



For
Week Ending
June 13, 1970

JUN 13 1970

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE / PUBLIC HEALTH SERVICE HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION

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Morbidity and Mortality

EPIDEMIOLOGIC NOTES AND REPORTS

BUBONIC PLAGUE - California

A case of bubonic plague has been reported from Alameda County, California, in an 8-year-old boy who had onset of fever with left supraclavicular adenopathy on May 30, 1970, followed by bilateral anterior femoral node enlargement. He was hospitalized on June 3 and treated with chloramphenicol with subsequent clinical improvement. An early blood culture yielded a gram-negative, bipolar organism on June 12. Fluorescent antibody results on June 12 were consistent with plague bacillus. On June 15 phage typing and biochemical tests confirmed the identity of the organisms as *Yersinia (Pasteurella) pestis*.

The boy had camped with an aunt, uncle, and grandparents in Burney Falls Park, Shasta County, from May 18 through May 25. He fed chipmunks and squirrels, poked a dead squirrel with a stick, and received numerous insect

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bites while camping. An investigation in this area of known sylvatic plague is underway.

(Reported by Frank Close, M.D., Pediatrician, Haywood, California, and Steven Oppenheimer, M.D., Alameda; Eric Diemand, M.D., Alameda County Health Department; Richard (Continued on page 222))

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

DISEASE	23rd WEEK ENDED		MEDIAN 1965 - 1969	CUMULATIVE, FIRST 23 WEEKS		
	June 13, 1970	June 7, 1969		1970	1969	MEDIAN 1965 - 1969
Aseptic meningitis	47	24	24	686	623	635
Brucellosis	7	1	3	88	73	95
Diphtheria	2	3	1	183	67	70
Encephalitis, primary:						
Arthropod-borne & unspecified	21	13	23	453	438	560
Encephalitis, post-infectious	10	5	9	212	132	370
Hepatitis, serum	159	93	701	3,099	2,289	18,591
Hepatitis, infectious	1,077	833		24,859	21,019	
Malaria	65	51	31	1,497	1,162	870
Measles (rubeola)	1,399	787	1,614	32,381	15,880	51,799
Meningococcal infections, total	51	47	43	1,427	1,871	1,822
Civilian	47	41	41	1,281	1,688	1,660
Military	4	6	3	146	183	162
Mumps	2,530	2,038	---	62,701	56,047	---
Poliomyelitis, total	3	---	1	5	2	10
Paralytic	3	---	1	5	2	9
Rubella (German measles)	1,633	2,396	---	43,793	39,640	---
Tetanus	2	1	4	46	52	58
Tularemia	3	7	5	43	59	65
Typhoid fever	5	3	8	100	122	127
Typhus, tick-borne (Rky. Mt. spotted fever)	19	18	10	78	94	55
Rabies in animals	45	60	68	1,419	1,705	1,997

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	1	Psittacosis:	14
Botulism:	1	Rabies in Man:	---
Leprosy: Calif.-2, Ill.-1, Tex.-2	53	Rubella congenital syndrome: Calif.-1	36
Leptospirosis: Iowa-1, N.C.-1, Tex.-2	15	Trichinosis: Miss.-1	52
Plague:	1	Typhus, murine:	9

BUBONIC PLAGUE - (Continued from front page)

Peters, Bureau of Vector Control and Solid Waste Management, Ronald Wood, Ph.D., Chief, Microbial Diseases Laboratory, Richard W. Emmons, M.D., Epidemiologist, and

Philip K. Condit, M.D., Chief, Bureau of Communicable Disease Control, California State Department of Public Health.)

CURRENT TRENDS

DIPHTHERIA - United States

From Jan. 1 through May 31, 1970, a total of 172 cases of diphtheria were reported in the United States. This total is significantly greater than the total for the same periods in 1969 (64 cases) and 1968 (84 cases). The geographic distribution of the 1970 cases was similar to that of the previous 2 years (Table 1). The increase in 1970 is in part

due to an outbreak in Chicago, Illinois (MMWR, Vol. 19, No. 4), an ongoing outbreak in Phoenix, Arizona (MMWR, Vol. 18, No. 35), and to outbreaks in Texas.

(Reported by the Special Pathogens Section, Bacterial Diseases Branch, and the Statistical Services Activity, Epidemiology Program, NCDC.)

Table 1
Diphtheria - United States, Jan. 1-May 31, 1968, 1969, and 1970*

State	1968	1969	1970	State	1968	1969	1970
New England				South Atlantic (Cont.)			
Maine				North Carolina			2
New Hampshire				South Carolina	4	1	
Vermont				Georgia	4		1
Massachusetts		1		Florida	4	1	6
Rhode Island			2	East South Central			
Connecticut				Kentucky	1		
Middle Atlantic				Tennessee	1		
New York City				Alabama	1	8	
New York Up-State			1	Mississippi	5	2	
New Jersey				West South Central			
Pennsylvania				Arkansas		2	1
East North Central				Louisiana	7	5	11
Ohio		1		Oklahoma			
Indiana	1			Texas	52	17	73
Illinois			20	Mountain			
Michigan				Montana			8
Wisconsin		2		Idaho			
West North Central				Wyoming			
Minnesota				Colorado		1	4
Iowa				New Mexico	1	1	
Missouri				Arizona		6	28
North Dakota	1			Utah			
South Dakota		1		Nevada			
Nebraska				Pacific			
Kansas				Washington	1	2	8
South Atlantic				Oregon		2	3
Delaware				California	1	11	3
Maryland				Alaska			
District of Columbia				Hawaii			
Virginia			1				
West Virginia				Total	84	64	172

*Provisional Data

EPIDEMIOLOGIC NOTES AND REPORTS

DIPHTHERIA - Washington

An outbreak of diphtheria with seven cases occurred in late April through May in Marysville, Snohomish County, Washington. In the 12 years prior to this outbreak, only four cases of diphtheria had been reported in this county.

The index patient, a 7-year-old boy, had onset of pharyngitis, neck swelling, and fever in late April; mumps was suspected. Two weeks later his mother, two brothers, and sister developed fever and pharyngitis. On May 9 the

5-year-old ill brother was admitted to a Seattle hospital in acute respiratory distress. On examination he had a necrotic pharyngeal membrane. A tracheostomy was performed, diphtheria antitoxin was given, but he died 36 hours after admission. Cultures of the membrane yielded toxigenic *Corynebacterium diphtheriae*, intermedius type. The index patient, his mother, and the other two children, none of whom had ever received immunization against diphtheria, were then hospitalized. Throat cultures from the index patient and his mother yielded toxigenic *C. diphtheriae*, intermedius type; cultures from the other two were negative. These two children had received antibiotics prior to admission. All were treated with diphtheria antitoxin and have recovered.

All three surviving children attended the same elementary school. A survey of the immunization status of the 55 first grade classmates of the index patient showed that four were fully immunized against diphtheria, 40 had had at least one DPT injection, and 11 had no diphtheria toxoid immunization. Cultures of the nose and throat of the first graders yielded eight *C. diphtheriae* isolates. Nine additional carriers were identified in family contacts of the first grade carriers. All carriers were isolated and referred to their physicians for treatment. Diphtheria toxoid immunizations were given to children and employees at the school

and offered to their family contacts. In addition, immunizations were offered to students at the neighboring junior high school and high school.

On May 22, a 3-year-old girl in this same community was hospitalized with suspect diphtheria. A throat culture yielded toxigenic *C. diphtheriae*, intermedius type. Cultures of her family contacts identified three carriers, two of whom had nontoxigenic organisms; the third had both toxigenic and nontoxigenic strains. School contacts of these carriers were examined and cultured, and immunizations were offered to the children in these schools. Subsequent to this case, a 24-year-old man who boarded in the household was hospitalized with fever and pharyngitis. His throat culture yielded nontoxigenic *C. diphtheriae*.

To date, 22 carriers have been identified and treated, and approximately 1,100 persons have been cultured and 12,000 immunized.

(Reported by J. Walton Darrough, M.D., Acting Health Officer, Harold Luke, D.V.M., and Minnie Chandler, R.N., Snohomish County Health Department; Joyce Campbell and Joseph DiCaprio, M.D., Chief and Head, Diagnostic Section, Division of Laboratories, and Byron J. Francis, M.D., Chief, Division of Epidemiology, Washington State Department of Health; and an EIS Officer.)

DIPHTHERIA - Oregon

In April and May 1970 three cases of diphtheria (one fatal) were reported from the Portland, Oregon, area. The first patient, a 59-year-old woman, had onset of illness on April 30. She had severe pharyngitis with membrane formation, fever, and respiratory distress, but no evidence of myocarditis or neuropathy. She was treated with 80,000 units of diphtheria antitoxin and underwent tracheostomy. She was also given erythromycin. At present, she is recovering.

On May 11 a 64-year-old man with a history of hospitalization for chronic lung disease was again hospitalized after 6 days of an acute illness. He was resuscitated but died 18 hours later. At autopsy, a membrane was found in the trachea and the area near the carina, but no evidence of pharyngitis was found. A sputum culture obtained on admission grew toxigenic *Corynebacterium diphtheriae*.

On May 15 the third case was reported in a 56-year-old man with sore throat and fever of 3-days duration. He had typical membranous pharyngitis which was confirmed by culture as toxigenic *C. diphtheriae*. He was treated with antitoxin and penicillin and is recovering.

Investigation determined that the only epidemiologic association common to the three patients was exposure to the skid row area of the city. The woman had been shopping in thrift shops in the area twice during the week prior to onset of illness. The two men lived in different hotels in

the area but on opposite sides of the river. The patient who died had been out of the hospital for 15 days prior to his illness but had not left his hotel in the interim. Persons at both hotels were cultured, and nontoxigenic *C. diphtheria* was isolated from one asymptomatic person, the owner of one of the hotels.

The contacts of the woman patient were immunized, and an immunization program was begun in the skid row area. Twenty-three of 25 residents at one hotel and 22 of 30 residents at the second hotel were given Td boosters. Health department personnel also conducted immunization clinics in neighborhood gathering places (food lines, bars, and hotels). Incentives donated by Blanchet House, a local volunteer agency, were given in some clinics and not in others. With incentives 90 percent of the persons in gathering places accepted the booster, and without incentives acceptance decreased to 10-20 percent. A total of 1,000 boosters have been given to date, reaching 20 to 50 percent of the community population (estimated 2,000 to 6,000 persons).

(Reported by Monroe Holmes, D.V.M., Acting Director, Epidemiology Section, Oregon State Board of Health; John Donnelly, M.D., Health Officer, and Frank Watts, D.V.M., Epidemiologist, Multnomah County; A. J. Riley, Blanchet House; and an EIS Officer.)

MENINGITIS — Oregon

In March 1970, an outbreak of meningococcal disease occurred among the five children in a family in Portland, Oregon. One child had a presumptive diagnosis of meningococcal disease. Two children had culture-proven cases of meningococcal meningitis or meningococcemia. A fourth child had pharyngitis and subsequently had a nasopharyngeal culture positive for *Neisseria meningitidis*. The fifth child remained well.

The first patient, a 16-month-old girl (Case 1) developed fever (101°F.), cough, lethargy, and vomiting on March 21. No cultures were taken, and she was given penicillin for 3 days. She remained ill with fever, and on March 28 her temperature reached 104°F. At that time, her 3-year-old brother (Case 2) also had onset of similar symptoms. Both children were then brought to a hospital emergency room. Physical examinations were normal except for fever. Both had elevated white blood cell counts (Case 1—12,000; Case 2—18,000), and minimal patchy infiltrates were noted on chest x-ray. Pneumonia was diagnosed, and both patients were treated with procaine penicillin, 600,000 units, intramuscularly every 12 hours. That night, the 3-year-old boy

developed nuchal rigidity, petechiae, and stupor. He died after 8 hours of hospitalization with a clinical diagnosis of Waterhouse-Friderichsen syndrome, despite therapy with high doses of ampicillin and intensive supportive care. His cerebrospinal fluid (CSF) culture was positive for serogroup B, *N. meningitidis*. The 16-month-old girl improved.

On March 30 their 5-year-old sister (Case 3) developed fever (104°F.) and cough and was hospitalized. Lumbar puncture revealed 3 lymphocytes and 223 red blood cells, CSF culture was negative, but a blood culture was positive for *N. meningitidis*. This child improved following therapy with ampicillin.

On March 30 their 6-year-old sister was also seen at the hospital because of sore throat and fever. She was treated with penicillin. A nasopharyngeal culture taken 10 days later was positive for serogroup Y, *N. meningitidis*. (Reported by C. W. VanRooy, M.D., and W. Newman, M.D., Physicians, Portland; Frank Watts, D.V.M., Epidemiologist, and John Donnelly, M.D., Chief, Multnomah County Health Department; and Monroe Holmes, D.V.M., Acting Director, Epidemiology Section, Oregon State Board of Health.)

BOTULISM — Point Hope, Alaska

A case of botulism has been reported from Point Hope, Alaska, in a 54-year-old Eskimo. On the evening of June 3, 1970, he noted the onset of diplopia and within 24 hours complained of dizziness, nausea, and vomiting. During the next 2 days, hoarseness, dysphonia, dysphagia, and generalized weakness ensued. On June 6 he was admitted to the U.S. Public Health Service Hospital in Kotzebue, Alaska.

On admission he was afebrile, but the above neurologic deficits were present. The remainder of the physical examination including orientation, sensation, and deep tendon reflexes were normal. Cerebrospinal fluid (CSF) was normal. Soon after admission, the patient developed respiratory depression and died that evening. Although botulism was suspected, the patient died before antitoxin could be administered.

During the evening of June 2 and the afternoon of June 3, the man, his wife, and daughter had eaten mikiyak.* Although the patient's illness developed 5-7 hours after eating the latter meal, the other family members remained completely asymptomatic. Epidemiologic investigation uncovered no other possible source of infection.

Clinical specimens including serum, CSF, and feces from the patient and mikiyak were analyzed for toxicity. Type E *Clostridium botulinum* toxin was detected in the mikiyak.

(Reported by Donald K. Freedman, M.D., Director, Division of Public Health, Alaska Department of Health and Welfare; Lawrence Miller, Chief, Bacteriology Laboratory, Arctic Health Research Center; the Anaerobic Laboratory, Laboratory Division, and a team from the Ecological Investigations Program, NCDC.)

Editorial Comment:

This is the second outbreak of botulism reported to NCDC in 1970; it is the 10th reported from Alaska since 1899. All of the outbreaks from Alaska have involved type E toxin except one in which the toxin type was undetermined.

*Mikiyak — Eskimo food prepared by fermenting whale meat, blubber, and skin in a wooden barrel for approximately 7 days in a warm room until bubbles are noted on the surface of the meat.

HUMAN INFECTION WITH THE ORGANISM OF CANINE ABORTION — Pennsylvania

In March 1970 a 23-year-old woman was hospitalized with fever (104.2°F.), headaches, chills, and sore throat. Her pharynx was injected, right cervical lymphadenopathy was noted, and murmurs of aortic and mitral valvular insufficiency were heard. Her past history included rheumatic fever with residual valvular insufficiency as well as subacute bacterial endocarditis due to *Streptococcus*

viridans. The current condition was tentatively diagnosed as pharyngitis. Throat cultures were reported as negative. The patient developed chest pains and thrombophlebitis of the left leg. She was heparinized and subsequently these conditions decreased.

Serum drawn on admission had a titer of 1:500 to anti-streptolysin O, one 8 days later had a titer of 1:833, and

another 3 weeks later had a titer of 1:1,250. Seven of 10 blood cultures taken during the course of hospitalization grew a fastidious gram-negative bacillus. The organism was later identified at the National Animal Disease Laboratory and at NCDC as the organism of canine abortion. Her admission serum was subsequently found to have a titer of 1:250 against this organism.

The woman was initially treated with penicillin followed by tetracycline and streptomycin with subsequent fall in temperature to normal limits. She was then maintained on ampicillin and streptomycin.

Investigation found that the patient lived in a house with two dogs, a male German Shepherd and a female of mixed breeding. Blood from both dogs was obtained for serum agglutination tests and culture. The agent of canine abortion was isolated from the male. His serum also had a titer of 1:500 against the organism. The bitch was negative. Further investigation of other household members, two dogs, and neighborhood dogs is being conducted.

(Reported by T. G. Anderson, Ph.D., Director, E. Bernhardt, Chief Technologist, and K. R. Cundy, Ph.D., Assis-

tant Professor of Microbiology, Microbiological Laboratory, and R. M. Swenson, M.D., Assistant Professor of Medicine, School of Medicine, Temple University, Philadelphia; L. W. Carmichael, D.V.M., Ph.D., Professor of Virology, School of Veterinary Medicine, Cornell University; M. Werrin, V.M.D., Chief, Veterinary Public Health Section, Philadelphia Department of Public Health; W. D. Schrack, Jr., M.D., Director, Division of Communicable Diseases, E. J. Witte, V.M.D., Chief, Veterinary Public Health Section, and J. R. Cocklin, Division of Laboratories (Philadelphia), Pennsylvania Department of Health, Harrisburg; G. M. Brown, D.V.M., Diagnostic Services, National Animal Disease Laboratory, U.S.D.A., Ames, Iowa; and the Special Bacteriology Laboratory, Bacterial Reference Unit, Laboratory Division, NCDC.)

Editorial Note:

Human infection with this organism has been infrequently reported (MMWR, Vol. 17, No. 31). Current studies indicate that the organism resembles *Brucella suis* biotype 5. A separate species classification for this agent as "*Brucella canis*" is under consideration.

SURVEILLANCE SUMMARY POLIOMYELITIS - United States 1969

Nineteen cases of paralytic poliomyelitis were reported in the United States in 1969, the lowest annual number reported to the NCDC since initiation of poliomyelitis surveillance in 1955. For the first time since surveillance began, no deaths due to poliomyelitis were reported. In addition to the paralytic cases of poliomyelitis, reports were received on six cases of aseptic meningitis associated with poliovirus isolations ("nonparalytic polio"). As most cases of aseptic meningitis are not comprehensively studied, there probably were additional cases of aseptic meningitis associated with poliovirus that were not recognized.

Paralytic poliomyelitis cases in 1969 were widely distributed throughout the country, although there was a relative concentration in Texas (Figure 1). Of interest was the fact that no cases were seen in southwestern Texas, the site of a number of cases in 1968. Cases occurred throughout the year, with a majority occurring in May and June (Figure 2). The classic summer-fall peak was last observed in the early 1960's.

Most of the cases occurred in unimmunized children below the age of 10 years, although three of the persons affected were in the age group 30-40 years (Table 2). No cases were reported in recent recipients of poliovaccine, but five of the cases were in persons who had contact with a recent recipient of poliovaccine. In all cases the poliovaccine type given to the contact was TOPV. Eight of the 19 reported cases had received poliovaccine of some type in the past (Table 3). However, only one of the persons contracting paralytic poliomyelitis could be considered to have received an adequate course of poliomyelitis vaccine, and this person was shown to be hypogammaglobulinemic.

History of recent travel to poliomyelitis endemic areas was obtained for three of the reported cases. Two of the cases reported from Texas occurred in siblings who had traveled in Mexico, 4 to 30 days prior to onset of symptoms and thus within the accepted incubation period for poliomyelitis. The patient hospitalized in California had onset of symptoms during a visit to El Salvador.

Type specific etiology was established for 15 cases of the cases in 1969. The cases were associated with the three types of poliovirus in almost equal frequency. Six were confirmed as to type by both viral isolation and a diagnostic (fourfold) rise or fall in antibody titer for that serotype. Two cases were confirmed by diagnostic titer rise alone. Seven were designated as to type on the basis of viral isolation only. A type specific poliovirus etiology was never established for four of the 19 cases which either were accepted as cases of paralytic poliomyelitis on clinical and epidemiologic grounds or were cases in which serologic testing showed antibody rise to more than one poliovirus type.

(Reported by the Neurotropic Viral Diseases Unit, Viral Diseases Branch, and the Statistical Services Activity, Epidemiology Program, NCDC.)

Editorial Note:

Thus far in 1970 only two cases of poliomyelitis have been reported to NCDC through the official telegraphic reporting system. However, reports have been received from Texas of three diagnosed and eight suspect cases, all in south Texas (MMWR, Vol. 19, No. 21). Poliovirus type 1 has been isolated from the three diagnosed cases.

(Continued on page 226)

POLIOMYELITIS - (Continued from page 225)

Figure 1
PARALYTIC POLIOMYELITIS CASES BY COUNTY OF RESIDENCE
UNITED STATES - 1969*

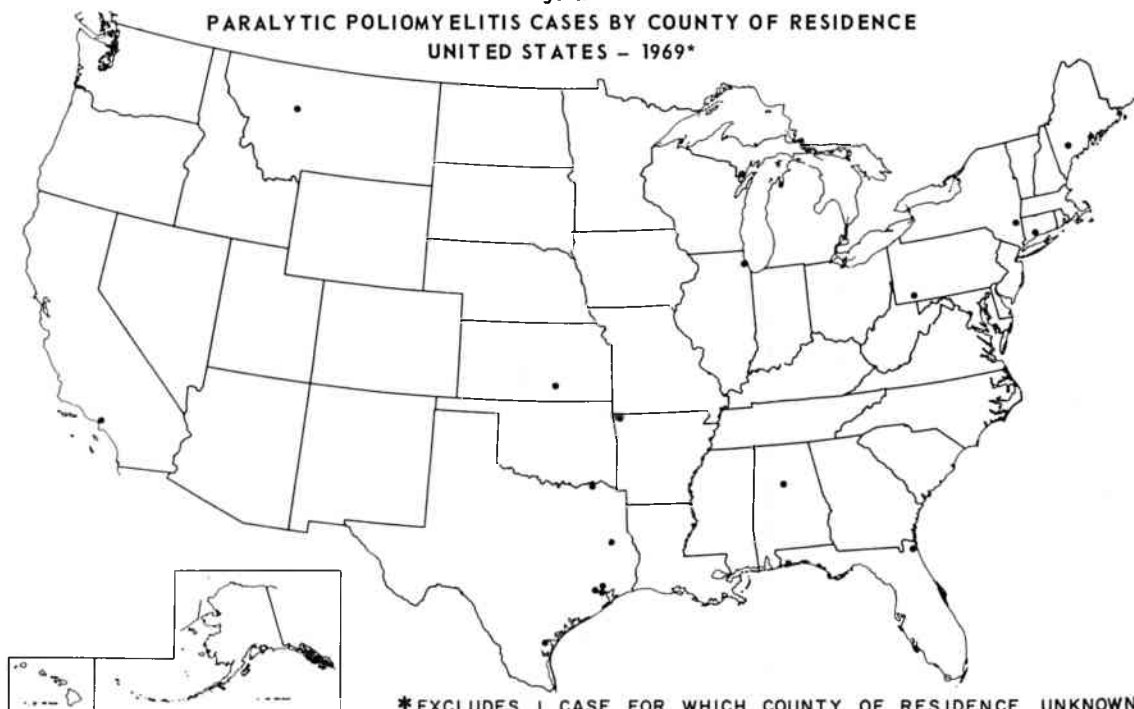


Figure 2
19 REPORTED CASES OF PARALYTIC POLIOMYELITIS
BY MONTH OF ONSET - UNITED STATES, 1969

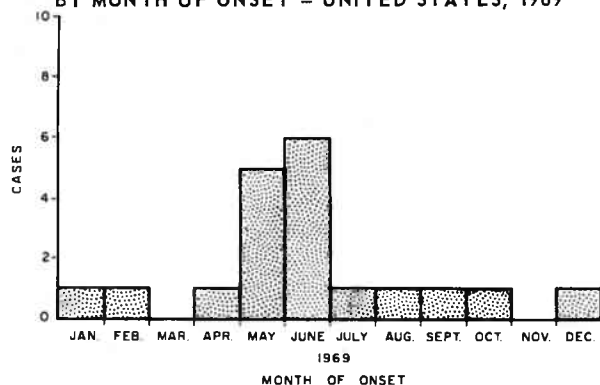


Table 2
Paralytic Cases by Age Group and
"Etiologic" Poliovirus Type, 1969

Age Group	Poliovirus Type				Total
	1	2	3	Unknown	
0-4	3	4	1	1	2
5-9	1	0	1	0	2
10-14	0	0	0	1	1
15-19	2	0	1	1	4
20-29	0	0	0	0	0
30-39	0	1	1	0	2
40+	0	0	0	1	1
Total	6	5	4	4	19

Table 3
Paralytic Poliomyelitis 1969
Immunization Status of All With History of at Least One Immunization

State	Age	Sex	Prior OPV		Year Last OPV Dose	Prior IPV Doses	Year Last IPV Dose	Virus Implicated	Residual Disability
			Doses	Type					
Ala.	2	M	1	TOPV	1967	0		2	Minimal
Ill.	2	F	1	TOPV	1966	0		2	Minimal
Kans.	2	M	3	TOPV	1968	0		2	Significant
Tex.	7	F	1	Unk.	?1964	0		Unk.	Severe
Calif.	14	M	0			4	1967	Unk.	Severe
Conn.	2	F	0			3	1968	3	Significant
Me.	18	M	0			3	1958	Unk.	Minimal
Tex.	19	F	0			3	1955	1	Significant

This area of Texas reported a number of cases in 1966 and 1968, though not in 1969, and is an area frequently visited by migrant populations. Over the past few years, concern has existed that migrant populations might have been associated with the occurrence of poliomyelitis, but no causal relationship has been established. Although information regarding the present occurrence of poliomyelitis in Texas is still incomplete, association between

migrant travel and the occurrence of paralytic disease is not evident to date.

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

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

SUMMARY OF REPORTED CASES OF INFECTIOUS SYPHILIS

CASES OF PRIMARY AND SECONDARY SYPHILIS: By Reporting Areas May 1969 and May 1970 - Provisional Data

Reporting Area	May		Cumulative Jan. - May		Reporting Area	May		Cumulative Jan. - May	
	1970	1969	1970	1969		1970	1969	1970	1969
NEW ENGLAND.....	44	26	227	134	EAST SOUTH CENTRAL.....	69	85	277	456
Maine.....	2	-	7	1	Kentucky.....	24	16	75	91
New Hampshire.....	-	-	2	1	Tennessee.....	16	12	78	140
Vermont.....	-	-	1	-	Alabama.....	7	26	51	97
Massachusetts.....	21	18	133	83	Mississippi.....	22	31	73	128
Rhode Island.....	6	2	21	14					
Connecticut.....	15	6	63	35	WEST SOUTH CENTRAL.....	309	300	1,442	1,491
					Arkansas.....	30	22	104	66
MIDDLE ATLANTIC.....	476	297	2,194	1,557	Louisiana.....	70	39	290	376
Upstate New York.....	31	25	155	125	Oklahoma.....	5	6	35	38
New York City.....	357	210	1,598	1,073	Texas.....	204	233	1,013	1,111
Pa. (Excl. Phila.).....	8	14	51	60					
Philadelphia.....	18	14	81	87	MOUNTAIN.....	43	41	235	234
New Jersey.....	62	34	309	212	Montana.....	-	1	1	2
					Idaho.....	-	-	-	4
EAST NORTH CENTRAL.....	181	225	1,043	1,060	Wyoming.....	-	-	-	2
Ohio.....	29	28	162	157	Colorado.....	3	4	23	24
Indiana.....	35	39	199	150	New Mexico.....	14	14	51	101
Downstate Illinois.....	8	22	52	109	Arizona.....	7	13	97	76
Chicago.....	60	86	349	374	Utah.....	1	5	5	5
Michigan.....	41	50	239	267	Nevada.....	18	4	57	20
Wisconsin.....	8	-	42	3					
					PACIFIC.....	193	159	989	725
WEST NORTH CENTRAL.....	45	29	225	131	Washington.....	5	6	22	20
Minnesota.....	11	5	41	14	Oregon.....	5	6	13	20
Iowa.....	4	2	8	19	California.....	182	144	947	681
Missouri.....	22	16	113	67	Alaska.....	-	-	3	1
North Dakota.....	1	-	3	2	Hawaii.....	1	3	4	3
South Dakota.....	1	1	7	7					
Nebraska.....	1	1	12	11	U. S. TOTAL.....	1,802	1,621	8,664	7,824
Kansas.....	5	4	41	11					
					TERRITORIES.....	75	87	435	523
SOUTH ATLANTIC.....	442	459	2,032	2,036	Puerto Rico.....	71	84	418	508
Delaware.....	9	4	63	16	Virgin Islands.....	4	3	17	15
Maryland.....	31	28	194	179					
District of Columbia.....	47	45	203	214					
Virginia.....	25	25	107	102					
West Virginia.....	1	4	8	8					
North Carolina.....	50	61	228	238					
South Carolina.....	32	60	157	253					
Georgia.....	111	76	513	396					
Florida.....	136	156	559	630					

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

INTERNATIONAL NOTES

GASTROENTERITIS ASSOCIATED WITH EATING OYSTERS - United Kingdom

In the last 4 years in the United Kingdom, there have been at least eight outbreaks of gastroenteritis associated with eating oysters, with no isolation of organisms of known significance from oysters or from the feces of patients. The latest outbreak took place after oysters had been served at a small party and again the next day at a dinner. Nearly all those present at these functions were affected, but there was no difference in the incidence or severity of symptoms in people who ate oysters on the two occasions or in relation to the quantity consumed. Thirty-eight people were known to have been ill: in 36 the onset was 24 to 48 hours after the meal and in two not until 5 days later. The acute stage of illness lasted from 12 to 72 hours, but the after effects lasted up to 9 days. The most prominent symptoms were diarrhea, nausea, vomiting, and malaise and, less

commonly, aches, pains, and fever. Two persons lost 5 to 6 lbs in weight within a week; it was thought that malabsorption played a part in this since, although one of the two patients had malaise, nausea, and muscle pains, he had no diarrhea, vomiting, or anorexia and undigested muscle fibers were seen in his feces. None of the usual pathogens was isolated from the fecal specimens of any patient.

The oysters came from a bed in Cornwall where they were purified in tanks before being sent to market. In all the outbreaks with a similar pattern in the last 4 years, oysters from this or from one other locality in Cornwall, which ceased operation 3 years ago, have been suspected. Reports of two such outbreaks have been published (1,2) and another report described the conditions that led to high

(Continued on page 232)

Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

JUNE 13, 1970 and JUNE 7, 1969 (23rd 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	1969		
UNITED STATES.....	47	7	2	21	13	10	159	1,077	833	65	1,497
NEW ENGLAND.....	-	-	-	3	1	-	10	86	63	1	42
Maine.....	-	-	-	-	-	-	1	3	9	-	3
New Hampshire.....	-	-	-	-	-	-	-	5	6	1	1
Vermont.....	-	-	-	-	-	-	-	5	1	-	3
Massachusetts.....	-	-	-	2	-	-	3	49	23	-	22
Rhode Island.....	-	-	-	-	1	-	1	7	19	-	5
Connecticut.....	-	-	-	1	-	-	5	17	5	-	8
MIDDLE ATLANTIC.....	2	-	-	-	1	-	59	230	158	5	177
New York City.....	-	-	-	-	-	-	32	101	36	-	25
New York, Up-State...	1	-	-	-	-	-	7	22	18	-	47
New Jersey.....	-	-	-	-	-	-	11	50	47	-	44
Pennsylvania.....	1	-	-	-	1	-	9	57	57	5	61
EAST NORTH CENTRAL.....	9	-	-	5	5	6	28	177	123	5	83
Ohio.....	5	-	-	3	3	4	5	51	29	2	20
Indiana.....	1	-	-	-	-	-	-	10	9	1	6
Illinois.....	2	-	-	-	1	-	9	34	29	1	22
Michigan.....	1	-	-	2	1	2	14	77	52	1	35
Wisconsin.....	-	-	-	-	-	-	-	5	4	-	-
WEST NORTH CENTRAL.....	2	2	-	1	-	-	4	26	26	7	114
Minnesota.....	2	-	-	-	-	-	1	5	8	-	1
Iowa.....	-	2	-	-	-	-	-	4	3	-	7
Missouri.....	-	-	-	-	-	-	2	9	9	-	17
North Dakota.....	-	-	-	1	-	-	-	1	1	-	1
South Dakota.....	-	-	-	-	-	-	-	-	-	-	2
Nebraska.....	-	-	-	-	-	-	-	1	3	-	1
Kansas.....	-	-	-	-	-	-	1	6	2	7	85
SOUTH ATLANTIC.....	18	1	-	5	3	2	17	134	82	12	259
Delaware.....	-	-	-	-	-	-	-	7	-	-	1
Maryland.....	1	-	-	-	1	-	7	18	20	1	29
Dist. of Columbia....	-	-	-	-	-	-	-	1	-	-	2
Virginia.....	-	1	-	-	-	-	3	22	5	-	24
West Virginia.....	-	-	-	-	-	-	-	4	3	-	3
North Carolina.....	-	-	-	4	-	-	5	21	9	4	105
South Carolina.....	-	-	-	-	1	-	-	4	10	1	25
Georgia.....	-	-	-	-	-	-	-	25	10	4	49
Florida.....	17	-	-	1	1	2	2	32	25	2	21
EAST SOUTH CENTRAL.....	2	-	-	-	2	-	4	85	59	13	117
Kentucky.....	-	-	-	-	-	-	-	32	19	13	99
Tennessee.....	-	-	-	-	2	-	4	16	19	-	-
Alabama.....	2	-	-	-	-	-	-	23	7	-	11
Mississippi.....	-	-	-	-	-	-	-	14	14	-	7
WEST SOUTH CENTRAL.....	7	3	2	-	-	-	3	62	51	9	287
Arkansas.....	-	-	-	-	-	-	-	3	-	1	5
Louisiana.....	2	-	-	-	-	-	1	12	7	1	21
Oklahoma.....	-	-	-	-	-	-	-	7	11	6	45
Texas.....	5	3	2	-	-	-	2	40	33	1	216
MOUNTAIN.....	1	-	-	3	-	-	2	52	41	1	110
Montana.....	-	-	-	2	-	-	-	7	2	-	4
Idaho.....	-	-	-	-	-	-	1	1	2	-	3
Wyoming.....	-	-	-	-	-	-	-	2	1	-	-
Colorado.....	-	-	-	-	-	-	1	19	11	-	94
New Mexico.....	1	-	-	1	-	-	-	7	1	-	3
Arizona.....	-	-	-	-	-	-	-	9	13	1	4
Utah.....	-	-	-	-	-	-	-	3	6	-	2
Nevada.....	-	-	-	-	-	-	-	4	5	-	-
PACIFIC.....	6	1	-	4	1	2	32	225	230	12	308
Washington.....	-	-	-	-	-	1	1	26	40	3	17
Oregon.....	-	-	-	-	-	-	2	12	28	-	14
California.....	6	1	-	4	1	1	29	182	159	9	203
Alaska.....	-	-	-	-	-	-	-	-	2	-	-
Hawaii.....	-	-	-	-	-	-	-	5	1	-	74
Puerto Rico.....	-	-	-	-	-	-	-	24	23	-	1
Virgin Islands.....	-	-	-	-	-	-	-	-	-	-	-

*Delayed Reports: Aseptic Meningitis: N.J. 1, Pa. delete 1

Hepatitis, Infectious: N.H. 1, Okla. 1, Alaska 2, P.R. 2

Malaria: Okla. 4

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

JUNE 13, 1970 and JUNE 7, 1969 (23rd 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.....	1,399	32,381	15,880	51	1,427	1,871	2,530	62,701	3	3	5
NEW ENGLAND.....	90	695	788	2	65	59	232	7,552	-	-	-
Maine.....	32	119	5	1	3	5	5	613	-	-	-
New Hampshire.....	22	42	224	-	5	1	4	234	-	-	-
Vermont.....	1	3	2	-	6	-	15	559	-	-	-
Massachusetts.*.....	23	400	135	-	27	27	63	2,421	-	-	-
Rhode Island.....	5	63	18	-	5	5	56	1,081	-	-	-
Connecticut.....	7	68	404	1	19	21	89	2,644	-	-	-
MIDDLE ATLANTIC.....	135	3,974	5,760	4	247	296	242	6,269	-	-	-
New York City.....	42	708	3,936	-	58	51	102	2,025	-	-	-
New York, Up-State... New Jersey.....	4 58	173 1,540	479 660	1 2	49 96	46 132	NN 60	NN 1,809	-	-	-
Pennsylvania.....	31	1,553	685	1	44	67	80	2,435	-	-	-
EAST NORTH CENTRAL.....	458	7,920	1,609	9	166	246	871	16,413	-	-	-
Ohio.....	240	3,188	266	3	71	87	164	2,780	-	-	-
Indiana.....	2	235	445	-	17	29	66	1,523	-	-	-
Illinois.....	107	2,730	307	1	36	39	81	1,516	-	-	-
Michigan.....	80	1,083	150	4	36	74	354	4,067	-	-	-
Wisconsin.....	29	684	441	1	6	17	206	6,527	-	-	-
WEST NORTH CENTRAL.....	24	2,606	457	-	72	97	31	3,404	-	-	1
Minnesota.....	1	36	2	-	10	17	4	311	-	-	-
Iowa.....	-	113	303	-	10	12	4	2,226	-	-	-
Missouri.....	12	1,076	16	-	45	44	3	106	-	-	1
North Dakota.....	3	305	7	-	3	-	2	248	-	-	-
South Dakota.....	6	83	1	-	-	1	12	22	-	-	-
Nebraska.....	2	921	124	-	3	9	3	355	-	-	-
Kansas.....	-	72	4	-	1	14	3	136	-	-	-
SOUTH ATLANTIC.....	260	6,208	2,103	15	306	329	336	6,686	-	-	-
Delaware.....	9	249	302	-	3	4	22	201	-	-	-
Maryland.....	36	1,257	33	1	32	32	44	605	-	-	-
Dist. of Columbia....	9	333	-	-	1	8	9	157	-	-	-
Virginia.....	125	1,717	824	3	30	37	52	1,546	-	-	-
West Virginia.....	3	248	159	-	6	14	101	1,711	-	-	-
North Carolina.....	46	678	207	2	64	58	NN	NN	-	-	-
South Carolina.....	17	458	102	5	37	47	33	650	-	-	-
Georgia.....	1	11	1	-	28	57	-	-	-	-	-
Florida.....	14	1,257	475	4	105	72	75	1,816	-	-	-
EAST SOUTH CENTRAL.....	83	864	83	5	111	113	96	3,564	-	-	-
Kentucky.....	45	424	47	3	39	39	10	1,285	-	-	-
Tennessee.....	26	306	15	2	48	41	84	2,057	-	-	-
Alabama.....	8	65	1	-	20	19	-	190	-	-	-
Mississippi.....	4	69	20	-	4	14	2	32	-	-	-
WEST SOUTH CENTRAL.....	135	6,926	3,677	5	197	262	147	6,256	3	3	4
Arkansas.....	-	29	16	-	16	27	-	87	-	-	-
Louisiana.....	4	82	103	1	51	70	-	19	-	-	-
Oklahoma.....	-	393	125	1	12	25	4	2,352	-	-	-
Texas.....	131	6,422	3,433	3	118	140	143	3,798	3	3	4
MOUNTAIN.....	73	1,275	563	2	26	35	129	2,760	-	-	-
Montana.....	5	20	8	-	1	4	53	551	-	-	-
Idaho.....	5	30	54	-	4	6	-	81	-	-	-
Wyoming.....	-	10	-	-	1	-	-	30	-	-	-
Colorado.....	-	126	112	2	7	6	27	864	-	-	-
New Mexico.....	2	147	182	-	-	6	9	560	-	-	-
Arizona.*.....	55	893	203	-	11	9	34	560	-	-	-
Utah.....	6	28	3	-	2	2	6	114	-	-	-
Nevada.....	-	21	1	-	-	2	-	-	-	-	-
PACIFIC.....	141	1,913	840	9	237	434	446	9,797	-	-	-
Washington.....	66	351	53	2	34	50	199	3,975	-	-	-
Oregon.....	3	180	175	-	17	10	46	802	-	-	-
California.....	49	1,189	585	7	185	354	141	3,892	-	-	-
Alaska.*.....	1	100	7	-	-	11	-	352	-	-	-
Hawaii.....	22	93	20	-	1	9	60	776	-	-	-
Puerto Rico.....	17	797	799	-	3	13	19	588	-	-	-
Virgin Islands.....	-	6	11	-	1	-	-	1	-	-	-

Delayed Reports: Measles: Mass. delete 16, Alaska 22
Meningococcal Infections: Ariz. 1
Mumps: Alaska 7

Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
JUNE 13, 1970 and JUNE 7, 1969 (23rd 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.....	1,633	43,793	2	46	3	43	5	100	19	78	45	1,419
NEW ENGLAND.....	95	2,016	-	3	-	-	-	5	-	-	1	55
Maine.....	10	333	-	-	-	-	-	-	-	-	1	16
New Hampshire.....	-	146	-	-	-	-	-	-	-	-	-	-
Vermont.....	4	45	-	-	-	-	-	-	-	-	-	37
Massachusetts.....	57	964	-	2	-	-	-	3	-	-	-	1
Rhode Island.....	7	61	-	-	-	-	-	-	-	-	-	1
Connecticut.....	17	467	-	1	-	-	-	2	-	-	-	-
MIDDLE ATLANTIC.....	156	3,568	-	5	-	1	2	24	-	2	5	134
New York City.....	14	470	-	2	-	-	-	7	-	-	-	-
New York, Up-State..	10	330	-	-	-	1	1	8	-	-	5	127
New Jersey.....	28	787	-	2	-	-	1	3	-	1	-	7
Pennsylvania.....	104	1,981	-	1	-	-	-	6	-	1	-	-
EAST NORTH CENTRAL....	321	8,946	-	8	-	17	-	14	-	-	5	103
Ohio.....	65	1,793	-	-	-	2	-	5	-	-	-	34
Indiana.....	54	1,642	-	1	-	13	-	1	-	-	-	3
Illinois.....	46	1,463	-	3	-	2	-	3	-	-	2	31
Michigan.....	122	2,245	-	4	-	-	-	5	-	-	1	10
Wisconsin.....	34	1,803	-	-	-	-	-	-	-	-	2	25
WEST NORTH CENTRAL....	64	3,109	-	1	-	5	-	2	-	-	10	211
Minnesota.....	3	94	-	-	-	-	-	1	-	-	3	44
Iowa.....	1	1,946	-	-	-	-	-	1	-	-	4	38
Missouri.....	56	356	-	-	-	4	-	-	-	-	-	46
North Dakota.....	3	118	-	-	-	1	-	-	-	-	-	20
South Dakota.....	-	1	-	1	-	-	-	-	-	-	-	17
Nebraska.....	-	540	-	-	-	-	-	-	-	-	-	4
Kansas.....	1	54	-	-	-	-	-	-	-	-	3	42
SOUTH ATLANTIC.....	116	5,666	1	10	1	7	2	16	13	53	7	318
Delaware.....	-	39	-	-	-	-	-	-	-	3	-	-
Maryland.....	4	284	-	-	-	-	1	6	-	4	-	1
Dist. of Columbia..	2	17	-	1	-	-	-	-	-	-	-	-
Virginia.....	20	626	-	-	-	-	1	2	6	16	5	153
West Virginia.....	30	1,123	-	-	-	-	-	-	-	2	2	74
North Carolina.....	-	32	-	-	1	4	-	1	5	14	-	1
South Carolina.....	13	576	-	-	-	-	-	-	2	12	-	-
Georgia.....	-	-	-	1	-	2	-	5	-	2	-	48
Florida.....	47	2,969	1	8	-	1	-	2	-	-	-	41
EAST SOUTH CENTRAL....	132	2,129	-	4	-	2	-	5	4	9	3	123
Kentucky.....	105	753	-	-	-	1	-	1	-	-	2	72
Tennessee.....	27	1,070	-	1	-	1	-	1	1	5	1	35
Alabama.....	-	243	-	3	-	-	-	3	-	1	-	16
Mississippi.....	-	63	-	-	-	-	-	-	3	3	-	-
WEST SOUTH CENTRAL....	120	7,898	1	8	2	9	-	8	2	11	8	260
Arkansas.....	1	32	-	2	-	2	-	3	1	2	-	33
Louisiana.....	-	135	-	2	2	2	-	1	-	-	2	43
Oklahoma.....	2	787	-	-	-	4	-	-	1	8	1	54
Texas.....	117	6,944	1	4	-	1	-	4	-	1	5	130
MOUNTAIN.....	64	1,689	-	-	-	2	-	5	-	3	-	51
Montana.....	4	280	-	-	-	-	-	1	-	-	-	-
Idaho.....	6	161	-	-	-	-	-	-	-	-	-	-
Wyoming.....	-	133	-	-	-	-	-	-	-	1	-	30
Colorado.....	15	316	-	-	-	-	-	1	-	2	-	9
New Mexico.....	2	161	-	-	-	-	-	3	-	-	-	11
Arizona.....	35	489	-	-	-	-	-	-	-	-	-	-
Utah.....	2	149	-	-	-	2	-	-	-	-	-	1
Nevada.....	-	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	565	8,772	-	7	-	-	1	21	-	-	6	164
Washington.....	216	4,417	-	1	-	-	-	2	-	-	-	1
Oregon.....	38	591	-	3	-	-	-	-	-	-	-	162
California.....	305	3,501	-	3	-	-	1	17	-	-	6	-
Alaska.....	-	89	-	-	-	-	-	1	-	-	-	-
Hawaii.....	6	174	-	-	-	-	-	1	-	-	-	-
Puerto Rico.....	-	23	-	4	-	-	-	2	-	-	-	21
Virgin Islands.....	-	-	-	-	-	-	-	-	-	-	-	-

*Delayed Reports: Rubella: Alaska 1

Week No. 23
 TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED JUNE 13, 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		
NEW ENGLAND:	699	410	41	34	SOUTH ATLANTIC:	1,237	638	39	79
Boston, Mass.-----	217	108	17	13	Atlanta, Ga.-----	135	54	3	13
Bridgeport, Conn.-----	39	27	7	1	Baltimore, Md.-----	264	139	2	16
Cambridge, Mass.-----	18	13	5	1	Charlotte, N. C.-----	51	29	2	5
Fall River, Mass.-----	20	12	—	—	Jacksonville, Fla.-----	89	48	3	5
Hartford, Conn.-----	69	37	1	5	Miami, Fla.-----	110	56	1	7
Lowell, Mass.-----	25	18	1	1	Norfolk, Va.-----	51	25	4	7
Lynn, Mass.-----	22	14	—	3	Richmond, Va.-----	87	45	2	9
New Bedford, Mass.-----	28	20	4	—	Savannah, Ga.-----	28	16	3	1
New Haven, Conn.-----	46	28	—	1	St. Petersburg, Fla.-----	74	57	5	—
Providence, R. I.-----	71	39	4	5	Tampa, Fla.-----	73	39	4	2
Somerville, Mass.-----	17	11	—	—	Washington, D. C.-----	214	89	6	12
Springfield, Mass.-----	44	28	1	3	Wilmington, Del.-----	61	41	4	2
Waterbury, Conn.-----	29	21	—	—					
Worcester, Mass.-----	54	34	1	1	EAST SOUTH CENTRAL:	628	351	15	27
MIDDLE ATLANTIC:	3,197	1,857	98	139	Birmingham, Ala.-----	96	53	2	7
Albany, N. Y.-----	51	25	—	2	Chattanooga, Tenn.-----	44	23	—	—
Allentown, Pa.-----	33	21	4	—	Knoxville, Tenn.-----	38	24	2	—
Buffalo, N. Y.-----	145	90	1	5	Louisville, Ky.-----	123	68	8	5
Camden, N. J.-----	37	15	—	3	Memphis, Tenn.-----	156	89	1	7
Elizabeth, N. J.-----	28	16	1	2	Mobile, Ala.-----	50	26	—	3
Erie, Pa.-----	34	12	3	7	Montgomery, Ala.-----	26	14	1	—
Jersey City, N. J.-----	68	41	3	8	Nashville, Tenn.-----	95	54	1	5
Newark, N. J.-----	58	32	2	—					
New York City, N. Y.-----	1,666	1,007	54	63	WEST SOUTH CENTRAL:	1,193	612	34	63
Paterson, N. J.-----	48	31	—	4	Austin, Tex.-----	40	19	2	3
Philadelphia, Pa.-----	398	228	5	17	Baton Rouge, La.-----	20	12	—	1
Pittsburgh, Pa.-----	189	83	8	9	Corpus Christi, Tex.-----	42	23	3	4
Reading, Pa.-----	61	45	2	1	Dallas, Tex.-----	172	79	2	12
Rochester, N. Y.-----	121	70	3	9	El Paso, Tex.-----	43	17	3	5
Schenectady, N. Y.-----	28	16	2	1	Fort Worth, Tex.-----	84	44	3	8
Scranton, Pa.-----	38	15	1	2	Houston, Tex.-----	198	94	5	4
Syracuse, N. Y.-----	81	49	2	2	Little Rock, Ark.-----	64	36	5	6
Trenton, N. J.-----	47	23	3	1	New Orleans, La.-----	177	86	1	5
Utica, N. Y.-----	30	10	3	1	Oklahoma City, Okla.-----	118	57	3	7
Yonkers, N. Y.-----	36	28	1	2	San Antonio, Tex.-----	102	58	2	3
					Shreveport, La.-----	63	42	3	3
EAST NORTH CENTRAL:	2,710	1,506	69	124	Tulsa, Okla.-----	70	45	2	2
Akron, Ohio-----	67	39	—	2					
Canton, Ohio-----	37	18	1	4	MOUNTAIN:	390	218	21	15
Chicago, Ill.-----	794	454	15	43	Albuquerque, N. Mex.-----	47	20	2	1
Cincinnati, Ohio-----	188	111	7	6	Colorado Springs, Colo.-----	18	13	3	—
Cleveland, Ohio-----	189	98	4	10	Denver, Colo.-----	87	48	9	5
Columbus, Ohio-----	138	87	—	3	Ogden, Utah-----	28	15	3	—
Dayton, Ohio-----	81	42	2	2	Phoenix, Ariz.-----	92	47	1	4
Detroit, Mich.-----	350	184	12	6	Pueblo, Colo.-----	15	12	—	—
Evansville, Ind.-----	57	39	4	1	Salt Lake City, Utah-----	60	38	1	4
Flint, Mich.-----	60	25	2	2	Tucson, Ariz.-----	43	25	2	1
Fort Wayne, Ind.-----	41	27	1	3					
Gary, Ind.-----	55	21	3	2	PACIFIC:	1,678	1,007	39	68
Grand Rapids, Mich.-----	57	41	5	3	Berkeley, Calif.-----	17	9	—	—
Indianapolis, Ind.-----	122	65	3	10	Fresno, Calif.-----	43	26	3	2
Madison, Wis.-----	39	19	2	6	Glendale, Calif.-----	30	23	—	—
Milwaukee, Wis.-----	151	78	1	5	Honolulu, Hawaii-----	66	30	2	8
Peoria, Ill.-----	45	24	—	9	Long Beach, Calif.-----	91	54	5	1
Rockford, Ill.-----	33	19	1	2	Los Angeles, Calif.-----	525	310	14	25
South Bend, Ind.-----	39	21	2	2	Oakland, Calif.-----	70	41	2	4
Toledo, Ohio-----	102	60	4	1	Pasadena, Calif.-----	28	20	—	1
Youngstown, Ohio-----	65	34	—	2	Portland, Oreg.-----	179	116	2	12
					Sacramento, Calif.-----	65	36	1	2
WEST NORTH CENTRAL:	859	477	18	54	San Diego, Calif.-----	105	75	1	—
Des Moines, Iowa-----	79	54	2	6	San Francisco, Calif.-----	160	86	4	5
Duluth, Minn.-----	28	19	—	—	San Jose, Calif.-----	42	22	1	—
Kansas City, Kans.-----	36	15	2	3	Seattle, Wash.-----	143	89	4	4
Kansas City, Mo.-----	129	65	—	10	Spokane, Wash.-----	62	39	—	3
Lincoln, Nebr.-----	21	15	—	1	Tacoma, Wash.-----	52	31	—	1
Minneapolis, Minn.-----	133	70	2	15					
Omaha, Nebr.-----	72	38	—	2	Total	12,591	7,076	374	603
St. Louis, Mo.-----	220	125	6	9	Expected Number	12,344	7,112	366	492
St. Paul, Minn.-----	72	46	1	3	Cumulative Total (includes reported corrections for previous weeks)	308,391	177,259	13,288	14,021
Wichita, Kans.-----	69	30	5	5					
Las Vegas, Nev.*	19	9	2	2					

*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 June 6, 1970

GASTROENTERITIS - (Continued from page 227)

vibrio counts in both oysters and water from purification tanks (3). Large numbers of this vibrio (probably *Vibrio alginolyticus* or *V. anguillarum* but not *V. parahaemolyticus* which is reported as a common source of food poisoning in Japan) were found in oysters from batches associated with at least one of the outbreaks and frequently also from other batches elsewhere. The illness was not reproduced in a volunteer by drinking a culture of the organism or by inoculating a culture into his arm or by drinking a Seitz filtrate of fresh oyster mash. However, many volunteers who have eaten oysters from one of the suspect beds after they had passed through the usual purification process in tanks of water cleaned by ultra-violet light have become ill. Boiled oysters have been eaten without ill effect. Results of the Clegg-Sherwood bacteriologic test for *Escherichia coli* have been satisfactory, and no salmonellae have been found in many hundreds of purified oysters examined. The search for a viral cause has been fruitless. Chemical and protozoal studies have been inconclusive.

It is noteworthy that the rivers above the beds concerned are heavily polluted, whereas the river above another Cornish bed which breeds oysters that have not been incriminated in this type of illness passes through a sparsely populated rural area. There have been no reports of similar illness associated with oysters bred elsewhere in Britain. (Based on reports to the Public Health Laboratory Service from public health and hospital laboratories in the United Kingdom and Republic of Ireland for the week ending May 1, 1970, and published in the *British Med J*, May 16, 1970.)

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- (1) Preston FS. *Aerospace Med* 39:519, 1968.
- (2) Gunn ADG, Rowlands DF. *Med Offr* 122:75, 1969.
- (3) Barrow GI, Miller DC. *Lancet* 1:421, 1969.

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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.

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