



Morbidity and Mortality

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HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION

EPIDEMIOLOGIC NOTES AND REPORTS
INFLUENZA

To date, in addition to the epidemic in Hong Kong, outbreaks of influenza-like illness have been reported from Singapore, the Philippines, Taiwan, and Indonesia. A2 strains from Singapore and Taiwan have been found to be similar to those from Hong Kong. None of these areas has had a major influenza outbreak during the past 2-3 years.

On September 2, 1968, two cases of influenza-like illness in Atlanta, Georgia, were reported. The first case was a man who became ill with a typical influenza-like illness characterized by fever, malaise, cough, and myalgia 4 days after his return to the United States from the Far

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East; 2 days later his wife, who had not left the United States, also became ill. A2 influenza virus isolates from both of these persons have been shown to be similar to the A2/Hong Kong/68 strains. With the continuous air and sea traffic from the Far East, it is quite likely that

(Continued on page 330)

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

DISEASE	36th WEEK ENDED		MEDIAN 1963 - 1967	CUMULATIVE, FIRST 36 WEEKS		
	September 7, 1968	September 9, 1967		1968	1967	MEDIAN 1963 - 1967
Aseptic meningitis	191	144	55	2,354	1,775	1,280
Brucellosis	3	3	8	148	179	179
Diphtheria	11	7	7	121	79	127
Encephalitis, primary:						
Arthropod-borne & unspecified	42	40	---	794	1,084	---
Encephalitis, post-infectious	10	11	---	367	627	---
Hepatitis, serum	71	38	568	2,946	1,480	27,108
Hepatitis, infectious	723	590		30,248	26,179	
Malaria	60	32	2	1,509	1,355	70
Measles (rubeola)	92	194	450	19,558	57,620	239,590
Meningococcal infections, total	23	21	24	2,000	1,663	2,018
Civilian	23	21	---	1,823	1,550	---
Military	---	---	---	177	113	---
Mumps	593	---	---	124,406	---	---
Poliomyelitis, total	2	3	3	37	26	71
Paralytic	2	2	2	37	22	60
Rubella (German measles)	243	123	---	43,588	39,723	---
Streptococcal sore throat & scarlet fever	4,401	4,477	3,957	300,505	323,474	291,323
Tetanus	4	6	5	105	152	172
Tularemia	1	2	2	138	125	178
Typhoid fever	24	13	13	244	285	283
Typhus, tick-borne (Rky. Mt. spotted fever)	10	18	12	228	250	198
Rabies in animals	37	80	67	2,483	3,130	3,130

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	3	Rabies in man:	---
Botulism:	4	Rubella, Congenital Syndrome: Tenn.-1	5
Leptospirosis: Fla.-1, Hawaii-2, Tenn.-1	30	Trichinosis:	47
Plague:	2	Typhus, murine:	21
Psittacosis: W.Va.-1	35		

INFLUENZA – (Continued from front page)

there have been other introductions of the new A2 strains into the United States; however, to date, no outbreaks of influenza-like illness have been reported from the Atlanta area or elsewhere in the United States.

(Reported by Dr. W. Charles Cockburn, Chief Medical

Officer, Virus Diseases, WHO, Geneva; John E. McCroan, Ph.D., State Epidemiologist, Georgia Department of Public Health; and the Respiratory Virus Infections Unit, Laboratory Program, and the Respiratory Viral Diseases Unit, Epidemiology Program, NCDC.)

OUTBREAK OF TYPHOID FEVER – Missouri

An outbreak of typhoid fever has occurred among 200 persons who attended a Church of God (Independent Holiness) summer camp in Audrain County, Missouri, from August 1 to August 11, 1968. Persons attending the camp were from Missouri, Illinois, Oklahoma, Arizona, Kansas, and Mississippi. Investigations in each of the states involved have documented 35 clinical cases of typhoid, including 19 cases in Missouri 15 cases in Illinois, and one case in Oklahoma, in the 175 persons contacted to date. Cultures from eight cases were positive for *Salmonella typhi*; two of these isolates were phage typed and are type C-1. Stool cultures are being obtained from all persons who attended the camp, and investigation for the vehicle of infection is in progress.

The phage type C-1 is relatively uncommon and accounted for only 12.4 percent of 1,817 isolates of *S. typhi* typed in the United States between 1956 and 1961. There-

fore, any case of typhoid fever from whom *S. typhi* C-1 is isolated may be related to this outbreak and should be investigated. Any documented cases should be reported to NCDC.

(Reported by E.A. Belden, M.D., M.P.H., State Epidemiologist, Missouri Department of Health and Welfare; Mr. William Johnson, Sanitarian, Audrain County Health Department; Norman J. Rose, M.D., M.P.H., State Epidemiologist, and Mary Louise Brown, M.S., Division of Laboratories, Illinois Department of Public Health; D.L. Carpenter, M.D., M.P.H., State Epidemiologist, Oklahoma State Department of Health; D.E. Wilcox, M.D., State Epidemiologist, Kansas State Department of Health; M.H. Goodwin, Ph.D., State Epidemiologist, Arizona State Department of Health; D.L. Blakey, M.D., M.P.H., State Epidemiologist, Mississippi State Board of Health; and a team of EIS Officers.)

PRIMARY AMEBIC MENINGOENCEPHALITIS – Virginia

On August 13, 1968, a 15-year-old female resident of the State of Washington was admitted to the Medical College of Virginia Hospital, Richmond, Virginia, with a 3-day history of illness that began with frontal headaches, anorexia, and parosmia. The headaches became more severe, and on August 12 nausea, vomiting, and nuchal rigidity developed. The patient was seen by a local physician and referred to the hospital.

Previous history included frequent earaches, which required myringotomy when she was a child. Also, 8 days prior to admission, the patient had swum in an inland lake near Richmond, and the following day she had swum in a chlorinated pool. There was no history of head trauma or known exposure to any other cases of meningitis.

On admission the patient was lethargic and febrile (temperature 103°F). Other vital signs were normal. There was no significant abnormality of nasal or gingival mucosa or tympanic membranes. She had nuchal rigidity and a Babinski reflex on the right.

Lumbar puncture revealed increased cerebral spinal fluid pressure of 300 mm H₂O. The fluid was cloudy and contained 310 RBC/mm³ and 300 WBC/mm³ of which initially 87 percent were neutrophils. Motile forms of amebae were seen in the fluid. After preliminary investi-

gation, these were felt to be *Naegleria sp.*

The patient was treated with emetine, chloroquine, metronidazole, and tetracycline antibiotics. Despite this therapy, the patient became comatose and died in pulmonary edema on the second hospital day.

This is the ninth case of primary amebic meningoencephalitis to be diagnosed at the Medical College of Virginia; six of these were 1951-52 cases diagnosed retrospectively from necropsy specimens. These patients all presented with fulminating purulent meningitis, failed to respond to antibiotic therapy, and died within 48 hours after admission. A history of swimming in inland lakes was common to all. The causative organism, the free-living *Naegleria sp.*, was isolated from the last two cases.

An epidemiologic investigation is being carried out to find additional cases and to evaluate the role of swimming in inland lakes in the pathogenesis of this condition.

(Reported by Paul C. White, Jr., M.D., Director, Bureau of Epidemiology, Virginia State Department of Health, Richmond; William P. Wagner, M.D., Director, Chesterfield County Health Department, Chesterfield, Virginia; Richard J. Duma, M.D., Infectious Disease Division, Department of Medicine, Medical College of Virginia, Richmond; and an EIS Officer.)

CURRENT TRENDS
MEASLES - United States

For the first time since 1912*, the number of reported cases of measles on a weekly basis has been fewer than 100. For the week ending September 7, 1968, only 92 cases were reported to NCDC.

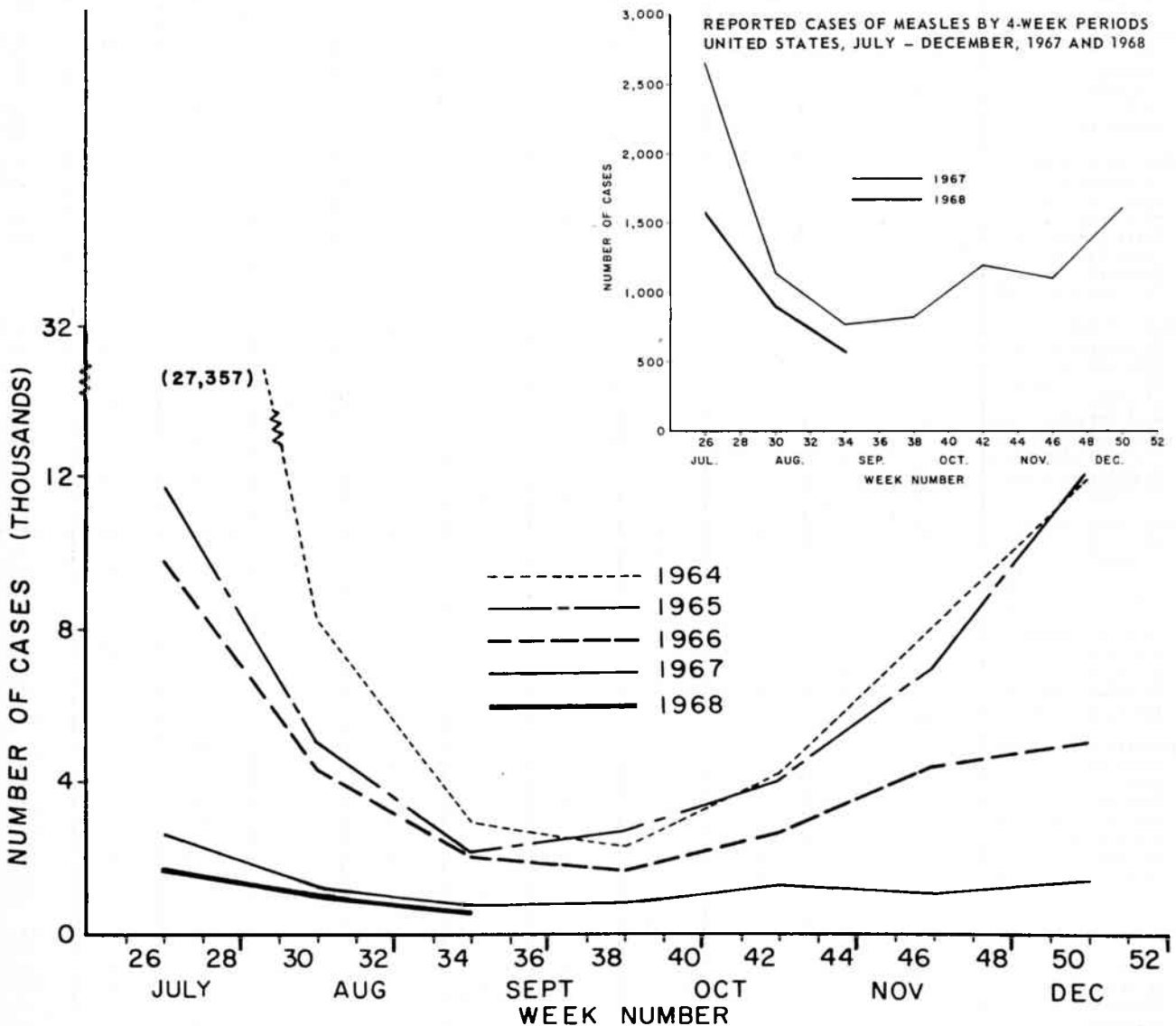
From August 11 through September 7, 1968, (weeks 33-36), 566 cases of measles were reported. This is a decrease of 350 cases from the 916 cases reported for the preceding 4-week period. Although the usual seasonal pattern of decreased incidence of measles in the summer is evident in Figure 1, the percentage decrease between 1968 and 1967 is less than the percent decrease of 1967

from each of the previous 3 years. Because of the extremely low incidence of reported cases of measles during 1967 and 1968, the ordinate (vertical) scale (Inset Figure 1) has been changed from multiples of 4,000 to 500 cases in order to compare more readily the decrease between 1967 and 1968.

(Reported by State Services Section, and Statistics Section, Epidemiology Program, NCDC.)

* Year when reporting of measles morbidity began on a national basis.

Figure 1
REPORTED CASES OF MEASLES BY 4-WEEK PERIODS, UNITED STATES
JULY - DECEMBER, 1964-1968



Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

SEPTEMBER 7, 1968 AND SEPTEMBER 9, 1967 (36th WEEK)

AREA	ASEPTIC MENINGITIS		BRUCELLOSIS	DIPHTHERIA	ENCEPHALITIS			HEPATITIS		MALARIA	
	1968	1967			Primary including unsp. cases	Post-Infectious	Serum	Infectious			
								1968	1967		1968
UNITED STATES...	191	144	3	11	42	40	10	71	723	590	60
NEW ENGLAND.....	6	4	-	-	4	-	-	2	37	44	2
Maine.....	-	-	-	-	-	-	-	-	3	5	-
New Hampshire.....	-	-	-	-	-	-	-	-	2	-	-
Vermont.....	-	-	-	-	-	-	-	-	-	-	-
Massachusetts.....	4	2	-	-	3	-	-	-	21	26	1
Rhode Island.....	2	2	-	-	1	-	-	-	9	7	-
Connecticut.....	-	-	-	-	-	-	-	2	2	6	1
MIDDLE ATLANTIC.....	33	19	-	-	9	-	2	14	109	80	34
New York City.....	22	5	-	-	-	-	-	5	28	38	2
New York, up-State.....	2	-	-	-	1	-	-	1	8	11	-
New Jersey, *.....	-	14	-	-	-	-	-	3	21	20	-
Pennsylvania.....	9	-	-	-	8	-	2	5	52	11	32
EAST NORTH CENTRAL...	42	24	-	-	8	21	1	2	72	89	1
Ohio.....	17	9	-	-	3	19	1	-	15	11	-
Indiana.....	2	-	-	-	-	-	-	-	1	3	1
Illinois.....	5	11	-	-	4	2	-	1	24	36	-
Michigan.....	18	3	-	-	1	-	-	1	27	34	-
Wisconsin.....	-	1	-	-	-	-	-	-	5	5	-
WEST NORTH CENTRAL...	7	6	2	-	11	2	1	1	39	35	-
Minnesota.....	4	4	-	-	2	-	1	1	13	10	-
Iowa.....	-	1	2	-	4	2	-	-	5	3	-
Missouri.....	1	1	-	-	1	-	-	-	17	9	-
North Dakota.....	2	-	-	-	4	-	-	-	1	-	-
South Dakota.....	-	-	-	-	-	-	-	-	-	1	-
Nebraska.....	-	-	-	-	-	-	-	-	2	1	-
Kansas.....	-	-	-	-	-	-	-	-	1	11	-
SOUTH ATLANTIC.....	22	49	-	3	-	2	2	2	78	54	4
Delaware.....	1	-	-	-	-	-	-	-	3	3	-
Maryland.....	7	43	-	-	-	-	-	1	11	11	-
Dist. of Columbia..	-	-	-	-	-	-	-	-	1	-	-
Virginia.....	3	4	-	-	-	1	-	-	12	11	3
West Virginia.....	4	-	-	-	-	1	-	-	14	1	1
North Carolina.....	3	1	-	-	-	-	-	-	8	2	-
South Carolina.....	1	-	-	-	-	-	-	1	5	3	-
Georgia.....	-	-	-	-	-	-	-	-	18	16	-
Florida.....	3	1	-	3	-	-	2	-	6	7	-
EAST SOUTH CENTRAL...	12	7	1	-	2	1	1	1	36	29	5
Kentucky.....	1	1	-	-	-	1	-	-	8	11	1
Tennessee.....	10	3	-	-	1	-	1	1	15	10	-
Alabama, *.....	-	2	1	-	-	-	-	-	4	5	3
Mississippi.....	1	1	-	-	1	-	-	-	9	3	1
WEST SOUTH CENTRAL...	7	5	-	8	2	4	-	1	52	74	1
Arkansas.....	-	-	-	-	-	-	-	-	-	16	-
Louisiana.....	-	4	-	8	2	-	-	-	13	16	-
Oklahoma.....	-	1	-	-	-	4	-	-	4	5	1
Texas.....	7	-	-	-	-	-	-	1	35	37	-
MOUNTAIN.....	5	-	-	-	-	4	-	-	35	31	-
Montana.....	4	-	-	-	-	-	-	-	6	8	-
Idaho.....	-	-	-	-	-	-	-	-	5	7	-
Wyoming.....	-	-	-	-	-	2	-	-	2	-	-
Colorado.....	1	-	-	-	-	1	-	-	14	1	-
New Mexico.....	-	-	-	-	-	1	-	-	4	-	-
Arizona.....	-	-	-	-	-	-	-	-	3	14	-
Utah.....	-	-	-	-	-	-	-	-	1	1	-
Nevada.....	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	57	30	-	-	6	6	3	48	265	154	13
Washington.....	2	1	-	-	-	-	-	-	29	10	1
Oregon.....	-	2	-	-	-	-	-	3	22	12	-
California.....	50	22	-	-	6	6	3	45	213	130	12
Alaska.....	-	-	-	-	-	-	-	-	-	2	-
Hawaii.....	5	5	-	-	-	-	-	-	1	-	-
Puerto Rico.....	-	-	-	-	-	-	-	-	30	14	-

*Delayed reports: Hepatitis, infectious: N.J. 5, Ala. 1

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

SEPTEMBER 7, 1968 AND SEPTEMBER 9, 1967 (36th WEEK) - CONTINUED

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS	POLIOMYELITIS			RUBELLA	
	1968	Cumulative		1968	Cumulative			1968	Total	Paralytic		
		1968	1967		1968	1967				1968		Cum. 1968
UNITED STATES...	92	19,558	57,620	23	2,000	1,663	593	2	2	37	243	
NEW ENGLAND.....	3	1,150	840	-	116	68	67	-	-	1	25	
Maine.*.....	-	37	238	-	6	3	4	-	-	-	4	
New Hampshire.....	-	141	74	-	7	2	-	-	-	-	1	
Vermont.....	-	2	34	-	1	1	8	-	-	-	-	
Massachusetts.....	2	361	343	-	63	32	24	-	-	1	9	
Rhode Island.....	-	5	62	-	8	4	14	-	-	-	-	
Connecticut.....	1	604	89	-	31	26	17	-	-	-	11	
MIDDLE ATLANTIC.....	27	4,054	2,255	3	358	273	51	-	-	-	23	
New York City.....	24	2,080	453	2	72	48	50	-	-	-	14	
New York, Up-State.	1	1,217	583	1	64	67	NN	-	-	-	9	
New Jersey.....	2	632	486	-	126	93	1	-	-	-	-	
Pennsylvania.*.....	-	125	733	-	96	65	NN	-	-	-	-	
EAST NORTH CENTRAL...	10	3,762	5,387	4	237	225	143	-	-	1	67	
Ohio.....	-	293	1,139	-	64	80	4	-	-	-	4	
Indiana.....	1	671	593	-	30	22	32	-	-	-	12	
Illinois.....	-	1,360	952	2	53	54	11	-	-	1	3	
Michigan.....	-	264	921	2	70	53	13	-	-	-	10	
Wisconsin.....	9	1,174	1,782	-	20	16	83	-	-	-	38	
WEST NORTH CENTRAL...	3	383	2,848	1	108	72	50	1	1	2	24	
Minnesota.....	-	16	132	-	26	18	1	-	-	-	-	
Iowa.....	-	98	748	-	6	14	29	-	-	-	8	
Missouri.....	-	81	333	-	35	15	1	1	1	2	-	
North Dakota.....	2	133	862	-	3	1	19	-	-	-	15	
South Dakota.....	-	4	52	-	5	6	NN	-	-	-	-	
Nebraska.....	1	41	628	-	6	12	-	-	-	-	1	
Kansas.....	-	10	93	1	27	6	-	-	-	-	-	
SOUTH ATLANTIC.....	11	1,502	6,870	3	403	320	53	-	-	1	16	
Delaware.....	1	16	46	-	8	6	2	-	-	-	3	
Maryland.....	1	96	157	-	32	41	6	-	-	-	1	
Dist. of Columbia..	-	6	22	-	14	10	-	-	-	-	-	
Virginia.*.....	3	299	2,188	1	35	38	2	-	-	-	1	
West Virginia.....	5	288	1,383	1	11	24	24	-	-	-	2	
North Carolina.....	-	282	848	-	76	67	NN	-	-	1	-	
South Carolina.....	-	12	511	-	56	29	-	-	-	-	-	
Georgia.....	-	4	34	-	81	49	-	-	-	-	-	
Florida.....	1	499	1,681	1	90	56	19	-	-	-	9	
EAST SOUTH CENTRAL...	3	492	5,177	7	183	129	33	-	-	2	14	
Kentucky.....	1	100	1,325	7	84	35	2	-	-	1	10	
Tennessee.....	1	62	1,864	-	52	55	31	-	-	-	4	
Alabama.*.....	-	94	1,325	-	26	26	-	-	-	1	-	
Mississippi.....	1	236	663	-	21	13	-	-	-	-	-	
WEST SOUTH CENTRAL...	25	4,758	17,336	1	303	218	43	1	1	20	29	
Arkansas.*.....	-	2	1,404	-	20	30	-	-	-	-	-	
Louisiana.....	-	2	155	-	87	86	-	-	-	-	1	
Oklahoma.....	4	117	3,351	1	50	16	1	-	-	2	5	
Texas.....	21	4,637	12,426	-	146	86	42	1	1	18	23	
MOUNTAIN.....	1	979	4,632	-	29	30	53	-	-	-	25	
Montana.*.....	-	58	282	-	3	-	7	-	-	-	-	
Idaho.....	-	20	380	-	11	3	9	-	-	-	6	
Wyoming.....	-	51	181	-	-	1	-	-	-	-	-	
Colorado.*.....	-	502	1,555	-	10	13	6	-	-	-	8	
New Mexico.....	-	102	581	-	-	3	9	-	-	-	2	
Arizona.....	1	220	1,015	-	1	4	17	-	-	-	9	
Utah.....	-	21	369	-	1	4	5	-	-	-	-	
Nevada.....	-	5	269	-	3	2	-	-	-	-	-	
PACIFIC.....	9	2,478	12,275	4	263	328	100	-	-	10	20	
Washington.....	-	515	5,422	1	38	29	4	-	-	1	1	
Oregon.....	4	514	1,593	-	21	25	2	-	-	-	6	
California.....	5	1,412	4,954	2	190	261	68	-	-	9	8	
Alaska.....	-	2	138	-	2	9	2	-	-	-	2	
Hawaii.....	-	35	168	1	12	4	24	-	-	-	3	
Puerto Rico.....	6	403	2,108	-	19	12	5	-	-	-	1	

Delayed reports: Measles: Pa. delete 4, Va. delete 1, Ala. 1, Ark. delete 1, Mont. delete 9, Colo. delete 1
 Meningococcal infections: Ala. 1
 Mumps: Me. 1

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TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

SEPTEMBER 7, 1968 AND SEPTEMBER 9, 1967 (36th WEEK) - CONTINUED

AREA	STREPTOCOCCAL SORE THROAT & SCARLET FEVER	TETANUS		TULAREMIA		TYPHOID		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
	1968	1968	Cum. 1968	1968	Cum. 1968	1968	Cum. 1968	1968	Cum. 1968	1968	Cum. 1968
UNITED STATES...	4,401	4	105	1	138	24	244	10	228	37	2,483
NEW ENGLAND.....	426	-	2	-	46	-	7	-	1	-	70
Maine.....	6	-	-	-	-	-	-	-	-	-	53
New Hampshire.....	17	-	-	-	-	-	1	-	-	-	2
Vermont.....	41	-	-	-	46	-	-	-	-	-	11
Massachusetts.....	41	-	1	-	-	-	3	-	1	-	3
Rhode Island.....	26	-	-	-	-	-	-	-	-	-	-
Connecticut.....	295	-	1	-	-	-	3	-	-	-	1
MIDDLE ATLANTIC.....	128	-	13	-	7	1	20	1	16	1	36
New York City.....	5	-	6	-	-	-	9	-	-	-	-
New York, Up-State.....	122	-	4	-	7	1	4	1	3	1	29
New Jersey.....	NN	-	-	-	-	-	4	-	6	-	-
Pennsylvania.....	1	-	3	-	-	-	3	-	7	-	7
EAST NORTH CENTRAL...	198	-	9	-	8	-	28	-	8	1	236
Ohio.....	7	-	-	-	1	-	12	-	6	-	86
Indiana.....	60	-	2	-	1	-	3	-	-	-	76
Illinois.....	45	-	5	-	5	-	12	-	2	1	32
Michigan.....	26	-	2	-	1	-	-	-	-	-	12
Wisconsin.....	60	-	-	-	-	-	1	-	-	-	30
WEST NORTH CENTRAL...	222	1	7	1	12	19	29	-	7	9	609
Minnesota.....	8	1	2	-	-	-	-	-	-	1	185
Iowa.....	65	-	2	-	-	-	1	-	1	2	100
Missouri.....	3	-	2	-	7	19	22	-	1	2	88
North Dakota.....	80	-	-	-	-	-	-	-	-	4	98
South Dakota.....	9	-	-	-	2	-	1	-	4	-	79
Nebraska.....	25	-	1	-	-	-	3	-	1	-	25
Kansas.....	32	-	-	1	3	-	2	-	-	-	34
SOUTH ATLANTIC.....	583	1	24	-	9	1	49	5	125	5	277
Delaware.....	-	-	-	-	-	-	-	-	-	-	-
Maryland.....	55	-	3	-	-	-	9	-	13	-	5
Dist. of Columbia..	9	-	2	-	-	-	1	-	-	-	1
Virginia.....	179	-	4	-	2	-	9	-	41	1	103
West Virginia.....	200	1	2	-	-	-	-	-	-	2	34
North Carolina.....	2	-	2	-	2	-	2	3	34	-	10
South Carolina.....	23	-	2	-	-	-	3	2	8	-	-
Georgia.....	-	-	-	-	3	1	13	-	26	1	44
Florida.....	115	-	9	-	2	-	12	-	3	1	80
EAST SOUTH CENTRAL...	1,006	1	14	-	7	1	29	3	43	7	540
Kentucky.....	99	-	1	-	1	-	6	1	10	5	270
Tennessee.....	734	-	5	-	5	1	16	2	28	2	247
Alabama.....	97	1	5	-	-	-	-	-	3	-	22
Mississippi.....	76	-	3	-	1	-	7	-	2	-	1
WEST SOUTH CENTRAL...	530	1	20	-	41	-	30	1	22	3	410
Arkansas.....	1	-	4	-	14	-	5	-	5	2	53
Louisiana.....	3	-	8	-	6	-	3	-	-	-	37
Oklahoma.....	55	-	-	-	8	-	12	1	10	-	117
Texas.....	471	1	8	-	13	-	10	-	7	1	203
MOUNTAIN.....	763	-	-	-	6	-	13	-	5	2	67
Montana.....	26	-	-	-	-	-	-	-	-	-	-
Idaho.....	81	-	-	-	-	-	-	-	1	-	-
Wyoming.....	17	-	-	-	1	-	1	-	-	-	3
Colorado.....	432	-	-	-	3	-	2	-	4	-	3
New Mexico.....	85	-	-	-	-	-	6	-	-	2	28
Arizona.....	52	-	-	-	-	-	3	-	-	-	32
Utah.....	60	-	-	-	2	-	-	-	-	-	-
Nevada.....	10	-	-	-	-	-	1	-	-	-	1
PACIFIC.....	545	-	16	-	2	2	39	-	1	9	238
Washington.....	47	-	1	-	-	-	2	-	-	-	2
Oregon.....	49	-	1	-	1	-	4	-	-	1	6
California.....	282	-	14	-	1	2	33	-	1	8	230
Alaska.....	8	-	-	-	-	-	-	-	-	-	-
Hawaii.....	159	-	-	-	-	-	-	-	-	-	-
Puerto Rico.....	3	-	8	-	-	-	2	-	-	-	17

*Delayed reports: SST: Me. 5

Morbidity and Mortality Weekly Report

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TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED SEPTEMBER 7, 1968

(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:	648	396	33	31	SOUTH ATLANTIC:	1,073	550	38	50
Boston, Mass.-----	229	125	9	12	Atlanta, Ga.-----	139	64	2	7
Bridgeport, Conn.-----	20	13	2	2	Baltimore, Md.-----	226	120	6	6
Cambridge, Mass.-----	22	20	-	-	Charlotte, N. C.-----	31	17	1	2
Fall River, Mass.-----	24	17	1	-	Jacksonville, Fla.-----	66	30	1	6
Hartford, Conn.-----	45	27	2	3	Miami, Fla.-----	89	53	-	4
Lowell, Mass.-----	32	24	-	1	Norfolk, Va.-----	65	32	5	5
Lynn, Mass.-----	21	12	-	-	Richmond, Va.-----	76	45	2	4
New Bedford, Mass.-----	21	15	1	1	Savannah, Ga.-----	52	28	3	4
New Haven, Conn.-----	47	23	2	3	St. Petersburg, Fla.-----	70	55	4	3
Providence, R. I.-----	65	40	9	7	Tampa, Fla.-----	48	27	5	3
Somerville, Mass.-----	14	11	-	-	Washington, D. C.-----	154	56	7	5
Springfield, Mass.-----	37	21	3	2	Wilmington, Del.-----	57	23	2	1
Waterbury, Conn.-----	17	11	-	-					
Worcester, Mass.-----	54	37	4	-	EAST SOUTH CENTRAL:	560	306	30	40
					Birmingham, Ala.-----	80	40	1	11
MIDDLE ATLANTIC:	2,908	1,696	98	128	Chattanooga, Tenn.-----	53	26	5	4
Albany, N. Y.-----	44	22	-	2	Knoxville, Tenn.-----	35	19	5	2
Allentown, Pa.-----	31	20	1	-	Louisville, Ky.-----	138	87	16	2
Buffalo, N. Y.-----	139	83	2	6	Memphis, Tenn.-----	107	53	1	13
Camden, N. J.-----	38	24	3	3	Mobile, Ala.-----	61	36	2	-
Elizabeth, N. J.-----	36	20	-	3	Montgomery, Ala.-----	23	12	-	1
Erie, Pa.-----	45	36	3	-	Nashville, Tenn.-----	63	33	-	7
Jersey City, N. J.-----	46	28	3	2					
Newark, N. J.-----	55	27	4	4	WEST SOUTH CENTRAL:	1,080	548	33	58
New York City, N. Y.-----	1,540	880	42	71	Austin, Tex.-----	27	16	3	1
Paterson, N. J.-----	21	12	-	1	Baton Rouge, La.-----	36	19	1	-
Philadelphia, Pa.-----	392	221	12	16	Corpus Christi, Tex.-----	19	7	-	2
Pittsburgh, Pa.-----	177	106	10	6	Dallas, Tex.-----	156	63	1	16
Reading, Pa.-----	44	30	1	2	El Paso, Tex.-----	38	20	2	4
Rochester, N. Y.-----	110	70	9	4	Fort Worth, Tex.-----	89	49	2	7
Schenectady, N. Y.-----	21	13	1	-	Houston, Tex.-----	194	93	3	6
Scranton, Pa.-----	35	22	3	1	Little Rock, Ark.-----	74	34	2	2
Syracuse, N. Y.-----	55	32	1	6	New Orleans, La.-----	165	80	6	9
Trenton, N. J.-----	25	11	1	-	Oklahoma City, Okla.-----	64	34	-	5
Utica, N. Y.-----	22	15	1	-	San Antonio, Tex.-----	90	57	3	3
Yonkers, N. Y.-----	32	24	1	1	Shreveport, La.-----	45	23	1	3
					Tulsa, Okla.-----	83	53	9	-
EAST NORTH CENTRAL:	2,498	1,438	68	128					
Akron, Ohio-----	83	44	-	2	MOUNTAIN:	374	210	14	23
Canton, Ohio-----	28	20	1	-	Albuquerque, N. Mex.-----	37	21	4	-
Chicago, Ill.-----	723	402	20	42	Colorado Springs, Colo.-----	21	11	1	4
Cincinnati, Ohio-----	150	96	3	7	Denver, Colo.-----	101	62	3	4
Cleveland, Ohio-----	215	111	3	10	Ogden, Utah-----	10	7	2	-
Columbus, Ohio-----	132	75	2	11	Phoenix, Ariz.-----	77	34	-	5
Dayton, Ohio-----	84	49	2	3	Pueblo, Colo.-----	19	12	1	1
Detroit, Mich.-----	326	193	7	11	Salt Lake City, Utah-----	47	28	-	5
Evansville, Ind.-----	43	28	1	2	Tucson, Ariz.-----	62	35	3	4
Flint, Mich.-----	43	25	-	6					
Fort Wayne, Ind.-----	40	26	4	2	PACIFIC:	1,362	809	26	52
Gary, Ind.-----	37	20	3	3	Berkeley, Calif.-----	20	16	1	-
Grand Rapids, Mich.-----	63	42	6	3	Fresno, Calif.-----	43	21	-	3
Indianapolis, Ind.-----	158	89	1	11	Glendale, Calif.-----	21	12	-	1
Madison, Wis.-----	26	10	1	2	Honolulu, Hawaii-----	50	25	1	5
Milwaukee, Wis.-----	105	63	2	6	Long Beach, Calif.-----	92	55	4	1
Peoria, Ill.-----	33	16	3	3	Los Angeles, Calif.-----	382	236	8	15
Rockford, Ill.-----	31	21	3	2	Oakland, Calif.-----	98	60	2	6
South Bend, Ind.-----	31	18	3	1	Pasadena, Calif.-----	42	29	-	2
Toledo, Ohio-----	88	56	3	1	Portland, Ore.-----	99	57	-	2
Youngstown, Ohio-----	59	34	-	-	Sacramento, Calif.-----	45	24	1	5
					San Diego, Calif.-----	86	64	2	1
WEST NORTH CENTRAL:	695	414	18	43	San Francisco, Calif.-----	171	93	4	3
Des Moines, Iowa-----	46	22	-	4	San Jose, Calif.-----	39	26	1	1
Duluth, Minn.-----	19	16	2	-	Seattle, Wash.-----	106	61	1	3
Kansas City, Kans.-----	26	14	2	5	Spokane, Wash.-----	37	14	1	3
Kansas City, Mo.-----	124	68	3	6	Tacoma, Wash.-----	31	16	-	1
Lincoln, Nebr.-----	25	22	-	1					
Minneapolis, Minn.-----	95	62	1	6	Total	11,198	6,367	358	553
Omaha, Nebr.-----	73	45	1	3					
St. Louis, Mo.-----	199	110	5	13	Cumulative Totals including reported corrections for previous weeks				
St. Paul, Minn.-----	56	42	2	2	All Causes, All Ages -----	460,115			
Wichita, Kans.-----	32	13	2	3	All Causes, Age 65 and over-----	265,663			
					Pneumonia and Influenza, All Ages-----	18,875			
					All Causes, Under 1 Year of Age-----	21,608			

*Estimate - based on average percent of divisional total.

EPIDEMIOLOGIC NOTES AND REPORTS
VACCINIA OUTBREAK - Indiana

On April 24, 1968, during a school immunization program, a 7-year-old girl received a primary smallpox vaccination on the right arm, despite a history of eczema in her family; she had a normal primary response. Her 16-month-old brother developed severe eczema vaccinatum 9 days later and was hospitalized and treated with Vaccinia Immune Globulin. Subsequently the four other members of the family developed vaccinia of varying severity. The intervals between vaccination of the girl and onset of illness in the other family members were 9 days for the 16-month-old brother, 14 days for her 5-year-old sister, 4-year-old sister, and 2-1/2-year-old brother, and 16 days for the mother. Other than the 7-year-old girl, no family member had been previously vaccinated. Vaccinia virus was isolated from specimens taken from two of the six family members. All patients recovered with no residua.

Investigation revealed that the family lived in crowded conditions, and that the siblings and mother of the vaccinated child had close and prolonged contact with her.

(Reported by Thomas Cortese, M.D., Dermatologist, Marion County General Hospital, Indianapolis, Indiana; Marvin Cornblath, M.D., American Red Cross Consultant for the Distribution of Vaccinia Immune Globulin, University of Illinois College of Medicine, Chicago, Illinois; A. L. Marshall, Jr., M.D., Director, Division of Communicable Disease Control, Indiana State Board of Health; and the Domestic Operations Section, Smallpox Eradication Program, and the Vesicular Disease Laboratory, Viral Exanthems Unit, Virology Section, Laboratory Program, NCDC.)

Editorial Note:

Although the 16-day interval between date of vaccination of the girl and onset of illness in her mother is within the incubation period range known for vaccinia,¹ the mother may have been infected by her 16-month-old son, who had extensive skin involvement 7 days prior to onset of the mother's symptoms.

Outbreaks of vaccinia and herpesvirus infection in families or in other small groups such as patients on pediatric wards have been reported.² Incidents of multiple cases of eczema vaccinatum have occurred among members of families, in schoolrooms, or on pediatric wards after a mass vaccination campaign has saturated the particular group with vaccinia virus.^{3,4} However, there have been no previous reports of vaccinia outbreaks of this size from a single source of vaccinia.

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3. Magaldi-Jordao, Filomena B., et al.: Outbreaks of Vaccinia in a Pemphigus Foliaceus Hospital. *Arch Derm* 85:533-4, 1962.
4. Pierret, R., et al.: Severe Vaccinia Epidemic in Eczematous Infants. *Bull Soc Fr Derm Syph* 63:63(4):409-12, 1956.

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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:

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MORBIDITY AND MORTALITY WEEKLY REPORT

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