NATIONAL COMMUNICABLE DISEASE CENTER

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WEEKLY REPORT

For Week Ending April 19, 1969

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
MENINGOCOCCAL DISEASE – California

The incidence of meningococcal disease in California increased significantly during the first 3 months of 1969. During this period 241 cases of meningococcal meningitis or meningococcemia were reported; during the first 3 months of 1967 and 1968 only 99 and 88 cases, respectively, were reported. In 1966, the last year in which the incidence of meningococcal disease was significantly elevated, there were 236 cases reported for the first 3 months (Table 1). The cases reported in 1969 were evenly distributed throughout the 3 months in contrast to 1966 when March had a higher incidence. The cases in 1969 appear to be concentrated in the large metropolitan areas, particularly in Southern California; however, cases were reported from all regions of the state.

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An analysis of the 214 case reports received showed that 166 cases (77.6 percent) occurred in the general civilian population and 48 (22.4 percent) were either in members of the armed forces or in military dependents. In 1964-1967, 51 percent of cases were in children under 5 years of age. Although the highest attack rate was still observed in the under 5 years age group, an increased percentage of cases, 41.1 percent, occurred in the 10-19 year age group (Table 2).

(Continued on page 134)

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

DISEASE	16th WEEK ENDED		MEDIAN	CUMULATIVE, FIRST 16 WEEKS		
	April 19, 1969	April 20, 1968	1964 - 1968	1969	1968	MEDIAN 1964 - 1968
Aseptic meningitis	35	26	26	445	454	446
Brucellosis	4	6	6	32	38	62
Diphtheria	–	3	3	41	48	49
Encephalitis, primary:						
Arthropod-borne & unspecified	23	12	30	307	241	398
Encephalitis, post-infectious	5	14	20	77	144	238
Hepatitis, serum	116	73	816	1,604	1,177	13,294
Hepatitis, infectious	1,009	799		14,778	13,331	
Malaria	50	38	2	745	703	86
Measles (rubeola)	1,161	735	8,515	9,592	10,425	117,898
Meningococcal infections, total	103	55	67	1,370	1,205	1,205
Civilian	91	51	- - -	1,270	1,090	- - -
Military	12	4	- - -	100	115	- - -
Mumps	2,727	4,329	- - -	38,881	80,498	- - -
Poliomyelitis, total	–	–	–	1	15	7
Paralytic	–	–	–	1	15	6
Rubella (German measles)	2,214	2,000	- - -	20,333	21,388	- - -
Streptococcal sore throat & scarlet fever	11,227	11,345	10,690	184,307	181,428	181,428
Tetanus	3	3	5	32	34	51
Tularemia	1	1	1	27	20	50
Typhoid fever	4	9	7	62	75	101
Typhus, tick-borne (Rky. Mt. spotted fever)	1	2	–	2	6	7
Rabies in animals	88	88	112	1,225	1,212	1,404

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	–	Rabies in man:	–
Botulism:	3	Rubella congenital syndrome: Del.-1	4
Leptospirosis:	12	Trichinosis: Hawaii-1, Minn.-2, N. Mex.-1	26
Plague:	–	Typhus, murine: Calif.-1, P.R.-1	5
Psittacosis:	7		

MENINGOCOCCAL DISEASE – *(Continued from front page)*

Table 1
Meningococcal Infections by Month of Onset
California, First Quarter 1966-1969

Year	January	February	March	Total
1966	40	43	153	236
1967	21	29	49	99
1968	32	25	31	88
1969	82	75	84	241

Table 2
Reported Meningococcal Infections by Age Group
California – January-March 1969

Age Group	Number	Percent
<1	25	11.7
1-4	44	20.6
5-9	24	11.2
10-19	86	40.2
20-29	12	5.6
≥30	23	10.7
Total	214	100.0

Between October 1964 and October 1967 the Microbial Diseases Laboratory of the California State Department of Public Health routinely received isolates of meningococci for serogrouping. Group B organisms constituted about 80 percent of the isolates although an increase in group C was noted over the 3 years. Cultures are no longer submitted to the state laboratory on a routine basis; consequently, specific trends in serogroups could not be calculated for 1969. However, reports from laboratories throughout the state indicated a relative predominance of group C isolates.

(Reported by Philip K. Condit, M.D., M.P.H., Chief, Bureau of Communicable Diseases, and James Chin, M.D., Head, General Epidemiology Section, Bureau of Communicable Diseases, California State Department of Public Health; and an EIS Officer.)

REYE'S SYNDROME – Oklahoma

Between Dec. 8, 1968, and March 15, 1969, eight fatal cases of acute encephalopathy with fatty degeneration of the viscera (Reye's Syndrome) occurred in children in Oklahoma. Their clinical illnesses were markedly similar and included profuse vomiting 3 to 5 days after onset of a prodromal illness. Shortly thereafter all had onset of delirium, combativeness, and hyperactivity. Within 36 hours after onset of vomiting, all developed lethargy, stupor, and then coma. All had respiratory arrest within 48 hours after hospitalization. All had elevated SGOT levels (175 to 2,484, average maximum 1,020) (Table 3). Two of the eight had decreased blood sugar. Cerebrospinal fluid

Table 3
Data on Eight Cases and Three Suspect Cases of Reye's Syndrome – Oklahoma

Case	Patient (Age, Race, Sex)	Prodromal Illness	Onset	Lab. Findings	Outcome	Autopsy Findings
1	5-W-M	Varicella	12-8-68	↑ SGOT ↓ Blood Sugar	Fatal (5 days)	Typical + * Pancreatitis
2	4-W-F	Varicella	12-21-68	↑ SGOT ↓ Blood Sugar	Fatal (4 days)	Typical
3	6-W-M	URI**	2-13-69	↑ SGOT Normal Blood Sugar	Fatal (8 days)	Typical
4	12-W-M	URI	2-18-69	↑ SGOT Normal Blood Sugar	Fatal (6 days)	Typical
5	14-W-F	URI	2-21-69	↑ SGOT Normal Blood Sugar	Fatal (7 days)	No Postmortem
6	8-W-F	None	2-23-69	↑ SGOT Normal Blood Sugar	Fatal (4 days)	Typical
7	8-W-M	URI	2-28-69	↑ SGOT Normal Blood Sugar	Fatal (7 days)	Typical + Pancreatitis
8	9-W-M	URI	3-16-69	↑ SGOT Normal Blood Sugar	Fatal (10 days)	Typical
Suspect Case						
1	8-W-F	Varicella	1-18-69	Normal Blood Sugar	Fatal (3 days)	No Postmortem
2	2-W-F	Varicella	2-6-69	Normal Blood Sugar	Fatal (2 days)	No Postmortem
3	7-W-M	URI	3-9-69	SGOT Pending	Complete Recovery	–

*Typical - Fatty degeneration of liver and cerebral edema.
**URI - Upper respiratory illness.

pleocytosis was absent in all patients. Autopsy on seven patients showed cerebral edema without inflammation and marked fatty infiltration of the liver with fatty changes in renal tubules in two patients and acute hemorrhagic pancreatitis in two others.

The patients were from 4 to 14 years of age; five were males and three females. Four were from Oklahoma City, two from Tulsa, and two from small cities in southern Oklahoma. Three of these eight lived near Air Force bases and two of these lived 2 blocks apart. There was no known contact among any of the patients. Reye's syndrome followed varicella in two patients and upper respiratory disease in five. The non-varicella cases occurred between mid-February and mid-March when there was considerable influenza B activity in Oklahoma (MMWR, Vol. 18, No. 9).

In addition to these eight cases, there were three suspect cases. Two of these followed varicella and one followed an upper respiratory illness. The latter case which occurred during the influenza B outbreak was the only survivor. His SGOT values are pending. Detailed case investigations failed to implicate exogenous toxins or drugs in the genesis of any case. Viral studies are in progress. *(Reported by R. L. Carpenter, M.D., M.P.H., Director, Division of Epidemiology, Oklahoma State Department of Health; Neurotropic Viral Diseases Unit, Viral Diseases Section, Epidemiology Program, NCDC; and two EIS Officers.)*

Editorial Comment:

Acute encephalopathy with fatty degeneration of the viscera occurring in children was first characterized as a distinct clinico-pathologic entity by Reye et al in 1963.[1] The syndrome is recognized by the sudden onset of encephalitic symptoms with a normal lumbar puncture and markedly elevated SGOT levels. The cause(s) of the syndrome has not been determined although in certain cases, exogenous toxins, pharmaceuticals, or viruses have been suggested.

Reference:
[1]Reye, R.D.C., et al.: Encephalopathy and Fatty Degeneration of the Viscera. Lancet *2*:749-752, 1963.

CURRENT TRENDS
MENINGOCOCCAL INFECTIONS – United States

For the first quarter of 1969, a total of 1,089 cases of meningococcal infections were reported to the NCDC. The monthly rates were comparable with those for previous years 1960-1968, which generally had peaks in March or April (Figure 1). The rate for March 1969, 2.44 cases per 100,000 population, was less than the rates for the same month in 1965 and 1966 (2.92 and 3.20), the peak years between 1960 and 1968.

Serogroups B and C continued to be the most predominant types of *Neisseria meningitidis* isolated from cases of meningococcal disease. Of those isolates submitted to the NCDC for serogrouping and sulfadiazine sensitivity testing, the number and percentage of group C strains increased markedly compared with the 2 previous years and predominated in the first 3 months of 1969.

Since September 1968, the proportion of isolates by division has corresponded with the distribution of reported cases by division with two exceptions: 31 of the isolates

Figure 1
MENINGOCOCCAL INFECTIONS, UNITED STATES: MEAN MONTHLY RATES 1960-1967; MONTHLY RATES 1967-1968 AND SEPTEMBER-MARCH 1968-1969

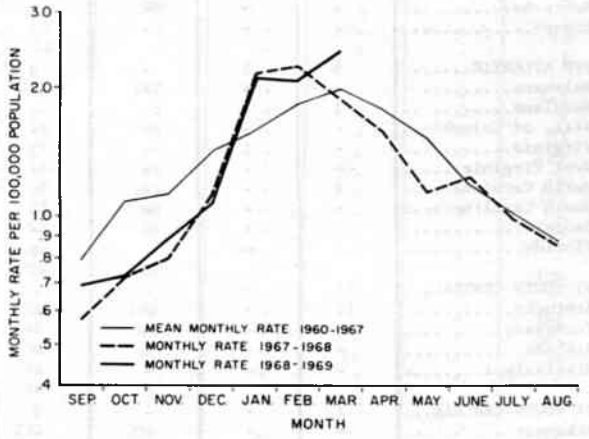

Table 4
Percentage of Submitted Meningococcal Isolates That Were Inhibited at or Below 1.0 mg per 100 ml Sulfadiazine

Year	Total		Group B		Group C		All Others	
	Number Strains Tested	Percent Inhibited	Number Strains Tested	Percent Inhibited	Number Strains Tested	Percent Inhibited	Number Strains Tested	Percent Inhibited
1966	754	59.3	537	52.4	92	84.9	125	70.4
1967	317	56.2	209	49.3	61	62.3	47	78.7
1968								
Jan. through Aug.	426	50.7	192	60.4	164	25.6	70	82.6
Sept. through Dec.	93	44.1	54	57.4	32	9.4	7	100.0
1969								
Jan. through March	163	27.6	60	53.3	96	7.3	7	85.7

(Text continued on page 140)

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED APRIL 19, 1969 AND APRIL 20, 1968 (16th WEEK)

AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	DIPHTHERIA	ENCEPHALITIS			HEPATITIS			MALARIA	
				Primary including unsp. cases		Post-Infectious	Serum	Infectious			
	1969	1969	1969	1969	1968	1969	1969	1969	1968	1969	Cum. 1969
UNITED STATES...	35	4	-	23	12	5	116	1,009	799	50	745
NEW ENGLAND.....	-	-	-	1	1	-	8	73	47	-	31
Maine*.....	-	-	-	-	-	-	-	1	2	-	-
New Hampshire.....	-	-	-	-	-	-	-	3	1	-	2
Vermont.....	-	-	-	-	-	-	-	2	2	-	-
Massachusetts.....	-	-	-	1	-	-	5	42	21	-	25
Rhode Island.....	-	-	-	-	1	-	1	12	2	-	-
Connecticut.....	-	-	-	-	-	-	2	13	19	-	4
MIDDLE ATLANTIC.....	3	-	-	2	6	1	47	178	153	3	84
New York City.....	-	-	-	-	4	-	32	78	44	-	8
New York, up-State.	-	-	-	2	-	1	3	20	35	1	14
New Jersey.....	3	-	-	-	2	-	11	36	24	2	29
Pennsylvania.....	-	-	-	-	-	-	1	44	50	-	33
EAST NORTH CENTRAL...	2	-	-	10	3	-	6	161	119	11	63
Ohio*.....	1	-	-	7	1	-	1	38	50	1	9
Indiana.....	-	-	-	-	-	-	-	9	13	1	5
Illinois.....	-	-	-	-	-	-	2	27	33	7	27
Michigan.*.....	1	-	-	3	2	-	3	72	16	2	21
Wisconsin.....	-	-	-	-	-	-	-	15	7	-	1
WEST NORTH CENTRAL...	-	1	-	-	-	-	4	66	33	2	50
Minnesota.....	-	1	-	-	-	-	3	12	11	-	3
Iowa.....	-	-	-	-	-	-	1	13	4	-	4
Missouri.....	-	-	-	-	-	-	-	16	11	-	13
North Dakota.....	-	-	-	-	-	-	-	-	-	-	2
South Dakota.....	-	-	-	-	-	-	-	6	-	-	-
Nebraska.....	-	-	-	-	-	-	-	15	-	-	3
Kansas.....	-	-	-	-	-	-	-	4	7	2	25
SOUTH ATLANTIC.....	5	1	-	3	-	2	3	118	59	10	237
Delaware.....	-	-	-	-	-	-	-	3	3	-	1
Maryland.....	1	-	-	-	-	-	1	11	16	-	5
Dist. of Columbia..	-	-	-	-	-	-	-	-	2	-	1
Virginia.....	-	1	-	2	-	-	-	29	9	-	10
West Virginia.....	-	-	-	-	-	-	-	14	2	-	-
North Carolina.....	1	-	-	-	-	-	-	12	1	3	124
South Carolina.....	-	-	-	-	-	-	-	4	1	-	22
Georgia.....	-	-	-	-	-	-	-	17	16	6	59
Florida.....	3	-	-	1	-	2	2	28	9	1	15
EAST SOUTH CENTRAL...	12	-	-	-	-	-	2	64	60	3	25
Kentucky.....	12	-	-	-	-	-	-	16	31	3	20
Tennessee.....	-	-	-	-	-	-	2	19	16	-	-
Alabama.....	-	-	-	-	-	-	-	17	5	-	5
Mississippi.....	-	-	-	-	-	-	-	12	8	-	-
WEST SOUTH CENTRAL...	1	-	-	2	1	-	2	92	101	2	21
Arkansas.....	-	-	-	-	-	-	-	4	3	-	5
Louisiana.....	-	-	-	2	-	-	2	21	18	2	14
Oklahoma.....	1	-	-	-	1	-	-	6	21	-	2
Texas.....	-	-	-	-	-	-	-	61	59	-	-
MOUNTAIN.....	-	-	-	1	-	-	1	39	40	6	54
Montana.....	-	-	-	-	-	-	-	3	2	-	-
Idaho.....	-	-	-	-	-	-	-	3	3	-	1
Wyoming*.....	-	-	-	-	-	-	-	-	-	-	-
Colorado.....	-	-	-	1	-	-	-	8	14	6	49
New Mexico.....	-	-	-	-	-	-	1	9	2	-	2
Arizona.*.....	-	-	-	-	-	-	-	10	9	-	1
Utah.....	-	-	-	-	-	-	-	6	10	-	1
Nevada.....	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	12	2	-	4	1	2	43	218	187	13	180
Washington.....	-	-	-	1	-	-	-	8	22	-	5
Oregon.....	-	-	-	-	-	-	2	25	20	-	5
California.....	12	2	-	3	-	2	41	182	145	13	150
Alaska.....	-	-	-	-	-	-	-	3	-	-	-
Hawaii.....	-	-	-	-	1	-	-	-	-	-	20
Puerto Rico.....	-	-	-	-	-	-	-	23	18	-	1

* Delayed reports: Encephalitis, primary: Wyo. 1
Hepatitis, serum: Ariz. 1
Hepatitis, infectious: Me. 3, Ohio delete 1
Malaria: Mich. 3

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

APRIL 19, 1969 AND APRIL 20, 1968 (16th WEEK) - CONTINUED

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS	POLIOMYELITIS			RUBELLA
		Cumulative			Cumulative			Total	Paralytic		
	1969	1969	1968	1969	1969	1968	1969	1969	1969	Cum. 1969	1969
UNITED STATES...	1,161	9,592	10,425	103	1,370	1,205	2,727	-	-	1	2,214
NEW ENGLAND.....	127	490	402	-	37	60	533	-	-	-	175
Maine.*.....	-	2	13	-	2	4	22	-	-	-	3
New Hampshire.....	85	160	57	-	-	6	3	-	-	-	3
Vermont.....	-	2	1	-	-	1	121	-	-	-	1
Massachusetts.*....	13	79	145	-	19	28	212	-	-	-	103
Rhode Island.....	-	9	1	-	4	4	29	-	-	-	2
Connecticut.....	29	238	185	-	12	17	146	-	-	-	63
MIDDLE ATLANTIC.....	523	3,205	1,537	23	183	193	197	-	-	-	105
New York City.....	362	2,225	450	1	37	35	149	-	-	-	63
New York, Up-State.	62	337	759	7	32	35	NN	-	-	-	21
New Jersey.....	42	317	266	11	66	70	48	-	-	-	18
Pennsylvania.....	57	326	62	4	48	53	NN	-	-	-	3
EAST NORTH CENTRAL...	94	1,023	2,346	18	175	130	416	-	-	-	403
Ohio.....	14	116	189	10	65	34	27	-	-	-	27
Indiana..*.....	36	301	372	3	23	18	82	-	-	-	157
Illinois.....	11	180	963	1	30	30	38	-	-	-	41
Michigan..*.....	7	105	146	4	48	36	114	-	-	-	94
Wisconsin.....	26	321	676	-	9	12	155	-	-	-	84
WEST NORTH CENTRAL...	5	272	227	2	67	51	137	-	-	-	183
Minnesota.....	-	1	7	-	12	14	14	-	-	-	12
Iowa.....	-	153	41	1	10	4	84	-	-	-	140
Missouri.....	2	14	63	1	24	10	24	-	-	-	5
North Dakota.....	-	6	77	-	-	2	10	-	-	-	7
South Dakota.....	-	-	4	-	-	4	NN	-	-	-	-
Nebraska.....	3	98	27	-	8	4	5	-	-	-	18
Kansas.....	-	-	8	-	13	13	-	-	-	-	1
SOUTH ATLANTIC.....	137	1,492	876	19	251	268	297	-	-	-	411
Delaware.....	22	133	7	-	4	3	5	-	-	-	8
Maryland.....	-	13	51	-	21	16	18	-	-	-	53
Dist. of Columbia..	-	-	6	-	5	9	-	-	-	-	29
Virginia.....	79	595	161	2	31	19	43	-	-	-	74
West Virginia.*....	10	145	149	-	12	6	133	-	-	-	129
North Carolina.....	2	129	220	4	37	57	NN	-	-	-	-
South Carolina.....	6	72	10	4	39	47	10	-	-	-	12
Georgia.....	-	1	3	6	40	47	-	-	-	-	-
Florida.....	18	404	269	3	62	64	88	-	-	-	106
EAST SOUTH CENTRAL...	1	49	260	6	77	100	116	-	-	-	242
Kentucky.....	-	21	71	-	22	40	47	-	-	-	161
Tennessee.....	1	13	45	2	33	30	69	-	-	-	68
Alabama.....	-	-	45	3	13	14	-	-	-	-	9
Mississippi.....	-	15	99	1	9	16	-	-	-	-	4
WEST SOUTH CENTRAL...	212	2,266	2,756	16	200	235	308	-	-	1	216
Arkansas.....	-	3	-	2	22	13	-	-	-	-	2
Louisiana.....	4	70	1	4	49	61	-	-	-	-	14
Oklahoma.....	-	105	101	1	20	45	20	-	-	-	12
Texas.....	208	2,088	2,654	9	109	116	288	-	-	1	188
MOUNTAIN.....	29	237	491	1	31	15	267	-	-	-	203
Montana.....	-	4	55	-	4	2	72	-	-	-	1
Idaho.....	-	36	11	-	5	3	4	-	-	-	3
Wyoming.....	-	-	42	-	-	-	-	-	-	-	-
Colorado.....	-	20	219	-	6	7	39	-	-	-	132
New Mexico.....	20	107	48	1	6	-	49	-	-	-	17
Arizona.....	9	68	108	-	7	1	96	-	-	-	47
Utah.....	-	1	3	-	1	-	7	-	-	-	3
Nevada.....	-	1	5	-	2	2	-	-	-	-	-
PACIFIC.....	33	558	1,530	18	349	153	456	-	-	-	276
Washington.....	5	39	381	6	48	25	182	-	-	-	103
Oregon.....	-	121	321	-	8	14	7	-	-	-	13
California.....	28	380	800	11	282	105	247	-	-	-	146
Alaska.....	-	13	-	-	4	-	1	-	-	-	-
Hawaii.....	-	5	28	1	7	9	19	-	-	-	14
Puerto Rico.....	30	253	209	1	7	16	12	-	-	-	2

* Delayed reports: Measles: Mass. delete 10, Mich. delete 1, W. Va. delete 7
Meningococcal infections: Ind. delete 2
Mumps: Me. 11
Rubella: W. Va. 7

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

APRIL 19, 1969 AND APRIL 20, 1968 (16th 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...	11,227	3	32	1	27	4	62	1	2	88	1,225
NEW ENGLAND.....	2,014	-	-	-	-	1	1	-	-	-	4
Maine..*.....	6	-	-	-	-	-	-	-	-	-	3
New Hampshire.....	47	-	-	-	-	-	-	-	-	-	-
Vermont.....	3	-	-	-	-	-	-	-	-	-	1
Massachusetts.....	395	-	-	-	-	1	1	-	-	-	-
Rhode Island.....	97	-	-	-	-	-	-	-	-	-	-
Connecticut.....	1,466	-	-	-	-	-	-	-	-	-	-
MIDDLE ATLANTIC.....	738	-	5	-	1	2	9	-	-	4	36
New York City.....	50	-	3	-	1	1	6	-	-	-	-
New York, Up-State.	539	-	2	-	-	-	1	-	-	3	34
New Jersey.....	NN	-	-	-	-	-	-	-	-	-	-
Pennsylvania.....	149	-	-	-	-	1	2	-	-	1	2
EAST NORTH CENTRAL...	886	-	3	-	2	-	6	-	-	5	69
Ohio.*.....	172	-	-	-	-	-	4	-	-	-	17
Indiana.....	250	-	-	-	1	-	-	-	-	2	17
Illinois.....	151	-	1	-	1	-	-	-	-	-	13
Michigan.....	225	-	2	-	-	-	2	-	-	-	1
Wisconsin.....	88	-	-	-	-	-	-	-	-	3	21
WEST NORTH CENTRAL...	293	-	1	-	4	-	-	-	-	16	225
Minnesota.....	18	-	-	-	-	-	-	-	-	5	54
Iowa.....	123	-	-	-	-	-	-	-	-	1	31
Missouri.....	13	-	-	-	3	-	-	-	-	5	73
North Dakota.....	53	-	-	-	-	-	-	-	-	4	33
South Dakota.*.....	24	-	-	-	-	-	-	-	-	-	13
Nebraska.....	62	-	-	-	-	-	-	-	-	-	8
Kansas.....	-	-	1	-	1	-	-	-	-	1	13
SOUTH ATLANTIC.....	1,800	1	8	-	11	-	6	-	-	22	371
Delaware.....	25	-	-	-	-	-	-	-	-	-	-
Maryland.....	293	-	-	-	-	-	2	-	-	-	-
Dist. of Columbia..	-	-	2	-	-	-	-	-	-	-	-
Virginia.....	933	-	-	-	-	-	-	-	-	6	216
West Virginia.....	140	1	1	-	2	-	-	-	-	5	59
North Carolina.....	16	-	1	-	4	-	1	-	-	1	4
South Carolina.....	102	-	1	-	-	-	1	-	-	-	-
Georgia.....	24	-	-	-	1	-	1	-	-	3	27
Florida.....	267	-	3	-	4	-	1	-	-	7	65
EAST SOUTH CENTRAL...	1,459	-	4	1	5	-	8	-	1	18	221
Kentucky.....	92	-	2	-	-	-	-	-	-	10	125
Tennessee.....	1,220	-	2	1	5	-	7	-	1	5	74
Alabama.....	99	-	-	-	-	-	-	-	-	3	22
Mississippi.....	48	-	-	-	-	-	1	-	-	-	-
WEST SOUTH CENTRAL...	624	2	6	-	2	-	7	-	-	12	164
Arkansas.....	26	-	-	-	-	-	4	-	-	-	12
Louisiana.....	5	1	4	-	-	-	-	-	-	-	13
Oklahoma.....	33	-	1	-	2	-	-	-	-	1	26
Texas.....	560	1	1	-	-	-	3	-	-	11	113
MOUNTAIN.....	2,331	-	-	-	2	-	10	-	-	-	28
Montana.....	15	-	-	-	-	-	-	-	-	-	-
Idaho.....	176	-	-	-	-	-	-	-	-	-	-
Wyoming.....	232	-	-	-	-	-	5	-	-	-	11
Colorado.....	1,349	-	-	-	-	-	1	-	-	-	2
New Mexico.....	196	-	-	-	1	-	2	-	-	-	7
Arizona.....	191	-	-	-	-	-	1	-	-	-	5
Utah.....	172	-	-	-	1	-	-	-	-	-	-
Nevada.....	-	-	-	-	-	-	1	-	-	-	3
PACIFIC.....	1,082	-	5	-	-	1	15	1	1	11	107
Washington.....	356	-	1	-	-	-	1	-	-	-	-
Oregon.....	99	-	-	-	-	-	-	-	-	-	-
California.....	603	-	4	-	-	1	14	1	1	11	107
Alaska.....	14	-	-	-	-	-	-	-	-	-	-
Hawaii.....	10	-	-	-	-	-	-	-	-	-	-
Puerto Rico.....	-	-	2	-	-	-	3	-	-	1	7

* Delayed reports: SST: Me. 25, Ohio 3
Rabies in animals: S. Dak. 13

Week No. 16

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

(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:	722	433	59	24
Boston, Mass.	238	136	22	9
Bridgeport, Conn.	48	30	4	2
Cambridge, Mass.	30	22	3	1
Fall River, Mass.	25	15	1	-
Hartford, Conn.	55	32	2	-
Lowell, Mass.	32	24	3	-
Lynn, Mass.	20	14	3	2
New Bedford, Mass.	23	16	1	-
New Haven, Conn.	54	27	-	4
Providence, R. I.	68	36	7	1
Somerville, Mass.	11	8	-	-
Springfield, Mass.	43	29	5	2
Waterbury, Conn.	19	7	-	1
Worcester, Mass.	56	37	8	2
MIDDLE ATLANTIC:	3,343	1,988	127	125
Albany, N. Y.	49	29	1	2
Allentown, Pa.	55	32	5	4
Buffalo, N. Y.	162	89	5	8
Camden, N. J.	44	19	1	3
Elizabeth, N. J.	29	19	-	-
Erie, Pa.	48	28	5	5
Jersey City, N. J.	55	36	4	2
Newark, N. J.	84	38	1	5
New York City, N. Y.	1,636	989	53	50
Paterson, N. J.	34	15	1	2
Philadelphia, Pa.	499	302	12	16
Pittsburgh, Pa.	206	111	17	7
Reading, Pa.	55	38	1	1
Rochester, N. Y.	143	90	7	12
Schenectady, N. Y.	26	13	1	-
Scranton, Pa.	42	25	-	2
Syracuse, N. Y.	61	42	2	2
Trenton, N. J.	60	37	6	2
Utica, N. Y.	26	19	5	-
Yonkers, N. Y.	29	17	-	2
EAST NORTH CENTRAL:	2,590	1,515	91	124
Akron, Ohio	73	49	-	2
Canton, Ohio	27	15	-	3
Chicago, Ill.	740	406	33	34
Cincinnati, Ohio	158	106	2	8
Cleveland, Ohio	200	101	1	12
Columbus, Ohio	131	71	1	8
Dayton, Ohio	83	39	4	5
Detroit, Mich.	342	215	15	9
Evansville, Ind.	35	24	3	1
Flint, Mich.	56	31	1	5
Fort Wayne, Ind.	46	26	2	4
Gary, Ind.	32	17	1	4
Grand Rapids, Mich.	48	33	4	1
Indianapolis, Ind.	176	100	4	13
Madison, Wis.	24	16	5	1
Milwaukee, Wis.	126	71	2	6
Peoria, Ill.	40	24	3	2
Rockford, Ill.	38	30	2	-
South Bend, Ind.	42	23	-	2
Toledo, Ohio	96	60	4	4
Youngstown, Ohio	77	58	4	-
WEST NORTH CENTRAL:	843	498	29	46
Des Moines, Iowa	55	34	4	1
Duluth, Minn.	19	15	1	3
Kansas City, Kans.	47	28	5	5
Kansas City, Mo.	127	74	2	6
Lincoln, Nebr.	39	21	-	-
Minneapolis, Minn.	115	71	7	5
Omaha, Nebr.	78	48	3	3
St. Louis, Mo.	241	127	3	18
St. Paul, Minn.	77	59	2	3
Wichita, Kans.	45	21	2	2
SOUTH ATLANTIC:	1,138	627	55	47
Atlanta, Ga.	137	60	7	4
Baltimore, Md.	244	139	6	7
Charlotte, N. C.	45	22	1	1
Jacksonville, Fla.	76	42	3	5
Miami, Fla.	114	61	-	6
Norfolk, Va.	42	22	5	2
Richmond, Va.	82	46	6	1
Savannah, Ga.	45	25	5	3
St. Petersburg, Fla.	88	74	1	-
Tampa, Fla.	61	36	13	2
Washington, D. C.	150	76	7	8
Wilmington, Del.	54	24	1	8
EAST SOUTH CENTRAL:	737	407	42	35
Birmingham, Ala.	98	54	3	1
Chattanooga, Tenn.	43	22	8	2
Knoxville, Tenn.	43	27	2	1
Louisville, Ky.	174	96	17	15
Memphis, Tenn.	149	80	3	6
Mobile, Ala.	63	34	2	4
Montgomery, Ala.	61	31	3	2
Nashville, Tenn.	106	63	4	4
WEST SOUTH CENTRAL:	1,238	649	52	67
Austin, Tex.	43	29	7	2
Baton Rouge, La.	41	20	2	4
Corpus Christi, Tex.	22	13	1	1
Dallas, Tex.	180	87	3	13
El Paso, Tex.	34	19	-	4
Fort Worth, Tex.	92	46	4	5
Houston, Tex.	242	118	4	10
Little Rock, Ark.	79	37	9	5
New Orleans, La.	164	64	6	11
Oklahoma City, Okla.	95	57	2	1
San Antonio, Tex.	114	73	4	7
Shreveport, La.	59	42	3	3
Tulsa, Okla.	73	44	7	1
MOUNTAIN:	486	283	24	18
Albuquerque, N. Mex.	52	22	3	2
Colorado Springs, Colo.	22	14	2	1
Denver, Colo.	106	70	7	2
Ogden, Utah	22	16	5	1
Phoenix, Ariz.	144	76	2	6
Pueblo, Colo.	27	19	2	-
Salt Lake City, Utah	55	32	1	4
Tucson, Ariz.	58	34	2	2
PACIFIC:	1,733	1,077	44	57
Berkeley, Calif.	24	17	-	-
Fresno, Calif.	49	25	1	1
Glendale, Calif.	40	30	-	1
Honolulu, Hawaii	54	26	2	4
Long Beach, Calif.	116	83	2	1
Los Angeles, Calif.	580	361	15	16
Oakland, Calif.	77	56	-	1
Pasadena, Calif.	27	14	1	-
Portland, Oreg.	135	80	5	6
Sacramento, Calif.	56	38	-	1
San Diego, Calif.	108	65	3	1
San Francisco, Calif.	160	93	6	9
San Jose, Calif.	61	45	2	2
Seattle, Wash.	134	71	1	9
Spokane, Wash.	47	30	5	4
Tacoma, Wash.	65	43	1	1
Total	12,830	7,477	523	543

*Estimate - based on average percent of divisional total.

Cumulative Totals
including reported corrections for previous weeks

All Causes, All Ages	225,475
All Causes, Age 65 and over	131,015
Pneumonia and Influenza, All Ages	13,731
All Causes, Under 1 Year of Age	10,048

MENINGOCOCCAL – *(Continued from page 135)*

were submitted from an Army base in the Middle Atlantic division; no isolates were received from California, although the state reported an unusually high incidence of meningococcal disease for the first 3 months of 1969 (see accompanying epidemiologic note).

For the first 3 months of 1969, the percentage of submitted isolates from cases of meningococcal disease inhibited by sulfadiazine concentrations of 1 mg percent or less decreased to 27.6 percent (Table 4). This reflects the increased percentage of group C isolates along with the marked decrease in percent of group C strains inhibited by that concentration of sulfadiazine. For the first 3 months of 1969, 92.7 percent of the group C isolates were resistant to sulfadiazine. The percentage of group B sulfadiazine resistant isolates has not changed significantly although the relative proportion of group B isolates submitted to NCDC for sensitivity testing has decreased. *(Reported by the Bacterial Diseases Branch and the Statistics Section, Epidemiology Program, and the Bacterial Reference Unit and Bacterial Serology Unit, Laboratory Division, NCDC.)*

EPIDEMIOLOGIC NOTES AND REPORTS

FOLLOW-UP BOTULISM – Colorado

Intensive epidemiologic and laboratory studies have not found the exact source of contamination in the outbreak of botulism in which six individuals became ill after eating potato salad at a bar-restaurant near Denver (MMWR, Vol. 18, No. 15). Type A toxin was found in the blood of the two most recent cases. All six patients are recovering; no new cases have been found.

There were four commercial ingredients used in the salad, two of which, pickles and mustard, were available for laboratory tests and were found negative. The bottles of mayonnaise and relish used in the salad were no longer available. Two unopened jars of relish from the same lot were tested and found free of toxin. It was not possible to rule out contamination during preparation of the salad. *(Reported by C. S. Mollohan, M.D., M.P.H., Chief, Section of Epidemiology, Colorado State Department of Public Health; The Food and Drug Administration; the Anaerobic Bacteriology Laboratory, Laboratory Division, NCDC; and a team of EIS Officers.)*

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MORBIDITY AND MORTALITY WEEKLY REPORT

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.