



# Morbidity and Mortality

MAY 21 1968

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
ATLANTA, GA. 30333

PUBLIC HEALTH SERVICE

BUREAU OF DISEASE PREVENTION AND ENVIRONMENTAL CONTROL

**EPIDEMIOLOGIC NOTES AND REPORTS**  
**BOTULISM - Kotzebue, Alaska**

On February 28, 1968, after returning home from a caribou hunting trip, a 64-year-old male Eskimo complained of tremors, generalized stiffness, and difficulty in breathing. These symptoms persisted for the next 2 days and were complicated by generalized myoclonus which necessitated admission to the Alaska Native Hospital in Kotzebue. He remained lucid during the motor spasm and had no postictal depression. Anticonvulsant therapy was initiated, but his symptoms remained unchanged. The patient was subsequently transferred to the regional medical center in Anchorage for further evaluation.

When the patient was questioned on admission to the Anchorage hospital, the patient gave a history of previous

**CONTENTS**

Epidemiologic Notes and Reports  
 Botulism - Kotzebue, Alaska .....169  
 Measles - Eureka, Utah .....176  
 Summary of Reported Cases of Infectious Syphilis .....170  
 Recommendation of the Public Health Service  
 Advisory Committee on Immunization Practices  
 Plague Vaccine .....171

good health. When asked about the foods he ate prior to his illness, he reported eating cured fish,\* whipped seal oil with fish, and Eskimo ice cream.\*\* On admission, the patient was fully oriented, and his physical and neurologic examinations were normal. He was afebrile and remained so throughout his hospital stay. On the second day, he

*(Continued on page 170)*

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

DISEASE	19th WEEK ENDED		MEDIAN 1963 - 1967	CUMULATIVE, FIRST 19 WEEKS		
	May 11, 1968	May 13, 1967		1968	1967	MEDIAN 1963 - 1967
Aseptic meningitis	25	36	26	543	564	524
Brucellosis	7 9	9	5	56	81	77
Diphtheria	1	1	2	68	39	73
Encephalitis, primary:						
Arthropod-borne & unspecified	26	32	---	301	463	---
Encephalitis, post-infectious	14	29	---	199	311	---
Hepatitis, serum	82	43	769	1,425	723	15,713
Hepatitis, infectious	929	771		15,974	14,990	
Malaria	25	27	2	786	721	36
Measles (rubeola)	822	2,227	8,944	12,909	44,387	182,245
Meningococcal infections, total	36	50	56	1,349	1,113	1,249
Civilian	34	49	---	1,218	1,030	---
Military	2	1	---	131	83	---
Mumps	4,090	---	---	93,719	---	---
Poliomyelitis, total	---	---	1	15	6	8
Paralytic	---	---	1	15	5	7
Rubella (German measles)	2,274	2,157	---	28,087	24,830	---
Streptococcal sore throat & scarlet fever	8,876	10,455	9,246	207,645	225,326	202,790
Tetanus	3	1	4	39	55	72
Tularemia	34	6	5	59	55	68
Typhoid fever	7	2	7	92	117	119
Typhus, tick-borne (Rky. Mt. spotted fever)	4	3	3	15	27	12
Rabies in animals	74	93	96	1,437	1,704	1,704

**TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY**

	Cum.		Cum.
Anthrax:	2	Rabies in man:	---
Botulism:	9	Rubella, Congenital Syndrome:	3
Leptospirosis:	---	Trichinosis: Hawaii-1, Ohio-1	20
Plague:	---	Typhus, murine:	3
Psittacosis:*	13		

\*Delayed report: Psittacosis: N.Y.Upstate delete 6

## BOTULISM - (Continued from front page)

developed difficulty in swallowing, slurred speech, mild respiratory distress, and urinary retention. The gag reflex was absent, but other cranial reflexes were normal. Hyporeflexia and generalized motor weakness were present. The following tests were within normal limits: skull X-rays, lumbar puncture, spinal fluid examination, hematocrit, white blood cell count and differential, electrolytes, blood urea nitrogen, creatinine, and serum calcium. The tensilon test for myasthenia gravis was negative.

When botulism was suspected as the probable cause of illness on the second hospital day, the patient was immediately treated with 10,000 units of type E antitoxin. During the next 72 hours he received an additional 5,000 units of type E and 30,000 units of types A and B antitoxins. He improved gradually over the next week, and after 3 weeks, was discharged in good health except for slight difficulty in phonation.

Samples of the foods eaten by the patient on the hunting trip have been examined at the Anaerobic Laboratory, Laboratory Program, NCDC. A botulinum toxin has been identified in the cured fish, but its type has not yet been determined.

(Reported by Donald K. Freedman, M.D., Director, Division of Public Health, and State Epidemiologist, Juneau, Alaska; Keith M. Brownsberger, M.D., Chief of Medicine, Alaska Native Hospital, Kotzebue, Alaska; Arctic Health Research Center, PHS, Anchorage, Alaska; Anaerobic Bacteriology Laboratory, Laboratory Program, NCDC; and an EIS Officer.)

\*Cured fish is prepared by placing fresh fish in seal oil and storing it in an underground refrigerator for a number of months.  
\*\*Eskimo ice cream (agutuk) is composed of whipped seal oil, sugar, salmon or blueberries.

## SUMMARY OF REPORTED CASES OF INFECTIOUS SYPHILIS

CASES OF PRIMARY AND SECONDARY SYPHILIS: By Reporting Areas April 1968 and April 1967-Provisional Data

Reporting Area	April		Cumulative Jan-Apr		Reporting Area	April		Cumulative Jan-Apr	
	1968	1967	1968	1967		1968	1967	1968	1967
NEW ENGLAND.....	33	25	124	124	EAST SOUTH CENTRAL.....	120	129	488	593
Maine.....	-	-	1	-	Kentucky.....	10	9	38	38
New Hampshire.....	-	1	-	5	Tennessee.....	22	30	99	89
Vermont.....	-	-	-	2	Alabama.....	53	68	231	338
Massachusetts.....	16	17	73	77	Mississippi.....	35	22	120	128
Rhode Island.....	4	2	17	8	WEST SOUTH CENTRAL.....	281	246	1,152	982
Connecticut.....	13	5	33	32	Arkansas.....	11	8	46	45
MIDDLE ATLANTIC.....	293	279	1,044	1,169	Louisiana.....	60	52	264	204
Upstate New York.....	13	18	61	86	Oklahoma.....	5	13	23	42
New York City.....	196	167	657	699	Texas.....	205	173	819	691
Pa. (Excl. Phila.).....	17	16	85	91	MOUNTAIN.....	48	56	172	212
Philadelphia.....	27	26	102	93	Montana.....	-	2	2	3
New Jersey.....	40	52	139	200	Idaho.....	1	2	3	12
EAST NORTH CENTRAL.....	213	320	1,013	1,089	Wyoming.....	-	2	-	4
Ohio.....	31	73	174	229	Colorado.....	1	10	8	30
Indiana.....	45	8	113	37	New Mexico.....	14	19	48	60
Downstate Illinois.....	9	16	53	52	Arizona.....	25	20	91	97
Chicago.....	61	105	341	331	Utah.....	2	-	2	1
Michigan.....	66	111	326	426	Nevada.....	5	1	18	5
Wisconsin.....	1	7	6	14	PACIFIC.....	160	161	583	670
WEST NORTH CENTRAL.....	36	27	122	87	Washington.....	9	5	17	22
Minnesota.....	2	2	15	12	Oregon.....	3	-	12	14
Iowa.....	8	4	12	10	California.....	148	156	551	629
Missouri.....	14	11	61	28	Alaska.....	-	-	-	1
North Dakota.....	-	-	-	1	Hawaii.....	-	-	3	4
South Dakota.....	4	-	14	11	U. S. TOTAL.....	1,595	1,711	6,480	6,929
Nebraska.....	6	2	14	10	TERRITORIES.....	93	85	353	297
Kansas.....	2	8	6	15	Puerto Rico.....	91	79	329	280
SOUTH ATLANTIC.....	411	468	1,782	2,003	Virgin Islands.....	2	6	24	17
Delaware.....	3	2	12	14					
Maryland.....	21	48	151	217					
District of Columbia.....	45	49	235	206					
Virginia.....	32	24	89	99					
West Virginia.....	-	2	12	6					
North Carolina.....	67	56	251	227					
South Carolina.....	42	76	192	296					
Georgia.....	73	77	277	313					
Florida.....	128	134	563	625					

Note: Cumulative Totals include revised and delayed reports through previous months.

RECOMMENDATION OF THE PUBLIC HEALTH SERVICE  
ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES

*The Public Health Service Advisory Committee on Immunization Practices meeting on February 15, 1968, issued the following recommendation on plague vaccine.*

PLAGUE VACCINE

PLAGUE

Plague is a sylvatic infection of rodents and their ectoparasites in many parts of the world. In the western United States, a few human cases occur each year following exposure to infected wild rodents. In some countries of Asia, Africa, and South America, epidemic plague results when the domestic rat population becomes infected. Currently the area of most intensive epidemic and epizootic infection is Vietnam.

PLAGUE VACCINE

Plague vaccines have been used since the late nineteenth century, but it has never been possible to measure their effectiveness precisely. Immunization with plague vaccine, however, is known to reduce the incidence and severity of disease.

The plague vaccine licensed for use in the United States is prepared from *Pasteurella pestis* grown in artificial media, inactivated with formaldehyde, and preserved in 0.5 percent phenol.

RECOMMENDATIONS FOR VACCINE USE

Routine vaccination is not indicated for persons simply living in plague enzootic areas of the western United States or for travelers going to most of the countries reporting cases.\* Selective immunization is advisable for the following:

- 1) All persons traveling to Vietnam, Cambodia, and Laos.
- 2) All persons whose vocations or field work brings them into frequent and regular contact with wild rodents in plague enzootic areas of the western United States, South America, Africa, or Asia.
- 3) All laboratory personnel working with the *P. pestis* organism or with plague-infected rodents.

\*For a current listing, consult the most recent issue of the World Health Organization's Weekly Epidemiologic Record.

Vaccination Schedule

All injections should be given intramuscularly.

*Primary - Adults and Children Over 10 Years Old:* The primary series consists of three doses of vaccine. The first two doses, 0.5 ml. each, should be administered 4 or more weeks apart, followed by a third dose, 0.2 ml., 4 to 12 weeks after the second injection. When less time is available, satisfactory but less than optimal results can be obtained with two 0.5 ml. injections administered at least 3 weeks apart.

*Primary - Children Less Than 10 Years Old:* The primary series also is three doses of vaccine, but the doses are smaller. The manufacturer's guide to proportions of the adult dose for children is: Infants under 1 year - 1/5 adult dose; 1-4 years - 2/5 adult dose; 5-10 years - 3/5 adult dose. The intervals between injections are the same as for adults.

*Boosters:* Boosters should be given every 6 to 12 months while individuals remain in an area where the risk of exposure persists. Satisfactory doses for children and adults are the same volumes suggested for the third dose in the primary series. The primary series need never be repeated for booster doses to be effective.

*Summary:* The following table summarizes the recommended doses for primary and booster vaccination:

Dose Number	Age (Years)			
	Under 1	1-4	5-10	Over 10
1 & 2	0.1 ml.	0.2 ml.	0.3 ml.	0.5 ml.
3 & Boosters	0.04 ml.	0.08 ml.	0.12 ml.	0.2 ml.

Reactions

Mild reactions consisting of pain, reddening, and swelling at the injection site are frequently recognized. With repeated doses, systemic reactions of fever, headache, and malaise occur more often and tend to become more pronounced. Sterile abscesses are reported to occur rarely. No fatal or disabling complications have been observed.

## Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED  
MAY 11, 1968 AND MAY 13, 1967 (19th WEEK)

AREA	ASEPTIC MENINGITIS		BRUCELLOSIS	DIPHTHERIA	ENCEPHALITIS			HEPATITIS		MALARIA	
	1968	1967			Primary including unsp. cases	Post-Infectious	Serum	Infectious			
								1968	1967		1968
UNITED STATES...	25	36	7	1	26	32	14	82	929	771	25
NEW ENGLAND.....	1	-	-	-	3	5	-	1	31	37	2
Maine.....	-	-	-	-	-	-	-	-	1	1	-
New Hampshire.....	-	-	-	-	-	-	-	-	1	3	-
Vermont.....	-	-	-	-	-	-	-	-	-	2	-
Massachusetts.....	-	-	-	-	-	-	-	-	14	17	2
Rhode Island.....	1	-	-	-	2	3	-	1	11	3	-
Connecticut.....	-	-	-	-	1	2	-	-	4	11	-
MIDDLE ATLANTIC.....	3	2	-	-	4	4	2	34	140	113	2
New York City.....	1	-	-	-	-	1	-	19	54	34	1
New York, up-State.....	-	-	-	-	-	2	1	4	22	29	-
New Jersey.....	1	1	-	-	3	-	-	4	33	22	1
Pennsylvania.....	1	1	-	-	1	1	1	7	31	28	-
EAST NORTH CENTRAL...	4	1	-	-	4	6	1	1	179	121	-
Ohio.....	1	-	-	-	-	4	-	-	42	28	-
Indiana.....	-	-	-	-	-	1	-	-	18	9	-
Illinois.....	1	1	-	-	2	1	1	-	71	30	-
Michigan.....	2	-	-	-	2	-	-	1	41	51	-
Wisconsin.....	-	-	-	-	-	-	-	-	7	3	-
WEST NORTH CENTRAL...	-	-	3	-	1	1	2	-	48	86	6
Minnesota.....	-	-	-	-	-	-	1	-	11	13	-
Iowa.....	-	-	-	-	-	1	1	-	9	9	-
Missouri*.....	-	-	-	-	1	-	-	-	15	59	1
North Dakota.....	-	-	3	-	-	-	-	-	1	1	-
South Dakota.....	-	-	-	-	-	-	-	-	1	-	-
Nebraska.....	-	-	-	-	-	-	-	-	1	2	1
Kansas.....	-	-	-	-	-	-	-	-	10	2	4
SOUTH ATLANTIC.....	2	1	4	-	6	3	2	3	93	82	6
Delaware.....	-	-	-	-	1	-	-	-	2	2	-
Maryland.....	-	1	-	-	1	-	2	-	11	17	-
Dist. of Columbia..	-	-	-	-	-	-	-	-	2	1	-
Virginia.....	-	-	4	-	2	1	-	-	10	32	-
West Virginia.....	1	-	-	-	-	1	-	-	3	1	-
North Carolina.....	-	-	-	-	-	-	-	-	3	8	6
South Carolina.....	-	-	-	-	-	-	-	-	4	1	-
Georgia.....	-	-	-	-	-	-	-	-	33	6	-
Florida.....	1	-	-	-	2	1	-	3	25	14	-
EAST SOUTH CENTRAL...	-	6	-	1	2	-	-	-	57	56	2
Kentucky.....	-	-	-	1	-	-	-	-	21	27	-
Tennessee.....	-	1	-	-	2	-	-	-	25	15	-
Alabama.....	-	-	-	-	-	-	-	-	4	8	-
Mississippi.....	-	5	-	-	-	-	-	-	7	6	2
WEST SOUTH CENTRAL...	4	14	-	-	1	4	-	1	61	82	-
Arkansas.....	-	-	-	-	-	-	-	-	4	2	-
Louisiana.....	2	1	-	-	-	2	-	1	10	8	-
Oklahoma*.....	1	-	-	-	-	-	-	-	2	4	-
Texas.....	1	13	-	-	1	2	-	-	45	68	-
MOUNTAIN.....	-	-	-	-	3	1	-	-	46	40	1
Montana.....	-	-	-	-	-	-	-	-	5	3	-
Idaho.....	-	-	-	-	-	-	-	-	6	1	1
Wyoming.....	-	-	-	-	-	-	-	-	2	1	-
Colorado.....	-	-	-	-	3	1	-	-	15	16	-
New Mexico.....	-	-	-	-	-	-	-	-	5	6	-
Arizona.....	-	-	-	-	-	-	-	-	9	11	-
Utah.....	-	-	-	-	-	-	-	-	4	2	-
Nevada.....	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	11	12	-	-	2	8	7	42	274	154	6
Washington.....	-	-	-	-	-	-	-	-	17	15	-
Oregon.....	-	-	-	-	-	1	-	1	17	18	-
California.....	7	11	-	-	1	3	7	41	231	121	3
Alaska.....	-	-	-	-	-	-	-	-	7	-	-
Hawaii.....	4	1	-	-	1	4	-	-	2	-	3
Puerto Rico.....	-	-	-	-	-	-	-	-	18	16	-

\*Delayed reports: Encephalitis, primary: Mo. 1  
Hepatitis, infectious: Okla. 1

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

MAY 11, 1968 AND MAY 13, 1967 (19th 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...	822	12,909	44,387	36	1,349	1,113	4,090	-	-	15	2,274	
NEW ENGLAND.....	40	571	540	2	71	49	576	-	-	-	391	
Maine*.....	-	13	140	-	5	3	23	-	-	-	30	
New Hampshire.....	2	71	70	-	7	2	6	-	-	-	7	
Vermont.....	-	1	23	-	1	-	4	-	-	-	3	
Massachusetts*.....	21	206	209	2	31	23	238	-	-	-	238	
Rhode Island.....	-	1	38	-	6	3	114	-	-	-	-	
Connecticut.....	17	279	60	-	21	18	191	-	-	-	113	
MIDDLE ATLANTIC.....	165	2,000	1,495	10	225	170	197	-	-	-	254	
New York City.....	90	686	260	4	44	28	125	-	-	-	152	
New York, Up-State.	71	887	344	-	37	42	NN	-	-	-	41	
New Jersey*.....	-	313	362	4	80	67	72	-	-	-	51	
Pennsylvania*.....	4	114	529	2	64	33	NN	-	-	-	10	
EAST NORTH CENTRAL...	156	2,765	3,560	7	144	128	1,565	-	-	-	577	
Ohio.....	12	233	639	2	39	50	39	-	-	-	85	
Indiana.....	17	436	428	1	19	15	183	-	-	-	48	
Illinois.....	55	1,107	588	2	35	27	193	-	-	-	230	
Michigan.....	16	179	700	2	39	27	706	-	-	-	83	
Wisconsin.....	56	810	1,205	-	12	9	444	-	-	-	131	
WEST NORTH CENTRAL...	21	282	1,938	-	64	49	451	-	-	-	229	
Minnesota.....	2	10	94	-	16	11	18	-	-	-	2	
Iowa.....	13	64	501	-	4	10	361	-	-	-	201	
Missouri*.....	-	65	139	-	18	11	8	-	-	-	1	
North Dakota.....	6	103	693	-	2	-	56	-	-	-	13	
South Dakota.....	-	4	46	-	4	6	NN	-	-	-	-	
Nebraska.....	-	28	464	-	6	9	5	-	-	-	1	
Kansas.....	-	8	1	-	14	2	3	-	-	-	11	
SOUTH ATLANTIC.....	33	1,025	5,142	5	298	215	202	-	-	-	204	
Delaware.....	1	9	35	1	4	5	4	-	-	-	4	
Maryland.....	3	62	88	-	18	27	29	-	-	-	19	
Dist. of Columbia..	-	6	12	1	11	7	1	-	-	-	-	
Virginia.....	12	206	1,615	-	21	18	41	-	-	-	24	
West Virginia*.....	6	169	972	-	7	16	65	-	-	-	53	
North Carolina.....	2	256	768	-	58	45	NN	-	-	-	-	
South Carolina*.....	-	10	418	-	51	20	18	-	-	-	3	
Georgia.....	-	3	23	-	57	33	-	-	-	-	-	
Florida.....	9	304	1,211	3	71	44	44	-	-	-	101	
EAST SOUTH CENTRAL...	40	373	4,283	7	113	104	222	-	-	-	100	
Kentucky.....	1	104	1,092	1	42	29	57	-	-	-	37	
Tennessee.....	-	48	1,459	5	38	44	150	-	-	-	47	
Alabama*.....	7	60	1,113	-	16	19	15	-	-	-	16	
Mississippi.....	32	161	619	1	17	12	-	-	-	-	-	
WEST SOUTH CENTRAL...	198	3,424	14,810	1	244	165	358	-	-	7	115	
Arkansas.....	-	1	1,359	-	15	19	3	-	-	-	-	
Louisiana.....	-	2	117	1	64	63	1	-	-	-	1	
Oklahoma*.....	-	101	3,279	-	45	10	1	-	-	-	-	
Texas.....	198	3,320	10,055	-	120	73	353	-	-	7	114	
MOUNTAIN.....	50	623	3,369	-	19	21	227	-	-	-	80	
Montana.....	-	63	234	-	2	-	28	-	-	-	-	
Idaho.....	-	11	328	-	6	1	14	-	-	-	2	
Wyoming.....	-	44	21	-	-	-	2	-	-	-	-	
Colorado.....	28	283	967	-	7	10	75	-	-	-	50	
New Mexico.....	1	53	490	-	-	3	6	-	-	-	4	
Arizona.....	20	145	786	-	1	2	89	-	-	-	23	
Utah.....	1	19	279	-	-	3	13	-	-	-	1	
Nevada.....	-	5	264	-	3	2	-	-	-	-	-	
PACIFIC.....	119	1,846	9,250	4	171	212	292	-	-	8	324	
Washington.....	19	450	4,395	-	27	21	231	-	-	-	63	
Oregon.....	15	367	1,232	1	16	18	33	-	-	-	12	
California.....	85	996	3,419	3	118	164	-	-	-	8	229	
Alaska.....	-	-	112	-	-	8	6	-	-	-	11	
Hawaii.....	-	33	92	-	10	1	22	-	-	-	9	
Puerto Rico.....	14	269	1,526	-	15	8	16	-	-	-	5	

\*Delayed reports: Measles: Mass. delete 9, N.J. delete 2, Pa. delete 29, W.Va. delete 5, S.C. delete 8, Ala. delete 23, Okla. 1  
Meningococcal infections: Pa. delete 3, Mo. 7, Okla. 1  
Mumps: Okla. 2  
Rubella: Me. 5, Pa. 28, Mo. 19, W.Va. 5, S.C. 8, Ala. 23

## Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

MAY 11, 1968 AND MAY 13, 1967 (19th 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
UNITED STATES...	8,876	3	39	34	59	7	92	4	15	74	1,437
NEW ENGLAND.....	1,036	-	1	32	32	1	3	-	-	1	54
Maine*.....	24	-	-	-	-	-	-	-	-	1	49
New Hampshire.....	27	-	-	-	-	-	-	-	-	-	2
Vermont.....	-	-	-	32	32	-	-	-	-	-	2
Massachusetts.....	246	-	-	-	-	1	2	-	-	-	1
Rhode Island.....	136	-	-	-	-	-	-	-	-	-	-
Connecticut.....	603	-	1	-	-	-	1	-	-	-	-
MIDDLE ATLANTIC.....	351	2	8	1	1	-	10	1	1	1	12
New York City.....	27	1	4	-	-	-	6	-	-	-	-
New York, Up-State.....	287	1	4	1	1	-	1	-	-	1	8
New Jersey.....	NN	-	-	-	-	-	-	-	-	-	-
Pennsylvania.....	37	-	-	-	-	-	3	1	1	-	4
EAST NORTH CENTRAL...	877	-	3	-	4	1	14	-	-	11	115
Ohio.....	161	-	-	-	1	1	11	-	-	4	50
Indiana.....	127	-	-	-	-	-	1	-	-	6	37
Illinois.....	193	-	2	-	2	-	1	-	-	-	11
Michigan.....	266	-	1	-	1	-	-	-	-	1	7
Wisconsin.....	130	-	-	-	-	-	1	-	-	-	10
WEST NORTH CENTRAL...	440	-	2	-	5	1	5	-	1	14	325
Minnesota.....	44	-	-	-	-	-	-	-	-	4	89
Iowa.....	126	-	-	-	-	-	-	-	-	5	58
Missouri*.....	28	-	2	-	3	-	3	-	-	3	59
North Dakota.....	101	-	-	-	-	-	-	-	-	-	53
South Dakota.....	26	-	-	-	1	-	1	-	1	-	34
Nebraska.....	79	-	-	-	-	1	1	-	-	2	18
Kansas.....	36	-	-	-	1	-	-	-	-	-	14
SOUTH ATLANTIC.....	1,080	-	8	-	5	2	23	3	12	5	161
Delaware.....	15	-	-	-	-	-	-	-	-	-	-
Maryland.....	207	-	-	-	-	-	4	-	-	-	3
Dist. of Columbia..	53	-	1	-	-	-	1	-	-	-	-
Virginia.....	358	-	2	-	1	-	3	2	9	2	73
West Virginia.....	233	-	-	-	-	-	-	-	-	-	20
North Carolina.....	6	-	2	-	2	-	2	-	2	-	4
South Carolina.....	6	-	1	-	-	-	-	1	1	-	-
Georgia.....	30	-	-	-	1	-	7	-	-	1	15
Florida.....	172	-	2	-	1	2	6	-	-	2	46
EAST SOUTH CENTRAL...	1,707	-	4	1	5	2	13	-	1	16	382
Kentucky.....	143	-	1	-	1	1	2	-	-	9	180
Tennessee.....	1,077	-	-	-	3	1	8	-	-	7	187
Alabama.....	78	-	1	-	-	-	-	-	-	-	15
Mississippi.....	409	-	2	1	1	-	3	-	1	-	-
WEST SOUTH CENTRAL...	473	1	6	-	5	-	8	-	-	18	268
Arkansas.....	12	-	-	-	1	-	1	-	-	2	30
Louisiana.....	20	-	4	-	-	-	1	-	-	2	30
Oklahoma*.....	4	-	-	-	1	-	1	-	-	8	88
Texas.....	437	1	2	-	3	-	5	-	-	6	120
MOUNTAIN.....	1,543	-	-	-	2	-	7	-	-	2	27
Montana.....	31	-	-	-	-	-	-	-	-	-	-
Idaho.....	124	-	-	-	-	-	-	-	-	-	-
Wyoming*.....	61	-	-	-	-	-	1	-	-	-	1
Colorado.....	954	-	-	-	1	-	2	-	-	-	1
New Mexico.....	123	-	-	-	-	-	4	-	-	1	14
Arizona.....	180	-	-	-	-	-	-	-	-	1	11
Utah.....	69	-	-	-	1	-	-	-	-	-	-
Nevada.....	1	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	1,369	-	7	-	-	-	9	-	-	6	93
Washington.....	210	-	-	-	-	-	-	-	-	-	-
Oregon.....	131	-	-	-	-	-	2	-	-	-	1
California.....	858	-	7	-	-	-	7	-	-	6	92
Alaska.....	56	-	-	-	-	-	-	-	-	-	-
Hawaii.....	114	-	-	-	-	-	-	-	-	-	-
Puerto Rico.....	5	-	1	-	-	-	-	-	-	1	13

\*Delayed reports: SST: Me. 2, Mo. 19, Okla. 27, Wyo. 1

# Morbidity and Mortality Weekly Report

175

Week No.

**TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED MAY 11, 1968**

19

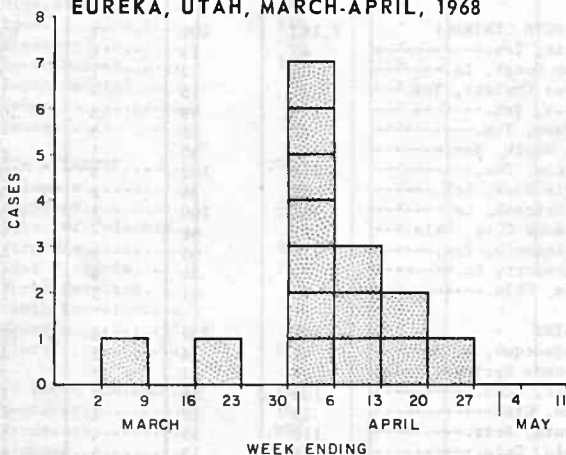
(By place of occurrence and week of filing certificate. Excludes fetal deaths)

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		
<b>NEW ENGLAND:</b>	730	438	43	41	<b>SOUTH ATLANTIC:</b>	1,180	612	39	59
Boston, Mass.-----	226	122	16	15	Atlanta, Ga.-----	152	69	4	14
Bridgeport, Conn.-----	43	25	1	3	Baltimore, Md.-----	240	117	5	11
Cambridge, Mass.-----	27	17	-	2	Charlotte, N. C.-----	49	28	2	-
Fall River, Mass.-----	26	18	-	-	Jacksonville, Fla.-----	75	33	1	2
Hartford, Conn.-----	63	29	3	4	Miami, Fla.-----	117	64	2	5
Lowell, Mass.-----	23	12	1	2	Norfolk, Va.-----	51	23	3	5
Lynn, Mass.-----	18	16	1	-	Richmond, Va.-----	83	44	1	3
New Bedford, Mass.-----	21	18	3	-	Savannah, Ga.-----	33	18	2	-
New Haven, Conn.-----	66	37	1	2	St. Petersburg, Fla.-----	89	62	6	3
Providence, R. I.-----	61	33	1	5	Tampa, Fla.-----	77	40	3	9
Somerville, Mass.-----	15	13	-	-	Washington, D. C.-----	187	102	9	5
Springfield, Mass.-----	46	35	3	3	Wilmington, Del.-----	27	12	1	2
Waterbury, Conn.-----	25	19	-	1	<b>EAST SOUTH CENTRAL:</b>	601	335	42	33
Worcester, Mass.-----	70	44	13	4	Birmingham, Ala.-----	102	52	3	6
<b>MIDDLE ATLANTIC:</b>	3,401	1,945	115	163	Chattanooga, Tenn.-----	66	32	6	9
Albany, N. Y.-----	46	27	2	2	Knoxville, Tenn.-----	38	21	3	1
Allentown, Pa.-----	42	27	2	1	Louisville, Ky.-----	110	66	14	-
Buffalo, N. Y.-----	139	80	4	8	Memphis, Tenn.-----	149	76	8	11
Camden, N. J.-----	57	31	3	1	Mobile, Ala.-----	39	24	2	2
Elizabeth, N. J.-----	44	31	1	-	Montgomery, Ala.-----	24	16	2	1
Erie, Pa.-----	35	16	2	1	Nashville, Tenn.-----	73	48	4	3
Jersey City, N. J.-----	65	41	4	1	<b>WEST SOUTH CENTRAL:</b>	1,163	601	37	63
Newark, N. J.-----	118	40	4	31	Austin, Tex.-----	40	15	4	3
New York City, N. Y.-----	1,707	961	45	71	Baton Rouge, La.-----	44	22	1	3
Paterson, N. J.-----	46	19	4	-	Corpus Christi, Tex.-----	31	15	-	1
Philadelphia, Pa.-----	506	292	6	21	Dallas, Tex.-----	133	69	3	10
Pittsburgh, Pa.-----	183	103	9	14	El Paso, Tex.-----	32	16	3	-
Reading, Pa.-----	59	40	2	2	Fort Worth, Tex.-----	77	40	1	8
Rochester, N. Y.-----	108	78	11	4	Houston, Tex.-----	210	102	3	10
Schenectady, N. Y.-----	22	18	1	-	Little Rock, Ark.-----	59	34	2	3
Scranton, Pa.-----	37	22	5	-	New Orleans, La.-----	182	100	7	6
Syracuse, N. Y.-----	83	51	3	4	Oklahoma City, Okla.-----	95	46	-	9
Trenton, N. J.-----	42	24	3	1	San Antonio, Tex.-----	117	65	1	4
Utica, N. Y.-----	29	22	2	-	Shreveport, La.-----	75	36	4	5
Yonkers, N. Y.-----	33	22	2	1	Tulsa, Okla.-----	68	41	8	1
<b>EAST NORTH CENTRAL:</b>	2,507	1,438	61	114	<b>MOUNTAIN:</b>	446	239	16	20
Akron, Ohio-----	73	43	-	4	Albuquerque, N. Mex.-----	41	14	2	4
Canton, Ohio-----	51	27	1	2	Colorado Springs, Colo.-----	27	17	1	2
Chicago, Ill.-----	717	392	20	31	Denver, Colo.-----	106	58	2	1
Cincinnati, Ohio-----	152	96	2	4	Ogden, Utah-----	15	12	1	-
Cleveland, Ohio-----	172	87	4	8	Phoenix, Ariz.-----	110	55	4	5
Columbus, Ohio-----	124	67	2	11	Pueblo, Colo.-----	21	13	2	1
Dayton, Ohio-----	85	44	3	8	Salt Lake City, Utah-----	68	38	1	5
Detroit, Mich.-----	349	211	5	14	Tucson, Ariz.-----	58	32	3	2
Evansville, Ind.-----	60	38	2	2	<b>PACIFIC:</b>	1,573	974	33	58
Flint, Mich.-----	47	28	-	4	Berkeley, Calif.-----	28	23	-	-
Fort Wayne, Ind.-----	31	17	1	1	Fresno, Calif.-----	42	24	1	6
Gary, Ind.-----	22	12	3	1	Glendale, Calif.-----	23	16	2	-
Grand Rapids, Mich.-----	51	35	3	2	Honolulu, Hawaii-----	54	27	1	3
Indianapolis, Ind.-----	134	81	1	4	Long Beach, Calif.-----	95	66	2	1
Madison, Wis.-----	38	18	2	5	Los Angeles, Calif.-----	493	299	11	21
Milwaukee, Wis.-----	118	64	1	4	Oakland, Calif.-----	71	46	-	1
Peoria, Ill.-----	46	25	1	5	Pasadena, Calif.-----	31	25	1	-
Rockford, Ill.-----	28	22	4	1	Portland, Oreg.-----	146	93	-	7
South Bend, Ind.-----	47	29	2	1	Sacramento, Calif.-----	65	40	3	3
Toledo, Ohio-----	104	61	4	1	San Diego, Calif.-----	96	59	2	5
Youngstown, Ohio-----	58	41	-	1	San Francisco, Calif.-----	165	94	4	1
<b>WEST NORTH CENTRAL:</b>	845	514	27	43	San Jose, Calif.-----	33	27	1	1
Des Moines, Iowa-----	55	37	1	1	Seattle, Wash.-----	151	83	3	8
Duluth, Minn.-----	19	14	5	3	Spokane, Wash.-----	37	25	1	-
Kansas City, Kans.-----	42	23	3	9	Tacoma, Wash.-----	43	27	1	1
Kansas City, Mo.-----	146	94	3	6	<b>Total</b>	<b>12,446</b>	<b>7,096</b>	<b>413</b>	<b>594</b>
Lincoln, Nebr.-----	23	14	2	1	<b>Cumulative Totals</b>				
Minneapolis, Minn.-----	110	69	2	5	including reported corrections for previous weeks				
Omaha, Nebr.-----	99	58	1	1	All Causes, All Ages -----				254,389
St. Louis, Mo.-----	233	140	4	6	All Causes, Age 65 and over-----				149,630
St. Paul, Minn.-----	70	40	-	6	Pneumonia and Influenza, All Ages-----				12,031
Wichita, Kans.-----	48	25	6	5	All Causes, Under 1 Year of Age-----				11,331

**EPIDEMIOLOGIC NOTES AND REPORTS**  
**MEASLES – Eureka, Utah**

Between March 8 and April 25, 1968, 15 cases of measles were reported from Eureka, Utah (population 771), a relatively isolated mining community in Juab County, central Utah. The index case, diagnosed on March 8, was in a 5-year-old boy who was visiting from out of state. This boy's siblings had had measles 10 days prior to the family's arrival in Utah. On March 24, the second case occurred in a 14-year-old boy who had been exposed to the index case on March 8. During the next 5 weeks, 13 additional cases were identified (Figure 1). Of these cases, 12 were in children between 12 and 15 years of age and one was in a 9-year-old sibling of a patient in the 12 to 15-year-old age group. The patients' symptoms included fever, cough, coryza, conjunctivitis, and rash, and one patient, a 14-year-old girl who had a temperature of 106°F., required hospitalization. The local health officer who saw many of the cases confirmed the illness as rubeola. None of the 15 patients gave a history of receiving measles vaccine.

**Figure 1**  
**MEASLES CASES BY WEEK OF ONSET**  
**EUREKA, UTAH, MARCH-APRIL, 1968**



On April 15, following the spring holidays, a special measles immunization program was held in Eureka. Vaccine was made available to all susceptibles over 1 year of age. Of the children immunized, 60 were students in the junior and senior high schools.

A statewide measles immunization program for all children between 1 and 12 years of age had been conducted in Utah on May 13, 1967. The occurrence of only one case in a child under 12 years of age during this epidemic (excluding the index case) may indicate the effectiveness of the campaign in Juab County. Prior to this limited outbreak, only four cases of measles had been reported from Utah during the 1967-68 epidemiologic year.

*(Reported by G. D. Carlyle Thompson, M.D., M.P.H., Director, Division of Health, and Robert W. Sherwood, M.D., M.P.H., Director, Division of Preventive Medicine, Utah Department of Health and Welfare; John G. Steele, M.D., Juab County Health Officer; and an EIS Officer.)*

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

DIRECTOR, NATIONAL COMMUNICABLE DISEASE CENTER  
DAVID J. SENCER, M.D.  
CHIEF, EPIDEMIOLOGY PROGRAM  
A. D. LANGMUIR, M.D.  
ACTING CHIEF, STATISTICS SECTION  
IDA L. SHERMAN, M.S.  
EDITOR  
MICHAEL B. GREGG, M.D.

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  
ATLANTA, GEORGIA 30333  
ATTN: THE EDITOR  
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 ON SATURDAY; COMPILED DATA ON A NATIONAL BASIS ARE RELEASED ON THE SUCCEEDING FRIDAY.

U.S. DEPARTMENT OF  
HEALTH, EDUCATION, AND WELFARE  
PUBLIC HEALTH SERVICE  
HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION  
NATIONAL COMMUNICABLE DISEASE CENTER  
ATLANTA, GEORGIA 30333  
OFFICIAL BUSINESS

Library  
81  
7 61  
CDC

POSTAGE AND FEES PAID  
U. S. DEPARTMENT OF H. E. W.