

# Morbidity and Mortality

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE / PUBLIC HEALTH SERVICE HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION  
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**EPIDEMIOLOGIC NOTES AND REPORTS**  
**FATAL MALARIA - Wisconsin**

On Nov. 7, 1969, a 21-year-old serviceman returned to the United States from Vietnam on emergency leave to attend his father's funeral. He had brought no malarial suppressive drugs with him. Three days later, he experienced an episode of fever, chills, and anorexia. On November 18, he consulted a physician because of persistence of these symptoms, was told he had "flu", and was sent home. Two days later, he consulted a second physician who told the patient that malaria was a possibility, but the patient refused both a blood test and hospitalization.

On November 21, he was admitted to a civilian hospital with fever, chills, tachycardia, and restlessness and was treated with penicillin, digitalis, aspirin, and diazepam. Three days later, a peripheral smear showed a

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very heavy infection with *Plasmodium falciparum*, and therapy was begun with oral quinine and chloroquine. Intravenous quinine, whole blood transfusions, and sedatives were given because the patient demonstrated hypotensive episodes, a hematocrit of 22 percent, and neurologic abnormalities which included altered states of consciousness and pathologic reflexes. He expired on November 27.

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

DISEASE	1st WEEK ENDED		MEDIAN 1965 - 1969	CUMULATIVE, FIRST WEEK		
	January 10, 1970	January 4, 1969		1970	1969	MEDIAN 1965 - 1969
Aseptic meningitis . . . . .	36	18	28	36	18	28
Brucellosis . . . . .	1	-	1	1	-	1
Diphtheria . . . . .	3	3	1	3	3	1
Encephalitis, primary:						
Arthropod-borne & unspecified . . . . .	15	11	16	15	11	16
Encephalitis, post-infectious . . . . .	9	2	5	9	2	5
Hepatitis, serum . . . . .	127	88	675	127	88	675
Hepatitis, infectious . . . . .	946	644	19	946	644	19
Malaria . . . . .	44	27	1,128	44	27	1,128
Measles (rubeola) . . . . .	520	154	42	520	154	42
Meningococcal infections, total . . . . .	47	35	41	47	35	41
Civilian . . . . .	43	35	1	43	35	1
Military . . . . .	4	-	-	4	-	-
Mumps . . . . .	1,769	1,386	-	1,769	1,386	-
Poliomyelitis, total . . . . .	-	-	-	-	-	-
Paralytic . . . . .	-	-	-	-	-	-
Rubella (German measles) . . . . .	513	231	-	513	231	-
Tetanus . . . . .	-	2	2	-	2	2
Tularemia . . . . .	-	3	3	-	3	3
Typhoid fever . . . . .	3	8	2	3	8	2
Typhus, tick-borne (Rky. Mt. spotted fever) . . . . .	-	1	2	-	1	2
Rabies in animals . . . . .	46	45	68	46	45	68

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

	Cum.		Cum.
Anthrax: . . . . .	-	Psittacosis: Conn.-1 . . . . .	1
Botulism: . . . . .	-	Rabies in Man: . . . . .	-
Leprosy: . . . . .	-	Rubella congenital syndrome: . . . . .	-
Leptospirosis: . . . . .	-	Trichinosis: La.-1 . . . . .	1
Plague: . . . . .	-	Typhus, murine: * . . . . .	-

\*Delayed reports (1969): Typhus, murine: Tex. 1

## MALARIA - (Continued from front page)

Postmortem examination of the brain showed multiple septic infarcts, malarial pigment, and edema. The spleen contained malarial pigment and red blood cells with malarial parasites. There was bilateral acute pulmonary edema. (Reported by H. Grant Skinner, M.D., Director, Bureau of Preventable Diseases, Wisconsin State Division of Health.)

## Editorial Comment

Eight cases of fatal malaria, all due to *P. falciparum*, occurred in the United States and were reported to NCDC during 1969. In 1968, there had been six deaths reported. While military cases accounted for 95 percent of the malaria cases diagnosed in this country in 1969, only three of the fatalities were Vietnam veterans. The five civilian fatalities included four American citizens who acquired their infection in Africa and a transfusion-induced case in which the probable infected donor had served in Vietnam (Table 1).

Four of these five civilians had no history of taking the recommended regimen of chloroquine.\* One civilian did not consult a physician before he died; the diagnosis was made in two other civilians only at autopsy. Six of the fatal cases in persons who consulted a physician experienced a delay of 1 to 11 days (mean 5.2 days) before the diagnosis of malaria was established. In several instances, a review of the original blood smears showed malaria parasites. These deaths emphasize the need for Americans going to malarious regions to take malaria chemosuppressives and the need for physicians to consider the diagnosis of malaria in febrile patients with a history of recent travel or transfusions.

\*500 mg. of chloroquine phosphate once each week, starting the week prior to possible exposure and continuing throughout the time spent in areas in which transmission may occur and for 4 to 6 weeks thereafter, is recommended.

Table 1  
Malaria Fatalities - 1969  
(All Due to *P. falciparum*)

Fatality	Age	Sex	Country of Acquisition	Military or Civilian	Intervals (Days)		
					Time of Return to Onset of Symptoms	Delay in Making Correct Diagnosis*	Onset to Death
1	64	M	(Transfusion)	Civ.	(21)	3	22
2	69	F	E. Africa	Civ.	10	1	6
3	41	M	S. Africa	Civ.	2	—**	7
4	20	M	Vietnam	Mil.	coincident	7	18
5	22	M	Vietnam	Mil.	10	3	8
6	71	F	E. Africa	Civ.	9	unknown***	10
7	50	M	W. Africa	Civ.	1	11***	12
8	21	M	Vietnam	Mil.	3	6	17

\*Interval from time when physician first consulted to time when correct diagnosis made.

\*\*Did not consult physician.

\*\*\*Diagnosis made at postmortem examination.

### CURRENT TRENDS INFLUENZA - United States

A survey of state and territorial health officers on January 12 and 13 indicated that, at present, only the expected seasonal incidence of respiratory illness is occurring in each of the nine major geographic divisions in the United States with a few scattered influenza isolates reported. Findings of this survey in the divisions included the following:

**New England:** An outbreak of influenza with approximately 100 cases was reported from Vergennes, Vermont. Four isolates of Hong Kong-like A2 influenza were documented and several sera showed elevated titers. School absenteeism was significantly elevated in this area. Similar outbreaks of influenza-like illness were reported from Londonberry and Williston, as well as a sizable number of cases at a plant in Burlington. School absenteeism was beginning to rise during the current week in Burlington.

In Manchester, New Hampshire, two schools reported absentee rates of 22 and 40 percent, respectively, this

week because of flu-like illnesses. A seroconversion for influenza A was documented from a single case in Concord.

Mild influenza activity has been occurring in the Hartford, Connecticut, area; nine isolates of Hong Kong-like A2 influenza and two seroconversions were documented. School absenteeism has not been excessive so far this season.

**Middle Atlantic:** An outbreak of influenza-like illness occurred at a university in Buffalo, New York, just before Christmas recess. Eight isolates of A2/Hong Kong-like strains were obtained. No further illness was reported from this student group after the recess.

In New York City, a slight excess in the influenza-pneumonia mortality figures during the past several weeks has been attributed to the unseasonably cold weather during this period rather than to influenza since there has been no excessive school or industrial absenteeism and no

(Continued on page 7)

Figure 1  
PNEUMONIA-INFLUENZA DEATHS IN 122 UNITED STATES CITIES

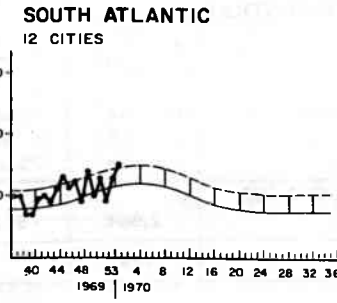
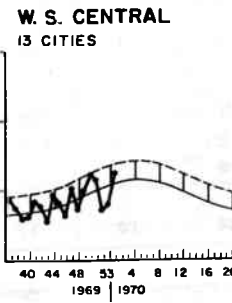
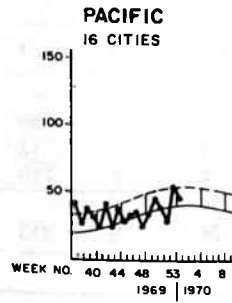
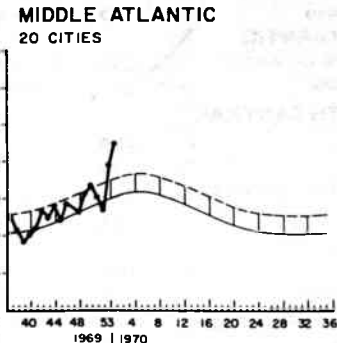
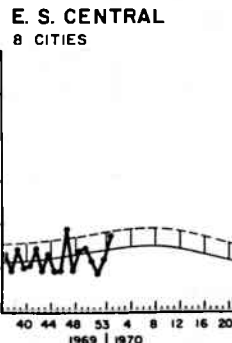
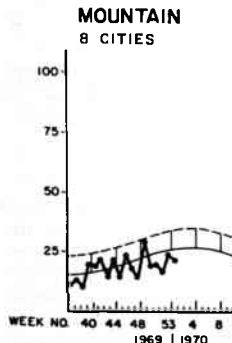
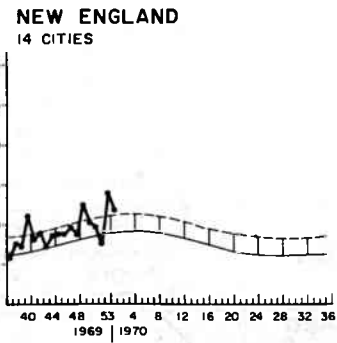
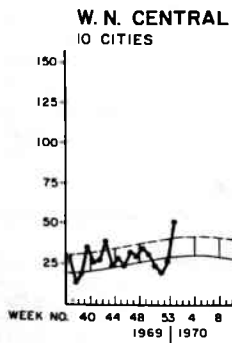
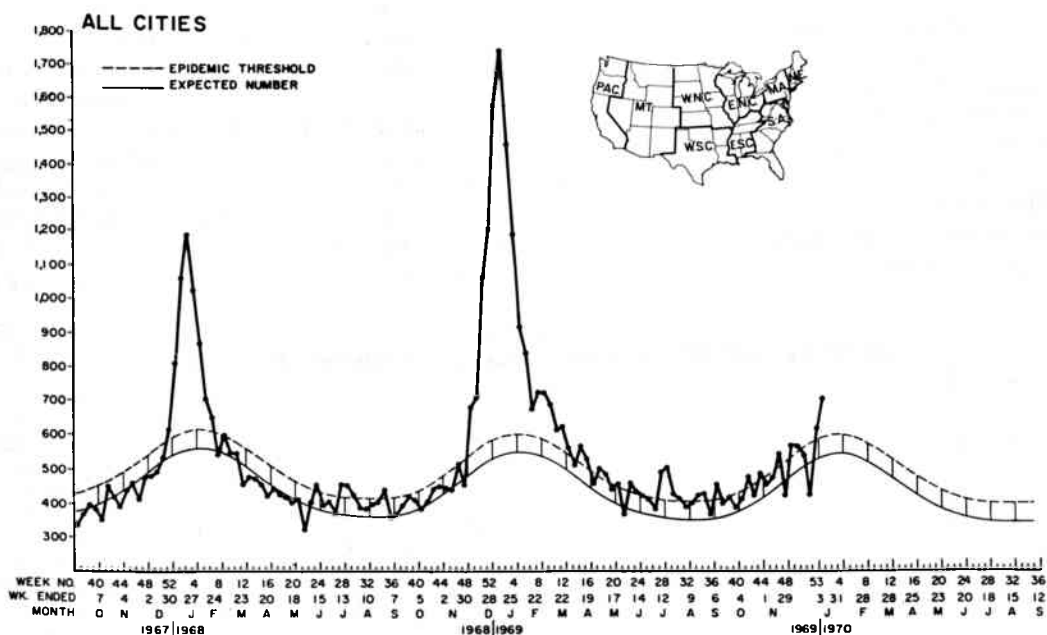




Table 2  
Reported Cases of Aseptic Meningitis  
by State and Year, 1963-1968

AREA	1963	1964	1965	1966	1967	1968
<b>UNITED STATES</b>	<b>1,844</b>	<b>2,177</b>	<b>2,329</b>	<b>3,058</b>	<b>3,082</b>	<b>4,494</b>
<b>NEW ENGLAND</b>	<b>99</b>	<b>42</b>	<b>70</b>	<b>227</b>	<b>58</b>	<b>154</b>
Maine	10	4	5	9	1	4
New Hampshire	1	0	0	0	2	0
Vermont	50	1	0	2	1	0
Massachusetts	16	14	44	135	33	87
Rhode Island	21	20	16	67	17	46
Connecticut	1	3	5	14	4	17
<b>MIDDLE ATLANTIC</b>	<b>244</b>	<b>268</b>	<b>220</b>	<b>392</b>	<b>332</b>	<b>861</b>
New York City		44	54	95	86	272
Upstate New York	116	98	61	46	41	91
New Jersey	92	72	56	174	146	361
Pennsylvania	36	54	49	77	59	137
<b>EAST NORTH CENTRAL</b>	<b>297</b>	<b>304</b>	<b>390</b>	<b>307</b>	<b>364</b>	<b>687</b>
Ohio	46	62	55	44	79	284
Indiana	18	11	54	28	29	38
Illinois	90	106	128	91	147	92
Michigan	125	107	119	118	94	265
Wisconsin	18	18	34	26	15	8
<b>WEST NORTH CENTRAL</b>	<b>95</b>	<b>140</b>	<b>159</b>	<b>104</b>	<b>135</b>	<b>163</b>
Minnesota	79	80	114	62	40	111
Iowa	5	3	25	7	61	13
Missouri	4	17	13	14	7	19
North Dakota	1	2	0	0	NN	12
South Dakota	5	10	4	1	10	0
Nebraska	1	4	1	3	0	3
Kansas	0	24	2	17	17	5
<b>SOUTH ATLANTIC</b>	<b>143</b>	<b>165</b>	<b>173</b>	<b>345</b>	<b>578</b>	<b>459</b>
Delaware	0	13	31	38	14	14
Maryland	8	6	3	20	356	91
District of Columbia	11	7	1	6	5	32
Virginia	29	24	17	31	64	106
West Virginia	12	16	3	53	40	68
North Carolina	NN	0	25	44	32	35
South Carolina	10	16	15	10	9	12
Georgia	0	0	0	0	0	0
Florida	73	83	78	143	58	101
<b>EAST SOUTH CENTRAL</b>	<b>150</b>	<b>336</b>	<b>250</b>	<b>275</b>	<b>295</b>	<b>323</b>
Kentucky	76	251	102	52	64	63
Tennessee	32	36	108	68	100	173
Alabama	26	43	29	48	66	50
Mississippi	16	6	11	107	65	37
<b>WEST SOUTH CENTRAL</b>	<b>126</b>	<b>134</b>	<b>252</b>	<b>404</b>	<b>254</b>	<b>420</b>
Arkansas	8	3	10	9	25	6
Louisiana	NN	25	17	47	56	157
Oklahoma	27	16	15	27	35	38
Texas	91	90	210	321	138	219
<b>MOUNTAIN</b>	<b>57</b>	<b>39</b>	<b>93</b>	<b>55</b>	<b>23</b>	<b>78</b>
Montana	6	4	2	1	0	12
Idaho	0	1	4	4	0	4
Wyoming	2	5	6	2	0	0
Colorado	2	4	8	8	8	35
New Mexico	1	1	10	9	3	22
Arizona	22	20	41	17	7	3
Utah	23	4	18	9	3	1
Nevada	1	0	4	5	2	1
<b>PACIFIC</b>	<b>633</b>	<b>749</b>	<b>722</b>	<b>949</b>	<b>1,043</b>	<b>1,349</b>
Washington	93	72	55	66	74	56
Oregon	30	6	14	10	34	59
California	498	628	608	822	767	1,164
Alaska	3	5	3	3	0	7
Hawaii	9	38	42	48	168	63
Puerto Rico	0	1	2	10	19	8

NN -- Report of disease not required by State Health Department.

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## ASEPTIC MENINGITIS - (Continued from page 4)

## Nonpolio Enterovirus Isolations

Although there has been no formal system of enteroviral surveillance, some state health departments reported to the NCDC all enteroviruses, regardless of clinical syndrome, isolated by their laboratories. For 1968, data from this system were supplemented by reports of isolations made from specimens submitted to the NCDC laboratories. Analysis of the total isolates from both state and NCDC laboratories showed that in 1968, 30 states reported at least one enterovirus isolation (Table 4). A summary of the total reported nonpolio enterovirus isolates by type since 1961 (Table 5) showed that reports of isolation of a specific

virus varied greatly from year to year, particularly among the Coxsackie B group.

(Reported by the Neurotropic Viral Diseases Unit, Viral Diseases Branch, Epidemiology Program, and the Enteric Virology Unit, Virology Section, Laboratory Division, NCDC.)

A copy of the report from which these data were derived is available on request from

National Communicable Disease Center  
Attn: Viral Diseases Branch, Epidemiology Program  
Atlanta, Georgia 30333

Table 4  
Enteroviral Isolations in 30 States, 1968

Area	Coxsackie Types							Echovirus Types										Other
	Total	A9	A16	B2	B3	B4	B5	E1	E3	E4	E6	E7	E9	E11	E12	E14	E30	
<b>NEW ENGLAND</b>																		
Maine	11		5				2					1					2	1
Massachusetts	7					1	1				1					2		2
Connecticut	64	2	10	1	8	6	1	3		3	1	2	3		8	1	10	5
<b>MIDDLE ATLANTIC</b>																		
New York City	35			4	3		2			1			2	2			20	1
New York State	1																	1
New Jersey	49				10	2	3	1	1	1	4		23	2	1	1		1
Pennsylvania	109	1		1	2	1	2		1	1	9	1	65	5	2		2	17
<b>EAST NORTH CENTRAL</b>																		
Ohio	35						3				1		28					3
Indiana	2						1			1								
Illinois	10		1										1	1		3	2	2
Michigan	57	2	1	12	3	1	3		3		2		19	1		1	5	4
<b>WEST NORTH CENTRAL</b>																		
Minnesota	67	8		3	14	9					6		26					1
Kansas	19			5	9								1	4				
<b>SOUTH ATLANTIC</b>																		
Maryland	3											2						1
District of Columbia	7		6															1
Virginia	27		4	1		1	2						15				1	3
North Carolina	48			3		1	10		6		3		25					
Georgia	5				1	1	1				1							1
Florida	3												2					1
<b>EAST SOUTH CENTRAL</b>																		
Tennessee	4												3					1
Mississippi	3				1													2
<b>WEST SOUTH CENTRAL</b>																		
Louisiana	38			2	1	4	1						3		18		7	2
Oklahoma	1		1															
Texas	4												4					
<b>MOUNTAIN</b>																		
Montana	3				1								2					
Colorado	3		1															2
Arizona	2	1				1												
Utah	6				1	1							2				1	1
<b>PACIFIC</b>																		
Washington	57		1	2	2	1	1				4	1	3		1		39	2
Oregon	43	1	5	2	3	4	2	3			5		6				12	
Alaska	1					1												
<b>TOTAL U.S.</b>	<b>724</b>	<b>15</b>	<b>35</b>	<b>36</b>	<b>59</b>	<b>35</b>	<b>35</b>	<b>7</b>	<b>11</b>	<b>15</b>	<b>28</b>	<b>8</b>	<b>236</b>	<b>11</b>	<b>12</b>	<b>26</b>	<b>101</b>	<b>54</b>

Table 5  
Nonpolio Enterovirus Isolations, 1961-1968\*\*

Year	No. States Reporting	ECHO Types							Coxsackie Types							TOTAL	
		4	6	9	11	14	30	Other	A9	A16	B1	B2	B3	B4	B5		Other
1961	40	*	*	42	73	*	0	138	*	*	*	119	*	112	747	89	1,320
1962	34	54	*	107	23	16	*	75	15	*	15	57	119	7	32	100	620
1963	28	72	*	88	32	27	0	120	91	*	137	28	11	44	6	65	721
1964	23	34	*	42	18	7	1	111	49	*	33	52	0	66	5	41	459
1965	23	1	68	171	14	13	*	67	8	*	6	59	3	22	38	16	486
1966	21	14	29	73	3	8	0	58	18	14	1	34	2	4	27	23	308
1967	19	7	18	99	3	2	0	35	21	9	2	10	2	0	188	11	407
1968	30***	15	28	236	11	26	101	74	15	35	3	36	59	35	35	15	724

\*Included in "Other" Column  
\*\*Reporting system established in 1961.  
\*\*\*Includes isolations made at NCDC.

INFLUENZA - (Continued from page 2)

laboratory documented isolates or seroconversions. In addition, a routine serologic survey recently documented only a minimal rise in titer.

**South Atlantic:** A number of patients with influenza-like illness were seen during the past week at the emergency room of a hospital in Baltimore and seem to be coming from a relatively localized area in the eastern part of the city. Hong Kong-like A2 influenza was isolated from two patients at this same hospital. Because there has been no excessive absenteeism and no increase in pneumonia-influenza deaths, the current cases may represent only sporadic occurrences rather than an outbreak.

A statewide increase in incidence of upper respiratory illness associated with prominent gastrointestinal symptoms of short duration has been occurring in Delaware since Christmas. School and industrial absenteeism has not been elevated. No laboratory results are available at present.

An outbreak of approximately 300 cases of flu-like illness has been reported from Portsmouth, Virginia, an area which did not report influenza last year. No laboratory studies are available at present. About 100 cases of flu-like illness were reported from Montgomery County. School and industrial absenteeism has not been excessive elsewhere in the state.

A single seroconversion for Hong Kong A2 influenza has been documented from Titusville, Florida.

**East North Central:** Two isolates of Hong Kong-like A2 influenza have been confirmed from Tecumseh, Michigan, and one from a university student health service; all were thought to represent sporadic cases.

**West North Central:** During the first week in December, three seroconversions were documented in Minnesota, and none since. These cases were considered to be sporadic.

Attempts to find an etiologic agent for the outbreak of flu-like illness at a state university in Kansas proved unsuccessful, and the illness is now considered to be of a nonspecific viral nature.

The previously mentioned outbreak of flu-like illness in Des Moines (MMWR, Vol. 18, No. 50) proved to be of

short duration and mild severity, and no etiologic agent was demonstrated.

**East South Central:** The expected seasonal occurrence of upper respiratory illness has been documented in these states except for Mississippi where the level of reported illness is somewhat below the expected level.

**West South Central:** Only the expected seasonal incidence is being reported in these states.

**Mountain:** Single seroconversions for A2 influenza have been documented in Albuquerque and Denver and represented sporadic cases.

**Pacific:** A single seroconversion was noted in Oregon. In Washington, four isolates of A2 Hong Kong-like influenza have been obtained and are thought to represent sporadic cases.

The outbreaks previously described in Alaska (MMWR, Vol. 18, Nos. 47, 48, 50, and 53) have diminished, though excessive absenteeism continues in Juneau.

A general increase in the level of upper respiratory illness has been documented during the past several weeks in Hawaii along with a noticeable increase in school absenteeism. However, only one definite outbreak of respiratory illness has been documented. Approximately 200 cases from a small area in rural Oahu have been reported, and about 50 percent of these patients had pneumonitis. Laboratory studies are in progress. There have been approximately seven seroconversions for Hong Kong A2 influenza during the past several months, and these were thought to represent sporadic cases.

Pneumonia-influenza deaths in 122 U.S. cities showed the usual expected fluctuation along the baseline (Figure 1, p. 3). It is too early to evaluate the significance of the slight rise seen during the past 2 weeks. This is in marked contrast to the sharp peak seen at this time last year during the epidemic of A2 Hong Kong influenza.

(Reported by Respiratory Disease Unit, Viral Disease Branch, Epidemiology Program, NCDC.)

## Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED  
JANUARY 10, 1970 AND JANUARY 4, 1969 (1st WEEK)

AREA	ASEPTIC MENIN- GITIS	BRUCEL- LOSIS	DIPH- THERIA	ENCEPHALITIS			HEPATITIS			MALARIA	
				Primary including unsp. cases		Post In- fectious	Serum	Infectious		1970	Cum. 1970
				1970	1969	1970	1970	1970	1969		
UNITED STATES.....	36	1	3	15	11	9	127	946	644	44	44
NEW ENGLAND.....	-	-	-	2	-	-	6	119	43	2	2
Maine.....	-	-	-	-	-	-	-	23	6	-	-
New Hampshire.....	-	-	-	-	-	-	-	4	2	-	-
Vermont.....	-	-	-	-	-	-	-	1	-	1	1
Massachusetts.....	-	-	-	-	-	-	-	64	21	-	-
Rhode Island.....	-	-	-	1	-	-	-	11	8	1	1
Connecticut.....	-	-	-	1	-	-	6	16	6	-	-
MIDDLE ATLANTIC.....	7	-	-	1	-	2	60	241	130	4	4
New York City.....	-	-	-	-	-	-	27	57	71	-	-
New York, Up-State...	1	-	-	-	-	-	8	48	5	1	1
New Jersey.....	5	-	-	-	-	-	14	60	12	3	3
Pennsylvania.....	1	-	-	1	-	2	11	76	42	-	-
EAST NORTH CENTRAL.....	1	-	-	3	8	3	14	161	62	3	3
Ohio.....	-	-	-	1	3	3	3	42	25	3	3
Indiana.....	-	-	-	-	2	-	-	-	-	-	-
Illinois.....	-	-	-	-	3	-	-	1	5	-	-
Michigan.....	1	-	-	2	-	-	11	113	27	-	-
Wisconsin.....	-	-	-	-	-	-	-	5	5	-	-
WEST NORTH CENTRAL.....	-	1	-	-	-	1	-	17	28	-	-
Minnesota.....	-	-	-	-	-	-	-	2	3	-	-
Iowa.....	-	-	-	-	-	1	-	10	4	-	-
Missouri.....	-	1	-	-	-	-	-	1	19	-	-
North Dakota.....	-	-	-	-	-	-	-	-	-	-	-
South Dakota.....	-	-	-	-	-	-	-	1	-	-	-
Nebraska.....	-	-	-	-	-	-	-	3	2	-	-
Kansas.....	-	-	-	-	-	-	-	-	-	-	-
SOUTH ATLANTIC.....	4	-	3	2	-	-	7	83	90	16	16
Delaware.....	1	-	-	1	-	-	-	3	2	-	-
Maryland.....	-	-	-	-	-	-	1	17	6	5	5
Dist. of Columbia...	-	-	-	-	-	-	-	-	-	-	-
Virginia.....	-	-	-	-	-	-	-	14	5	1	1
West Virginia.....	-	-	-	1	-	-	-	5	9	-	-
North Carolina.....	-	-	-	-	-	-	2	4	11	1	1
South Carolina.....	-	-	-	-	-	-	2	19	4	-	-
Georgia.....	-	-	-	-	-	-	-	10	21	7	7
Florida.....	3	-	3	-	-	-	2	11	32	2	2
EAST SOUTH CENTRAL.....	3	-	-	-	-	1	-	60	61	-	-
Kentucky.....	1	-	-	-	-	-	-	36	24	-	-
Tennessee.....	1	-	-	-	-	1	-	17	21	-	-
Alabama.....	1	-	-	-	-	-	-	5	10	-	-
Mississippi.....	-	-	-	-	-	-	-	2	6	-	-
WEST SOUTH CENTRAL.....	2	-	-	1	-	-	2	44	55	3	3
Arkansas.....	-	-	-	-	-	-	-	2	-	-	-
Louisiana.....	-	-	-	-	-	-	-	3	8	-	-
Oklahoma.....	2	-	-	-	-	-	-	6	15	2	2
Texas.....	-	-	-	1	-	-	2	33	32	1	1
MOUNTAIN.....	-	-	-	1	1	-	4	28	30	1	1
Montana.....	-	-	-	1	1	-	-	-	5	-	-
Idaho.....	-	-	-	-	-	-	2	11	1	1	1
Wyoming.....	-	-	-	-	-	-	-	1	-	-	-
Colorado.....	-	-	-	-	-	-	-	-	-	-	-
New Mexico.....	-	-	-	-	-	-	-	4	5	-	-
Arizona.....	-	-	-	-	-	-	1	6	9	-	-
Utah.....	-	-	-	-	-	-	1	6	4	-	-
Nevada.....	-	-	-	-	-	-	-	-	6	-	-
PACIFIC.....	19	-	-	5	2	2	34	193	145	15	15
Washington.....	6	-	-	1	-	-	-	21	7	4	4
Oregon.....	-	-	-	-	-	-	1	10	9	1	1
California.....	13	-	-	4	2	2	33	153	126	10	10
Alaska.....	-	-	-	-	-	-	-	1	1	-	-
Hawaii.....	-	-	-	-	-	-	-	8	2	-	-
Puerto Rico.....	-	-	-	-	-	-	-	-	-	-	-
Virgin Islands.....	-	-	-	-	-	-	-	-	-	-	-

\*Delayed reports (1969): Aseptic meningitis: Ariz. 1  
Diphtheria: La. delete 1, Tex. 3  
Hepatitis, infectious: S.C. delete 2  
Malaria: Minn. 16, Iowa 1



# Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

JANUARY 10, 1970 AND JANUARY 4, 1969 (1st WEEK) - CONTINUED

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS		POLIOMYELITIS		
	1970	Cumulative		1970	Cumulative		1970	Cum. 1970	Total	Paralytic	
		1970	1969		1970	1969			1970	1970	Cum. 1970
UNITED STATES.....	520	520	154	47	47	35	1,769	1,769	-	-	-
NEW ENGLAND.....	6	6	11	1	1	2	326	326	-	-	-
Maine*.....	-	-	2	-	-	-	74	74	-	-	-
New Hampshire.....	-	-	-	-	-	-	43	43	-	-	-
Vermont.....	-	-	-	-	-	-	2	2	-	-	-
Massachusetts.....	5	5	1	1	1	1	72	72	-	-	-
Rhode Island.....	-	-	-	-	-	-	64	64	-	-	-
Connecticut.....	1	1	8	-	-	1	71	71	-	-	-
MIDDLE ATLANTIC.....	54	54	50	5	5	3	211	211	-	-	-
New York City.....	17	17	27	-	-	1	90	90	-	-	-
New York, Up-State...	6	6	1	1	1	1	NN	NN	-	-	-
New Jersey.....	26	26	13	2	2	-	50	50	-	-	-
Pennsylvania.....	5	5	9	2	2	1	71	71	-	-	-
EAST NORTH CENTRAL.....	75	75	11	3	3	5	383	383	-	-	-
Ohio.....	61	61	-	1	1	-	33	33	-	-	-
Indiana.....	1	1	3	-	-	-	49	49	-	-	-
Illinois.....	6	6	4	-	-	2	50	50	-	-	-
Michigan.....	6	6	1	1	1	3	87	87	-	-	-
Wisconsin.....	1	1	3	1	1	-	164	164	-	-	-
WEST NORTH CENTRAL.....	79	79	9	-	-	-	64	64	-	-	-
Minnesota.....	-	-	-	-	-	-	5	5	-	-	-
Iowa.....	-	-	4	-	-	-	38	38	-	-	-
Missouri.....	-	-	-	-	-	-	6	6	-	-	-
North Dakota.....	2	2	-	-	-	-	13	13	-	-	-
South Dakota.....	-	-	-	-	-	-	NN	NN	-	-	-
Nebraska.....	77	77	5	-	-	-	2	2	-	-	-
Kansas.....	-	-	-	-	-	-	-	-	-	-	-
SOUTH ATLANTIC.....	112	112	25	13	13	7	187	187	-	-	-
Delaware.....	29	29	-	-	-	-	8	8	-	-	-
Maryland.....	7	7	-	1	1	1	12	12	-	-	-
Dist. of Columbia...	27	27	-	-	-	-	6	6	-	-	-
Virginia.....	33	33	13	2	2	-	22	22	-	-	-
West Virginia.....	3	3	6	-	-	1	98	98	-	-	-
North Carolina.....	8	8	2	1	1	-	NN	NN	-	-	-
South Carolina.....	2	2	3	1	1	1	12	12	-	-	-
Georgia.....	-	-	-	6	6	-	-	-	-	-	-
Florida.....	3	3	1	2	2	4	29	29	-	-	-
EAST SOUTH CENTRAL.....	15	15	-	6	6	1	138	138	-	-	-
Kentucky.....	8	8	-	3	3	-	24	24	-	-	-
Tennessee.....	3	3	-	2	2	1	109	109	-	-	-
Alabama.....	4	4	-	1	1	-	5	5	-	-	-
Mississippi.....	-	-	-	-	-	-	-	-	-	-	-
WEST SOUTH CENTRAL.....	134	134	36	4	4	3	185	185	-	-	-
Arkansas.....	-	-	-	1	1	-	-	-	-	-	-
Louisiana.....	-	-	-	2	2	1	-	-	-	-	-
Oklahoma.....	-	-	-	-	-	-	42	42	-	-	-
Texas.....	134	134	36	1	1	2	143	143	-	-	-
MOUNTAIN.....	28	28	4	1	1	3	87	87	-	-	-
Montana.....	-	-	-	-	-	-	12	12	-	-	-
Idaho.....	-	-	-	-	-	-	2	2	-	-	-
Wyoming.....	-	-	-	-	-	-	-	-	-	-	-
Colorado.....	-	-	-	-	-	-	35	35	-	-	-
New Mexico.....	3	3	1	-	-	1	17	17	-	-	-
Arizona.....	25	25	3	-	-	-	21	21	-	-	-
Utah.....	-	-	-	1	1	-	-	-	-	-	-
Nevada.....	-	-	-	-	-	2	-	-	-	-	-
PACIFIC.....	17	17	8	14	14	11	188	188	-	-	-
Washington.....	-	-	-	1	1	-	81	81	-	-	-
Oregon.....	-	-	4	1	1	-	24	24	-	-	-
California.....	16	16	4	12	12	10	66	66	-	-	-
Alaska.....	-	-	-	-	-	-	3	3	-	-	-
Hawaii.....	1	1	-	-	-	1	14	14	-	-	-
Puerto Rico.....	38	38	5	-	-	-	12	12	-	-	-
Virgin Islands.....	-	-	-	-	-	-	-	-	-	-	-

\*Delayed reports (1969): Measles: Me. 1

## Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDED  
JANUARY 10, 1970 AND JANUARY 4, 1969 (1st WEEK) - CONTINUED

AREA	RUBELLA		TETANUS		TULAREMIA		TYPHOID FEVER		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
	1970	Cum. 1970	1970	Cum. 1970	1970	Cum. 1970	1970	Cum. 1970	1970	Cum. 1970	1970	Cum. 1970
UNITED STATES.....	513	513	-	-	-	-	3	3	-	-	46	46
NEW ENGLAND.....	40	40	-	-	-	-	-	-	-	-	4	4
Maine.....	3	3	-	-	-	-	-	-	-	-	-	-
New Hampshire.....	8	8	-	-	-	-	-	-	-	-	-	-
Vermont.....	5	5	-	-	-	-	-	-	-	-	4	4
Massachusetts.....	13	13	-	-	-	-	-	-	-	-	-	-
Rhode Island.....	1	1	-	-	-	-	-	-	-	-	-	-
Connecticut.....	10	10	-	-	-	-	-	-	-	-	-	-
MIDDLE ATLANTIC.....	41	41	-	-	-	-	1	1	-	-	6	6
New York City.....	4	4	-	-	-	-	-	-	-	-	-	-
New York, Up-State..	12	12	-	-	-	-	1	1	-	-	6	6
New Jersey.....	12	12	-	-	-	-	-	-	-	-	-	-
Pennsylvania.....	13	13	-	-	-	-	-	-	-	-	-	-
EAST NORTH CENTRAL....	121	121	-	-	-	-	-	-	-	-	-	-
Ohio.....	9	9	-	-	-	-	-	-	-	-	-	-
Indiana.....	12	12	-	-	-	-	-	-	-	-	-	-
Illinois.....	37	37	-	-	-	-	-	-	-	-	-	-
Michigan.....	34	34	-	-	-	-	-	-	-	-	-	-
Wisconsin.....	29	29	-	-	-	-	-	-	-	-	-	-
WEST NORTH CENTRAL....	39	39	-	-	-	-	-	-	-	-	12	12
Minnesota.....	3	3	-	-	-	-	-	-	-	-	1	1
Iowa.....	29	29	-	-	-	-	-	-	-	-	3	3
Missouri.....	-	-	-	-	-	-	-	-	-	-	4	4
North Dakota.....	-	-	-	-	-	-	-	-	-	-	4	4
South Dakota.....	-	-	-	-	-	-	-	-	-	-	-	-
Nebraska.....	7	7	-	-	-	-	-	-	-	-	-	-
Kansas.....	-	-	-	-	-	-	-	-	-	-	-	-
SOUTH ATLANTIC.....	81	81	-	-	-	-	1	1	-	-	12	12
Delaware.....	3	3	-	-	-	-	-	-	-	-	-	-
Maryland.....	1	1	-	-	-	-	1	1	-	-	-	-
Dist. of Columbia..	-	-	-	-	-	-	-	-	-	-	-	-
Virginia.....	11	11	-	-	-	-	-	-	-	-	4	4
West Virginia.....	39	39	-	-	-	-	-	-	-	-	3	3
North Carolina.....	-	-	-	-	-	-	-	-	-	-	-	-
South Carolina.....	2	2	-	-	-	-	-	-	-	-	-	-
Georgia.....	-	-	-	-	-	-	-	-	-	-	5	5
Florida.....	25	25	-	-	-	-	-	-	-	-	-	-
EAST SOUTH CENTRAL....	23	23	-	-	-	-	-	-	-	-	4	4
Kentucky.....	1	1	-	-	-	-	-	-	-	-	2	2
Tennessee.....	17	17	-	-	-	-	-	-	-	-	1	1
Alabama.....	2	2	-	-	-	-	-	-	-	-	1	1
Mississippi.....	3	3	-	-	-	-	-	-	-	-	-	-
WEST SOUTH CENTRAL....	65	65	-	-	-	-	-	-	-	-	5	5
Arkansas.....	-	-	-	-	-	-	-	-	-	-	1	1
Louisiana.....	-	-	-	-	-	-	-	-	-	-	-	-
Oklahoma.....	19	19	-	-	-	-	-	-	-	-	1	1
Texas*.....	46	46	-	-	-	-	-	-	-	-	3	3
MOUNTAIN.....	29	29	-	-	-	-	1	1	-	-	1	1
Montana.....	10	10	-	-	-	-	-	-	-	-	-	-
Idaho.....	2	2	-	-	-	-	-	-	-	-	-	-
Wyoming.....	6	6	-	-	-	-	-	-	-	-	-	-
Colorado.....	6	6	-	-	-	-	1	1	-	-	-	-
New Mexico.....	2	2	-	-	-	-	-	-	-	-	1	1
Arizona.....	3	3	-	-	-	-	-	-	-	-	-	-
Utah.....	-	-	-	-	-	-	-	-	-	-	-	-
Nevada.....	-	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	74	74	-	-	-	-	-	-	-	-	2	2
Washington.....	26	26	-	-	-	-	-	-	-	-	-	-
Oregon.....	14	14	-	-	-	-	-	-	-	-	-	-
California.....	29	29	-	-	-	-	-	-	-	-	2	2
Alaska.....	1	1	-	-	-	-	-	-	-	-	-	-
Hawaii.....	4	4	-	-	-	-	-	-	-	-	-	-
Puerto Rico.....	-	-	-	-	-	-	-	-	-	-	-	-
Virgin Islands.....	-	-	-	-	-	-	-	-	-	-	-	-

\*Delayed reports (1969): Typhoid fever: Tex. 1

# Morbidity and Mortality Weekly Report

Week No. 1  
**TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED JANUARY 10, 1970**

(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>	857	531	60	27	<b>SOUTH ATLANTIC:</b>	1,595	820	77	70
Boston, Mass.-----	258	144	17	12	Atlanta, Ga.-----	157	77	7	8
Bridgeport, Conn.-----	46	29	5	-	Baltimore, Md.-----	342	180	8	10
Cambridge, Mass.-----	32	19	7	-	Charlotte, N. C.-----	77	27	3	3
Fall River, Mass.-----	42	30	1	1	Jacksonville, Fla.-----	115	61	7	4
Hartford, Conn.-----	69	40	3	3	Miami, Fla.-----	135	68	4	4
Lowell, Mass.-----	27	20	2	1	Norfolk, Va.-----	87	36	11	7
Lynn, Mass.-----	22	16	5	1	Richmond, Va.-----	108	62	4	4
New Bedford, Mass.-----	42	29	3	1	Savannah, Ga.-----	38	27	2	1
New Haven, Conn.-----	66	38	1	2	St. Petersburg, Fla.-----	126	100	11	1
Providence, R. I.-----	73	44	4	1	Tampa, Fla.-----	99	49	9	9
Somerville, Mass.-----	15	9	1	-	Washington, D. C.-----	283	121	9	18
Springfield, Mass.-----	54	37	5	1	Wilmington, Del.-----	28	12	2	1
Waterbury, Conn.-----	30	20	-	-					
Worcester, Mass.-----	81	56	6	4	<b>EAST SOUTH CENTRAL:</b>	927	515	43	40
<b>MIDDLE ATLANTIC:</b>	4,435	2,679	224	143	Birmingham, Ala.-----	120	72	2	3
Albany, N. Y.-----	80	52	2	6	Chattanooga, Tenn.-----	84	49	10	2
Allentown, Pa.-----	43	32	6	1	Knoxville, Tenn.-----	57	35	1	-
Buffalo, N. Y.-----	222	133	8	4	Louisville, Ky.-----	181	107	18	9
Camden, N. J.-----	43	27	4	1	Memphis, Tenn.-----	188	100	4	8
Elizabeth, N. J.-----	60	35	5	5	Mobile, Ala.-----	80	34	2	8
Erie, Pa.-----	49	35	5	4	Montgomery, Ala.-----	71	39	2	4
Jersey City, N. J.-----	80	54	8	3	Nashville, Tenn.-----	146	79	4	6
Newark, N. J.-----	141	70	9	6	<b>WEST SOUTH CENTRAL:</b>	1,542	867	64	94
New York City, N. Y.-----	2,255	1,335	105	68	Austin, Tex.-----	49	32	8	4
Paterson, N. J.-----	52	35	-	1	Baton Rouge, La.-----	70	42	6	-
Philadelphia, Pa.-----	600	354	16	17	Corpus Christi, Tex.-----	34	17	-	3
Pittsburgh, Pa.-----	302	175	24	8	Dallas, Tex.-----	238	122	7	21
Reading, Pa.-----	62	44	2	1	El Paso, Tex.-----	70	40	4	4
Rochester, N. Y.-----	131	87	8	4	Fort Worth, Tex.-----	109	64	3	5
Schenectady, N. Y.-----	26	16	2	-	Houston, Tex.-----	220	93	6	19
Scranton, Pa.-----	54	32	5	2	Little Rock, Ark.-----	73	45	3	1
Syracuse, N. Y.-----	113	80	3	5	New Orleans, La.-----	205	118	3	17
Trenton, N. J.-----	32	17	2	3	Oklahoma City, Okla.-----	126	73	3	4
Utica, N. Y.-----	41	32	5	3	San Antonio, Tex.-----	148	91	5	6
Yonkers, N. Y.-----	49	34	5	3	Shreveport, La.-----	94	59	9	4
					Tulsa, Okla.-----	106	71	7	6
<b>EAST NORTH CENTRAL:</b>	3,244	1,853	109	171	<b>MOUNTAIN:</b>	598	364	21	30
Akron, Ohio-----	85	45	1	11	Albuquerque, N. Mex.-----	60	34	5	4
Canton, Ohio-----	44	29	5	3	Colorado Springs, Colo.-----	34	16	2	6
Chicago, Ill.-----	888	459	27	62	Denver, Colo.-----	153	92	3	7
Cincinnati, Ohio-----	191	115	1	7	Ogden, Utah-----	23	18	3	1
Cleveland, Ohio-----	250	140	3	4	Phoenix, Ariz.-----	151	89	1	6
Columbus, Ohio-----	168	92	2	8	Pueblo, Colo.-----	41	29	2	1
Dayton, Ohio-----	108	63	5	2	Salt Lake City, Utah-----	56	37	2	3
Detroit, Mich.-----	423	245	13	12	Tucson, Ariz.-----	80	49	3	2
Evansville, Ind.-----	12	9	-	-					
Flint, Mich.-----	82	53	3	8	<b>PACIFIC:</b>	1,903	1,183	46	72
Fort Wayne, Ind.-----	53	31	4	8	Berkeley, Calif.-----	18	15	-	-
Gary, Ind.-----	48	20	6	5	Fresno, Calif.-----	76	46	6	2
Grand Rapids, Mich.-----	78	53	4	3	Glendale, Calif.-----	31	21	-	3
Indianapolis, Ind.-----	215	123	3	16	Honolulu, Hawaii-----	67	35	1	3
Madison, Wis.-----	43	22	7	7	Long Beach, Calif.-----	114	81	4	-
Milwaukee, Wis.-----	207	130	5	6	Los Angeles, Calif.-----	557	341	14	33
Peoria, Ill.-----	45	28	3	3	Oakland, Calif.-----	130	67	4	6
Rockford, Ill.-----	46	28	5	2	Pasadena, Calif.-----	39	30	2	-
South Bend, Ind.-----	40	26	5	1	Portland, Oreg.-----	152	100	1	7
Toledo, Ohio-----	141	88	5	2	Sacramento, Calif.-----	73	47	1	-
Youngstown, Ohio-----	77	54	2	1	San Diego, Calif.-----	89	54	1	3
					San Francisco, Calif.-----	237	148	5	1
<b>WEST NORTH CENTRAL:</b>	1,154	719	52	61	San Jose, Calif.-----	53	33	1	3
Des Moines, Iowa-----	102	70	4	2	Seattle, Wash.-----	162	97	4	8
Duluth, Minn.-----	30	22	2	-	Spokane, Wash.-----	59	37	1	2
Kansas City, Kans.-----	46	27	7	8	Tacoma, Wash.-----	46	31	1	1
Kansas City, Mo.-----	116	75	3	4					
Lincoln, Nebr.-----	38	26	2	-	<b>Total</b>	<b>16,255</b>	<b>9,531</b>	<b>696</b>	<b>708</b>
Minneapolis, Minn.-----	147	93	3	6	<b>Expected Number</b>	<b>13,370</b>	<b>7,830</b>	<b>517</b>	<b>546</b>
Omaha, Nebr.-----	151	79	4	2	<b>Cumulative Total</b> (includes reported corrections for previous weeks)	<b>16,255</b>	<b>9,531</b>	<b>696</b>	<b>708</b>
St. Louis, Mo.-----	340	203	13	35					
St. Paul, Minn.-----	117	78	3	4					
Wichita, Kans.-----	67	46	11	-					
<b>Las Vegas, Nev.*</b>	<b>43</b>	<b>17</b>	<b>2</b>	<b>1</b>	<b>*Mortality data are being collected from Las Vegas, Nev., for possible inclusion in this table, however, for statistical reasons, these data will be listed only and not included in the total, expected number, or cumulative total, until 5 years of data are collected.</b>				

## ANNOUNCEMENT OF SUPPLEMENTS

Two supplements were published and distributed as part of Vol. 18 of the *Morbidity and Mortality Weekly Report*. The first supplement, the "Collected Recommendations of the Public Health Service Advisory Committee on Immunization Practices," became available on Oct. 25, 1969, and the second supplement, "the list of United States Designated Yellow Fever Vaccination Centers," was published on Jan. 3, 1970. Both supplements were sent to persons on the mailing list of the MMWR. A limited number of additional copies are available to interested persons on request.

THE MORBIDITY AND MORTALITY WEEKLY REPORT, WITH A CIRCULATION OF 20,000 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  
ATTN: THE EDITOR  
MORBIDITY AND MORTALITY WEEKLY REPORT  
ATLANTA, GEORGIA 30333

NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE BASED ON WEEKLY TELEGRAMS TO THE NCDC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES AT CLOSE OF BUSINESS ON FRIDAY; COMPILED DATA ON A NATIONAL BASIS ARE OFFICIALLY RELEASED TO THE PUBLIC ON THE SUCCEEDING FRIDAY.

U.S. DEPARTMENT OF  
HEALTH, EDUCATION, AND WELFARE  
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HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION  
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ATLANTA, GEORGIA 30333  
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