CENTER FOR DISEASE CONTROL

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WEEKLY REPORT

For Week Ending March 27, 1971

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
INDUCED MALARIA – California

Between December 1970 and March 1971, an epidemic of induced* malaria involving 48 persons occurred in Kern County, California (Figure 1). All patients admitted to the use of heroin and frequently shared syringes and needles. A 22-year-old Vietnam veteran was identified as the probable index case. He had returned from Vietnam in March 1970 and had taken none of the eight chloroquine-primaquine tablets prescribed by the Army for terminal chemoprophylaxis. In mid-November 1970, he experienced fever and chills, and on December 17, his illness was diagnosed as malaria due to *Plasmodium vivax*. In the interval between the onset and diagnosis of his illness, he had injected heroin at least once daily and shared his injection equipment with at least seven other persons. Three of these contacts subsequently became ill with malaria.

An epidemiologic investigation was intitated on Feb. 26, 1971. Due to the history of heroin use in association with the index case, a special clinic was established on March 2 by the Kern County Health Department to interview suspect cases and all contacts, to obtain thick and thin peripheral blood smears and serology specimens, and to administer presumptive treatment with chloroquine phosphate.** Approximately

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

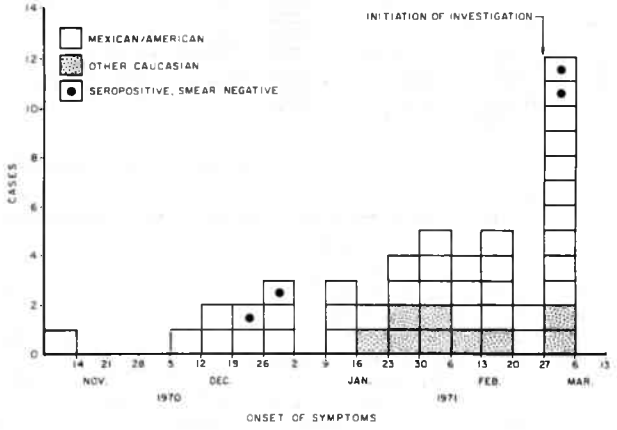
DISEASE	12th WEEK ENDED		MEDIAN	CUMULATIVE, FIRST 12 WEEKS		
	March 27, 1971	March 28, 1970	1966 - 1970	1971	1970	MEDIAN 1966 - 1970
Aseptic meningitis	28	15	27	625	328	336
Brucellosis	2	5	5	22	34	34
Diphtheria	–	1	3	46	85	35
Encephalitis, primary:						
Arthropod-borne & unspecified	16	14	17	256	225	238
Encephalitis, post-infectious	13	10	12	76	89	105
Hepatitis, serum	177	147	82	1,966	1,505	826
Hepatitis, infectious	1,243	994	900	14,681	12,906	9,892
Malaria	75	30	40	902	794	531
Measles (rubeola)	3,263	1,126	1,126	23,595	13,128	13,128
Meningococcal infections, total	63	59	59	796	828	920
Civilian	55	40	39	680	747	839
Military	8	19	11	116	81	81
Mumps	4,559	2,229	- - -	42,326	30,592	- - -
Poliomyelitis, total	1	–	–	4	1	3
Paralytic	1	–	–	3	1	3
Rubella (German measles)	1,699	2,044	2,175	13,542	17,112	12,302
Tetanus	4	3	3	17	18	23
Tularemia	–	3	3	22	17	23
Typhoid fever	1	5	5	59	54	54
Typhus, tick-borne (Rky. Mt. spotted fever)	–	–	–	4	–	3
Rabies in animals	125	88	88	961	776	872

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	–	Psittacosis:	8
Botulism:	–	Rabies in Man:	–
Leprosy:	30	Rubella congenital syndrome: Md.-8	16
Leptospirosis:	8	Trichinosis: Calif.-1, NYC-1, NYUps.-1	25
Plague:	–	Typhus, murine:	1

MALARIA – *(Continued from front page)*

Figure 1
CASES OF INDUCED MALARIA, BY WEEK OF ONSET
CALIFORNIA – DECEMBER 1970-MARCH 1971



400 heroin-using contacts were identified, and over 300 of these received presumptive treatment.

Parasites of *P. vivax* were seen on the peripheral blood smears of 42 patients, and all had recent or current symptoms typical of benign tertian malaria. (Thirty-one of these were discovered through the activities of the clinic.) Thirty-three of these cases were in Mexican-Americans, and 9 were in other Caucasians. Thirty-nine patients were men and three were women; the average age was 23.3 years (range 18-43 years, median 22 years).

Six other persons were identified as probable cases, based on positive indirect fluorescent tests for malaria and contact with known cases, despite the fact that their blood smears were negative for malaria parasites. Four of the six had had a recent febrile illness, and the other two had been free of malaria-like symptoms during the time of the epidemic. No new cases related to this outbreak have been reported since March 6.

(Reported by Owen A. Kearns, M.D., Health Officer, Kern County Health Department; Robert W. Huntington, M.D., Medical Director, Kern County General Hospital, Bakersfield, California; Ronald R. Roberto, M.D., Epidemiologist, Lois Ann Shearer, R.N., Nurse-Epidemiologist, and James Chin, M.D., Chief, Bureau of Communicable Disease Control, California Department of Public Health; and three EIS Officers.)

Editorial Note

This is the third reported outbreak of vivax malaria in heroin users in the past 6 months, and the second epidemic in California since November 1970. Vietnam veterans were the probable sources of infection in each of these outbreaks.

*Induced malaria refers to malaria acquired through artificial means, i.e., blood transfusion, common syringes, or malariotherapy.

**Adult dosage for clinical attack of malaria: 1.0 gm (600 mg base) initially, then 0.5 gm in 6 hours, then 0.5 gm daily for 2 days.

CURRENT TRENDS
RUBELLA VACCINATION OF PREGNANT WOMEN

In June 1969, live rubella virus vaccine was licensed for use in the United States. At that time, the United States Public Health Service Advisory Committee on Immunization Practices recommended guidelines for vaccination of postpubertal females (MMWR, Vol. 18, No. 15). According to these guidelines, rubella vaccine should not be given to pregnant women, since it is not known whether attenuated rubella vaccine virus can infect the fetus or whether fetal damage can result. Physicians were advised to screen female patients serologically (hemagglutination-inhibition [HI]) for rubella immunity before vaccination and to observe pregnancy precautions. Nevertheless, many women have been inadvertently inoculated shortly before conception or in the first few weeks of pregnancy.

Since licensure of the vaccine, 105 pregnant women known to have received rubella vaccine have been reported to CDC. Ninety-three of these women had an unknown immunity status prior to vaccination. Of these, 64 chose to have therapeutic abortions, six aborted spontaneously, and 23 carried to term. No virus was isolated from any products of conception, and histopathologic change was detected in only one case (deciduitis). The infants of the 23 mothers who carried to term were clinically normal at birth.

Twelve of the 105 women were known to be susceptible to rubella when they received the vaccine. Four of these patients chose to have therapeutic abortions. Three had rubella vaccine-like virus isolated from decidua and/or placenta; one of these three had virus isolated 69 days after vaccination. Some degree of histopathologic changes in decidua and/or placenta similar to changes seen with gestational rubella were evident in all three from whom virus was isolated. Adequate fetal tissue specimens were obtained in only one instance; these yielded no virus.

Two other susceptible patients had spontaneous abortions; no evidence of any viral infection was found. Six vaccinated susceptible women carried to term, and their babies were clinically normal at birth. Further evaluation of these infants is in progress.

(Reported by the Vaccine Investigations and Evaluation Section, Field Services Branch, Epidemiology Program, CDC.)

Editorial Note

Definite conclusions regarding the risk of vaccine administration to a pregnant woman cannot be made on these limited data. However, the ability of vaccine virus to persist in placental tissue as long as 69 days post-vaccination and the observed histopathologic changes reemphasize the necessity of caution and selectivity in administering rubella vaccine to females of childbearing age. In addition, efforts should be directed toward pre-vaccination rubella HI testing of postpubertal females.

Inquiries about these cases may be directed to the Field Services Branch, Epidemiology Program, CDC. Information about new cases should be reported to the appropriate local or State health department and CDC.

EPIDEMIOLOGIC NOTES AND REPORTS
REYE'S SYNDROME – New England and New York State

In January and February 1971, 36 children in New England and New York State were hospitalized with acute encephalopathy diagnosed as Reye's syndrome (Figure 2), apparently representing a marked increase in the number of cases for the same period in previous years. Twenty-one of the patients were from Massachusetts, five were from Connecticut, three each from Rhode Island and Vermont, two from New York, and one each from Maine and New Hampshire (Figure 3). Cases were distributed over wide areas within the states, and there were only two instances in which two or more of the patients lived in the same town. The ages of the patients ranged from 3 to 16 years, median 11 years (Table 1). Thirteen patients were male and 23 female. The distribution of cases by age and sex were roughly comparable for all states. A total of 21 (58 percent) of the 36 children died; the case fatality rate in the 10-14 age group (72 percent) was higher than in the other age groups.

For 18 of the 36 cases of acute encephalopathy, a diagnosis of liver abnormality was made on the basis of fatty degeneration of the liver at autopsy. For two cases, changes noted in liver biopsy specimens accounted for the diagnosis. The remaining cases were diagnosed on the basis of abnormal serum glutamic oxaloacetic transaminase or serum glutamic pyruvic transaminase values with minimal or no elevation of the total bilirubin.

Specimens for serologic testing and/or virus isolation studies were obtained from 30 of the 36 patients; testing has been completed for 12 of these 30. A fourfold increase in serologic titers against influenza B was noted for two of the patients. Single hemagglutination-inhibition (HI) titers against influenza B of 1:256 and 1:512 were documented for four others. For another patient, a single HI titer of 1:512 against influenza B was recorded, and this virus was recovered from a throat swab specimen. No other agent has been associated with these cases. Virus isolation studies and serologic tests were negative for the remaining five patients. *(Reported by James C. Hart, M.D., Director, Division of Preventable Diseases, Connecticut State Department of Health; Nicholas J. Fiumara, M.D., Director, Division of Communicable Diseases, Massachusetts Department of Public Health; Victoria Smith, M.D., Epidemiologist, Alan R. Hinman, M.D., Director, Bureau of Epidemiology, New York State Department of Health; Joseph E. Cannon, M.D., Director, Rhode Island Department of Health; Robert B. Aiken, M.D., State Health Commissioner, Vermont Department of Health; and*

(Continued on page 102)

Figure 2
REYE'S SYNDROME CASES, BY WEEK OF HOSPITALIZATION
NEW ENGLAND AND NEW YORK STATE
JANUARY-FEBRUARY 1971

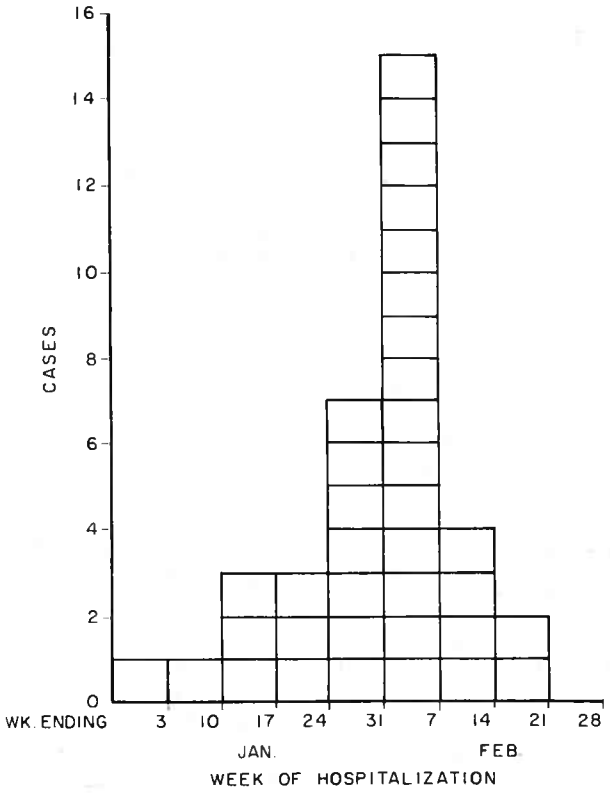


Figure 3
REYE'S SYNDROME CASES, BY TOWN OF RESIDENCE
JANUARY-FEBRUARY 1971

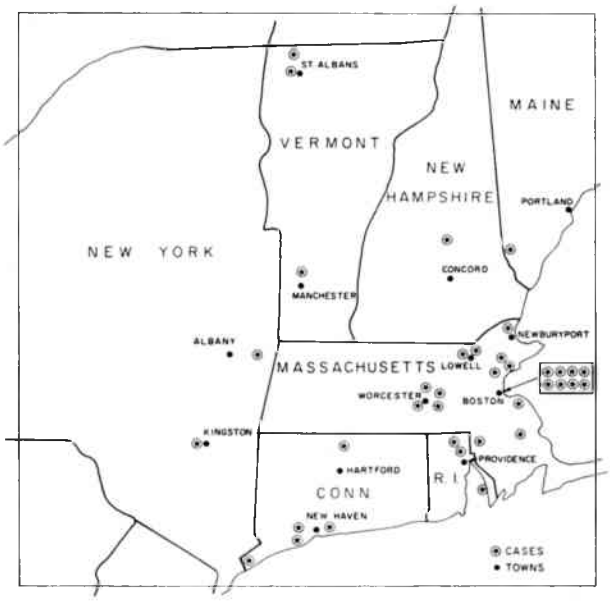


Table 1
Reye's Syndrome Cases, Deaths, and Case Fatality Rates (CFR) by Age and Sex – New York and New England
Jan. 1-Feb. 28, 1971

Age Groups	Cases			Deaths			CFR		
	M	F	T	M	F	T	M	F	T
<5	1	2	3	0	0	0	0	0	0
5-9	3	7	10	2	3	5	66%	42%	50%
10-14	7	11	18	6	7	13	83%	63%	72%
15+	2	3	5	0	3	3	0	100%	60%
Total	13	23	36	8	13	21	62%	57%	58%

REYE'S SYNDROME – *(Continued from page 101)*

the Neurotropic Diseases Unit, Viral Diseases Branch, Epidemiology Program, CDC.)

Editorial Note

In many of these communities, cases of Reye's syndrome began to appear 1-2 weeks after an increase in absenteeism associated with respiratory illness. Recent infection with influenza B has been documented in a number of these communities either by virus isolation or by serologic studies. An association between influenza B and cases of Reye's syndrome has been noted in the past *(1,2,3)*. From the minimal laboratory data available, it seems likely that in many cases in the present outbreak, the antecedent illness may be influenza B infection.

References

1. Johnson GM et al: A study of 16 fatal cases of encephalitis-like disease in North Carolina children. North Carolina Med J 24:464-473, 1963

2. Norman MG et al: Encephalopathy and fatty degeneration of the viscera in childhood. II. Report of a case with isolation of influenza B virus. Canad Med Ass J 99:549-554, 1968

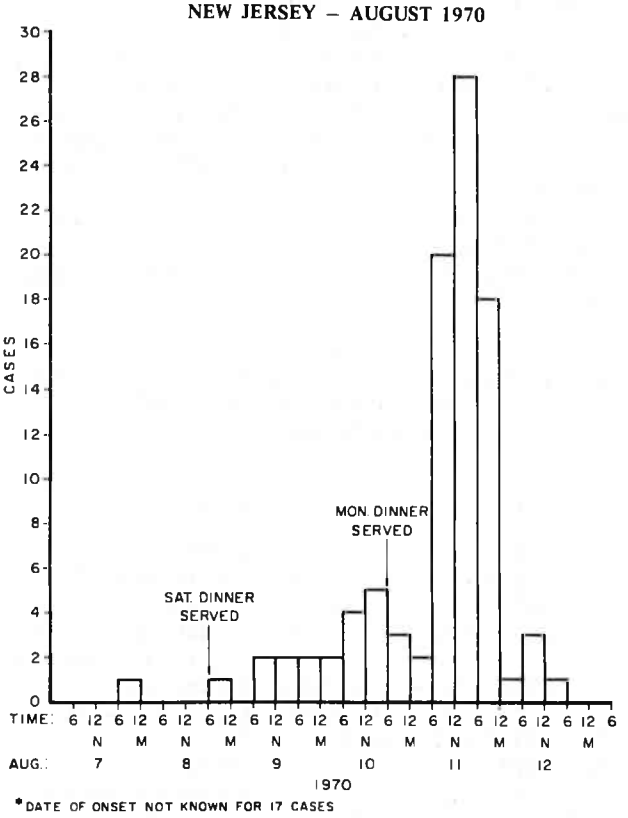
3. Glick TH et al: Reye's syndrome: an epidemiologic approach. Ped 46:371-377, 1970

SALMONELLOSIS – New Jersey

In August 1970, an outbreak of salmonellosis involving 112 persons occurred in a summer camp in northern New Jersey. Questionnaires were completed by 175 camp members, and 112 (64 percent) reported being ill. Their symptoms included diarrhea, abdominal pain, fever, nausea, and vomiting (Table 2). Dehydration was common because of the hot weather, and it resulted in the hospitalization of 26 persons. There were no deaths.

Onsets of illness occurred in two waves (Figure 4). The first wave occurred within 48 hours after the August 8 evening meal of turkey and involved 17 campers and 13 counselors. Food-specific attack rates implicated the turkey as the vehicle of infection (Table 3). In the second larger wave of illness 2 days later, at least 82 additional persons became ill. These patients had eaten a meat loaf dinner in which more than one food item appeared to be contaminated. Foods which had been leftover from the meal on August 8, such as green beans and mashed potatoes, were on the August 10 menu. Speci-

Figure 4
95 CASES* OF SALMONELLOSIS, BY DATE OF ONSET
NEW JERSEY – AUGUST 1970



*DATE OF ONSET NOT KNOWN FOR 17 CASES

Table 2
Symptoms Reported by 112 Persons with Salmonellosis
New Jersey – August 1970

Symptom	Number of Cases	Percent Ill
Diarrhea	91	81
Fever	89	80
Abdominal Pain	89	80
Headache	74	66
Nausea	73	65
Vomiting	60	54

Table 3
Food Specific Attack Rates of Camp Members with Salmonellosis
After August 8 Meal – New Jersey, 1970

Food	Ate				Did Not Eat			
	Ill	Not Ill	Total	Attack Rate (Percent)	Ill	Not Ill	Total	Attack Rate (Percent)
Turkey	27	112	139	19	0	18	18	0
Dressing	17	93	110	15	10	37	47	21
Gravy	18	95	113	16	9	35	44	20
Mashed Potatoes	20	101	121	17	7	29	36	19
Green Beans	18	78	96	19	9	52	61	15
Milk	22	115	137	16	5	15	20	25
Pie	16	95	111	14	11	35	46	14

mens of the meat loaf and green beans were cultured and yielded *Salmonella thompson*. Fifty-one persons who submitted stool specimens, including 11 who were asymptomatic, had positive cultures for *S. thompson*.

The turkey served at the August 8 meal was probably the source of the salmonellae. Five turkeys, weighing approximately 26 pounds each, were purchased frozen and refrigerated for 3 days. Each was then washed, placed in a deep pan, basted, covered with foil, and roasted (550°) for 3-4 hours. Such items as the green beans, which were served at the second infected meal, may have accounted for the contamination of the fresh food, such as the meat loaf, served on August 10. Lack of supervision of kitchen personnel, common usage of pots and utensils, and improper sanitation procedures most likely permitted the dissemination of salmonellae to other foods and contributed to the magnitude of the outbreak.

(Reported by Virginia Traister, R.N., Public Health Project Nurse, Division of Laboratories and Epidemiology, Howard Rosenfeld, V.M.D., Senior Public Health Veterinarian, Donald Myers, M.D., Northern District State Health Officer, Ronald Altman, M.D., State Epidemiologist, New Jersey State Department of Health; and an EIS Officer.)

CURRENT TRENDS
INFLUENZA – United States

The fifth telephone survey of all State health departments for the 1970-71 influenza season was conducted by the Respiratory Diseases Unit on March 30, 1971. New England has reported decreasing levels of previously widespread upper respiratory illness. The Southern Atlantic states have reported Influenza B isolations and seroconversions with scattered outbreaks. Scattered outbreaks and isolations of Influenza A/2 Hong Kong virus have been noted in the Pacific region.

New England

Massachusetts, Connecticut, Maine, Rhode Island, and Vermont have reported less influenza-like illness than they did in February. A few isolations of Influenza B were reported in March.

Middle Atlantic

New York has reported no new isolations and only a few seroconversions for Influenza A and B. The number of new cases has decreased. One county in Pennsylvania has had increased levels of upper respiratory illness.

South Atlantic

Virginia has experienced widespread influenza activity; however, the number of reported influenza-like illnesses has decreased in the past 4 weeks. Twenty virus isolations and some seroconversions were made for Influenza B. School absenteeism is returning to expected levels. Georgia has reported scattered outbreaks and three Influenza B isolations from the Atlanta area. One county has had increased school absenteeism. Florida and Mississippi are experiencing scattered outbreaks of upper respiratory illness, but no laboratory confirmations have been made.

East North Central

Wisconsin and Ohio have reported scattered cases; five Influenza B isolations have been made in Wisconsin. Iowa has reported six seroconversions for Influenza A, type unknown. Indiana has experienced isolated cases, with no recent laboratory confirmations of Influenza A or B.

East South Central

Kentucky has noted scattered cases of upper respiratory illness and five Influenza B seroconversions.

West North Central

In Minnesota, there have been isolated cases, with both Influenza A and B seroconversions.

West South Central

Texas has experienced scattered outbreaks, with a few Influenza B isolations.

Mountain

New Mexico has reported an outbreak at the Albuquerque Indian School, with laboratory confirmation of Influenza B.

Pacific

California, Oregon, and Washington have reported Influenza A/2 Hong Kong isolations. Los Angeles County has noted scattered outbreaks, with absenteeism in some schools reaching 20 percent; no schools have been closed. California has had 49 Influenza A isolations and four Influenza B seroconversions between Jan. 1 and March 13, 1971.

Hawaii has reported widespread activity, with 36 Influenza B and 21 Influenza A/2 Hong Kong isolations since January 1. Most of these isolations were made in the first 2 weeks of March. All islands have been affected, and the illness is moderately severe. There has been an increase in school absenteeism; no information was available regarding industrial absenteeism.

Pneumonia-influenza deaths and deaths from all causes in 122 U.S. cities are shown in Figures 5 and 6. Pneumonia-influenza deaths for the country as a whole remain within the expected seasonal levels. The Pacific and Middle Atlantic regions show slight elevations above expected levels for the week ending March 27, 1971.

(Reported by the Respiratory Diseases Unit, Viral Diseases Branch, Epidemiology Program, CDC.)

EPIDEMIOLOGIC NOTES AND REPORTS
SEROGROUP A MENINGOCOCCAL MENINGITIS – Westminster, Massachusetts

On the afternoon of March 4, 1971, a 3-year-old infant from Westminster, Massachusetts, was found to have an exudative conjunctivitis. By 7:00 P.M. that evening, she had a temperature of 103°F. When seen by her pediatrician at a hospital in Fitchburg, Massachusetts, 3 hours later, she was in shock and had a widespread petechial rash. Lumbar puncture revealed grossly clear cerebrospinal fluid (CSF), although pleocytosis was found on microscopic examination. CSF sugar was 12 mg percent. The patient was started on intravenous ampicillin, but in spite of therapy, she died 4 hours later.

Smears of the surface of the brain at autopsy revealed numerous gram negative diplococci, and a CSF culture yielded *Neisseria meningitidis*, serogroup A. The serogroup was later confirmed at CDC, and the isolate was found to be sulfonamide-sensitive.

(Continued on page 110)

Figure 5

PNEUMONIA-INFLUENZA DEATHS IN 122 UNITED STATES CITIES

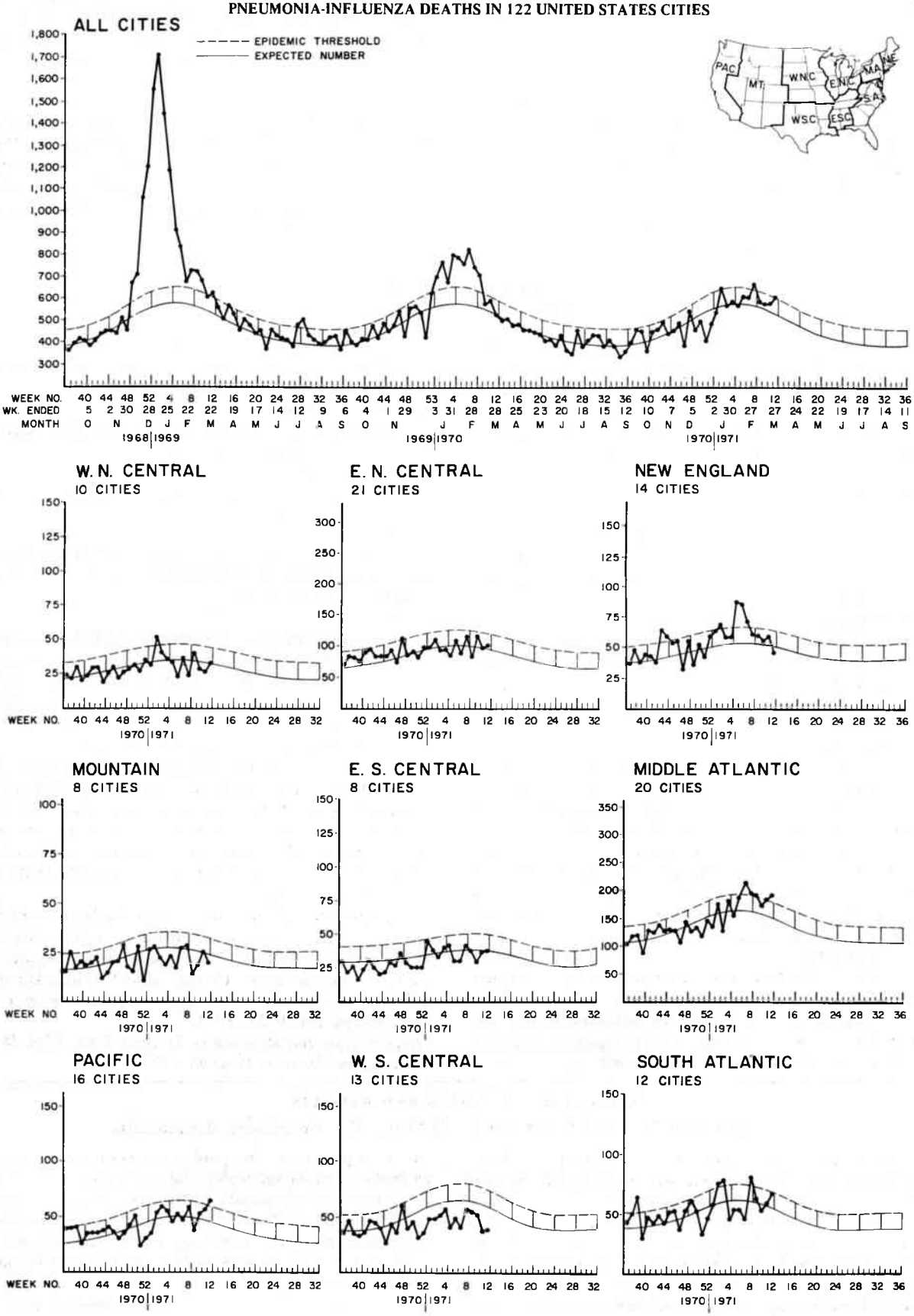


Figure 6
MORTALITY IN 122 UNITED STATES CITIES

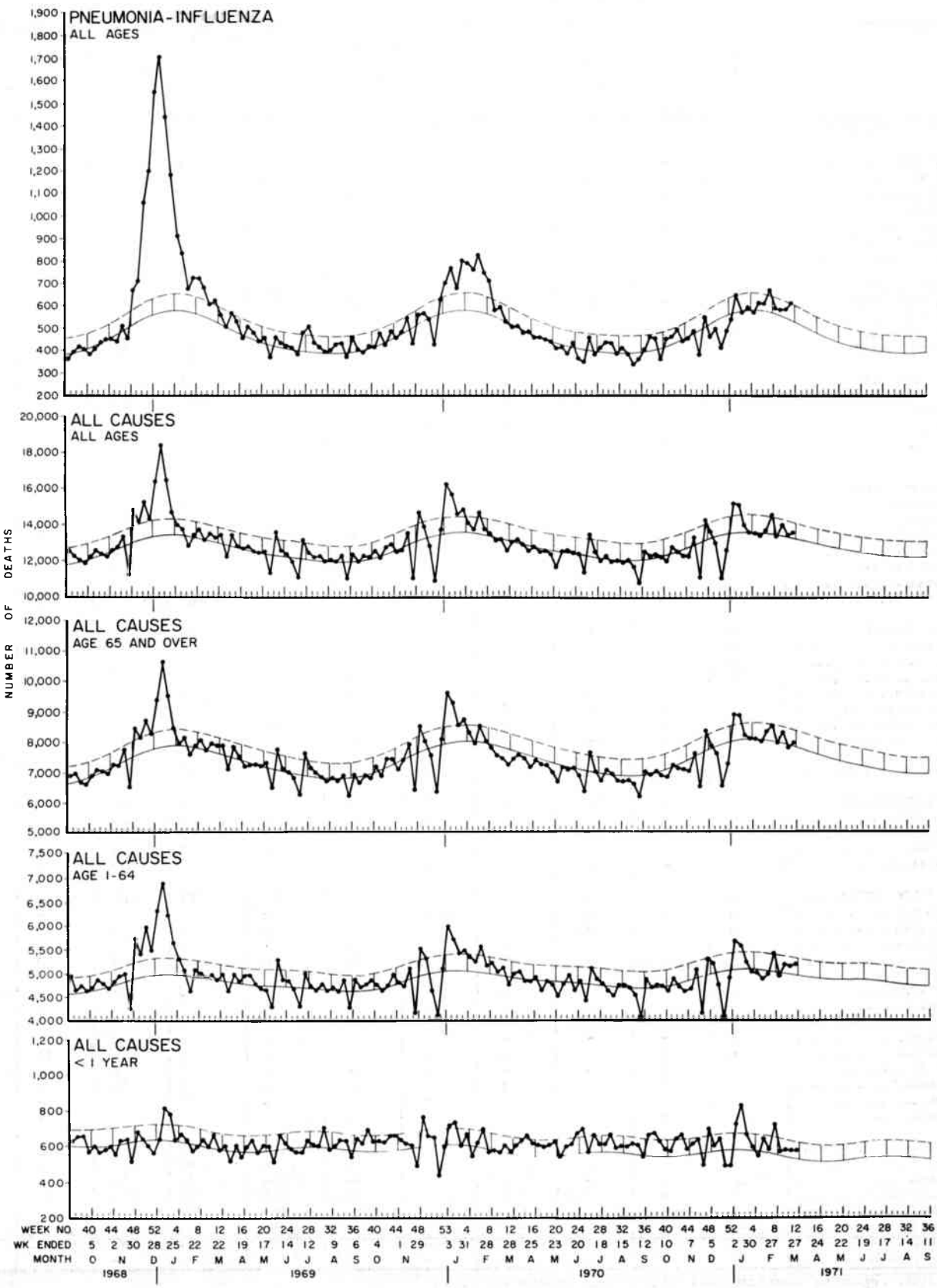


TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

MARCH 27, 1971 AND MARCH 28, 1970 (12th WEEK)

AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	DIPHTHERIA	ENCEPHALITIS			HEPATITIS			MALARIA	
				Primary including unsp. cases		Post Infectious	Serum	Infectious			
	1971	1971	1971	1971	1970	1971	1971	1971	1970	1971	Cum. 1971
UNITED STATES	28	2	–	16	14	13	177	1,243	994	75	902
NEW ENGLAND	–	–	–	1	2	1	15	104	88	3	28
Maine	–	–	–	–	–	–	–	9	15	–	2
New Hampshire	–	–	–	–	–	–	–	1	3	–	1
Vermont	–	–	–	–	–	–	–	6	3	–	1
Massachusetts	–	–	–	1	1	–	5	39	39	3	18
Rhode Island*	–	–	–	–	–	–	1	20	17	–	3
Connecticut	–	–	–	–	1	1	9	29	11	–	3
MIDDLE ATLANTIC	2	1	–	3	1	–	62	223	171	7	93
New York City	–	–	–	–	–	–	20	48	61	2	10
New York, Up-State	1	–	–	–	1	–	13	62	20	3	21
New Jersey	–	–	–	–	–	–	19	72	38	1	41
Pennsylvania*	1	1	–	3	–	–	10	41	52	1	21
EAST NORTH CENTRAL	5	–	–	5	3	–	33	235	174	1	38
Ohio	–	–	–	2	1	–	7	34	30	1	9
Indiana*	–	–	–	–	1	–	1	12	12	–	2
Illinois	1	–	–	1	1	–	1	52	48	–	9
Michigan	3	–	–	2	–	–	24	124	70	–	11
Wisconsin	1	–	–	–	–	–	–	13	14	–	7
WEST NORTH CENTRAL	1	–	–	–	–	4	9	72	37	6	72
Minnesota	1	–	–	–	–	4	–	9	3	–	5
Iowa.*	–	–	–	–	–	–	–	7	5	–	8
Missouri	–	–	–	–	–	–	5	28	9	4	17
North Dakota	–	–	–	–	–	–	–	2	–	–	–
South Dakota	–	–	–	–	–	–	–	3	1	–	–
Nebraska	–	–	–	–	–	–	–	2	2	–	5
Kansas	–	–	–	–	–	–	4	21	17	2	37
SOUTH ATLANTIC	8	1	–	3	–	1	11	101	88	13	142
Delaware	–	–	–	–	–	–	–	3	1	–	–
Maryland.*	–	–	–	–	–	–	8	25	14	1	26
Dist. of Columbia	–	–	–	–	–	–	–	1	–	–	–
Virginia	–	1	–	1	–	–	1	13	22	1	18
West Virginia.*	–	–	–	1	–	–	–	16	10	1	6
North Carolina.*	1	–	–	–	–	–	1	8	11	2	43
South Carolina	–	–	–	–	–	–	1	2	10	–	7
Georgia	–	–	–	–	–	–	–	12	2	5	24
Florida	7	–	–	1	–	1	–	21	18	3	18
EAST SOUTH CENTRAL	1	–	–	1	2	3	2	61	45	2	93
Kentucky	–	–	–	1	–	–	–	21	21	1	80
Tennessee	1	–	–	–	2	3	2	26	16	–	–
Alabama	–	–	–	–	–	–	–	5	1	1	13
Mississippi	–	–	–	–	–	–	–	9	7	–	–
WEST SOUTH CENTRAL	6	–	–	–	–	1	16	166	105	14	189
Arkansas	–	–	–	–	–	–	–	1	1	–	5
Louisiana	4	–	–	–	–	–	5	14	19	10	23
Oklahoma	–	–	–	–	–	–	1	14	11	3	36
Texas	2	–	–	–	–	1	10	137	74	1	125
MOUNTAIN	–	–	–	1	–	–	6	58	28	17	65
Montana	–	–	–	–	–	–	–	4	3	–	1
Idaho	–	–	–	–	–	–	–	7	1	2	2
Wyoming	–	–	–	–	–	–	–	–	3	–	1
Colorado	–	–	–	–	–	–	2	16	–	15	46
New Mexico	–	–	–	–	–	–	–	1	6	–	5
Arizona.*	–	–	–	1	–	–	–	19	10	–	7
Utah	–	–	–	–	–	–	4	10	5	–	3
Nevada	–	–	–	–	–	–	–	1	–	–	–
PACIFIC	5	–	–	2	6	3	23	223	258	12	182
Washington	–	–	–	–	1	1	–	13	22	–	1
Oregon	–	–	–	–	–	–	–	24	15	–	6
California	5	–	–	2	4	2	23	186	215	12	153
Alaska	---	---	---	---	–	---	---	---	5	---	1
Hawaii	---	---	---	---	1	---	---	---	1	---	21
Puerto Rico*	–	–	–	–	–	–	–	6	15	–	2
Virgin Islands	–	–	–	–	–	–	–	–	–	–	–

*Delayed reports: Aseptic meningitis: Pa. delete 2, Ariz. 1
Encephalitis, post-infectious: Md. 1 (1970)
Hepatitis, serum: Md. 2 (1970)
Hepatitis, infectious: Ind. delete 1, Md. 6 (1970), W.Va. 1, N.C. delete 1, P.R. 3 (1970)

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

MARCH 27, 1971 AND MARCH 28, 1970 (12th WEEK) - CONTINUED

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS		POLIOMYELITIS		
		Cumulative			Cumulative			Cum.	Total	Paralytic	
	1971	1971	1970	1971	1971	1970	1971	1971	1971	1971	Cum. 1971
UNITED STATES	3,263	23,595	13,128	63	796	828	4,559	42,326	1	1	3
NEW ENGLAND	132	766	188	2	34	35	202	2,652	–	–	–
Maine*	60	403	2	–	5	–	31	476	–	–	–
New Hampshire	1	23	13	1	4	3	3	258	–	–	–
Vermont	9	37	1	–	–	3	–	–	–	–	–
Massachusetts*	21	179	128	–	13	12	65	711	–	–	–
Rhode Island	–	22	14	–	2	3	51	614	–	–	–
Connecticut	41	102	30	1	10	14	52	593	–	–	–
MIDDLE ATLANTIC	306	2,554	1,898	7	104	136	258	3,005	–	–	–
New York City	199	1,552	279	–	14	32	60	504	–	–	–
New York, Up-State	18	211	69	3	32	24	NN	NN	–	–	–
New Jersey*	43	220	848	3	29	51	84	876	–	–	–
Pennsylvania	46	571	702	1	29	29	114	1,625	–	–	–
EAST NORTH CENTRAL	693	4,651	2,968	11	91	99	2,080	17,115	–	–	–
Ohio	200	1,731	901	1	22	47	232	2,871	–	–	–
Indiana	130	537	118	–	4	10	375	2,447	–	–	–
Illinois	179	1,189	1,451	2	33	22	249	1,798	–	–	–
Michigan	62	314	277	4	25	17	606	4,361	–	–	–
Wisconsin	122	880	221	4	7	3	618	5,638	–	–	–
WEST NORTH CENTRAL	360	1,950	1,276	3	70	43	254	2,365	–	–	–
Minnesota	2	35	21	–	9	4	68	449	–	–	–
Iowa	117	517	48	–	6	4	139	1,376	–	–	–
Missouri	189	724	216	–	26	33	16	130	–	–	–
North Dakota	2	86	91	–	2	1	18	167	–	–	–
South Dakota	9	98	41	–	3	–	8	124	–	–	–
Nebraska	1	11	819	1	8	1	–	23	–	–	–
Kansas	40	479	40	2	16	–	5	96	–	–	–
SOUTH ATLANTIC	355	2,608	1,965	9	115	182	248	3,123	1	1	1
Delaware	–	11	130	–	–	2	2	58	–	–	–
Maryland	25	47	271	4	15	15	13	294	–	–	–
Dist. of Columbia	1	4	277	–	7	1	2	49	–	–	–
Virginia*	24	720	499	1	12	16	26	399	–	–	–
West Virginia	32	160	79	–	2	4	81	942	–	–	–
North Carolina	130	868	222	1	18	33	NN	NN	–	–	–
South Carolina	8	261	165	1	11	10	12	368	–	–	–
Georgia	58	103	2	1	11	24	–	1	1	1	1
Florida	77	434	320	1	39	77	112	1,012	–	–	–
EAST SOUTH CENTRAL	212	3,173	186	1	59	52	300	3,498	–	–	–
Kentucky	123	1,460	104	–	17	16	102	1,297	–	–	–
Tennessee	25	272	45	–	21	25	140	1,665	–	–	–
Alabama	39	638	23	1	12	7	40	472	–	–	–
Mississippi	25	803	14	–	9	4	18	64	–	–	–
WEST SOUTH CENTRAL	840	5,816	3,309	11	72	132	425	3,054	–	–	1
Arkansas	10	81	16	–	2	14	–	19	–	–	–
Louisiana	145	710	36	3	23	32	8	22	–	–	–
Oklahoma	54	524	101	–	6	9	24	102	–	–	–
Texas	631	4,501	3,156	8	41	77	393	2,911	–	–	1
MOUNTAIN	155	929	640	–	25	10	200	1,759	–	–	–
Montana	20	288	10	–	1	–	18	229	–	–	–
Idaho	29	114	5	–	2	2	3	94	–	–	–
Wyoming	10	20	–	–	–	1	16	88	–	–	–
Colorado	61	218	79	–	4	3	81	487	–	–	–
New Mexico	10	154	72	–	2	–	59	284	–	–	–
Arizona*	10	93	466	–	8	2	23	500	–	–	–
Utah	15	42	4	–	7	2	–	77	–	–	–
Nevada	–	–	4	–	1	–	–	–	–	–	–
PACIFIC	210	1,148	698	19	226	139	592	5,755	–	–	1
Washington	69	325	69	3	12	18	264	2,849	–	–	–
Oregon	16	93	112	1	13	10	42	530	–	–	1
California	125	705	475	15	199	110	286	2,058	–	–	–
Alaska	—	8	1	—	–	–	—	41	–	–	–
Hawaii	—	17	41	—	2	1	—	277	–	–	–
Puerto Rico	2	61	549	–	–	2	40	289	–	–	–
Virgin Islands	2	4	4	–	–	1	1	1	–	–	–

*Delayed reports: Measles: Me. 2, Mass. delete 8, N.J. delete 1, Va. 14, Ariz. delete 48
Meningococcal infections: Ariz. 1
Mumps: Me. 8

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

MARCH 27, 1971 AND MARCH 28, 1970 (12th 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.....	1,699	13,542	4	17	–	22	1	59	–	4	125	961
NEW ENGLAND.....	60	483	–	–	–	–	–	2	–	–	19	75
Maine.....	16	111	–	–	–	–	–	–	–	–	19	70
New Hampshire.....	3	7	–	–	–	–	–	–	–	–	–	–
Vermont.....	1	14	–	–	–	–	–	–	–	–	–	5
Massachusetts.....	30	249	–	–	–	–	–	2	–	–	–	–
Rhode Island.....	3	26	–	–	–	–	–	–	–	–	–	–
Connecticut.....	7	76	–	–	–	–	–	–	–	–	–	–
MIDDLE ATLANTIC.....	86	832	–	4	–	–	–	6	–	1	4	54
New York City.....	16	122	–	4	–	–	–	3	–	–	–	–
New York, Up-State..	29	212	–	–	–	–	–	2	–	–	4	53
New Jersey.....	18	131	–	–	–	–	–	–	–	–	–	–
Pennsylvania.....	23	367	–	–	–	–	–	1	–	1	–	1
EAST NORTH CENTRAL....	414	2,707	1	1	–	1	–	4	–	–	6	58
Ohio.....	26	362	1	1	–	1	–	3	–	–	–	9
Indiana.....	65	563	–	–	–	–	–	–	–	–	2	4
Illinois.....	132	439	–	–	–	–	–	–	–	–	–	15
Michigan.....	107	843	–	–	–	–	–	1	–	–	3	14
Wisconsin.....	84	500	–	–	–	–	–	–	–	–	1	16
WEST NORTH CENTRAL....	109	786	–	–	–	2	–	–	–	–	21	220
Minnesota.....	38	89	–	–	–	–	–	–	–	–	4	48
Iowa.....	23	228	–	–	–	–	–	–	–	–	1	68
Missouri.....	26	259	–	–	–	2	–	–	–	–	4	42
North Dakota.....	2	28	–	–	–	–	–	–	–	–	10	44
South Dakota.....	2	21	–	–	–	–	–	–	–	–	–	–
Nebraska.....	4	27	–	–	–	–	–	–	–	–	–	–
Kansas.....	14	134	–	–	–	–	–	–	–	–	2	18
SOUTH ATLANTIC.....	72	979	3	7	–	12	–	14	–	1	9	110
Delaware.....	2	10	–	–	–	–	–	1	–	–	–	–
Maryland.....	2	48	–	–	–	3	–	3	–	–	–	–
Dist. of Columbia...	–	1	–	–	–	–	–	–	–	–	–	–
Virginia..*	2	88	–	–	–	5	–	1	–	–	1	32
West Virginia.....	13	137	–	–	–	–	–	1	–	–	5	50
North Carolina.....	2	13	–	–	–	4	–	2	–	1	–	–
South Carolina.....	39	182	–	–	–	–	–	–	–	–	–	–
Georgia.....	–	–	2	2	–	–	–	1	–	–	1	14
Florida.....	12	500	1	5	–	–	–	5	–	–	2	14
EAST SOUTH CENTRAL....	220	1,251	–	3	–	6	–	6	–	1	17	120
Kentucky.....	111	566	–	–	–	2	–	2	–	–	10	68
Tennessee.....	100	573	–	1	–	2	–	2	–	–	3	29
Alabama..*	8	67	–	1	–	2	–	2	–	–	4	23
Mississippi.....	1	45	–	1	–	–	–	–	–	1	–	–
WEST SOUTH CENTRAL....	300	2,194	–	–	–	–	–	5	–	1	36	215
Arkansas.....	24	224	–	–	–	–	–	–	–	–	3	17
Louisiana.....	–	52	–	–	–	–	–	3	–	–	1	8
Oklahoma.....	–	30	–	–	–	–	–	–	–	1	19	117
Texas.....	276	1,888	–	–	–	–	–	2	–	–	13	73
MOUNTAIN.....	48	1,002	–	–	–	1	–	2	–	–	–	1
Montana.....	7	70	–	–	–	1	–	–	–	–	–	–
Idaho.....	2	22	–	–	–	–	–	–	–	–	–	–
Wyoming.....	1	552	–	–	–	–	–	–	–	–	–	–
Colorado.....	11	117	–	–	–	–	–	–	–	–	–	–
New Mexico.....	26	105	–	–	–	–	–	–	–	–	–	–
Arizona.....	–	114	–	–	–	–	–	2	–	–	–	1
Utah.....	1	22	–	–	–	–	–	–	–	–	–	–
Nevada.....	–	–	–	–	–	–	–	–	–	–	–	–
PACIFIC.....	390	3,308	–	2	–	–	1	20	–	–	13	108
Washington.....	40	610	–	–	–	–	–	–	–	–	–	–
Oregon.....	17	251	–	–	–	–	–	–	–	–	–	–
California.....	333	2,353	–	2	–	–	1	20	–	–	13	82
Alaska.....	—	25	—	–	—	–	—	–	—	–	—	26
Hawaii.....	—	69	—	–	—	–	—	–	—	–	—	–
Puerto Rico.....	–	1	–	1	–	–	–	1	–	–	1	16
Virgin Islands.....	–	–	–	–	–	–	–	–	–	–	–	–

*Delayed reports: Rubella: Va. delete 14
Tularemia: Ala. 2

Week No. 12

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED MARCH 27, 1971

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

Area	All Causes		Pneumonia and Influenza	Under 1 year
	All Ages	65 years and over	All Ages	All Causes
NEW ENGLAND:	687	419	46	31
Boston, Mass.	184	105	15	6
Bridgeport, Conn.	42	21	1	2
Cambridge, Mass.	31	21	6	–
Fall River, Mass.	29	20	1	–
Hartford, Conn.	92	57	1	7
Lowell, Mass.	19	13	1	2
Lynn, Mass.	23	15	1	1
New Bedford, Mass.	22	18	1	–
New Haven, Conn.	55	30	–	5
Providence, R. I.	56	32	6	3
Somerville, Mass.	11	8	–	–
Springfield, Mass.	54	33	7	4
Waterbury, Conn.	27	15	–	1
Worcester, Mass.	42	31	6	–
MIDDLE ATLANTIC:	3,551	2,099	191	115
Albany, N. Y.	66	33	2	5
Allentown, Pa.	39	27	1	1
Buffalo, N. Y.	151	100	6	3
Camden, N. J.	63	34	4	6
Elizabeth, N. J.	35	26	1	–
Erie, Pa.	47	35	5	1
Jersey City, N. J.	71	47	–	–
Newark, N. J.	66	27	2	2
New York City, N. Y.†	1,769	1,031	92	59
Paterson, N. J.	53	34	4	–
Philadelphia, Pa.	494	274	2	21
Pittsburgh, Pa.	205	106	15	5
Reading, Pa.	69	43	4	1
Rochester, N. Y.	145	103	21	4
Schenectady, N. Y.	31	15	4	–
Scranton, Pa.	47	29	2	2
Syracuse, N. Y.	76	41	2	4
Trenton, N. J.	45	34	5	1
Utica, N. Y.	31	27	6	–
Yonkers, N. Y.	48	33	13	–
EAST NORTH CENTRAL:	2,828	1,656	101	138
Akron, Ohio	66	46	1	2
Canton, Ohio	35	21	–	1
Chicago, Ill.	798	453	17	42
Cincinnati, Ohio	167	93	4	11
Cleveland, Ohio	232	141	6	13
Columbus, Ohio	136	75	9	7
Dayton, Ohio	117	69	2	3
Detroit, Mich.	408	243	15	15
Evansville, Ind.	45	30	6	–
Flint, Mich.	61	34	5	4
Fort Wayne, Ind.	43	20	4	3
Gary, Ind.	22	15	1	–
Grand Rapids, Mich.	57	34	6	5
Indianapolis, Ind.	170	94	5	11
Madison, Wis.	28	13	5	5
Milwaukee, Wis.	164	118	1	1
Peoria, Ill.	52	26	1	6
Rockford, Ill.	35	20	2	1
South Bend, Ind.	42	27	5	–
Toledo, Ohio	108	64	5	6
Youngstown, Ohio	42	20	1	2
WEST NORTH CENTRAL:	833	515	33	41
Des Moines, Iowa	51	29	5	6
Duluth, Minn.	26	17	–	2
Kansas City, Kans.	41	18	2	3
Kansas City, Mo.	118	75	1	5
Lincoln, Nebr.	42	28	4	1
Minneapolis, Minn.	115	76	3	4
Omaha, Nebr.	81	52	2	2
St. Louis, Mo.	253	150	7	13
St. Paul, Minn.	60	39	2	4
Wichita, Kans.	46	31	7	1
Las Vegas, Nev.*	10	3	1	1

Area	All Causes		Pneumonia and Influenza	Under 1 year
	All Ages	65 years and over	All Ages	All Causes
SOUTH ATLANTIC:	1,254	671	69	42
Atlanta, Ga.	127	75	10	7
Baltimore, Md.	268	136	9	6
Charlotte, N. C.	57	25	–	2
Jacksonville, Fla.	79	35	4	7
Miami, Fla.	110	58	2	2
Norfolk, Va.	58	28	7	2
Richmond, Va.	100	57	11	3
Savannah, Ga.	49	23	8	7
St. Petersburg, Fla.	109	95	6	–
Tampa, Fla.	87	43	5	2
Washington, D. C.	160	72	7	2
Wilmington, Del.	50	24	–	2
EAST SOUTH CENTRAL:	707	390	39	37
Birmingham, Ala.	103	49	3	4
Chattanooga, Tenn.	53	32	8	3
Knoxville, Tenn.	42	28	7	1
Louisville, Ky.	111	67	10	4
Memphis, Tenn.	165	90	3	15
Mobile, Ala.	54	33	1	1
Montgomery, Ala.	61	30	3	2
Nashville, Tenn.	118	61	4	7
WEST SOUTH CENTRAL:	1,312	672	39	67
Austin, Tex.	52	25	5	2
Baton Rouge, La.	49	27	1	5
Corpus Christi, Tex.	21	12	–	2
Dallas, Tex.	187	90	4	13
El Paso, Tex.	55	21	5	9
Fort Worth, Tex.	91	43	3	8
Houston, Tex.	253	117	2	8
Little Rock, Ark.	68	37	–	2
New Orleans, La.	161	79	7	3
Oklahoma City, Okla.	90	54	3	2
San Antonio, Tex.	156	87	1	5
Shreveport, La.	68	40	6	4
Tulsa, Okla.	61	40	2	4
MOUNTAIN:	496	287	20	21
Albuquerque, N. Mex.	37	23	2	1
Colorado Springs, Colo.	28	13	3	2
Denver, Colo.	132	74	3	9
Ogden, Utah	16	11	3	–
Phoenix, Ariz.	139	80	3	6
Pueblo, Colo.	29	14	3	–
Salt Lake City, Utah	52	35	–	3
Tucson, Ariz.	63	37	3	–
PACIFIC:	1,934	1,161	66	72
Berkeley, Calif.	17	12	2	1
Fresno, Calif.	69	43	3	1
Glendale, Calif.	48	38	–	–
Honolulu, Hawaii	45	27	1	3
Long Beach, Calif.	126	84	5	2
Los Angeles, Calif.	649	363	23	26
Oakland, Calif.	116	77	5	7
Pasadena, Calif.	47	32	1	–
Portland, Oreg.	139	86	2	5
Sacramento, Calif.	83	55	2	3
San Diego, Calif.	129	74	–	9
San Francisco, Calif.	173	89	6	6
San Jose, Calif.	45	28	3	1
Seattle, Wash.	145	85	6	6
Spokane, Wash.	46	33	2	–
Tacoma, Wash.	57	35	5	2
Total	13,602	7,870	604	564
Expected Number	13,274	7,765	529	528
Cumulative Total (includes reported corrections for previous weeks)	167,681	98,114	7,142	7,469

*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 March 20, 1971

MENINGITIS – *(Continued from page 103)*

Household contacts of the patient included the mother, father, and two siblings. All were treated with a 5-day course of oral penicillin. Cultures of throat specimens from the household members 2 weeks after prophylactic therapy revealed no *N. meningitidis.*

The patient's grandmother, a frequent visitor in the home, was known to have been in Quebec 6 months previously. It is interesting to note that several provinces in Canada have reported cases of serogroup A meningococcal disease in the past year (MMWR, Vol. 19, No. 49), suggesting a possible source for the patient's infection.

(Reported by Cyril Bergman, M.D., and Walter Pick, M.D., private pediatricians, Fitchburg, Massachusetts; Robert L. McAuley, M.D., Chief of Pathology, Burbank Hospital, Fitchburg, Massachusetts; Nicholas J. Fiumara, M.D., Director, Division of Communicable Diseases, Massachusetts Department of Public Health; and the Laboratory Division, CDC.)

Editorial Note

This is the first reported case of serogroup A meningococcal disease in the United States in 1971. Two cases were reported in 1970, one from Nashua, New Hampshire, and the other from Olympia, Washington. As in the present case, the isolates were sulfonamide-sensitive.

FOLLOW-UP ON SEPTICEMIA ASSOCIATED WITH CONTAMINATED INTRAVENOUS FLUID FROM ABBOTT LABORATORIES

Between Oct. 1, 1970, and March 31, 1971, 405 cases of septicemia due to Erwinia (herbicola lathyri group) and/or *Enterobacter cloacae* have occurred in association with Abbott intravenous (IV) fluid and have now been reported to CDC. No cases have been reported with onsets after March 22, when a recall of Abbott IV products was issued by the Food and Drug Administration (FDA) (MMWR, Vol. 20, No. 11).

The entire contents of 1,825 1-liter bottles have been cultured; the caps had been carefully removed in a laminar flow hood. Laboratory results showed 13 (0.7 percent) positive for Erwinia or *E. cloacae.* Both species of organisms have now been isolated from elastomer cap liners manufactured at both Abbott plants and from environmental samples of the plants.

Hospitals that have difficulty obtaining non-Abbott IV fluid should contact the nearest FDA office for assistance.

(Reported by the Bacterial Diseases Branch, Epidemiology Program, CDC.)

The Morbidity and Mortality Weekly Report, circulation 22,800, is published by the Center for Disease Control, Atlanta, Ga.

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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 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.

Address all correspondence to

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