



# Morbidity and Mortality

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION

## INTERNATIONAL NOTES INFLUENZA LABORATORY FINDINGS - HONG KONG ISOLATES

Of five viruses isolated during the recent influenza outbreak in Hong Kong and sent to the International Influenza Center, NCDC, by Dr. W. K. Chang, National Influenza Center, University of Hong Kong, two have been examined by reciprocal hemagglutination inhibition tests. Similarity coefficients for Hong Kong/1/68 and Hong Kong/8/68 with earlier A2 strains indicate a magnitude of dissimilarity which has not been previously observed within this subtype (Table 1). Similarity coefficients for all virus pairs could not be determined (i) because of the poor reactivity of many strain specific antisera with the

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Hong Kong/1/68 and Hong Kong/8/68 antigens. Nevertheless, these isolates are still classified as influenza A2 viruses. All five isolates were readily identified with the WHO reference A2 polyvalent antisera; antisera produced against both Hong Kong/1/68 and Hong Kong/8/68

(Continued on page 306)

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

DISEASE	33rd WEEK ENDED		MEDIAN 1963 - 1967	CUMULATIVE, FIRST 33 WEEKS		
	August 17, 1968	August 19, 1967		1968	1967	MEDIAN 1963 - 1967
Aseptic meningitis . . . . .	202	107	88	1,789	1,388	1,114
Brucellosis . . . . .	5	7	7	132	170	170
Diphtheria . . . . .	2	3	4	102	65	112
Encephalitis, primary:						
Arthropod-borne & unspecified . . . . .	56	42	---	653	926	---
Encephalitis, post-infectious . . . . .	8	10	---	341	595	---
Hepatitis, serum . . . . .	103	46	643	2,686	1,345	25,367
Hepatitis, infectious . . . . .	932	685	4	27,756	24,220	64
Malaria . . . . .	49	21	4	1,345	1,234	238,074
Measles (rubeola) . . . . .	232	231	694	19,256	57,079	1,858
Meningococcal infections, total . . . . .	26	24	25	1,897	1,595	---
Civilian . . . . .	26	22	---	1,722	1,484	---
Military . . . . .	---	2	---	175	111	---
Mumps . . . . .	822	---	---	122,772	---	---
Poliomyelitis, total . . . . .	1	2	2	35	23	61
Paralytic . . . . .	1	2	2	35	20	54
Rubella (German measles) . . . . .	321	253	---	42,821	39,289	---
Streptococcal sore throat & scarlet fever . . . . .	4,349	4,493	3,838	287,940	310,289	279,341
Tetanus . . . . .	4	7	7	92	138	153
Tularemia . . . . .	3	4	7	126	113	160
Typhoid fever . . . . .	9	7	8	205	251	250
Typhus, tick-borne (Rky. Mt. spotted fever) . . . . .	32	16	14	195	203	168
Rabies in animals . . . . .	52	88	81	2,314	2,902	2,902

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax: . . . . .	3	Rabies in man: . . . . .	---
Botulism: . . . . .	4	Rubella, Congenital Syndrome: . . . . .	4
Leptospirosis: Fla.-2, Ohio-1 . . . . .	24	Trichinosis: . . . . .	48
Plague: * . . . . .	2	Typhus, murine: *Tex.-1 . . . . .	19
Psittacosis: Mich.-2 . . . . .	33		

\*Delayed reports: Plague: Ariz. 1  
Typhus, Murine: Puerto Rico delete 1

## INFLUENZA LABORATORY FINDINGS - HONG KONG ISOLATES - (Continued from front page)

strains clearly demonstrated an antigenic relationship with the earlier A2 viruses (Table 2). These results confirm the findings of the World Influenza Center in London.<sup>1</sup> The Hong Kong viruses represent a major antigenic drift and identification may not be possible using specific antisera

produced against earlier A2 reference strains.

(Reported by the World Health Organization International Influenza Center for the Americas, NCDC, Atlanta, Georgia.)

Reference:

<sup>1</sup>WHO Weekly Epidemiological Record 43(33):411, Aug. 16, 1968.

Table 1  
Strain Relationships<sup>a</sup> of Type A2 Influenza Viruses with 1968 Hong Kong Isolates

	A2/Japan/305/57	A2/Japan/170/62	A2/Taiwan/1/64	A2/Georgia/1/67	A2/Tokyo/3/67	A2/Ann Arbor/7/67	A2/Texas/2/68	A2/Hong Kong/1/68	A2/Hong Kong/8/68
A2/Japan/305/57	1.0								
A2/Japan/170/62	1.4	1.0							
A2/Taiwan/1/64	4.0	2.8	1.0						
A2/Georgia/1/67	4.0	4.0	2.8	1.0					
A2/Tokyo/3/67	16.0	5.7	8.0	5.7	1.0				
A2/Ann Arbor/7/67	5.7	2.8	5.7	4.0	4.0	1.0			
A2/Texas/2/68	22.6	5.7	4.0	2.8	4.0	4.0	1.0		
A2/Hong Kong/1/68	i <sup>b</sup>	22.6	i	i	i	i	i	1.0	
A2/Hong Kong/8/68	i	11.3	22.6	22.6	i	11.3	64.0	1.0	1.0

<sup>a</sup>Similarity coefficients (r) according to the formula of Archetti and Horsfall, J Exp Med 92:441, 1950.

<sup>b</sup>i - indeterminate

Table 2  
Hemagglutination Inhibition: Type A2 Influenza Viruses and 1968 Hong Kong Isolates

Antigens	A2/Japan/305/57	A2/Japan/170/62	A2/Taiwan/1/64	A2/Georgia/1/67	A2/Tokyo/3/67	A2/Ann Arbor/7/67	A2/Texas/2/68	A2/Hong Kong/1/68	A2/Hong Kong/8/68	A2/Hong Kong/16/68	A2/Hong Kong/19/68	A2/Hong Kong/50/68
Chicken Antisera*												
A2/Japan/305/57	<u>160</u>	80	80	40	10	20	10	0**	0	0	0	0
A2/Japan/170/62	640	<u>640</u>	320	80	80	80	80	10	40	20	20	40
A2/Taiwan/1/64	80	160	<u>640</u>	160	40	40	40	0	20	10	10	20
A2/Georgia/1/67	40	80	80	<u>160</u>	40	40	160	0	10	0	10	10
A2/Tokyo/3/67	40	160	160	80	<u>640</u>	160	80	0	0	0	0	40
A2/Ann Arbor/7/67	40	80	80	80	40	<u>160</u>	40	0	20	0	10	10
A2/Texas/2/68	20	160	640	80	320	160	<u>640</u>	0	10	0	10	10
A2/Hong Kong/1/68	80	80	80	80	10	20	40	<u>640</u>	1280	640	1280	1280
A2/Hong Kong/8/68	40	80	40	20	40	40	10	320	<u>640</u>	320	320	320
A2/Polyvalent	1280	1280	1280	640	320	640	320	20	80	40	80	80

\*Receptor destroying enzyme (RDE) treated.

\*\*0 = < 10

### EPIDEMIOLOGIC NOTES AND REPORTS FOLLOW-UP SUSPECT BOTULISM - California

An autopsy was performed on the 49-year-old man who died of a syndrome diagnosed clinically as botulism (MMWR, Vol. 17, No. 23). There was no gross evidence of intracranial pathology. Histological sections of the brain showed cellular necrosis and occasional polymorphonuclear cells and phagocytes. These nonspecific changes were ascribed to prolonged anoxia. Botulism was listed as the cause of

death on the death certificate although the clinical diagnosis could not be supported by laboratory findings.

(Reported by John J. Dapolito, M.D.; J.B. Askew, M.D., Director of Public Health, San Diego County Health Department; Philip K. Condit, M.D., Chief, Bureau of Communicable Diseases, California State Department of Public Health; and an EIS Officer.)

CURRENT TRENDS  
MEASLES - United States

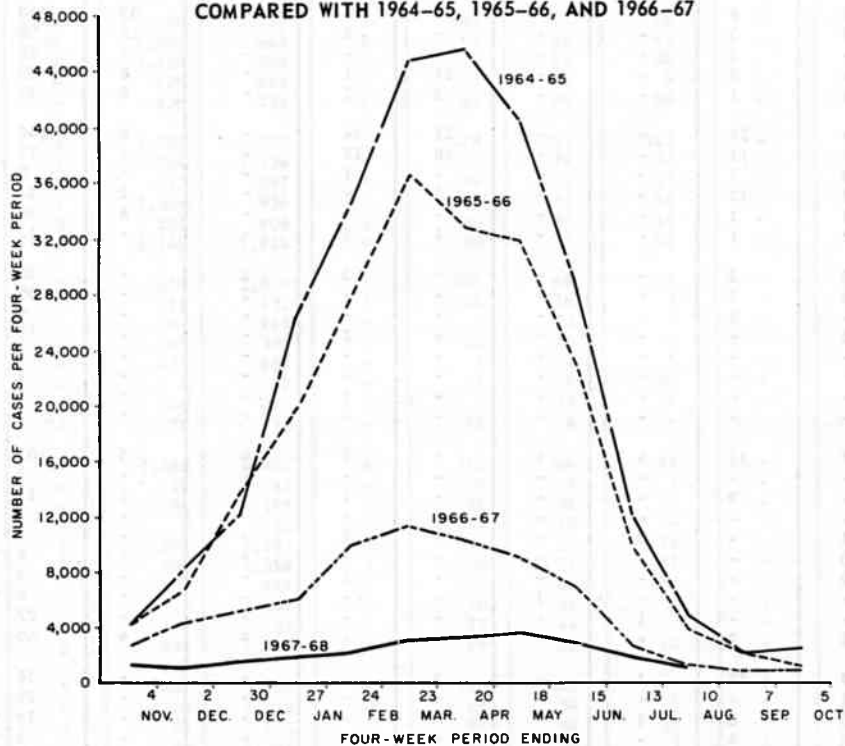
During the 4-week period July 14 through August 10, 1968, (weeks 29-32), 932 cases of measles were reported to NCDC. This is a decrease of 638 cases from the total for the preceding 4-week period and is 220 cases, 3,438 cases, and 4,216 cases fewer than the cases reported for the comparable 4-week period in 1967, 1966, and 1965, respectively (Figure 1).

In this 4-week period, 13 states and the District of Columbia reported no cases of measles, and 22 states

reported at least one but fewer than 10 cases. New York state accounted for 316 of the 932 cases reported. New York City reported 265 of these 316, and the boroughs of Bronx and Brooklyn reported 85 percent of the 265 New York City cases.

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

Figure 1  
REPORTED MEASLES BY FOUR-WEEK PERIODS  
UNITED STATES EPIDEMIOLOGIC YEAR 1967-1968  
COMPARED WITH 1964-65, 1965-66, AND 1966-67



EPIDEMIOLOGIC NOTES AND REPORTS  
ENCEPHALITIS - New Jersey

The first two confirmed human cases of eastern encephalitis (EE) in 1968 have been reported from New Jersey. The first patient, an 8-year-old boy who lives in Atlantic County, developed encephalitic symptoms on July 17 and is presently recovering from his acute illness. EE virus was identified as the causative agent by complement fixation, hemagglutination inhibition, and neutralization tests on acute and convalescent sera. The second patient, a 12-year-old boy, became ill on August 11; his illness was subsequently confirmed as EE. This patient had recently been in both Ocean and Cumberland Counties.

The first New Jersey case of EE in horses occurred on July 22 (MMWR, Vol. 17, No. 30). As of August 20, a

total of 33 confirmed cases of EE in horses have been reported from eight counties, Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Monmouth, and Ocean. In addition there have been 26 suspect equine cases.

An intensive program of field and laboratory surveillance is being continued.

*(Reported by Ronald Altman, M.D., Acting Director, Division of Preventable Disease, Martin Goldfield, M.D., Director, Division of Laboratories, and Oscar Sussman, D.V.M., M.P.H., Coordinator, Division of Veterinary Public Health, New Jersey Department of Health.)*

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TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED  
AUGUST 17, 1968 AND AUGUST 19, 1967 (33rd WEEK)

AREA	ASEPTIC MENINGITIS		BRUCELLOSIS	DIPHTHERIA	ENCEPHALITIS			HEPATITIS		MALARIA	
	1968	1967			Primary including unsp. cases	Post- Infectious	Serum	Infectious			
								1968	1967		1968
UNITED STATES...	202	107	5	2	56	42	8	103	932	685	49
NEW ENGLAND.....	3	2	-	-	2	6	-	2	65	12	-
Maine.....*	-	-	-	-	-	-	-	-	2	1	-
New Hampshire.....	-	-	-	-	-	-	-	-	2	-	-
Vermont.....	-	-	-	-	-	-	-	-	-	1	-
Massachusetts.....	-	1	-	-	-	6	-	-	36	-	-
Rhode Island.....	3	1	-	-	2	-	-	-	15	3	-
Connecticut.....	-	-	-	-	-	-	-	2	10	7	-
MIDDLE ATLANTIC.....	53	9	-	-	14	4	-	33	140	95	3
New York City.....	15	3	-	-	-	2	-	18	58	35	-
New York, up-State..	-	3	-	-	-	-	-	5	26	25	-
New Jersey.....*	34	2	-	-	11	1	-	8	23	13	2
Pennsylvania.....	4	1	-	-	3	1	-	2	33	22	1
EAST NORTH CENTRAL...	19	29	-	-	21	14	-	6	140	128	4
Ohio.....	7	11	-	-	18	12	-	1	53	27	-
Indiana.....	3	1	-	-	-	1	-	-	8	9	-
Illinois.....	7	15	-	-	2	-	-	1	31	46	2
Michigan.....	1	1	-	-	-	-	-	4	36	38	2
Wisconsin.....	1	1	-	-	1	1	-	-	12	8	-
WEST NORTH CENTRAL...	5	3	-	-	-	3	2	-	58	37	3
Minnesota.....	3	2	-	-	-	-	2	-	30	2	-
Iowa.....	-	1	-	-	-	-	-	-	6	5	-
Missouri.....	2	-	-	-	-	2	-	-	13	26	2
North Dakota.....	-	-	-	-	-	-	-	-	1	3	-
South Dakota.....	-	-	-	-	-	-	-	-	1	-	-
Nebraska.....	-	-	-	-	-	1	-	-	2	1	-
Kansas.....	-	-	-	-	-	-	-	-	5	-	1
SOUTH ATLANTIC.....	7	11	4	1	2	3	4	5	105	95	4
Delaware.....	-	-	-	-	-	-	-	-	3	1	-
Maryland.....	-	9	-	-	-	1	-	1	15	20	-
Dist. of Columbia..	-	-	-	-	-	-	-	-	-	2	-
Virginia.....	1	-	3	-	-	1	-	-	7	15	-
West Virginia.....	3	-	-	-	-	-	-	-	6	3	-
North Carolina.....	2	-	-	-	-	1	-	-	3	4	2
South Carolina.....	-	-	-	1	-	-	-	-	4	4	-
Georgia.....	-	-	1	-	-	-	-	-	27	39	-
Florida.....	1	2	-	-	2	-	4	4	40	7	2
EAST SOUTH CENTRAL...	37	12	1	-	3	-	-	-	56	46	13
Kentucky.....	1	-	-	-	-	-	-	-	21	19	12
Tennessee.....	33	8	1	-	3	-	-	-	19	16	-
Alabama.....	2	4	-	-	-	-	-	-	1	4	-
Mississippi.....	1	-	-	-	-	-	-	-	15	7	1
WEST SOUTH CENTRAL...	20	4	-	-	4	3	-	4	56	73	2
Arkansas.....	-	-	-	-	2	1	-	-	3	1	-
Louisiana.....	5	1	-	-	2	1	-	1	16	16	2
Oklahoma.....	1	-	-	-	-	1	-	-	1	8	-
Texas.....	14	3	-	-	-	-	-	3	36	48	-
MOUNTAIN.....	2	1	-	-	-	-	-	-	40	23	3
Montana.....	-	-	-	-	-	-	-	-	3	2	-
Idaho.....	-	-	-	-	-	-	-	-	5	1	-
Wyoming.....	-	-	-	-	-	-	-	-	-	-	-
Colorado.....	2	1	-	-	-	-	-	-	-	12	2
New Mexico.....	-	-	-	-	-	-	-	-	4	5	-
Arizona.....	-	-	-	-	-	-	-	-	20	3	1
Utah.....	-	-	-	-	-	-	-	-	8	-	-
Nevada.....	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	56	36	-	1	10	9	2	53	272	176	17
Washington.....	4	3	-	-	1	3	-	-	25	24	-
Oregon.....	-	-	-	-	-	-	-	-	18	10	-
California.....	50	28	-	1	9	6	2	53	226	142	14
Alaska.....	-	-	-	-	-	-	-	-	-	-	-
Hawaii.....	2	5	-	-	-	-	-	-	3	-	3
Puerto Rico.....	-	-	-	-	-	-	-	-	33	17	4

\* Delayed reports: Hepatitis, serum: N.J. delete 1  
Hepatitis, infectious: Me. 5, N.J. delete 5

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDED  
AUGUST 17, 1968 AND AUGUST 19, 1967 (33rd 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...	232	19,256	57,079	26	1,897	1,595	822	1	1	35	321	
NEW ENGLAND.....	7	1,140	830	7	101	67	73	-	-	1	44	
Maine.*	-	35	234	-	6	3	4	-	-	-	5	
New Hampshire.....	-	141	74	-	7	2	-	-	-	-	-	
Vermont.....	-	2	34	-	1	1	8	-	-	-	-	
Massachusetts.*	1	357	337	6	48	32	27	-	-	1	8	
Rhode Island.....	-	5	62	1	8	4	13	-	-	-	11	
Connecticut.....	6	600	89	-	31	25	21	-	-	-	20	
MIDDLE ATLANTIC.....	104	3,960	2,225	3	341	261	66	-	-	-	49	
New York City.....	94	1,994	445	1	69	46	62	-	-	-	32	
New York, Up-State.	4	1,210	568	1	59	65	NN	-	-	-	17	
New Jersey.*	6	620	481	-	122	92	4	-	-	-	-	
Pennsylvania.....	-	136	731	1	91	58	NN	-	-	-	-	
EAST NORTH CENTRAL...	31	3,707	5,277	1	228	215	221	-	-	1	75	
Ohio.....	1	289	1,136	-	62	74	37	-	-	-	9	
Indiana.....	10	653	587	-	29	22	25	-	-	-	16	
Illinois.....	9	1,356	934	-	51	52	18	-	-	1	16	
Michigan.....	5	261	906	1	66	51	49	-	-	-	13	
Wisconsin.....	6	1,148	1,714	-	20	16	92	-	-	-	21	
WEST NORTH CENTRAL...	2	379	2,834	1	101	68	8	-	-	1	16	
Minnesota.....	1	16	131	1	24	16	3	-	-	-	-	
Iowa.....	1	97	745	-	6	13	-	-	-	-	6	
Missouri.....	-	81	332	-	32	14	-	-	-	1	4	
North Dakota.....	-	131	857	-	3	1	5	-	-	-	2	
South Dakota.....	-	4	52	-	5	6	NN	-	-	-	-	
Nebraska.....	-	40	624	-	6	12	-	-	-	-	4	
Kansas.....	-	10	93	-	25	6	-	-	-	-	-	
SOUTH ATLANTIC.....	12	1,480	6,807	4	385	304	64	-	-	1	58	
Delaware.....	-	15	43	-	8	6	1	-	-	-	-	
Maryland.....	-	94	149	-	28	38	5	-	-	-	1	
Dist. of Columbia..	-	6	22	-	14	10	-	-	-	-	-	
Virginia.....	1	297	2,171	1	31	37	16	-	-	-	11	
West Virginia.*	3	280	1,368	1	10	21	23	-	-	-	28	
North Carolina.*	-	281	847	-	76	66	NN	-	-	1	-	
South Carolina.....	-	12	507	-	56	29	3	-	-	-	3	
Georgia.....	-	4	32	-	73	44	-	-	-	-	-	
Florida.....	8	491	1,668	2	89	53	16	-	-	-	15	
EAST SOUTH CENTRAL...	5	487	5,126	2	162	125	47	1	1	2	26	
Kentucky.*	-	99	1,318	1	65	34	7	-	-	1	9	
Tennessee.....	3	61	1,825	1	52	52	35	-	-	-	17	
Alabama.....	-	93	1,321	-	24	26	3	1	1	1	-	
Mississippi.....	2	234	662	-	21	13	2	-	-	-	-	
WEST SOUTH CENTRAL...	45	4,679	17,178	4	301	215	77	-	-	19	21	
Arkansas.....	-	3	1,404	-	20	28	-	-	-	-	-	
Louisiana.....	-	2	151	2	86	85	-	-	-	-	-	
Oklahoma.....	-	111	3,348	-	49	16	-	-	-	2	4	
Texas.....	45	4,563	12,275	2	146	86	77	-	-	17	17	
MOUNTAIN.....	13	984	4,594	-	29	27	109	-	-	-	10	
Montana.....	-	67	281	-	3	-	5	-	-	-	1	
Idaho.....	-	20	377	-	11	1	2	-	-	-	-	
Wyoming.....	-	51	180	-	-	1	-	-	-	-	-	
Colorado.....	9	503	1,543	-	10	12	16	-	-	-	-	
New Mexico.....	4	96	576	-	-	3	5	-	-	-	-	
Arizona.....	-	221	1,008	-	1	4	49	-	-	-	8	
Utah.....	-	21	360	-	1	4	32	-	-	-	1	
Nevada.....	-	5	269	-	3	2	-	-	-	-	-	
PACIFIC.....	13	2,440	12,208	4	249	313	157	-	-	10	22	
Washington.....	-	515	5,417	-	37	28	5	-	-	1	2	
Oregon.....	8	496	1,566	-	19	25	5	-	-	-	3	
California.....	5	1,392	4,930	4	180	247	139	-	-	9	17	
Alaska.....	-	2	133	-	2	9	5	-	-	-	-	
Hawaii.....	-	35	162	-	11	4	3	-	-	-	-	
Puerto Rico.....	5	388	2,099	-	19	12	9	-	-	-	-	

\* Delayed reports: Measles: Mass. delete 8, N.J. 6, Pa. delete 5, W. Va. delete 2, N.C. delete 1, Ky. delete 4  
Meningococcal infections: N.C. 1  
Mumps: Me. 1  
Poliomyelitis, paralytic: Okla. 1  
Rubella: W. Va. 2, Ky. 4

## Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDED  
AUGUST 17, 1968 AND AUGUST 19, 1968 (33rd 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...	4,349	4	92	3	126	9	205	32	195	52	2,314
NEW ENGLAND.....	540	-	2	-	46	-	7	-	-	1	69
Maine.....*	13	-	-	-	-	-	-	-	-	-	53
New Hampshire.....	3	-	-	-	-	-	1	-	-	-	2
Vermont.....	4	-	-	-	46	-	-	-	-	-	10
Massachusetts.....	53	-	1	-	-	-	3	-	-	1	3
Rhode Island.....	43	-	-	-	-	-	-	-	-	-	-
Connecticut.....	424	-	1	-	-	-	3	-	-	-	1
MIDDLE ATLANTIC.....	100	-	12	-	7	-	19	-	14	1	32
New York City.....	2	-	6	-	-	-	9	-	-	-	-
New York, Up-State.....	96	-	4	-	7	-	3	-	2	1	25
New Jersey...*	NN	-	-	-	-	-	4	-	6	-	-
Pennsylvania.....	2	-	2	-	-	-	3	-	6	-	7
EAST NORTH CENTRAL...	362	1	9	-	8	1	27	-	6	6	216
Ohio.....	49	-	-	-	1	-	12	-	4	-	84
Indiana.....	155	-	1	-	1	-	3	-	-	4	74
Illinois.....	50	-	5	-	5	1	11	-	2	2	27
Michigan.....	69	1	3	-	1	-	-	-	-	-	10
Wisconsin.....	39	-	-	-	-	-	1	-	-	-	21
WEST NORTH CENTRAL...	90	-	4	-	9	1	9	3	7	13	572
Minnesota.....	9	-	1	-	-	-	-	-	-	5	169
Iowa.....	30	-	1	-	-	-	1	-	1	3	94
Missouri.....	4	-	2	-	7	-	3	-	1	1	82
North Dakota.....	31	-	-	-	-	-	-	-	-	3	91
South Dakota.....	11	-	-	-	1	-	1	3	4	-	79
Nebraska.....	5	-	-	-	-	-	3	-	1	-	25
Kansas.....	-	-	-	-	1	1	1	-	-	1	32
SOUTH ATLANTIC.....	490	2	21	-	8	1	44	22	110	9	252
Delaware.....	1	-	-	-	-	-	-	-	-	-	-
Maryland.....	28	-	2	-	-	-	9	2	12	-	5
Dist. of Columbia..	-	-	2	-	-	-	2	-	-	-	1
Virginia.....	153	-	4	-	1	-	8	4	35	3	95
West Virginia.....	156	-	1	-	-	-	-	-	-	-	31
North Carolina.....	3	-	2	-	2	-	2	1	28	-	9
South Carolina.....	21	-	2	-	-	-	-	-	6	-	-
Georgia.....	3	-	-	-	3	1	12	15	26	-	38
Florida...*	125	2	8	-	2	-	11	-	3	6	73
EAST SOUTH CENTRAL...	1,085	-	10	1	7	-	24	6	35	8	514
Kentucky.....	114	-	1	-	1	-	5	2	8	6	254
Tennessee.....	772	-	3	1	5	-	13	3	22	2	238
Alabama.....	114	-	3	-	-	-	-	-	3	-	21
Mississippi.....	85	-	3	-	1	-	6	1	2	-	1
WEST SOUTH CENTRAL...	490	1	19	1	33	3	29	1	17	5	393
Arkansas.....	16	-	4	-	6	-	4	1	2	1	46
Louisiana.....	6	1	8	-	6	-	3	-	-	-	35
Oklahoma.....	38	-	-	-	8	3	12	-	8	2	116
Texas.....	430	-	7	1	13	-	10	-	7	2	196
MOUNTAIN.....	673	-	-	-	6	-	13	-	5	3	62
Montana.....	11	-	-	-	-	-	-	-	-	-	-
Idaho.....	53	-	-	-	-	-	-	-	1	-	-
Wyoming.....	11	-	-	-	1	-	1	-	-	-	3
Colorado.....	244	-	-	-	3	-	2	-	4	-	3
New Mexico.....	140	-	-	-	-	-	6	-	-	2	25
Arizona.....	95	-	-	-	-	-	3	-	-	1	31
Utah.....	119	-	-	-	2	-	-	-	-	-	-
Nevada...*	-	-	-	-	-	-	1	-	-	-	-
PACIFIC.....	519	-	15	1	2	3	33	-	1	6	204
Washington.....	27	-	1	-	-	-	2	-	-	1	2
Oregon.....	52	-	1	-	1	-	4	-	-	-	5
California.....	333	-	13	1	1	3	27	-	1	5	197
Alaska.....	16	-	-	-	-	-	-	-	-	-	-
Hawaii.....	91	-	-	-	-	-	-	-	-	-	-
Puerto Rico.....	3	2	8	-	-	1	2	-	-	-	17

\* Delayed reports: SST: Me. 1  
Typhoid: N.J. delete 1, Nev. 1  
Typhus fever, tick-borne: Fla. 1

Week No.

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED AUGUST 17, 1968

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

Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes	Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes
	All Ages	65 years and over				All Ages	65 years and over		
<b>NEW ENGLAND:</b>	705	425	29	44	<b>SOUTH ATLANTIC:</b>	1,086	550	47	70
Boston, Mass.-----	219	121	12	14	Atlanta, Ga.-----	132	50	4	7
Bridgeport, Conn.-----	51	36	4	1	Baltimore, Md.-----	237	121	11	23
Cambridge, Mass.-----	22	17	-	-	Charlotte, N. C.-----	47	25	1	1
Fall River, Mass.-----	26	19	-	-	Jacksonville, Fla.-----	68	38	5	4
Hartford, Conn.-----	55	30	2	6	Miami, Fla.-----	81	38	1	3
Lowell, Mass.-----	31	17	2	-	Norfolk, Va.-----	55	26	6	7
Lynn, Mass.-----	16	14	1	-	Richmond, Va.-----	89	46	1	7
New Bedford, Mass.-----	22	15	-	-	Savannah, Ga.-----	29	14	1	3
New Haven, Conn.-----	56	25	-	9	St. Petersburg, Fla.-----	75	57	1	3
Providence, R. I.-----	60	35	2	6	Tampa, Fla.-----	72	40	12	6
Somerville, Mass.-----	12	10	-	-	Washington, D. C.-----	161	76	3	4
Springfield, Mass.-----	50	27	4	2	Wilmington, Del.-----	40	19	1	2
Waterbury, Conn.-----	32	21	-	5					
Worcester, Mass.-----	53	38	2	1	<b>EAST SOUTH CENTRAL:</b>	617	334	15	31
<b>MIDDLE ATLANTIC:</b>	3,143	1,787	125	151	Birmingham, Ala.-----	88	46	2	5
Albany, N. Y.-----	50	29	1	3	Chattanooga, Tenn.-----	38	20	1	2
Allentown, Pa.-----	37	21	2	1	Knoxville, Tenn.-----	30	17	1	1
Buffalo, N. Y.-----	132	68	3	8	Louisville, Ky.-----	116	60	5	4
Camden, N. J.-----	42	20	1	7	Memphis, Tenn.-----	148	79	2	10
Elizabeth, N. J.-----	28	11	4	2	Mobile, Ala.-----	58	26	-	5
Erie, Pa.-----	40	25	1	1	Montgomery, Ala.-----	39	23	2	-
Jersey City, N. J.-----	52	29	4	2	Nashville, Tenn.-----	100	63	2	4
Newark, N. J.-----	80	36	8	6	<b>WEST SOUTH CENTRAL:</b>	1,106	561	40	73
New York City, N. Y.-----	1,548	900	62	66	Austin, Tex.-----	24	15	5	-
Paterson, N. J.-----	34	21	-	-	Baton Rouge, La.-----	34	16	1	2
Philadelphia, Pa.-----	508	278	12	30	Corpus Christi, Tex.-----	33	17	-	5
Pittsburgh, Pa.-----	191	101	10	10	Dallas, Tex.-----	162	74	2	14
Reading, Pa.-----	53	33	3	2	El Paso, Tex.-----	31	14	2	3
Rochester, N. Y.-----	96	58	7	5	Fort Worth, Tex.-----	70	41	4	3
Schenectady, N. Y.-----	31	21	-	1	Houston, Tex.-----	220	92	3	24
Scranton, Pa.-----	44	29	1	3	Little Rock, Ark.-----	40	27	2	-
Syracuse, N. Y.-----	73	47	3	2	New Orleans, La.-----	179	97	4	4
Trenton, N. J.-----	44	23	1	-	Oklahoma City, Okla.-----	78	40	1	4
Utica, N. Y.-----	30	20	1	-	San Antonio, Tex.-----	116	62	3	8
Yonkers, N. Y.-----	30	17	1	2	Shreveport, La.-----	54	25	6	5
<b>EAST NORTH CENTRAL:</b>	2,536	1,380	89	123	Tulsa, Okla.-----	65	41	7	1
Akron, Ohio-----	70	40	-	2	<b>MOUNTAIN:</b>	410	243	13	26
Canton, Ohio-----	30	19	2	1	Albuquerque, N. Mex.-----	52	27	2	4
Chicago, Ill.-----	736	388	27	27	Colorado Springs, Colo.-----	24	12	2	1
Cincinnati, Ohio-----	130	78	1	5	Denver, Colo.-----	116	71	6	7
Cleveland, Ohio-----	234	118	8	12	Ogden, Utah-----	22	14	1	2
Columbus, Ohio-----	135	71	2	8	Phoenix, Ariz.-----	88	58	1	3
Dayton, Ohio-----	90	50	1	6	Pueblo, Colo.-----	13	5	-	1
Detroit, Mich.-----	352	183	13	19	Salt Lake City, Utah-----	51	32	-	6
Evansville, Ind.-----	34	21	1	2	Tucson, Ariz.-----	44	24	1	2
Flint, Mich.-----	49	22	3	7	<b>PACIFIC:</b>	1,496	928	20	54
Fort Wayne, Ind.-----	49	29	2	-	Berkeley, Calif.-----	22	14	-	-
Gary, Ind.-----	40	20	2	4	Fresno, Calif.-----	37	27	1	-
Grand Rapids, Mich.-----	41	24	6	3	Glendale, Calif.-----	30	21	1	2
Indianapolis, Ind.-----	135	69	5	6	Honolulu, Hawaii-----	37	13	1	1
Madison, Wis.-----	27	7	2	3	Long Beach, Calif.-----	94	55	-	2
Milwaukee, Wis.-----	103	59	1	6	Los Angeles, Calif.-----	419	253	6	14
Peoria, Ill.-----	41	20	-	4	Oakland, Calif.-----	90	54	2	2
Rockford, Ill.-----	33	23	4	1	Pasadena, Calif.-----	25	18	-	-
South Bend, Ind.-----	46	28	6	1	Portland, Ore.-----	115	71	1	4
Toledo, Ohio-----	104	72	2	6	Sacramento, Calif.-----	74	46	-	6
Youngstown, Ohio-----	57	39	1	-	San Diego, Calif.-----	84	49	-	2
<b>WEST NORTH CENTRAL:</b>	773	459	13	28	San Francisco, Calif.-----	191	122	4	11
Des Moines, Iowa-----	52	34	1	-	San Jose, Calif.-----	35	29	1	1
Duluth, Minn.-----	18	13	3	-	Seattle, Wash.-----	151	92	2	5
Kansas City, Kans.-----	45	26	-	3	Spokane, Wash.-----	48	34	-	3
Kansas City, Mo.-----	119	75	-	2	Tacoma, Wash.-----	44	30	1	1
Lincoln, Nebr.-----	25	19	1	-					
Minneapolis, Minn.-----	98	59	-	6	<b>Total</b>	<b>11,872</b>	<b>6,667</b>	<b>391</b>	<b>600</b>
Omaha, Nebr.-----	73	42	-	-	Cumulative Totals including reported corrections for previous weeks				
St. Louis, Mo.-----	225	126	4	5	All Causes, All Ages -----	424,765			
St. Paul, Minn.-----	60	35	2	7	All Causes, Age 65 and over-----	245,687			
Wichita, Kans.-----	58	30	2	5	Pneumonia and Influenza, All Ages-----	17,669			
					All Causes, Under 1 Year of Age-----	19,807			



**EPIDEMIOLOGIC NOTES AND REPORTS**  
**VACCINIA NECROSUM - Portland, Oregon**

In Portland, Oregon, on May 30, a 62-year-old woman with chronic lymphocytic leukemia died from vaccinia necrosum (vaccinia gangrenosa), complicated by generalized septicemia. The patient had been receiving antimetabolite therapy for the 6 years since the leukemia had been diagnosed. Since June 1967 she had had recurrent herpes simplex, involving the entire left side of her face. On February 28, 1968, she was vaccinated with smallpox vaccine by her physician to abate the spread of herpes virus, and on March 24 she was admitted to the hospital with severe necrotic ulceration at the site of vaccination. The lesion spread locally to involve the entire deltoid region, and multiple satellite lesions occurred over the trunk and face. Although she was treated with Vaccinia Immune Globulin, local steroid ointment, whole blood transfusions, and finally debridement, she failed to recover. (Reported by Portland City Health Department; Gordon Edwards, M.D., Acting State Epidemiologist, Oregon State Board of Health; and the Smallpox Eradication Program, NCDC.)

**Editorial Note**

Vaccinia necrosum, a disease invariably fatal prior to the availability of vaccinia hyperimmune gamma-globulin and thiosemicarbazone<sup>1</sup>, occurs in an estimated five to 10 patients per year in the United States and generally in patients with disorders of the immunological system such as agammaglobulinemia or leukemia. In the United States since 1960, at least seven cases occurred in patients who had been vaccinated to relieve chronic or recurrent herpes.

**Reference:**

Kempe, C. Henry: Studies on smallpox and complications of smallpox vaccination. *Pediatrics* 26: 176-89, 1960.

**CURRENT TRENDS**  
**MORBIDITY REPORTING**

The "Manual of Procedures for National Morbidity Reporting and Surveillance of Communicable Diseases" has recently been revised and is available on request from:

National Communicable Disease Center  
 Atlanta, Georgia 30333

Attn: Acting Chief, Statistics Section,  
 Epidemiology Program

The manual describes procedures by which data are collected for the "Morbidity and Mortality Weekly Report" and the "Annual Supplement" to the MMWR, includes instructions for submitting surveillance forms on individual cases of diseases under national surveillance, and exhibits current surveillance forms used by various programs of the NCDC.

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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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.

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