NATIONAL COMMUNICABLE DISEASE CENTER

Morbidity and Mortality

Vol. 17, No. 22

WEEKLY REPORT

Week Ending June 1, 1968

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

PUBLIC HEALTH SERVICE

HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION

CONTENTS

EPIDEMIOLOGIC NOTES AND REPORTS

RELAPSING FEVER – Washington

In March 1968, relapsing fever developed in 11 of 42 persons in two groups of Boy Scouts (age 11 to 14 years) and three Boy Scout Leaders who camped at Brown's Mountain, about 7 miles from Spokane, Washington. Brown's Mountain in Ponderosa pine and fir tree country has an elevation of 3,000 feet. The camp site consists of two old, poorly-kept log cabins – a large cabin with a sleeping capacity for nine and a small cabin with room for four persons. The two troops (Troops A and B) camped at the site on March 2 and March 16, respectively.

The illness was characterized by fever greater than 103°F., severe headache, prostration, and myalgias (Table 1) which occurred 3 to 9 days after the camp out; no rashes were noted. The median incubation period was 7 days. The initial episode of fever lasted from 3 to 6 days and was followed by one to three relapses. Of the 11 patients,

(Continued on page 198)

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

DISEASE	22nd WEEK ENDED		MEDIAN	CUMULATIVE, FIRST 22 WEEKS		
	June 1, 1968	June 3, 1967	1963 - 1967	1968	1967	MEDIAN 1963 - 1967
Aseptic meningitis	33	23	26	639	639	611
Brucellosis	3	6	5	64	98	98
Diphtheria	1	2	4	70	44	78
Encephalitis, primary:						
Arthropod-borne & unspecified	13	26	- - -	346	541	- - -
Encephalitis, post-infectious	10	24	- - -	241	378	- - -
Hepatitis, serum	72	24	543	1,692	822	17,890
Hepatitis, infectious	818	519		18,598	17,068	
Malaria	37	38	3	897	836	43
Measles (rubeola)	725	1,671	7,304	15,361	50,185	206,636
Meningococcal infections, total	33	41	44	1,474	1,268	1,400
Civilian	30	37	- - -	1,328	1,172	- - -
Military	3	4	- - -	146	96	- - -
Mumps	3,353	- - -	- - -	105,664	- - -	- - -
Poliomyelitis, total	1	1	1	17	10	13
Paralytic	1	1	1	17	9	11
Rubella (German measles)	1,694	1,991	- - -	34,469	31,063	- - -
Streptococcal sore throat & scarlet fever	7,454	7,907	6,504	232,390	252,078	226,621
Tetanus	5	6	4	51	66	85
Tularemia	10	1	3	76	62	86
Typhoid fever	5	1	3	107	134	147
Typhus, tick-borne (Rky. Mt. spotted fever)	13	8	6	45	43	29
Rabies in animals	45	76	76	1,614	1,967	1,967

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	2	Rabies in man:	–
Botulism:	–	Rubella, Congenital Syndrome:	3
Leptospirosis:	12	Trichinosis: Ohio-1	26
Plague:	–	Typhus, murine:	5
Psittacosis: Mont.-1, Ohio-1	16		

RELAPSING FEVER – *(Continued from front page)*

Table 1
Symptoms During Initial Episode of Relapsing Fever in 11 Cases, Washington, March 1968

Symptom	Number
Fever (above 103°F.)	11
Prostration	11
Headache	10
Myalgias	4
Cough	1
Sore Throat	1
Nausea and Vomiting	1
Diarrhea	1

three had 1 relapse of fever, five had two relapses, and one had three relapses of fever; two patients had no relapses after the initial episode. Each successive relapse tended to become shorter in duration, and conversely, the afebrile periods between relapses became longer with each succeeding occurrence.

Differential attack rates by sleeping location showed that nine of 12 persons (75 percent) who had slept in the large cabin on the two occasions became ill. However, only one of 22 persons who camped in tents on the two camp outs contracted the illness (Table 2).

Laboratory investigation identified typical spirochetes on a Wright stained blood smear from one patient during his second relapse. The white blood cell counts for eight patients who had these performed were uniformly within the normal range (mean 7,000). Differential counts showed no preponderance of lymphocytes or polymorphonuclear leukocytes. Serologic tests performed for Colorado tick fever and Rocky Mountain spotted fever antibodies were negative, and heterophile tests for infectious mononucleosis were negative.

Investigation of the Brown's Mountain camp site revealed that the general area abounds with ground squirrels *(Citellus)*, and burrows were seen in numerous places at the camp site, including under the cabins. Large rodent nests were found in a small basement of the large cabin and in the attics of both cabins. Thirteen ticks of the genus *Ornithodoros* were collected from the rodent nesting material and the rotting walls of the cabins. All 13 ticks have been examined at the Rocky Mountain Laboratory, Hamilton, Montana, and identified as *O. hermsi;* two were found infected with *Borrelia* by feeding experiments. Results on the other ticks are pending.

(Reported by Byron J. Francis, M.D., Acting Chief, Division of Epidemiology, and Roy W. Russell, Advisory Sanitarian, Division of Environmental Services, Washington State Department of Health; Stuart A. Davis, M.D., Spokane City Health Officer; E. O. Ploeger, M.D., M.P.H., Spokane County Health Officer; W. Burgdorfer, Ph.D., Research Entomologist (Medical), Rocky Mountain Laboratory, NIAD, NIH, Hamilton, Montana; and an EIS Officer.)

Editorial Note

The following cases of tick-borne relapsing fever* have been reported to NCDC since 1960:

Year	No. of Cases by State			
	California	Nevada	Oregon	Texas
1960	6	–	1	3
1961	8	–	–	1
1962	–	1	–	–
1963	–	1	–	–
1964	–	–	–	–
1965	–	–	–	–
1966	5	–	–	–

*It should be noted that tick-borne relapsing fever is an optionally reported disease.

Table 2
Attack Rates for 11 Cases of Relapsing Fever by Sleeping Location
Washington – March 1968

	Troop A			Troop B			Total		
	Number of Persons	Number Ill	Attack Rate Percent	Number of Persons	Number Ill	Attack Rate Percent	Number of Persons	Number Ill	Attack Rate Percent
Group in Large Cabin	8	6	75	4	3	75	12	9	75
Group in Small Cabin	4	0	0	4	1	25	8	1	13
Group in Tents	0	0	0	22	1	5	22	1	5
Whole Group	12	6	50	30	5	17	42	11	26

ANTHRAX – Massachusetts and Rhode Island

A confirmed case of anthrax occurred in a 47-year-old female employee of a combing mill in Massachusetts. The patient who lived in Rhode Island noted a small pruritic painless pimple on the lateral aspect of her right forearm on April 14. Over the next week the lesion increased in size. She was seen by a physician on April 23

who obtained a culture from the lesion and began the patient on penicillin and tetracycline. At that time the entire forearm was swollen and a rim of blisters surrounded the lesion. Tender right axillary lymphadenopathy was also present. Over the next 10 days the patient gradually improved. The culture taken on April 23 was positive for *Bacillus anthracis*.

The combing mill in Massachusetts which employs 35 persons has never reported a case of anthrax in its 23-year history. It produces an alpaca "top" which is sent to local knitting mills and also washes imported Asian cashmere and camel hair which are rebaled and then processed by other companies. All 130 surface swab samples taken at the mill were negative for *B. anthracis*. However, hair samples of cashmere yielded *B. anthracis* while samples of alpaca and camel hair were negative.

(Reported by Heinrich Brugsch, M.D., Occupational Hygiene Physician, Department of Labor and Industries, Commonwealth of Massachusetts; and Joseph E. Cannon, M.D., Director of Health, Rhode Island Department of Health; and a team of EIS Officers.)

Editorial Note

Laboratory investigation points to imported cashmere, a hair product implicated in other cases of anthrax, as the most likely source of infection. Alpaca may have become contaminated in the washing tanks since the same bath is used at other times to scour cashmere. Prior studies in goat hair mills have shown that *B. anthracis* distributes well in scouring tanks.[1]

Reference:
[1] Brachman, P. S., Plotkin, S. A., Bumford, F. H., and Atchison, M. M.: An epidemic of inhalation anthrax, the first in the 20th century. II. Epidemiology. Amer J Hyg 72:6, 1960.

SUSPECT WOUND BOTULISM – California

A case of probable botulism due to a wound infection with *Clostridium botulinum* has been reported from Fresno, California. On May 3, 1968, a 44-year-old male farm laborer fell from a haystack and sustained a compound fracture of his left wrist. The same day as the accident the wound was surgically debrided and the fracture reduced.

On May 10, the patient complained of "fullness in his throat," difficulty in swallowing, and difficulty in sleeping because of the accumulation of secretions in his mouth. On May 12, the patient developed diplopia and impaired vision, and was hospitalized. These symptoms persisted, and in addition, the patient developed blurred vision, paralysis of lateral gaze, and ptosis. At one time, anisocoria was noted, but the pupils remained reactive. Facial muscles, masseters, pharyngeal, laryngeal, and sternocleidomastoid muscles progressively weakened, and respiratory difficulty developed which required a tracheostomy. Muscles of the upper and lower limbs weakened although deep tendon reflexes remained normal. No sensory impairment was noted. Blood counts, serum chemistries, cerebrospinal fluid studies, electrocardiogram, and electroencephalogram were all within normal limits.

The patient's food history revealed no likely vehicle for botulinum toxin. The wound at the fracture site showed no sign of infection, and radiologic examination showed no evidence of gas formation in the surrounding tissues. The wound site was cultured, and results are pending. Bioassay of the patient's serum revealed no evidence of circulating botulinum toxin. A clinical diagnosis of botulism probably resulting from wound infection with *C. botulinum* was made. The patient was given polyvalent A, B, E, and F botulinum antitoxin on May 17, and has subsequently improved.

(Reported by Philip K. Condit, M.D., M.P.H., Chief, Bureau of Communicable Diseases, California State Department of Public Health; William Defries, M.D., Health Officer, Fresno County Health Department; Fresno General Hospital; and an EIS Officer.)

Editorial Note

Botulism resulting from wound infection with *C. botulinum* is rare. Three case reports of wound botulism have been reported in the United States; all were due to *C. botulinum* type A and all three patients died.[1,2,3] One case resulted from infection of a compound fracture, one resulted from infection of a gunshot wound, and another resulted from infection of a deep laceration. In each case, the wound was grossly purulent, and in two of the cases the wounds were also infected with other organisms.

The clinical course of this case is consistent with a diagnosis of botulism. Confirmation of the diagnosis of wound botulism depends on the results of cultures now in progress. The negative serum bioassay does not exclude the diagnosis since the serum was obtained 7 days after onset of symptoms.

References:
[1] Davis, J. B., Maltman, L. H., and Wiley, M.: *Clostridium botulinum* in a fatal wound infection. JAMA *146*:646-648, 1951.
[2] Hampson, C. R.: A case of probable botulism due to wound infection. J Bact *61*:647, 1951.
[3] Thomas, C. G., Koleher, M. F., and McKee, A. P.: Botulism, a complication of *Clostridium botulinum* wound infection. AMA Arch Path *51*:623-628, 1951.

SUSPECT BOTULISM – California

On May 16, 1968, a 21-year-old female in San Bernardino, California, developed headache, sore throat, and blurring of vision. Over the next 2 days she became short of breath, had difficulty in swallowing with inability to protrude her tongue, and developed weakness of all four extremities. On May 19, she was hospitalized.

On admission the patient was semicomatose and had difficulty in responding to simple commands, keeping her eyes open, and moving her extremities. There was weakness of all extra-ocular muscles with marked limitation of

(Continued on page 200)

SUSPECT BOTULISM – *(Continued from page 199)*

left lateral gaze. A lumbar puncture performed on admission was within normal limits. On May 20, the patient developed respiratory arrest and a tracheostomy was performed.

On May 20, the patient received 100,000 units of types A and B antitoxin. She has since recovered some strength in her extremities and ocular muscles.

A history subsequently obtained from the patient's family disclosed that the patient prepared homemade soup from home-canned vegetables at her grandmother's home in Lancaster, California, on May 14. The contents of one can smelled unusual. The patient tasted the vegetables, thought they tasted bad, and discarded the can and vegetables. The soup which was made from other cans of vegetables was eaten by the rest of the family, and all have remained well.

Bioassay of the patient's serum which was obtained before the antitoxin was given was negative for botulinum toxin. The can of vegetables that the patient tasted and discarded could not be found; the other vegetables yielded no *Clostridium botulinum* when cultured.

(Reported by Philip Condit, M.D., M.P.H., Chief, Bureau of Communicable Diseases, California State Department of Public Health; Merle Cosand, M.D., Health Officer, and Mildred Scott, M.D., Assistant Health Officer, San Bernardino County Health Department; and an EIS Officer.)

CURRENT TRENDS

MEASLES – United States, Puerto Rico, and the Virgin Islands

During the 4-week period, April 21 through May 18, 1968, (weeks 17-20), measles was reported from 381 counties or health districts in the United States, whereas 700 counties or health districts reported measles cases during the comparable 4-week period in 1967. Of these 381 areas, 84 (22 percent) reported a total of 10 or more cases (Figure 1) as contrasted with 222 of 700 counties (32 percent) reporting a similar number of cases during the corresponding 4-week period of 1967 (Figure 2). In addition, the percentage of areas reporting only a single case of measles during this 4-week period in 1968 increased to 33 percent from the 25 percent which had been recorded during the comparable period in 1967.

All nine geographic divisions showed a decrease in the number of counties or health districts reporting measles during the 4-week period, April 21 through May 18, 1968, from those reporting in the corresponding 4-week period in 1967 (Table 3). However, two divisions (New England and Middle Atlantic) showed an increase in the number of counties or health districts reporting a total of 10 or more cases in this 4-week period in 1968 over the comparable 4-week period in 1967. The states of Connecticut and New York were primarily responsible for the increases.

Table 3
Number of Counties or Health Districts Reporting Measles During Weeks 17-20, 1967 and 1968, by Geographic Divisions

Geographic Division	Number of Counties or Health Districts Reporting:			
	1 or more cases		Total of 10 or more cases	
	1968 April 21-May 18	1967 April 23-May 20	1968 April 21-May 18	1967 April 23-May 20
United States	381	700	84	222
New England	17	28	7	4
Middle Atlantic	46	54	15	11
East North Central	75	104	14	25
West North Central	23	56	2	12
South Atlantic	39	99	5	25
East South Central	24	65	2	20
West South Central	67	119	19	46
Mountain	29	79	9	27
Pacific	61	96	11	52
Puerto Rico	4	5	3	5
Virgin Islands	–	1	–	–

Figure 1
COUNTIES OR HEALTH DISTRICTS REPORTING A TOTAL OF 10 OR MORE CASES OF MEASLES APRIL 21 THROUGH MAY 18, 1968

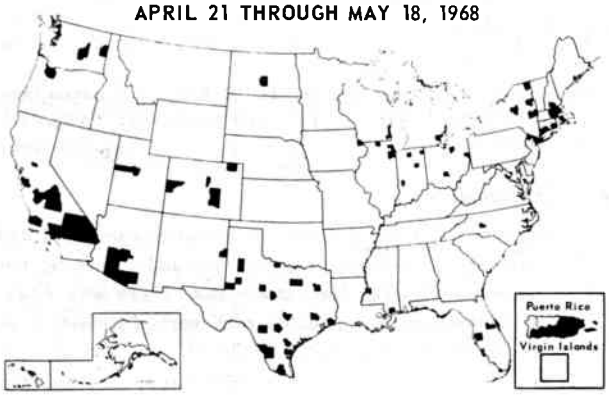
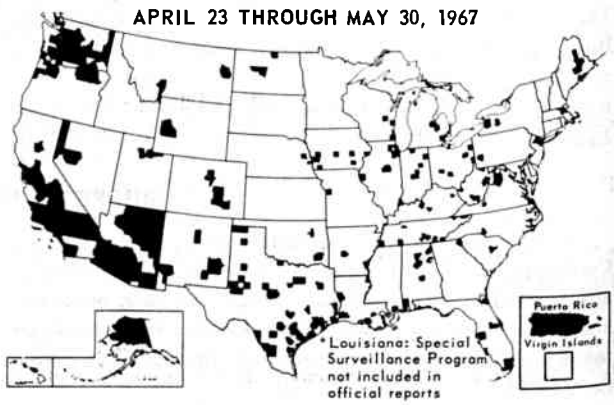


Figure 2
COUNTIES OR HEALTH DISTRICTS REPORTING A TOTAL OF 10 OR MORE CASES OF MEASLES* APRIL 23 THROUGH MAY 30, 1967



There were 24 states recording counties reporting a total of 10 or more cases in this 4-week period in 1968 (weeks 17-20) as compared with 40 states recording counties reporting a total of 10 or more cases in the comparable 4-week period in 1967. Of these 24 states, 7 (29 percent) had only one county reporting a total of 10 or more cases, as contrasted with 8 of 40 states (20 percent) with only one county or health district reporting a total of 10 or more cases during the corresponding 4-week period in 1967.

Measles cases were reported from four of the five health districts in Puerto Rico during the 4-week period, April 21 through May 18, 1968; however, only three health districts reported a total of 10 or more cases (Table 3). All five health districts reported a total of 10 or more cases in the comparable 4-week period in 1967. No cases of measles were reported from the Virgin Islands during weeks 17-20, 1968 but four cases were reported in the corresponding 4-week period in 1967.

(Reported by State Services Section and Statistics Section.)

MEASLES – Upstate New York

During the first 6 months of epidemiologic year 1967-68, 885 cases of measles were reported in Upstate New York (New York State exclusive of New York City). For the corresponding periods in 1966-67, 407 cases were reported and in 1965-66, 1,836 cases were reported (Figure 3). Approximately 20 percent of the measles cases reported in Upstate New York during the current epidemiologic year occurred in preschool children (Table 4).

Figure 3
REPORTED MEASLES CASES BY MONTH
UPSTATE NEW YORK
EPIDEMIOLOGIC YEARS 1965-1966, 1966-1967, 1967-1968

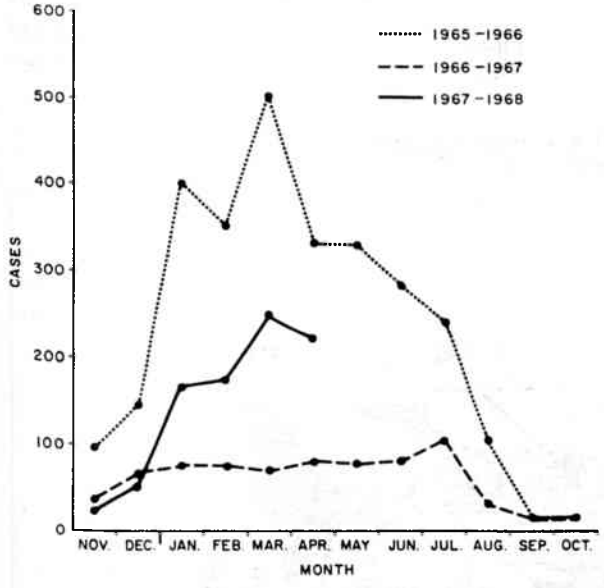


Table 4
Reported Measles Cases by Age,
Upstate New York, November 1967 – April 1968

Age Group (Years)	Cases Upstate New York	Cases in Five Counties*
Under 1	22	15
1–4	158	121
5–9	555	422
10–14	112	86
15 and over	31	17
Unknown	7	0
Total	885	661

*Albany, Columbia, Monroe, Oneida, and Onondaga

Of the cases reported this year in Upstate New York, 75 percent were reported from five counties: Albany County - 154 cases, Columbia - 71 cases, Monroe - 54, Oneida - 317, and Onondaga - 65. However, these same five counties in 1965-66 and 1966-67, reported only 2 percent and 13 percent, respectively, of the cases reported in Upstate New York. These five counties represent 18 percent of the Upstate New York population (1960 census).

Between September 1965 and March 1968, the Vaccination Assistance Unit of the New York State Health Department distributed 490,217 doses of measles vaccine in Upstate New York and of these approximately 88,000 doses were distributed in Albany, Columbia, Monroe, Oneida, and Onondaga Counties.

(Reported by Julia L. Freitag, M.D., Director, Bureau of Epidemiology, New York State Health Department; and an EIS Officer.)

ANNUAL SURVEILLANCE SUMMARY
MALARIA – 1967

The Malaria Surveillance Unit of the NCDC has received epidemiologic information on 2,815 cases of malaria with onset of illness in 1967 in the United States and Puerto Rico. This is the largest number of cases recorded in the United States for any year since 1952. Military personnel (including recently discharged veterans) accounted for 2,669 cases, and nonmilitary persons (civilians) accounted for 146 cases. The number of civilian cases has shown only a relatively slight increase but the number of military associated cases has increased fivefold as compared with 1966 (Figure 4). Of the 2,815 cases, all but seven acquired the infection abroad. These seven cases were classified as introduced (2), congenital (1), induced (3), and cryptic (1).*

Although malaria patients had the onset of illness in all but one of the states, the geographic distribution of cases showed marked concentrations in California, Colorado, Georgia, Kentucky, North Carolina, and Texas due to the location in these states of major military centers.

(Continued on page 202)

MALARIA – *(Continued from page 201)*

Figure 4
MILITARY AND CIVILIAN CASES OF MALARIA
UNITED STATES, 1956-1967

Of all cases, 80 percent occurred in males in the 20-29 year age group, reflecting the large number of military cases. Malaria in females occurred only in the nonmilitary group, of which they comprised 29 percent.

As shown in Table 5, the *Plasmodium* species was identified in 2,735 of the 2,815 cases (97.2 percent). *Plasmodium vivax* was diagnosed in 81 percent and *P. falciparum* in 13 percent of the infections. This compares with 56 percent and 33 percent, respectively, in 1966 (MMWR, Vol. 16, No. 25). The number of cases due to

Table 5
Cases of Malaria by *Plasmodium* Species
United States, 1967

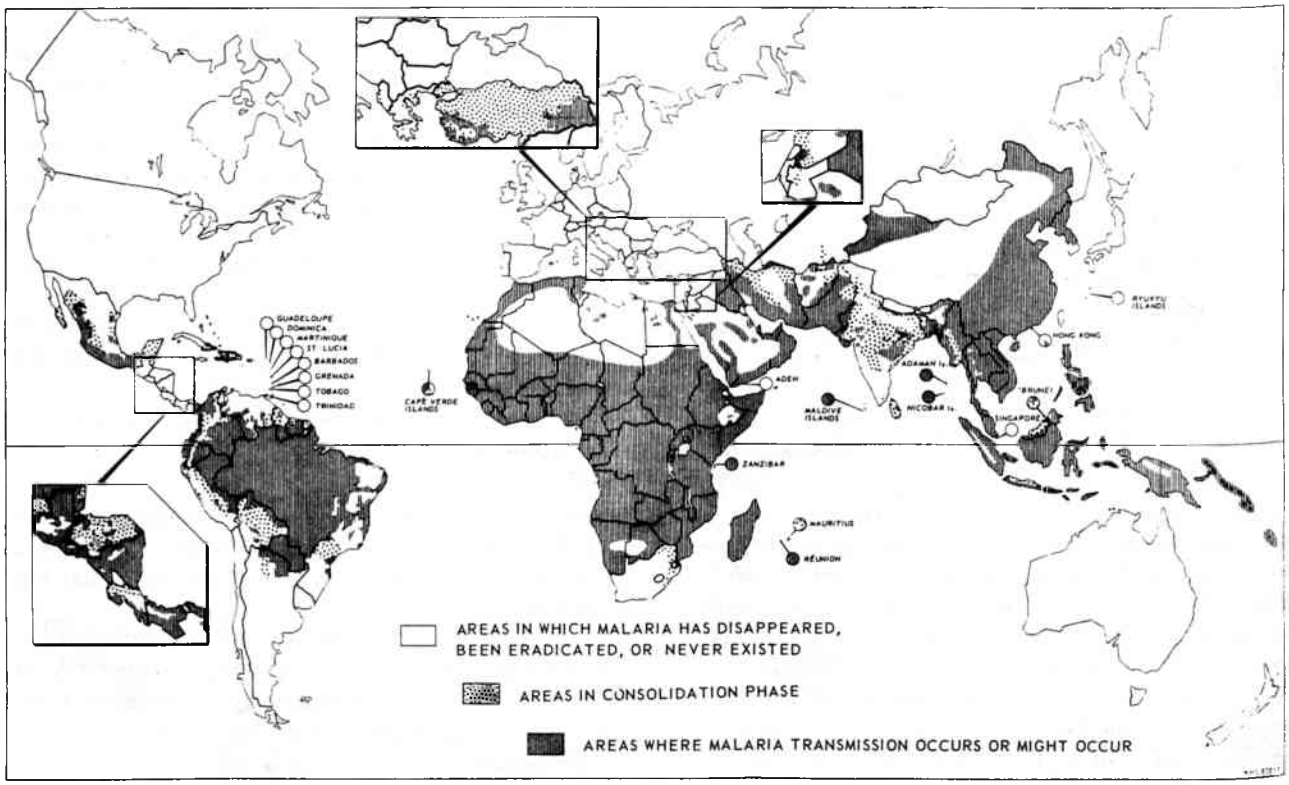
Species	Total	Percent
P. vivax	2,290	81.4
P. falciparum	362	12.9
P. malariae	19	0.7
P. ovale	18	0.6
Mixed Infections	46	1.6
Undetermined	80	2.8
Total	2,815	100.0

P. ovale increased to 18 from the 13 cases reported in 1966. In 1967, 19 cases of *P. malariae* were reported as compared with 12 in 1966.

The onset of illness occurred within 30 days after arrival in the United States in only 20 percent of the 2,563 cases for which both date of onset and date of arrival are known. A marked difference in this interval is apparent in vivax and falciparum malaria: 56 percent of the falciparum cases occurred within 1 month after arrival as compared with only 15 percent of the vivax cases.

Former Peace Corps Volunteers and foreign visitors to the United States accounted for 48 percent of the 146 civilian cases. In 1967, 21 cases occurred in former Peace

Figure 5
EPIDEMIOLOGIC ASSESSMENT OF STATUS OF MALARIA
JUNE 30, 1967*



*WHO Weekly Epidemiologic Record, 43:(5)74-75, Feb. 2, 1968.

Corps Volunteers as compared with 30 in 1966 and 17 in 1965. All but two of the 21 Volunteers had been stationed in West Africa. Of the 146 civilian cases, 49 were reported in foreign visitors to the United States. This compares with 30 cases in 1966 and 19 in 1965 in foreign visitors.

Malaria infections acquired in Vietnam accounted for 2,629 of the 2,808 imported cases (93.6 percent). *P. vivax* was the etiologic agent in 2,175 of these 2,629 cases (82.7 percent), *P. falciparum* in 329 cases (12.5 percent), *P. malariae* in 12 cases (0.5 percent), and *P. ovale* was found in only one case. Mixed infections were diagnosed in 44 cases (1.7 percent), and the Plasmodium species was not identified in 68 cases (2.6 percent). A history of malaria while in Vietnam was given in 48 percent of the cases. In 267 persons, the malaria infection acquired in Vietnam did not result in clinical illness until after discharge from the military service.

In 1967, two deaths, both due to *P. falciparum,* were reported. One of these occurred in a serviceman who had acquired his infection in Vietnam (MMWR, Vol. 17, No. 13). The other fatal case involved a civilian airline flight engineer who had acquired his infection in West Africa (MMWR, Vol. 17, No. 4).

Only seven malaria cases acquired their infection in the United States. Two cases of introduced malaria occurred in servicemen at Ft. Campbell, Kentucky, in June-July 1967; the etiologic agent was *P. vivax* (MMWR, Vol. 16, No. 29). One case of congenital malaria due to *P. malariae* was detected in an infant in California (MMWR, Vol. 16, No. 37). A case of induced falciparum malaria occurred in a 62-year-old man in San Francisco following a blood transfusion (MMWR, Vol. 16, No. 15); a post-transfusion case of ovale malaria was diagnosed in a 55-year-old woman in New York City, and an infant in Connecticut acquired a *P. malariae* infection following an exchange transfusion (MMWR, Vol. 16, No. 50). A case classified as cryptic occurred in a 41-year-old man in Bowling Green, Kentucky (MMWR, Vol. 16, No. 35).

(Reported by Malaria Surveillance Unit, Parasitic Diseases Section, Epidemiology Program, NCDC.)

Editorial Comment

The occurrence of malaria in the United States among individuals who have resided in malarious areas suggests that some travelers neglect to use chemoprophylactic drugs. In the countries indicated on the map (Figure 5), malaria is still sufficiently widespread to warrant prophylaxis. A weekly dose of 300 mg chloroquine base taken orally starting the week prior to exposure and continuing at least 4 weeks after leaving the endemic area is recommended.[1] This will provide protection against *P. falciparum* infections with the exception of those strains which have acquired resistance to the drug. Infections caused by *P. vivax, P. malariae,* and *P. ovale* will be suppressed by this regimen and the possibility of clinical malaria developing after cessation of chemoprophylaxis must be recognized. In this event, therapy with chloroquine followed by 15 mg primaquine base orally once a day for 14 days will eliminate the parasite in most cases.

Reference:

[1]World Health Organization: Chemotherapy of Malaria. WHO Technical Report No. 375, Geneva, 1967.

*Malaria Terminology

Introduced – malaria acquired by mosquito transmission contracted from an imported case in an area where malaria is not a regular occurrence.

Induced – malaria acquired through artificial means, i.e., malario-therapy, blood transfusion, common syringes.

Cryptic – an isolated case of malaria, not associated with secondary cases, as determined through appropriate epidemiologic investigation.

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, Malaria Surveillance Unit,
Parasitic Diseases Section, Epidemiology Program

INTERNATIONAL NOTES
QUARANTINE MEASURES

Additional Immunization Information for International Travel, 1967-68 edition, Public Health Service Publication No. 384

The following information should be included in Section 5:

ASIA

Qatar – Page 61

Under cholera, after "1 year of age and over", delete all information and insert: Vaccination certificate is required of all arrivals from West Pakistan. The certificate must show two injections at an interval of 1 week.

Union of Soviet Socialist Republics – Pages 63 and 74

In the note concerning cholera, insert: Afghanistan, and Malaysia.*

*Conformity of this measure with the Regulations may be open to question and the World Health Organization is in communication with the health administration concerned.

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED
JUNE 1, 1968 AND JUNE 3, 1967 (22nd 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...	33	23	3	1	13	26	10	72	818	519	37
NEW ENGLAND.....	1	-	-	-	2	-	-	6	34	29	1
Maine...*.....	-	-	-	-	-	-	-	-	-	6	-
New Hampshire.....	-	-	-	-	-	-	-	-	-	-	-
Vermont.....	-	-	-	-	-	-	-	-	-	-	-
Massachusetts.....	-	-	-	-	2	-	-	-	15	7	-
Rhode Island.....	1	-	-	-	-	-	-	1	10	4	-
Connecticut.....	-	-	-	-	-	-	-	5	9	12	1
MIDDLE ATLANTIC.....	3	2	-	-	1	4	-	17	105	69	4
New York City.....	-	1	-	-	-	1	-	11	34	18	-
New York, up-State*	1	-	-	-	1	-	-	1	18	26	-
New Jersey.....	-	1	-	-	-	-	-	3	30	12	-
Pennsylvania.....	2	-	-	-	-	3	-	2	23	13	4
EAST NORTH CENTRAL...	4	2	-	-	4	7	2	-	199	92	2
Ohio.....	2	1	-	-	2	2	1	-	44	17	1
Indiana.....	2	-	-	-	-	-	-	-	12	5	-
Illinois.....	-	1	-	-	-	-	-	-	26	32	1
Michigan.....	-	-	-	-	2	4	1	-	109	19	-
Wisconsin.....	-	-	-	-	-	1	-	-	8	19	-
WEST NORTH CENTRAL...	1	-	1	-	-	1	1	-	30	22	4
Minnesota.....	1	-	-	-	-	-	-	-	4	2	-
Iowa.....	-	-	1	-	-	-	-	-	5	2	-
Missouri.....	-	-	-	-	-	-	-	-	3	14	1
North Dakota.....	-	-	-	-	-	-	-	-	-	1	-
South Dakota.....	-	-	-	-	-	-	-	-	3	-	-
Nebraska.....	-	-	-	-	-	1	-	-	3	-	-
Kansas.....	-	-	-	-	-	-	1	-	12	3	3
SOUTH ATLANTIC.....	4	4	1	-	2	4	4	10	84	64	16
Delaware.....	-	-	-	-	-	-	-	-	4	10	-
Maryland.....	-	-	-	-	-	-	-	-	10	9	-
Dist. of Columbia..	1	-	-	-	-	-	-	-	-	-	-
Virginia.....	-	-	1	-	-	2	-	-	9	-	1
West Virginia.....	-	2	-	-	-	-	-	-	4	4	-
North Carolina.....	1	-	-	-	1	1	-	-	5	6	3
South Carolina.....	-	-	-	-	-	-	-	-	-	1	-
Georgia.....	-	-	-	-	-	-	-	-	39	14	9
Florida.....	2	2	-	-	1	1	4	10	13	20	3
EAST SOUTH CENTRAL...	1	4	-	-	1	3	1	-	54	29	2
Kentucky.....	-	-	-	-	-	1	-	-	26	10	-
Tennessee.....	-	-	-	-	1	1	1	-	15	14	-
Alabama.....	1	2	-	-	-	-	-	-	2	-	2
Mississippi.....	-	2	-	-	-	1	-	-	11	5	-
WEST SOUTH CENTRAL...	6	3	-	1	2	-	1	1	73	66	3
Arkansas.....	-	-	-	-	-	-	-	-	2	-	-
Louisiana.....	3	1	-	-	2	-	-	1	14	8	-
Oklahoma.....	-	-	-	-	-	-	-	-	16	2	3
Texas.....	3	2	-	1	-	-	1	-	41	56	-
MOUNTAIN.....	1	-	-	-	-	2	-	-	42	15	1
Montana.....	-	-	-	-	-	-	-	-	10	-	-
Idaho.....	-	-	-	-	-	-	-	-	-	-	-
Wyoming.....	-	-	-	-	-	-	-	-	1	4	-
Colorado.....	1	-	-	-	-	2	-	-	16	3	1
New Mexico.....	-	-	-	-	-	-	-	-	3	3	-
Arizona.....	-	-	-	-	-	-	-	-	4	3	-
Utah.....	-	-	-	-	-	-	-	-	8	2	-
Nevada.....	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	12	8	1	-	1	5	1	38	197	133	4
Washington.....	-	-	-	-	-	1	-	-	27	18	2
Oregon.....	-	-	-	-	-	1	-	-	7	10	-
California.....	10	5	1	-	1	3	1	38	163	104	2
Alaska.....	-	-	-	-	-	-	-	-	-	1	-
Hawaii.....	2	3	-	-	-	-	-	-	-	-	-
Puerto Rico.*.....	-	-	-	-	-	-	-	-	18	14	1

*Delayed reports: Hepatitis, serum: N.Y.Ups. 1
Hepatitis, infectious: Me. 2, P.R. 1

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

JUNE 1, 1968 AND JUNE 3, 1967 (22nd 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...	725	15,361	50,185	33	1,474	1,268	3,353	1	1	17	1,694
NEW ENGLAND.....	80	775	670	2	75	56	297	-	-	-	341
Maine..*.....	-	13	205	-	6	3	2	-	-	-	6
New Hampshire.....	-	80	71	-	7	2	15	-	-	-	7
Vermont.....	-	1	28	-	1	-	3	-	-	-	-
Massachusetts.*....	32	279	240	1	33	29	170	-	-	-	152
Rhode Island.....	-	1	57	1	7	3	28	-	-	-	59
Connecticut.....	48	401	69	-	21	19	79	-	-	-	117
MIDDLE ATLANTIC.....	201	2,574	1,811	6	247	195	169	-	-	-	265
New York City.....	128	1,043	317	-	47	32	129	-	-	-	175
New York, Up-State.	25	965	391	2	40	46	NN	-	-	-	37
New Jersey.....	40	440	430	-	90	78	40	-	-	-	51
Pennsylvania.....	8	126	673	4	70	39	NN	-	-	-	2
EAST NORTH CENTRAL...	126	3,173	4,278	5	164	152	1,012	-	-	-	324
Ohio.....	9	252	833	1	44	56	48	-	-	-	96
Indiana.....	25	564	523	1	21	20	81	-	-	-	35
Illinois.....	13	1,201	765	1	39	35	66	-	-	-	24
Michigan.....	5	202	790	2	47	32	371	-	-	-	58
Wisconsin.....	74	954	1,367	-	13	9	446	-	-	-	111
WEST NORTH CENTRAL...	4	317	2,426	6	76	57	458	-	-	-	142
Minnesota.....	-	13	110	1	17	12	25	-	-	-	1
Iowa.....	-	77	685	-	5	12	274	-	-	-	115
Missouri.....	1	73	212	5	26	12	116	-	-	-	16
North Dakota.....	2	109	756	-	3	-	18	-	-	-	10
South Dakota.....	-	4	46	-	4	6	NN	-	-	-	-
Nebraska.....	1	33	555	-	6	9	25	-	-	-	-
Kansas.*.....	-	8	62	-	15	6	-	-	-	-	-
SOUTH ATLANTIC.....	21	1,136	5,820	3	312	242	134	-	-	-	109
Delaware..*.....	3	11	36	-	4	5	5	-	-	-	8
Maryland.....	3	72	109	2	21	29	27	-	-	-	9
Dist. of Columbia..	-	6	19	-	11	8	-	-	-	-	-
Virginia.....	9	228	1,796	-	22	24	29	-	-	-	27
West Virginia.....	4	181	1,144	-	7	19	38	-	-	-	36
North Carolina.....	1	262	808	-	62	48	NN	-	-	-	-
South Carolina.....	-	12	434	-	54	23	6	-	-	-	1
Georgia.....	-	3	24	1	58	39	-	-	-	-	-
Florida.....	1	361	1,450	-	73	47	29	-	-	-	28
EAST SOUTH CENTRAL...	6	462	4,551	2	128	111	90	-	-	-	60
Kentucky..*.....	1	159	1,136	1	48	30	29	-	-	-	16
Tennessee.....	2	53	1,578	1	44	47	57	-	-	-	44
Alabama...*.....	1	66	1,200	-	18	22	2	-	-	-	-
Mississippi.....	2	184	637	-	18	12	2	-	-	-	-
WEST SOUTH CENTRAL...	160	4,055	15,964	1	255	183	270	1	1	9	104
Arkansas.....	-	2	1,379	-	15	23	-	-	-	-	-
Louisiana.....	-	2	137	1	67	71	8	-	-	-	2
Oklahoma.....	-	103	3,299	-	48	12	13	-	-	-	-
Texas.....	160	3,948	11,149	-	125	77	249	1	1	9	102
MOUNTAIN.....	46	784	3,806	2	24	24	201	-	-	-	63
Montana.....	1	65	248	-	2	-	9	-	-	-	-
Idaho.....	-	12	343	1	10	1	1	-	-	-	10
Wyoming.....	-	48	54	-	-	1	-	-	-	-	-
Colorado.....	37	390	1,201	-	7	10	94	-	-	-	22
New Mexico.....	4	77	530	-	-	3	17	-	-	-	2
Arizona.....	4	168	863	-	1	4	67	-	-	-	23
Utah.....	-	19	303	1	1	3	13	-	-	-	6
Nevada.....	-	5	264	-	3	2	-	-	-	-	-
PACIFIC.....	81	2,085	10,859	6	193	248	722	-	-	8	286
Washington.....	18	488	5,142	1	32	23	173	-	-	-	59
Oregon.....	17	404	1,412	-	16	24	25	-	-	-	11
California.....	45	1,158	4,081	5	135	191	488	-	-	8	205
Alaska.....	-	1	120	-	-	8	16	-	-	-	4
Hawaii.....	1	34	104	-	10	2	20	-	-	-	7
Puerto Rico.....	9	302	1,766	-	16	8	8	-	-	-	3

*Delayed reports: Measles: Mass. delete 3, Del. delete 1, Ky. 40
Meningococcal infections: Ala. 1
Mumps: Kans. 60
Rubella: Me. 11

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
JUNE 1, 1968 AND JUNE 3, 1967 (22nd 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...	7,454	5	51	10	76	5	107	13	45	45	1,614
NEW ENGLAND.....	1,214	-	1	8	40	-	4	-	-	2	58
Maine.*.....	11	-	-	-	-	-	-	-	-	-	50
New Hampshire.....	2	-	-	-	-	-	-	-	-	-	2
Vermont.....	-	-	-	8	40	-	-	-	-	2	5
Massachusetts.....	163	-	-	-	-	-	2	-	-	-	1
Rhode Island.....	138	-	-	-	-	-	-	-	-	-	-
Connecticut.....	900	-	1	-	-	-	2	-	-	-	-
MIDDLE ATLANTIC.....	771	1	9	-	3	-	11	1	4	1	14
New York City.....	26	1	5	-	-	-	6	-	-	-	-
New York, Up-State.	268	-	4	-	3	-	2	1	1	1	10
New Jersey.....	NN	-	-	-	-	-	-	-	-	-	-
Pennsylvania.....	477	-	-	-	-	-	3	-	3	-	4
EAST NORTH CENTRAL...	541	-	6	-	4	1	18	-	2	6	137
Ohio.....	108	-	-	-	1	-	11	-	1	-	52
Indiana.....	105	-	1	-	-	-	1	-	-	5	53
Illinois.....	79	-	4	-	2	1	5	-	1	1	13
Michigan.....	123	-	1	-	1	-	-	-	-	-	8
Wisconsin.....	126	-	-	-	-	-	1	-	-	-	11
WEST NORTH CENTRAL...	274	-	2	-	6	-	5	1	2	8	366
Minnesota.....	29	-	-	-	-	-	-	-	-	3	105
Iowa.....	126	-	-	-	-	-	-	-	-	2	68
Missouri.....	42	-	2	-	4	-	3	-	-	1	64
North Dakota.....	34	-	-	-	-	-	-	-	-	1	59
South Dakota.....	17	-	-	-	1	-	1	-	1	-	34
Nebraska.....	3	-	-	-	-	-	1	1	1	-	19
Kansas.....	23	-	-	-	1	-	-	-	-	1	17
SOUTH ATLANTIC.....	688	2	11	-	5	2	29	5	28	5	182
Delaware.....	2	-	-	-	-	-	-	-	-	-	-
Maryland.....	129	-	-	-	-	-	4	-	2	-	3
Dist. of Columbia..	7	-	1	-	-	-	1	-	-	-	-
Virginia.....	255	-	2	-	1	1	6	2	15	1	77
West Virginia.....	109	-	1	-	-	-	-	-	-	2	24
North Carolina.....	5	-	2	-	2	-	2	-	7	-	7
South Carolina.....	33	-	1	-	-	-	-	-	1	-	-
Georgia.....	5	-	-	-	1	-	7	2	2	2	22
Florida.....	123	2	4	-	1	1	9	1	1	-	49
EAST SOUTH CENTRAL...	885	1	7	1	6	-	13	2	4	4	407
Kentucky.....	92	-	1	-	1	-	2	-	-	4	192
Tennessee.....	695	-	2	1	4	-	8	1	2	-	197
Alabama.....	44	1	2	-	-	-	-	1	1	-	18
Mississippi.....	54	-	2	-	1	-	3	-	1	-	-
WEST SOUTH CENTRAL...	434	1	7	-	9	-	8	3	4	6	298
Arkansas.....	9	1	1	-	1	-	1	-	-	-	33
Louisiana.....	3	-	4	-	1	-	1	-	-	-	30
Oklahoma.....	29	-	-	-	1	-	1	3	3	2	95
Texas.....	393	-	2	-	6	-	5	-	1	4	140
MOUNTAIN.....	1,478	-	-	1	3	-	8	1	1	5	35
Montana.....	19	-	-	-	-	-	-	-	-	-	-
Idaho.....	58	-	-	-	-	-	-	-	-	-	2
Wyoming..*.....	16	-	-	-	-	-	1	-	-	-	-
Colorado.....	1,151	-	-	-	1	-	2	1	1	-	1
New Mexico.....	79	-	-	-	-	-	5	-	-	1	16
Arizona.....	107	-	-	-	-	-	-	-	-	4	16
Utah.....	48	-	-	1	2	-	-	-	-	-	-
Nevada.....	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	1,189	-	8	-	-	2	11	-	-	8	117
Washington.....	256	-	-	-	-	-	-	-	-	-	-
Oregon.....	96	-	-	-	-	-	2	-	-	2	3
California.....	640	-	8	-	-	2	9	-	-	6	114
Alaska.....	28	-	-	-	-	-	-	-	-	-	-
Hawaii.....	169	-	-	-	-	-	-	-	-	-	-
Puerto Rico.....	4	-	1	-	-	-	-	-	-	2	15

*Delayed reports: SST: Me. 19, Wyo. 13

Week No. 22

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED JUNE 1, 1968

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

Area	All Causes		Pneumonia and Influenza	Under 1 year
	All Ages	65 years and over	All Ages	All Causes
NEW ENGLAND:	678	420	38	33
Boston, Mass.	211	110	15	9
Bridgeport, Conn.	38	27	4	2
Cambridge, Mass.	23	17	-	1
Fall River, Mass.	36	22	-	3
Hartford, Conn.	50	30	-	1
Lowell, Mass.	25	20	2	-
Lynn, Mass.	17	11	-	-
New Bedford, Mass.	19	11	1	-
New Haven, Conn.	56	34	2	4
Providence, R. I.	71	47	-	4
Somerville, Mass.	7	5	1	1
Springfield, Mass.	35	16	3	3
Waterbury, Conn.	26	20	-	3
Worcester, Mass.	64	50	10	2
MIDDLE ATLANTIC:	3,074	1,824	80	111
Albany, N. Y.	27	21	-	3
Allentown, Pa.	37	24	1	1
Buffalo, N. Y.	123	76	3	5
Camden, N. J.	38	12	1	3
Elizabeth, N. J.	25	12	-	4
Erie, Pa.	32	23	6	1
Jersey City, N. J.	56	29	2	2
Newark, N. J.	51	25	2	2
New York City, N. Y.	1,655	980	35	39
Paterson, N. J.	27	16	1	4
Philadelphia, Pa.	474	268	7	23
Pittsburgh, Pa.	174	95	5	13
Reading, Pa.	43	29	2	3
Rochester, N. Y.	88	61	7	2
Schenectady, N. Y.	18	11	-	-
Scranton, Pa.	33	23	2	-
Syracuse, N. Y.	60	44	1	2
Trenton, N. J.	49	29	3	3
Utica, N. Y.	29	19	1	1
Yonkers, N. Y.	35	27	1	-
EAST NORTH CENTRAL:	2,306	1,304	55	124
Akron, Ohio	61	38	-	5
Canton, Ohio	32	17	1	2
Chicago, Ill.	657	374	20	40
Cincinnati, Ohio	137	80	2	4
Cleveland, Ohio	181	90	1	10
Columbus, Ohio	110	67	-	6
Dayton, Ohio	58	32	2	3
Detroit, Mich.	362	198	10	17
Evansville, Ind.	40	28	1	1
Flint, Mich.	57	23	1	2
Fort Wayne, Ind.	41	24	1	3
Gary, Ind.	30	14	1	-
Grand Rapids, Mich.	25	16	-	1
Indianapolis, Ind.	144	79	1	7
Madison, Wis.	20	6	3	4
Milwaukee, Wis.	95	66	1	3
Peoria, Ill.	36	25	-	2
Rockford, Ill.	37	20	3	4
South Bend, Ind.	37	17	1	3
Toledo, Ohio	91	55	5	6
Youngstown, Ohio	55	35	1	1
WEST NORTH CENTRAL:	676	423	20	39
Des Moines, Iowa	41	32	1	-
Duluth, Minn.	19	16	1	1
Kansas City, Kans.	53	31	4	6
Kansas City, Mo.	96	55	2	4
Lincoln, Nebr.	24	18	-	-
Minneapolis, Minn.	86	51	-	8
Omaha, Nebr.	56	36	-	3
St. Louis, Mo.	194	118	6	12
St. Paul, Minn.	64	36	1	2
Wichita, Kans.	43	30	5	3
SOUTH ATLANTIC:	1,001	525	32	40
Atlanta, Ga.	115	43	3	7
Baltimore, Md.	188	94	2	9
Charlotte, N. C.	52	19	2	3
Jacksonville, Fla.	83	48	2	2
Miami, Fla.	79	48	1	5
Norfolk, Va.	42	20	4	1
Richmond, Va.	88	51	5	5
Savannah, Ga.	24	17	1	1
St. Petersburg, Fla.	63	55	2	-
Tampa, Fla.	69	40	6	2
Washington, D. C.	170	78	3	4
Wilmington, Del.	28	12	1	1
EAST SOUTH CENTRAL:	552	293	27	23
Birmingham, Ala.	101	53	5	4
Chattanooga, Tenn.	27	14	-	1
Knoxville, Tenn.	39	24	3	2
Louisville, Ky.	98	47	5	5
Memphis, Tenn.	114	58	3	4
Mobile, Ala.	55	27	4	3
Montgomery, Ala.	28	15	2	1
Nashville, Tenn.	90	55	5	3
WEST SOUTH CENTRAL:	997	460	33	65
Austin, Tex.	37	18	4	1
Baton Rouge, La.	43	21	-	1
Corpus Christi, Tex.	20	11	3	2
Dallas, Tex.	158	78	3	10
El Paso, Tex.	36	19	3	3
Fort Worth, Tex.	55	14	2	5
Houston, Tex.	164	69	1	2
Little Rock, Ark.	46	21	4	5
New Orleans, La.	177	89	3	17
Oklahoma City, Okla.	74	35	2	6
San Antonio, Tex.	96	45	2	7
Shreveport, La.	51	20	4	2
Tulsa, Okla.	40	20	2	4
MOUNTAIN:	348	193	14	15
Albuquerque, N. Mex.	33	18	3	4
Colorado Springs, Colo.	21	16	1	1
Denver, Colo.	85	38	2	1
Ogden, Utah	16	4	-	-
Phoenix, Ariz.	91	56	3	4
Pueblo, Colo.	11	9	1	-
Salt Lake City, Utah	38	22	1	1
Tucson, Ariz.	53	30	3	4
PACIFIC:	1,306	801	24	55
Berkeley, Calif.	15	11	-	-
Fresno, Calif.	48	26	1	-
Glendale, Calif.	24	20	-	-
Honolulu, Hawaii	48	23	1	4
Long Beach, Calif.	73	44	1	1
Los Angeles, Calif.	339	216	2	18
Oakland, Calif.	80	54	2	2
Pasadena, Calif.	40	27	-	-
Portland, Oreg.	112	66	1	2
Sacramento, Calif.	61	35	1	3
San Diego, Calif.*	74	44	1	4
San Francisco, Calif.	141	78	4	5
San Jose, Calif.	30	15	-	1
Seattle, Wash.	133	81	5	9
Spokane, Wash.	63	45	3	5
Tacoma, Wash.	25	16	2	1
Total	10,938	6,243	323	505

*Estimate - based on average percent of divisional total.

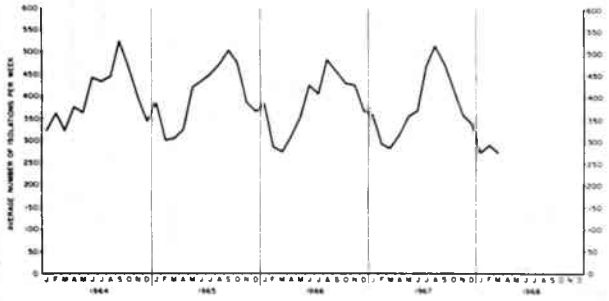
Cumulative Totals
including reported corrections for previous weeks

All Causes, All Ages	290,019
All Causes, Age 65 and over	169,779
Pneumonia and Influenza, All Ages	13,162
All Causes, Under I Year of Age	13,050

SURVEILLANCE SUMMARY
SALMONELLOSIS – January, February, and March 1968

In January, February, and March 1968, the total numbers of salmonellae isolations from humans were 1,362, 1,161, and 1,088, respectively, and the weekly averages for the 3 months were 272, 290, and 272, respectively (Figure 6). In Table 6, the 10 most frequently reported serotypes from human sources are listed.

Figure 6
REPORTED HUMAN ISOLATIONS OF SALMONELLAE
IN THE UNITED STATES



For the same 3 months 579, 1,036, and 519 nonhuman isolations were reported. The marked increase in the February total from the January total represents delayed reports from January. The 10 most frequently reported nonhuman serotypes are listed in Table 6.

Table 6
Summary of 10 Most Frequently Reported Serotypes
from Humans and Nonhumans
January, February, and March 1968

Human			Nonhuman		
Serotype	Number	Percent	Serotype	Number	Percent
*S. typhi-murium**	987	39.6	*S. typhi-murium**	293	22.3
S. heidelberg	256	10.3	*S. heidelberg*	201	15.3
S. saint-paul	246	9.9	*S. anatum*	184	14.0
S. enteritidis	231	9.3	*S. montevideo*	118	9.0
S. infantis	203	8.1	*S. saint-paul*	105	8.0
S. newport	189	7.6	*S. cubana*	87	6.6
S. typhi	131	5.3	*S. eimsbuettel*	51	3.9
S. thompson	91	3.7	*S. infantis*	41	3.1
S. derby	89	3.6	*S. senftenberg*	36	2.7
S. blockley	69	2.8	*S. thompson*	34	2.6
Total	2,492	69.0	Total	1,312	61.5
Total all serotypes	3,611	100.0	Total all serotypes	2,134	100.0

*Includes *S. typhi-murium* var. *copenhagen*

(Reported by Salmonellosis Unit, Bacterial Diseases Section, Epidemiology Program, NCDC.)

A copy of the original reports from which these data were derived is available on request from:
National Communicable Disease Center
Atlanta, Georgia 30333
Attn: Chief, Salmonellosis Unit
Bacterial Diseases Section
Epidemiology Program

THE MORBIDITY AND MORTALITY WEEKLY REPORT, WITH A CIRCULATION OF 17,000, IS PUBLISHED AT THE NATIONAL COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA.

DIRECTOR, NATIONAL COMMUNICABLE DISEASE CENTER — DAVID J. SENCER, M.D.
CHIEF, EPIDEMIOLOGY PROGRAM — A.D. LANGMUIR, M.D.
ACTING CHIEF, STATISTICS SECTION — IDA L. SHERMAN, M.S.
EDITOR — MICHAEL B. GREGG, M.D.

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.