NATIONAL COMMUNICABLE DISEASE CENTER

Morbidity and Mortality

Vol. 18, No. 40

WEEKLY REPORT

For Week Ending October 4, 1969

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

DATE OF RELEASE: OCTOBER 10, 1969 – ATLANTA, GEORGIA 30333

EPIDEMIOLOGIC NOTES AND REPORTS

BOTULISM – South Bend, Indiana

On the morning of Sept. 18, 1969, a 42-year-old woman in South Bend, Indiana, noted dizziness and dry tongue on awakening. Approximately 3 hours later, she developed nausea, vomiting, and generalized weakness for which she was treated with anti-emetic medication by her physician. The next day she noted dysphagia, dysarthria, diplopia, and ptosis of the eyelids. Her sensorium was intact and she was afebrile. The following day (September 20) because of progression of symptoms and the onset of respiratory distress, she was hospitalized. There she was noted to have dilated unreactive pupils. A lumbar puncture revealed elevated pressure but normal protein and no cells. Following lumbar puncture, the patient sustained a respiratory arrest; endotracheal intubation was carried out and she was placed on a respirator and was treated with steroids and tetracycline. At this time, differential diagnosis included viral encephalitis, idiosyncratic reaction to prochlorperazine, and myasthenia gravis.

(Continued on page 346)

CONTENTS

TABLE I. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

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

DISEASE	40th WEEK ENDED		MEDIAN	CUMULATIVE, FIRST 40 WEEKS		
	October 4, 1969	October 5, 1968	1964 - 1968	1969	1968	MEDIAN 1964 - 1968
Aseptic meningitis	145	165	85	2,525	3,272	2,213
Brucellosis	3	8	4	176	177	197
Diphtheria	8	17	7	135	162	147
Encephalitis, primary:						
Arthropod-borne & unspecified	62	45	45	962	1,032	1,425
Encephalitis, post-infectious	4	8	8	256	397	616
Hepatitis, serum	114	109	735	4,019	3,392	29,761
Hepatitis, infectious	957	979		35,867	34,287	
Malaria	62	47	16	2,235	1,733	324
Measles (rubeola)	167	107	472	20,875	20,000	190,817
Meningococcal infections, total	26	23	34	2,440	2,105	2,149
Civilian	26	22	- - -	2,234	1,923	- - -
Military	—	1	- - -	206	182	- - -
Mumps	624	854	- - -	69,859	127,283	- - -
Poliomyelitis, total	—	1	1	13	48	48
Paralytic	—	1	1	11	48	48
Rubella (German measles)	331	262	- - -	49,982	44,624	- - -
Streptococcal sore throat & scarlet fever	6,652	6,969	5,986	323,977	324,094	324,094
Tetanus	4	6	6	118	130	173
Tularemia	—	6	5	114	155	155
Typhoid fever	11	6	12	235	293	324
Typhus, tick-borne (Rky. Mt. spotted fever)	7	5	5	411	261	241
Rabies in animals	47	53	53	2,688	2,730	3,420

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	3	Rabies in man:	1
Botulism: Ind.-1	12	Rubella congenital syndrome: N.C.-1	9
Leptospirosis: *Calif.-1	61	Trichinosis:	162
Plague:	3	Typhus, murine:	35
Psittacosis:	32		

*Delayed report: Leptospirosis: Me.-1.

BOTULISM – South Bend, Indiana *(Continued from front page)*

On September 22, a history of eating fish, caught in Canada, was elicited, and the diagnosis of botulism was considered. The patient was treated with trivalent (A,B, and E) botulinum antiserum on September 23, after which her clinical status progressively improved. By September 29, she no longer required assisted ventilation and on October 1 she became ambulatory.

The woman shared all meals with two or more individuals, but no unexplained neurologic illness had occurred among these associates or in the community. The patient had access to numerous home-canned vegetables from her own home and from her neighbors. While these were cooked prior to eating, the patient habitually tasted their contents before cooking.

Mice injected with sera obtained from the patient on September 20, 22, and 23 developed typical symptoms of botulism and died. The identification of a specific botulinum toxin was not possible due to insufficient serum available for examination. The contaminated vehicle remains unknown.

(Reported by James Wack, M.D., and George Plain, M.D., Physicians, South Bend; Louis E. How, M.D., Director of Public Health, St. Joseph's County; Hermann E. Rinne, D.O., Director, Division of Communicable Disease Control, Indiana State Board of Health; Anaerobic Bacteriology Laboratory, Bacterial Reference Unit, Laboratory Division, NCDC; and an EIS Officer.)

Editorial Comment:

This is the sixth outbreak of botulism reported to NCDC in 1969; 12 persons were affected and there were four deaths.

Since 1899[1,2] Indiana has reported six outbreaks of botulism; 23 persons were affected with 10 deaths. Of the five previous outbreaks, three were due to type A and two to type B toxin.

Although the vehicles tested in this outbreak were negative for toxicity, the patient's habit of tasting home-canned food prior to cooking might explain her exposure to botulinum toxin. The paucity of serum available for analysis in this case underscores the desirability for clinicinas to obtain 20–30 cc of serum on admission for future reference from all patients with obscure illness.

References:
[1]Meyer, K. E. and Eddie, B.: Sixty-five Years of Human Botulism in the United States and Canada: Epidemiology and Tabulations of Reported Cases 1899 through 1964. George Williams Hooper Foundation, University of California, San Francisco Medical Center, June 1965.
[2]National Communicable Disease Center: Botulism in the United States: Review of Cases, 1899-1967 and Handbook for Epidemiologists, Clinicians, and Laboratory Workers.

A CASE OF PULMONARY MELIOIDOSIS – Oklahoma

On Sept. 16, 1969, a 22-year-old soldier, who had returned to Oklahoma on September 4 after 5 months in Vietnam, was admitted to a military hospital in Oklahoma City with a diagnosis of pulmonary melioidosis. He gave a history of having had chills, fever, a minimally productive cough, and pleurisy on August 7 while on active duty in Cu-Chi, Vietnam. This illness had been diagnosed as bronchitis; no specific therapy was given. He had been asymptomatic when he returned to Oklahoma. After 1 week he had again developed a productive cough, and 4 days later his sputum became streaked with blood. He had not traveled outside the United States before his duty in Vietnam.

On admission to the hospital, he had a temperature of 101.6°F., pulse rate of 90 per min., and blood pressure of 130/80. Tubular breath sounds and course rales were heard over the upper right posterior hemithorax and a 1 cm lesion covered with eschar was seen on the right lateral shin.

The initial laboratory values included a hemoglobin of 12 g percent, hematocrit of 37 percent, and white blood cell count of 17,500 per mm^3 with 64 percent neutrophils, 6 percent bands, 19 percent lymphocytes, 6 percent monocytes, and 5 percent eosinophiles. Urinalysis was normal. An area of consolidation containing a 2 cm cavity in the posterior segment of the right upper lobe was seen on chest X-ray, and within 24 hours after admission, *Pseudomonas pseudomallei* was demonstrated in the sputum by the fluorescent antibody technique. Intermediate strength PPD failed to elicit any reaction and no acid-fast organisms were seen in the sputum smear. *P. pseudomallei* was isolated from the sputum by tests conducted at two different laboratories. Sera for *P. pseudomallei* antibody testing are being obtained from the patient and 10 of his family contacts.

On September 16 the patient was started on oral tetracycline, 3 g per day for 30 days. He was discharged on October 1 and is currently asymptomatic.

(Reported by Maj. Joe Noble, MC USAF, Oklahoma City; R. LeRoy Carpenter, M.D., Director, Division of Epidemiology, Oklahoma State Department of Health; and an EIS Officer.)

RABIES EXPOSURE – Yakima, Washington

On Aug. 2, 1969, in Yakima, Washington, a 4-month-old pet skunk, while being bathed, bit two of its owners. On August 11, it was noted to be irritable and within 36 hours developed paralysis of the right hind leg. On August 12, the animal was taken to a veterinary hospital, where it developed extensive paralysis, had convulsions, and died on August 17. Its brain was found positive for rabies by the fluorescent antibody test.

The owners had purchased the skunk in early July from a pet store that had obtained it in June from a local skunk breeder and trapper. Whether the skunk was wild or had been bred in captivity could not be determined. It had been vaccinated with a modified live virus tissue culture rabies vaccine (ERA porcine tissue culture vaccine) on July 29.

Between July 29 and the animal's death, a total of 20 people including the two owners, both of whom had received deep bites, were exposed to the skunk. Eleven of them were felt to have sufficient exposure to warrant antirabies prophylactic therapy; consequently, seven were treated with duck embryo vaccine and rabies antiserum and four with duck embryo vaccine only. Five of these 11 had reactions associated with this prophylactic therapy.

(Reported by Leland S. Harris, M.D., Health Officer, Yakima County; Joyce Campbell, Immunofluorescence Unit, and Joseph DiCaprio, M.D., 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.)

Editorial Comment:

Although there is no absolute method of differentiating between street rabies and vaccine-induced rabies, it is possible that this was a case of vaccine-induced rabies. The interval between vaccination and onset of illness in the skunk is compatible with vaccine-induced rabies, and the animal had been immunized with a live virus vaccine which is recommended for use only in domestic animals (dogs, cats, cattle, sheep, goats, and horses). Wild animals, such as skunks and foxes, can be safely immunized with an inactivated virus vaccine or with HEP canine kidney tissue culture modified live virus rabies vaccine.

The Public Health Service Advisory Committee on Immunization Practices recommends that a wild animal that has bitten a person should be submitted to a laboratory immediately for sacrifice and examination, rather than being held under quarantine as is done with dogs and cats (MMWR, Vol. 16, No. 19).

INTERNATIONAL NOTES

CHOLERA – Hong Kong, Macau, and Korea*

Between July 5 and Sept. 3, 1969, cholera appeared in Hong Kong for the first time since 1966. Seven indigenous cases were reported; there were no deaths. Six patients had onset between July 5 and 14 and the seventh had onset on September 3. None had been immunized against cholera in the 6 months prior to illness. All cases were confirmed as serotype Inaba, biotype El Tor. The patients had a total of 99 family and household contacts, 91 of whom were located, isolated, and discharged from isolation after having negative stool specimens.

Six patients resided in various parts of the Kowloon Peninsula and one on the western coast of the New Territories mainland. No isolates of *Vibrio cholerae* had been recovered from night soil samples in Kowloon or the New Territories prior to the onset of illness in the first case. No cases have been reported from Hong Kong island although *V. cholerae* has been isolated from night soil samples at various times since May 14.

Hong Kong was declared free of cholera on September 15.

Cholera was documented in Macau on Sept. 20, 1969, for the first time in over 5 years, when bacteriologic examination confirmed the disease in a middle-aged man. Two additional cases have since been reported. The strain of vibrio is not yet known.

Since 1950 cholera has been reported from both Hong Kong and Macau in 1961, 1962, 1963, and 1964. In addition, one case of cholera was reported from Hong Kong in 1966.

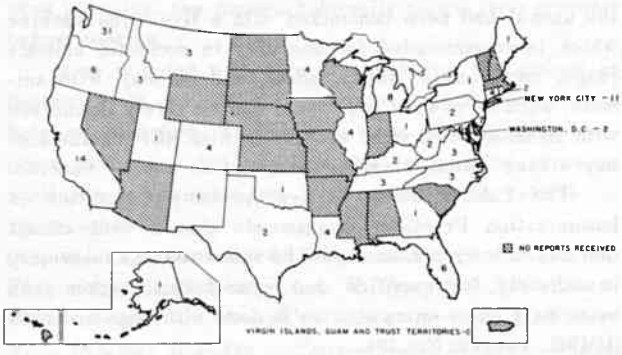
On September 9 cholera was reported from the two west coast Provinces of Cholla-Pukto and Chungchong-Namdo in the Republic of Korea. As of September 24, 872 cases and 71 deaths including 15 cases and one death from Seoul have been reported.

*Source: *World Health Organization Weekly Epidemiological Record*, 44(31,32,39, and 40): 481, 485, 490, 563, and 572, Aug. 1 and 8, Sept. 26, and Oct. 3, 1969.

SURVEILLANCE SUMMARY
FOODBORNE DISEASE OUTBREAKS – United States January-June 1969

During the first 6 months of 1969, 144 outbreaks of food poisoning affecting 5,537 people were reported from 30 states (Figure 1). In the comparable 6 months of 1968, 115 outbreaks involving 7,663 persons were reported from 31 states. For this period in 1969, bacterial etiology accounted for the majority of all foodborne outbreaks of known etiology (Figure 2), followed by chemical food poisoning.

Figure 1
NUMBER OF OUTBREAKS OF FOODBORNE ILLNESS BY STATE, JANUARY–JUNE 1969



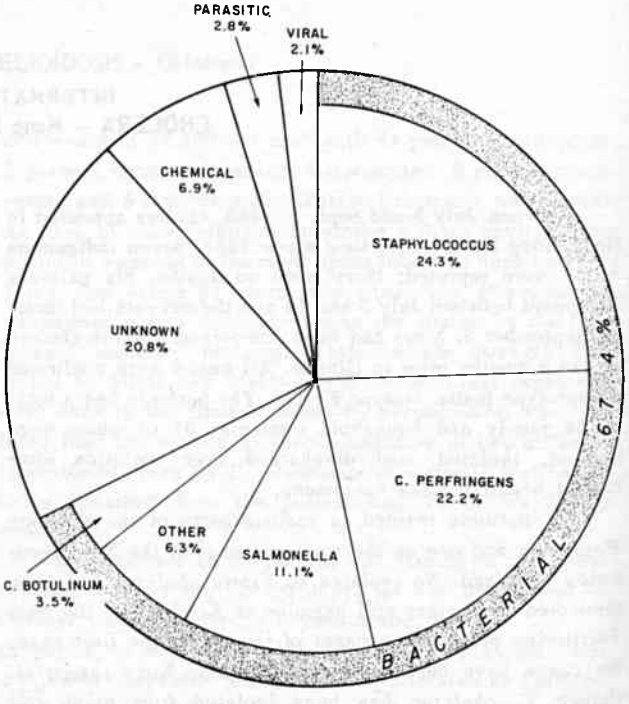
Parasitic and viral agents were incriminated in less than 5 percent of the outbreaks of known etiology, and no etiology could be determined in 20 percent of reported outbreaks. Staphylococcal food poisoning was the most common specific type and accounted for nearly 25 percent of all outbreaks and 25 percent of all patients (Table 1). In the corresponding period in 1968, staphylococcal enterotoxins also caused 25 percent of the reported outbreaks but affected 31 percent of all patients. For these 6 months in 1969, *Clostridium perfringens* food poisoning was the second most commonly reported type representing 22 percent of total outbreaks and 40 percent of all patients; in 1968, the respective figures were 18 and 36 percent. Salmonella was in third place in 1969 causing 11 percent of reported outbreaks and 14 percent of cases; this corresponds to 12 percent and 9 percent, respectively, for 1968. For the first 6 months of 1969, the above three types were responsible for 57 percent of all outbreaks and 81 percent of all ill individuals, compared with 55 percent and 76 percent, respectively, for 1968.

The number of people ill per outbreak was tabulated according to specific type for the first 6 months of 1968 and 1969 (Table 2). Outbreaks of staphylococcus, *Trichinella spiralis,* chemical food poisoning, and unknown type involved small groups of persons (less than 10) in both years. In 1968, outbreaks of salmonellosis involved groups approximately twice as large as those in 1969. Outbreaks of *C. perfringens* in 1968 involved groups numbering 5 times as many individuals as outbreaks in 1969. The median number of persons involved in a foodborne outbreak considering all etiologies, however, remained relatively constant for the 2 years with nine for 1968 and seven for 1969. Attack rates were greater than 75 percent for *C. botulinum,* staphylococcal, and chemical food poisoning; were between 50 and 75 percent for *C. perfringens,* salmonella, and unknown type food poisoning; and less than 50 percent for *Escherichia coli* and hepatitis food poisoning.

The three most commonly incriminated vehicles were beef, pork, and fowl (Table 3). There was one outbreak related to milk. Twenty percent of the contaminations occurred in food service establishments, 13 percent in food processing establishments, and 11 percent in homes. In 60 percent of outbreaks, the site of contamination could not be determined (Table 4).

The majority of foodborne outbreaks (73 percent) occurred in homes and restaurants; however, these represented only 31 percent of the total people ill. While food poisoning in schools accounted for 12 percent of outbreaks, it accounted for nearly 45 percent of all persons affected. These figures are consistent with those for the previous year. Illness due to *C. botulinum,* staphylococcus,

Figure 2
FOODBORNE DISEASE OUTBREAKS BY CAUSATIVE ORGANISM, UNITED STATES, JANUARY–JUNE 1969



(Continued on page 356)

Table 1
Outbreaks of Foodborne Illness by Etiology
January–June 1968 and 1969

Etiology	1968				1969			
	Total Outbreaks		Total Patients		Total Outbreaks		Total Patients	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
BACTERIAL	79	68.7	7,056	92.1	97	67.4	4,674	84.4
B. cereus					1	.7	5	.1
Brucella	1	.9	2	.0				
C. botulinum	4	3.5	4	.1	5	3.5	10	.2
C. perfringens	21	18.2	2,761	36.0	32	22.2	2,240	40.5
E. coli	4	3.5	382	5.0	2	1.4	62	1.1
Salmonella	14	12.2	680	8.9	16	11.1	766	13.8
Shigella	1	.9	195	2.5	3	2.1	133	2.4
Staphylococcus	29	25.2	2,391	31.2	35	24.3	1,422	25.7
Streptococcus	5	4.3	641	8.4	2	1.4	6	.1
Multiple etiologies					1	.7	30	.5
PARASITIC								
Trichinella spiralis	3	2.6	9	.1	4	2.8	17	.3
VIRAL								
Hepatitis	3	2.6	136	1.7	3	2.1	21	.4
CHEMICAL								
Monosodium glutamate	2	1.7	6	.1	1	.7	4	.1
Mushroom					2	1.4	4	.1
Other chemical	7	6.1	37	.5	7	4.9	87	1.6
MISCELLANEOUS	1	.9	5	.1				
UNKNOWN	20	17.4	414	5.4	30	20.8	730	13.2
TOTAL	115	100.0	7,663	100.0	144	100.0	5,537	100.0

Table 2
Number of People Ill Per Outbreak of Foodborne Illness by Etiology
January–June 1968 and 1969

Etiology	1968			1969		
	Number of Persons Ill Per Outbreak		Number of Outbreaks	Number of Persons Ill Per Outbreak		Number of Outbreaks
	Median	Range		Median	Range	
BACTERIAL						
B. cereus	–*	–	0	5	–	1
Brucella	2	–	1	–	–	0
C. botulinum	1	1	4	1	1-5	5
C. perfringens	75	3-505	21	14	2-680	32
E. coli	9.5	3-360	4	31	26-36	2
Salmonella	13.5	2-400	14	7.5	3-400	16
Shigella	195	–	1	54	18-61	3
Staphylococcus	6	2-1364	29	7	2-500	35
Streptococcus	14	5-600	5	3	3	2
Multiple etiologies	–	–	0	30	–	1
PARASITIC						
Trichinella spiralis	3	2-4	3	4	2-7	4
VIRAL						
Hepatitis	33	30-73	3	5	4-12	3
CHEMICAL						
Monosodium glutamate	3	2-4	2	4	–	1
Mushroom	–	–	0	2	2	2
Other chemical	4	2-12	7	3	1-43	7
MISCELLANEOUS	5	–	1	–	–	0
UNKNOWN	5.5	2-68	20	5.5	2-325	30
TOTAL	9	1-1364	115	7	1-680	144

*Not applicable

Table 3
Vehicles Associated with Outbreaks of Foodborne Illness by Etiology[1]
January–June 1969
Selective Comparative Data January–June 1968

Etiology	Turkey*	Chicken*	Beef*	Pork	Other meat	Egg	Milk	Cheese	Other dairy products	Shellfish	Other fish	Vegetables	Mushroom	Bakery products	Chinese food	Water	Other	Unknown	Total
BACTERIAL																			
B. cereus																		1	1
Brucella																			
C. botulinum												3	1					1	5
C. perfringens[2]	5	1	21	1			1	2		1								2	34
E. coli			1													1			2
Salmonella[3]	3	2	2	2					1			1		1		1		4	17
Shigella												2				1			3
Staphylococcus[4]	3	3	6	12		1			1	2	1	3		3				3	38
Streptococcus			1	1															2
Multiple etiologies				1															1
PARASITIC																			
Trichinella spiralis				4															4
VIRAL																			
Hepatitis[2]	1		2													2			5
CHEMICAL																			
Monosodium glutamate															1				1
Mushroom													2						2
Other chemical[3]			1	1								6							8
UNKNOWN[5]	2	2	3	5				1		2	1	2		2	2	1		9	32
TOTAL 1969	14	8	37	27		1	1	3	2	5	2	17	3	6	3	6		20	155
TOTAL 1968	15	10	23	14	6	6	1			4	5	16				3	11	10	124

1 – includes suspected as well as proven vehicles
2 – 1 outbreak with 3 vehicles
3 – 1 outbreak with 2 vehicles
4 – 1 outbreak with 3 vehicles and 1 outbreak with 2 vehicles
5 – 2 outbreaks with 2 vehicles
* – includes some outbreaks due to meat and/or gravy and/or dressing

Table 4
Probable Source of Contamination in Foodborne Outbreaks by Etiology
January–June 1969
Selective Comparative Data January–June 1968

Etiology	Food Processing Establishments	Food Service Establishments	Homes	Unknown-Unspecified	Total
BACTERIAL					
B. cereus				1	1
C. botulinum			3	2	5
C. perfringens	5	10	1	16	32
E. coli	1	1			2
Salmonella	3	4	1	8	16
Shigella	1			2	3
Staphylococcus	2	9	4	20	35
Streptococcus	1	1			2
Multiple etiologies			1		1
PARASITIC					
Trichinella spiralis	2	1		1	4
VIRAL					
Hepatitis		1	1	1	3
CHEMICAL					
Monosodium glutamate		1			1
Mushroom			2		2
Other chemical	4		1	2	7
UNKNOWN		1		29	30
TOTAL 1969	19	29	14	82	144
TOTAL 1968	8	48	13	46	115

Table 5
Outbreaks of Foodborne Illness by Etiology and Place of Acquisition
January–June 1969
Selective Comparative Data January–June 1968

Etiology	Restaurant	Delicatessen	Cafeteria	Home	Picnic	School	Church	Camp	Other	Unknown	Total
BACTERIAL											
B. cereus	1										1
C. botulinum	1			3						1	5
C. perfringens	18	1	1	2		9			1		32
E. coli	1					1					2
Salmonella				8		2	2		2	2	16
Shigella	1			2							3
Staphylococcus	5			19	1	1	1		3	4	35
Streptococcus	1			1							2
Multiple etiologies				1							1
PARASITIC											
Trichinella spiralis	1			3							4
VIRAL											
Hepatitis				3							3
CHEMICAL											
Monosodium glutamate				1							1
Mûshroom				2							2
Other chemical	1			4		1				1	7
UNKNOWN	10			15		3	1		1		30
TOTAL 1969	41	1	1	64	1	17	4	0	7	8	144
TOTAL 1968	54	10	0	32	0	11	0	0	8	0	115
Number of persons ill 1969	1,300	6	63	394	500	2,468	119	0	373	314	5,537
Number of persons ill 1968	3,371	143	0	316	0	2,750	0	0	1,083	0	7,663

Table 6
Outbreaks of Foodborne Illness by Specific Etiology and Month of Occurrence
January–June 1969
Selective Comparative Data January–June 1968

Etiology	Jan.	Feb.	Mar.	Apr.	May	Jun.	Total
BACTERIAL							
B. cereus					1		1
C. botulinum		1	4				5
C. perfringens	3	9	4	5	8	3	32
E. coli	1			1			2
Salmonella	2	3	2	6	2	1	16
Shigella					3		3
Staphylococcus	2	3	6	10	9	5	35
Streptococcus					1	1	2
Multiple etiologies			1				1
PARASITIC							
Trichinella spiralis			2	1		1	4
VIRAL							
Hepatitis	1	1	1				3
CHEMICAL							
Monosodium glutamate			1				1
Mushroom			1		1		2
Other chemical		1		2	3	1	7
UNKNOWN	7	4	4	4	9	2	30
TOTAL 1969	16	22	26	29	37	14	144
TOTAL 1968	12	21	21	21	24	16	115

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED
OCTOBER 4, 1969 AND OCTOBER 5, 1968 (40th WEEK)

AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	DIPHTHERIA	ENCEPHALITIS			HEPATITIS			MALARIA	
				Primary including unsp. cases		Post-Infectious	Serum	Infectious			
	1969	1969	1969	1969	1968	1969	1969	1969	1968	1969	Cum. 1969
UNITED STATES...	145	3	8	62	45	4	114	957	979	62	2,230
NEW ENGLAND.....	8	–	–	5	1	–	2	95	62	2	77
Maine.....	–	–	–	–	–	–	–	4	8	–	6
New Hampshire.....	–	–	–	–	–	–	–	6	1	–	2
Vermont.....	–	–	–	–	–	–	–	2	4	–	–
Massachusetts.....	2	–	–	1	1	–	–	56	30	–	47
Rhode Island.....	1	–	–	–	–	–	–	11	9	2	9
Connecticut.....	5	–	–	4	–	–	2	16	10	–	13
MIDDLE ATLANTIC.....	23	–	–	9	7	–	53	158	145	9	253
New York City.....	3	–	–	–	–	–	33	62	92	1	22
New York, up-State.	2	–	–	1	3	–	2	24	23	2	41
New Jersey*.....	13	–	–	–	–	–	10	42	–	–	100
Pennsylvania.....	5	–	–	8	4	–	8	30	30	6	90
EAST NORTH CENTRAL...	22	–	–	23	17	–	14	172	128	5	243
Ohio.....	9	–	–	19	13	–	4	36	19	1	22
Indiana.....	1	–	–	–	–	–	–	13	5	1	20
Illinois.....	–	–	–	2	1	–	2	27	40	2	148
Michigan.....	12	–	–	2	3	–	8	91	53	1	52
Wisconsin.....	–	–	–	–	–	–	–	5	11	–	1
WEST NORTH CENTRAL...	22	3	–	4	4	1	4	40	70	3	156
Minnesota*.....	21	2	–	3	1	1	3	12	28	–	8
Iowa*.....	–	1	–	1	1	–	–	6	5	–	16
Missouri.....	–	–	–	–	–	–	1	17	15	1	41
North Dakota.....	1	–	–	–	1	–	–	–	2	–	3
South Dakota.....	–	–	–	–	–	–	–	–	7	–	–
Nebraska.....	–	–	–	–	–	–	–	2	2	–	3
Kansas.....	–	–	–	–	1	–	–	3	11	2	85
SOUTH ATLANTIC.....	23	–	–	1	1	1	2	104	106	27	572
Delaware.....	–	–	–	–	–	–	–	3	3	–	3
Maryland.....	15	–	–	–	–	–	–	11	17	1	30
Dist. of Columbia..	–	–	–	–	–	–	–	2	1	–	2
Virginia.....	–	–	–	–	–	–	1	6	5	–	25
West Virginia.....	3	–	–	–	1	–	–	5	23	–	–
North Carolina.....	5	–	–	1	–	–	–	37	7	20	256
South Carolina.....	–	–	–	–	–	–	–	3	7	–	49
Georgia.....	–	–	–	–	–	–	–	26	16	5	174
Florida.....	–	–	–	–	–	1	1	11	27	1	33
EAST SOUTH CENTRAL...	11	–	1	2	–	–	1	46	68	1	110
Kentucky.....	2	–	–	–	–	–	–	19	14	–	85
Tennessee.....	3	–	–	1	–	–	1	16	28	–	–
Alabama.....	4	–	1	–	–	–	–	1	20	1	22
Mississippi.....	2	–	–	1	–	–	–	10	6	–	3
WEST SOUTH CENTRAL...	6	–	6	3	2	–	9	78	69	1	154
Arkansas.....	1	–	–	–	–	–	–	5	4	–	13
Louisiana.....	3	–	–	2	1	–	6	13	12	–	43
Oklahoma.....	–	–	–	1	1	–	–	8	2	–	53
Texas.....	2	–	6	–	–	–	3	52	51	1	45
MOUNTAIN.....	4	–	1	10	4	–	–	29	57	2	126
Montana.....	2	–	–	1	–	–	–	2	2	–	3
Idaho.....	–	–	–	–	–	–	–	–	–	–	3
Wyoming.....	–	–	–	–	–	–	–	4	–	–	–
Colorado.....	2	–	–	9	4	–	–	–	35	2	107
New Mexico.....	–	–	1	–	–	–	–	4	5	–	7
Arizona.....	–	–	–	–	–	–	–	16	8	–	1
Utah.....	–	–	–	–	–	–	–	1	4	–	1
Nevada.....	–	–	–	–	–	–	–	2	3	–	4
PACIFIC.....	26	–	–	5	9	2	29	235	274	12	539
Washington.....	–	–	–	–	2	–	–	31	22	–	5
Oregon.....	3	–	–	–	–	1	–	21	13	–	13
California.....	22	–	–	5	7	1	29	180	235	8	425
Alaska.....	1	–	–	–	–	–	–	1	1	–	3
Hawaii.....	–	–	–	–	–	–	–	2	3	4	93
Puerto Rico.....	–	–	–	–	–	–	–	6	22	–	2

*Delayed reports: Encephalitis, primary: Iowa 3
Hepatitis, infectious: N.J. 3
Malaria: Minn. 5

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

OCTOBER 4, 1969 AND OCTOBER 5, 1968 (40th WEEK) - CONTINUED

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS	POLIOMYELITIS			RUBELLA
		Cumulative			Cumulative			Total	Paralytic		
	1969	1969	1968	1969	1969	1968	1969	1969	1969	Cum. 1969	1969
UNITED STATES...	167	20,875	20,000	26	2,440	2,105	624	–	–	11	331
NEW ENGLAND.....	2	1,118	1,163	1	95	124	82	–	–	1	27
Maine*.....	–	9	38	–	6	6	–	–	–	–	1
New Hampshire.....	1	239	141	–	3	7	6	–	–	–	–
Vermont.....	–	3	2	–	–	1	1	–	–	–	2
Massachusetts.....	1	220	362	–	37	64	36	–	–	–	5
Rhode Island.....	–	27	6	–	12	9	12	–	–	–	4
Connecticut.....	–	620	614	1	37	37	27	–	–	1	15
MIDDLE ATLANTIC.....	24	7,548	4,130	5	401	379	62	–	–	2	22
New York City.....	8	4,929	2,163	–	76	76	32	–	–	–	8
New York, Up-State.	1	602	1,227	–	77	68	NN	–	–	1	8
New Jersey.....	14	919	626	2	160	130	30	–	–	–	–
Pennsylvania.....	1	1,098	114	3	88	105	NN	–	–	1	6
EAST NORTH CENTRAL...	30	2,313	3,859	3	334	257	165	–	–	–	73
Ohio.....	4	390	297	–	124	70	16	–	–	–	3
Indiana.....	–	467	685	1	40	35	18	–	–	–	17
Illinois.....	12	562	1,378	–	49	58	34	–	–	–	6
Michigan.....	6	300	277	1	96	74	20	–	–	–	25
Wisconsin.....	8	594	1,222	1	25	20	77	–	–	–	22
WEST NORTH CENTRAL...	24	588	390	4	126	114	36	–	–	1	20
Minnesota.....	–	8	16	2	28	27	11	–	–	–	7
Iowa.....	–	332	102	–	18	7	18	–	–	–	11
Missouri.....	2	30	81	1	52	37	6	–	–	–	–
North Dakota.....	–	15	135	1	2	3	–	–	–	–	–
South Dakota.....	–	3	4	–	1	5	NN	–	–	–	–
Nebraska.....	22	193	42	–	9	8	1	–	–	–	2
Kansas.....	–	7	10	–	16	27	–	–	–	1	–
SOUTH ATLANTIC.....	21	2,577	1,522	5	420	421	55	–	–	1	25
Delaware.....	9	393	16	2	12	8	3	–	–	–	2
Maryland.....	–	77	102	–	39	34	5	–	–	–	3
Dist. of Columbia..	–	35	6	–	9	14	2	–	–	–	–
Virginia.....	–	884	299	1	54	39	10	–	–	–	3
West Virginia.....	8	209	292	–	18	12	18	–	–	–	11
North Carolina.....	–	316	282	1	70	80	NN	–	–	–	1
South Carolina.....	3	123	12	–	57	57	–	–	–	–	3
Georgia.....	–	2	4	1	71	85	–	–	–	–	–
Florida.....	1	538	509	–	90	92	17	–	–	1	2
EAST SOUTH CENTRAL...	–	113	496	–	148	190	40	–	–	1	25
Kentucky.....	–	66	100	–	51	86	3	–	–	–	7
Tennessee.....	–	17	62	–	56	55	34	–	–	–	18
Alabama.....	–	6	94	–	24	26	2	–	–	1	–
Mississippi.....	–	24	240	–	17	23	1	–	–	–	–
WEST SOUTH CENTRAL...	33	4,633	4,864	3	327	310	38	–	–	4	44
Arkansas.....	–	16	2	–	31	20	1	–	–	–	–
Louisiana.....	–	120	24	2	88	88	–	–	–	–	–
Oklahoma.....	–	142	123	–	30	50	7	–	–	–	1
Texas.....	33	4,355	4,715	1	178	152	30	–	–	4	43
MOUNTAIN.....	26	917	1,007	1	47	35	46	–	–	–	21
Montana.....	17	35	58	–	8	6	4	–	–	–	5
Idaho.....	–	89	21	–	9	11	–	–	–	–	–
Wyoming.....	–	–	52	–	–	2	–	–	–	–	1
Colorado.....	–	141	515	–	8	10	14	–	–	–	4
New Mexico.....	1	264	113	–	6	–	11	–	–	–	5
Arizona.....	8	377	222	–	10	2	12	–	–	–	5
Utah.....	–	10	21	1	4	1	5	–	–	–	1
Nevada.....	–	1	5	–	2	3	–	–	–	–	–
PACIFIC.....	7	1,068	2,569	4	542	275	100	–	–	1	74
Washington.....	1	61	540	–	56	40	27	–	–	–	26
Oregon.....	1	199	530	–	18	21	10	–	–	–	6
California.....	4	758	1,455	4	447	199	51	–	–	1	33
Alaska.....	–	9	9	–	11	3	5	–	–	–	1
Hawaii.....	1	41	35	–	10	12	7	–	–	–	8
Puerto Rico.....	33	1,577	424	–	19	20	24	–	–	–	–

*Delayed reports: Measles: Me. 1
Mumps: Me. 11

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

OCTOBER 4, 1969 AND OCTOBER 5, 1968 (40th WEEK) - CONTINUED

AREA	STREPTOCOCCAL SORE THROAT & SCARLET FEVER	TETANUS		TULAREMIA		TYPHOID FEVER		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
	1969	1969	Cum. 1969	1969	Cum. 1969	1969	Cum. 1969	1969	Cum. 1969	1969	Cum. 1969
UNITED STATES...	6,652	4	118	–	114	11	235	7	411	47	2,688
NEW ENGLAND.....	804	–	1	–	14	–	12	1	1	4	29
Maine*	7	–	–	–	–	–	1	–	–	–	6
New Hampshire.....	32	–	–	–	–	–	–	–	–	–	4
Vermont.....	–	–	–	–	14	–	–	–	–	4	9
Massachusetts.....	105	–	1	–	–	–	7	1	1	–	2
Rhode Island.....	26	–	–	–	–	–	1	–	–	–	–
Connecticut.....	634	–	–	–	–	–	3	–	–	–	8
MIDDLE ATLANTIC.....	188	–	15	–	5	2	26	1	43	6	175
New York City.....	5	–	7	–	1	2	13	–	–	–	–
New York, Up-State.	148	–	3	–	4	–	5	1	7	5	164
New Jersey.....	NN	–	3	–	–	–	3	–	14	–	–
Pennsylvania.....	35	–	2	–	–	–	5	–	22	1	11
EAST NORTH CENTRAL...	447	1	15	–	13	3	25	–	3	8	194
Ohio.....	91	1	2	–	–	1	9	–	–	5	68
Indiana.....	93	–	–	–	2	–	–	–	–	–	46
Illinois.....	100	–	8	–	4	2	12	–	3	1	31
Michigan.....	92	–	5	–	–	–	4	–	–	–	7
Wisconsin.....	71	–	–	–	7	–	–	–	–	2	42
WEST NORTH CENTRAL...	216	1	11	–	13	–	9	–	8	10	499
Minnesota.....	6	–	3	–	–	–	3	–	–	2	132
Iowa.....	68	–	–	–	–	–	1	–	7	3	74
Missouri.....	14	1	4	–	9	–	3	–	–	2	127
North Dakota.....	66	–	–	–	–	–	–	–	–	2	65
South Dakota.....	17	–	–	–	–	–	–	–	1	–	24
Nebraska.....	8	–	–	–	1	–	1	–	–	–	13
Kansas.....	37	–	4	–	3	–	1	–	–	1	64
SOUTH ATLANTIC.....	609	–	21	–	21	1	37	4	230	5	658
Delaware.....	12	–	–	–	–	–	2	–	3	–	–
Maryland.....	104	–	1	–	–	–	4	–	47	–	3
Dist. of Columbia..	15	–	2	–	–	–	1	–	–	–	–
Virginia.....	121	–	–	–	4	–	1	–	76	2	332
West Virginia.....	134	–	1	–	2	1	2	–	5	–	94
North Carolina.....	NN	–	2	–	5	–	6	4	56	–	5
South Carolina.....	49	–	1	–	2	–	1	–	30	–	–
Georgia.....	4	–	4	–	4	–	9	–	13	–	70
Florida.....	170	–	10	–	4	–	11	–	–	3	154
EAST SOUTH CENTRAL...	1,260	–	18	–	12	–	33	–	61	1	360
Kentucky.....	142	–	7	–	–	–	6	–	13	1	186
Tennessee.....	788	–	4	–	11	–	19	–	40	–	122
Alabama.....	168	–	5	–	–	–	4	–	5	–	46
Mississippi.....	162	–	2	–	1	–	4	–	3	–	6
WEST SOUTH CENTRAL...	591	–	21	–	18	3	25	1	44	8	389
Arkansas.....	6	–	1	–	1	3	13	–	7	–	29
Louisiana.....	7	–	7	–	4	–	3	–	–	–	29
Oklahoma.....	67	–	1	–	7	–	–	–	28	2	59
Texas.....	511	–	12	–	6	–	9	1	9	6	272
MOUNTAIN.....	1,583	–	5	–	14	–	24	–	16	–	115
Montana.....	–	–	1	–	–	–	2	–	–	–	–
Idaho.....	130	–	–	–	–	–	3	–	5	–	–
Wyoming.....	434	–	–	–	2	–	5	–	–	–	52
Colorado.....	750	–	2	–	–	–	3	–	9	–	3
New Mexico.....	137	–	–	–	1	–	5	–	–	–	17
Arizona.....	69	–	2	–	–	–	5	–	–	–	22
Utah.....	62	–	–	–	11	–	–	–	2	–	5
Nevada.....	1	–	–	–	–	–	1	–	–	–	16
PACIFIC.....	954	2	11	–	4	2	44	–	5	5	269
Washington.....	816	–	1	–	2	–	2	–	3	–	4
Oregon.....	67	–	–	–	1	–	6	–	–	–	4
California.....	---	2	10	–	1	1	33	–	2	5	261
Alaska.....	17	–	–	–	–	–	–	–	–	–	–
Hawaii.....	54	–	–	–	–	1	3	–	–	–	–
Puerto Rico.....	1	–	8	–	–	–	6	–	–	1	21

*Delayed reports: SST: Me. 3

Week No. 40

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED OCTOBER 4, 1969

(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:	761	460	56	44
Boston, Mass.	272	144	15	10
Bridgeport, Conn.	56	34	7	3
Cambridge, Mass.	26	23	8	–
Fall River, Mass.	20	14	–	–
Hartford, Conn.	74	40	2	11
Lowell, Mass.	19	15	2	–
Lynn, Mass.	21	14	–	1
New Bedford, Mass.	28	19	–	3
New Haven, Conn.	49	33	2	–
Providence, R. I.	54	29	4	9
Somerville, Mass.	21	13	2	–
Springfield, Mass.	43	27	5	5
Waterbury, Conn.	29	19	–	–
Worcester, Mass.	49	36	9	2
MIDDLE ATLANTIC:	3,229	1,865	105	159
Albany, N. Y.	44	22	2	4
Allentown, Pa.	40	26	1	–
Buffalo, N. Y.	135	84	2	6
Camden, N. J.	40	22	1	1
Elizabeth, N. J.	31	16	1	–
Erie, Pa.	47	32	4	2
Jersey City, N. J.	60	30	3	2
Newark, N. J.	82	47	3	5
New York City, N. Y.	1,630	944	55	80
Paterson, N. J.	45	25	–	3
Philadelphia, Pa.	496	259	6	27
Pittsburgh, Pa.	161	77	6	9
Reading, Pa.	42	27	3	3
Rochester, N. Y.	123	89	1	8
Schenectady, N. Y.	28	18	2	2
Scranton, Pa.	36	21	3	2
Syracuse, N. Y.	78	54	–	3
Trenton, N. J.	44	24	4	1
Utica, N. Y.	29	22	4	–
Yonkers, N. Y.	38	26	4	1
EAST NORTH CENTRAL:	2,553	1,371	74	139
Akron, Ohio	58	37	1	2
Canton, Ohio	43	21	1	3
Chicago, Ill.	700	356	20	41
Cincinnati, Ohio	160	77	4	7
Cleveland, Ohio	204	109	4	17
Columbus, Ohio	129	70	4	12
Dayton, Ohio	64	21	–	5
Detroit, Mich.	352	193	7	17
Evansville, Ind.	31	14	–	1
Flint, Mich.	49	28	2	5
Fort Wayne, Ind.	41	22	3	2
Gary, Ind.	49	22	3	5
Grand Rapids, Mich.	49	36	6	3
Indianapolis, Ind.	157	90	4	7
Madison, Wis.	47	23	8	1
Milwaukee, Wis.	132	78	–	4
Peoria, Ill.	44	24	1	2
Rockford, Ill.	38	24	2	1
South Bend, Ind.	42	26	2	–
Toledo, Ohio	103	62	2	4
Youngstown, Ohio	61	38	–	–
WEST NORTH CENTRAL:	808	481	36	36
Des Moines, Iowa	77	45	8	3
Duluth, Minn.	17	10	–	–
Kansas City, Kans.	42	20	5	4
Kansas City, Mo.	137	84	1	9
Lincoln, Nebr.	15	8	1	1
Minneapolis, Minn.	97	66	4	3
Omaha, Nebr.	81	44	3	2
St. Louis, Mo.	214	121	9	9
St. Paul, Minn.	72	47	–	1
Wichita, Kans.	56	36	5	4
Las Vegas, Nev.*	12	5	–	–

Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes
	All Ages	65 years and over		
SOUTH ATLANTIC:	1,062	538	34	37
Atlanta, Ga.	111	52	3	3
Baltimore, Md.	248	119	3	12
Charlotte, N. C.	60	34	4	2
Jacksonville, Fla.	81	43	2	1
Miami, Fla.	85	44	–	3
Norfolk, Va.	52	24	–	1
Richmond, Va.	61	26	3	1
Savannah, Ga.	32	8	3	3
St. Petersburg, Fla.	86	73	7	–
Tampa, Fla.	62	30	5	5
Washington, D. C.	148	71	3	5
Wilmington, Del.	36	14	1	1
EAST SOUTH CENTRAL:	648	343	25	30
Birmingham, Ala.	115	48	3	5
Chattanooga, Tenn.	42	23	3	4
Knoxville, Tenn.	48	29	1	2
Louisville, Ky.	111	71	13	3
Memphis, Tenn.	139	66	2	6
Mobile, Ala.	39	24	–	1
Montgomery, Ala.	43	22	–	1
Nashville, Tenn.	111	60	3	8
WEST SOUTH CENTRAL:	1,149	548	31	90
Austin, Tex.	36	18	5	2
Baton Rouge, La.	47	25	1	2
Corpus Christi, Tex.	26	8	1	4
Dallas, Tex.	169	75	4	14
El Paso, Tex.	54	26	1	15
Fort Worth, Tex.	74	30	1	6
Houston, Tex.	197	92	4	8
Little Rock, Ark.	55	27	2	4
New Orleans, La.	150	73	4	7
Oklahoma City, Okla.	81	46	–	5
San Antonio, Tex.	143	72	1	16
Shreveport, La.	40	19	4	2
Tulsa, Okla.	77	37	3	5
MOUNTAIN:	446	232	20	21
Albuquerque, N. Mex.	54	22	2	4
Colorado Springs, Colo.	22	16	5	1
Denver, Colo.	121	65	3	6
Ogden, Utah	17	12	4	–
Phoenix, Ariz.	104	60	1	3
Pueblo, Colo.	14	10	–	1
Salt Lake City, Utah	48	23	–	3
Tucson, Ariz.	66	24	5	3
PACIFIC:	1,592	936	32	61
Berkeley, Calif.	26	17	–	–
Fresno, Calif.	43	20	–	1
Glendale, Calif.	34	23	1	1
Honolulu, Hawaii	23	9	4	2
Long Beach, Calif.	95	65	2	4
Los Angeles, Calif.	560	301	15	26
Oakland, Calif.	81	43	1	6
Pasadena, Calif.	30	26	1	–
Portland, Oreg.	132	76	–	4
Sacramento, Calif.	67	42	–	2
San Diego, Calif.	104	61	1	5
San Francisco, Calif.	137	75	1	4
San Jose, Calif.	47	31	3	1
Seattle, Wash.	126	87	1	3
Spokane, Wash.	56	40	1	1
Tacoma, Wash.	31	20	1	1
Total	12,248	6,774	413	617
Expected Number	11,904	6,828	358	512
Cumulative Total (includes reported corrections for previous weeks)	519,718	297,016	23,956	24,535

*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.

FOODBORNE DISEASE – *(Continued from page 348)*

and *Trichinella spiralis* tended to be caused by foods eaten at home and those due to *C. perfringens* by foods served in public facilities (Table 5). The monthly incidence of foodborne outbreaks by specific type is presented in Table 6.

In addition to these foodborne outbreaks, there were six outbreaks related to water.

(Reported by Enteric Diseases Section, and Epidemiologic Services Laboratory Section, Bacterial Diseases Branch, and the Statistical Services Activity, Epidemiology Program, NCDC.)

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

National Communicable Disease Center
Attn: Chief, Enteric Diseases Section,
Bacterial Diseases Branch
Epidemiology Program
Atlanta, Georgia 30333

THE MORBIDITY AND MORTALITY WEEKLY REPORT, WITH A CIRCULATION OF 18,500 IS PUBLISHED AT THE NATIONAL COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA.

DIRECTOR, NATIONAL COMMUNICABLE DISEASE CENTER — DAVID J. SENCER, M.D.
DIRECTOR, EPIDEMIOLOGY PROGRAM — A. D. LANGMUIR, M.D.
EDITOR — MICHAEL B. GREGG, M.D.
EDITOR *pro tem* — ALAN R. HINMAN, M.D.
MANAGING EDITOR — PRISCILLA B. HOLMAN

IN ADDITION TO THE ESTABLISHED PROCEDURES FOR REPORTING MORBIDITY AND MORTALITY, THE NATIONAL COMMUNICABLE DISEASE CENTER WELCOMES ACCOUNTS OF INTERESTING OUTBREAKS OR CASE INVESTIGATIONS WHICH ARE OF CURRENT INTEREST TO HEALTH OFFICIALS AND WHICH ARE DIRECTLY RELATED TO THE CONTROL OF COMMUNICABLE DISEASES. SUCH COMMUNICATIONS SHOULD BE ADDRESSED TO:

NATIONAL COMMUNICABLE DISEASE CENTER
ATTN: THE EDITOR
MORBIDITY AND MORTALITY WEEKLY REPORT
ATLANTA, GEORGIA 30333

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

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION
NATIONAL
COMMUNICABLE DISEASE CENTER
ATLANTA, GEORGIA 30333

OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U. S. DEPARTMENT OF H. E. W.