CENTER FOR DISEASE CONTROL

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WEEKLY REPORT

For Week Ending October 2, 1971

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EPIDEMIOLOGIC NOTES AND REPORTS

ANTHRAX – Mississippi

On July 21, 1971, a 46-year-old farmer from Calhoun County, Mississippi, noted two bluish, painful, vesicular lesions on his left hand, accompanied by lymphangitis, axillary lymphadenopathy, and a temperature of 104° F. He was admitted to a local hospital and treated with penicillin and streptomycin. No specimens were obtained for culture. His fever slowly subsided, but the vesicles ulcerated and became necrotic. On July 23, the farmer's 17-year-old nephew experienced a similar lesion on his hand and a temperature of 102° F. He was treated with the same antibiotics, and his ulcer slowly healed.

On July 15, the farmer had found one of his cows dead in a pasture. Assuming that the animal had been killed by lightning, the farmer and his nephew dressed the animal out. When three more cows were found dead the following day, he buried the remains of all four animals. Over the next 7-10 days, six more cattle died; a few exhibited epistaxis and rectal bleeding prior to death. *Bacillus anthracis* was isolated from blood and tissue specimens of a cow that died on July 20.

On July 26, a cow in the pasture of an adjacent farm died. *B. anthracis* was recovered from tissue specimens from

(Continued on page 352)

CONTENTS

TABLE I. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

(Cumulative totals include revised and delayed reports through previous weeks)

DISEASE	39th WEEK ENDED		MEDIAN	CUMULATIVE, FIRST 39 WEEKS		
	October 2, 1971	October 3, 1970	1966 - 1970	1971	1970	MEDIAN 1966 - 1970
Aseptic meningitis	195	314	169	3,749	4,148	2,374
Brucellosis	3	2	10	120	156	174
Diphtheria	5	23	7	119	333	144
Encephalitis, primary: Arthropod-borne & unspecified	63	73	57	1,096	1,106	1,106
Encephalitis, post-infectious	1	6	6	284	332	389
Hepatitis, serum	163	149	101	6,430	5,360	3,283
Hepatitis, infectious	1,173	1,149	980	45,315	42,048	33,308
Malaria	44	72	56	2,318	2,528	1,686
Measles (rubeola)	228	166	166	70,175	39,943	39,943
Meningococcal infections, total	18	31	26	1,804	1,942	2,082
Civilian	17	29	25	1,609	1,749	1,901
Military	1	2	1	195	193	193
Mumps	629	763	- - -	101,080	77,510	- - -
Poliomyelitis, total	–	4	1	11	22	27
Paralytic	–	4	1	7	22	23
Rubella (German measles)	221	243	236	39,020	50,066	44,362
Tetanus	4	4	6	83	89	124
Tularemia	1	9	4	131	116	136
Typhoid fever	18	12	9	283	241	287
Typhus, tick-borne (Rky. Mt. spotted fever)	6	7	7	358	316	279
Rabies in animals	63	34	57	3,101	2,326	2,677

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	4	Psittacosis:	28
Botulism:	15	Rabies in Man:	1
Leprosy: Calif.-1	94	Rubella congenital syndrome:	42
Leptospirosis:	25	Trichinosis: Mich.-1, N.Y.C.-1, Wis.-1	66
Plague:	1	Typhus, murine: Tex.-1	18

ANTHRAX – *(Continued from front page)*

this animal. The cattle on both farms were subsequently vaccinated, and no further deaths have been reported. Sera from the two presumptive cases of human cutaneous anthrax were submitted to CDC for hemagglutination testing.

The involved animals were on pasture and receiving no supplemental feeds. Anthrax had not been previously diagnosed on either farm, although suspected cases of bovine anthrax were reported in past years from Calhoun County. The animal deaths apparently resulted from *B. anthracis* contamination of the involved pastures.

(Reported by Charles H. Crocker, M.D., private surgeon, Bruce, Mississippi; W. L. Stabler, D.V.M., general practioner, Houston, Mississippi; Harvey F. McCrory, D.V.M., Director, State Veterinary Diagnostic Laboratory, Mississippi State Department of Agriculture; Pete A. Fussell, Advisory Coordinator of Health Services, Durward L. Blakey, M.D., Director of Preventable Disease Control, Mississippi State Department of Health; and the Bacterial Diseases Branch, Epidemiology Program, CDC.)

Editorial Note

In the 5-year period 1966-1970, 16 cases of human anthrax in the United States were reported to CDC. Only one case, in a man who buried anthrax-infected cattle, was associated with domestic animal husbandry. All four of the human cases reported in 1971 were associated with domestic animal husbandry: the two farmers of Mississippi and two Louisiana veterinarians who necropsied anthrax-infected cattle.

Animal anthrax is endemic in several regions, but has occurred sporadically in almost every state. Most outbreaks in recent years involved few animals. Occasionally, however, larger outbreaks are reported, such as the recent 1971 Louisiana epizootic in which over 700 animals died.

Outbreaks in grazing animals are usually associated with periods of marked environmental change, such as drought, heavy rainfall, and flooding which apparently induce proliferation of *B. anthracis* in soil *(1)*. The sporadic occurrence of the necessary environmental factors may allow many years to pass between recognized outbreaks even in known endemic areas, serving to emphasize the need to maintain the vaccination of herds.

Reference

1. Van Ness GB: Ecology of anthrax. Science 172:1303-1307, 1971

CURRENT TRENDS
SURVEILLANCE OF REQUESTS FOR ZOSTER IMMUNE GLOBULIN (ZIG)
January – August 1971

In January 1971, a program was established by CDC for surveillance of the need for and distribution of Zoster Immune Globulin (ZIG). This is a gamma globulin fraction of high antibody-titerd herpes zoster convalescent plasma which has been shown to prevent varicella when given to a susceptible child within 72 hours of household exposure. It is indicated for varicella prophylaxis in patients with immunosuppression (secondary to malignancies and/or medications), for whom varicella can be severe or fatal. The preparation is an investigational, new drug as yet unlicensed.

Between Jan. 1 and Aug. 31, 1971, 76 requests for ZIG were made to the ZIG Program, CDC, or to the Regional Consultant in New York, Dr. Philip Brunell, who developed ZIG. Most of these requests were for a single patient, but ZIG was occasionally requested for a group of exposed newborns or a cluster of patients with malignancies who were exposed on an oncology ward. Only seven patients received ZIG from the program. Thirty patients did not meet the indications of susceptibility and recent exposure, six patients received gamma globulin, and eight were given herpes zoster convalescent plasma. Due to an inadequate supply, 25 patients who might have been helped by it did not receive ZIG.

The patients for whom ZIG was requested ranged in age from 1 day to 78 years (Table 1). More than half were in the 1-10 year age group, with over 80 percent under 20 years. Sex was reported for 41 of the potential recipients; of these, 26 (63 percent) were male and 15 female.

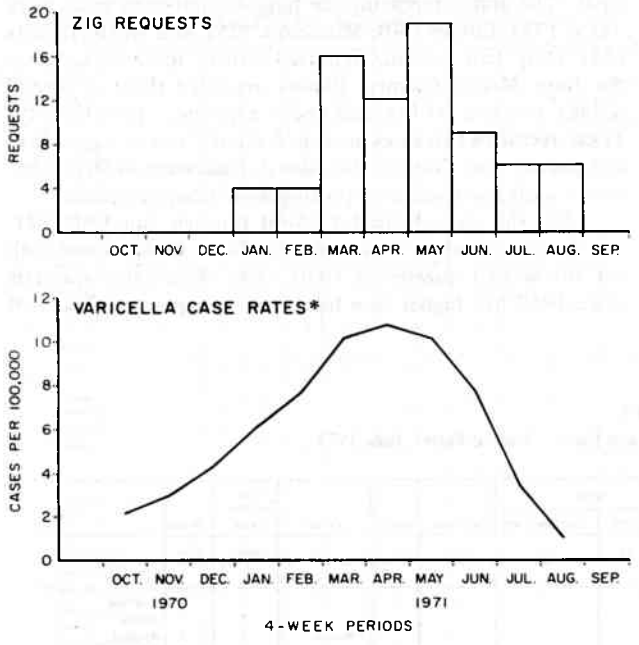
Most requests were made in the Spring, with those in March, April, and May accounting for 62 percent of the total (Figure 1). Although varicella is not nationally reported, the dates of onset of reported cases from six selected areas parallels the rate of ZIG requests.

Table 1
Patients for Whom Zoster Immune Globulin (ZIG) Was Requested, by Age – January-August 1971

Age	Number of Requests
< 1 month	6
1 month – 1 year	4
13 months – 2 years	6
3 – 5 years	12
6 – 10 years	11
11 – 15 years	7
16 – 20 years	2
21 – 30 years	2
31 – 50 years	5
51 – 70 years	2
> 70 years	1
Unknown	18
Total	76

Exposure to a case of varicella within the household or in the hospital were mentioned with equal frequency as the indications for ZIG (Table 2). For those patients with already established infection, the majority had varicella.

Figure 1
ZOSTER IMMUNE GLOBULIN (ZIG) REQUESTS AND VARICELLA CASE RATES*, EPIDEMIOLOGIC YEAR 1970-71**



*For Florida, Illinois, Montana, New York City, Iowa, and Maine

**The varicella epidemiologic year begins with the first reporting week in October.

(Reported by the Immunobiologics Activity, Laboratory Division, and the Field Services Branch, Epidemiology Program, CDC.)

Editorial Note

Judging from the requests and known available supplies of ZIG, larger supplies of plasma are necessary for production. In brief, plasma donors should be patients in otherwise good health who are convalescing from herpes zoster (1-5 weeks following onset of lesions); details on donor selection and plasma collection are available from the ZIG program.

Table 2
Patients for Whom Zoster Immune Globulin (ZIG) Was Requested, by Indication – January-August 1971

Indication	Number
Household Exposure	24
Hospital Exposure	24
Other Exposure	5
Varicella	13
Herpes Zoster, localized	3
Herpes Zoster, disseminated	6
Other disease	1
Total	76

Requests for ZIG, or advice regarding management of high-risk patients with varicella-zoster infections, may be directed to one of the following consultants:

Northeast: Philip Brunell, M.D.,or
Ann Gershon, M.D.
New York University Medical Center
550 First Ave.
New York, New York 10016
212, 561-5259

Southeast: Richard Judelsohn, M.D.
Center for Disease Control
1600 Clifton Rd.
Atlanta, Georgia 30333
404, 633-3311, ext. 3738
Night: 404, 633-2176

Midwest: Richard Hong, M.D.
University of Wisconsin Medical Center
Madison, Wisconsin 53706
608, 262-6954

Mountain: C. Henry Kempe, M.D. or
Kenneth McIntosh, M.D.
Department of Pediatrics
University of Colorado School of Medicine
Denver, Colorado 80220
303, 394-8501 or 394-8471

Pacific: Moses Grossman, M.D.
University of California Service
San Francisco General Hospital
San Francisco, California 94110
415, 648-8200, ext. 441

INTERNATIONAL NOTES
QUARANTINE MEASURES
Smallpox Vaccination Certificates

Effective immediately, a Smallpox Vaccination Certificate as a condition of entry into the United States will only be requested of those persons who, within the preceding 14 days, have been in a country reporting a smallpox infected area(s). At present these countries are: Botswana, Democratic Republic of the Congo, Ethiopia, India, Indonesia, Malaysia, Muscat and Oman, Nepal, Pakistan (West), and the Sudan. Those persons not in possession of a valid Smallpox Vaccination Certificate may be issued a surveillance order and placed under surveillance by State and/or local health departments.

It is the recommendation of the Public Health Service that persons planning to travel to Brazil, any country in Africa, or any country in Southeast Asia be vaccinated against smallpox for their own protection.

(Reported by the Foreign Quarantine Program, CDC.)

SURVEILLANCE SUMMARY
ANIMAL RABIES – United States, June and Second Quarter, 1971

A total of 362 cases of rabies were reported for June 1971 (Table 3), a decrease of 93 cases from the May total. Rabies in wildlife species (285 cases) accounted for 79 percent of the reported cases, compared with 74 percent for the preceding month. Skunks continued to be the most frequently reported (179 cases from 22 states). Rabies was also reported in 38 foxes, 37 bats, 19 racoons, eight mongooses, one bobcat, one coyote, one woodchuck, and one mink. Rabies was recorded in 77 domestic animals. There were 28 cases in dogs, 19 in cattle, 16 in cats, eight in horses, four in sheep, and two in goats. June is the first month since the start of monthly reporting in October 1970 in which more dog than cattle cases were reported.

A total of 36 states and Puerto Rico recorded rabies cases. The states reporting the largest number of cases were Texas (35), Illinois (30), Minnesota (25), and North Dakota (25). Only two counties reported five or more rabies cases for June. Mercer County, Illinois, reported three in striped skunks, one in a red fox, and one in a bovine; Taylor County, Texas, recorded two cases in striped skunks, one in a grey fox, and two in cats. Overall, the cases in June were widely distributed, with few counties reporting more than two cases.

For the second quarter (April through June) of 1971, 1,325 cases of rabies were reported (Table 4), 460 more than for the second quarter of 1970. Only three other quarters since 1959 had higher case totals: second quarter 1964, first

Table 3
Reports of Rabies in Animals, by Type and State – United States, June 1971

	Dogs	Cats	Cattle	Horses	Domestic Animal Totals	Skunks		Foxes			Raccoons	Bats	Other	Wild Animal Total	Total	
						Striped	Not Specified	Red	Gray	Not Specified						
TOTALS	28	16	19	8	77	162	15	10	16	12	19	37	20	285	362	
STATE																
Alabama	1				1					1	1	1		3	4	Alabama
Alaska					0			1						1	1	Alaska
Arizona					0								1 Bobcat	1	1	Arizona
Arkansas	1	2			3	4		1				1		6	9	Arkansas
California					0	9						6		15	15	California
Colorado		1			1							4		4	5	Colorado
Connecticut					0									0	0	Connecticut
Delaware					0									0	0	Delaware
District of Columbia					0									0	0	District of Columbia
Florida					0						2	1		3	3	Florida
Georgia					0			1	1		14			16	16	Georgia
Hawaii					0									0	0	Hawaii
Idaho					0							1		1	1	Idaho
Illinois	2		1		3	22		2	1			1	1 Ground Hog	27	30	Illinois
Indiana					0	6								6	6	Indiana
Iowa	1		1	1	3	9					1	2		12	15	Iowa
Kansas		1			1	12							1 Coyote	13	14	Kansas
Kentucky	4		2		6				4	2			1 Mink	7	13	Kentucky
Louisiana					0				1					1	1	Louisiana
Maine		1	1		7					3		1	4 Sheep, Goat	4	11	Maine
Maryland					0									0	0	Maryland
Massachusetts					0									0	0	Massachusetts
Michigan	1				1	2								2	3	Michigan
Minnesota	1	1	2	2	6	16	2					1		19	25	Minnesota
Mississippi					0									0	0	Mississippi
Missouri	1		1		2	5	1							6	8	Missouri
Montana					0	1								1	1	Montana
Nebraska					0		1							1	1	Nebraska
Nevada					0									0	0	Nevada
New Hampshire					0									0	0	New Hampshire
New Jersey					0							1		1	1	New Jersey
New Mexico					0									0	0	New Mexico
New York				1	1	2		4				5		11	12	New York
North Carolina					0							3		3	3	North Carolina
North Dakota	3	2	1		6	19								19	25	North Dakota
Ohio	2				2	13				3				16	18	Ohio
Oklahoma		1	6		7	9					1	1	1 Spotted Skunk	12	19	Oklahoma
Oregon					0									0	0	Oregon
Pennsylvania	1				1							3		3	4	Pennsylvania
Rhode Island					0									0	0	Rhode Island
South Carolina					0							1		1	1	South Carolina
South Dakota		1	1		2	1	8					1	1 Spotted Skunk	11	13	South Dakota
Tennessee	3			1	4	1		1	2	1				5	9	Tennessee
Texas	1	3	2	2	9	19	1		3			3	1 Goat	26	35	Texas
Utah					0									0	0	Utah
Vermont					0									0	0	Vermont
Virginia	1	2			3		1		2					3	6	Virginia
Washington					0									0	0	Washington
West Virginia	5	1		1	7		1		2	2				5	12	West Virginia
Wisconsin			1		1	10								10	11	Wisconsin
Wyoming					0	2								2	2	Wyoming
Guam					0									0	0	Guam
Puerto Rico					0								8 Mongooses	8	8	Puerto
Virgin Islands					0									0	0	Virgin Islands

Table 4
Reports of Rabies, by Type of Animal and State – United States, April through June, 1971

	Dogs	Cats	Cattle	Horses	Domestic Animal Totals	Skunks		Foxes			Raccoons	Bats	Others	Wild Animal Total	Total	
						Striped	Not Specified	Red	Gray	Not Specified						
TOTALS	85	48	121	15	297	603	85	59	64	37	46	94	68	1027	1325	TOTALS
STATE																STATE
Alabama	2		1		4					6	1	2	1 Goat	9	13	Alabama
Alaska	2				2			8					1 River Otter	9	11	Alaska
Arizona				1	1		4			1		6	2 Coatis 1 Black Bear, 2 Coyotes, 1 Bobcat	17	18	Arizona
Arkansas	4	2	2		9	20		1	2			2	1 Goat	25	34	Arkansas
California		1	2		3	43			2			23	1 Human	68	72	California
Colorado	1	1	1		3	4						5		9	12	Colorado
Connecticut					0									0	0	Connecticut
Delaware					0									0	0	Delaware
District of Columbia					0									0	0	District of Columbia
Florida					0						7	6		13	13	Florida
Georgia			1		1			2	4		35	1		42	43	Georgia
Hawaii					0									0	0	Hawaii
Idaho					0							1		1	1	Idaho
Illinois	4		3	1	8	96		3	3			1	2 Woodchucks	105	113	Illinois
Indiana	1	1			4	37		1					2 Guinea Pigs*	38	42	Indiana
Iowa	3	1	17	1	23	36	1		1		1	3	1 Sheep, 1 Badger 1 Woodchuck	44	67	Iowa
Kansas		2	1		3	28	13						1 Coyote	42	45	Kansas
Kentucky	13	5	8		26		7	3	12	7			1 Mink	30	56	Kentucky
Louisiana	3				3		1		4			1	1 Coyote	7	10	Louisiana
Maine	2	2	22	2	48	1		17		3		2	15 Sheep, 2 Deer 3 Goats, 2 Pigs	25	73	Maine
Maryland					0							1		1	1	Maryland
Massachusetts					0									0	0	Massachusetts
Michigan	1		2		3	6		3			1	1		11	14	Michigan
Minnesota	2	2	7	2	13	43	2			1		1	1 Spotted Skunk	48	61	Minnesota
Mississippi					0									0	0	Mississippi
Missouri	5		4		9	10	23	2				1		36	45	Missouri
Montana					0	1								1	1	Montana
Nebraska					0		1							1	1	Nebraska
Nevada					0					2				2	2	Nevada
New Hampshire					0							1		1	1	New Hampshire
New Jersey					0							3		3	3	New Jersey
New Mexico					0	2	3							5	5	New Mexico
New York			4	2	6	9		11		1		9		30	36	New York
North Carolina					0							3		3	3	North Carolina
North Dakota	3	4	6		13	46						1	1 Coyote	48	61	North Dakota
Ohio	8		1		9	30		1		8				39	48	Ohio
Oklahoma	3	5	17		25	70		1	1		1	2	1 Spotted Skunk	76	101	Oklahoma
Oregon					0									0	0	Oregon
Pennsylvania	1				1		1					4		5	6	Pennsylvania
Rhode Island					0									0	0	Rhode Island
South Carolina					0							2		2	2	South Carolina
South Dakota	1	3	5		9	15	21					2	1 Spotted Skunk	39	48	South Dakota
Tennessee	5	4	3	3	15	15		1	3	4				23	38	Tennessee
Texas	3	6	9	2	21	69	3	2	7			7	1 Goat, 1 Spotted Skunk	89	110	Texas
Utah					0									0	0	Utah
Vermont					0			1						1	1	Vermont
Virginia	1	3			5		3	2	17			1	1 Sheep	23	28	Virginia
Washington					0									0	0	Washington
West Virginia	15	4	2	1	23		2		8	4			1 Sheep	14	37	West Virginia
Wisconsin			3		3	17						2		19	22	Wisconsin
Wyoming					0	5								5	5	Wyoming
Guam					0									0	0	Guam
Puerto Rico	2	2			4								18 Mongooses	18	22	Puerto Rico
Virgin Islands					0									0	0	Virgin Islands

*Probably Vaccine Induced.

quarter 1965, and second quarter 1967. Rabies in wildlife species accounted for 78 percent of the cases reported, little changed from the second quarter of 1970 (79 percent).

Skunks were the animals most frequently reported infected; they accounted for 52 percent of the quarter's total. A total of 692 skunk cases were recorded for the quarter, compared with 372 cases for the second quarter of 1970. Rabies was reported in 160 foxes, 94 bats, 46 raccoons, 18 mongooses, five coyotes, three woodchucks, two coati mundi, two deer, one badger, one bobcat, one black bear, one mink, and one river otter.

Rabies was reported in 297 domestic animals: 121 cattle, 85 dogs, 48 cats, 18 sheep, 15 horses, six goats, two pigs, and two guinea pigs.

A total of 41 states and Puerto Rico reported rabies for the quarter. The states reporting the most cases were Illinois (113), Texas (110), Oklahoma (101), Maine (73), and California (72). The state reporting the greatest decrease in cases from the second quarter of 1970 was New York, which reported 36 cases for this quarter and 85 cases for the second quarter of 1970.

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

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

Center for Disease Control
Attn: Chief, Rabies Control Unit, Viral Diseases Branch
Epidemiology Program
Lawrenceville, Georgia 30245

EPIDEMIOLOGIC NOTES AND REPORTS
VIBRIO PARAHAEMOLYTICUS GASTROENTERITIS – Maryland

Between Aug. 14 and 16, 1971, approximately 320 of 550 persons attending a picnic at the U.S. Naval Training Center in Bainbridge, Maryland, had onset of acute gastroenteritis. Their symptoms included diarrhea (98 percent), severe abdominal cramps (78 percent), nausea (76 percent), vomiting (74 percent), fever (26 percent), headache (25 percent, and chills (10 percent). Onset of symptoms was documented for 100 patients (Figure 2). Median incubation period was 15 hours (range 8-22 hours), and median duration of illness was 2 days (range 1-5 days). Approximately 60 percent of the patients sought medical attention, and 2 percent were hospitalized. There were no deaths.

On August 14, approximately 20 of 30 guests at another picnic in nearby Elkton, Maryland, experienced a similar clinical illness.

Cultures of foods served at both picnics and of stool specimens from an estimated 30 ill persons were negative for enteropathogenic *Escherichia coli*, salmonella, and shigella. However, cultures of stool specimens from four patients, two from each picnic, and of two steamed crabs served at the smaller picnic were positive for *Vibrio parahaemolyticus*. Steamed crabs had also been served at the larger picnic.

The implicated crabs at both picnics had been obtained from a crab supply house in Chesapeake Bay, Maryland. There, they had been steamed, placed in a truck with baskets of other live crabs on top, and delivered to Elkton. Some were then delivered to the smaller picnic and some to the larger picnic in Bainbridge.

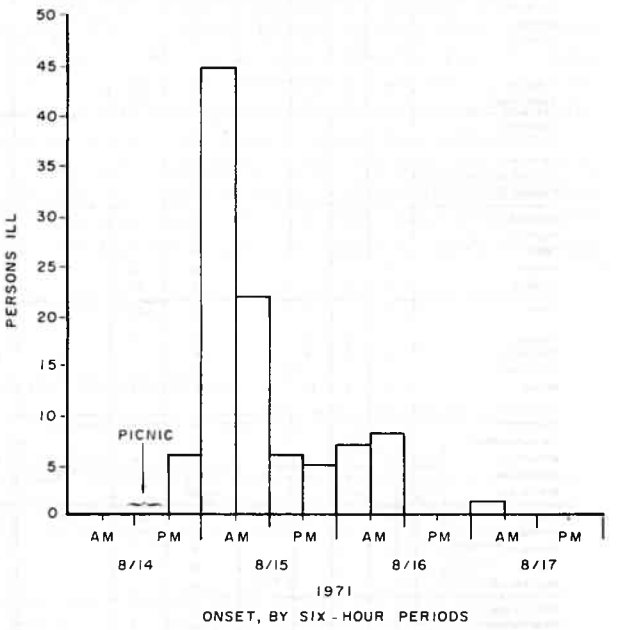
(Reported by William A. Sumner, S. Joseph Moore, Sanitarians, Cecil County Department of Health, Maryland; Margaret A. Bush, Sanitarian, Harford County Department of Health, Maryland; Ronald Nelson, B.S.E.H., Environmental Health Administration, John R. Molenda, Ph.D., William Johnson, Division of Microbiology, Bureau of Laboratories, Howard J. Garber, M.D., Chief, Division of Communicable Diseases, Maryland State Department of Health and Mental Hygiene; Barry Wentz, Division of Microbiology, Food and Drug Administration, Washington, D.C.; and an EIS Officer.)

Editorial Note

V. parahaemolyticus has not been previously documented as a cause of foodborne illness in the United States, though it is the most common cause of food poisoning in Japan *(1)*. However, the organism has been isolated from United States coastal waters including Chesapeake Bay. This outbreak is typical of other such reported outbreaks in its clinical appearance, incubation period, and vehicle of infection *(2)*.

There have probably been many outbreaks of gastroenteritis due to *V. parahaemolyticus* in which the cause went unrecognized, since the organism does not grow on the media usually employed for isolation of enteric pathogens. For this reason, culture material from outbreaks with a salmonella-like clinical illness and epidemiologic data implicating a seafood vehicle should be processed specifically for *V. parahaemolyticus*. Thiosulphate citrate bile salts agar (TCBS) is one of the recommended media for the primary isolation of this organism *(3)*. The high salt concentration and pH of this medium suppresses the growth of most organisms except halophiles such as *V. parahaemolyticus*. The same medium is recommended for the isolation of *V. cholerae (4)*.

Figure 2
100 CASES OF *VIBRIO PARAHAEMOLYTICUS* GASTROENTERITIS, BY ONSET
BAINBRIDGE, MARYLAND – AUGUST 1971



References

1. Sakazaki R: Halophilic *Vibrio* infections. In Food-Borne Infections and Intoxications, edited by Riemann H. New York, Academic Press, Inc, 1969, p 115

2. Center for Disease Control: Diseases Transmitted by Foods – (a classification and summary). p 4, 1971

3. Thatcher FS, Clark DS: Microorganisms in Foods. Toronto, University of Toronto Press, 1968, pp 107-113

4. Balows A, Hermann GJ, DeWitt WE: The isolation and identification of *Vibrio cholerae* – a review. Health Lab Sci 8:167-175, 1971

BOTULISM IN THE UNITED STATES – 1970

In 1970, six outbreaks of botulism affecting 13 persons were reported to CDC (Table 5). Five patients died, for a case fatality rate of 38.4 percent. Deaths were usually associated with delayed diagnosis and treatment. These 13 patients represented .06 percent of all persons reported ill with foodborne diseases in 1970.

Botulism type A was responsible for four outbreaks, type E for one, and for one the type was unknown. Home preserved spaghetti and meatballs, chili peppers, olives, and mikiyak* were the sources of infection in four outbreaks. In the other two, home processed foods were suspected.

There were 40 other botulism alerts reported to CDC that were subsequently shown not to be botulism. This is in contrast to an average of 18 alerts per year for the previous 6-year period. Causes for the alerts in 1970 included gastroenteritis of varying etiologies (40 percent), polyneuritis of undetermined etiology (15 percent), and consumption of spoiled food without subsequent illness (15 percent).

Table 5
Outbreaks of Botulism, by State, Toxin Type, Cases, and Deaths
January 1970 – July 1971

State	Toxin Type	Cases	Deaths
Alaska	E	1	1
California	A	2	1
Colorado	A	1	1
Illinois	A	4	0
Kansas	A	1	1
Oregon	Unknown	4	1
Total		13	5

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

Editorial Note

Because of an increasing awareness of botulism, numerous inquiries have been received at CDC regarding treatment of patients. All available therapeutic antisera in the United States are of horse origin. Because of the serious risk of anaphylaxis and serum sickness, botulinum antitoxin should be given only to patients who have clinical signs of botulism or to asymptomatic persons who have been exposed to a known contaminated vehicle. The decision to administer antitoxin to asymptomatic persons should be weighed very carefully.

Consumption of food from a swollen can or from a recalled lot of a commercial product is not in itself sufficient to justify antitoxin prophylaxis. These patients may be purged, have emesis induced, and they should be kept under surveillance.

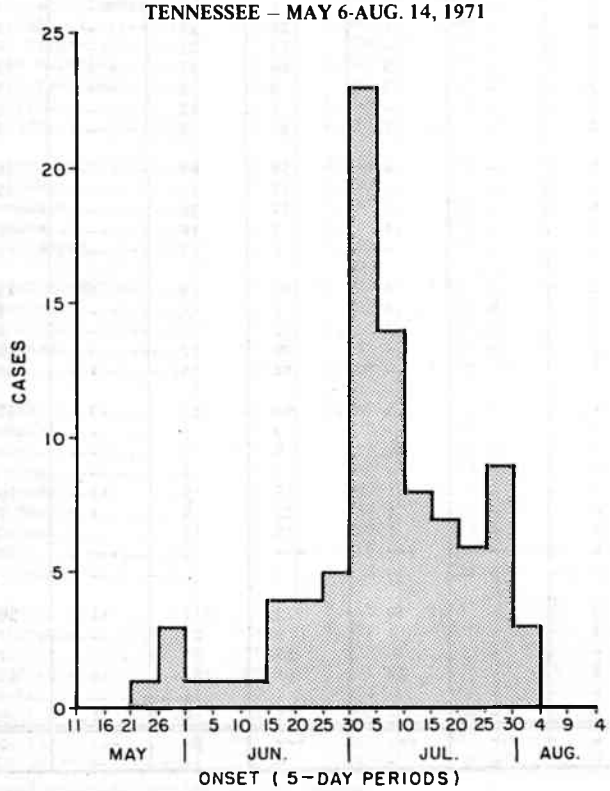
CDC provides consultation regarding diagnosis, treatment, laboratory services, and investigation of suspected botulism cases, and supplies trivalent antitoxin without charge. The emergency number to call is 404, 633-3311 during working hours and 404, 633-2176 at night or on weekends.

*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.

INFECTIOUS HEPATITIS – Tennessee

From May 21 to Aug. 4, 1971, an outbreak of infectious hepatitis occurred in an isolated colony of young farmers and their families in south central Tennessee. Of 350 persons in the community, 91 had icteric hepatitis (Figure 3), and 38 had a similar illness without jaundice. Their symptoms were uniformly a 3-4 day prodrome of anorexia, malaise, fever, lower back pain, and myalgia, followed by sudden onset of jaundice with progressive improvement in symptoms and reduction of icterus within 2 weeks. All persons in the community were given immune serum globulin at the peak of the epidemic. Heterophile, leptospira agglutination, and hepatitis-associated antigen tests were negative for six patients with clinical hepatitis.

Figure 3
CASES OF INFECTIOUS HEPATITIS, BY ONSET
TENNESSEE – MAY 6-AUG. 14, 1971



Age specific attack rates for patients with jaundice are shown in Table 6. The attack rates were considerably higher among adolescents and adults than among children. There was no sex predilection. Thirty-five percent of those with no past history of jaundice were affected, whereas only 10 percent with such a history experienced hepatitis.

Epidemiologic investigation revealed that these people eat no meat, fish, shellfish, or animal products. There was no history of drug addiction or parenteral inoculation. There was no common food handling and no obvious contamination of drinking water. Nearby streams and swimming areas had few fecal bacteria. In May and June, however, the entire colony had eaten raw watercress, a wild leaf used in salads which grows in small streams. Cultures of specimens from the stream in which the watercress was harvested revealed gross contamination with fecal organisms, strongly suggesting a common source for the outbreak. Several abandoned septic tanks were seen near the stream.

Table 6
Age Specific Attack Rates for Icteric Hepatitis Cases
Tennessee – May 21-Aug. 4, 1971

Age (Years)	Population	Cases	Attack Rate (Percent)
< 1	19	0	0.0
1 – 5	34	3	8.8
6 – 10	10	1	10.0
11 – 15	4	1	25.0
16 – 20	32	8	25.0
21 – 25	152	49	32.2
26 – 30	74	24	32.4
31 – 35	12	4	33.3
> 35	6	1	16.6
Unknown	7	0	0

(Reported by Robert H. Hutcheson, Jr., M.D., State Epidemiologist, Tennessee Department of Public Health; and an EIS Officer.)

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

OCTOBER 2, 1971 AND OCTOBER 3, 1970 (39th 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.....	195	3	5	63	73	1	163	1,173	1,149	44	2,318
NEW ENGLAND.....	21	–	–	1	1	–	7	62	102	–	63
Maine.*.....	–	–	–	–	–	–	–	–	15	–	4
New Hampshire.*.....	–	–	–	–	–	–	–	5	–	–	1
Vermont.....	–	–	–	–	–	–	–	8	12	–	1
Massachusetts.....	2	–	–	–	1	–	2	25	43	–	42
Rhode Island.....	19	–	–	–	–	–	1	12	14	–	6
Connecticut.....	–	–	–	1	–	–	4	12	18	–	9
MIDDLE ATLANTIC.....	21	–	–	12	5	1	75	198	216	12	230
New York City.....	–	–	–	–	–	–	22	32	28	–	22
New York, Up-State...	3	–	–	12	1	1	10	34	47	1	65
New Jersey.*.....	4	–	–	–	–	–	40	81	68	8	95
Pennsylvania.*.....	14	–	–	–	4	–	3	51	73	3	48
EAST NORTH CENTRAL.....	23	–	–	19	33	–	26	171	206	2	149
Ohio.....	8	–	–	7	25	–	2	45	40	–	18
Indiana.....	2	–	–	1	1	–	–	9	5	–	11
Illinois.....	2	–	–	1	2	–	10	41	72	–	45
Michigan.....	11	–	–	1	5	–	14	68	73	2	50
Wisconsin.....	–	–	–	9	–	–	–	8	16	–	25
WEST NORTH CENTRAL.....	14	1	2	3	6	–	2	56	38	1	217
Minnesota.....	10	–	–	–	–	–	–	6	6	–	23
Iowa.....	–	1	–	2	1	–	1	11	4	–	26
Missouri.....	–	–	–	–	–	–	1	8	10	–	26
North Dakota.....	–	–	–	–	1	–	–	2	1	–	3
South Dakota.....	–	–	2	–	1	–	–	17	2	1	2
Nebraska.....	3	–	–	–	1	–	–	2	3	–	14
Kansas.....	1	–	–	1	2	–	–	10	12	–	123
SOUTH ATLANTIC.....	49	–	–	7	16	–	13	146	162	4	372
Delaware.....	–	–	–	–	3	–	–	3	4	–	1
Maryland.....	6	–	–	–	–	–	2	20	21	–	51
Dist. of Columbia....	–	–	–	–	–	–	1	1	2	–	4
Virginia.....	4	–	–	1	4	–	1	24	24	–	61
West Virginia.....	3	–	–	–	–	–	–	13	22	–	7
North Carolina.....	6	–	–	–	1	–	5	49	27	4	126
South Carolina.....	9	–	–	–	2	–	2	5	2	–	18
Georgia.....	1	–	–	–	–	–	–	7	22	–	67
Florida.....	20	–	–	6	6	–	2	24	38	–	37
EAST SOUTH CENTRAL.....	18	1	–	10	6	–	4	59	69	–	164
Kentucky.....	–	–	–	–	–	–	–	13	16	–	137
Tennessee.....	14	–	–	3	6	–	3	37	36	–	–
Alabama.....	2	1	–	3	–	–	1	3	10	–	21
Mississippi.....	2	–	–	4	–	–	–	6	7	–	6
WEST SOUTH CENTRAL.....	11	–	1	1	3	–	3	90	78	1	484
Arkansas.....	3	–	–	–	–	–	1	6	4	–	19
Louisiana.....	4	–	1	–	–	–	2	12	7	–	38
Oklahoma.....	1	–	–	–	3	–	–	20	17	–	68
Texas.....	3	–	–	1	–	–	–	52	50	1	359
MOUNTAIN.....	–	–	2	1	–	–	3	68	61	13	133
Montana.....	–	–	–	–	–	–	–	3	7	–	1
Idaho.....	–	–	–	–	–	–	–	9	3	–	5
Wyoming.....	–	–	–	–	–	–	–	1	3	–	3
Colorado.....	–	–	–	1	–	–	1	17	15	12	101
New Mexico.....	–	–	–	–	–	–	1	22	4	1	10
Arizona.....	–	–	2	–	–	–	1	16	15	–	8
Utah.....	---	---	---	---	–	---	---	---	14	---	3
Nevada.....	–	–	–	–	–	–	–	–	–	–	2
PACIFIC.....	38	1	–	9	3	–	30	323	217	11	506
Washington.....	3	–	–	1	1	–	3	9	21	–	2
Oregon.....	–	–	–	–	–	–	–	52	21	–	19
California.....	35	1	–	8	2	–	27	261	167	10	427
Alaska.....	–	–	–	–	–	–	–	–	4	–	6
Hawaii.....	–	–	–	–	–	–	–	1	4	1	52
Puerto Rico.*.....	---	---	---	---	–	---	---	---	50	---	19
Virgin Islands.....	–	–	–	–	–	–	–	–	–	–	–

*Delayed reports: Aseptic meningitis: Pa. 2
Diphtheria: Me. 1
Hepatitis, infectious: N.H. 1, N.J. delete 1, P.R. 8

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

OCTOBER 2, 1971 AND OCTOBER 3, 1970 (39th 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	228	70,175	39,943	18	1,804	1,942	629	101,080	–	–	7
NEW ENGLAND	4	3,455	868	–	80	83	29	6,166	–	–	–
Maine*	1	1,465	205	–	8	3	6	1,212	–	–	–
New Hampshire	–	211	52	–	14	8	1	658	–	–	–
Vermont	–	116	8	–	–	7	1	374	–	–	–
Massachusetts	–	256	398	–	31	37	11	1,491	–	–	–
Rhode Island	–	238	120	–	3	6	4	1,201	–	–	–
Connecticut	3	1,169	85	–	24	22	6	1,230	–	–	–
MIDDLE ATLANTIC	8	7,539	4,912	7	253	355	28	6,310	–	–	–
New York City	4	3,764	900	–	55	84	17	1,793	–	–	–
New York, Up-State	1	667	302	5	75	70	NN	NN	–	–	–
New Jersey	3	1,194	1,708	1	55	133	7	1,682	–	–	–
Pennsylvania*	–	1,914	2,002	1	68	68	4	2,835	–	–	–
EAST NORTH CENTRAL	48	15,447	9,835	–	204	225	176	40,899	–	–	–
Ohio	3	3,991	3,812	–	65	85	21	7,741	–	–	–
Indiana	3	2,739	273	–	14	19	4	5,121	–	–	–
Illinois	6	2,992	3,064	–	58	56	19	4,319	–	–	–
Michigan	9	2,345	1,742	–	54	55	24	9,572	–	–	–
Wisconsin	27	3,380	944	–	13	10	108	14,146	–	–	–
WEST NORTH CENTRAL	24	6,842	3,871	1	132	101	129	6,799	–	–	–
Minnesota	2	55	38	1	22	15	12	1,114	–	–	–
Iowa	18	2,274	1,148	–	10	12	69	3,143	–	–	–
Missouri	1	2,603	1,275	–	46	56	3	1,038	–	–	–
North Dakota	–	237	319	–	6	5	4	336	–	–	–
South Dakota	–	217	96	–	5	1	4	243	–	–	–
Nebraska	–	66	927	–	15	7	32	125	–	–	–
Kansas	3	1,390	68	–	28	5	5	800	–	–	–
SOUTH ATLANTIC	33	8,451	7,196	3	319	388	47	7,312	–	–	1
Delaware	1	39	261	–	2	3	–	170	–	–	–
Maryland	–	541	1,376	1	47	40	–	677	–	–	–
Dist. of Columbia	–	15	343	–	13	3	–	91	–	–	–
Virginia	5	1,592	1,989	–	37	41	6	980	–	–	–
West Virginia*	1	508	317	1	9	10	29	1,912	–	–	–
North Carolina	2	1,933	872	1	55	79	NN	NN	–	–	–
South Carolina	2	906	595	–	20	44	2	861	–	–	–
Georgia	–	1,104	14	–	23	35	–	11	–	–	1
Florida	22	1,813	1,429	–	113	133	10	2,610	–	–	–
EAST SOUTH CENTRAL	18	8,243	1,356	3	158	142	28	7,812	–	–	–
Kentucky	18	3,933	781	2	43	48	3	2,363	–	–	–
Tennessee	–	1,019	383	1	64	59	19	4,418	–	–	–
Alabama	–	1,878	102	–	28	24	–	885	–	–	–
Mississippi	–	1,413	90	–	23	11	6	146	–	–	–
WEST SOUTH CENTRAL	21	12,471	7,661	1	154	259	60	8,225	–	–	3
Arkansas	–	778	30	–	5	22	–	90	–	–	–
Louisiana	–	1,672	108	–	55	63	–	134	–	–	–
Oklahoma	1	755	494	–	7	20	–	182	–	–	–
Texas	20	9,266	7,029	1	87	154	60	7,819	–	–	3
MOUNTAIN	35	3,262	1,550	–	54	44	30	4,079	–	–	1
Montana	–	925	62	–	6	1	2	398	–	–	–
Idaho	–	271	45	–	10	6	–	137	–	–	–
Wyoming	–	85	11	–	2	2	11	285	–	–	–
Colorado	4	830	183	–	7	16	9	1,333	–	–	–
New Mexico	26	387	220	–	4	1	4	642	–	–	–
Arizona	5	428	973	–	8	15	4	1,128	–	–	–
Utah	---	329	35	---	14	2	---	156	---	---	–
Nevada	–	7	21	–	3	1	–	–	–	–	1
PACIFIC	37	4,465	2,694	3	450	345	102	13,478	–	–	2
Washington	–	1,031	529	–	25	44	29	5,371	–	–	1
Oregon	1	373	233	–	34	25	11	1,363	–	–	1
California	25	2,611	1,608	3	383	273	56	5,771	–	–	–
Alaska	–	54	138	–	–	–	1	85	–	–	–
Hawaii	11	396	186	–	8	3	5	888	–	–	–
Puerto Rico	---	523	923	---	8	5	---	1,020	---	---	–
Virgin Islands	–	17	6	–	–	1	–	60	–	–	–

*Delayed reports: Measles: W. Va. delete 1
Meningococcal infections: Pa. delete 2
Mumps: Me. 1, W. Va. delete 1

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

OCTOBER 2, 1971 AND OCTOBER 3, 1970 (39th 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.....	221	39,020	4	83	1	131	18	283	6	358	63	3,101
NEW ENGLAND.....	9	1,728	–	6	–	1	–	13	–	2	1	191
Maine*.....	1	262	–	–	–	–	–	1	–	–	–	170
New Hampshire.....	–	46	–	2	–	–	–	–	–	–	1	2
Vermont.....	5	99	–	–	–	–	–	–	–	–	–	11
Massachusetts*.....	2	827	–	1	–	–	–	9	–	–	–	7
Rhode Island.....	–	97	–	–	–	–	–	–	–	2	–	1
Connecticut.....	1	397	–	3	–	1	–	3	–	–	–	–
MIDDLE ATLANTIC.....	13	2,549	–	6	–	–	5	58	2	32	–	134
New York City.....	5	557	–	5	–	–	1	14	–	1	–	–
New York, Up-State..	5	415	–	1	–	–	–	12	1	17	–	115
New Jersey.....	1	577	–	–	–	–	1	6	1	7	–	–
Pennsylvania.....	2	1,000	–	–	–	–	3	26	–	7	–	19
EAST NORTH CENTRAL....	61	8,490	–	10	–	5	3	40	1	19	3	328
Ohio.....	6	969	–	1	–	1	1	17	–	14	–	95
Indiana.....	15	2,060	–	1	–	–	1	7	–	–	–	68
Illinois.....	6	1,268	–	6	–	1	1	10	–	3	–	65
Michigan.....	14	2,659	–	2	–	1	–	6	1	2	–	40
Wisconsin.....	20	1,534	–	–	–	2	–	–	–	–	3	60
WEST NORTH CENTRAL....	10	3,219	–	6	–	18	–	3	1	6	21	835
Minnesota.....	1	276	–	3	–	–	–	–	–	–	7	183
Iowa.....	4	680	–	1	–	–	–	–	1	2	2	195
Missouri.....	–	1,364	–	2	–	14	–	3	–	2	5	121
North Dakota.....	1	95	–	–	–	–	–	–	–	–	1	148
South Dakota.....	–	97	–	–	–	1	–	–	–	–	1	87
Nebraska.....	3	91	–	–	–	–	–	–	–	–	–	5
Kansas.....	1	616	–	–	–	3	–	–	–	2	5	96
SOUTH ATLANTIC.....	23	3,126	1	20	–	20	4	43	2	191	9	344
Delaware.....	1	49	–	–	–	–	–	1	–	2	–	–
Maryland.....	2	157	–	1	–	3	–	4	–	31	–	1
Dist. of Columbia...	–	8	–	–	–	–	–	1	–	–	–	–
Virginia.....	6	215	–	3	–	8	4	13	1	29	1	67
West Virginia.*.....	8	644	–	–	–	–	–	4	–	4	3	111
North Carolina.....	1	46	–	1	–	4	–	3	1	100	–	6
South Carolina.....	3	438	–	1	–	–	–	1	–	14	–	–
Georgia.....	–	1	–	2	–	3	–	2	–	11	2	111
Florida.....	2	1,568	1	12	–	2	–	14	–	–	3	48
EAST SOUTH CENTRAL....	14	3,256	1	12	–	10	2	35	–	59	5	283
Kentucky.....	6	1,125	–	1	–	2	–	8	–	13	3	146
Tennessee.....	7	1,854	–	6	–	5	–	19	–	33	1	91
Alabama.....	1	204	1	4	–	2	2	8	–	7	1	42
Mississippi.*.....	–	73	–	1	–	1	–	–	–	6	–	4
WEST SOUTH CENTRAL....	35	4,731	2	13	1	53	3	29	–	39	15	624
Arkansas.....	–	337	–	1	1	22	2	11	–	5	3	80
Louisiana.....	1	281	1	2	–	7	–	6	–	1	3	26
Oklahoma.*.....	–	69	–	1	–	16	–	2	–	26	4	254
Texas.....	34	4,044	1	9	–	8	1	10	–	7	5	264
MOUNTAIN.....	14	1,929	–	2	–	19	–	9	–	10	–	63
Montana.....	–	113	–	–	–	1	–	–	–	3	–	–
Idaho.....	–	39	–	1	–	1	–	–	–	3	–	–
Wyoming.....	–	859	–	–	–	–	–	–	–	–	–	11
Colorado.....	10	278	–	–	–	–	–	2	–	2	–	11
New Mexico.....	2	222	–	–	–	–	–	5	–	–	–	9
Arizona.*.....	2	343	–	1	–	–	–	2	–	–	–	21
Utah.....	---	61	---	–	---	17	---	–	---	1	---	9
Nevada.....	–	14	–	–	–	–	–	–	–	1	–	2
PACIFIC.....	42	9,992	–	8	–	5	1	53	–	–	9	299
Washington.....	7	1,353	–	1	–	–	–	–	–	–	–	–
Oregon.....	6	744	–	1	–	3	–	–	–	–	–	9
California.....	23	7,688	–	6	–	2	1	48	–	–	9	256
Alaska.....	1	46	–	–	–	–	–	1	–	–	–	34
Hawaii.....	5	161	–	–	–	–	–	4	–	–	–	–
Puerto Rico.....	---	62	---	7	---	–	---	3	---	–	---	58
Virgin Islands.....	–	–	–	–	–	–	–	–	–	–	–	–

*Delayed reports: Typhoid fever: Me. delete 1, W. Va. 1, Okla. delete 1
RMSF: W. Va. 1
Rabies in animals: Mass. 2, Miss. 1, Ariz. 1

Week No. 39

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED OCTOBER 2, 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
	All Ages	65 years and over		
NEW ENGLAND:	682	421	44	20
Boston, Mass.	227	131	16	12
Bridgeport, Conn.	38	21	3	1
Cambridge, Mass.	22	14	4	1
Fall River, Mass.	34	27	–	–
Hartford, Conn.	46	29	1	2
Lowell, Mass.	29	16	1	–
Lynn, Mass.	23	15	2	–
New Bedford, Mass.	24	17	–	–
New Haven, Conn.	52	34	–	1
Providence, R. I.	55	32	6	–
Somerville, Mass.	9	5	1	–
Springfield, Mass.	34	22	5	1
Waterbury, Conn.	35	26	–	1
Worcester, Mass.	54	32	5	1
MIDDLE ATLANTIC:	2,973	1,713	86	110
Albany, N. Y.	54	27	1	5
Allentown, Pa.	20	11	2	–
Buffalo, N. Y.	150	88	3	11
Camden, N. J.	38	22	–	3
Elizabeth, N. J.	33	18	–	2
Erie, Pa.	39	26	4	–
Jersey City, N. J.	71	43	1	4
Newark, N. J.	72	26	6	4
New York City, N. Y. †	1,430	836	37	38
Paterson, N. J.	44	23	3	5
Philadelphia, Pa.	399	221	4	18
Pittsburgh, Pa.	221	120	9	9
Reading, Pa.	44	30	1	1
Rochester, N. Y.	113	71	8	3
Schenectady, N. Y.	22	18	–	1
Scranton, Pa.	26	15	2	1
Syracuse, N. Y.	74	38	1	2
Trenton, N. J.	49	27	3	2
Utica, N. Y.	39	29	–	1
Yonkers, N. Y.	35	24	1	–
EAST NORTH CENTRAL:	2,528	1,421	78	130
Akron, Ohio	60	38	–	2
Canton, Ohio	34	15	4	2
Chicago, Ill.	688	378	17	44
Cincinnati, Ohio	144	84	3	6
Cleveland, Ohio	205	110	5	10
Columbus, Ohio	136	69	6	7
Dayton, Ohio	114	59	4	8
Detroit, Mich.	328	174	6	23
Evansville, Ind.	57	37	3	1
Flint, Mich.	60	30	2	3
Fort Wayne, Ind.	34	23	2	2
Gary, Ind.	32	14	4	1
Grand Rapids, Mich.	51	36	5	3
Indianapolis, Ind.	140	76	4	5
Madison, Wis.	22	13	3	2
Milwaukee, Wis.	111	62	–	3
Peoria, Ill.	43	27	–	2
Rockford, Ill.	36	25	5	1
South Bend, Ind.	61	41	4	–
Toledo, Ohio	98	60	1	4
Youngstown, Ohio	74	50	–	1
WEST NORTH CENTRAL:	788	500	20	38
Des Moines, Iowa	53	33	2	3
Duluth, Minn.	24	13	1	1
Kansas City, Kans.	31	16	1	5
Kansas City, Mo.	132	86	–	5
Lincoln, Nebr.	10	7	2	–
Minneapolis, Minn.	105	61	4	8
Omaha, Nebr.	74	41	–	5
St. Louis, Mo.	242	159	4	7
St. Paul, Minn.	74	56	4	2
Wichita, Kans.	43	28	2	2
Las Vegas, Nev.*	13	3	1	1

Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes
	All Ages	65 years and over		
SOUTH ATLANTIC:	1,108	561	43	57
Atlanta, Ga.	114	44	3	14
Baltimore, Md.	199	107	5	7
Charlotte, N. C.	64	34	–	1
Jacksonville, Fla.	90	44	2	7
Miami, Fla.	131	74	3	6
Norfolk, Va.	39	14	4	4
Richmond, Va.	88	37	4	4
Savannah, Ga.	40	20	1	1
St. Petersburg, Fla.	85	68	8	2
Tampa, Fla.	58	26	4	3
Washington, D. C.	146	63	7	6
Wilmington, Del.	54	30	2	2
EAST SOUTH CENTRAL:	610	339	23	30
Birmingham, Ala.	100	55	1	5
Chattanooga, Tenn.	47	29	4	–
Knoxville, Tenn.	37	23	3	1
Louisville, Ky.	117	65	11	9
Memphis, Tenn.	120	71	–	4
Mobile, Ala.	63	30	–	6
Montgomery, Ala.	34	17	2	2
Nashville, Tenn.	92	49	2	3
WEST SOUTH CENTRAL:	1,282	658	38	90
Austin, Tex.	33	19	–	2
Baton Rouge, La.	39	22	3	4
Corpus Christi, Tex.	50	25	–	2
Dallas, Tex.	178	98	3	6
El Paso, Tex.	39	17	–	6
Fort Worth, Tex.	96	49	6	5
Houston, Tex.	263	119	9	19
Little Rock, Ark.	64	24	1	11
New Orleans, La.	157	79	3	13
Oklahoma City, Okla.	82	46	4	2
San Antonio, Tex.	148	81	2	13
Shreveport, La.	72	45	2	3
Tulsa, Okla.	61	34	5	4
MOUNTAIN:	473	269	20	26
Albuquerque, N. Mex.	49	22	3	–
Colorado Springs, Colo.	35	23	6	3
Denver, Colo.	123	68	3	6
Ogden, Utah	20	14	1	–
Phoenix, Ariz.	110	67	–	7
Pueblo, Colo.	26	17	4	1
Salt Lake City, Utah	56	28	2	5
Tucson, Ariz.	54	30	1	4
PACIFIC:	1,749	1,071	30	69
Berkeley, Calif.	19	14	–	–
Fresno, Calif.	53	29	1	3
Glendale, Calif.	33	28	–	–
Honolulu, Hawaii	43	21	–	5
Long Beach, Calif.	110	66	2	5
Los Angeles, Calif.	552	342	10	15
Oakland, Calif.	96	58	1	1
Pasadena, Calif.	35	22	–	1
Portland, Oreg.	133	81	4	3
Sacramento, Calif.	84	47	2	3
San Diego, Calif.	154	82	–	16
San Francisco, Calif.	161	109	1	4
San Jose, Calif.	44	21	3	2
Seattle, Wash.	139	86	2	8
Spokane, Wash.	48	35	1	1
Tacoma, Wash.	45	30	3	2
Total	12,193	6,953	382	570
Expected Number	12,164	6,870	409	572
Cumulative Total (includes reported corrections for previous weeks)	498,389	285,976	18,281	22,397

*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 Sept. 25, 1971

EPIDEMIOLOGIC NOTES AND REPORTS

MALARIA – California

On April 12, 1971, a 21-year-old Vietnam veteran with a 4-day history of fever and chills consulted a private physician in Whittier, California. The physician prescribed tetracycline for an apparent urinary tract infection. On April 16, the patient became unconscious and was hospitalized with marked diaphoresis and in shock.

On admission, his hemoglobin was 10.8 gm percent, which later dropped to 2.9 gm percent. Three hours after admission, *Plasmodium falciparum* parasites were seen on a peripheral blood smear. When free blood was found on abdominal puncture, an exploratory laparotomy was performed and his spleen was removed. The spleen had several tears in the capsule and weighed 732 grams. Three hours later, he was operated on again to tie off a weeping splenic stump. The patient required 19 units of blood. He was then started on quinine therapy. On April 19, he became unresponsive and anuric, with bilateral papilledema. One burrhole was made on suspicion of subdural hematoma; none was found. In spite of therapy, he died on April 22. The cause of death was reported as cerebral malaria.

The patient had returned from Vietnam and been discharged from the Army 18 days before his hospital admission. His friends reported that he had had malaria while in Vietnam and had been taking his malaria pills as recommended. They admitted to much partying after the patient's return, but denied any use of intravenous drugs with the patient or each other.

(Reported by Ichiro Kamei, M.D., Chief of Acute Communicable Diseases, Gerald B. Heidbreder, M.D., Health Officer, Los Angeles County Health Department; Ronald R. Roberto, M.D., Medical Epidemiologist, Bureau of Communicable Disease Control, State of California Department of Public Health; and an EIS Officer.)

Editorial Note

This is the second fatal case of malaria reported from California this year. The other, also due to *P. falciparum*, was in a man recently returned from Indonesian New Guinea (MMWR, Vol. 20, No. 14).

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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 or case investigations of current interest to health officials.

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