COMMUNICABLE DISEASE CENTER

Morbidity and Mortality

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Vol. 15, No. 31

WEEKLY REPORT

Week Ending August 6, 1966

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE PUBLIC HEALTH SERVICE

ENCEPHALITIS – TEXAS

During the last week of July and the first week of August 1966, 13 cases of encephalitis are known to have occurred among adults from one area of Dallas. These patients have all been admitted to one hospital in Dallas; they range in age from 35 to 71 years. The area in which the patients reside is one in which flooding occurred earlier in the year, with resultant large mosquito populations. Early serum specimens from 5 of the 13 cases have been submitted to the State Laboratory in Austin. Three of the five specimens showed positive titers for CF-antibody to Group B arboviruses, suggesting that these cases may represent St. Louis encephalitis viral infection. An intensive program of control and investigation is underway.

(Reported by Dr. Van C. Tipton, State Epidemiologist, Texas State Department of Health.)

CONTENTS

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

(Cumulative totals include revised and delayed reports through previous weeks)

DISEASE	31st WEEK ENDED		MEDIAN	CUMULATIVE, FIRST 31 WEEKS		
	AUGUST 6, 1966	AUGUST 7, 1965	1961 – 1965	1966	1965	MEDIAN 1961 – 1965
Aseptic meningitis	89	64	64	1,100	968	952
Brucellosis	3	5	8	125	140	241
Diphtheria	1	1	2	99	89	160
Encephalitis, primary:						
Arthropod-borne & unspecified	38	41	---	825	952	---
Encephalitis, post-infectious	13	13	---	532	483	---
Hepatitis, serum	43	519	682	813	20,790	26,800
Hepatitis, infectious	555			19,548		
Measles (rubeola)	844	1,145	1,807	186,154	236,488	380,528
Poliomyelitis, Total (including unspecified)	10	6	9	53	35	146
Paralytic	9	5	8	48	30	121
Nonparalytic	–	1	---	–	5	---
Meningococcal infections, Total	43	40	33	2,526	2,167	1,618
Civilian	43	36	---	2,262	1,988	---
Military	–	4	---	264	179	---
Rubella (German measles)	281	---	---	40,316	---	---
Streptococcal sore throat & Scarlet fever	4,396	4,081	3,446	286,026	265,358	232,721
Tetanus	6	12	---	97	150	---
Tularemia	2	3	---	89	148	---
Typhoid fever	12	15	15	206	229	252
Typhus, tick-borne (Rky. Mt. Spotted fever)	16	15	---	148	168	---
Rabies in Animals	70	74	66	2,595	2,848	2,542

NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	4	Botulism:	4
Leptospirosis: Hawaii-2	42	Trichinosis: Conn.-1	58
Malaria: Pa.-1, Ill.-1, Calif.-1	187	Rabies in Man:	1
Psittacosis: Conn.-1	26	Rubella, Congenital Syndrome:	18
Typhus, murine:	14	Plague:	4

EPIDEMIOLOGIC NOTES AND REPORTS

EASTERN ENCEPHALITIS – Louisiana

Through the week ending July 30, 1966, the Louisiana State Board of Health received reports of 135 cases of encephalitis in horses. This number is the largest known to have occurred since 1947. The cases were distributed over 17 parishes, with a marked concentration in the area immediately west and north of the City of New Orleans. Eastern encephalitis virus has been isolated from two brain specimens obtained from horses in Jefferson and Lafayette parishes, respectively. Several additional cases have been confirmed by serological testing. Vaccination of horses is being carried out, and it is estimated that 80 percent of the equine population in the area has been immunized to date.

During the same period of time, eight cases of primary encephalitis in humans have been reported in Louisiana. An intensive search for other cases in the City of New Orleans and in the epizootic area uncovered 16 additional illnesses, suggestive of central nervous system infection. Sera from 12 patients were tested for hemagglutination-inhibiting antibody to the virus of Eastern encephalitis and were negative.

A survey of mosquitoes in the greater New Orleans area revealed a late emergence this year of *Mansonia perturbans* along the western margin of the City. As a result, this species was unusually prevalent in July. *Aedes sollicitans,* a suspected vector for human cases of Eastern encephalitis, was generally scarce as a result of mosquito abatement programs in and surrounding Orleans Parish. Samples of the mosquito population and blood specimens from wild birds are currently being tested for the presence of arboviruses.

Figure 1
DISTRIBUTION OF HORSE CASES OF ENCEPHALITIS
LOUISIANA, 1966

In summary, although an epizootic of Eastern encephalitis has been occurring in horses in Louisiana, there is no evidence for a concurrent human outbreak.

(Reported by Dr. Frank Wheeler, Veterinarian, Dr. John M. Bruce, Chief, Epidemiology Section, and Dr. George H. Hauser, Director of Laboratories, Louisiana State Board of Health; and a team from CDC.)

CURRENT TRENDS – PLAGUE

Five cases of bubonic plague in humans have been reported to the Communicable Disease Center to date in 1966. Four of these cases have been confirmed bacteriologically as *Pasteurella pestis* infection, and one remains suspect on clinical grounds. A line listing of the cases is shown in Table 1. The first two cases were previously reported in MMWR, Vol. 15, Nos. 23 and 26 respectively.

The third case of *P. pestis* infection is a 7-year-old Navajo girl who became ill on July 8 with fever, confusion, abdominal pain and a lump in the left groin. At the time of admission to the Indian Health Service Hospital at Tuba City, Arizona, on July 12, she was found to have a temperature of 102°F. and a 1 x 1½ inch tender lymph node in the left groin. The lymph node was aspirated, and though no organisms could be seen in the smear of the aspirate, *P. pestis* was isolated from culture of both the aspirate and the patient's blood. The patient has responded to treatment with streptomycin, sulfonamides and tetracycline. Identification of the organism as *P. pestis* was confirmed on July 18 by the San Francisco Field Station of the Communicable Disease Center.

There was no known contact of this patient with field rodents, and no evidence of rodent mortality in the area of her home. The family did raise domestic rabbits, some of which died shortly after the patient. Sera have been obtained from other members of the patient's family and from their domestic dogs. The home of this family was dusted with 5 percent malathion, and similar dusting was carried out in the nearby rodeo grounds where a small ceremonial was soon to take place.

Table 1
Human Cases of Bubonic Plague – 1966

Case	Sex	Age	Admitted to Hospital	Residence	Laboratory	Remarks
1	M	5	5/23/66	Monument Valley, Utah	Confirmed	Fatal
2	M	72	6/10/66	Rio Arriba County, N.M.	Confirmed	Recovered
3	F	7	7/12/66	Shonto, Ariz.	Confirmed	Recovered
4	F	adult	7/19/66	Santa Fe, N.M.	Suspect	Recovered
5	F	14	7/26/66	Pecos, N.M.	Confirmed	Recovered

A suspect case of bubonic plague was reported by the New Mexico State Department of Health on July 20, 1966. The patient, an adult female, was admitted to a hospital in Santa Fe on July 19 with chills and a temperature of 104°F. At that time flea bites were noted on her left leg, and she complained of pain in the left groin. Physical examination revealed enlarged nodes in the left femoral region. The patient was treated immediately with chloramphenicol, and tetracycline was added to her treatment regimen the following day. The patient had a good response to therapy and subsequently has completely recovered from her illness. This case could not be confirmed bacteriologically. Acute and convalescent sera will be tested for the presence of plague antibodies.

Although the source of illness has not been identified, the patient is known to have handled a dead squirrel in the yard of her house 1-5 days prior to illness. In addition, dead chipmunks have been found on her property, and the patient had recently cleaned chipmunk nests from rocks in this area. Numerous rodents have been collected, and appropriate studies of these animals are in process.

The fifth case of plague to occur in 1966 was reported by the New Mexico State Department of Health on July 26, 1966. The patient is a 14-year-old female who lives near the town of Pecos, New Mexico, in San Miguel County. The child first felt ill on the evening of July 24, and by the next day had developed fever, headache, nausea, vomiting, malaise and pain in the right groin. She was admitted to the hospital on July 26 with a temperature of 105.8°F., an enlarged lymph node in the right femoral region, and lesions on the right foot resembling insect bites. Blood cultures were taken prior to treatment with tetracycline. She has responded well to therapy. Organisms have been isolated from the blood culture and were identified as *P. pestis* by the New Mexico State Department of Health Laboratory.

Two days before her illness, the child walked in the hills around her home, an area in which there are many rodents. Studies of the area are being carried out by the New Mexico State Department of Health.

(Reported by Dr. Dean Tirador, Chief, Community Health Services, Window Rock Field Office, Division of Indian Health, Window Rock, Arizona; and Dr. T.H. Tomlinson, Associate Director, and Mr. Bryan Miller, Chief, Vector Control Division, New Mexico State Department of Health.)

ANNUAL SURVEILLANCE SUMMARY
ENCEPHALITIS – 1965

For the year 1965, a total of 2,703 cases of encephalitis including 173 deaths were reported to the Neurotropic Viral Diseases Unit of the Communicable Disease Center. These cases are shown by etiology in Table 2. Over one-half of the cases were encephalitis of unknown etiology; 36 percent of the cases were post-infectious encephalitis; 11 percent of the cases were caused by arthropod-borne viruses.

All encephalitis cases reported for the years 1962-65 are shown by month in Figure 2. A characteristic seasonal pattern was again seen in 1965, with a small increase in incidence in the spring and a large increase in the late summer. The numbers of reported cases by etiologic group for each month are shown in Figure 3. The highest incidence of post-infectious encephalitis occurred during the spring, whereas the cases due to the arthropod-borne viruses peaked during August. The composite character of the distribution of encephalitis with no known etiology suggests that many cases would fall into the post-infectious and arbovirus categories if etiology were specified.

POST-INFECTIOUS ENCEPHALITIS

As in previous years, the most frequent of the encephalitides traditionally classified in the post-infectious group was mumps, followed by measles and varicella. The relative frequencies of the commonly reported post-infectious encephalitides are compared for the years 1960 through 1965 in Table 3. Figure 4 shows that encephalitis associated with mumps, measles and varicella all have their period of greatest incidence in the spring.

Of encephalitides of low frequency, there were 19 cases of herpes simplex, 11 of which were fatal, reported

from nine States. Eight cases of encephalitis following smallpox vaccine were reported in 1965, but there were no fatalities. North Carolina reported one fatal case of encephalitis in a 3-year-old girl who had received yellow fever vaccine; the 17-D strain of yellow fever virus was isolated from the brain by Laboratory Branch, CDC. Influenza accounted for 17 cases of encephalitis; lymphocytic choriomeningitis – 8 cases; herpes zoster – 2 cases; and adenovirus – 2 cases.

Table 2
Etiology of 2,703 Cases of Encephalitis
Reported to the CDC, United States, 1965

	No. of Cases	Percent of Total
Post-infectious	981	36.3
Mumps	634	23.5
Measles	171	6.3
Varicella	112	4.1
Influenza	17	0.6
Herpes simplex	19	0.7
Post-vaccinal	9	0.3
Lymphocytic choriomeningitis	8	0.3
Rubella	7	0.3
Herpes zoster	2	0.1
Adenovirus	2	0.1
Arthropod-borne	297	11.0
WEE	172	6.4
California	59	2.2
SLE	58	2.1
EEE	8	0.3
Etiology Unknown	1,425	52.7
Total	2,703	100.0

Figure 2
REPORTED CASES OF ENCEPHALITIS BY MONTH
UNITED STATES, 1962 – 1965

Figure 3
REPORTED CASES OF ENCEPHALITIS BY ETIOLOGIC GROUP AND MONTH OF ONSET, 1965

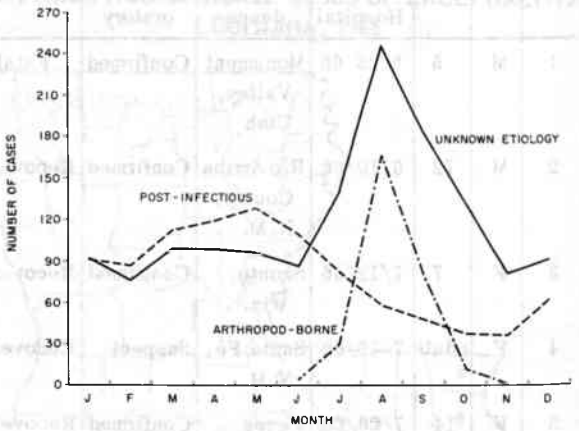
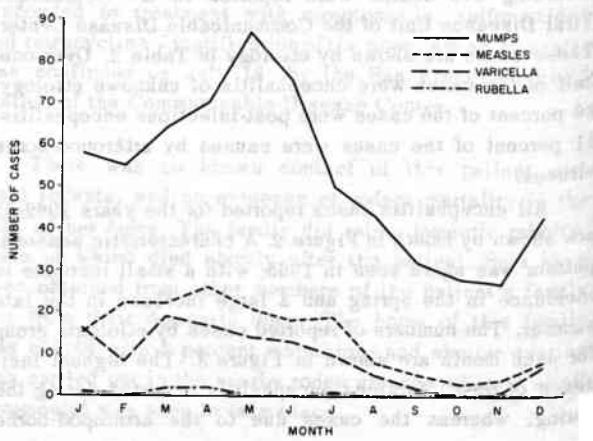


Table 3
Cases of Commonly Reported Post-Infectious Encephalitis by Etiology, 1960-1965

Year	Etiology					
	Mumps	Measles	Varicella	Rubella	Influenza	Post-Vaccinal
1960	700	299	95	- -	24	- -
1961	402	276	75	- -	8	8
1962	358	337	76	- -	40	7
1963	671	239	84	- -	30	3
1964	932	300	106	59	14	8
1965	634	171	112	7	17	9

Figure 4
POST-INFECTIOUS ENCEPHALITIS ASSOCIATED WITH MEASLES, MUMPS, VARICELLA AND RUBELLA BY MONTH OF ONSET, UNITED STATES, 1965



ARTHROPOD-BORNE ENCEPHALITIS*

A total of 297 confirmed or presumptive cases of arthropod-borne encephalitis with onsets of illness in 1965 has been reported. By comparison with the previous 10 years this was a year of intermediate arbovirus activity; however, the 172 cases of Western encephalitis represent the largest total of WE cases reported since encephalitis surveillance began in 1955. California encephalitis was recognized more frequently in 1965 than previously. The geographic distribution of all arbovirus encephalitis cases is depicted in Figure 5. The marked seasonal incidence of arbovirus encephalitis is shown in Table 4.

*Cases of arthropod-borne encephalitis have been classified into confirmed and presumptive categories, both of which are included in the final case count.

Figure 5

HUMAN CASES OF ARTHROPOD BORNE ENCEPHALITIS BY STATE, 1965

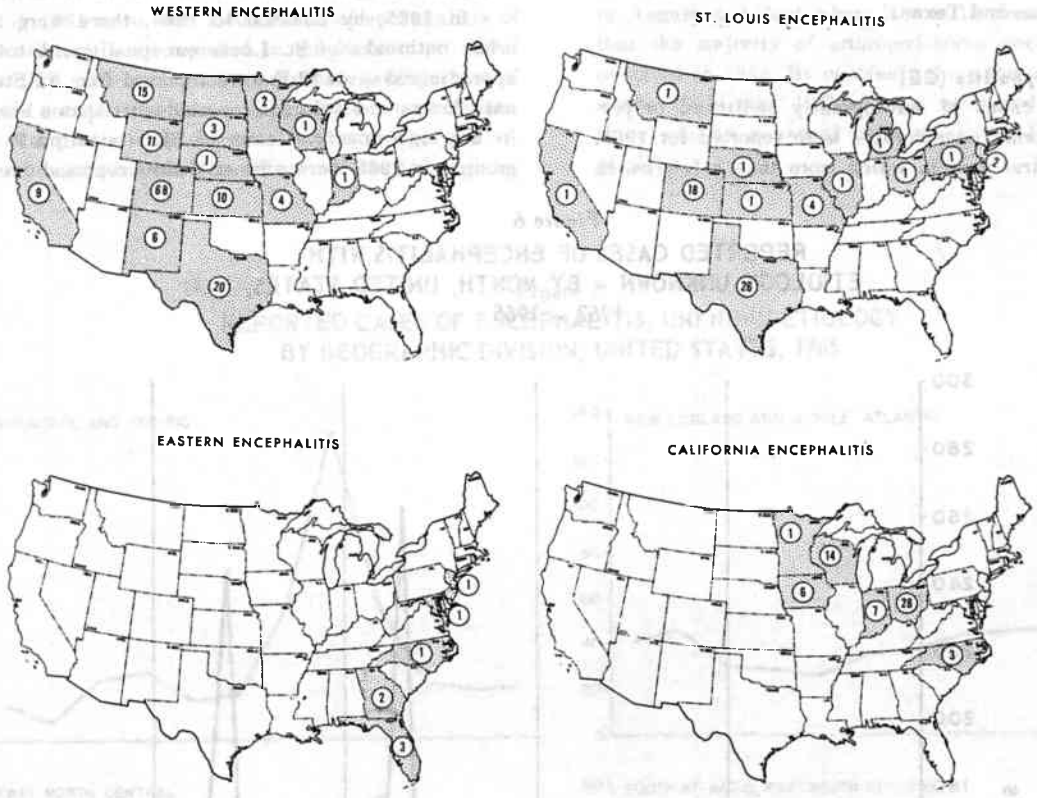


Table 4

Confirmed and Presumptive Human Cases of Arthropod-borne Encephalitis by Month of Onset, 1965

Month	Number of Cases				
	Etiology				Total
	Western E.	S.L.E.	Eastern E.	California	
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	0
June	2	0	1	1	4
July	16	3	4	7	30
August	114	26	2	23	165
September	30	25	0	24	79
October	3	4	1	3	11
November	1	0	0	0	1
December	0	0	0	0	0
Unknown	6	0	0	1	7
Total	172	58	8	59	297

Western Encephalitis (WE)

The most frequently demonstrated arbovirus causing human encephalitis in 1965 was WE. As compared to 64 laboratory confirmed or presumptive cases reported in 1964, there were 172 such cases in 1965 in association with an extensive epidemic in several of the north central and mountain states. People of all ages were affected; there were four deaths due to WE. WE virus activity in humans was documented in 14 States, and sizable outbreaks occurred in Montana, North Dakota, Wyoming, Colorado, Kansas and Texas.

California Encephalitis (CE)

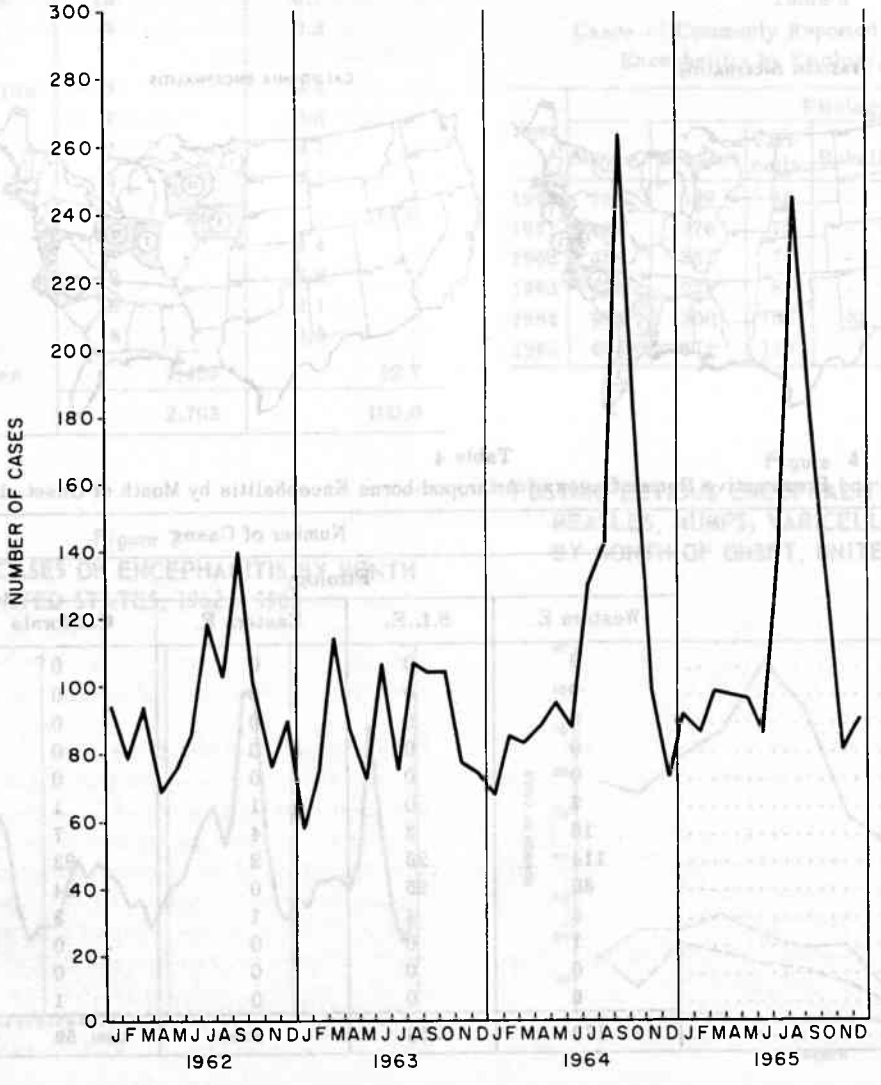
Fifty-nine cases of serologically confirmed or presumptive California encephalitis were reported for 1965. This was the first year in which more than a few cases due to this virus were recognized. Cases were reported from six States: Ohio, Indiana, Wisconsin, North Carolina, Iowa and Minnesota. The cases in Ohio occurred in 16 counties. All but one of the cases of California encephalitis occurred in persons under 20 years of age. Males were affected more than females, probably due to exposure in heavily wooded areas. There were no fatalities due to California encephalitis.

St. Louis Encephalitis (SLE)

In 1965, by contrast to 1964, there were no major urban outbreaks of St. Louis encephalitis. A total of 58 sporadic cases of SLE were reported from 12 States, but only Texas and Colorado reported more than a single case in any one county. Cases of SLE occurred in all age groups. In 1965 there were no deaths reported due to SLE.

Figure 6

REPORTED CASES OF ENCEPHALITIS WITH ETIOLOGY UNKNOWN – BY MONTH, UNITED STATES, 1962 – 1965



Eastern Encephalitis (EE)

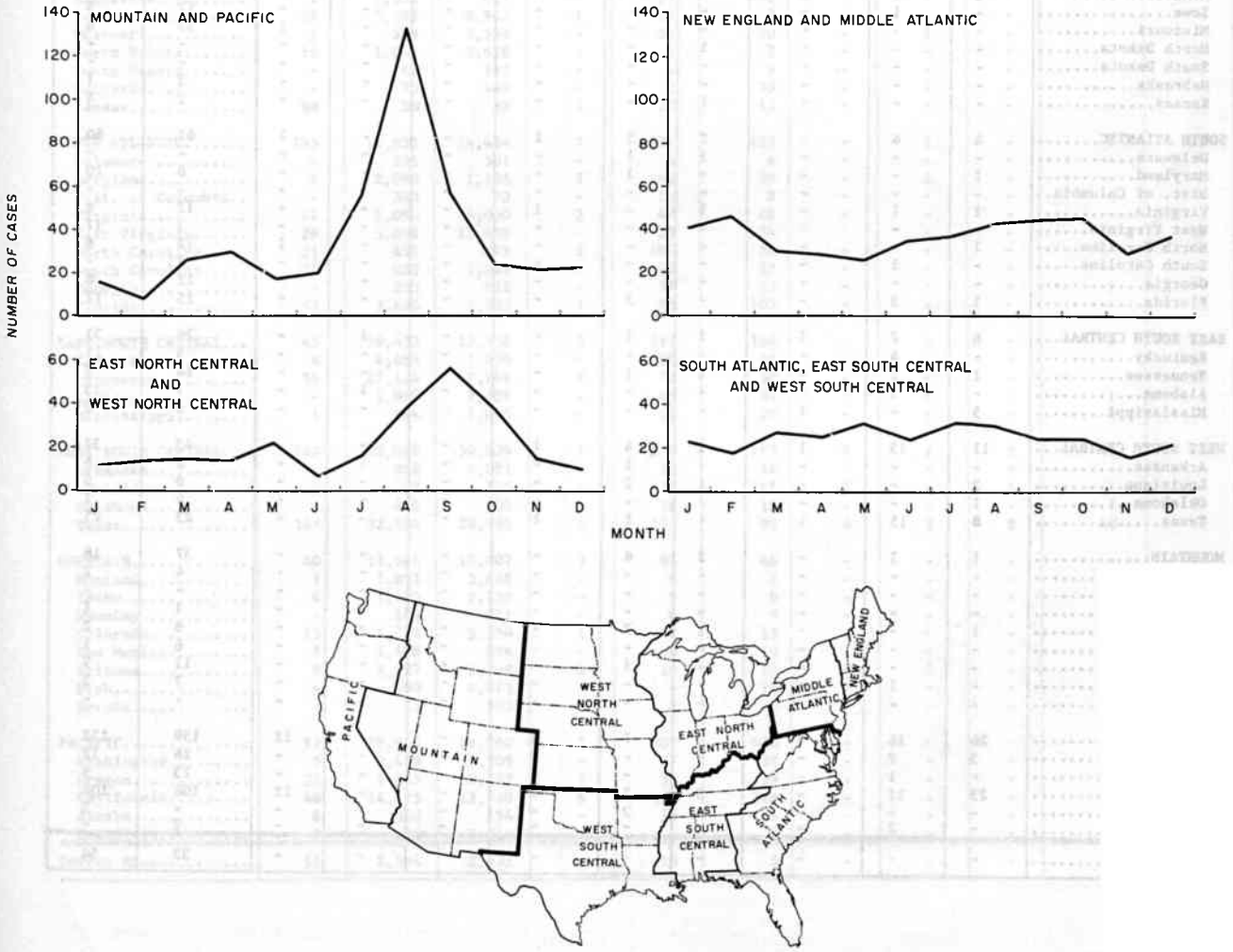
Eight cases of Eastern encephalitis, including four fatalities, were reported in 1965 from five States: Florida, Georgia, Maryland, New Jersey and North Carolina. EE virus was isolated from the brain of two children in Georgia, ages 6 and 7 years, and from the brain of a 74-year-old female in Maryland. Outbreaks of EE in horses occurred in States along the eastern seaboard.

ENCEPHALITIS OF UNKNOWN ETIOLOGY

During 1965 more than 1,400 cases of encephalitis of unknown etiology were reported to the Neurotropic Viral Diseases Unit, accounting for approximately 50 percent of all reported encephalitis cases. Every State except Indiana and New Hampshire reported cases in this category. Notification of deaths in this classification was incomplete; nonetheless, the 97 cases reported represented a death-to-case rate of 6.8 percent.

In 1964 and 1965, all cases of encephalitis of unknown etiology showed an abrupt seasonal peak in late summer (Figure 6). This late summer peak is similar to that characteristic of arthropod-borne encephalitis. Figure 7 illustrates the monthly incidence of encephalitis of unknown etiology in 1965 for four regions of the U.S. A sharp increase in incidence of encephalitis of unknown etiology in the Mountain and Pacific divisions is evident in August and September; it was in these two divisions that the majority of arthropod-borne encephalitis cases occurred in 1965. By contrast, along the eastern seaboard where there was little human arthropod-borne disease, there was no seasonal peak of encephalitis of unknown etiology.

Figure 7
REPORTED CASES OF ENCEPHALITIS, UNKNOWN ETIOLOGY
BY GEOGRAPHIC DIVISION, UNITED STATES, 1965



CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

AUGUST 6, 1966 AND AUGUST 7, 1965 (31st WEEK)

AREA	ASEPTIC MENINGITIS		BRUCELLOSIS	ENCEPHALITIS			DIPHTHERIA		HEPATITIS		
				Primary including unsp. cases		Post-Infectious			Serum	Insectious	Both Types
	1966	1965	1966	1966	1965	1966	1966	1965	1966	1966	1965
UNITED STATES...	89	64	3	38	41	13	1	1	43	555	519
NEW ENGLAND.....	19	4	-	5	1	3	1	-	3	39	27
Maine.....	1	2	-	-	-	-	-	-	-	6	2
New Hampshire.....	-	-	-	-	-	1	-	-	-	1	5
Vermont.....	-	-	-	-	-	-	-	-	-	-	-
Massachusetts.....	15	-	-	2	1	2	1	-	1	17	16
Rhode Island.....	2	1	-	2	-	-	-	-	1	5	2
Connecticut.....	1	1	-	1	-	-	-	-	1	10	2
MIDDLE ATLANTIC.....	9	9	-	12	13	1	-	-	25	84	103
New York City.....	1	1	-	3	3	-	-	-	12	15	32
New York, Up-State.	3	1	-	2	2	1	-	-	1	31	30
New Jersey.....	2	3	-	5	7	-	-	-	11	11	23
Pennsylvania.....	3	4	-	2	1	-	-	-	1	27	18
EAST NORTH CENTRAL...	10	5	1	10	2	4	-	-	1	54	94
Ohio.....	1	1	-	6	-	-	-	-	-	8	24
Indiana.....	-	-	-	-	1	-	-	-	-	3	15
Illinois.....	5	3	-	3	1	-	-	-	-	7	13
Michigan.....	3	1	-	-	-	4	-	-	1	30	38
Wisconsin.....	1	-	1	1	-	-	-	-	-	6	4
WEST NORTH CENTRAL...	3	3	-	2	-	1	-	-	1	52	17
Minnesota.....	3	2	-	-	-	1	-	-	-	2	1
Iowa.....	-	1	-	-	-	-	-	-	-	12	5
Missouri.....	-	-	-	-	-	-	-	-	1	33	6
North Dakota.....	-	-	-	1	-	-	-	-	-	-	-
South Dakota.....	-	-	-	-	-	-	-	-	-	-	-
Nebraska.....	-	-	-	-	-	-	-	-	-	3	1
Kansas.....	-	-	-	1	-	-	-	-	-	2	4
SOUTH ATLANTIC.....	4	4	-	2	5	1	-	-	1	61	60
Delaware.....	-	-	-	1	1	-	-	-	-	-	-
Maryland.....	1	-	-	-	1	-	-	-	-	6	10
Dist. of Columbia..	-	-	-	-	-	-	-	-	-	-	-
Virginia.....	1	1	-	1	-	1	-	-	-	12	8
West Virginia.....	-	-	-	-	-	-	-	-	-	3	11
North Carolina.....	1	-	-	-	-	-	-	-	1	12	8
South Carolina.....	-	1	-	-	-	-	-	-	-	1	-
Georgia.....	-	-	-	-	-	-	-	-	-	12	6
Florida.....	1	2	-	-	3	-	-	-	-	15	17
EAST SOUTH CENTRAL...	6	7	1	1	1	-	-	1	-	26	31
Kentucky.....	-	4	-	-	-	-	-	-	-	5	11
Tennessee.....	1	2	-	1	1	-	-	-	-	14	5
Alabama.....	-	1	-	-	-	-	-	1	-	1	13
Mississippi.....	5	-	1	-	-	-	-	-	-	6	2
WEST SOUTH CENTRAL...	11	15	1	1	4	1	-	-	-	43	37
Arkansas.....	-	-	-	-	1	-	-	-	-	8	6
Louisiana.....	2	-	-	1	2	-	-	-	-	8	5
Oklahoma.....	1	-	-	-	-	-	-	-	-	4	1
Texas.....	8	15	1	-	1	1	-	-	-	23	25
MOUNTAIN.....	1	1	-	2	8	-	-	-	-	37	18
Montana.....	-	-	-	-	-	-	-	-	-	4	2
Idaho.....	-	-	-	-	-	-	-	-	-	-	-
Wyoming.....	-	-	-	-	-	-	-	-	-	1	1
Colorado.....	1	-	-	2	7	-	-	-	-	8	2
New Mexico.....	-	-	-	-	-	-	-	-	-	6	1
Arizona.....	-	-	-	-	1	-	-	-	-	11	9
Utah.....	-	1	-	-	-	-	-	-	-	7	3
Nevada.....	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	26	16	-	3	7	2	-	-	12	159	132
Washington.....	3	2	-	-	-	-	-	-	-	26	12
Oregon.....	-	1	-	-	-	-	-	-	-	23	9
California.....	23	11	-	3	5	2	-	-	12	108	108
Alaska.....	-	-	-	-	2	-	-	-	-	-	3
Hawaii.....	-	2	-	-	-	-	-	-	-	2	-
Puerto Rico.....	-	-	-	-	-	-	-	-	-	32	54

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

AUGUST 6, 1966 AND AUGUST 7, 1965 (31st WEEK) - CONTINUED

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			POLIOMYELITIS				RUBELLA
							Total		Paralytic		
	1966	Cumulative		1966	Cumulative		1966	1965	1966	Cumulative 1966	1966
		1966	1965		1966	1965					
UNITED STATES...	844	186,154	236,488	43	2,526	2,167	10	6	9	48	281
NEW ENGLAND.....	19	2,203	36,615	1	113	110	-	-	-	-	30
Maine.....	2	194	2,772	-	9	16	-	-	-	-	10
New Hampshire.....	8	75	381	-	9	6	-	-	-	-	-
Vermont.....	-	221	1,245	-	4	6	-	-	-	-	4
Massachusetts.....	8	761	19,191	1	44	35	-	-	-	-	6
Rhode Island.....	-	72	3,892	-	12	14	-	-	-	-	2
Connecticut.....	1	880	9,134	-	35	33	-	-	-	-	8
MIDDLE ATLANTIC.....	54	17,836	14,348	11	297	285	-	1	-	-	35
New York City.....	13	8,223	2,215	2	41	50	-	-	-	-	9
New York, Up-State.	34	2,447	4,021	3	84	77	-	-	-	-	26
New Jersey.....	2	1,844	2,477	5	87	76	-	1	-	-	-
Pennsylvania.....	5	5,322	5,635	1	85	82	-	-	-	-	-
EAST NORTH CENTRAL...	235	67,747	54,506	9	391	297	1	-	-	-	86
Ohio.....	6	6,315	8,785	5	107	79	-	-	-	-	5
Indiana.....	17	5,615	1,784	1	66	39	-	-	-	-	5
Illinois.....	14	11,244	2,552	1	75	80	1	-	-	-	10
Michigan.....	116	13,983	26,064	2	104	64	-	-	-	-	15
Wisconsin.....	82	30,590	15,321	-	39	35	-	-	-	-	51
WEST NORTH CENTRAL...	44	8,647	16,321	2	140	109	-	2	-	1	1
Minnesota.....	1	1,638	621	-	33	22	-	-	-	1	-
Iowa.....	26	5,298	8,962	1	22	7	-	-	-	-	-
Missouri.....	1	529	2,559	-	54	50	-	1	-	-	-
North Dakota.....	16	1,067	3,618	-	9	7	-	-	-	-	-
South Dakota.....	-	40	112	-	4	2	-	-	-	-	1
Nebraska.....	-	75	449	-	8	10	-	1	-	-	-
Kansas.....	NN	NN	NN	1	10	11	-	-	-	-	-
SOUTH ATLANTIC.....	145	14,851	24,454	7	421	422	-	1	-	1	27
Delaware.....	-	251	501	-	4	6	-	-	-	-	-
Maryland.....	7	2,090	1,125	2	43	39	-	1	-	-	2
Dist. of Columbia..	-	380	73	-	11	8	-	-	-	-	-
Virginia.....	21	2,090	4,000	2	47	48	-	-	-	-	3
West Virginia.....	29	5,098	13,438	-	23	24	-	-	-	-	10
North Carolina.....	21	431	375	2	104	82	-	-	-	-	-
South Carolina.....	10	652	1,005	-	46	57	-	-	-	-	-
Georgia.....	-	233	612	-	57	53	-	-	-	1	-
Florida.....	57	3,626	3,325	1	86	105	-	-	-	-	12
EAST SOUTH CENTRAL...	63	19,433	13,538	2	217	169	-	-	-	3	43
Kentucky.....	4	4,665	2,406	-	80	68	-	-	-	-	23
Tennessee.....	58	12,124	7,749	2	72	50	-	-	-	-	19
Alabama.....	-	1,660	2,288	-	46	31	-	-	-	1	1
Mississippi.....	1	984	1,095	-	19	20	-	-	-	2	-
WEST SOUTH CENTRAL...	152	23,820	30,339	1	359	297	9	2	9	42	1
Arkansas.....	-	966	1,081	-	33	14	-	-	-	-	-
Louisiana.....	5	98	102	-	136	166	1	-	1	1	-
Oklahoma.....	-	470	201	-	18	18	-	-	-	1	-
Texas.....	147	22,286	28,955	1	172	99	8	2	8	40	1
MOUNTAIN.....	40	11,664	19,407	3	81	68	-	-	-	-	29
Montana.....	1	1,801	3,668	-	4	2	-	-	-	-	-
Idaho.....	6	1,520	2,739	-	5	8	-	-	-	-	1
Wyoming.....	-	144	841	-	6	5	-	-	-	-	-
Colorado.....	13	1,231	5,570	1	42	13	-	-	-	-	10
New Mexico.....	7	1,108	674	-	10	10	-	-	-	-	-
Arizona.....	9	5,227	1,239	2	10	16	-	-	-	-	18
Utah.....	4	590	4,473	-	-	12	-	-	-	-	-
Nevada.....	-	43	203	-	4	2	-	-	-	-	-
PACIFIC.....	92	19,953	26,960	7	507	410	-	-	-	1	29
Washington.....	5	3,458	7,205	-	37	32	-	-	-	1	15
Oregon.....	31	1,655	3,157	1	33	29	-	-	-	-	5
California.....	46	14,375	12,730	6	418	326	-	-	-	-	8
Alaska.....	8	340	154	-	15	16	-	-	-	-	1
Hawaii.....	2	125	3,714	-	4	7	-	-	-	-	-
Puerto Rico.....	52	2,504	2,231	-	10	5	-	-	-	1	1

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
AUGUST 6, 1966 AND AUGUST 7, 1965 (31st WEEK) - CONTINUED

AREA	STREPTOCOCCAL SORE THROAT & SCARLET FEVER	TETANUS		TULAREMIA		TYPHOID		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
	1966	1966	Cum. 1966	1966	Cum. 1966	1966	Cum. 1966	1966	Cum. 1966	1966	Cum. 1966
UNITED STATES...	4,396	6	97	2	89	12	206	16	148	70	2,595
NEW ENGLAND.....	616	-	2	-	1	-	4	1	2	4	62
Maine.....	60	-	-	-	-	-	-	-	-	1	22
New Hampshire.....	32	-	-	-	-	-	-	-	-	2	21
Vermont.....	33	-	-	-	-	-	-	-	-	1	17
Massachusetts.....	86	-	2	-	1	-	1	-	1	-	2
Rhode Island.....	84	-	-	-	-	-	-	-	-	-	-
Connecticut.....	321	-	-	-	-	-	3	1	1	-	-
MIDDLE ATLANTIC.....	186	-	11	-	-	-	35	4	32	-	173
New York City.....	2	-	4	-	-	-	15	-	-	-	-
New York, Up-State.	181	-	2	-	-	-	7	1	12	-	162
New Jersey.....	NN	-	1	-	-	-	7	1	10	-	-
Pennsylvania.....	3	-	4	-	-	-	6	2	10	-	11
EAST NORTH CENTRAL...	315	-	7	-	12	2	28	1	11	4	355
Ohio.....	25	-	3	-	3	1	13	-	6	2	176
Indiana.....	66	-	1	-	3	1	2	-	-	-	79
Illinois.....	43	-	1	-	5	-	3	1	5	1	37
Michigan.....	112	-	2	-	-	-	4	-	-	-	29
Wisconsin.....	69	-	-	-	1	-	6	-	-	1	34
WEST NORTH CENTRAL...	156	-	6	-	8	-	16	-	2	21	591
Minnesota.....	-	-	1	-	-	-	-	-	-	5	136
Iowa.....	33	-	1	-	-	-	4	-	-	4	124
Missouri.....	5	-	4	-	3	-	8	-	1	5	183
North Dakota.....	109	-	-	-	-	-	1	-	-	2	21
South Dakota.....	8	-	-	-	2	-	-	-	-	5	61
Nebraska.....	1	-	-	-	1	-	1	-	-	-	17
Kansas.....	-	-	-	-	2	-	2	-	1	-	49
SOUTH ATLANTIC.....	381	2	25	-	9	1	38	7	68	12	333
Delaware.....	3	-	-	-	-	1	1	-	1	-	-
Maryland.....	35	1	2	-	1	-	7	4	20	-	1
Dist. of Columbia..	-	-	-	-	-	-	2	-	-	-	-
Virginia.....	81	-	4	-	2	-	8	3	20	2	189
West Virginia.....	169	-	-	-	1	-	1	-	-	1	40
North Carolina.....	9	1	3	-	2	-	3	-	15	-	3
South Carolina.....	6	-	1	-	1	-	6	-	5	-	-
Georgia.....	1	-	6	-	2	-	1	-	7	5	61
Florida.....	77	-	9	-	-	-	9	-	-	4	39
EAST SOUTH CENTRAL...	710	-	11	-	17	4	25	3	23	15	329
Kentucky.....	6	-	1	-	2	-	3	2	4	8	66
Tennessee.....	646	-	1	-	9	3	11	1	15	7	248
Alabama.....	45	-	6	-	4	-	6	-	4	-	12
Mississippi.....	13	-	3	-	2	1	5	-	-	-	3
WEST SOUTH CENTRAL...	481	2	20	2	34	2	23	-	6	8	528
Arkansas.....	2	-	2	2	26	-	1	-	2	1	57
Louisiana.....	-	1	5	-	3	2	7	-	-	1	25
Oklahoma.....	-	-	1	-	4	-	8	-	4	1	138
Texas.....	479	1	12	-	1	-	7	-	-	5	308
MOUNTAIN.....	1,008	-	1	-	5	1	9	-	3	4	54
Montana.....	16	-	-	-	2	-	-	-	-	-	7
Idaho.....	32	-	-	-	-	-	-	-	-	-	-
Wyoming.....	15	-	-	-	-	-	-	-	-	-	-
Colorado.....	641	-	1	-	-	-	3	-	2	-	8
New Mexico.....	180	-	-	-	1	-	-	-	1	3	11
Arizona.....	73	-	-	-	1	1	2	-	-	1	26
Utah.....	51	-	-	-	1	-	3	-	-	-	-
Nevada.....	-	-	-	-	-	-	1	-	-	-	2
PACIFIC.....	543	2	14	-	3	2	28	-	1	2	170
Washington.....	59	-	-	-	-	1	11	-	-	-	5
Oregon.....	18	-	1	-	-	-	1	-	-	-	2
California.....	389	2	13	-	3	1	14	-	1	2	163
Alaska.....	46	-	-	-	-	-	-	-	-	-	-
Hawaii.....	31	-	-	-	-	-	2	-	-	-	-
Puerto Rico.....	-	-	31	-	-	-	6	-	-	-	8

Week No. 31

DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED AUGUST 6, 1966

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

Area	All Causes		Pneumonia and Influenza	Under 1 year
	All Ages	65 years and over	All Ages	All Causes
NEW ENGLAND:	651	387	23	40
Boston, Mass.	229	133	10	15
Bridgeport, Conn.	42	26	-	3
Cambridge, Mass.	28	18	-	-
Fall River, Mass.	25	19	-	1
Hartford, Conn.	57	33	-	6
Lowell, Mass.	17	7	1	1
Lynn, Mass*	20	14	1	1
New Bedford, Mass.	23	17	1	1
New Haven, Conn.	45	27	1	2
Providence, R. I.	44	25	-	4
Somerville, Mass.	10	5	-	-
Springfield, Mass.	31	17	2	2
Waterbury, Conn.	22	9	-	-
Worcester, Mass.	58	37	7	4
MIDDLE ATLANTIC:	2,867	1,580	108	166
Albany, N. Y.	45	17	1	3
Allentown, Pa.	26	15	-	1
Buffalo, N. Y.	160	86	5	12
Camden, N. J.	40	21	2	3
Elizabeth, N. J.	36	18	3	1
Erie, Pa.	44	25	-	2
Jersey City, N. J.	55	26	2	3
Newark, N. J.	70	32	3	16
New York City, N. Y.	1,449	778	56	78
Paterson, N. J.	26	16	3	3
Philadelphia, Pa.	420	245	11	20
Pittsburgh, Pa.	172	90	4	10
Reading, Pa.	41	29	-	2
Rochester, N. Y.	82	48	7	4
Schenectady, N. Y.	23	15	2	1
Scranton, Pa.	42	33	3	2
Syracuse, N. Y.	55	34	-	3
Trenton, N. J.	31	21	-	1
Utica, N. Y.	21	13	3	1
Yonkers, N. Y.	29	18	3	-
EAST NORTH CENTRAL:	2,390	1,281	55	147
Akron, Ohio	53	33	-	6
Canton, Ohio	42	20	2	4
Chicago, Ill.	711	362	26	43
Cincinnati, Ohio	165	92	2	8
Cleveland, Ohio	219	101	-	10
Columbus, Ohio	121	63	-	11
Dayton, Ohio	79	39	1	7
Detroit, Mich.	304	168	8	17
Evansville, Ind.	32	20	1	2
Flint, Mich.	31	12	-	1
Fort Wayne, Ind.	38	22	2	2
Gary, Ind.	31	15	2	4
Grand Rapids, Mich.	55	32	6	5
Indianapolis, Ind.	154	86	1	12
Madison, Wis.	28	15	-	-
Milwaukee, Wis.	110	70	2	3
Peoria, Ill.	22	12	1	3
Rockford, Ill.	24	17	-	2
South Bend, Ind.	28	19	-	-
Toledo, Ohio	97	52	-	7
Youngstown, Ohio	46	31	1	-
WEST NORTH CENTRAL:	736	449	34	43
Des Moines, Iowa	55	36	1	2
Duluth, Minn.	9	7	-	-
Kansas City, Kans.	40	21	2	3
Kansas City, Mo.	109	63	3	7
Lincoln, Nebr.	25	19	3	-
Minneapolis, Minn.	85	54	3	2
Omaha, Nebr.	73	46	1	9
St. Louis, Mo.	229	135	12	15
St. Paul, Minn.	70	45	3	2
Wichita, Kans*	41	23	6	3

Area	All Causes		Pneumonia and Influenza	Under 1 year
	All Ages	65 years and over	All Ages	All Causes
SOUTH ATLANTIC:	1,073	555	50	54
Atlanta, Ga.	116	59	4	4
Baltimore, Md.	226	120	8	10
Charlotte, N. C.	53	28	2	3
Jacksonville, Fla.	57	22	4	6
Miami, Fla.	95	46	1	4
Norfolk, Va.	62	34	4	5
Richmond, Va.	70	31	3	5
Savannah, Ga.	21	7	-	1
St. Petersburg, Fla.	69	58	4	1
Tampa, Fla.	61	32	9	3
Washington, D. C.	196	95	5	9
Wilmington, Del.	47	23	6	3
EAST SOUTH CENTRAL:	632	361	22	30
Birmingham, Ala.	83	48	2	3
Chattanooga, Tenn.	55	31	2	3
Knoxville, Tenn.	39	21	3	-
Louisville, Ky.	143	87	12	7
Memphis, Tenn.	140	72	-	8
Mobile, Ala.	44	24	-	3
Montgomery, Ala.	40	28	2	2
Nashville, Tenn.	88	50	1	4
WEST SOUTH CENTRAL:	1,159	588	36	101
Austin, Tex.	54	29	-	6
Baton Rouge, La.	41	22	2	3
Corpus Christi, Tex.	25	11	-	3
Dallas, Tex.	150	71	3	10
El Paso, Tex.	34	15	1	3
Fort Worth, Tex.	60	36	1	3
Houston, Tex.	220	99	8	22
Little Rock, Ark.	49	24	4	5
New Orleans, La.	193	83	5	28
Oklahoma City, Okla.	89	50	1	5
San Antonio, Tex.	137	82	6	7
Shreveport, La.	59	34	4	5
Tulsa, Okla.	48	32	1	1
MOUNTAIN:	371	211	15	23
Albuquerque, N. Mex.	27	17	1	2
Colorado Springs, Colo.	25	17	2	3
Denver, Colo.	98	56	4	5
Ogden, Utah	19	13	1	1
Phoenix, Ariz.	92	55	4	5
Pueblo, Colo*	17	9	1	1
Salt Lake City, Utah	53	28	1	1
Tucson, Ariz.	40	16	1	5
PACIFIC:	1,506	886	25	63
Berkeley, Calif.	25	17	-	-
Fresno, Calif.	52	25	-	4
Glendale, Calif.	31	20	-	-
Honolulu, Hawaii	36	13	1	-
Long Beach, Calif.	58	43	2	2
Los Angeles, Calif.	449	260	6	24
Oakland, Calif.	88	52	1	3
Pasadena, Calif.	46	30	-	2
Portland, Oreg.	90	55	-	3
Sacramento, Calif.	68	38	1	2
San Diego, Calif.	104	63	3	6
San Francisco, Calif.	197	103	4	4
San Jose, Calif.	34	22	1	4
Seattle, Wash.	138	92	4	5
Spokane, Wash.	46	29	-	3
Tacoma, Wash.	44	24	2	1
Total	11,385	6,298	368	667

*Estimate - based on average percent of divisional total.

Cumulative Totals
including reported corrections for previous weeks

All Causes, All Ages	398,678
All Causes, Age 65 and over	230,111
Pneumonia and Influenza, All Ages	17,648
All Causes, Under 1 Year of Age	20,761

CURRENT TREND

MALARIA DEATH IN AMERICAN CIVILIAN

The first civilian death associated with malaria in 1966 has been reported to the Communicable Disease Center. A Negro minister from Florida and his wife arrived in Liberia, West Africa, on June 20. They stayed in Monrovia for 2 days before proceeding to a small village 18 miles from the capital where they remained until July 2. During their trip they took no malaria prophylaxis and no precautions against mosquitoes.

On July 12 while enroute to the United States by ship, the minister complained of weakness and feverishness. After the ship docked in Baltimore, Maryland, the couple travelled by train to Ocala, Florida, arriving on July 17. During the entire week the minister remained alert but was tired and feverish; suddenly on July 18 he died.

Postmortem examination demonstrated a heavy infection with *Plasmodium falciparum;* parasites were found in all organs, including sections of brain. A peripheral blood smear from his wife revealed that she was also infected with *P. falciparum;* she has responded to treatment.

(Reported by Dr. E. Charlton Prather, Director, Division of Epidemiology, Florida State Board of Health; Dr. James B. Stapleton, Director, Marion County Health Department, Ocala, Florida.)

QUARANTINE MEASURE

INTERNATIONAL CERTIFICATES OF VACCINATION PHS-731

The Division of Foreign Quarantine of the USPHS has been informed that a large number of persons traveling abroad from the United States fail to have their International Certificates of Vaccination or Revaccination against Smallpox and Cholera properly completed and validated before departure.

In order to be valid, all such certificates for smallpox and cholera vaccination require the "Approved Stamp" of the Health Officer of the area in which the vaccination has been performed. The certificate should bear the name and the signature of the person being vaccinated, his sex, date of birth, and the signature of the physician who did the vaccination. Any amendment of this certificate, or erasure, or failure to complete any part of it, may render it invalid and may subject the traveler to surveillance or detention by quarantine authorities at the point of arrival abroad or at U. S. ports of entry.

In areas in the United States where there is no local Health Officer, certificates may be sent or taken to the State Health Officer for validation. This validation is a requirement of the International Sanitary Regulations.

THE MORBIDITY AND MORTALITY WEEKLY REPORT, WITH A CIRCULATION OF 15,600, IS PUBLISHED AT THE COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA.

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IN ADDITION TO THE ESTABLISHED PROCEDURES FOR REPORTING MORBIDITY AND MORTALITY, THE COMMUNICABLE DISEASE CENTER WELCOMES ACCOUNTS OF INTERESTING OUTBREAKS OR CASE INVESTIGATIONS WHICH ARE OF CURRENT INTEREST TO HEALTH OFFICIALS AND WHICH ARE DIRECTLY RELATED TO THE CONTROL OF COMMUNICABLE DISEASES. SUCH COMMUNICATIONS SHOULD BE ADDRESSED TO:

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

NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE BASED ON WEEKLY TELEGRAMS TO THE CDC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES ON SATURDAY; COMPILED DATA ON A NATIONAL BASIS ARE RELEASED ON THE SUCCEEDING FRIDAY.