramento, Calif.-----	54	23	-	2
Toledo, Ohio-----	116	70	6	5	San Diego, Calif.-----	107	59	2	9
Youngstown, Ohio-----	68	46	3	1	San Francisco, Calif.-----	164	96	4	10
<b>WEST NORTH CENTRAL:</b>	875	557	19	41	San Jose, Calif.-----	39	25	-	-
Des Moines, Iowa-----	55	29	-	6	Seattle, Wash.-----	154	91	-	8
Duluth, Minn.-----	23	16	-	-	Spokane, Wash.-----	56	33	2	4
Kansas City, Kans.-----	28	18	3	3	Tacoma, Wash.-----	31	13	-	3
Kansas City, Mo.-----	148	94	-	5	<b>Total</b>	<b>12,558</b>	<b>7,119</b>	<b>481</b>	<b>614</b>
Lincoln, Nebr.-----	26	16	-	2	<b>Expected Number</b>	<b>12,707</b>	<b>7,431</b>	<b>436</b>	<b>482</b>
Minneapolis, Minn.-----	124	86	2	9	<b>Cumulative Total</b> (includes reported corrections for previous weeks)	<b>221,439</b>	<b>127,764</b>	<b>10,346</b>	<b>9,879</b>
Omaha, Nebr.-----	85	55	-	5					
St. Louis, Mo.-----	248	162	5	5					
St. Paul, Minn.-----	79	47	1	4					
Wichita, Kans.-----	59	34	8	2					
Las Vegas, Nev.*	21	12	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.

TETANUS - (Continued from page 163)

Table 1  
Neonatal Tetanus in the United States  
1965-1969\*

Year	Number of Cases	Number of Cases per 100,000 Live Births
1965	27	0.718
1966	27	0.749
1967	25	0.710
1968	6	0.173
1969	7	0.195

three were Caucasian. Seven were boys. Twelve were born at home and one in a hospital. Seven of the mothers had never been vaccinated against tetanus, and immunization histories for the remaining six were not reported.

(Reported by the Special Pathogens Section, Bacterial Diseases Branch, and the Statistical Services Activity, Epidemiology Program, NCDC.)

\*The morbidity data for 1969 presented in text, table, and figures in report are preliminary. The mortality data for 1968 and 1969 similarly presented are preliminary.

A copy of the report from which these data were derived is available on request from

National Communicable Disease Center  
Attn: Chief, Special Pathogens Section,  
Bacterial Diseases Branch, Epidemiology Program  
Atlanta, Georgia 30333

INTERNATIONAL NOTES  
QUARANTINE MEASURES

Changes in the "Supplement - United States Designated Yellow Fever Vaccination Centers," MMWR, Vol. 18, No. 53

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

CALIFORNIA

Los Angeles Los Angeles Overseas Medical Center  
Change clinic hours to: Tues., 1:30-3 p.m.; Sat., 9:30-11 a.m.; otherwise, by appointment

TEXAS

Austin Austin-Travis County Health Dept.  
Change clinic hour to: Wed., 4 p.m.

VIRGINIA

Lexington Lexington-Rockbridge Health Dept.  
Change clinic hours to: Last Fri. each month, 11 a.m., and by special appointment if necessary  
Fee: Yes

THE MORBIDITY AND MORTALITY WEEKLY REPORT, WITH A CIRCULATION OF 21,000 IS PUBLISHED AT THE NATIONAL COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA.

DIRECTOR, NATIONAL COMMUNICABLE DISEASE CENTER  
DAVID J. SENCER, M.D.  
DIRECTOR, EPIDEMIOLOGY PROGRAM  
PHILIP S. BRACHMAN, M.D.

EDITOR  
MANAGING EDITOR  
MICHAEL B. GREGG, M.D.  
FRISCILLA B. HOLMAN

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NATIONAL COMMUNICABLE DISEASE CENTER  
ATTN: THE EDITOR  
MORBIDITY AND MORTALITY WEEKLY REPORT  
ATLANTA, GEORGIA 30333

NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE BASED ON WEEKLY TELEGRAMS TO THE NCDC BY THE INDIVIDUAL 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.

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