



Morbidity and Mortality

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

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INTERNATIONAL NOTES DENGUE FOLLOW-UP - Puerto Rico

During the week ending July 18, 1969, an additional 1,595 cases of dengue were reported in the outbreak in Puerto Rico. Cases have now been reported from 68 of the 77 administrative regions of the island. The first of two rounds of aerial spraying with an ultralow volume thiophosphate insecticide was conducted in two areas with a high incidence of cases; ground spraying is underway in other areas. Figure 1 shows the distribution of cases through July 11.

A localized outbreak of 38 cases of dengue occurred among 3,800 (attack rate 1 case per 100 persons per week) Puerto Rican National Guardsmen at an encampment area during the week of July 13, the first week of summer training. Since the encampment area was clean, sprayed daily,

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and had no evidence of breeding sites or an adult population of *Aedes aegypti* mosquitoes, the men must have acquired their infections prior to their arrival.

Paired sera were collected from persons in several areas of Puerto Rico and serologically tested at the pub-

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

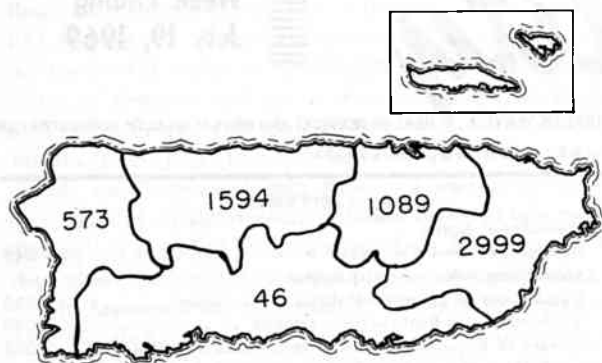
DISEASE	29th WEEK ENDED		MEDIAN 1964 - 1968	CUMULATIVE, FIRST 29 WEEKS		
	July 19, 1969	July 20, 1968		1969	1968	MEDIAN 1964 - 1968
Aseptic meningitis	72	120	62	1,018	1,140	924
Brucellosis	6	6	5	97	113	133
Diphtheria	1	6	3	81	99	90
Encephalitis, primary:						
Arthropod-borne & unspecified	23	26	35	555	507	757
Encephalitis, post-infectious	4	12	16	184	310	503
Hepatitis, serum	102	96	617	2,870	2,304	22,744
Hepatitis, infectious	830	786		25,860	24,175	
Malaria	74	37	16	1,484	1,198	181
Measles (rubeola)	328	273	1,418	19,056	18,310	184,028
Meningococcal infections, total	32	40	40	2,135	1,767	1,767
Civilian	28	36	---	1,936	1,597	---
Military	4	4	---	199	170	---
Mumps	889	968	---	63,783	119,344	---
Poliomyelitis, total	—	2	2	4	35	35
Paralytic	—	2	2	4	35	35
Rubella (German measles)	547	348	---	46,529	41,357	---
Streptococcal sore throat & scarlet fever	4,073	4,360	4,353	272,667	270,124	270,124
Tetanus	4	4	5	73	79	112
Tularemia	1	5	5	80	118	118
Typhoid fever	3	11	11	149	166	208
Typhus, tick-borne (Rky. Mt. spotted fever)	21	18	18	221	120	120
Rabies in animals	69	49	75	2,067	2,095	2,558

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	2	Rabies in man:	1
Botulism:	10	Rubella congenital syndrome:	5
Leptospirosis: Tex.-1	35	Trichinosis:	148
Plague:	2	Typhus, murine: Ohio-1, Tex.-1	17
Psittacosis: Pa.-1	22		

DENGUE — (Continued from front page)

Figure 1
DISTRIBUTION BY HEALTH DISTRICT OF 6,301
CASES OF DENGUE REPORTED AS OF JULY 11, 1969
PUERTO RICO



lic health laboratory and at NCDC. A high percentage of the serum pairs demonstrated a rise in hemagglutination-inhibition (HI) and complement fixation (CF) titers with several group B arboviruses and many of the remaining pairs had very high HI and CF titers in each of both paired sera (Table 1). Sera collected early in the illness of one person without previous group B arbovirus infection had a primary CF rise with dengue II (Table 2).

Several viruses have been isolated from acute serum inoculated into newborn mice and LLCMK₂ and *Aedes albopictus* cell cultures. Preliminary identification of two strains indicates that they are more closely related to dengue II.

(Reported by Dr. Ernesto Colon-Yordan, Secretary of Health for Preventive Medicine, Dr. Raphael Correa-

Table 1
Laboratory Data on Paired Sera by Location

Location	Number of Serum Pairs	Number With Group B Titer Rise by HI or CF
Manati	19	13
Cataña, Tan Alta	37	24
Guaynabo	7	5
Total	63	42

Table 2
Laboratory Data on Sera Collected Early in Disease from One Case

Serum Specimen	Dengue Type								Yellow Fever	
	I		II		III		IV			
	HI	CF	HI	CF	HI	CF	HI	CF	HI	CF
I	20	<8	40	<8	10	<8	10	<8	<10	<8
II	80	<8	320	128	40	<8	20	<8	80	<8

Coronas, Auxiliary Secretary of Health for Preventive Medicine, Dr. Luis Mainardi, Chief, Communicable Disease Control Program, and Dr. Angel Alberto Colon, Director, Institute of Laboratories of Health, Puerto Rico Department of Health; Col. Hector Sanpayo, Medical Officer, National Guard Camp; and a team from NCDC.)

EPIDEMIOLOGIC NOTES AND REPORTS FATAL CASE OF IMPORTED MALARIA — Michigan

About May 13, 1969, a 41-year-old horticultural consultant developed fever and chills while visiting relatives in Southfield, Michigan. Because of the man's religious convictions, he did not seek medical attention. The patient died on May 20, and an autopsy was performed at the request of the medical examiner. The heart blood and red cells within the capillaries of all the tissues examined contained numerous ring-forms of *Plasmodium falciparum*. No gametocytes could be identified.

For the past 6 years the patient, his wife, and two children had lived in Johannesburg, South Africa. While there, he had made several business trips to Angola. On April 27, 1969, the entire family flew to Angola and spent 6 days there before arriving in Michigan on May 11 via Lisbon and Boston. The wife stated that her

husband had been in excellent health prior to his terminal illness. No member of the family had ever taken malaria chemoprophylaxis. The other three family members have remained asymptomatic despite their refusal to accept chloroquine therapy.

(Reported by Bernard D. Berman, M.D., Director, Oakland County Department of Health; and George H. Agate, M.D., Chief, Division of Epidemiology, Michigan Department of Public Health.)

Editorial Comment:

The usual 10 to 16-day intrinsic incubation period of falciparum malaria would place the exposure between April 26 and May 2, 1969. From April 27 through May 3, 1969, the patient and his family had been in Angola, a country where falciparum malaria infection is endemic.

HOSPITAL OUTBREAKS OF GASTROENTERITIS DUE TO *SALMONELLA* *INFANTIS*

United States

Since April 1, 1969, five separate outbreaks of gastroenteritis due to *Salmonella infantis* have occurred in hospitals in Connecticut, New Jersey, Louisiana (MMWR, Vol. 18, No. 24), Tennessee, and, most recently, Massachusetts. Epidemic characteristics of the first four outbreaks (the fifth is currently being studied) were those of a common source exposure with subsequent secondary spread. However, to date, no common source has been documented in any of the outbreaks.

The occurrence of five separate hospital outbreaks due to *S. infantis* during a 3-month period is distinctly unusual. Although *S. infantis* is a rather common serotype, no frequent association with hospital outbreaks has previously been documented. For example, during the 6-year period, 1963-1968, *S. infantis* was involved in only one of 43 hospital outbreaks of salmonellosis recorded in surveillance reports of the Salmonellosis Unit, NCDC.

Some overall increase in the incidence of *S. infantis* isolations from humans was also noted during the first 5 months of this year—an increase not accounted for solely by the above five outbreaks. During this period, 452 isolations (6.1 percent of the total) were made versus only 332 (5.0 percent of the total), in 1968.

Therefore, it would appear quite possible that a common contaminated source may have been responsible for some if not all of these hospital outbreaks and for the overall increase of *S. infantis* isolations. Laboratory studies are in progress to characterize organisms from each of these episodes to evaluate the possibility of a single common source.

(Reported by James C. Hart, M.D., Director, Division of Preventable Diseases, Connecticut State Department of Health; Charles T. Caraway, D.V.M., Chief, Section of Epidemiology, Louisiana State Department of Health; Nicholas J. Fiumara, M.D., Director, Bureau of Communicable Diseases, Massachusetts Department of Public Health; Ronald Altman, M.D., Director, Division of Preventable Diseases, New Jersey State Department of Health; Cecil B. Tucker, M.D., Director and Deputy Commissioner for State Services, Division of Preventable Diseases, Tennessee Department of Public Health; and a group of EIS Officers.)

Editor's Note:

The Salmonellosis Unit of the NCDC is interested in learning the details of any outbreak, hospital or otherwise, due to *S. infantis*.

SUMMARY OF REPORTED CASES OF INFECTIOUS SYPHILIS

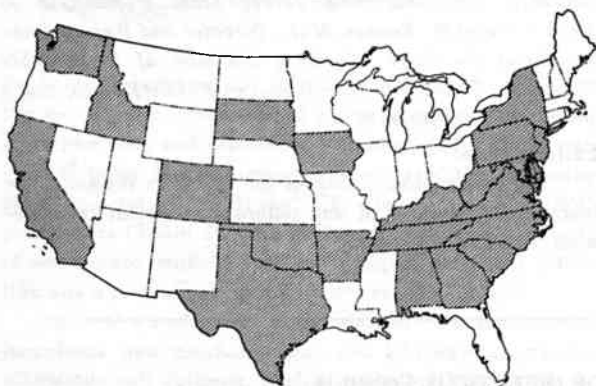
CASES OF PRIMARY AND SECONDARY SYPHILIS: By Reporting Areas June 1968 and June 1969 - Provisional Data

Reporting Area	June		Cumulative		Reporting Area	June		Cumulative	
	1969	1968	1969	Jan. - June		1969	1968	1969	Jan. - June
NEW ENGLAND.....	33	18	168	165	EAST SOUTH CENTRAL.....	59	126	515	741
Maine.....	1	—	3	2	Kentucky.....	6	12	97	58
New Hampshire.....	2	—	3	—	Tennessee.....	17	42	157	184
Vermont.....	—	—	—	—	Alabama.....	25	40	122	310
Massachusetts.....	18	10	101	99	Mississippi.....	11	32	139	189
Rhode Island.....	2	2	16	21	WEST SOUTH CENTRAL.....	297	222	1,788	1,705
Connecticut.....	10	6	45	43	Arkansas.....	24	10	90	67
MIDDLE ATLANTIC.....	256	279	1,828	1,582	Louisiana.....	53	60	329	419
Upstate New York.....	16	17	141	102	Oklahoma.....	5	4	43	43
New York City.....	160	182	1,248	1,001	Texas.....	215	148	1,326	1,176
Pa. (Excl. Phila.).....	16	28	76	128	MOUNTAIN.....	56	41	288	264
Philadelphia.....	24	8	111	121	Montana.....	3	—	5	4
New Jersey.....	40	44	252	230	Idaho.....	2	—	4	3
EAST NORTH CENTRAL.....	194	193	1,255	1,456	Wyoming.....	—	1	4	1
Ohio.....	21	26	178	233	Colorado.....	1	—	25	9
Indiana.....	23	25	173	176	New Mexico.....	25	12	127	75
Downstate Illinois.....	19	13	130	85	Arizona.....	18	20	92	142
Chicago.....	76	76	480	513	Utah.....	1	5	6	7
Michigan.....	50	51	316	437	Nevada.....	6	3	25	23
Wisconsin.....	5	2	8	12	PACIFIC.....	171	103	950	844
WEST NORTH CENTRAL.....	30	24	162	182	Washington.....	7	2	27	25
Minnesota.....	2	2	16	18	Oregon.....	2	3	22	19
Iowa.....	1	3	20	19	California.....	161	98	897	797
Missouri.....	16	9	83	87	Alaska.....	1	—	1	—
North Dakota.....	1	4	5	6	Hawaii.....	—	—	3	3
South Dakota.....	—	4	7	23	U. S. TOTAL.....	1,483	1,384	9,394	9,570
Nebraska.....	4	1	15	17	TERRITORIES.....	122	117	636	583
Kansas.....	6	1	16	12	Puerto Rico.....	120	113	628	552
SOUTH ATLANTIC.....	387	378	2,440	2,631	Virgin Islands.....	2	4	8	31
Delaware.....	5	1	21	18	Note: Cumulative Totals include revised and delayed reports through previous months.				
Maryland.....	41	37	224	222					
District of Columbia.....	54	50	277	324					
Virginia.....	18	26	124	143					
West Virginia.....	1	5	9	19					
North Carolina.....	32	38	270	343					
South Carolina.....	41	32	294	263					
Georgia.....	93	52	489	400					
Florida.....	102	137	732	899					

CURRENT TRENDS ROCKY MOUNTAIN SPOTTED FEVER

During the first 28 weeks of 1969, a total of 200 cases of Rocky Mountain Spotted Fever from 22 states were reported to the NCDC, a twofold increase over the 100 cases reported for that period in 1968 and nearly a twofold increase over the 125 cases in 1967 (Figure 2) (Table 3). A majority of states reporting cases this year (17 of 22) also reported cases last year. Although county data were not available from all states, from five states reporting county distribution, it appears that generally cases are occurring in the same areas as last year (Figure 3).

Figure 2
STATES REPORTING CASES OF ROCKY MOUNTAIN
SPOTTED FEVER THROUGH FIRST 28 WEEKS OF 1969



Additional data were obtained by a survey of nine states reporting cases. Of the 145 cases including nine deaths from these states, 84 were in males and 43 in females; sex was not reported in 18 cases (Table 4). Of these cases, 102 were in persons under 20 years of age and 69 were in children under 10 years of age.

Table 4
Age and Sex Distribution of Rocky Mountain
Spotted Fever Cases from Nine States*
for First 28 Weeks of 1969

Age Group (Years)	Sex			Total
	Male	Female	Unknown	
<1-4	11	15		26
5-9	29	14		43
10-19	27	6		33
20-29	3	2		5
30-39	1	1		2
40-49	5	4		9
50-59	3			3
>60	4	1		5
Unknown	1		18	19
Total	84	43	18	145

*Arkansas, Colorado, Idaho, Maryland, North Carolina, Oklahoma, Tennessee, Virginia, and Washington

Although the 200 cases reported through the first 28 weeks of 1969 is greater than the mean (119 cases) for the same period for the years 1952-1955 and 1962-1968*,

Table 3
Cases of Rocky Mountain Spotted Fever
by State for First 28 Weeks of 1967, 1968, and 1969

Area	1967	1968	1969
United States	125	100	200
New England	—	—	—
Maine	—	—	—
New Hampshire	—	—	—
Vermont	—	—	—
Massachusetts	—	—	—
Rhode Island	—	—	—
Connecticut	—	—	—
Middle Atlantic	17	7	24
New York City	—	—	—
New York, Up-State	4	1	5
New Jersey	6	1	6
Pennsylvania	7	5	13
East North Central	13	3	—
Ohio	7	2	—
Indiana	1	—	—
Illinois	5	1	—
Michigan	—	—	—
Wisconsin	—	—	—
West North Central	1	3	2
Minnesota	—	—	—
Iowa	—	—	1
Missouri	1	1	—
North Dakota	—	—	—
South Dakota	—	1	1
Nebraska	—	1	—
Kansas	—	—	—
South Atlantic	49	54	108
Delaware	—	—	2
Maryland	10	6	25
District of Columbia	—	—	—
Virginia	14	22	36
West Virginia	—	—	4
North Carolina	17	16	29
South Carolina	3	2	6
Georgia	5	6	6
Florida	—	2	—
East South Central	20	17	32
Kentucky	7	3	5
Tennessee	9	12	26
Alabama	4	1	1
Mississippi	—	1	—
West South Central	11	13	21
Arkansas	3	1	4
Louisiana	—	—	—
Oklahoma	6	6	14
Texas	2	6	3
Mountain	8	2	8
Montana	—	—	—
Idaho	—	—	1
Wyoming	—	—	—
Colorado	8	2	7
New Mexico	—	—	—
Arizona	—	—	—
Utah	—	—	—
Nevada	—	—	—
Pacific	6	1	5
Washington	1	—	3
Oregon	—	—	—
California	5	1	2
Alaska	—	—	—
Hawaii	—	—	—
Puerto Rico	—	—	—

there has been a wide range in reported cases from a high of 170 in 1952 to a low of 66 cases in 1963.

(Reported by the Statistics Section, and Viral Diseases Branch, Epidemiology Program, NCDC.)

*Data not presently available for 1956-1961.

TENNESSEE

SURVEILLANCE SUMMARY
ENCEPHALITIS - United States 1967

In the United States during 1967, a total of 2,368 cases of encephalitis including 245 deaths were reported to the NCDC (Table 5) compared with 3,102 cases recorded in 1966. This reduction from 1966 can be accounted for, in part, by the lack of known arboviral outbreaks in 1967. Just over half of the reported cases in 1967 were of unknown etiology. Of the remainder, 83 were of arboviral etiology, while 995 were associated with childhood infections (measles, mumps, chickenpox, and rubella). Despite the lack of a known arboviral outbreak in 1967, an increased number of cases occurred in the summer months. This increase cannot be entirely attributed to confirmed enteroviral or enteroviral-associated cases, but rather to cases of unknown etiology.

The distribution of cases of Western Encephalitis (WE), Eastern Encephalitis (EE), California (CE), and St. Louis Encephalitis (SLE) is presented in Figure 4. With one exception, all arboviral cases were confirmed by virus

isolation or diagnostic fourfold rise or fall in antibody titers between acute and convalescent specimens. Seven cases of CE (one from Iowa and six from Ohio) were reported as CE on the basis of clinical and epidemiologic findings supported by serologic evidence other than fourfold changes in titer. All reported cases of CE occurred in the childhood and adolescent age groups, while the reported cases of other types of arbovirus infection affected all age groups.

In 1967 there were 26 confirmed encephalitis cases associated with enteroviral infection (Table 6). As in 1966, males were apparently affected more frequently than females (17 in males compared with nine in females). Coxsackie B-5 and ECHO 9 were the enteroviral types most commonly associated with encephalitis in 1967.

The number of cases, deaths, and death to case ratio for reported cases of encephalitis associated with measles, mumps, chickenpox, and rubella are shown in Table 7.

Table 5
Etiology of 2,368 Cases of Encephalitis, Including 245 Deaths
Reported to the Neurotropic Viral Diseases Unit, NCDC, 1967

Category and Etiology	Cases		Deaths		Death to Case Ratio (Percent)
	Number	Percent of Total	Number	Percent of Total	
I. Arboviral	83	3.5	2	.8	2.4
Western Encephalitis	18		—		
Eastern Encephalitis	1		1		
California Encephalitis	53		1		
St. Louis Encephalitis	11		—		
Venezuelan Encephalitis	—		—		
II. Enteroviral (Confirmed)	26	1.1	—		
III. Associated with Childhood Infections	995	41.7	40	16.3	4.0
Measles	62		6		
Mumps	849		8		
Chickenpox	77		24		
Rubella	7		2		
IV. Associated with Respiratory Illnesses	2	.1	—		
Adenovirus	1				
<i>Mycoplasma pneumoniae</i>	1				
V. Association with Immunization	4	.2			
Post-vaccinal	4				
VI. Other	40	1.7	12	4.9	30.0
Lymphocytic choriomeningitis	3		—		
Herpes simplex	30		8		
Herpes zoster	7		4		
Infectious mononucleosis	—				
VII. Unknown and Complex Etiology	1218	51.0	191	78.0	15.7
Unknown	1215		191		
Complex	3		—		
Total	2368	100.0	245	100.0	10.3

Table 6
Cases of Confirmed Enteroviral Encephalitis and All Cases Associated
with Enteroviral Isolations, by Age Group and Etiology

Age Group	Sex		Conf.	Total Isol.	Cox.-B5		Other Cox. A & B		ECHO-9		Other ECHO	
	Male	Female			Conf.	Total Isol.	Conf.	Total Isol.	Conf.	Total Isol.	Conf.	Total Isol.
<1			3	4	1	2	2	1				1
1-4	5	1	3	19	2	7	1	3		8		1
5-9	5	4	9	45		6	4	5	1	29	4	5
10-14	2	0	2	9	1	1	1	1		6		1
15-19	2	1	3	11	1	1		1		6	2	3
20-29	1	2	3	11		5			2	5	1	1
30-39	1	0	1	8		3		1	1	4		
40+	0	1	1	1	1	1						
Unk.	1	0	1	4			1	1		3		
Total			26	112	6	26	9	13	4	61	7	12

Figure 4
HUMAN CASES OF ARTHROPODBORNE ENCEPHALITIS
BY STATE, 1967

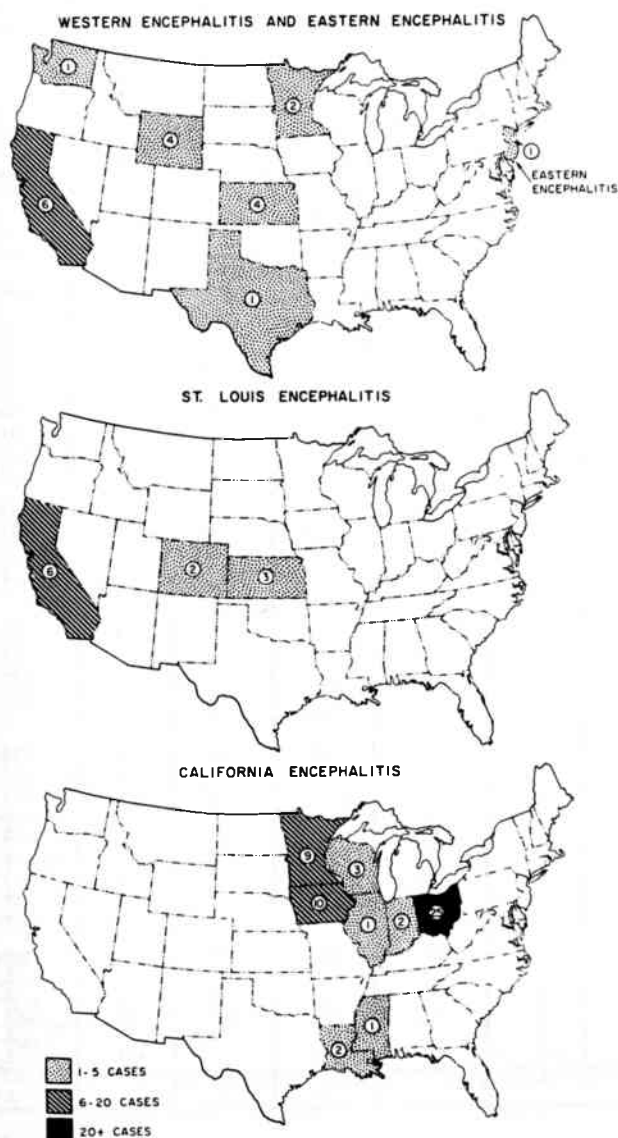


Table 7
Encephalitis Associated with Childhood Illnesses

Etiology	Number of Cases	Number of Deaths	Death to Case Ratio (Percent)
Measles	62	6	9.7
Mumps	849	8	.9
Chickenpox	77	24	31.2
Rubella	7	2	28.6
Total	995	40	4.0

Notably the number of encephalitis cases and deaths associated with measles decreased from 219 and 29 in 1966 to 62 and 6 in 1967. The number of cases associated with mumps, however, increased from 628 in 1966 to 849 in 1967 while the reported deaths decreased from 10 to 8. It is well recognized that a large proportion of cases of mumps reported as encephalitis actually represent benign aseptic meningitis. The low death to case ratio probably reflects the low incidence of true encephalitis associated with mumps infection. In light of the recently recognized association of Reye's syndrome (acute encephalopathy with fatty degeneration of the viscera) with chickenpox, it may be that this entity accounts for the substantial proportion of the deaths attributed to chickenpox "encephalitis" since Reye's syndrome, as thus far reported, bears a high mortality.

(Reported by the Neurotropic Viral Diseases Unit, Viral Diseases Branch, Epidemiology Program, and the Arbovirology Unit, Virology Section, Laboratory Division, NCDC.)

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

National Communicable Disease Center
Attn: Chief, Neurotropic Viral Diseases Unit
Viral Diseases Branch, Epidemiology Program
Atlanta, Georgia 30333

Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED
JULY 19, 1969 AND JULY 20, 1968 (29th WEEK)

AREA	ASEPTIC MENIN- GITIS	BRUCEL- LOSIS	DIPHTHERIA	ENCEPHALITIS			HEPATITIS			MALARIA	
				Primary including unsp. cases		Post- Infectious	Serum	Infectious			
				1969	1969	1969	1969	1968	1969	1969	1969
UNITED STATES...	72	6	1	23	26	4	102	830	786	74	1,484
NEW ENGLAND.....	-	-	-	1	1	-	-	65	42	2	48
Maine*.....	-	-	-	-	-	-	-	1	4	-	3
New Hampshire.....	-	-	-	-	-	-	-	3	-	-	2
Vermont.....	-	-	-	-	-	-	-	1	-	-	-
Massachusetts.....	-	-	-	-	1	-	-	30	19	2	35
Rhode Island.....	-	-	-	-	-	-	-	21	1	-	3
Connecticut.....	-	-	-	1	-	-	-	9	18	-	5
MIDDLE ATLANTIC.....	4	1	-	-	6	2	55	186	90	4	158
New York City.....	1	-	-	-	2	-	48	40	39	-	13
New York, up-State.....	1	-	-	-	1	-	-	36	24	2	27
New Jersey*.....	-	-	-	-	1	-	5	49	-	2	56
Pennsylvania.....	2	1	-	-	2	2	2	61	27	-	62
EAST NORTH CENTRAL...	5	1	-	10	6	-	11	104	95	13	151
Ohio.....	1	-	-	6	5	-	2	26	38	-	14
Indiana.....	1	-	-	-	-	-	-	5	5	-	10
Illinois.....	-	1	-	1	1	-	1	24	22	12	90
Michigan.....	3	-	-	3	-	-	8	46	22	1	36
Wisconsin.....	-	-	-	-	-	-	-	3	8	-	1
WEST NORTH CENTRAL...	4	1	-	1	-	-	1	46	43	7	97
Minnesota*.....	3	-	-	-	-	-	1	5	12	-	7
Iowa*.....	1	-	-	-	-	-	-	3	6	-	7
Missouri.....	-	-	-	-	-	-	-	20	18	2	26
North Dakota.....	-	-	-	1	-	-	-	1	-	-	2
South Dakota.....	-	-	-	-	-	-	-	1	-	-	-
Nebraska.....	-	1	-	-	-	-	-	12	-	-	3
Kansas.....	-	-	-	-	-	-	-	4	7	5	52
SOUTH ATLANTIC.....	12	-	-	2	1	-	3	47	72	6	448
Delaware.....	-	-	-	-	-	-	-	1	3	-	2
Maryland.....	8	-	-	-	1	-	2	15	14	1	19
Dist. of Columbia..	-	-	-	-	-	-	-	-	1	-	1
Virginia.....	-	-	-	2	-	-	-	11	8	1	18
West Virginia.....	-	-	-	-	-	-	-	1	6	-	-
North Carolina.....	4	-	-	-	-	-	-	8	6	4	205
South Carolina.....	-	-	-	-	-	-	-	5	1	-	41
Georgia.....	-	-	-	-	-	-	-	6	14	-	139
Florida.....	-	-	-	-	-	-	1	-	19	-	23
EAST SOUTH CENTRAL...	2	1	-	1	1	-	-	87	71	11	63
Kentucky.....	2	-	-	-	-	-	-	56	24	11	53
Tennessee.....	-	1	-	1	-	-	-	8	26	-	-
Alabama.....	-	-	-	-	-	-	-	11	4	-	8
Mississippi.....	-	-	-	-	1	-	-	12	17	-	2
WEST SOUTH CENTRAL...	9	1	1	3	3	1	-	58	50	17	57
Arkansas.....	-	-	-	-	-	-	-	-	5	-	6
Louisiana.....	5	-	-	3	3	-	-	12	8	2	30
Oklahoma.....	-	-	-	-	-	-	-	4	4	15	21
Texas.....	4	1	1	-	-	1	-	42	33	-	-
MOUNTAIN.....	1	-	-	-	-	-	-	49	41	4	112
Montana.....	-	-	-	-	-	-	-	2	6	2	2
Idaho.....	-	-	-	-	-	-	-	1	2	-	3
Wyoming.....	-	-	-	-	-	-	-	-	2	-	-
Colorado.....	1	-	-	-	-	-	-	25	15	2	95
New Mexico.....	-	-	-	-	-	-	-	4	4	-	6
Arizona*.....	-	-	-	-	-	-	-	12	8	-	1
Utah.....	-	-	-	-	-	-	-	5	3	-	1
Nevada.....	-	-	-	-	-	-	-	-	1	-	4
PACIFIC.....	35	1	-	5	8	1	32	188	282	10	350
Washington.....	-	-	-	-	1	-	-	4	23	-	5
Oregon.....	-	-	-	-	1	-	1	13	26	-	7
California.....	12	1	-	5	6	1	31	171	232	10	268
Alaska.....	23	-	-	-	-	-	-	-	1	-	2
Hawaii.....	---	---	---	---	-	---	---	---	-	---	68
Puerto Rico.....	-	-	-	-	-	-	-	20	16	-	1

*Delayed reports: Aseptic meningitis: Iowa 1, Ariz. 1
 Brucellosis: Iowa 2
 Encephalitis primary: Minn. 1
 Hepatitis, infectious: Me. 3, N.J. 11

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

JULY 19, 1969 AND JULY 20, 1968 (29th WEEK) - CONTINUED

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS	POLIOMYELITIS			RUBELLA
	1969	Cumulative		1969	Cumulative			Total	Paralytic		
		1969	1968		1969	1968			1969	Cum. 1969	
UNITED STATES...	328	19,056	18,310	32	2,135	1,767	889	-	-	4	547
NEW ENGLAND.....	31	1,024	1,099	-	70	90	134	-	-	1	39
Maine*.....	-	5	35	-	6	6	2	-	-	-	-
New Hampshire*.....	1	237	141	-	2	7	1	-	-	-	-
Vermont.....	1	3	2	-	-	1	-	-	-	-	-
Massachusetts*.....	7	186	341	-	31	40	44	-	-	-	13
Rhode Island.....	-	22	1	-	6	7	21	-	-	-	5
Connecticut.....	22	571	579	-	25	29	66	-	-	1	21
MIDDLE ATLANTIC.....	113	7,166	3,569	5	340	319	162	-	-	-	43
New York City.....	64	4,736	1,719	-	69	67	144	-	-	-	25
New York, Up-State.....	7	573	1,164	5	56	54	NN	-	-	-	12
New Jersey.....	10	845	577	-	142	116	18	-	-	-	1
Pennsylvania*.....	32	1,012	109	-	73	82	NN	-	-	-	5
EAST NORTH CENTRAL...	38	1,950	3,569	9	297	211	181	-	-	-	162
Ohio.....	4	348	283	7	114	58	16	-	-	-	7
Indiana.....	-	453	618	-	34	26	6	-	-	-	19
Illinois.....	13	418	1,330	1	41	47	18	-	-	-	52
Michigan*.....	7	214	241	1	90	62	40	-	-	-	51
Wisconsin.....	14	517	1,097	-	18	18	101	-	-	-	33
WEST NORTH CENTRAL...	5	494	367	-	112	89	29	-	-	-	17
Minnesota*.....	-	5	15	-	25	21	-	-	-	-	-
Iowa.....	-	324	95	-	15	6	12	-	-	-	4
Missouri.....	-	16	81	-	48	31	5	-	-	-	4
North Dakota.....	1	10	124	-	-	3	1	-	-	-	5
South Dakota.....	-	3	4	-	1	4	NN	-	-	-	-
Nebraska.....	4	132	38	-	9	6	11	-	-	-	4
Kansas.....	-	4	10	-	14	18	-	-	-	-	-
SOUTH ATLANTIC.....	23	2,382	1,403	7	380	360	103	-	-	1	100
Delaware.....	4	373	15	1	5	7	8	-	-	-	-
Maryland.....	-	63	85	2	35	26	25	-	-	-	9
Dist. of Columbia..	-	-	6	-	9	14	-	-	-	-	1
Virginia.....	13	867	290	2	48	28	31	-	-	-	32
West Virginia.....	2	166	258	-	18	9	38	-	-	-	56
North Carolina.....	4	303	281	-	66	73	NN	-	-	-	-
South Carolina.....	-	110	12	-	54	56	1	-	-	-	-
Georgia.....	-	1	4	-	64	61	-	-	-	-	-
Florida.....	-	499	452	2	81	86	-	-	-	1	2
EAST SOUTH CENTRAL...	2	102	465	4	136	149	54	-	-	-	33
Kentucky.....	1	60	96	3	49	58	13	-	-	-	25
Tennessee.....	-	17	55	1	51	49	38	-	-	-	8
Alabama.....	-	3	85	-	21	22	3	-	-	-	-
Mississippi.....	1	22	229	-	15	20	-	-	-	-	-
WEST SOUTH CENTRAL...	89	4,230	4,542	-	285	289	87	-	-	2	55
Arkansas.....	-	16	2	-	28	19	-	-	-	-	-
Louisiana.....	-	120	7	-	74	81	-	-	-	-	-
Oklahoma.....	1	136	110	-	29	49	-	-	-	-	-
Texas.....	88	3,958	4,423	-	154	140	87	-	-	2	55
MOUNTAIN.....	19	750	939	-	37	27	56	-	-	-	49
Montana.*.....	1	16	57	-	5	3	2	-	-	-	1
Idaho.....	-	88	20	-	6	11	-	-	-	-	-
Wyoming.....	-	-	51	-	-	-	-	-	-	-	-
Colorado.....	-	115	481	-	6	8	5	-	-	-	10
New Mexico.....	9	226	88	-	6	-	19	-	-	-	-
Arizona.....	8	297	216	-	10	1	25	-	-	-	27
Utah.....	1	7	21	-	2	1	5	-	-	-	11
Nevada.....	-	1	5	-	2	3	-	-	-	-	-
PACIFIC.....	8	958	2,357	7	478	233	83	-	-	-	49
Washington.....	-	57	514	-	50	37	5	-	-	-	3
Oregon.....	4	195	457	-	11	18	8	-	-	-	15
California.....	4	671	1,349	7	396	165	68	-	-	-	24
Alaska.....	-	8	2	-	11	2	2	-	-	-	7
Hawaii.....	---	27	35	---	10	11	---	---	---	-	---
Puerto Rico.....	60	1,224	354	-	15	19	9	-	-	-	1

*Delayed reports: Measles: N.H. 8, Mass. delete 2, Pa. delete 14, Mich. 10, Mont. 5
Meningococcal infections: Minn. 1
Mumps: N.H. 3
Rubella: Me. 1

Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
JULY 19, 1969 AND JULY 20, 1968 (29th WEEK) - CONTINUED

AREA	STREPTOCOCCAL SORE THROAT & SCARLET FEVER	TETANUS		TULAREMIA		TYPHOID FEVER		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
	1969	1969	Cum. 1969	1969	Cum. 1969	1969	Cum. 1969	1969	Cum. 1969	1969	Cum. 1969
UNITED STATES...	4,073	4	73	1	80	3	149	21	221	69	2,067
NEW ENGLAND.....	629	-	-	-	14	-	5	-	-	1	12
Maine.*.....	1	-	-	-	-	-	1	-	-	-	5
New Hampshire.....	-	-	-	-	-	-	-	-	-	-	1
Vermont.....	-	-	-	-	14	-	-	-	-	1	2
Massachusetts.....	81	-	-	-	-	-	3	-	-	-	1
Rhode Island.....	36	-	-	-	-	-	1	-	-	-	-
Connecticut.....	511	-	-	-	-	-	-	-	-	-	3
MIDDLE ATLANTIC.....	209	-	11	-	3	-	15	2	26	1	82
New York City.....	12	-	5	-	1	-	6	-	-	-	-
New York, Up-State.....	167	-	2	-	2	-	5	-	5	1	77
New Jersey.....	NN	-	2	-	-	-	-	-	6	-	-
Pennsylvania.....	30	-	2	-	-	-	4	2	15	-	5
EAST NORTH CENTRAL...	257	2	11	-	7	1	14	-	-	6	137
Ohio.....	39	1	1	-	-	-	7	-	-	3	38
Indiana.....	69	-	-	-	1	-	-	-	-	-	40
Illinois.....	63	1	7	-	2	1	3	-	-	-	25
Michigan.....	54	-	3	-	-	-	4	-	-	-	4
Wisconsin.....	32	-	-	-	4	-	-	-	-	3	30
WEST NORTH CENTRAL...	150	-	5	-	8	-	4	-	2	14	386
Minnesota.*.....	3	-	1	-	-	-	1	-	-	5	96
Iowa.....	36	-	-	-	-	-	-	-	1	3	57
Missouri.....	1	-	1	-	5	-	2	-	-	1	106
North Dakota.....	35	-	-	-	-	-	-	-	-	1	51
South Dakota.....	8	-	-	-	-	-	-	-	1	-	13
Nebraska.....	67	-	-	-	-	-	1	-	-	-	10
Kansas.....	-	-	3	-	3	-	-	-	-	4	53
SOUTH ATLANTIC.....	380	-	14	1	20	1	27	13	121	15	550
Delaware.....	8	-	-	-	-	-	1	-	2	-	-
Maryland.....	75	-	-	-	-	-	4	5	30	-	-
Dist. of Columbia..	-	-	2	-	-	-	1	-	-	-	-
Virginia.....	172	-	-	1	4	-	-	2	38	9	287
West Virginia.....	89	-	1	-	2	-	1	1	5	1	85
North Carolina.....	NN	-	2	-	5	1	5	3	32	-	4
South Carolina.....	11	-	1	-	2	-	1	1	7	-	-
Georgia.....	5	-	-	-	3	-	7	1	7	1	49
Florida.....	20	-	8	-	4	-	7	-	-	4	125
EAST SOUTH CENTRAL...	1,065	-	10	-	9	-	16	1	33	7	318
Kentucky.....	132	-	3	-	-	-	2	-	5	3	166
Tennessee.....	737	-	4	-	8	-	12	1	27	1	112
Alabama.....	87	-	2	-	-	-	-	-	1	3	37
Mississippi.....	109	-	1	-	1	-	2	-	-	-	3
WEST SOUTH CENTRAL...	468	1	14	-	11	-	20	5	26	9	280
Arkansas.....	-	-	-	-	1	-	10	-	4	-	21
Louisiana.....	-	1	6	-	2	-	1	-	-	2	19
Oklahoma.....	8	-	1	-	5	-	-	4	18	1	42
Texas.....	460	-	7	-	3	-	9	1	4	6	198
MOUNTAIN.....	814	1	2	-	8	-	20	-	8	1	93
Montana.....	20	-	-	-	-	-	-	-	-	-	-
Idaho.....	19	-	-	-	-	-	3	-	1	-	-
Wyoming.*.....	3	-	-	-	2	-	5	-	-	-	48
Colorado.....	422	-	1	-	-	-	2	-	7	-	3
New Mexico.....	185	-	-	-	1	-	5	-	-	-	9
Arizona.....	-	1	1	-	-	-	4	-	-	-	22
Utah.....	165	-	-	-	5	-	-	-	-	1	3
Nevada.....	-	-	-	-	-	-	1	-	-	-	8
PACIFIC.....	101	-	6	-	-	1	28	-	5	15	209
Washington.....	5	-	1	-	-	-	1	-	3	-	1
Oregon.....	62	-	-	-	-	-	6	-	-	1	2
California.....	---	-	5	-	-	1	21	-	2	14	206
Alaska.....	34	-	-	-	-	-	-	-	-	-	-
Hawaii.*.....	---	---	-	---	-	---	-	---	-	---	-
Puerto Rico.....	4	-	4	-	-	-	3	-	-	-	18

*Delayed reports: SST: Me. 1, Wyo. 3, Hawaii 133
Tetanus: Minn. 1

Week No.

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED JULY 19, 1969

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(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		
NEW ENGLAND:	687	425	40	45	SOUTH ATLANTIC:	1,124	586	47	58
Boston, Mass.-----	212	110	12	20	Atlanta, Ga.-----	135	72	4	8
Bridgeport, Conn.-----	40	31	1	2	Baltimore, Md.-----	234	121	4	8
Cambridge, Mass.-----	26	19	7	1	Charlotte, N. C.-----	37	16	1	4
Fall River, Mass.-----	31	22	1	1	Jacksonville, Fla.-----	88	37	2	9
Hartford, Conn.-----	60	39	1	2	Miami, Fla.-----	100	54	—	2
Lowell, Mass.-----	21	11	1	1	Norfolk, Va.-----	66	38	7	8
Lynn, Mass.-----	21	14	—	4	Richmond, Va.-----	76	35	3	10
New Bedford, Mass.-----	26	14	1	—	Savannah, Ga.-----	46	32	7	—
New Haven, Conn.-----	58	34	—	1	St. Petersburg, Fla.-----	75	58	9	2
Providence, R. I.-----	56	35	7	3	Tampa, Fla.-----	56	29	5	1
Somerville, Mass.-----	16	13	1	—	Washington, D. C.-----	178	71	3	5
Springfield, Mass.-----	42	29	7	1	Wilmington, Del.-----	33	23	2	1
Waterbury, Conn.-----	33	24	—	6					
Worcester, Mass.-----	45	30	1	3	EAST SOUTH CENTRAL:	753	396	44	30
MIDDLE ATLANTIC:	3,167	1,885	130	130	Birmingham, Ala.-----	125	62	2	6
Albany, N. Y.-----	36	20	4	1	Chattanooga, Tenn.-----	51	27	5	2
Allentown, Pa.-----	35	23	4	1	Knoxville, Tenn.-----	38	28	2	—
Buffalo, N. Y.-----	151	92	2	5	Louisville, Ky.-----	125	69	22	4
Camden, N. J.-----	38	25	2	1	Memphis, Tenn.-----	177	85	5	10
Elizabeth, N. J.-----	72	43	1	3	Mobile, Ala.-----	65	30	1	5
Erie, Pa.-----	38	20	3	2	Montgomery, Ala.-----	60	33	3	1
Jersey City, N. J.-----	72	52	6	3	Nashville, Tenn.-----	112	62	4	2
Newark, N. J.-----	59	30	1	3	WEST SOUTH CENTRAL:	1,269	678	62	81
New York City, N. Y.-----	1,687	1,003	54	75	Austin, Tex.-----	51	23	8	6
Paterson, N. J.-----	—	—	—	—	Baton Rouge, La.-----	57	38	1	—
Philadelphia, Pa.-----	399	222	6	15	Corpus Christi, Tex.-----	34	19	4	3
Pittsburgh, Pa.-----	189	105	9	8	Dallas, Tex.-----	162	88	3	10
Reading, Pa.-----	48	29	—	—	El Paso, Tex.-----	31	18	1	2
Rochester, N. Y.-----	105	71	20	4	Fort Worth, Tex.-----	101	52	4	3
Schenectady, N. Y.-----	28	14	1	2	Houston, Tex.-----	247	111	9	13
Scranton, Pa.-----	31	23	4	1	Little Rock, Ark.-----	70	34	4	3
Syracuse, N. Y.-----	81	51	2	1	New Orleans, La.-----	166	89	8	12
Trenton, N. J.-----	51	27	5	3	Oklahoma City, Okla.-----	94	48	3	10
Utica, N. Y.-----	19	13	2	1	San Antonio, Tex.-----	117	71	7	12
Yonkers, N. Y.-----	28	22	4	1	Shreveport, La.-----	78	45	5	7
EAST NORTH CENTRAL:	2,582	1,455	82	129	Tulsa, Okla.-----	61	42	5	—
Akron, Ohio-----	54	26	—	5	MOUNTAIN:	486	264	27	33
Canton, Ohio-----	24	11	1	2	Albuquerque, N. Mex.-----	42	19	2	2
Chicago, Ill.-----	728	355	32	44	Colorado Springs, Colo.-----	31	17	7	—
Cincinnati, Ohio-----	189	112	2	9	Denver, Colo.-----	122	71	8	12
Cleveland, Ohio-----	186	94	1	6	Ogden, Utah-----	23	11	3	6
Columbus, Ohio-----	112	64	—	7	Phoenix, Ariz.-----	125	64	1	7
Dayton, Ohio-----	79	45	6	2	Pueblo, Colo.-----	27	18	2	—
Detroit, Mich.-----	361	210	5	17	Salt Lake City, Utah-----	56	29	2	4
Evansville, Ind.-----	42	29	2	1	Tucson, Ariz.-----	60	35	2	2
Flint, Mich.-----	46	21	—	5	PACIFIC:	1,527	908	35	66
Fort Wayne, Ind.-----	56	35	4	3	Berkeley, Calif.-----	24	16	2	—
Gary, Ind.-----	39	17	2	3	Fresno, Calif.-----	48	30	2	2
Grand Rapids, Mich.-----	48	35	4	2	Glendale, Calif.-----	28	18	1	1
Indianapolis, Ind.-----	137	79	3	3	Honolulu, Hawaii-----	41	15	2	8
Madison, Wis.-----	37	17	5	5	Long Beach, Calif.-----	98	59	2	6
Milwaukee, Wis.-----	140	100	2	3	Los Angeles, Calif.-----	436	249	12	18
Peoria, Ill.-----	38	24	1	3	Oakland, Calif.-----	82	43	1	4
Rockford, Ill.-----	39	24	8	5	Pasadena, Calif.-----	37	25	—	1
South Bend, Ind.-----	54	40	2	1	Portland, Oreg.-----	145	98	2	7
Toledo, Ohio-----	116	77	—	2	Sacramento, Calif.-----	60	27	1	3
Youngstown, Ohio-----	57	40	2	1	San Diego, Calif.-----	102	57	2	4
WEST NORTH CENTRAL:	868	536	31	38	San Francisco, Calif.-----	169	103	5	1
Des Moines, Iowa-----	62	43	1	2	San Jose, Calif.-----	39	29	—	—
Duluth, Minn.-----	42	27	3	3	Seattle, Wash.-----	130	83	1	6
Kansas City, Kans.-----	56	32	5	4	Spokane, Wash.-----	43	28	1	3
Kansas City, Mo.-----	160	94	4	9	Tacoma, Wash.-----	45	28	1	2
Lincoln, Nebr.-----	41	28	—	1					
Minneapolis, Minn.-----	104	65	—	4	Total	12,463	7,133	498	610
Omaha, Nebr.-----	62	33	—	5	Cumulative Totals				
St. Louis, Mo.-----	209	131	7	5	including reported corrections for previous weeks				
St. Paul, Minn.-----	68	45	2	4	All Causes, All Ages -----	387,162			
Wichita, Kans.-----	64	38	9	1	All Causes, Age 65 and over-----	222,961			
					Pneumonia and Influenza, All Ages-----	19,481			
					All Causes, Under 1 Year of Age-----	17,731			

EPIDEMIOLOGIC NOTES AND REPORTS TYPHOID FEVER FOLLOW-UP — Oregon

Following the outbreak of typhoid fever in a missionary family in Oregon en route to North Dakota from the Philippines (MMWR, Vol. 18, No. 23), three isolates of *Salmonella typhi* were received at the NCDC from recent typhoid fever cases in Pasay City, Philippines. The isolates were phage type B₁, the same as the phage type responsible for the illnesses in the missionary family. This is a rare phage type in the United States accounting for only 1 to 2 percent of strains typed at the NCDC. These laboratory data support epidemiologic information pointing to Pasay City as the likely place where this family was exposed.

(Reported by Jacinto J. Dizon, M.D., Chief, Disease Intelligence Center, Department of Health, Manila; and the Enteric Bacteriology Unit, Bacteriology Section, Microbiology Branch, Laboratory Division, NCDC.)

ERRATA

Vol. 18, No. 28, P. 242

In the article "Primary Amebic Meningoencephalitis — Virginia" in the section "Reported by . . ." include "John Thornton, M.D., Chief of Pathology, Johnson Willis Hospital, Richmond.)"

Vol. 18, No. 23, p. 204.

In the article "Quarantine Measures" under the Overseas Medical Center, Detroit, Michigan, under clinic hours and fee, delete: Saturday, 9:00-5:00 by appointment and No. Insert: 9:00-5:00 Monday, Tuesday, Thursday, and Friday; Saturday 9:00-1:00 by appointment only and Yes.

THE MORBIDITY AND MORTALITY WEEKLY REPORT, WITH A CIRCULATION OF 18,500 IS PUBLISHED AT THE NATIONAL COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA.

DIRECTOR, NATIONAL COMMUNICABLE DISEASE CENTER

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IN ADDITION TO THE ESTABLISHED PROCEDURES FOR REPORTING MORBIDITY AND MORTALITY, THE NATIONAL 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:

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.

U.S. DEPARTMENT OF
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