

Morbidity and Mortality



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WEEKLY REPORT

For Week Ending February 27, 1971

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INTERNATIONAL NOTES

CONTENTS

HUMAN INFECTION WITH MONKEYPOX VIRUS

Liberia and Sierra Leone, West Africa

International Notes

Human Infection with Monkeypox Virus -

Liberia and Sierra Leone, West Africa 65
Quarantine Measures 67

Epidemiologic Notes and Reports

Transfusion-Induced Malaria - Arkansas 66
Gastroenteritis Aboard Planes - Atlanta, Georgia 67

In Liberia, West Africa, four human infections with monkeypox virus occurred in September and October 1970 (Figure 1). One human infection with monkeypox was also reported in Sierra Leone in December 1970. The case reports are briefly summarized below.

Liberia

On Sept. 10, 1970, a 4-year-old girl from Bouduo, Case 1, experienced a "severe cold" with fever, sore throat, and malaise. A generalized rash developed on September 13, and she was admitted to the hospital in Zwedru the following day with a clinical diagnosis of smallpox. She had not received a smallpox vaccination. On September 18, the patient was afebrile, but she still had a diffuse vesiculopustular rash with peripheral distribution. The

lesions were deep-seated and present on palms and soles. The scabs fell off on or about October 7, and she was discharged from the hospital the next day.

A 4-year-old boy, Case 2, lived in the same room as Case 1. He experienced a low-grade fever on September 11 and a mild vesicular rash the following day. Ten lesions were noted which cleared within 5 days and left no scars or pigmentary changes. He also had never received a smallpox vaccination.

(Continued on page 66)

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

DISEASE	8th WEEK ENDED		MEDIAN 1966 - 1970	CUMULATIVE, FIRST 8 WEEKS		
	February 27, 1971	February 28, 1970		1971	1970	MEDIAN 1966 - 1970
Aseptic meningitis	35	27	27	436	232	228
Brucellosis	2	2	2	10	16	16
Diphtheria	4	6	2	30	63	24
Encephalitis, primary:						
Arthropod-borne & unspecified	31	21	21	177	158	166
Encephalitis, post-infectious	5	8	5	49	56	60
Hepatitis, serum	171	103	69	1,315	975	522
Hepatitis, infectious	1,192	1,036	880	9,890	8,597	6,439
Malaria	89	78	53	588	523	358
Measles (rubeola)	2,192	1,194	1,194	12,311	7,663	7,663
Meningococcal infections, total	70	77	76	458	538	637
Civilian	52	73	61	414	514	586
Military	18	4	15	44	24	43
Mumps	3,640	2,447	---	25,488	19,909	---
Poliomyelitis, total	1	---	---	3	1	1
Paralytic	1	---	---	2	1	1
Rubella (German measles)	1,361	1,476	1,106	7,045	9,223	6,191
Tetanus	---	4	3	8	9	14
Tularemia	2	1	2	18	11	15
Typhoid fever	4	1	3	41	37	36
Typhus, tick-borne (Rky. Mt. spotted fever)	---	---	---	3	---	3
Rabies in animals	76	71	76	558	469	573

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	---	Psittacosis: Calif.-1	6
Botulism:	---	Rabies in Man:	---
Leptospirosis:	24	Rubella congenital syndrome:	5
Leptospirosis: Calif.-1	5	Trichinosis: Alaska-1	15
Plague:	---	Typhus, murine:	---

*Delayed reports: Leprosy: N.J. 1 (1970), Colo. 1

MONKEYPOX VIRUS - (Continued from front page)

Figure 1
GEOGRAPHIC DISTRIBUTION OF MONKEYPOX CASES
LIBERIA AND SIERRA LEONE, WEST AFRICA - 1970



Case 3, a 6-year-old unvaccinated girl (playmate of Cases 1 and 2), lived in a nearby compound and became ill with similar symptoms at the same time as Case 2. Physical examination revealed less than 10 lesions.

On October 2, a 9-year-old unvaccinated boy from Tarr Town (12 miles northwest of Zwedru), Case 4, experienced a generalized vesiculopustular rash with all lesions appearing in the same stage. The lesions were firm, deep-seated, and distributed primarily on the arms and legs, with some on the palms and soles. One pustular lesion was also present on the right cornea. The child was afebrile and uncomfortable, but not severely ill.

These four cases were clinically diagnosed as smallpox. Epidemiologic investigations failed to reveal the source of infection. The first three cases, which had similar dates of onset, presumably had a common exposure, although no connection between these cases and Case 4

could be found. No other cases among unvaccinated household contacts and friends were discovered.

Five pox virus isolations were made from specimens submitted for Cases 1 and 4 (the most severe cases). The viruses were studied intensively at reference laboratories in Atlanta, Moscow, London, and Utrecht and were identified as monkeypox. Blood specimens from 18 local monkeys were also examined, and five were found to contain antibodies to pox virus with low level hemagglutination inhibition (HI) titers. One specimen was also positive for neutralizing antibodies. In contrast, specimens taken from 55 monkeys in Nigeria contained no HI antibodies.

The source of the infections in Liberia remains unknown. Although there is known contact between people and monkeys in the area (monkeys constitute a source of food), specific exposure of the patients to sick monkeys cannot be documented.

Sierra Leone

On Dec. 9, 1970, a suspected case of smallpox in the village of Aguebu was reported to the Ministry of Health in Freetown, Sierra Leone, by the Medical Officer of the Moyamba District Hospital. Physical examination of the patient on December 10 (the 10th day of rash) showed large pustular lesions on his face and extremities. There was no evidence of a smallpox vaccination scar, and the disease was clinically diagnosed as smallpox. Laboratory examination of specimens revealed pox viruses in both the crust and vesicular fluid which were, however, later identified as monkeypox.

The patient had removed the intestines and stomach from a red monkey 3-4 weeks prior to the onset of his illness. He denied any other contact with monkeys and did not observe any skin lesions on the monkey he handled. Four of 16 sera from chimpanzees captured in Sierra Leone contained low level HI antibodies against pox virus, suggesting the possibility of infection in the monkey handled by the boy.

(Reported by the Ministry of Health, Liberia; the Ministry of Health, Sierra Leone; the Laboratory Division, and the Smallpox Eradication Program, CDC.)

EPIDEMIOLOGIC NOTES AND REPORTS TRANSFUSION-INDUCED MALARIA - Arkansas

On Sept. 10, 1970, a 28-year-old man underwent a renal transplant operation in Little Rock, Arkansas. He experienced fever 36 hours after the operation, which was associated with rejection of the transplant. He was still febrile on October 2 when a routine peripheral blood smear showed infection with *Plasmodium ovale*. The patient was treated with chloroquine and recovered from the infection.

The patient had had no history of malaria, foreign travel, or use of shared syringes. He had received approximately 15 units of blood between January and June 1970, but none of the donors contacted gave a history of malaria. On September 7 and 9, the patient received 7 units of blood.

The latter donors were questioned again. One donor, an American, stated that he had been treated with chloroquine for malaria in August 1967 while in Nigeria and again in July 1968 when his symptoms recurred shortly after his return to the United States. His peripheral blood smears were negative for malaria parasites, but his serum, when tested by the indirect fluorescent antibody technique for malaria, gave an end-point dilution titer of 1:16 against *P. ovale* antigen. Results with other *Plasmodium* species are pending. (Reported by Thomas E. Brewer, M.D., Instructor in Medicine, William J. Flanigan, M.D., Associate Professor of Medicine and Director, Clinical Research Center, Howard

Quittner, M.D., Associate Professor of Pathology and Director of Laboratories and Blood Bank, Ruby Bland, Laboratory Technologist, University of Arkansas Medical Center, Little Rock, Arkansas; and J. T. Herron, M.D., State Health Officer, Arkansas State Board of Health.)

GASTROENTERITIS ABOARD PLANES - Atlanta, Georgia

On Thanksgiving Day, Nov. 26, 1970, passengers and crew members on eight flights leaving from Atlanta, Georgia, became ill with gastroenteritis. Of the 18 passengers and 62 crew members who could be contacted after they had reached their destination, three passengers and 22 crew members reported having been ill. A total of 394 persons from all eight flights had been at risk. The illness was characterized by diarrhea (76 percent), nausea (60 percent), and abdominal cramps (40 percent), with a mean incubation period of 11 hours. The duration of illness ranged from 2 to 48 hours, median 11 hours.

The planes had been supplied turkey dinners that had been prepared at a central kitchen. Food-specific attack rates suggested that turkey and dressing were the most likely vehicles of infection (Table 1). The turkeys had been precooked and frozen when received by the catering service kitchen. Some were thawed at room temperature for 8 hours, then refrigerated. On Thanksgiving Day, this refrigerated meat was sliced, placed on trays, and delivered to heating ovens (130° F.) on the planes.

At the time of the investigation, none of the turkey served on the planes was available for culture. Specimens from the frozen turkeys that had not been thawed, however, were available at the kitchen. Cultures of this frozen meat were negative for pathogens except for low counts (10 organisms per gram) of *Clostridium perfringens*. Cultures of portions of dressing were negative for this organism. The clinical and epidemiologic evidence indicates that the outbreak was probably due to the *C. perfringens* in the turkeys. These organisms may have proliferated when the turkeys eaten on the planes were defrosted at room temperature.

(Reported by Leslie O. McMillin, Regional Food and Drug Director, U.S. Food and Drug Administration, Atlanta,

Editorial Note:

Although *P. ovale*, *P. vivax*, and *P. malariae* are species that cause relapsing malaria, treatment with primaquine is not indicated in transfusion-induced malaria, because there is no exo-erythrocytic stage.

Table 1
Food Specific Attack Rates of Interviewed Crew Members and Passengers with Gastroenteritis - November 1970

Food Items Served	ATE				DID NOT EAT			
	Ill	Not Ill	Total	Attack Rate	Ill	Not Ill	Total	Attack Rate
Turkey	24	32	56	43	1	21	22	5
Dressing	23	31	54	43	2	22	24	8
Gravy	17	27	44	38	8	26	34	24
Cranberry sauce	12	20	32	37	13	33	46	38
Peas or carrots	14	24	38	37	11	29	40	27
Potatoes	16	24	40	40	9	29	38	24
Pumpkin pie	22	35	57	38	3	18	21	14
Lettuce and tomato salad	9	28	37	24	16	25	41	39
Bean salad	5	15	20	25	20	38	58	34
Rolls	9	19	28	32	16	34	50	32
Drink*	20	22	42	48	4	31	35	12

*Milk, coffee, water—each alone not significant, different attack rates

Georgia; and the Bacterial Diseases Branch, Epidemiology Program, CDC.)

Editorial Note:

Foods responsible for outbreaks of *C. perfringens* usually contain large numbers of these organisms. The turkey suspected of causing this outbreak, however, had low counts of the organism. This may be explained by the fact that the specimens had been frozen before they were cultured, which is known to cause a rapid loss in the viability of this organism.

The investigation of outbreaks on airplanes is particularly difficult because passenger lists are often incomplete and contain temporary addresses and telephone numbers. This is the only airplane outbreak in recent years in which the vehicle of infection was identified by epidemiologic means.

INTERNATIONAL NOTES
QUARANTINE MEASURES

Changes in the "Supplement - Vaccination Certification Requirements for International Travel," - MMWR, Vol. 19, No. 21

In the present outbreak of cholera *el tor*, the vaccination requirements of countries have frequently been modified according to the evolution of the situation. Most of the

Additional Cholera Vaccination Requirements

Greece

And from Guinea, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Saudi Arabia, Syria, United Arab Republic.*

Hungary

And from Guinea, Iran, Iraq, United Arab Republic.*

Iran

And from Cyprus, Kuwait, Lebanon, Morocco, Romania, Saudi Arabia, Turkey, USSR.*

Israel

And from Jordan.*

(Continued on page 72)

Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED
February 27, 1971 and February 28, 1970 (8th Week)

AREA	ASEPTIC MENIN- GITIS	BRUCEL- LOSIS	DIPH- THERIA	ENCEPHALITIS			HEPATITIS			MALARIA	
				Primary including unsp. cases		Post In- fectious	Serum	Infectious		1971	Cum. 1971
				1971	1970	1971		1971	1970		
UNITED STATES.....	35	2	4	31	21	5	171	1,192	1,036	89	588
NEW ENGLAND.....	-	-	-	5	-	-	10	100	116	4	21
Maine.....	-	-	-	-	-	-	-	8	12	-	1
New Hampshire.*.....	-	-	-	-	-	-	-	1	4	-	1
Vermont.....	-	-	-	-	-	-	-	8	4	-	1
Massachusetts.....	-	-	-	2	-	-	4	37	62	2	13
Rhode Island.....	-	-	-	-	-	-	1	21	11	2	3
Connecticut.....	-	-	-	3	-	-	5	25	23	-	2
MIDDLE ATLANTIC.....	1	-	-	1	2	1	78	201	169	12	64
New York City.....	-	-	-	-	-	-	41	63	60	1	4
New York, Up-State...	1	-	-	-	2	-	9	49	35	2	12
New Jersey.....	-	-	-	-	-	-	22	51	16	5	33
Pennsylvania.....	-	-	-	1	-	1	6	38	58	4	15
EAST NORTH CENTRAL.....	7	-	-	14	7	-	31	226	133	2	25
Ohio.....	1	-	-	2	5	-	4	32	38	1	5
Indiana.*.....	-	-	-	1	-	-	-	19	13	-	-
Illinois.....	-	-	-	1	1	-	6	54	23	-	6
Michigan.....	6	-	-	10	1	-	21	111	54	1	7
Wisconsin.....	-	-	-	-	-	-	-	10	5	-	7
WEST NORTH CENTRAL.....	-	-	-	-	-	-	4	56	35	5	48
Minnesota.....	-	-	-	-	-	-	1	9	5	2	3
Iowa.....	-	-	-	-	-	-	-	6	4	-	4
Missouri.....	-	-	-	-	-	-	3	24	12	-	11
North Dakota.....	-	-	-	-	-	-	-	1	2	-	-
South Dakota.....	-	-	-	-	-	-	-	5	-	-	-
Nebraska.....	-	-	-	-	-	-	-	3	-	-	3
Kansas.....	-	-	-	-	-	-	-	8	12	3	27
SOUTH ATLANTIC.....	6	-	1	3	2	1	15	165	124	1	79
Delaware.....	-	-	-	1	-	-	1	5	3	-	-
Maryland.....	-	-	-	-	-	-	4	24	8	1	19
Dist. of Columbia....	-	-	-	-	-	-	-	1	2	-	-
Virginia.....	-	-	-	-	-	-	2	22	18	-	8
West Virginia.....	-	-	-	1	-	-	-	7	13	-	3
North Carolina.....	1	-	1	-	2	-	4	21	22	-	30
South Carolina.....	-	-	-	-	-	-	-	5	5	-	4
Georgia.....	1	-	-	-	-	-	-	40	9	-	6
Florida.....	4	-	-	1	-	1	4	40	44	-	9
EAST SOUTH CENTRAL.....	5	-	-	2	3	-	1	77	95	39	88
Kentucky.....	5	-	-	1	-	-	-	30	48	33	78
Tennessee.....	-	-	-	-	3	-	1	34	35	-	-
Alabama.....	-	-	-	1	-	-	-	11	10	6	10
Mississippi.....	-	-	-	-	-	-	-	2	2	-	-
WEST SOUTH CENTRAL.....	2	1	3	-	2	1	4	86	108	16	108
Arkansas.....	-	1	-	-	-	-	-	10	-	2	4
Louisiana.....	-	-	1	-	2	1	1	12	27	2	12
Oklahoma*.....	-	-	-	-	-	-	-	11	18	3	20
Texas.*.....	2	-	2	-	-	-	3	53	63	9	72
MOUNTAIN.....	-	-	-	1	-	-	3	57	30	2	43
Montana.....	-	-	-	-	-	-	2	1	1	-	1
Idaho.....	-	-	-	-	-	-	-	7	2	-	-
Wyoming.....	-	-	-	-	-	-	-	-	6	-	1
Colorado.....	-	-	-	1	-	-	1	13	2	-	31
New Mexico.....	-	-	-	-	-	-	-	19	3	1	2
Arizona.*.....	-	-	-	-	-	-	-	11	8	-	6
Utah.....	-	-	-	-	-	-	-	6	8	1	2
Nevada.....	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	14	1	-	5	5	2	25	224	226	8	112
Washington.....	-	-	-	-	-	-	-	27	11	1	1
Oregon.....	-	-	-	-	-	-	1	22	28	-	6
California.....	14	1	-	5	5	2	24	157	179	7	86
Alaska.....	-	-	-	-	-	-	-	9	2	-	1
Hawaii.....	-	-	-	-	-	-	-	9	6	-	18
Puerto Rico*.....	-	-	-	-	-	-	4	12	21	-	2
Virgin Islands.....	-	-	-	-	-	-	-	-	-	-	-

*Delayed reports: Aseptic meningitis: Ariz. delete 1

Encephalitis, primary: Okla. 2

Hepatitis, infectious: N.H. 3, Ind. delete 1, Okla. 14, Tex. 29, P.R. 4 (1970)

Malaria: Okla. 1

Morbidity and Mortality Weekly Report

69

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

February 27, 1971 and February 28, 1970 (8th Week) - Continued

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS		POLIOMYELITIS		
	Cumulative		1970	Cumulative		1970	1971	Cum. 1971	Total	Paralytic	
	1971	1971		1971	1971				1971	1971	1971
UNITED STATES.....	2,192	12,311	7,663	70	458	538	3,640	25,488	1	1	2
NEW ENGLAND.....	47	365	114	6	26	26	242	1,832	-	-	-
Maine.*.....	13	214	-	-	5	-	46	353	-	-	-
New Hampshire.....	9	16	7	-	1	3	8	191	-	-	-
Vermont.....	1	3	-	-	-	1	-	-	-	-	-
Massachusetts.*.....	15	105	71	1	10	9	51	463	-	-	-
Rhode Island.....	-	8	11	1	2	3	94	469	-	-	-
Connecticut.....	9	19	25	4	8	10	43	356	-	-	-
MIDDLE ATLANTIC.....	272	1,346	1,135	17	61	87	305	1,958	-	-	-
New York City.....	217	840	175	-	11	22	63	295	-	-	-
New York, Up-State...	10	159	52	7	20	19	NN	NN	-	-	-
New Jersey.....	21	80	520	8	13	23	67	587	-	-	-
Pennsylvania.....	24	267	388	2	17	23	175	1,076	-	-	-
EAST NORTH CENTRAL.....	363	2,204	1,775	6	43	76	1,461	9,904	-	-	-
Ohio.....	152	1,022	551	1	16	38	130	1,923	-	-	-
Indiana.....	18	45	59	2	4	6	278	1,301	-	-	-
Illinois.....	87	598	895	2	9	15	170	865	-	-	-
Michigan.....	27	129	141	1	11	15	371	2,399	-	-	-
Wisconsin.....	79	410	129	-	3	2	512	3,416	-	-	-
WEST NORTH CENTRAL.....	183	680	1,033	7	44	9	159	1,360	-	-	-
Minnesota.....	-	21	4	-	7	2	35	211	-	-	-
Iowa.*.....	132	194	21	-	2	3	75	759	-	-	-
Missouri.....	36	324	117	5	13	4	9	80	-	-	-
North Dakota.....	6	39	43	-	1	-	29	120	-	-	-
South Dakota.....	8	60	36	-	3	-	9	85	-	-	-
Nebraska.....	1	8	775	-	4	-	2	15	-	-	-
Kansas.....	-	34	37	2	14	-	-	90	-	-	-
SOUTH ATLANTIC.....	254	1,483	1,051	9	57	118	333	1,944	-	-	-
Delaware.....	-	6	82	-	-	2	3	44	-	-	-
Maryland.....	9	18	180	-	7	11	15	228	-	-	-
Dist. of Columbia...	-	2	194	-	1	1	2	38	-	-	-
Virginia.....	44	562	202	-	4	8	80	263	-	-	-
West Virginia.....	13	80	52	1	2	1	118	532	-	-	-
North Carolina.....	78	418	132	3	11	20	NN	NN	-	-	-
South Carolina.....	52	183	31	1	4	6	34	203	-	-	-
Georgia.....	8	19	2	2	6	22	-	1	-	-	-
Florida.....	50	195	176	2	22	47	81	635	-	-	-
EAST SOUTH CENTRAL.....	242	2,278	104	1	30	34	287	2,178	-	-	-
Kentucky.....	138	966	65	-	7	11	99	806	-	-	-
Tennessee.....	42	178	15	1	12	16	164	1,025	-	-	-
Alabama.....	46	397	12	-	7	4	15	316	-	-	-
Mississippi.....	16	737	12	-	4	3	9	31	-	-	-
WEST SOUTH CENTRAL.....	655	2,976	1,747	5	41	95	202	1,682	-	-	1
Arkansas.....	14	26	11	-	1	8	-	16	-	-	-
Louisiana.*.....	41	394	7	3	16	24	1	13	-	-	-
Oklahoma.*.....	66	358	61	-	4	8	14	45	-	-	-
Texas.....	534	2,198	1,668	2	20	55	187	1,608	-	-	1
MOUNTAIN.....	78	406	310	-	15	7	147	936	-	-	-
Montana.....	33	102	9	-	-	-	11	90	-	-	-
Idaho.....	1	59	4	-	-	-	-	83	-	-	-
Wyoming.....	-	5	-	-	-	-	30	47	-	-	-
Colorado.....	10	74	9	-	4	3	61	269	-	-	-
New Mexico.....	22	89	57	-	-	-	17	121	-	-	-
Arizona.....	7	55	227	-	6	2	28	279	-	-	-
Utah.....	5	22	2	-	4	2	-	47	-	-	-
Nevada.....	-	-	2	-	1	-	-	-	-	-	-
PACIFIC.....	98	573	394	19	141	86	504	3,694	1	1	1
Washington.....	27	153	35	-	5	10	274	1,914	-	-	-
Oregon.*.....	3	64	34	1	11	8	42	373	1	1	1
California.....	66	336	304	18	123	67	167	1,194	-	-	-
Alaska.....	1	7	1	-	-	-	5	29	-	-	-
Hawaii.*.....	1	13	20	-	2	1	16	184	-	-	-
Puerto Rico.....	6	38	420	-	-	-	22	144	-	-	-
Virgin Islands.....	-	2	3	-	-	-	-	-	-	-	-

*Delayed reports: Measles: Me. 70, Mass. delete 12, Iowa 5, La. delete 1, Okla. 7, Ore. 28, Hawaii delete 2
Meningococcal infections: Okla. 1, Ariz. 1
Mumps: Me. 35, Okla. 5

Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

February 27, 1971 and February 28, 1970 (8th Week) - Continued

AREA	RUBELLA		TETANUS		TULAREMIA		TYPHOID FEVER		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
	1971	Cum. 1971	1971	Cum. 1971	1971	Cum. 1971	1971	Cum. 1971	1971	Cum. 1971	1971	Cum. 1971
UNITED STATES.....	1,361	7,045	-	8	2	18	4	41	-	3	76	558
NEW ENGLAND.....	59	260	-	-	-	-	-	1	-	-	9	30
Maine.*.....	12	69	-	-	-	-	-	-	-	-	9	25
New Hampshire.....	-	4	-	-	-	-	-	-	-	-	-	-
Vermont.....	1	6	-	-	-	-	-	-	-	-	-	5
Massachusetts.....	28	120	-	-	-	-	-	1	-	-	-	-
Rhode Island.....	4	17	-	-	-	-	-	-	-	-	-	-
Connecticut.....	14	44	-	-	-	-	-	-	-	-	-	-
MIDDLE ATLANTIC.....	56	349	-	2	-	-	1	4	-	-	4	40
New York City.....	9	62	-	2	-	-	-	3	-	-	-	-
New York, Up-State..	9	68	-	-	-	-	1	1	-	-	4	39
New Jersey.....	7	59	-	-	-	-	-	-	-	-	-	-
Pennsylvania.....	31	160	-	-	-	-	-	-	-	-	-	1
EAST NORTH CENTRAL....	271	1,415	-	-	-	1	-	3	-	-	7	41
Ohio.....	17	239	-	-	-	1	-	2	-	-	5	7
Indiana.....	37	335	-	-	-	-	-	-	-	-	-	2
Illinois.....	40	194	-	-	-	-	-	-	-	-	-	11
Michigan.....	134	432	-	-	-	-	-	1	-	-	1	8
Wisconsin.....	43	215	-	-	-	-	-	-	-	-	1	13
WEST NORTH CENTRAL....	42	374	-	-	-	1	-	-	-	-	22	148
Minnesota.....	31	44	-	-	-	-	-	-	-	-	11	29
Iowa.....	6	120	-	-	-	-	-	-	-	-	2	55
Missouri.....	4	102	-	-	-	1	-	-	-	-	3	31
North Dakota.....	-	23	-	-	-	-	-	-	-	-	4	24
South Dakota.....	-	14	-	-	-	-	-	-	-	-	-	-
Nebraska.....	1	11	-	-	-	-	-	-	-	-	-	-
Kansas.....	-	60	-	-	-	-	-	-	-	-	2	9
SOUTH ATLANTIC.....	87	635	-	4	2	12	1	13	-	1	6	71
Delaware.....	-	3	-	-	-	-	-	1	-	-	-	-
Maryland.....	-	13	-	-	-	3	-	3	-	-	-	-
Dist. of Columbia...	-	1	-	-	-	-	-	-	-	-	-	-
Virginia.....	8	64	-	-	-	5	-	1	-	-	-	17
West Virginia.....	16	82	-	-	-	-	-	1	-	-	6	35
North Carolina.....	1	7	-	-	2	4	-	1	-	1	-	-
South Carolina.....	33	126	-	-	-	-	-	-	-	-	-	-
Georgia.....	-	-	-	-	-	-	-	1	-	-	-	10
Florida.....	29	339	-	4	-	-	1	5	-	-	-	9
EAST SOUTH CENTRAL....	236	588	-	2	-	4	-	4	-	1	10	71
Kentucky.....	194	308	-	-	-	2	-	1	-	-	6	38
Tennessee.....	40	205	-	1	-	2	-	1	-	-	2	19
Alabama.....	2	34	-	1	-	-	-	2	-	-	2	14
Mississippi.....	-	41	-	-	-	-	-	-	-	1	-	-
WEST SOUTH CENTRAL....	239	869	-	-	-	-	1	3	-	1	17	109
Arkansas.....	2	9	-	-	-	-	-	-	-	-	3	12
Louisiana.....	2	35	-	-	-	-	1	2	-	-	2	5
Oklahoma.*.....	3	24	-	-	-	-	-	-	-	1	6	54
Texas.....	232	801	-	-	-	-	-	1	-	-	6	38
MOUNTAIN.....	91	808	-	-	-	-	-	2	-	-	-	1
Montana.....	3	26	-	-	-	-	-	-	-	-	-	-
Idaho.....	-	14	-	-	-	-	-	-	-	-	-	-
Wyoming.....	50	550	-	-	-	-	-	-	-	-	-	-
Colorado.....	27	92	-	-	-	-	-	-	-	-	-	-
New Mexico.....	-	39	-	-	-	-	-	-	-	-	-	-
Arizona.*.....	11	72	-	-	-	-	-	2	-	-	-	1
Utah.....	-	15	-	-	-	-	-	-	-	-	-	-
Nevada.....	-	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	280	1,747	-	-	-	-	1	11	-	-	1	47
Washington.....	49	343	-	-	-	-	-	-	-	-	-	-
Oregon.....	34	139	-	-	-	-	-	-	-	-	-	-
California.....	187	1,195	-	-	-	-	1	11	-	-	1	47
Alaska.....	6	16	-	-	-	-	-	-	-	-	-	-
Hawaii.....	4	54	-	-	-	-	-	-	-	-	-	-
Puerto Rico.*.....	-	-	-	-	-	-	-	-	-	-	1	10
Virgin Islands.....	-	-	-	-	-	-	-	-	-	-	-	-

*Delayed reports: Rubella: Me. 8, Okla. 3
Tetanus: Ariz. delete 2, P.R. 1 (1970)

Morbidity and Mortality Weekly Report

Week No. **8** **TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED February 27, 1971**

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

Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes	Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes
	All Ages	65 years and over				All Ages	65 years and over		
NEW ENGLAND:	777	489	61	38	SOUTH ATLANTIC:	1,502	796	82	73
Boston, Mass.-----	235	137	19	17	Atlanta, Ga.-----	157	65	6	8
Bridgeport, Conn.-----	46	27	8	4	Baltimore, Md.-----	275	250	13	14
Cambridge, Mass.-----	22	16	6	-	Charlotte, N. C.-----	60	30	-	4
Fall River, Mass.-----	35	22	3	-	Jacksonville, Fla.-----	93	49	6	2
Hartford, Conn.-----	57	33	3	5	Miami, Fla.-----	118	71	5	3
Lowell, Mass.-----	27	16	2	1	Norfolk, Va.-----	66	38	10	3
Lynn, Mass.-----	25	18	-	-	Richmond, Va.-----	92	44	8	11
New Bedford, Mass.-----	24	16	-	1	Savannah, Ga.-----	38	19	7	2
New Haven, Conn.-----	63	38	-	2	St. Petersburg, Fla.-----	127	100	2	2
Providence, R. I.-----	74	43	5	1	Tampa, Fla.-----	82	53	11	2
Somerville, Mass.-----	10	8	-	-	Washington, D. C.-----	326	142	8	20
Springfield, Mass.-----	56	38	7	3	Wilmington, Del.-----	68	35	6	2
Waterbury, Conn.-----	40	28	-	3					
Worcester, Mass.-----	63	49	8	1	EAST SOUTH CENTRAL:	758	409	42	44
					Birmingham, Ala.-----	99	55	2	6
MIDDLE ATLANTIC:	3,929	2,419	206	135	Chattanooga, Tenn.-----	62	36	4	1
Albany, N. Y.-----	47	33	2	1	Knoxville, Tenn.-----	58	35	1	1
Allentown, Pa.-----	37	21	5	1	Louisville, Ky.-----	159	85	19	10
Buffalo, N. Y.-----	163	96	2	8	Memphis, Tenn.-----	166	95	5	10
Camden, N. J.-----	48	29	3	2	Mobile, Ala.-----	53	23	3	5
Elizabeth, N. J.-----	28	20	-	-	Montgomery, Ala.-----	45	21	2	4
Erie, Pa.-----	58	34	7	6	Nashville, Tenn.-----	116	59	6	7
Jersey City, N. J.-----	69	48	7	2					
Newark, N. J.-----	102	47	6	5	WEST SOUTH CENTRAL:	1,383	738	57	85
New York City, N. Y.-----	2,000	1,249	110	68	Austin, Tex.-----	32	19	3	3
Paterson, N. J.-----	58	31	2	2	Baton Rouge, La.-----	42	24	2	3
Philadelphia, Pa.-----	583	351	7	14	Corpus Christi, Tex.-----	31	16	-	2
Pittsburgh, Pa.-----	217	127	12	7	Dallas, Tex.-----	198	114	1	10
Reading, Pa.-----	62	43	-	1	El Paso, Tex.-----	51	31	6	5
Rochester, N. Y.-----	132	87	17	3	Fort Worth, Tex.-----	89	45	5	7
Schenectady, N. Y.-----	34	20	3	2	Houston, Tex.-----	291	150	14	17
Scranton, Pa.-----	50	33	4	-	Little Rock, Ark.-----	88	54	3	3
Syracuse, N. Y.-----	94	56	5	4	New Orleans, La.-----	182	89	4	9
Trenton, N. J.-----	64	38	5	6	Oklahoma City, Okla.-----	90	43	5	9
Utica, N. Y.-----	35	26	2	3	San Antonio, Tex.-----	135	70	6	9
Yonkers, N. Y.-----	48	30	7	-	Shreveport, La.-----	53	30	1	1
					Tulsa, Okla.-----	101	53	7	7
EAST NORTH CENTRAL:	2,801	1,570	114	181	MOUNTAIN:	533	313	29	26
Akron, Ohio-----	51	29	-	3	Albuquerque, N. Mex.-----	48	22	4	5
Canton, Ohio-----	40	22	2	3	Colorado Springs, Colo.-----	28	17	1	2
Chicago, Ill.-----	724	390	28	43	Denver, Colo.-----	154	98	5	4
Cincinnati, Ohio-----	140	93	5	8	Ogden, Utah-----	12	7	6	1
Cleveland, Ohio-----	239	137	10	10	Phoenix, Ariz.-----	132	66	3	6
Columbus, Ohio-----	132	78	1	14	Pueblo, Colo.-----	24	15	4	2
Dayton, Ohio-----	110	65	2	8	Salt Lake City, Utah-----	54	38	2	1
Detroit, Mich.-----	397	186	12	41	Tucson, Ariz.-----	81	50	4	5
Evansville, Ind.-----	49	32	8	3					
Flint, Mich.-----	61	37	2	9	PACIFIC:	2,220	1,339	58	90
Fort Wayne, Ind.-----	55	26	3	6	Berkeley, Calif.††-----	29	21	1	1
Gary, Ind.-----	77	44	5	3	Fresno, Calif.-----	57	32	3	2
Grand Rapids, Mich.-----	52	32	3	3	Glendale, Calif.-----	47	33	3	1
Indianapolis, Ind.-----	192	106	6	5	Honolulu, Hawaii††-----	69	34	1	6
Madison, Wis.-----	45	26	7	1	Long Beach, Calif.-----	123	80	2	2
Milwaukee, Wis.-----	131	86	6	4	Los Angeles, Calif.-----	806	493	20	33
Peoria, Ill.-----	38	23	-	4	Oakland, Calif.-----	113	64	1	3
Rockford, Ill.-----	43	27	5	3	Pasadena, Calif.-----	59	44	1	-
South Bend, Ind.-----	43	29	3	3	Portland, Oreg.-----	137	95	3	8
Toledo, Ohio-----	115	67	4	2	Sacramento, Calif.-----	74	39	3	4
Youngstown, Ohio-----	67	35	2	5	San Diego, Calif.-----	148	76	2	7
					San Francisco, Calif.-----	235	123	11	8
WEST NORTH CENTRAL:	789	499	24	33	San Jose, Calif.-----	48	31	1	1
Des Moines, Iowa-----	60	40	-	4	Seattle, Wash.-----	188	110	3	11
Duluth, Minn.-----	25	17	4	1	Spokane, Wash.-----	59	43	3	2
Kansas City, Kans.-----	42	28	1	-	Tacoma, Wash.-----	28	21	-	1
Kansas City, Mo.-----	130	84	3	3					
Lincoln, Nebr.-----	15	8	-	1	Total	14,692	8,572	673	705
Minneapolis, Minn.-----	117	75	2	6	Expected Number	13,567	7,954	569	552
Omaha, Nebr.-----	65	42	2	2	Cumulative Total (includes reported corrections for previous weeks)	113,466	66,526	4,800	5,215
St. Louis, Mo.-----	250	147	6	12					
St. Paul, Minn.-----	66	45	4	3					
Wichita, Kans.-----	19	13	2	1					
Las Vegas, Nev.*	41	12	2	4	*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.				

†Delayed Report for week ended February 20, 1971

QUARANTINE MEASURES - (Continued from page 67)

Italy

And from Guinea, Iran, Ivory Coast, Liberia, Libya, Saudi Arabia, Sierra Leone, Syria, Turkey, United Arab Republic.*

Kenya

And from Asia and the Middle East.*

Kuwait

And from Bahrain, Iran, Iraq, Jordan, Lebanon, Libya, Morocco, Muscat and Oman, Southern Yemen, Qatar, Syria, Trucial Sheikdoms, Turkey, United Arab Republic, Yemen.*

Lebanon

And from Iran and United Arab Republic.*

Liberia

And from Guinea, Tunisia, United Arab Republic, USSR. Certificate also required from travelers proceeding to these countries.*

Libya

And from all countries in the Far East, Greece, Iran, Iraq, Jordan, Kuwait, Lebanon, Southern Yemen, Saudi Arabia, Sudan, Syria, Turkey, United Arab Republic, USSR, Yemen. Certificate required from travelers leaving the country.*

Malawi

And from Bahrain, Burma, Cyprus, Guinea, Indonesia, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Qatar, Muscat and Oman, Nepal, Southern Yemen, Saudi Arabia, Trucial Sheikdoms, Turkey, United Arab Republic, USSR, Vietnam, Yemen.*

Mali

And from Guinea.

Malta

And from Guinea, Iran, Iraq, Turkey, United Arab Republic.*

Mauritius

And from China (Mainland), Guinea, Iran, Iraq, United Arab Republic.*

Morocco

And from Bulgaria, Guinea, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Saudi Arabia, Sudan, Syria, United Arab Republic, USSR.*

Nigeria

And from Guinea.

Pakistan

And from Afghanistan, Iraq, United Arab Republic.*

Poland

And from Albania, Ethiopia, Nigeria, Turkey.*

Qatar

And from all countries in Africa, Asia and the Middle East.*

Romania

And from Guinea, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Southern Yemen, Saudi Arabia, Syria, Trucial Sheikdoms, United Arab Republic, Yemen.*

Senegal

Certificate required from arrivals from Guinea.

Sierra Leone

And from Guinea.

Somali

And from Guinea, Iraq, North Korea, North Vietnam, Southern Yemen, Qatar, Thailand, United Arab Republic, Yemen.*

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The data in this report are provisional, based on weekly telegraphs to CDC by 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.

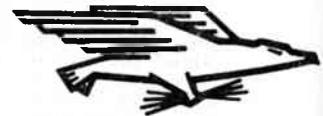
In addition to the established procedures for reporting morbidity and mortality, the editor welcomes accounts of interesting outbreaks for case investigations of current interest to health officials.

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