



Morbidity and Mortality

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CURRENT TRENDS
MEASLES - New Jersey

Between January 1 and April 30, 1968, 307 cases of measles were reported by the New Jersey State Department of Health (NJSDH) to NCDC. This represents an 11 percent increase over the 277 cases reported during the first 4 months of 1967. Essex, Passaic, and Bergen Counties, which represent approximately 35 percent of the New Jersey 1960 population, accounted for 68 percent of the cases reported in 1968.

Since January 1, 1968, the New Jersey Division of Preventable Diseases has maintained a surveillance program by which all cases of measles reported to the NJSDH are investigated in an attempt to verify the diag-

Current Trends
Measles—New Jersey 221

Epidemiologic Notes and Reports
Gastroenteritis - Portland, Oregon 222

International Notes
Follow-Up Obscure Disease Related to African Monkeys . 223
Influenza - South America 228

nosis, define the source of transmission, and determine the relationship, if any, of the cases to measles immunization. In the first 4 months of this year, approximately 90 percent of the cases reported to the NJSDH were investigated; 38 percent of the cases investigated were found not to be measles (Table 1). If the family of a case
(Continued on page 222)

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

DISEASE	24th WEEK ENDED		MEDIAN 1963 - 1967	CUMULATIVE, FIRST 24 WEEKS		
	JUNE 15, 1968	JUNE 17, 1967		1968	1967	MEDIAN 1963 - 1967
Aseptic meningitis	67	45	39	754	791	676
Brucellosis	4	6	6	71	117	117
Diphtheria	—	1	2	86	50	79
Encephalitis, primary:						
Arthropod-borne & unspecified	19	27	—	394	600	—
Encephalitis, post-infectious	8	21	—	255	417	—
Hepatitis, serum	90	43	646	1,852	920	19,374
Hepatitis, infectious	789	740	—	20,170	18,454	—
Malaria	42	41	2	970	911	43
Measles (rubeola)	651	1,244	6,268	16,617	53,043	220,468
Meningococcal infections, total	45	35	48	1,552	1,346	1,505
Civilian	40	34	—	1,401	1,248	—
Military	5	1	—	151	98	—
Mumps	2,943	—	—	111,940	—	—
Poliomyelitis, total	1	—	1	19	10	18
Paralytic	1	—	1	19	9	16
Rubella (German measles)	1,624	1,827	—	37,659	34,740	—
Streptococcal sore throat & scarlet fever	6,294	6,350	6,350	246,028	265,882	240,727
Tetanus	3	8	58	58	81	98
Tularemia	4	3	8	81	68	102
Typhoid fever	11	4	6	127	177	162
Typhus, tick-borne (Rky. Mt. spotted fever)	8	10	10	62	67	49
Rabies in animals	45	97	94	1,725	2,151	2,151

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	2	Rabies in man:	—
Botulism:	1	Rubella, Congenital Syndrome:	3
Leptospirosis:	13	Trichinosis: Calif. - 1, N. J. - 1, NY Upstate - 4, Tex. - 1	35
Plague:	—	Typhus, murine:	6
Psittacosis: Calif. - 1	19	Polio, Unsp.:	—

MEASLES - (Continued from page 222)

could not be reached and the case was not investigated, the case was assumed to be measles and was reported as measles to NCDC.

The major portion of these reported cases (73 percent) occurred in nine New Jersey municipalities (Table 2). Measles immunization programs are being planned or have recently been held in each of these municipalities.

In Newark, cases have continued to appear despite the program on March 3, 1968, in which 6,802 children were immunized. Because of the continued occurrence of cases, weekly immunization programs are now being conducted in neighborhood houses used as clinic sites. In Paterson, since May 16, 1968, weekly (Thursday morning) immunization programs have been held in the health department clinics.

Table 1
Investigation of Cases

Month (1968)	Number Cases Reported to NJSDH*	Number Cases Investigated	Number Cases Found not to be Measles	Percent of Cases Investigated Found not to be Measles	Number Cases Reported to NCDC**	Percent of Cases Reported to NJSDH which were reported to the NCDC
January	51	48	18	37.5	33	64.7
February	86	83	30	36.1	56	65.1
March	149	139	52	37.4	97	65.1
April	176	140	55	39.3	121	68.8
Total	462	410	155	37.8	307	66.5

*New Jersey State Department of Health.

**National Communicable Disease Center - Includes the cases not investigated.

Table 2

Nine Municipalities with Measles Outbreaks, New Jersey,
January - April, 1968

Municipality	County	Number of Cases by Month				Immunization Program in
		Jan.	Feb.	Mar.	Apr.	
Absecon	Atlantic				20	May 1968
Bogata	Bergen			2	19	May 1968
Hackensack	Bergen				6	June 1968
East Orange	Essex	4	10		5	May 1968
Newark	Essex	9	13	25	25	March 1968
Orange	Essex	2	6	12		June 1968
New Brunswick	Middlesex			5	2	January 1968
Paterson	Passaic	10	4	19	14	May 1968*
Vernon	Sussex				11	May 1968

*In addition, Weekly Program in Health Department Clinics.

As a result of the recent increase in immunization programs, personnel have been unable to maintain the previous level of measles surveillance. For example, in May (through May 17) only 63 percent of the cases reported to the NJSDH were investigated, as contrasted with approximately 95 percent investigated during each of the first 3 months of 1968 (Table 1). This may explain the 10 percent increase in the number of cases reported from New Jersey to NCDC in May.

(Reported by Ronald Altman, M.D., State Epidemiologist, New Jersey State Department of Health; and two EIS Officers.)

EPIDEMIOLOGIC NOTES AND REPORTS
GASTROENTERITIS - Portland, Oregon

An outbreak of gastroenteritis which occurred in Portland, Oregon, between May 17 and 20, 1968, has been traced to a meal served at a local restaurant on May 17. A total of 450 persons, including 75 who were attending two banquets and 375 individual diners, were served at the restaurant that evening. Interviews were obtained from 83 persons; 73 had been at the banquets and 10 had been individual diners. Of the 73 persons attending the banquet, 62 (85 percent) reported illnesses, and of the 10 individual diners, eight (80 percent) reported illnesses, giving an overall attack rate of 84 percent. Onsets of illness ranged from 3 to 67 hours after the meal with a mean incubation period of 36 hours. Symptoms of the ill persons included fever (54 percent), myalgia (37 percent), abdominal cramps (64 percent), nausea (71 percent), vomiting (46 percent), and diarrhea (63 percent). The durations of illness ranged from 8 to 96 hours with a mean duration of 30 hours. No persons were hospitalized and no deaths occurred.

Food items consumed by the diners included shrimp cocktail, oyster cocktail, king crab, steak, broiled lobster, green beans, baked potato and whipped margarine, salad, sherbet, ice water, and coffee. None of the foods could be implicated as the responsible vehicle by food histories.

Stool cultures were obtained 1 week after the meal from 11 ill persons, three well persons, and four asymptomatic food handlers. All cultures were negative for salmo-

nella and shigella, but five ill persons and two food handlers had cultures positive for enteropathogenic *Escherichia coli* (EEC) 0124:B17. Follow-up cultures obtained 2 weeks after the meal revealed that only two food handlers were still positive for EEC. In addition, cultures from one other ill person and one other food handler were positive for *Clostridium perfringens*, type A. Inspection of the restaurant showed poor hygienic conditions in the restaurant kitchen, the presence of numerous flies, and improper food preparation techniques. Samples of all food items, as well as scrapings of food from the cutting boards were cultured and were negative for salmonella and shigella, but several other organisms were cultured from different foods including EEC 0124:B17 from lobster, *Cl. perfringens*, type A from whipped margarine, and low concentrations of *Staphylococcus aureus* from the sherbet. Samples of the water supply as well as dye studies revealed no bacterial contamination of the water.

Subsequent investigation disclosed that similar illnesses had occurred among persons who had eaten at the restaurant on May 16. Food histories were obtained from 73 persons, 35 of whom (48 percent) had been ill. Symptoms and incubation periods were similar to those of the persons who became ill after the May 17 meal. No illnesses have been reported from persons eating at the restaurant after May 17.

Local health officials suggested numerous improvements in food handling techniques, and a follow-up inspection of the restaurant revealed great improvements in overall sanitation and techniques of food preparation.

(Reported by Vivian E. Runte, Nurse Epidemiologist, and M. A. Holmes, D.V.M., Public Health Veterinarian, Portland City Health Department; John H. Donnelly, M.D., Health Officer, and Robert Peth, Sanitarian, Multnomah County Health Department; James H. Stewart, M.D., Health Officer, and Eldred A. Henderson, Sanitarian, Washington County Health Department; and an EIS Officer.)

Editorial Note

The symptoms, long incubation period, and short durations of illness are suggestive of EEC as the causative agent in this outbreak. Whether EEC can cause gastroenteritis in adults has been a point of controversy. However several recent outbreaks have pointed to an association between EEC and gastroenteritis in adults^{1,2,3,4} (MMWR, Vol. 16, No. 30). That EEC was the responsible agent in this outbreak is impossible to prove. The fact that the organism was isolated from five ill persons and two food handlers as well as one of the food items does

suggest a possible causal relationship. All previous reported outbreaks of diarrhea in adults associated with EEC have been waterborne;^{1,2,3,4} in this outbreak, no food items were implicated by food histories although EEC 0124:B17 was recovered from lobster. Only a minority of those who became ill had eaten lobster, and it would appear that the outbreak was not caused by one particular food item. Although contaminated water is certainly a possibility, it seems unlikely that the exact route of contamination can be identified.

References:

- ¹Schroeder, S.A., Caldwell, J.R., Vernon, T.M., White, P.C., Granger, S.I., and Bennett, J.V.: A waterborne outbreak of gastroenteritis in adults associated with enteropathogenic *E. coli* 0111:B4. *Lancet* 1:737-739, 1968.
- ²Costin, I.D., Voiculescu, D., and Gorcea, V.: An outbreak of food poisoning in adults associated with *Escherichia coli* serotype 86:B7:H34. *Path Microbiol* 27:68-78, 1964.
- ³Lanyi, B., Szita, J., Ringelhann, B., and Kovach, K.: A waterborne outbreak of enteritis associated with *Escherichia coli* serotype 124:72:32. *Acta Microbiol Acad Sci Hung* 6:77-84, 1959.
- ⁴Bengtsson, S., Berg, R., Danielsson, D., Landmark, K.M., Norbring, F., and Sandler, O.: A waterborne epidemic of enteropathogenic *E. coli*. Translated from *Sartryck ur LaKartidningen* 63:4599, 1966.

INTERNATIONAL NOTES FOLLOW-UP OBSCURE DISEASE RELATED TO AFRICAN MONKEYS

In the fall of 1967, NCDC was first informed of a disease of unknown etiology in persons having contact with African green monkeys (*Cercopithecus aethiops*) (MMWR, Vol. 16, Nos. 36 and 37). The clinical disease was characterized by severe prostration, myalgia, nausea, vomiting, and diarrhea. Conjunctivitis occurred early in the disease followed by enanthem and exanthem of scarlatiniform in appearance. Leukopenia developed initially followed by leukocytosis. Thrombocytopenia with a resulting bleeding tendency from mucous membranes was reported. Later stages of the disease showed evidence of liver, heart, and brain involvement. Deaths occurred from 7 to 12 days after onset.

A total of 30 cases with 7 deaths were reported occurring most frequently in persons who had contact with monkey tissues or cell cultures, particularly kidney tissue cell cultures. No cases were attributable to contact with intact animals only. Early intensive laboratory investigation with sera and tissue from affected human cases revealed an agent (the Marburg-Frankfurt agent) that infects and kills guinea pigs with resulting splenomegaly and degeneration of the liver (MMWR, Vol. 16, Nos. 38, 42, and 43). Although rickettsia were not found, hepatic cells from guinea pigs showed large numbers of intracytoplasmic granules (500-600 μ) resembling rickettsia. Convalescent sera from febrile guinea pigs and patients were negative against rickettsialpox, typhus, and Rocky Mountain spotted fever antigens. Subsequent characterization of the agent including growth in tissue cultures, RNA content, and

electron micrographic appearance has suggested that the agent is a virus.

Recently serologic studies on 129 African green monkeys were conducted at the Special Studies Laboratory, NCDC. The monkeys' sera were tested by complement fixation (CF) tests for antibody to the African green monkey virus. Of the 129 sera tested, 65 (50 percent) had positive reactions with titers ranging from 1:8 to \geq 1:256. The rate of positive reactions did not differ significantly between sera obtained from imported animals in the United States and from animals soon after capture in Africa. The monkeys originated in Ethiopia, Kenya, and Uganda, and positive reactors were found among animals from each country.

Sera from a limited number of captured chimpanzees, gorillas, and orangutans were also tested and approximately the same percentage of animals demonstrated CF antibody as that observed for the 129 African green monkeys. In tests conducted to date, sera from bushbabies and wild rodents collected in Africa and sera from 17 U.S. laboratory workers who have had contact with green monkeys for several years have shown no antibody to the virus.

Although no known antibody cross-reactions to the Marburg-Frankfurt virus occur with any other virus, virus neutralization tests must be performed before these serologic results can be confirmed and adequately interpreted.

(Reported by Special Studies Laboratory, Virology Section, Laboratory Program, NCDC.)

Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED
JUNE 15, 1968 AND JUNE 17, 1967 (24th WEEK)

AREA	ASEPTIC MENINGITIS		BRUCELLOSIS	DIPHTHERIA	ENCEPHALITIS			HEPATITIS			MALARIA
	1968	1967			Primary including unsp. cases		Post- Infectious	Serum	Infectious		
					1968	1967			1968	1967	
UNITED STATES...	67	45	4	-	19	27	8	90	789	740	42
NEW ENGLAND.....	-	-	-	-	-	-	1	6	19	34	-
Maine*.....	-	-	-	-	-	-	-	-	-	3	-
New Hampshire*.....	-	-	-	-	-	-	-	-	-	-	-
Vermont.....	-	-	-	-	-	-	-	-	-	-	-
Massachusetts.....	-	-	-	-	-	-	1	-	11	13	-
Rhode Island.....	-	-	-	-	-	-	-	-	2	-	-
Connecticut.....	-	-	-	-	-	-	-	6	6	18	-
MIDDLE ATLANTIC.....	4	8	-	-	4	2	-	19	134	144	9
New York City.....	2	2	-	-	3	-	-	15	53	71	-
New York, up-State.....	-	2	-	-	-	2	-	-	20	25	-
New Jersey.....	2	-	-	-	1	-	-	2	33	18	4
Pennsylvania.....	-	4	-	-	-	-	-	2	28	30	5
EAST NORTH CENTRAL...	11	7	1	-	5	8	-	1	114	94	4
Ohio.....	8	-	-	-	-	7	-	-	21	22	-
Indiana.....	1	2	-	-	-	-	-	-	11	7	-
Illinois.....	2	2	-	-	4	-	-	-	33	30	2
Michigan.....	-	3	1	-	-	1	-	1	41	30	2
Wisconsin.....	-	-	-	-	1	-	-	-	8	5	-
WEST NORTH CENTRAL...	2	1	-	-	2	1	1	2	51	31	4
Minnesota.....	1	1	-	-	-	-	-	2	9	4	-
Iowa.....	-	-	-	-	-	-	1	-	6	1	-
Missouri.....	1	-	-	-	1	1	-	-	21	23	-
North Dakota.....	-	-	-	-	-	-	-	-	2	-	-
South Dakota.....	-	-	-	-	-	-	-	-	-	-	-
Nebraska.....	-	-	-	-	-	-	-	-	3	1	-
Kansas.....	-	-	-	-	1	-	-	-	10	2	4
SOUTH ATLANTIC.....	5	6	1	-	-	-	1	5	73	85	13
Delaware.....	-	1	-	-	-	-	-	-	2	5	-
Maryland.....	1	-	-	-	-	-	-	3	13	26	1
Dist. of Columbia..	-	-	-	-	-	-	-	-	-	-	-
Virginia.....	-	-	-	-	-	-	-	-	12	15	2
West Virginia.....	1	2	-	-	-	-	-	-	3	3	-
North Carolina.....	-	-	-	-	-	-	-	-	6	5	6
South Carolina.....	-	-	-	-	-	-	-	1	2	-	1
Georgia.....	-	-	1	-	-	-	-	-	22	8	2
Florida.....	3	3	-	-	-	-	1	1	13	23	1
EAST SOUTH CENTRAL...	2	1	-	-	-	1	-	-	42	50	-
Kentucky.....	2	-	-	-	-	-	-	-	5	25	-
Tennessee.....	-	-	-	-	-	1	-	-	21	12	-
Alabama.....	-	1	-	-	-	-	-	-	4	3	-
Mississippi.....	-	-	-	-	-	-	-	-	12	10	-
WEST SOUTH CENTRAL...	23	5	-	-	3	5	-	1	66	58	-
Arkansas.....	-	-	-	-	-	-	-	-	-	3	-
Louisiana.....	19	4	-	-	3	2	-	1	20	11	-
Oklahoma.....	1	-	-	-	-	-	-	-	10	2	-
Texas*.....	3	1	-	-	-	3	-	-	36	42	-
MOUNTAIN.....	1	-	1	-	-	1	-	1	34	73	4
Montana.....	-	-	-	-	-	-	-	-	8	2	-
Idaho.....	1	-	-	-	-	-	-	-	2	1	-
Wyoming.....	-	-	-	-	-	-	-	-	1	2	-
Colorado.....	-	-	1	-	-	-	-	1	14	4	2
New Mexico.....	-	-	-	-	-	1	-	-	2	48	2
Arizona.....	-	-	-	-	-	-	-	-	6	7	-
Utah.....	-	-	-	-	-	-	-	-	1	9	-
Nevada.....	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	19	17	1	-	5	9	5	55	256	171	8
Washington.....	-	-	-	-	1	1	2	1	37	14	2
Oregon.....	-	-	-	-	-	-	-	3	16	15	-
California.....	17	9	1	-	4	7	3	51	203	141	6
Alaska.....	-	-	-	-	-	-	-	-	-	-	-
Hawaii.....	2	8	-	-	-	1	-	-	-	1	-
Puerto Rico.....	-	-	-	-	-	-	-	-	21	21	-

*Delayed reports: Diphtheria: Tex. 16
Encephalitis, primary: N.H. 1
Hepatitis, infectious: Me. 3

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

JUNE 15, 1968 AND JUNE 17, 1967 (24th WEEK) - CONTINUED

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS	POLIOMYELITIS			RUBELLA
	Cumulative			Cumulative				Total	Paralytic		
	1968	1968	1967	1968	1968	1967		1968	1968	Cum. 1968	
UNITED STATES...	651	16,617	53,043	45	1,552	1,346	2,943	1	1	19	1,624
NEW ENGLAND.....	77	954	719	2	80	57	348	-	-	-	473
Maine*	-	30	214	-	6	3	9	-	-	-	11
New Hampshire*	-	113	72	-	7	2	4	-	-	-	-
Vermont.....	-	1	28	-	1	-	17	-	-	-	9
Massachusetts*	24	307	269	-	35	29	177	-	-	-	140
Rhode Island.....	-	1	60	-	7	4	36	-	-	-	100
Connecticut.....	53	502	76	2	24	19	105	-	-	-	213
MIDDLE ATLANTIC.....	179	2,916	1,954	15	268	205	184	-	-	-	263
New York City.....	121	1,258	359	5	55	35	120	-	-	-	144
New York, Up-State.	28	1,033	425	1	43	50	NN	-	-	-	47
New Jersey.....	27	490	457	6	96	78	64	-	-	-	70
Pennsylvania.....	3	135	713	3	74	42	NN	-	-	-	2
EAST NORTH CENTRAL...	106	3,374	4,690	5	175	168	871	-	-	-	287
Ohio.....	3	261	1,042	-	45	62	27	-	-	-	50
Indiana.....	24	592	538	2	23	21	51	-	-	-	11
Illinois.....	33	1,264	817	-	39	40	136	-	-	-	51
Michigan.....	11	217	833	2	52	34	343	-	-	-	66
Wisconsin.....	35	1,040	1,460	1	16	11	314	-	-	-	109
WEST NORTH CENTRAL...	7	332	2,658	1	78	62	183	-	-	-	53
Minnesota.....	2	15	122	-	18	15	35	-	-	-	2
Iowa.....	-	81	723	-	5	12	135	-	-	-	38
Missouri.....	3	76	298	-	26	12	13	-	-	-	12
North Dakota.....	2	113	780	-	3	-	-	-	-	-	-
South Dakota.....	-	4	47	-	4	6	NN	-	-	-	-
Nebraska.....	-	35	596	-	6	11	-	-	-	-	1
Kansas.....	-	8	92	1	16	6	-	-	-	-	-
SOUTH ATLANTIC.....	55	1,211	6,214	6	323	258	191	-	-	-	88
Delaware.....	-	12	37	-	5	5	13	-	-	-	6
Maryland.....	1	73	119	1	22	31	35	-	-	-	16
Dist. of Columbia..	-	6	20	1	12	9	6	-	-	-	3
Virginia.....	23	260	1,890	-	23	27	30	-	-	-	20
West Virginia.....	25	208	1,280	-	8	19	42	-	-	-	40
North Carolina.....	1	265	825	3	65	50	NN	-	-	-	-
South Carolina.....	-	12	478	-	54	24	5	-	-	-	-
Georgia.....	1	4	29	1	59	43	-	-	-	-	-
Florida.....	4	371	1,536	-	75	50	60	-	-	-	3
EAST SOUTH CENTRAL...	12	495	4,767	4	134	116	137	-	-	-	38
Kentucky.....	1	164	1,194	2	51	33	16	-	-	-	11
Tennessee.....	-	54	1,649	2	46	47	104	-	-	-	23
Alabama.....	-	69	1,280	-	18	24	14	-	-	-	4
Mississippi.....	11	208	644	-	19	12	3	-	-	-	-
WEST SOUTH CENTRAL...	85	4,247	16,434	5	263	194	254	1	1	11	118
Arkansas.....	-	2	1,399	-	15	24	-	-	-	-	-
Louisiana.....	-	2	143	3	71	77	2	-	-	-	5
Oklahoma.....	4	109	3,306	-	48	13	1	-	-	-	-
Texas.....	81	4,134	11,586	2	129	80	251	1	1	11	113
MOUNTAIN.....	44	869	4,051	-	24	25	160	-	-	-	56
Montana.....	-	66	262	-	2	-	6	-	-	-	1
Idaho.....	1	16	356	-	10	1	4	-	-	-	2
Wyoming.....	-	49	68	-	-	1	-	-	-	-	-
Colorado.....	20	436	1,338	-	7	10	41	-	-	-	21
New Mexico.....	3	80	541	-	-	3	14	-	-	-	3
Arizona.....	18	196	900	-	1	4	81	-	-	-	26
Utah.....	2	21	317	-	1	4	14	-	-	-	3
Nevada.....	-	5	269	-	3	2	-	-	-	-	-
PACIFIC.....	86	2,219	11,556	7	207	261	615	-	-	8	248
Washington.....	16	507	5,331	2	35	24	86	-	-	-	38
Oregon.....	5	417	1,460	-	16	24	15	-	-	-	11
California.....	65	1,260	4,523	5	144	203	445	-	-	8	182
Alaska.....	-	1	122	-	1	8	9	-	-	-	-
Hawaii.....	-	34	120	-	11	2	60	-	-	-	17
Puerto Rico.....	6	315	1,867	-	17	9	20	-	-	-	1

*Delayed reports: Measles: N.H. 33, Mass. delete 32
Mumps: Me. 14
Rubella: Me. 1

Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
JUNE 15, 1968 AND JUNE 17, 1967 (24th WEEK) - CONTINUED

AREA	STREPTOCOCCAL SORE THROAT & SCARLET FEVER	TETANUS		TULAREMIA		TYPHOID		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
		1968	Cum. 1968	1968	Cum. 1968	1968	Cum. 1968	1968	Cum. 1968	1968	Cum. 1968
UNITED STATES...	6,294	3	58	4	81	11	127	8	62	45	1,725
NEW ENGLAND.....	1,225	-	1	-	40	-	4	-	-	1	60
Maine.....	11	-	-	-	-	-	-	-	-	-	50
New Hampshire.....	41	-	-	-	-	-	-	-	-	-	2
Vermont.....	55	-	-	-	40	-	-	-	-	1	7
Massachusetts.....	159	-	-	-	-	-	2	-	-	-	1
Rhode Island.....	120	-	-	-	-	-	-	-	-	-	-
Connecticut.....	839	-	1	-	-	-	2	-	-	-	-
MIDDLE ATLANTIC.....	171	-	9	-	3	-	11	-	4	-	15
New York City.....	23	-	5	-	-	-	6	-	-	-	-
New York, Up-State.....	130	-	4	-	3	-	2	-	1	-	11
New Jersey.....	NN	-	-	-	-	-	-	-	-	-	-
Pennsylvania.....	18	-	-	-	-	-	3	-	3	-	4
EAST NORTH CENTRAL...	549	1	8	2	6	1	21	-	2	5	155
Ohio.....	53	-	-	-	1	-	11	-	1	2	62
Indiana.....	111	-	1	-	-	-	1	-	-	-	56
Illinois.....	196	1	5	2	4	1	8	-	1	2	17
Michigan.....	64	-	2	-	1	-	-	-	-	1	9
Wisconsin.....	125	-	-	-	-	-	1	-	-	-	11
WEST NORTH CENTRAL...	182	-	2	-	6	-	5	-	2	11	388
Minnesota.....	20	-	-	-	-	-	-	-	-	2	109
Iowa.....	33	-	-	-	-	-	-	-	-	2	73
Missouri.....	34	-	2	-	4	-	3	-	-	2	68
North Dakota.....	46	-	-	-	-	-	-	-	-	4	65
South Dakota.....	6	-	-	-	1	-	1	-	1	-	34
Nebraska.....	34	-	-	-	-	-	1	-	1	-	19
Kansas.....	9	-	-	-	1	-	-	-	-	1	20
SOUTH ATLANTIC.....	904	-	11	-	5	4	35	6	39	5	195
Delaware.....	1	-	-	-	-	-	-	-	-	-	-
Maryland.....	330	-	-	-	-	-	5	-	3	-	3
Dist. of Columbia.....	22	-	1	-	-	-	1	-	-	-	-
Virginia.....	215	-	2	-	1	1	7	2	17	-	82
West Virginia.....	158	-	1	-	-	-	-	-	-	2	26
North Carolina.....	8	-	2	-	2	-	2	1	12	-	7
South Carolina.....	9	-	1	-	-	-	-	-	1	-	-
Georgia.....	6	-	-	-	1	1	9	2	4	2	25
Florida.....	155	-	4	-	1	2	11	1	2	1	52
EAST SOUTH CENTRAL...	818	1	8	-	6	2	15	2	8	7	429
Kentucky.....	28	-	1	-	1	-	2	-	1	2	200
Tennessee.....	674	-	2	-	4	2	10	2	5	4	210
Alabama.....	49	-	2	-	-	-	-	-	1	1	19
Mississippi.....	67	1	3	-	1	-	3	-	1	-	-
WEST SOUTH CENTRAL...	495	-	7	1	11	-	9	-	6	8	318
Arkansas.....	16	-	1	-	1	-	1	-	-	-	36
Louisiana.....	7	-	4	-	1	-	1	-	-	-	30
Oklahoma.....	36	-	-	-	2	-	2	-	4	2	99
Texas.....	436	-	2	1	7	-	5	-	2	6	153
MOUNTAIN.....	1,111	-	-	1	4	1	9	-	1	1	38
Montana.....	19	-	-	-	-	-	-	-	-	-	-
Idaho.....	51	-	-	-	-	-	-	-	-	-	-
Wyoming.....	5	-	-	1	1	-	1	-	-	-	2
Colorado.....	749	-	-	-	1	-	2	-	1	-	1
New Mexico.....	83	-	-	-	-	1	6	-	-	-	17
Arizona.....	91	-	-	-	-	-	-	-	-	1	18
Utah.....	113	-	-	-	2	-	-	-	-	-	-
Nevada.....	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	839	1	12	-	-	3	18	-	-	7	127
Washington.....	128	-	-	-	-	-	-	-	-	-	-
Oregon.....	58	-	1	-	-	-	2	-	-	-	3
California.....	531	1	11	-	-	3	16	-	-	7	124
Alaska.....	29	-	-	-	-	-	-	-	-	-	-
Hawaii.....	93	-	-	-	-	-	-	-	-	-	-
Puerto Rico.....	10	-	5	-	-	-	-	-	-	-	15

*Delayed reports: SST: Me. 331, D.C. 94
Tetanus: Mich. 1

Morbidity and Mortality Weekly Report

227

Week No.

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED JUNE 15, 1968

24

(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:	736	463	29	42	SOUTH ATLANTIC:	1,223	582	56	115
Boston, Mass.-----	234	128	15	17	Atlanta, Ga.-----	128	58	2	6
Bridgeport, Conn.-----	36	29	3	2	Baltimore, Md.-----	288	133	8	23
Cambridge, Mass.-----	29	22	-	-	Charlotte, N. C.-----	43	17	1	5
Fall River, Mass.-----	34	24	-	3	Jacksonville, Fla.-----	86	40	1	2
Hartford, Conn.-----	52	29	-	5	Miami, Fla.-----	100	60	1	5
Lowell, Mass.-----	37	21	3	2	Norfolk, Va.-----	54	25	8	5
Lynn, Mass.-----	14	9	-	-	Richmond, Va.-----	82	42	6	4
New Bedford, Mass.-----	21	17	1	1	Savannah, Ga.-----	26	10	4	2
New Haven, Conn.-----	49	30	-	4	St. Petersburg, Fla.-----	75	60	8	2
Providence, R. I.-----	71	38	1	5	Tampa, Fla.-----	52	25	7	-
Somerville, Mass.-----	16	12	-	-	Washington, D. C.-----	251	93	9	59
Springfield, Mass.-----	52	40	4	-	Wilmington, Del.-----	38	19	1	2
Waterbury, Conn.-----	39	25	-	1					
Worcester, Mass.-----	52	39	2	2	EAST SOUTH CENTRAL:	588	305	34	27
MIDDLE ATLANTIC:	3,487	2,014	128	144	Birmingham, Ala.-----	81	51	1	-
Albany, N. Y.-----	52	29	-	3	Chattanooga, Tenn.-----	57	30	9	4
Allentown, Pa.-----	38	30	2	2	Knoxville, Tenn.-----	48	26	2	-
Buffalo, N. Y.-----	178	96	4	10	Louisville, Ky.-----	129	73	12	5
Camden, N. J.-----	41	24	1	1	Memphis, Tenn.-----	115	53	2	10
Elizabeth, N. J.-----	31	18	-	-	Mobile, Ala.-----	50	24	1	2
Erie, Pa.-----	51	26	4	1	Montgomery, Ala.-----	34	15	4	2
Jersey City, N. J.-----	70	32	1	3	Nashville, Tenn.-----	74	33	3	4
Newark, N. J.-----	83	42	2	4					
New York City, N. Y.-----	1,796	1,036	74	66	WEST SOUTH CENTRAL:	1,211	620	26	83
Paterson, N. J.-----	43	24	2	3	Austin, Tex.-----	39	24	5	2
Philadelphia, Pa.-----	490	276	11	29	Baton Rouge, La.-----	37	20	2	2
Pittsburgh, Pa.-----	158	84	1	3	Corpus Christi, Tex.-----	27	13	-	2
Reading, Pa.-----	47	35	7	-	Dallas, Tex.-----	172	88	3	11
Rochester, N. Y.-----	133	82	2	12	El Paso, Tex.-----	49	27	2	5
Schenectady, N. Y.-----	21	16	-	1	Fort Worth, Tex.-----	80	43	1	9
Scranton, Pa.-----	28	21	3	-	Houston, Tex.-----	238	99	1	10
Syracuse, N. Y.-----	90	54	4	4	Little Rock, Ark.-----	64	37	2	2
Trenton, N. J.-----	57	30	2	-	New Orleans, La.-----	186	88	3	12
Utica, N. Y.-----	38	31	4	-	Oklahoma City, Okla.-----	78	44	2	2
Yonkers, N. Y.-----	42	28	4	2	San Antonio, Tex.-----	136	80	-	15
					Shreveport, La.-----	35	18	1	2
					Tulsa, Okla.-----	70	39	4	9
EAST NORTH CENTRAL:	2,937	1,744	109	126	MOUNTAIN:	435	245	16	22
Akron, Ohio-----	62	43	-	1	Albuquerque, N. Mex.-----	49	29	5	4
Canton, Ohio-----	47	26	3	3	Colorado Springs, Colo.-----	17	10	1	1
Chicago, Ill.-----	896	533	36	44	Denver, Colo.-----	104	56	5	1
Cincinnati, Ohio-----	150	94	6	6	Ogden, Utah-----	14	10	2	1
Cleveland, Ohio-----	243	129	7	8	Phoenix, Ariz.-----	112	62	-	8
Columbus, Ohio-----	135	70	1	8	Pueblo, Colo.-----	20	17	1	-
Dayton, Ohio-----	91	55	3	1	Salt Lake City, Utah-----	64	30	-	5
Detroit, Mich.-----	405	256	9	12	Tucson, Ariz.-----	55	31	2	2
Evansville, Ind.-----	47	28	4	-					
Flint, Mich.-----	63	38	2	2	PACIFIC:	1,748	1,039	24	71
Fort Wayne, Ind.-----	36	22	-	-	Berkeley, Calif.-----	28	21	-	-
Gary, Ind.-----	55	25	6	6	Fresno, Calif.-----	38	19	2	2
Grand Rapids, Mich.-----	70	45	6	-	Glendale, Calif.-----	37	26	-	1
Indianapolis, Ind.-----	158	73	2	11	Honolulu, Hawaii-----	52	23	2	4
Madison, Wis.-----	45	20	6	6	Long Beach, Calif.-----	107	56	5	4
Milwaukee, Wis.-----	133	84	6	8	Los Angeles, Calif.-----	644	400	10	36
Peoria, Ill.-----	50	24	1	6	Oakland, Calif.-----	89	52	-	4
Rockford, Ill.-----	28	18	3	-	Pasadena, Calif.-----	29	23	-	-
South Bend, Ind.-----	36	23	1	2	Portland, Oreg.-----	107	71	1	2
Toledo, Ohio-----	112	78	3	2	Sacramento, Calif.-----	57	28	-	2
Youngstown, Ohio-----	75	60	4	2	San Diego, Calif.-----	99	51	-	8
					San Francisco, Calif.-----	183	94	2	-
WEST NORTH CENTRAL:	849	504	27	54	San Jose, Calif.-----	35	26	1	-
Des Moines, Iowa-----	65	42	3	4	Seattle, Wash.-----	149	79	1	4
Duluth, Minn.-----	16	14	2	1	Spokane, Wash.-----	57	43	-	2
Kansas City, Kans.-----	43	17	1	5	Tacoma, Wash.-----	37	27	-	2
Kansas City, Mo.-----	155	84	3	11					
Lincoln, Nebr.-----	26	11	-	2	Total	13,214	7,516	449	684
Minneapolis, Minn.-----	140	95	5	8	Cumulative Totals including reported corrections for previous weeks				
Omaha, Nebr.-----	69	45	2	3	All Causes, All Ages -----				316,072
St. Louis, Mo.-----	209	117	7	14	All Causes, Age 65 and over-----				184,548
St. Paul, Minn.-----	78	48	-	5	Pneumonia and Influenza, All Ages-----				14,009
Wichita, Kans.-----	48	31	4	1	All Causes, Under 1 Year of Age-----				14,375

INTERNATIONAL NOTES
INFLUENZA – South America

In January 1968, there was an outbreak of A2 influenza in northern Chile.¹ Subsequently, an outbreak of A2 influenza associated with marked absenteeism occurred in Santiago.

In mid-March a severe epidemic of A2 influenza was observed on Easter Island, national territory of Chile. Nearly the entire population was affected, and there were some deaths in the older age group.

In late April, A2 influenza was first noticed in Mendoza and San Juan, Argentina.² These communities are in western Argentina directly across the Andes from Santiago, Chile. The epidemic in Argentina seems to be gradually spreading from the west to the north and to the east, and suspect outbreaks have recently been reported in Buenos Aires and Pergamino. To date, nine influenza A2 viruses have been isolated at the National Influenza Center of Cordoba, Argentina.

(Reported by Dr. E. Pearson, Head, Virus Department, Instituto Bacteriologico de Chile, Santiago, Chile; Dr. Violeta Knez, Chief, Influenza Program, Universidad Nacional de Cordoba, Instituto de Virologia, Cordoba, Argentina, Dr. A. Vilches, Director, Instituto Nacional de Microbiologia, Buenos Aires, Argentina; and WHO International Influenza Center for the Americas, NCDC.)

References:

- ¹WHO Weekly Epidemiologic Record, 43:(19)241, May 10, 1968.
²WHO Weekly Epidemiologic Record, 43(24)301, June 14, 1968.

ERRATA, Vol. 17, No. 23

Page 211

In the article, "Trichinosis – Ohio," the list of persons reporting the article is incomplete. The following list is correct: "*(Reported by Ralph A. Masterson, D.V.M., M.P.H., Chief, Epidemiology Section, Jack Russell, D.V.M., Chief, Veterinary Unit, Donald Baker, Investigator, and Ohio Department of Health Laboratory, Ohio Department of Health; Fred C. Kluth, M.D., Commissioner, Lake County Health Department; and Joseph Koelliker, M.D., Willoughby, Ohio.)*"

Page 213

The page number in the reference in the article "Method of Recording Date of International Certificates of Vaccination," should be page 43 and not page 49.

Page 215

In the article "Measles Mortality – United States, 1966," the title to Figure 5 is incorrect. The title should be the following:

Figure 5
REPORTED MEASLES CASES (1912–1967) AND
DEATHS (1912–1966) PER 100,000 POPULATION,
UNITED STATES

The mortality data for 1967 are not yet available.

THE MORBIDITY AND MORTALITY WEEKLY REPORT, WITH A CIRCULATION OF 17,000, IS PUBLISHED AT THE NATIONAL COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA.

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