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

HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION

EPIDEMIOLOGIC NOTES AND REPORTS<br>FOLLOW-UP PLAGUE - Denver, Colorado

The organism isolated from the blood of a 6 -year-old female, living in east central Denver (MMWR, Vol. 17, No. 27), has been confirmed as Pasteurella pestis on the basis of staining characteristics, colonial morphology, phage typing, fluorescent antibody (FA) tests, and guinea pig inoculation studies. A dead squirrel found three-fourths of a block from the patient's residence has been found positive for $P$. pestis by FA tests.

In Denver a major die-off of the eastern fox squirrel Sciurus niger (the common tree squirrel) has been confirmed. From a total of 123 dead animals (including 3 rabbits, 10 ground squirrels, and 110 eastern fox squirrels)

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collected in Denver, 27 eastern fox squirrels were positive for $P$. pestis by FA tests. To date, P. pestis has been isolated from five of these 27 squirrels. Although dead squirrels from all sectors of the city have been examined, the majority of plague positive animals were from the northeastern section of the city. Baited DDT dust boxes have been placed in trees throughout the Denver
(Continued on page 262)

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

| DISEASE | 28th WEEK ENDED |  | $\begin{gathered} \text { MEDIAN } \\ 1963-1967 \end{gathered}$ | CUMULATIVE, FIRST 28 WEEKS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { July } 13, \\ 1968 \end{gathered}$ | $\begin{gathered} \text { July } 15 \text {. } \\ 1967 \end{gathered}$ |  | 1968 | 1967 | $\begin{gathered} \text { MEDIAN } \\ 1963-1967 \end{gathered}$ |
| Aseptic meningitis | 77 | 59 | 49 | 1,020 | 989 | 833 |
| Brucellosis ..... | 2 | 12 | 12 | 101 | 148 | 148 |
| Diphtheria. | 1 | 1 | 2 | 90 | 57 | 87 |
| Encephalitis, primary: <br> Arthropod-borne \& unspecified | 24 | 21 |  | 481 | 715 | -•- |
| Encephalitis, post-infectious .. | 24 8 | 14 | .-. | 297 | 495 | . . - |
| Hepatitis, serum ... | 67 | 40 | 566 | 2,203 | 1,117 | 22,566 |
| Hepatitis, infectious | 826 | 665 | 566 | 23,380 | 20.986 | 22,566 |
| Malaria | 42 | 33 | 4 | 1,148 | 1,070 | 54 |
| Measles (rubeola) | 325 | 539 | 2,180 | 18,190 | 55,696 | 232,261 |
| Meningococcal infections, total | 36 | 38 | 38 | 1,729 | 1,475 | 1,672 |
| Civilian | 36 | 37 | --- | 1,563 | 1,370 |  |
| Military | - | 1 | -- | 166 | 105 |  |
| Mumps | 1,270 | $\cdots$ | --- | 118,369 | -- | -.. |
| Poliomyelitis, total | 2 | 2 | 2 | 29 | 13 | 31 |
| Paralytic | 2 | 2 | 2 | 29 | 11 | 29 |
| Rubella (German measles) | 427 | 394 | -.. | 40,924 | 37,881 |  |
| Streptococcal sore throat \& scarlet fever. | 4,907 | 5,439 | 4,278 | 265,609 | 287,399 | 259.662 |
| Tetanus | 2 | 7 | 6 | 75 | 102 | 124 |
| Tularemia | 11 | 4 | 10 | 113 | 86 | 132 |
| Typhoid fever | 9 | 8 | 8 | 156 | 209 | 197 |
| Typhus, tick-borne (Rky. Mt. spotted fever). | 9 | 15 | 14 | 100 | 128 | 101 |
| Rabies in animals . . . . . . . . . . . . . . . . . . . . . | 83 | 82 | 82 | 1.990 | 2.449 | 2.449 |

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

|  | Cum. |  | Cum. |
| :---: | :---: | :---: | :---: |
| Anthrax: | 2 | Rabies in man: | - |
| Botulism: | 3 | Rubella, Congenital Syndrome: | 3 |
| Leptospirosis: Hawaii-1 | 14 | Trichinosis: NYC-1 | 38 |
| Plague: Colo.-1 . . . . . | 1 | Typhus, murine: Fla.-1 | 11 |
| Psittacosis: N.Mex.-1 | 27 |  |  |

## FOLLOW-UP PLAGUE - (Continued from front page)

area as a control measure for the flea ectoparasite Orchope as howardi which infests the fox squirrel. Systematic squirrel collection and close surveillance for other dead rodents are being conducted.

On July 9, Dr. Roy Cleere, Director of Public Health. Colorado Department of Health, issued a letter to all physicians in the Denver metropolitan area and Boulder, Colorado, that reported the case of plague and included diagnostic, epidemiologic, and therapeutic information. On July 15, Dr. Cleere issued a follow-up letter to physicians
and hospitals in the greater Denver area indicating tnat other dead squirrels had been found in Denver. It was requested that any suspected cases of plague be reported immediately to the Epidemiology Section, Colorado Department of Health.
(Reported by R. L. Cleere, M.D., M.P.H., Director of Public Health, and Cecil S. Mollohan, M.D., M.P.H., Chief, Section of Epidemiology, Colorado Department of Health; the Zoonoses Section, Ecological Investigations Program, NCDC, Ft. Collins, Colorado; and an EIS Officer.)

A statewide survey performed in June of persons in Vermont known to have handled muskrats during the spring trapping and shooting season has led to the diagnosis of six additional tularemia cases in Vermont. Including the 40 cases reported earlier (MMWR. Vol. 17, Nos. 18 and 21), the total number of cases has reached 46 of which 44 have been serologically confirmed. Serologic studies are pending on two patients with clinical histories compatible with tularemia.

All 46 persons had handled muskrats taken from three streams and their tributaries which flow into the eastern shore of Lake Champlain (Otter Creek, Little Otter Creek, and Lewis Creek) (Figure 1). The attack rate for persons who handled more than 50 animals ( 71 percent) was significantly higher than the attack rate for persons who handled fewer than 50 animals ( 35 percent) (Table 1). The largest group of cases and the highest attack rate were among persons handling animals taken from Dead Creek, a tributary of Otter Creek (Table 2). Of the seven persons who trapped Dead Creek and did not become ill, three wore gloves and four handled fewer than 50 animals.

Table 1
Attack Rates in Trappers by Number of Muskrats Nandled Vermont - March 25-April 30, 1968

| Number of <br> Nuskrats <br> Handled | Number of <br> Persons <br> Ill | Number of <br> Persons <br> Well | Total | Attack <br> Rate <br> (Percent) |
| :---: | :---: | :---: | :---: | :---: |
| $>50$ | 28 | 11 | 39 | 71 |
| $<50$ | 18 | 33 | 51 | 35 |
| Total | 46 | 44 | 90 | 51 |

Approximately 100 persons who handled muskrats trapped outside Addison County (Figure 1) have been interviewed and approximately 50 percent have had their sera tested for evidence of tularemia. There have been no suggestive clinical histories of diagnostic serologies in this group.

Samples of mud and water taken during the first week of May along Dead Creek have been inoculated into guinea pigs. Following death of the animals, spleen homogenates were cultured directly. By this method, Francisella tularensis has been recovered from a set of mud and water samples taken from a point where extensive trapping had taken place. The organism was previously recovered from muskrats obtained in this area during an animal collection

survey that was in progress when the water and mud samples were collected (MMWR, Vol. 17, No. 21).
(Reported by Donald S. Bicknell, M.D., Vergennes, Vermont; Linus J. Leavens, M.D., Director, Bureau of Communicable Disease Control, and Dymitry Pomar, D.V.M., Director, Bureau of Laboratories, Vermont Department of Health; Epidemiological Services Laboratory Section, Epidemiology Program, and Bacterial Serology Unit, Laboratory Program, NCDC; and a team from NCDC.)

Table 2

Attack Rates in Trappers by Streams from Which Muskrats Were Taken<br>Vermont - March 25-April 30, 1968

| Stream | Positive Serology* a nd/or <br> Typical Symptoms** | No Symptoms and <br> Negative Serology | Total | Attack Rate <br> (Percent) |
| :--- | :---: | :---: | :---: | :---: |
| Dead Creek | 31 | $\mathbf{7}$ | 38 | 81 |
| Otter Creek | 7 | 29 | 36 | 19 |
| Little Otter and Lew is Creeks | 8 | 8 | 16 | 50 |
| Total | 46 | 44 | 90 |  |

*Titer of 1:160 or higher
**Fever, prostration, lymphadenopathy, and hand ulcer(s)

## TULAREMIA - Ogdensburg, New York

During the last week of March and the first week of April 1968, four muskrat trappers in Ogdensburg, New York, developed fever and regional adenopathy. A lymph node biopsy on April 24 from one of these trappers revealed granulomatous lymphadenitis. All four trappers had agglutination titers against Francisella tularensis of $1: 160$ or higher in sera drawn from 1 to 3 months after onset of symptoms. The two sons of one ill trapper, both of whom assisted in the preparation of animals and one of whom was clinically ill, had serologies of 1:160 or greater against $F$. tularensis. In two trappers high titers to Brucella abortus were noted. No history of raw milk ingestion or other exposure to $B$. abortus was obtained; agglutination absorption studies confirmed $F$. tularensis infection.

Ogdensburg is located on the bank of the St. Lawrence River in northwestern New York, approximately 120 miles from Crown Point, New York, where three other cases of tularemia in muskrat trappers were recently reported (MMWR, Vol. 17, No. 20). All of the Ogdensburg trappers took their
animals from the Oswegatchie River. According to trappers, this area harbored unusually large numbers of live muskrats this year and dead muskrats were apparent. Bacteriologic studies are underway on frozen specimens of muskrats trapped by these individuals. No cases of tularemia in muskrat trappers have been reported in the region between Crown Point and Ogdensburg this year.
(Reported by Hugh F. Frame, M.D., Health Officer, Odgensburg, New York; Robert Lonngren, M.D., Ogdensburg, New York; John T. Prior, M.D., Professor of Pathology, Upstate Medical Center, Syracuse, New York; Robert Bacorn, M.D., Regional Health Officer, Syracuse Regional Office, Syracuse, New York; Melvin Abelseth, D.V.M., Assistant Director, Laboratory for Veterinary Science, Mrs. Orpha Clemons, Bacteriologist, James O. Culver, M.D., Public Health Physician, Bureau of Epidemiology, and Julia L. Freitag, M.D., Director, Bureau of Epidemiology, New York State Health Department; and an EIS Officer.)

## PARATHION POISONING - Texas

On June 13, 1968, 23 cotton workers near Santa Rosa, Texas, were poisoned with the chemical parathion*. Their initial symptoms were nausea, vomiting, sweating, and extreme weakness, and two patients subsequently developed acute pulmonary edema. In all cases, onset of symptoms was approximately $21 / 2$ hours after the workers entered a field that had been sprayed with a combination of methyl and ethyl parathion the night before, June 12. Of the 23 patients, 13 required hospitalization and 10 were treated as out-patients.

The patients were initially treated with 2 mgm atropine, intravenously, and $2 \mathrm{PAM}^{* *}$. In addition to treatment, immediate steps were taken to decontaminate the patients by removing their clothing and washing their skin to prevent further absorption of the parathion. Serum cholinesterase activity (which is depressed in organic phosphate poisonings) was determined on all patients by the Caraway method. ${ }^{1}$ The normal range for serum cholinesterase activity by this method is $65-100$ units per ml. The values obtained for the hospitalized patients ranged from $2-8$ units per ml and for the out-patients from $30-60$ units per ml .

Within 3 days, all patients had completely recovered and were discharged from the hospital. Follow-up treat-
ment for all 23 patients included atropine tablets in sufficient quantities to maintain a dry mouth and daily observation by the local physician.

On June 12 the cotton field had been sprayed with parathion. Because of a heavy dew that evening, considerable moisture was present on the cotton plants the following day. Because of this moisture and the height of the cotton plants (approximately $31 / 2$ feet), the workers' clothing was thoroughly soaked soon after work started in the field. These factors contributed to increased exposure to the parathion. All 23 workers were local residents, and most of them had worked for the cotton field owner for several years and had worked with parathion in the past without any adverse effects.
(Reported by J. S. Wiserman, Ph.D., Project Director, Community Pesticides Study, Texas State Department of Health, San Benito, Texas.)

[^0]TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
JULY 13, 1968 AND JULY 15, 1967 (28th WEEK)

| Area | ASEPTIC MENINGITIS |  | Bhlcellosis | diphtheria | ENCEPHALITIS |  |  | HEPATITIS |  |  | MALARIA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Primary including unsp. cases |  | PostInfectious | Serum | Infectious |  |  |
|  | 1968 | 1967 |  | 1968 | 1968 | 1968 | 1967 | 1968 | 1968 | 1968 | 1967 | 1968 |
| UNITED STATES... | 77 | 59 | 2 | 1 | 24 | 21 | 8 | 67 | 826 | 665 | 42 |
| NEW ENGLAND.......... | 1 | - | - | - | - | 1 | 1 | - | 34 | 24 | 1 |
| Maine............... | - | - | - | - | - | - | 1 | - | 3 | 3 | - |
| New Hampshire...... | - | - | - | - | - | - | - | - | - | 3 | - |
| Vermont............. | - | - | - | - | - | - | - | - | - | - | - |
| Massachusetrs...... | - | - | - | - | - | - | - | - | 14 | 12 | 1 |
| Rhode Island....... | 1 | - | - | - | - | - | - | - | 10 | 1 | - |
| Connecticut........ | - | - | - | - | - | 1 | - | - | 7 | 5 | - |
| middle atlantic...... | 3 | 4 | - | - | 1 | 3 | 3 | 21 | 150 | 109 | 4 |
| New York City...... | 1 | 2 | - | - | 1 | 2 | - | 8 | 53 | 37 | 1 |
| New York, Up-State. | - | - | - | - | - | - | 1 | 4 | 25 | 27 | 1 |
| New Jersey......... | 1 | 1 | - | - | - | - | - | 8 | 35 | 21 | 2 |
| Pennsylvania....... | 1 | 1 | - | - | - | 1 | 2 | 1 | 37 | 24 | - |
| EAST NORTH CENTRAL... | 14 | 10 | - | - | 7 | 9 | - | - | 156 | 113 | 3 |
| Ohio...*.... | 7 | 2 | - | - | 3 | 8 | - | - | 39 | 25 | - |
| Indiana.............. | 2 | - | - | - | 1 | - | - | - | 13 | 3 | - |
| Illinois............ | 2 | 1 | - | - | 2 | - | - | - | 49 | 45 | - |
| Michigan........... | 3 | 7 | - | - | 1 | 1 | - | - | 44 | 32 | 3 |
| Wisconsin.......... | - | - | - | - | - | - | - | - | 11 | 8 | - |
| WEST NORTH CENTRAL... | 3 | 1 | - | - | 3 | - | 2 | 2 | 47 | 45 | 2 |
| Minnesota........... | - | 1 | - | - | 2 | - | - | 2 | 11 | 7 | - |
| Iowa............... | - | - | - | - | - | - | 1 | - | 7 | 5 | - |
| Missouri............ | - | - | - | - | 1 | - | - | - | 17 | 30 | - |
| North Dakota....... | - | - | - | - | - | - | - | - | - | - | - |
| South Dakota....... | - | - | - | - | - | - | - | - | 1 | - | - |
| Nebraska............ | - | - | - | - | - | - | - | - | 1 | 1 | - |
| Kansas............. | 3 | - | - | - | - | - | 1 | - | 10 | 2 | 2 |
| SOUTH ATLANTIC....... | 3 | 5 | 2 | 1 | 2 | 2 | - | 2 | 65 | 65 | 12 |
| Delaware........... | - | - | - | - | 1 | - | - | - | 3 | 1 | - |
| Maryland............ | - | 1 | - | - | - | 1 | - | 1 | 20 | 15 | 3 |
| Dist. of Columbia.. | 1 | - | $\overline{-}$ | - | - | - | - | - | 2 | 2 | - |
| Virginia............ | - | 1 | 2 | - | 1 | - | - | - | 3 | 17 | - |
| West Virginia...... | - | - | - | - | - | - | - | - | 1 | 10 | - |
| North Carolina..... | 1 | - | - | - | - | 1 | - | - | 6 | 3 | 8 |
| South Carolina..... | - | - | - | - | - | - | - | - | 2 | 3 | - |
| Georgia............. | - | - | - | - | - | - | - | - | 5 | 2 | - |
| Florida............. | 1 | 3 | - | 1 | - | - | - | 1 | 23 | 12 | 1 |
| EAST SOUTH CENTRAL... | 3 | 8 | - | - | - | 1 | - | 1 | 48 | 29 | 1 |
| Kentucky........... | - | - | - | - | - | - | - | - | 12 | 7 | - |
| Tennessee.......... | 1 | 8 | - | - | - | 1 | - | 1 | 29 | 11 | - |
| Alabama............ | 2 | - | - | - | - | - | - | - | 3 | 1 | - |
| Mississippi........ | - | - | - | - | - | - | - | - | 4 | 10 | 1 |
| WEST SOUTH CENTRAL. | 32 | 11 | - | - | 3 | 2 | - | 3 | 48 | 59 | - |
| Arkansas............ | - | - | - | - | - | - | - | - | - | 2 | - |
| Louisiana. .......... | 17 | - | - | - | 2 | - | - | 1 | 12 | 6 | - |
| Oklahoma............ | 1 | - | - | - | 1 | 1 | - | - | 5 | 5 | - |
| Texas............... | 14 | 11 | - | - | - | 1 | - | 2 | 31 | 46 | - |
| mountain. . . . . . . . . . . | - | - | - | - | 2 | 1 | - | - | 36 | 40 | 7 |
| Montana. . . . . . . . . . | - | - | - | - | 1 | - | - | - | 12 | 10 | - |
| Idaho. . . . . . . . . . . . | - | - | - | - | - | - | - | - | 2 | 3 | - |
| Wyoming............. | - | - | - | - | - | - | - | - | - | - | 7 |
| Colorado........... | - | - | - | - | - | 1 | - | - | - | 6 | 7 |
| New Mexico. | - | - | - | - | 1 | - | - | - | 5 | 4 | - |
| Arizona............. | - | - | - | - | - | - | - | - | 12 | 13 | - |
| Utah................ | - | - | - | - | - | - | - | - | 4 | 4 | - |
| Nevada. . . . . . . . . . . | - | - | - | - | - | - | - | - | 1 | - | - |
| PACIFIC.............. | 18 | 20 | - | - | 6 | 2 | 2 | 38 | 242 | 181 | 12 |
| Washington.......... | - | 1 | - | - | 1 | - | - | - | 11 | 19 | 1 |
| Oregon.............. | - | - | - | - | - | 1 | - | 1 | 12 | 12 | - |
| California......... | 14 | 12 | - | - | 4 | 1 | 2 | 37 | 214 | 150 | 2 |
| Alaska............. | 2 | - | - | - | - | - | - | - | 3 | - | - |
| Hawaii............. | 2 | 7 | - | - | 1 | - | - | - | 2 | - | 9 |
| Puerto Rico........... | - | - | - | - | - | - | - | - | 11 | 25 | - |

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
JULY 13, 1968 AND JULY 15, 1967 (28th WEEK) - CONTINUED

| AREA | MEASLES (Rubeola) |  |  | MENINGOCOCCAL INFECTIONS, total |  |  | MIMPS | POLIOMYELITIS |  |  | $\qquad$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1968 | Cumulative |  |  | Cumulative |  | 1968 | Total | Paralytic |  | 1968 |
|  |  | 1968 | 1967 | 1968 | 1968 | 1967 |  | 1968 | 1968 | $1968$ |  |
| UNITED STATES... | 325 | 18,190 | 55,696 | 36 | 1,729 | 1,475 | 1,270 | 2 | 2 | 29 | 427 |
| NEW ENGLAND. . . . . . . . . | 20 | 1,100 | 792 | 1 | 88 | 58 | 153 | - | - | 1 | 69 |
| Maine...*. . . . . . . . . | - | 35 | 233 | - | 6 | 3 | 5 | - | - | - | 11 |
| New Hampshire..*... | - | 141 | 72 | - | 7 | 2 | 2 | - | - | - | - |
| Marmont............. | 9 | 1 | 34 | - | 1 | - | - | - | - | - | 1 |
| Massachusetts..*... | 9 | 352 1 | 308 | 1 | 38 | 29 | 88 | - | - | 1 | 18 |
| Connecticut......... | 11 | 570 | 85 | - | 29 | 4 20 | 29 29 | - | - | - | 21 18 |
| Middle atlantic. | 165 | 3,520 | 2,135 | 5 | 304 | 235 | 126 | - | - | - | 61 |
| New York City.. | 105 | 1,635 | 411 | 3 | 65 | 38 | 101 | - | - | - | 50 |
| New York, Up-State. | 14 | 1,149 | 523 | 1 | 48 | 59 | NN | - | - | - | 5 |
| New Jersey. ........ | 44 | 590 | 477 | - | 111 | 85 | 25 | - | - | - | 5 |
| Pennsylvania.\%..... | 2 | 146 | 724 | 1 | 80 | 53 | NN | - | - | - | 1 |
| EAST NORTH CENTRAL... | 27 | 3,539 | 5,041 | 7 | 209 | 191 | 340 | - | - | 1 | 98 |
| Ohio. . . . . . . . . . . . | 3 | 279 | 1,116 | 2 | 56 | 66 | 31 | - | - | - | 11 |
| Indiana............. | 2 | 616 | 579 | - | 28 | 21 | 18 | - | - | - | 5 |
| Illinois........... | 10 | 1,319 | 876 | 3 | 47 | 45 | 24 | - | - | 1 | 27 |
| Michigan........... | 2 | 238 | 871 | 2 | 61 | 44 | 49 | - | - | - | 29 |
| Wisconsin.......... | 10 | 1,087 | 1,599 | - | 17 | 15 | 218 | - | - | - | 26 |
| WEST NORTH CENTRAL... | 7 | 361 | 2,772 | - | 86 | 63 | 42 | 1 | 1 | 1 | 11 |
| Minnesota.......... | - | 15 | 128 | - | 19 | 15 | - | - | - | - | 1 |
| Iowa. . . . . . . . . . . . | 4 | 93 | 738 | - | 6 | 12 | 39 | - | - | - | 7 |
| Missouri............ | - | 80 | 329 | - | 31 | 12 | 1 | 1 | 1 | 1 | - |
| North Dakota. . . . . | - | 123 | 814 | - | 3 | 1 | - | - | - | - | 3 |
| South Dakota....... | - | 4 | 52 | - | 4 | 6 | NN | - | - | - | - |
| Nebraska............ | 1 | 36 | 618 | - | 6 | 11 | - | - | - | - | - |
| Kansas.............. | 2 | 10 | 93 | - | 17 | 6 | 2 | - | - | - | - |
| SOuth atlantic. . . . . . | 19 | 1,371 | 6,612 | 5 | 351 | 286 | 86 | - | - | 1 | 44 |
| Delaware........... | - | 14 | 43 | - | 6 | 5 | 4 | - | - | - | - |
| Maryland. . . . . . . . . . | 2 | 82 | 142 | - | 26 | 34 | 27 | - | - | - | 4 |
| Dist. of Columbia.. | - | 6 | 22 | - | 13 | 10 | 9 | - | - | - | 1 |
| Virginia........... | 1 | 289 | 2,066 | 1 | 28 | 35 | 4 | - | - | - | 6 |
| West Virginia...... | 10 | 249 | 1,334 | 1 | 9 | 20 | 25 | - | - | - | 8 |
| North Carolina..... | - | 281 | 838 | 1 | 69 | 60 | NN | - | - | 1 | - |
| South Carolina..... | 1 | 13 | 492 | - | 55 | 27 | 1 | - | - | - | 1 |
| Georgia............. | - | 4 | 32 | 1 | 61 | 43 | - | - | - | - | - |
| Florida............. | 5 | 433 | 1,643 | 1 | 84 | 52 | 16 | - | - | - | 24 |
| EAST SOUTH CENTRAL... | 15 | 538 | 5,000 | 3 | 148 | 120 | 77 | - | - | 1 | 30 |
| Kentucky. .. | 2 | 169 | 1,289 | - | 57 | 34 | 2 | - | - | 1 | 2 |
| Tennessee.......... | - | 55 | 1,756 | 1 | 49 | 49 | 67 | - | - | - | 27 |
| Alabama. | 10 | 85 | 1,303 | 2 | 22 | 24 | 8 | - | - | - | 1 |
| Mississippi. | 3 | 229 | 652 | - | 20 | 13 | - | - | - | - | - |
| WEST SOUTH CENTRAL... | 39 | 4,479 | 16,878 | 6 | 287 | 206 | 126 | 1 | 1 | 16 | 33 |
| Arkansas........... | - | 2 | 1,401 | 1 | 20 | 25 | - | - | - | - | - |
| Louisiana.......... | - | 2 | 149 | 2 | 81 | 82 | - | - | - | - | - |
| Oklahoma.. .*....... | 1 | 110 | 3,314 | 1 | 49 | 15 | - | - | - | 1 | - |
| Texas. | 38 | 4,365 | 12,014 | 2 | 137 | 84 | 126 | 1 | 1 | 15 | 33 |
| mountain. . | 12 | 938 | 4,469 | 1 | 27 | 26 | 149 | - | - | - | 26 |
| Montana............ | - | 66 | 275 | - | 3 | - | 5 | - | - | - | 1 |
| Idaho.............. | - | 20 | 368 | - | 11 | 1 | 21 | - | - | - | - |
| Wyoming. . . . . . . . . . | - | 50 | 178 | - | - | 1 | - | - | - | - | - |
| Colorado............ | 4 | 479 | 1,492 | 1 | 8 | 11 | 36 | - | - | - | 4 |
| New Mexico. . . . . . . . | 3 | 85 | 571 | - | - | 3 | 3 | - | - | - | 1 |
| Arizona. | 5 | 212 | 973 | - | 1 | 4 | 47 | - | - | - | 20 |
| Utah................ | - | 21 | 343 | - | 1 | 4 | 37 | - | - | - | - |
| Nevada.............. | - | 5 | 269 | - | 3 | 2 | - | - | - | - | - |
| PACIFIC.............. | 21 | 2,344 | 11,997 | 8 | 229 | 290 | 171 | - | - | 8 | 55 |
| Washington......... | 1 | 514 | 5,384 | 1 | 37 | 25 | 5 | - | - | - | - |
| Oregon. . .*. . . . . . . . | 7 | 454 | 1,515 | - | 17 | 24 | 15 | - | - | - | 2 |
| California......... | 13 | 1,340 | 4,823 | 7 | 162 | 228 | 121 | - | - | 8 | 42 |
| Alaska.............. | - | 2 | 128 | - | 2 | 9 | 4 | - | - | - | 2 |
| Hawai1............. | - | 34 | 147 | - | 11 | 4 | 26 | - | - | - | 9 |
| Puerto Rico.......... | 8 | 347 | 2,015 | 1 | 19 | 10 | 34 | - | - | - | - |

* Delayed reports: Measles: Mass. delete 1 , Pa. delete 10 , Ore. delete 5

Meningococcal infections: Fla. 2
Mumps: N.H. 4, Okla. 2
Poliomyelitis, paralytic: Ky.
Rubella: Me. 3, N.H. 1, N. Mex. 4, Ore. 5

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES FOR WEEKS ENDED

JULY 13, 1968 AND JULY 15, 1967 (28th WEEK) - CONTINUED

| AREA | STREPTOCOCCAL SORE THROAT \& SCARLET FEVER | TETANUS |  | TULAREMIA |  | TYPHOID |  | TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted) |  | RABIES IN ANIMALS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1968 | 1968 | $\begin{aligned} & \hline \text { Cum. } \\ & 1968 \\ & \hline \end{aligned}$ | 1968 | $\begin{aligned} & \hline \text { Cum. } \\ & 1968 \\ & \hline \end{aligned}$ | 1968 | Cum. <br> 1968 | 1968 | $\begin{aligned} & \text { Cum. } \\ & 1968 \\ & \hline \end{aligned}$ | 1968 | $\begin{aligned} & \text { Cum- } \\ & 1968 \\ & \hline \end{aligned}$ |
| UNITED STATES... | 4,907 | 2 | 75 | 11 | 113 | 9 | 156 | 9 | 100 | 83 | 1,990 |
| NEW ENGLAND. . . . . . . . | 722 | - | 1 | 6 | 46 | 1 | 5 | - | - | 3 | 65 |
| Maine............... | 3 | - | - | - | - | - |  | - | - | - | 50 |
| New Hampshire...... | 14 | - | - | - | - | 1 | 1 | - | - | - | 2 |
| Vermont............. | 58 | - | - | 6 | 46 | - | - | - | - | 2 | 10 |
| Massachusetts...... | 108 | - | - | - | - | - | 2 | - | - | 1 | 2 |
| Rhode Island....... | 59 | - | - | - | - | - | - | - | - | - | - |
| Connecticut........ | 480 | - | 1 | - | - | - | 2 | - | - | - | 1 |
| Middle atlantic...... | 204 | - | 10 | - | 7 | 1 | 13 | - | 7 | 3 | 20 |
| New York City..... | 8 | - | 5 | - | - | - | 7 | - | - | - | 14 |
| New York, Up-State. | 195 | - | 4 | - | 7 | 1 | 3 | - | 1 | 3 | 14 |
| New Jersey......... | NN | - | - | - | - | - |  | - | 1 | - | - |
| Pennsylvania....... | 1 | - | 1 | - | - | - | 3 | - | 5 | - | 6 |
| EAST NORTH CENTRAL... | 404 | - | 8 | - | 7 | 1 | 24 | - | 3 | 16 | 184 |
| Ohio................ | 119 | - | - | - | 1 | - | 11 | - | 2 | 3 | 72 |
| Indiana............ | 55 | - | 1 | - | 1 | - | 3 | - | - | 1 | 60 |
| Illinois........... | 60 | - | 5 | - | 4 | 1 | 9 | - | 1 | 5 | 23 |
| Michigan........... | 104 | - | 2 | - | 1 | - | - | - | - | - | 9 |
| Wisconsin.......... | 66 | - | - | - | - | - | 1 | - | - | 7 | 20 |
| WEST NORTH CENTRAL... | 173 | - | 3 | 1 | 8 | - | 8 | - | 3 | 22 | 460 |
| Minnesota.......... | 37 | - | 1 | - | - | - | - | - | - | 11 | 136 |
| Iowa................ | 34 | - | - | - | - | - | 1 | - | - | 4 | 86 |
| Missouri............ | - | - | 2 | 1 | 6 | - | 3 | - | 1 | 1 | 76 |
| North Dakota....... | 63 | - | - | - | - | - | - | - | - | 5 | 80 |
| South Dakota....... | 15 | - | - | - | 1 | - | 1 | - | 1 | - | 34 |
| Nebraska............ | 20 | - | - | - | - | - | 3 | - | 1 | 1 | 23 |
| Kansas............. | 4 | - | - | - | 1 | - | 3 | - | - | - | 25 |
| SOUTH ATLANTIC....... | 391 | - | 14 | - | 7 | - | 39 | 2 | 54 | 9 | 220 |
| Delaware........... | 3 | - | - | - | - | - | - |  |  | - | - |
| Maryland........... | 115 | - | 1 | - | - | - | 7 | 1 | 6 | - | 3 |
| Dist. of Columbia.. | 45 | - | 1 | - | - | - | 2 | - | - | - | - |
| Virginia............ | 72 | - | 2 | - | 1 | - | 8 | 1 | 22 | - | 87 |
| West Virginia...... | 123 | - | 1 | - |  | - | - | - | - | 2 | 29 |
| North Carolina..... | - | - | 2 | - | 2 | - | 2 | - | 16 | 1 | 9 |
| South Carolina..... | 8 | - | 1 | - | - | - | - | - | 2 | - | - |
| Georgia............ | 6 | - | - | - | 2 | - | 9 | - | 6 | 2 | 33 |
| Florida............ | 19 | - | 6 | - | 2 | - | 11 | - | 2 | 4 | 59 |
| EAST SOUTH CENTRAL... | 1,039 | - | 9 | - | 6 | 2 | 19 | 7 | 17 | 11 | 468 |
| Kentucky. . . . . . . . . | 11 | - | 1 | - | 1 | 2 | 5 | 2 | 3 | 8 | 227 |
| Tennessee.......... | 859 | - | 2 | - | 4 | - | 11 | 5 | 12 | 2 | 219 |
| Alabama............. | 115 | - | 3 | - | - | - |  |  | 1 | 1 | 21 |
| Mississippi....... | 54 | - | 3 | - | 1 | - | 3 | - | 1 | - | 1 |
| WEST SOUTH CENTRAL... | 557 | 1 | 16 | 4 | 26 | 3 | 14 | - | 13 | 8 | 361 |
| Arkansas.......... | 8 | - | 4 | 3 | 5 | 2 | 3 | - | 1 | 1 | 42 |
| Louisiana........... | 1 | - | 5 | 1 | 5 | - | 2 | - | - | 2 | 33 |
| Oklahoma.......... | 50 | - | - | - | 6 | 1 | 4 | - | 6 | 1 | 107 |
| Texas.............. | 498 | 1 | 7 | - | 10 | - | 5 | - | 6 | 4 | 179 |
| MOUNTAIN. . . . . . . . . . . | 812 | - | - | - | 5 | - | 9 | - | 2 | 4 | 51 |
| Montana. . . . . . . . . . | 21 | - | - | - | - | - | - | - | - | - | - |
| Idaho. . . . . . . . . . . | 47 | - | - | - | - | - | - | - | - | - | - |
| Wyoming............ | 12 | - | - | - | 1 | - | 1 | - | - | - | 2 |
| Colorado........... | 420 | - | - | - | 2 | - | 2 | - | 2 | - | 3 |
| New Mexico..*..... . | 132 | - | - | - | - | - | 6 | - | 2 | - | 20 |
| Arizona. . . . . . . . . . | 56 | - | - | - | - | - | - | - | - | 4 | 26 |
| Utah............... | 124 | - | - | - | 2 | - | - | - | - | - | - |
| Nevada. . . . . . . . . . | - | - | - | - | - | - | - | - | - | - | - |
| PACIFIC............... | 605 | 1 | 14 | - | 1 | 1 | 25 | - | 1 | 7 | 161 |
| Washington. . . . . . . | 22 | - | 1 | - | - | - | - | - | - | - | - |
| Oregon.............. | 43 | - | 1 | - | 1 | - | 3 | - | - | - | 3 |
| California......... | 383 | 1 | 12 | - | - | 1 | 22 | - | 1 | 7 | 158 |
| Alaska............ | 37 | - | - | - | - | - | - | - | - | - | - |
| Hawaii.............. | 120 | - | - | - | - | - | - | - | - | - |  |
| Puerto Rico......... | 11 | - | 5 | - | - | - | 1 | - | - | - | 16 |

Week No. TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED JULY 13, 1968
(3y place of occurrence and week of filing certificate. Excludes fetal deaths)


## CURRENT TRENDS MEASLES - United States

For the week ending July 13, 1968, 325 cases of measles were reported to NCDC. This is the third consecutive week in which the reported cases have totaled fewer than 500 cases per week. The reported cases, since the week ending January 13 when 483 cases were reported, have ranged from 517 to 949 .

From June 16 through July 13, 1968, (weeks 25-28), 1,580 cases of measles were reported. This is 1,125 fewer cases than the 2,705 reported for the preceding 4 -week period and is 60 percent of the 2,653 cases reported for the corresponding 4 weeks in 1967 (Figure 2). The cumulative total for the first 40 weeks of the current measles epidemiologic year* is 32.5 percent of the 67,889 cases reported during the comparable 40 -week period in epidemiologic year 1966-67.

Figure 2
REPORTED CASES OF MEASLES BY 4-WEEK PERIODS UNITED STATES
EPIDEMIOLOGIC YEAR 1967-68, COMPARED WITH 1966-67

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

[^1]ERRATUM, Vol. 17, No. 27, p. 254
In the article "Shigella - July-December 1967," paragraph two is incorrect. Please substitute the following corrected paragraph:
"Of the total of 6,556 isolations, 5,113 were classified by serotype. These 5,113 shigella isolations represented 23 serotypes. The six most frequently reported serotypes during the 6 -month period are presented in Table 2."

In the same article in Table 2, the word "Total" should be substituted for the word "Subtotal" and the lines "Specimens not typed 1,638 " and "Total 6,556 " should be deleted.

THE MOREIDITY AND MORTALITY WEEKLY REPORT WITH A CIRCULATHE MOREIDITY AND MORTALITY WEEKLYREPORT, WITH A CIRCULATION OF 17,000, IS PUALISHED AT T
DIRECTOR, NATIONAL COMMUNICABLE DISEASE CENTER
CHIEF, EPIDEMIOLOGYPROGRAM
DAVIDJ. SENCER, M.D.
CHIEF, EPIDEMI CHIEF, STATISTICS SECTION
EDITOR
IDA L. SHERMAN, M.S.
$\qquad$ MICHAEL B. GREGG, M.D.

IN ADDITION TO THE ESTABLISHED PROCEDURES FOR REPORTING MOREIDITY AND MORTALITY, THENATIONAL COMMUNICABLEDISEASE CENTER WELCOMES ACCOUNTS OF INTERESTING OUTEREAKS OR CASE INVESTIGATIONS WHICH ARE OF CURRENT INTEREST TO HEALTH OF COMMUNICABLE DISEASES. SUCH COMMUNICATIONS SHOULD AE
ADDRESSED TO:
NATIONAL COMMUNICABLE DISEASE CENTER
ATLANTA, GEORGIA 30333
MORBIDITY AND MORTALITY WEEKLY REPORT
NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE EASED ON WEEKLYTELEGRAMS TO THE NCDC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES
ON SATURDAYI COMPILED DATA ON ANATIONAL BASIS ARE RELEASED ON THE SUCCEEDING FRIDAY.



[^0]:    * Parathion is O,O-dimethyl O-(p-nitrophenyl) phosphorothioate
    **2-PAM is 2-Pyridine aldoxime methochloride (or pralidoxime chloride)


    ## Reference:

    ${ }^{1}$ Caraway, Wendell, T.: Photometric Determination of Serum Cholinesterase Activity, Am J Clin Pathol 26:945-955, 1956.

[^1]:    *The epidemiologic year for measles begins with week 41 of the calendar year and ends with week 40 of the succeeding year.

