NATIONAL COMMUNICABLE DISEASE CENTER

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WEEKLY REPORT

Week Ending June 22, 1968

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION

CURRENT TRENDS
MEASLES – United States

During the 4-week period, May 19 through June 15, 1968, (weeks 21 – 24), 2,684 cases of measles were reported to NCDC. This is a decrease of 700 cases from the preceding 4-week period and is 39 percent of the 6,831 cases reported for the corresponding 4-weeks in 1967 (Figure 1). The seasonal pattern of a gradual increase in the number of cases reported in each 4-week period since December 2, 1967, has ended, and the anticipated downward trend has begun.

The cumulative number of measles cases reported for the first 24 weeks of 1968 is 16,597. During the comparable 24-week period in 1967 the reported cases totaled 53,043. Similarly, for the previous 3 years (1966, 1965, and 1964) the totals were 172,735, 220,468, and 422,640, respectively. Based on reporting for the past 3 years, in which 84 percent of the reported cases occurred in the first 24 weeks, an estimate of the total cases for the year 1968 would be 19,700. With an increased emphasis on measles surveillance which may result in change of diagnosis and reduction in the cases reported (MMWR, Vol. 17, No. 24) and continued emphasis on immunization, this estimated yearly total could be reduced.

(Reported by State Services Section, and Statistics Section, Epidemiology Program, NCDC.)

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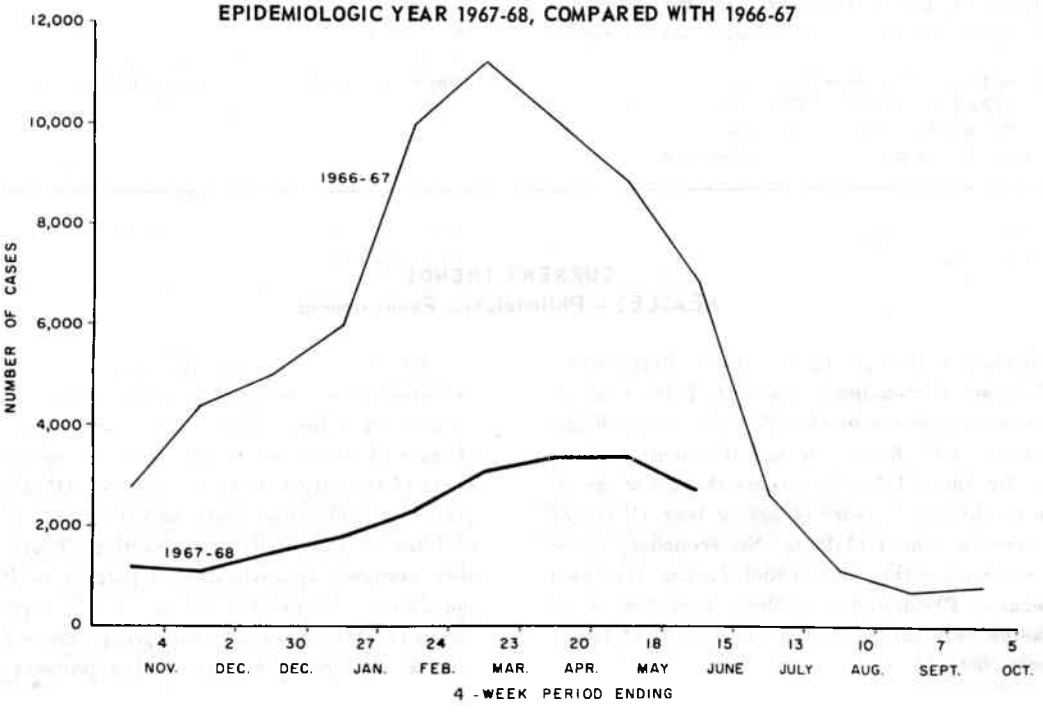
Figure 1
REPORTED CASES OF MEASLES BY 4-WEEK PERIODS – UNITED STATES
EPIDEMIOLOGIC YEAR 1967-68, COMPARED WITH 1966-67



EPIDEMIOLOGIC NOTES AND REPORTS
MEASLES – Los Angeles County, California

As part of the Los Angeles County Measles Surveillance Program, the 92 measles cases reported in Los Angeles County* for the period March 31 through June 1, 1968, have been investigated. The reporting source was contacted by telephone and when additional information was needed, the patient or his parent was also contacted. This follow-up study revealed that only 42 of the 92 reported cases had histories compatible with rubeola. Of these 42 measles cases, four were in children under 1 year of age, and the majority of cases (79 percent) occurred in children in the lower middle and lower socioeconomic groups (Table 1).

Table 1
Rubeola Cases in Los Angeles County, California, by Age and Socioeconomic Groups
March 31 – June 1, 1968

Age Group (Years)	Cases	Socioeconomic Group			
		Upper	Upper Middle	Lower Middle	Lower
Under 1	4				4
1-4	10		1	1	8
5-9	14		3	6	5
10-14	7	2		2	3
15 & over	7		3	4	
Total	42	2	7	13	20

Analysis of the 50 cases incorrectly reported as measles showed that the largest proportion of this group represented rubella cases (41). The diagnosis of the other nine cases was changed to allergy (3), chicken pox (2), scarlet fever (1), roseola (1), measles vaccine reaction (1), and pediculosis (1). The initial report was made by physicians in 11 cases and by nurses (usually school nurses who had not seen the patient) in the other 39 cases. Of the 41 cases in which the diagnosis was changed to rubella, 34 were reported as measles by the physician or nurse when each had meant German measles. In the other seven cases, the history of illness was typical of rubella, and therefore, the diagnosis was changed. The age distribution of the 41 cases of rubella (Table 2) revealed that nearly all the cases occurred in individuals in the second decade of life, a distribution typical of the natural occurrence of this disease.[1]

*Excluding Long Beach, Pasadena, and Vernon.

Table 2
Age Distribution of Rubella Cases in Los Angeles County, California, Originally Reported as Rubeola
March 31 – June 1, 1968

Age Group (Years)	Cases
Under 1	0
1-4	2
5-9	2
10-14	23
15-19	12
20-24	1
25-29	1
Total	41

(Reported by B. A. Kogen, M.D., Director, Immunization Project, and Chief, Acute Communicable Disease Control, and Gerald A. Heidbreder, M.D., Health Officer, Los Angeles County Health Department; Philip A. Condit, M.D., M.P.H., Chief, Bureau of Communicable Diseases, California State Department of Public Health; and an EIS Officer.)

Reference:
[1]Sever, J. L., et al: Rubella: Frequency of Antibody Among Children and Adults. Pediatrics *35*(6):996-998, 1965.

CURRENT TRENDS
MEASLES – Philadelphia, Pennsylvania

From January 1 through June 3, 1968, Philadelphia reported 37 cases of measles (Figure 2). This is an increase of 10 cases over the total of 27 cases reported from Philadelphia for 1967. Review of age distribution of reported cases for 1968 (Table 3) reveals that 23 of the 37 cases were in children 5 years of age or less. Of the 37 cases, 15 were in school children. No secondary cases have been reported within the school system this year probably because Philadelphia employs a system of intensive measles case follow-up and vaccination of family and classroom contacts.

Of the 37 cases reported this year, 28 (76 percent) occurred in residents of two contiguous health districts located in a low socioeconomic area of the center city (Figure 2); these two health districts reported 12 (44 percent) of the city's 27 cases in 1967. Of the 28 cases reported in 1968 from these two districts, 21 occurred in children of Puerto Rican extraction (Table 4). Although they compose approximately 2 percent of Philadelphia's population, 57 percent of the city's reported measles cases in 1968 occurred in this group. Since early 1967 the special children's health service projects which serve

Figure 2
REPORTED CASES OF MEASLES BY HEALTH DISTRICTS
PHILADELPHIA, PENNSYLVANIA
JANUARY 1 – JUNE 3, 1968

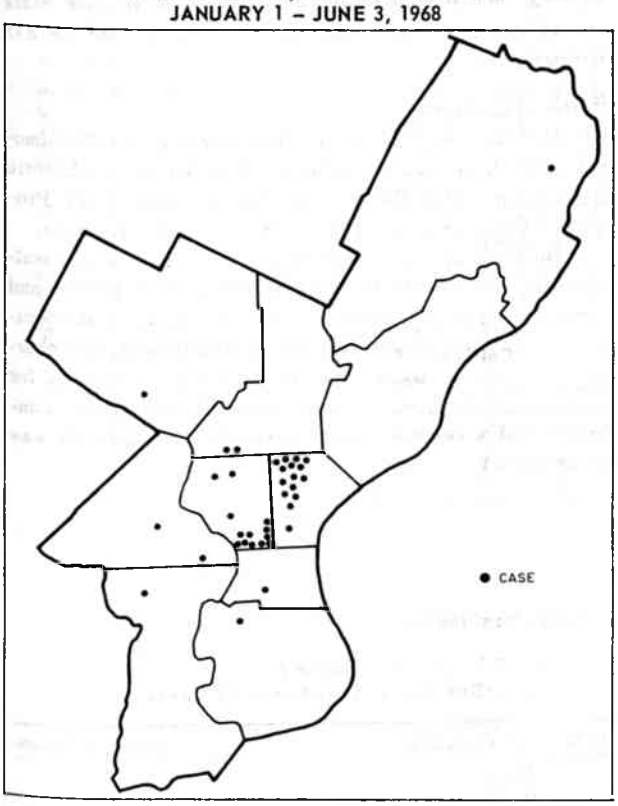


Table 3
Age Distribution of Reported Measles Cases

Age (Years)	Cases	Percent
Under 1	4	11
1-5	19	51
6-10	12	32
11-15	2	6
Over 15	0	0
Total	37	100

Table 4
Distribution of Reported Measles Cases
By Population Groups

Population Group	Cases	Percent
Puerto Rican	21	57
Negro	12	32
Other	4	11
Total	37	100

these two areas with the highest concentration of reported cases have become fully operational.

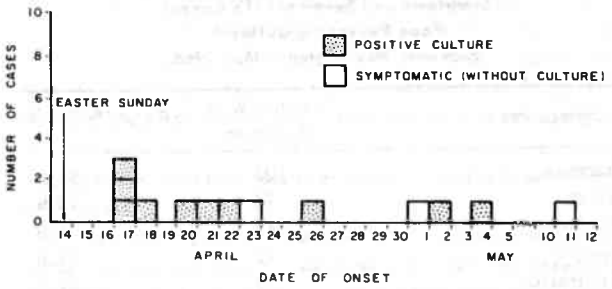
(Reported by Lewis D. Polk, M.D., Deputy Health Commissioner for Community Health Services, and Sylvan Fish, M.D., Chief of Communicable Disease Control, City of Philadelphia Health Department; and an EIS Officer.)

EPIDEMIOLOGIC NOTES AND REPORTS
SALMONELLOSIS – Wisconsin

From April 16 to May 12, 1968, 10 cases of gastroenteritis due to a dulcitol negative strain of *Salmonella typhimurium* occurred in nine families of three adjacent towns in northeastern Wisconsin (Figure 3). In addition to the 10 documented cases, another three cases of symptomatic diarrhea, not cultured bacteriologically, also occurred among the nine families. Infants in the families were apparently at greater risk when compared with older members since all children under the age of 5 years were affected while only three of 29 persons older than 5 years of age were symptomatic (Table 5). Of the 10 bacteriologically confirmed cases, six, all under 3 years of age, were hospitalized from 5 to 13 days. Four of the six infants had bloody diarrhea.

Epidemiologic investigation showed that all of the involved families had purchased Easter chicks or ducklings from a single pet store. A total of 650 chicks were supplied to the pet shop by a local hatchery. The hatchery also sold 600 other Easter chicks locally, but no cases of clinical illness could be traced to this source. Baby ducks were purchased by the pet shop from an Ohio dealer and

Figure 3
SALMONELLOSIS ASSOCIATED WITH EASTER CHICKS
AND DUCKS BY DATE OF ONSET
WISCONSIN – APRIL 14-MAY 12, 1968



were received in three separate lots of 100 each, arriving at the pet shop on April 2, 9, and 12, respectively.

On May 16, eight of the nine families were recultured. Of 27 specimens taken, eight were positive for the epidemic strain. In addition, cloacal swabs were taken from 13 chicks from the original 650 sold by the pet shop, and

(Continued on page 232)

SALMONELLOSIS – *(Continued from page 231)*

Table 5
Attack Rates for Diarrhea in Nine Families

Age Group (Years)	Number of Persons	Cases of Diarrhea	Attack Rate (Percent)
<5	10	10	100
5 - 15	8	1	12
>15	21	2	10
Total	39	13	33

the epidemic strain was recovered from two of these birds. Specimens from the cages where the chicks had been kept also yielded ducitol negative *S. typhimurium* as well as *S. tennessee* and *S. muenchen.*

(Reported by Grant Skinner, M.D., Chief, Section of Communicable Disease Control, Eleanor Christenson, Enteric Bacteriology Section, and Frank Pauls, Ph.D., Assistant Director, State Laboratory of Hygiene, Wisconsin State Department of Health and Social Services; and an EIS Officer.)

Editorial Comment:

In 1966 and 1967, in a selected group of 803 salmonella non-host adapted strains submitted to the Enteric Bacteriology Unit, Bacteriology Section, Laboratory Program, NCDC, 18 or 2.2 percent were dulcitol negative.

Because of the infrequency of dulcitol negative salmonella, the Wisconsin State Department of Health and Social Services was alerted to the possibility of this epidemic when they began to recover strains with this characteristic in specimens sent to their state laboratory for analysis. Subsequent epidemiologic investigation confirmed that a common source outbreak of salmonella was occurring.

FOOD POISONING – Spokane, Washington

An outbreak of food poisoning occurred in Spokane, Washington, following a convention banquet at a large hotel on May 4. Of the 1,052 persons who ate the banquet meal, 784 (75 percent) were questioned and 113 reported being ill, yielding an overall attack rate of 14.4 percent. The major symptoms of illness were diarrhea and abdominal cramps (Table 6). The mean incubation period was 13 hours with a range from 2 to 29 hours (Figure 4), and the durations of illness (determined by diarrhea) ranged from 3 to 99 hours with a median of 12 to 24 hours (Table 7). Four persons consulted a physician, and no one was hospitalized.

Analysis of food histories obtained from the 784 persons suggested prime rib as the vehicle of infection (Table 8). Samples of all food items served at the banquet were obtained for culture. The prime rib contained greater than 18 million *Clostridium perfringens* per gm and the prime rib au jus had in excess of 30 million per gm. *C. perfringens,* type 89, was present in four of five specimens from the roast beef served at the banquet, an untypable strain was present in two of the five, and Hobbs, type 13, was present in the prime rib au jus in addition to the other two types. No pathogens were isolated from the other foods. Samples of prime rib obtained within 1 month after the outbreak from two of the three packing houses supplying the hotel were also positive for *C. perfringens,* but types are not yet known for these isolates.

Of 19 stool specimens cultured for organisms, 11 were positive for *C. perfringens,* type 89, two specimens were positive for *C. perfringens* which were not agglutinated by available typing sera, and six were negative for *C. perfringens.* Of the 113 ill persons, 10 cases reported no diarrhea, but they did have abdominal cramps and/or nausea. Some of the 10 were positive for *C. perfringens,* type 89.

Questioning of the people seemed to indicate that people from Spokane City and County had a higher attack rate

Table 6
Symptoms and Severity (113 Cases)
Food Poisoning Outbreak
Spokane, Washington – May 1968

Symptoms	Number With Symptom	Percent
Diarrhea	103	91.2
Cramps	76	72.6
Headache	44	38.9
Nausea	42	37.0
Prostration	39	34.5
Chills	29	25.7
Sweating	15	13.3
Muscle aches	14	12.4
Vomiting	11	9.7
Fever	8	7.1
Documented Fever	2	1.8
Bloody Diarrhea	1	0.9

Table 7
Duration of Diarrhea in 83 Cases

Duration of Diarrhea	Number of Cases
(Hours)	
0 - 12	27
12 - 24	27
24 - 36	4
36 - 48	16
48 - 60	1
60 - 72	5
72 or more	3
Total	83

Figure 4
HOURS FROM BANQUET TO ONSET OF SYMPTOMS (85 CASES)
FOOD POISONING OUTBREAK
SPOKANE, WASHINGTON – MAY 1968

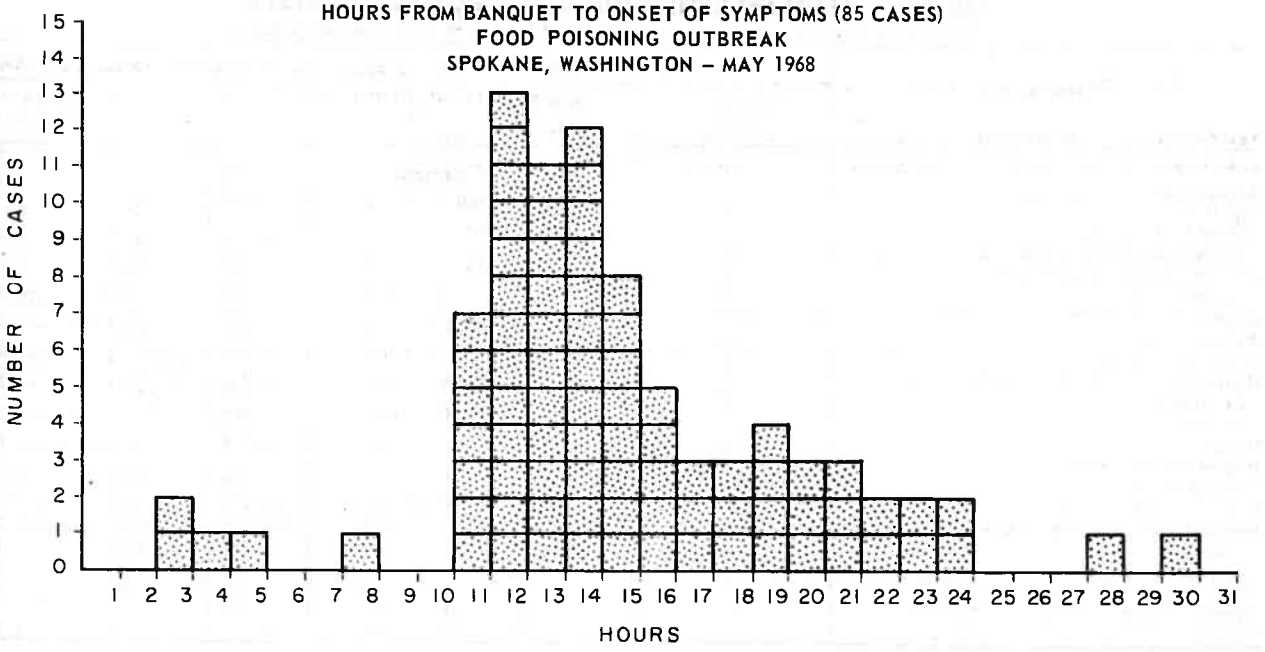


Table 8
Summary of Food Histories – Food Poisoning Outbreak
Spokane, Washington – May 1968

Food	Ate				Did Not Eat				Percent Difference
	Number Ill	Number Not Ill	Total Number	Attack Rate Percent	Number Ill	Number Not Ill	Total Number	Attack Rate Percent	
Crab Cocktail	102	478	580	17.6	11	193	204	5.4	12.2
Green Salad	92	446	538	17.1	21	225	246	9.3	7.8
Baked Potato	103	478	581	17.7	10	193	203	4.9	12.8
Prime Rib	113	643	756	14.9	0	28	28	0.0	14.9
String Beans	102	479	581	17.6	11	192	203	5.4	12.2
Hard Roll	86	424	510	16.9	27	247	274	9.9	7.0
Chocolate Eclair	90	429	519	17.3	23	242	265	9.5	7.8
Milk	34	123	157	21.7	79	548	627	12.6	9.1
Coffee	87	423	510	17.1	26	248	274	9.5	7.6

than people from other parts of the state. When this possibility was investigated, it was learned that the banquet was held in several dining rooms and at different times, 7-8 p.m., 8-9 p.m., and 9-10 p.m., and that the group from Spokane City and County ate in one dining area (Area A) and at a later time (8-10 p.m.) than the other groups. When attack rates were obtained for location and time of eating, Area A had higher attack rates than the other areas. Investigation of the foods served in the various dining areas revealed that all foods came from the same source. All the meat for Area A and the major portion of the meat for the main dining room were obtained from 30 roasts which were handled uniformly until completion of slicing. Then approximately 150 servings went to Area A and the other 450 went to the main dining room. The roast beef in dining Area A had not been placed in warmers after slicing while that served in the main dining room had been placed in warmers. The lack of warming combined with the late serving (40 to 120 minutes after slicing) may explain the higher attack rate in dining Area A. The data suggest that the beef may have been uniformly contaminated originally and that handling procedures after cooking were responsible for the differing attack rates in the various dining areas. Appropriate remedial changes in kitchen procedures have been made.

(Reported by Byron J. Francis, M.D., Acting Chief, Division of Epidemiology, and James A. Bessey, Advisory Sanitarian, Division of Environmental Services, Washington State Department of Health; Stuart A. Davis, M.D., Spokane City Health Officer, and Roy Olson, Supervising Sanitarian, Spokane City Health Department; E.O. Ploeger, M.D., M.P.H., Spokane County Health Officer; Anaerobic Bacteriology Laboratory, Bacterial Reference Unit, Laboratory Program, NCDC; and a team of EIS Officers.)

TABLE I. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

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

DISEASE	25th WEEK ENDED		MEDIAN	CUMULATIVE, FIRST 25 WEEKS		
	June 22, 1968	June 24, 1967	1963 - 1967	1968	1967	MEDIAN 1963 - 1967
Aseptic meningitis	78	57	37	832	848	722
Brucellosis	7	8	7	78	125	125
Diphtheria	—	3	3	86	53	79
Encephalitis, primary:						
Arthropod-borne & unspecified	18	35	- - -	4,121	635	- - -
Encephalitis, post-infectious	8	32	- - -	263	449	- - -
Hepatitis, serum	100	64	577	1,952	984	20,117
Hepatitis, infectious	895	679		21,066	19,133	
Malaria	31	52	4	1,001	963	45
Measles (rubeola)	522	888	3,999	17,119	53,931	224,467
Meningococcal infections, total	65	34	50	1,617	1,380	1,555
Civilian	59	28	- - -	1,460	1,276	- - -
Military	6	6	- - -	157	104	- - -
Mumps	2,128	- - -	- - -	114,074	- - -	- - -
Poliomyelitis, total	—	1	1	19	11	19
Paralytic	—	—	1	19	9	17
Rubella (German measles)	1,307	1,232	- - -	38,970	35,972	- - -
Streptococcal sore throat & scarlet fever	5,438	6,093	5,498	251,479	271,975	246,225
Tetanus	6	5	7	64	86	107
Tularemia	5	3	5	86	71	114
Typhoid fever	7	6	9	134	183	172
Typhus, tick-borne (Rky. Mt. spotted fever)	13	13	15	75	80	69
Rabies in animals	51	80	90	1,776	2,231	2,231

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	2	Rabies in man:	—
Botulism:	1	Rubella, Congenital Syndrome:	3
Leptospirosis:	13	Trichinosis:	35
Plague:	—	Typhus, murine:	6
Psittacosis: Tex.-3, Calif.-1	23		

INTERNATIONAL NOTES

OUTBREAKS OF PESTICIDE POISONING[1] – Middle East

During June and July 1967, four separate outbreaks of pesticide poisoning occurred in the Middle East. The first three outbreaks were in Doha, Qatar, and the fourth was in Hofuf, Saudi Arabia. Of the persons exposed, 874 persons were hospitalized and 26 of these persons died (Table 9); it was estimated that another 500 to 750 people were also poisoned but that their symptoms were not severe enough for them to seek medical care or hospitalization. The poisonings were caused by ingesting bread made from flour contaminated with endrin.*

The patients' symptoms included headache, abdominal discomfort, nausea and dizziness, sudden loss of consciousness, vomiting, and convulsions – symptoms compatible with acute chlorinated hydrocarbon intoxications (Table 10). Onset of symptoms occurred an average of 2.3 hours after ingesting the contaminated bread at the breakfast meal with a range from 30 minutes to 10 hours. In the outbreaks, more males seemed to be affected than females (Table 11). The exact reasons for this male preponderance were not known, but it was postulated that often the wage-earner ate a larger breakfast than the other family members and possibly ingested more of the chemical.

Epidemiologic investigation showed that the source of exposure was bread contaminated with endrin. Laboratory analysis found the bread, flour used to make the bread, and the flour sacks to be contaminated with endrin. Although the flour had been transported to the countries in two separate ships, both ships involved had also, on the

Table 9

Summary of Number of Persons Hospitalized and Deaths in Four Outbreaks

Outbreak	Date (1967)	Number of Persons Hospitalized	Number of Deaths	Fatality Rate (Percent)
First Doha	June 3-5	490	7	1.4
Second Doha	July 2	13	0	0.0
Third Doha	July 3-4	188	17	9.5
Hofuf	July 14-15	183	2	0.4
Total		874	26	3.1

Table 10
Most Common Symptoms Given by Persons in Two of the Four Outbreaks

Symptoms	Percentage with Indicated Symptoms	
	First Doha Outbreak (Number of Persons Interviewed-110)	Hofuf Outbreak (Number of Persons Interviewed-54)
Vomiting	69	83
Convulsions	65	67
Abdominal Disconfort	48	19
Nausea and Dizziness	38	28
Headache	60	2
Sudden Loss of Consciousness	5	4

same voyage, carried large shipments of the chemical. Investigation showed that the endrin was stored above the flour on both ships and that the endrin had leaked through faulty containers onto the flour.

The governments of both Qatar and Saudi Arabia have taken the following steps to prevent a similar incident in the future: (1) All foodstuffs are to be inspected before delivery of the food is accepted. This inspection requires that the ship's captain provide a list of dangerous goods carried on board the ship, that the cargo as well as stowage diagrams be examined to determine the presence and location of toxic chemicals on the ship, and that a sanitary inspector verify the cargo and inspect it for any contamination of foodstuffs that may have occurred. (2) Foodstuffs accepted for delivery are to be brought from the ship to shore in one of three barges painted white to designate for food only.

(Reported by Pesticides Program, NCDC.)

Reference:
[1]Weeks, D.E.: Endrin Food Poisoning. Bull Wld Hlth Org 37:499-512, 1967.

*Endrin is 1,2,3,4,10, 10-hexachloro-6,7 epoxy-1,4,4a,6.7,8,8a-octahydro-1-4-endo-endo-5-8-dimethanonaphthalene, an insecticide used in agriculture against soil and foliage insects.

Table 11
Sex Distribution of Hospitalized Persons in Three of the Four Outbreaks

Sex	Percentage of Each Sex		
	First Doha Outbreak (Number of Persons Interviewed-110)	Third Doha Outbreak (Number of Persons Interviewed-169)	Hofuf Outbreak (Number of Persons Interviewed-54)
Male	63	68	69
Female	37	32	31

SURVEILLANCE SUMMARY
HUMAN LEPTOSPIROSIS – United States 1967*

Although no outbreaks of human leptospirosis were reported to NCDC in 1967, 51 separate cases of human leptospirosis were reported. The 51 cases were distributed among 16 states with California and Hawaii reporting nine cases each, Louisiana reporting eight cases**, and Iowa reporting seven cases; 12 other states reported three or fewer cases.

Additional information was submitted to NCDC on 43 of these 51 cases. Evaluation of the 43 cases by date of onset showed that July, August, and September were the months of highest incidence with six, eight, and six cases, respectively (Table 12). Analysis of the sex distribution of these 43 cases revealed that the majority of cases occurred in males (32 of 43 cases) (Table 13). Age was known in 38 of the 43 cases. Among males, the 10 to19-year and the 50 to 59-year age groups each had 6 cases,

*Preliminary data.
**In addition to the eight cases reported from Louisiana with dates of onset in 1967, Louisiana reported two cases with onset of illness in 1966.

Table 12
Monthly Distribution of Human Leptospirosis by Date of Onset
United States, 1967

Month	Number of Cases
January	2
February	2
March	3
April	1
May	3
June	1
July	6
August	8
September	6
October	1
November	1
December	1
Unknown	8
Total	43

(Continued on page 240)

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

JUNE 22, 1968 AND JUNE 24, 1967 (25th WEEK)

AREA	ASEPTIC MENINGITIS		BRUCELLOSIS	DIPHTHERIA	ENCEPHALITIS			HEPATITIS			MALARIA
					Primary including unsp. cases		Post-Infectious	Serum	Infectious		
	1968	1967	1968	1968	1968	1967	1968	1968	1968	1967	1968
UNITED STATES...	78	57	7	-	18	35	8	100	895	679	31
NEW ENGLAND.....	-	-	-	-	-	1	1	3	42	25	1
Maine.....	-	-	-	-	-	-	-	-	2	3	-
New Hampshire*.....	-	-	-	-	-	-	-	-	-	1	-
Vermont.....	-	-	-	-	-	-	-	-	-	-	-
Massachusetts.....	-	-	-	-	-	-	-	2	25	13	-
Rhode Island.....	-	-	-	-	-	1	-	1	7	3	-
Connecticut.....	-	-	-	-	-	-	1	-	8	5	1
MIDDLE ATLANTIC.....	8	5	-	-	3	9	-	34	166	109	8
New York City.....	1	-	-	-	1	2	-	29	60	50	3
New York, Up-State.	1	1	-	-	-	1	-	2	16	26	-
New Jersey.....	6	3	-	-	1	3	-	1	40	12	3
Pennsylvania.....	-	1	-	-	1	3	-	2	50	21	2
EAST NORTH CENTRAL...	6	5	-	-	8	9	1	5	151	103	1
Ohio.....	4	2	-	-	1	5	1	3	48	26	-
Indiana.....	-	-	-	-	4	3	-	-	11	7	-
Illinois.....	1	2	-	-	2	-	-	-	33	36	1
Michigan.....	1	1	-	-	1	1	-	2	43	25	-
Wisconsin.....	-	-	-	-	-	-	-	-	16	9	-
WEST NORTH CENTRAL...	-	-	1	-	-	-	-	1	45	53	3
Minnesota.....	-	-	-	-	-	-	-	1	16	13	-
Iowa.....	-	-	-	-	-	-	-	-	6	5	1
Missouri.....	-	-	-	-	-	-	-	-	13	29	1
North Dakota.....	-	-	-	-	-	-	-	-	3	1	-
South Dakota	-	-	1	-	-	-	-	-	1	-	-
Nebraska.....	-	-	-	-	-	-	-	-	3	-	-
Kansas.....	-	-	-	-	-	-	-	-	3	5	1
SOUTH ATLANTIC.....	11	5	4	-	2	5	-	3	68	69	5
Delaware.....	-	-	-	-	-	-	-	-	-	3	-
Maryland.....	3	-	-	-	1	-	-	2	25	14	-
Dist. of Columbia..	-	-	-	-	-	-	-	1	2	1	-
Virginia.....	-	-	2	-	-	-	-	-	5	14	2
West Virginia.....	3	1	-	-	-	-	-	-	12	5	1
North Carolina.....	-	1	1	-	1	4	-	-	3	9	1
South Carolina.....	-	-	-	-	-	-	-	-	1	2	-
Georgia.....	-	-	-	-	-	-	-	-	2	7	-
Florida.....	5	3	1	-	-	1	-	-	18	14	1
EAST SOUTH CENTRAL...	4	8	1	-	-	1	-	3	35	43	2
Kentucky.....	-	-	-	-	-	-	-	-	14	15	-
Tennessee.....	-	6	1	-	-	1	-	3	17	18	-
Alabama.....	1	2	-	-	-	-	-	-	1	2	1
Mississippi.....	3	-	-	-	-	-	-	-	3	8	1
WEST SOUTH CENTRAL...	28	8	-	-	3	2	-	-	74	90	-
Arkansas.....	-	-	-	-	-	-	-	-	14	4	-
Louisiana.....	22	3	-	-	2	2	-	-	13	11	-
Oklahoma.....	-	-	-	-	-	-	-	-	8	9	-
Texas.....	6	5	-	-	1	-	-	-	39	66	-
MOUNTAIN.....	-	-	-	-	-	2	-	3	67	31	-
Montana.....	-	-	-	-	-	-	-	-	5	1	-
Idaho.....	-	-	-	-	-	-	-	-	1	2	-
Wyoming.....	-	-	-	-	-	-	-	-	1	5	-
Colorado.....	-	-	-	-	-	1	-	2	42	6	-
New Mexico.....	-	-	-	-	-	-	-	-	10	10	-
Arizona.....	-	-	-	-	-	-	-	-	5	3	-
Utah.....	-	-	-	-	-	-	-	1	3	4	-
Nevada.....	-	-	-	-	-	1	-	-	-	-	-
PACIFIC.....	21	26	1	-	2	6	6	48	247	156	11
Washington.....	1	-	-	-	-	-	-	-	16	8	4
Oregon.....	-	1	-	-	-	-	-	2	9	6	1
California.....	19	21	1	-	2	5	6	46	221	137	6
Alaska.....	-	-	-	-	-	-	-	-	-	5	-
Hawaii.....	1	4	-	-	-	1	-	-	1	-	-
Puerto Rico.....	-	-	-	-	-	-	-	-	24	23	-

*Delayed Reports: Hepatitis, infectious: N.H. 1

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

JUNE 22, 1968 AND JUNE 24, 1967 (25th WEEK) - CONTINUED

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS	POLIOMYELITIS			RUBELLA
		Cumulative			Cumulative			Total	Paralytic		
	1968	1968	1967	1968	1968	1967	1968	1968	1968	Cum. 1968	1968
UNITED STATES...	522	17,119	53,931	65	1,617	1,380	2,128	-	-	19	1,307
NEW ENGLAND.....	47	985	744	6	86	57	247	-	-	-	365
Maine.*.....	-	30	221	-	6	3	13	-	-	-	18
New Hampshire*.....	-	113	72	-	7	2	1	-	-	-	1
Vermont.....	-	1	28	-	1	-	11	-	-	-	1
Massachusetts*.....	24	315	282	2	37	29	119	-	-	-	167
Rhode Island.....	-	1	60	-	7	4	32	-	-	-	39
Connecticut.....	23	525	81	4	28	19	71	-	-	-	139
MIDDLE ATLANTIC.....	191	3,103	1,992	11	279	210	217	-	-	-	256
New York City.....	120	1,378	368	2	57	36	119	-	-	-	158
New York, Up-State.	40	1,073	442	1	44	51	NN	-	-	-	32
New Jersey*.....	22	508	463	6	102	80	98	-	-	-	59
Pennsylvania.....	9	144	719	2	76	43	NN	-	-	-	7
EAST NORTH CENTRAL...	67	3,441	4,841	13	188	176	435	-	-	-	224
Ohio.....	9	270	1,089	6	51	62	53	-	-	-	47
Indiana.....	9	601	550	3	26	21	48	-	-	-	12
Illinois.....	22	1,286	845	-	39	43	62	-	-	-	79
Michigan.....	11	228	852	4	56	38	-	-	-	-	40
Wisconsin.....	16	1,056	1,505	-	16	12	272	-	-	-	46
WEST NORTH CENTRAL...	13	345	2,677	5	83	63	41	-	-	-	35
Minnesota.....	-	15	125	1	19	15	25	-	-	-	-
Iowa.....	5	86	725	-	5	12	-	-	-	-	25
Missouri.....	4	80	300	4	30	12	2	-	-	-	3
North Dakota.....	4	117	782	-	3	1	-	-	-	-	1
South Dakota.....	-	4	47	-	4	6	NN	-	-	-	-
Nebraska.....	-	35	606	-	6	11	1	-	-	-	1
Kansas.....	-	8	92	-	16	6	13	-	-	-	5
SOUTH ATLANTIC.....	45	1,256	6,344	15	338	264	165	-	-	-	129
Delaware.....	-	12	40	-	5	5	5	-	-	-	34
Maryland.....	6	79	127	1	23	32	29	-	-	-	6
Dist. of Columbia..	-	6	20	1	13	9	10	-	-	-	1
Virginia.....	1	261	1,930	4	27	27	22	-	-	-	21
West Virginia.....	2	210	1,297	-	8	20	45	-	-	-	18
North Carolina.....	8	273	834	2	67	53	NN	-	-	-	-
South Carolina.....	-	12	486	-	54	24	-	-	-	-	-
Georgia.....	-	4	29	1	60	43	-	-	-	-	-
Florida.....	28	399	1,581	6	81	51	54	-	-	-	49
EAST SOUTH CENTRAL...	3	498	4,853	5	139	117	200	-	-	-	48
Kentucky.....	1	165	1,254	-	51	34	73	-	-	-	21
Tennessee.....	-	54	1,671	2	48	47	118	-	-	-	18
Alabama.....	2	71	1,281	2	20	24	9	-	-	-	9
Mississippi.....	-	208	647	1	20	12	-	-	-	-	-
WEST SOUTH CENTRAL...	79	4,326	16,561	3	266	197	208	-	-	11	44
Arkansas.....	-	2	1,400	-	15	25	-	-	-	-	-
Louisiana.....	-	2	143	1	72	78	1	-	-	-	5
Oklahoma.....	-	109	3,311	-	48	13	-	-	-	-	-
Texas.....	79	4,213	11,707	2	131	81	207	-	-	11	39
MOUNTAIN.....	26	895	4,243	-	24	25	90	-	-	-	36
Montana.....	-	66	268	-	2	-	8	-	-	-	1
Idaho.....	-	16	359	-	10	1	4	-	-	-	-
Wyoming.....	-	49	168	-	-	1	-	-	-	-	-
Colorado.....	22	458	1,383	-	7	10	16	-	-	-	12
New Mexico.....	1	81	552	-	-	3	1	-	-	-	6
Arizona.....	3	199	922	-	1	4	40	-	-	-	16
Utah.....	-	21	322	-	1	4	21	-	-	-	1
Nevada.....	-	5	269	-	3	2	-	-	-	-	-
PACIFIC.....	51	2,270	11,676	7	214	271	525	-	-	8	170
Washington.....	5	512	5,356	1	36	24	10	-	-	-	6
Oregon.....	15	432	1,469	-	16	24	10	-	-	-	11
California.....	31	1,291	4,595	6	150	212	489	-	-	8	147
Alaska.....	-	1	124	-	1	9	5	-	-	-	1
Hawaii.....	-	34	132	-	11	2	11	-	-	-	5
Puerto Rico.....	16	331	1,917	1	18	9	18	-	-	-	-

*Delayed Reports: Measles: Mass. delete 16, N.J. delete 4
Mumps: Me. 5, N.H. 1
Rubella: Me. 4

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
JUNE 22, 1968 AND JUNE 24, 1967 (25th WEEK) - CONTINUED

AREA	STREPTOCOCCAL SORE THROAT & SCARLET FEVER	TETANUS		TULAREMIA		TYPHOID		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
	1968	1968	Cum. 1968	1968	Cum. 1968	1968	Cum. 1968	1968	Cum. 1968	1968	Cum. 1968
UNITED STATES...	5,438	6	64	5	86	7	134	13	75	51	1,776
NEW ENGLAND.....	1.057	-	1	-	40	-	4	-	-	1	61
Maine.*.....	18	-	-	-	-	-	-	-	-	-	50
New Hampshire.*....	-	-	-	-	-	-	-	-	-	-	2
Vermont.....	19	-	-	-	40	-	-	-	-	-	7
Massachusetts.....	159	-	-	-	-	-	2	-	-	-	1
Rhode Island.....	77	-	-	-	-	-	-	-	-	-	-
Connecticut.....	784	-	1	-	-	-	2	-	-	1	1
MIDDLE ATLANTIC.....	240	-	9	-	3	1	12	1	5	-	15
New York City.....	13	-	5	-	-	1	7	-	-	-	-
New York, Up-State.	214	-	4	-	3	-	2	-	1	-	11
New Jersey.....	NN	-	-	-	-	-	-	-	-	-	-
Pennsylvania.....	13	-	-	-	-	-	3	1	4	-	4
EAST NORTH CENTRAL...	535	-	8	-	6	-	21	1	3	5	160
Ohio.....	152	-	-	-	1	-	11	1	2	3	65
Indiana.....	113	-	1	-	-	-	1	-	-	1	57
Illinois.....	79	-	5	-	4	-	8	-	1	-	17
Michigan.....	144	-	2	-	1	-	-	-	-	-	9
Wisconsin.....	47	-	-	-	-	-	1	-	-	1	12
WEST NORTH CENTRAL...	115	-	2	-	6	2	7	-	2	12	400
Minnesota.....	20	-	-	-	-	-	-	-	-	2	111
Iowa.....	26	-	-	-	-	1	1	-	-	1	74
Missouri.....	3	-	2	-	4	-	3	-	-	4	72
North Dakota.....	43	-	-	-	-	-	-	-	-	2	67
South Dakota.....	3	-	-	-	1	-	1	-	1	-	34
Nebraska.....	20	-	-	-	-	1	2	-	1	1	20
Kansas.....	-	-	-	-	1	-	-	-	-	2	22
SOUTH ATLANTIC.....	574	1	12	-	5	1	36	6	45	8	203
Delaware.*.....	-	-	-	-	-	-	-	-	-	-	-
Maryland.....	119	1	1	-	-	1	6	1	4	-	3
Dist. of Columbia..	25	-	1	-	-	-	1	-	-	-	-
Virginia.....	179	-	2	-	1	-	7	3	20	1	83
West Virginia.....	123	-	1	-	-	-	-	-	-	-	26
North Carolina.....	4	-	2	-	2	-	2	2	14	1	8
South Carolina.....	2	-	1	-	-	-	-	-	1	-	-
Georgia.....	3	-	-	-	1	-	9	-	4	3	28
Florida.....	119	-	4	-	1	-	11	-	2	3	55
EAST SOUTH CENTRAL...	778	1	9	-	6	-	15	-	8	8	437
Kentucky.....	54	-	1	-	1	-	2	-	1	6	206
Tennessee.....	649	-	2	-	4	-	10	-	5	2	212
Alabama.....	37	1	3	-	-	-	-	-	1	-	19
Mississippi.....	38	-	3	-	1	-	3	-	1	-	-
WEST SOUTH CENTRAL...	386	4	11	4	15	1	10	4	10	9	327
Arkansas.....	2	3	4	-	1	-	1	-	-	2	38
Louisiana.....	6	1	5	2	3	-	1	-	-	1	31
Oklahoma.....	24	-	-	1	3	-	2	-	4	2	101
Texas.....	354	-	2	1	8	1	6	4	6	4	157
MOUNTAIN.....	854	-	-	-	4	-	9	-	1	1	39
Montana.....	8	-	-	-	-	-	-	-	-	-	-
Idaho.....	58	-	-	-	-	-	-	-	-	-	-
Wyoming.....	9	-	-	-	1	-	1	-	-	-	2
Colorado.....	445	-	-	-	1	-	2	-	1	-	1
New Mexico.....	145	-	-	-	-	-	6	-	-	1	18
Arizona.....	88	-	-	-	-	-	-	-	-	-	18
Utah.....	101	-	-	-	2	-	-	-	-	-	-
Nevada.....	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	899	-	12	1	1	2	20	1	1	7	134
Washington.....	138	-	-	-	-	-	-	-	-	-	-
Oregon.....	76	-	1	1	1	1	3	-	-	-	3
California.....	624	-	11	-	-	1	17	1	1	7	131
Alaska.....	17	-	-	-	-	-	-	-	-	-	-
Hawaii.....	44	-	-	-	-	-	-	-	-	-	-
Puerto Rico.....	3	-	5	-	-	1	1	-	-	1	16

*Delayed Reports: SST: Me. 5, N.H. 7, Del. 1

Week No. 25

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED JUNE 22, 1968

(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:	710	420	31	29
Boston, Mass.	217	113	14	16
Bridgeport, Conn.	54	44	5	3
Cambridge, Mass.	29	16	-	2
Fall River, Mass.	22	17	2	-
Hartford, Conn.	69	41	2	1
Lowell, Mass.	25	11	1	-
Lynn, Mass.	15	12	1	2
New Bedford, Mass.	17	12	1	-
New Haven, Conn.	60	31	1	1
Providence, R. I.	58	29	-	2
Somerville, Mass.	16	9	-	-
Springfield, Mass.	49	30	-	1
Waterbury, Conn.	18	14	-	-
Worcester, Mass.	61	41	4	1
MIDDLE ATLANTIC:	3,086	1,782	115	132
Albany, N. Y.	41	17	1	3
Allentown, Pa.	38	21	-	4
Buffalo, N. Y.	129	65	5	7
Camden, N. J.	45	24	3	4
Elizabeth, N. J.	33	20	2	1
Erie, Pa.	45	28	1	3
Jersey City, N. J.	53	25	1	3
Newark, N. J.	65	34	5	5
New York City, N. Y.	1,492	851	54	59
Paterson, N. J.	38	24	2	1
Philadelphia, Pa.	508	299	11	23
Pittsburgh, Pa.	212	119	7	10
Reading, Pa.	51	35	2	-
Rochester, N. Y.	92	61	5	6
Schenectady, N. Y.	24	15	2	-
Scranton, Pa.	52	35	4	-
Syracuse, N. Y.	66	49	-	1
Trenton, N. J.	54	29	4	1
Utica, N. Y.	15	7	3	1
Yonkers, N. Y.	33	24	3	-
EAST NORTH CENTRAL:	2,573	1,479	84	106
Akron, Ohio	73	41	-	1
Canton, Ohio	38	18	1	2
Chicago, Ill.	757	425	29	33
Cincinnati, Ohio	140	89	1	3
Cleveland, Ohio	202	103	4	5
Columbus, Ohio	138	72	4	7
Dayton, Ohio	99	51	2	7
Detroit, Mich.	316	177	13	10
Evansville, Ind.	49	33	2	1
Flint, Mich.	60	29	-	3
Fort Wayne, Ind.	56	39	2	3
Gary, Ind.	31	12	2	4
Grand Rapids, Mich.	84	61	4	2
Indianapolis, Ind.	127	80	1	5
Madison, Wis.	28	16	5	2
Milwaukee, Wis.	119	70	1	9
Peoria, Ill.	30	16	-	3
Rockford, Ill.	30	20	4	2
South Bend, Ind.	31	22	2	-
Toledo, Ohio	101	60	5	3
Youngstown, Ohio	64	45	2	1
WEST NORTH CENTRAL:	829	490	17	47
Des Moines, Iowa	64	47	3	2
Duluth, Minn.	25	14	-	-
Kansas City, Kans.	46	19	3	6
Kansas City, Mo.	132	89	1	6
Lincoln, Nebr.	36	19	2	2
Minneapolis, Minn.	110	65	1	5
Omaha, Nebr.	73	36	-	7
St. Louis, Mo.	218	126	6	16
St. Paul, Minn.	77	46	-	1
Wichita, Kans.	48	29	1	2
SOUTH ATLANTIC:	1,148	614	38	39
Atlanta, Ga.	109	55	1	7
Baltimore, Md.	230	136	3	4
Charlotte, N. C.	49	20	2	-
Jacksonville, Fla.	60	28	1	3
Miami, Fla.	124	57	-	4
Norfolk, Va.	45	16	4	3
Richmond, Va.	84	51	1	2
Savannah, Ga.	41	18	4	3
St. Petersburg, Fla.	97	77	2	1
Tampa, Fla.	66	35	11	2
Washington, D. C.	177	82	5	6
Wilmington, Del.	66	39	4	4
EAST SOUTH CENTRAL:	652	335	26	29
Birmingham, Ala.	101	60	-	4
Chattanooga, Tenn.	33	17	-	3
Knoxville, Tenn.	43	25	3	1
Louisville, Ky.	156	87	10	4
Memphis, Tenn.	134	68	4	5
Mobile, Ala.	39	18	3	4
Montgomery, Ala.	51	19	2	4
Nashville, Tenn.	95	41	4	4
WEST SOUTH CENTRAL:	1,222	625	40	106
Austin, Tex.	52	30	7	3
Baton Rouge, La.	51	33	3	3
Corpus Christi, Tex.	24	13	-	3
Dallas, Tex.	159	76	1	17
El Paso, Tex.	28	8	1	6
Fort Worth, Tex.	100	51	1	7
Houston, Tex.	244	116	3	26
Little Rock, Ark.	75	33	5	3
New Orleans, La.	156	80	4	7
Oklahoma City, Okla.	86	40	4	9
San Antonio, Tex.	113	58	4	13
Shreveport, La.	70	45	3	7
Tulsa, Okla.	64	42	4	2
MOUNTAIN:	419	228	15	28
Albuquerque, N. Mex.	37	19	2	4
Colorado Springs, Colo.	29	18	4	2
Denver, Colo.	127	69	2	11
Ogden, Utah	14	5	-	-
Phoenix, Ariz.	88	52	2	7
Pueblo, Colo.	21	13	1	-
Salt Lake City, Utah	56	24	3	4
Tucson, Ariz.	47	28	1	-
PACIFIC:	1,549	900	25	82
Berkeley, Calif.	13	8	-	-
Fresno, Calif.	47	23	1	3
Glendale, Calif.	26	16	-	2
Honolulu, Hawaii	44	13	1	7
Long Beach, Calif.	92	56	3	6
Los Angeles, Calif.	448	272	11	19
Oakland, Calif.	80	49	2	2
Pasadena, Calif.	33	25	-	1
Portland, Oreg.	121	78	1	4
Sacramento, Calif.	55	29	1	4
San Diego, Calif.	99	51	-	8
San Francisco, Calif.	199	111	2	9
San Jose, Calif.	61	38	-	2
Seattle, Wash.	157	86	3	12
Spokane, Wash.	46	28	-	2
Tacoma, Wash.	28	17	-	1
Total	12,188	6,873	391	598

Cumulative Totals
including reported corrections for previous weeks

All Causes, All Ages	328,260
All Causes, Age 65 and over	191,421
Pneumonia and Influenza, All Ages	14,400
All Causes, Under 1 Year of Age	14,973

HUMAN LEPTOSPIROSIS – *(Continued from page 235)*

and among females, the 0 to 9-year age group had the highest incidence with five cases (Table 13). In the cases where history of exposure and/or contact was available, the greatest number of cases were in persons who were exposed in their homes to cats and dogs (9 cases), or rodents (4 cases). Two cases with suspected rodent exposure occurred in military personnel returning from Vietnam. Accidental exposure in the laboratory accounted for two other cases, and in another three cases, cattle and swine were incriminated as possible infectious sources.

In 37 cases, the presumptive infecting serotype was established by supportive clinical, epidemiologic, or laboratory findings. The most frequently reported serotype in 1967 was *Leptospira canicola* with 19 cases (Table 14).

Table 13
Cases of Leptospirosis by Sex and Age Distribution
United States, 1967

Age Group	Sex		Total
	Male	Female	
0-9	2	5	7
10-19	6	2	8
20-29	3	3	6
30-39	4	–	4
40-49	4	1	5
50-59	6	–	6
60-69	1	–	1
70-79	1	–	1
Unknown	5	–	5
Total	32	11	43

Table 14
Distribution of 43 Cases of Leptospirosis
by Presumptive Infecting Serotype

Presumptive Infecting Serotype or Serogroup	Number of Cases
L. canicola	19
L. icterohaemorrhagiae	5
L. icterohaemorrhagiae or canicola	3
L. grippotyphosa	3
L. pomona	2
L. pyrogenes	2
L. autumnalis	1
L. tarassovi (hyos)	1
L. icterohaemorrhagiae or autumnalis	1
Unknown	6
Total	43

(Reported by Veterinary Public Health Section, Veterinary Public Health Laboratory Unit, Epidemiological Services Laboratory Section, and Statistics Section, Epidemiology Program, NCDC.)

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

National Communicable Disease Center
Atlanta, Georgia 30333

Attn: Chief, Veterinary Public Health Section
Epidemiology Program

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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
ATLANTA, GEORGIA 30333
ATTN: THE EDITOR
MORBIDITY AND MORTALITY WEEKLY REPORT

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 ON SATURDAY; COMPILED DATA ON A NATIONAL BASIS ARE RELEASED ON THE SUCCEEDING FRIDAY.