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

HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION

## EPIDEMIOLOGIC NOTES AND REPORTS OUTBREAK OF ST. LOUIS ENCEPHALITIS Southeastern, Illinois

During the first 2 weeks of September 1968, eight elderly persons with clinical encephalitis were hospitalized in Eldorado, Illinois, a town of about 3,600 people in Saline County southeastern Illinois. Preliminary serologic testing has confirmed St. Louis encephalitis in one case in which a diagnostic rise in hemagglutination inhibition (HI) titer from <1:10-1:80 was demonstrated. Acute sera from three other cases have shown HI antibody titers against St. Louis encephalitis, but tests cn paired sera are pending. Further serologic tests are in progress. All cases were residents of Eldorado, except for one fatal

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case, a 74-year-old resident of the small neighboring town of Raleigh who expired on September 10 after a 5 -day illness. No etiologic diagnosis was made in that case. Active surveillance efforts have revealed two other clinically suspected cases of encephalitis with onset on September 11 and 14 in Harrisburg, 7 miles from Eldorado.
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TABLE I. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
(Cumulative totals include revised and delayed reports through previous weeks)

| DISEASE | 37th WEEK ENDED |  | MEDIAN 1963-1967 | CUMULATIVE, FIRST 37 WEEKS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | September 14, 1968 | September 16, 1967 |  | 1968 | 1967 | $\begin{gathered} \text { MEDIAN } \\ 1963-1967 \end{gathered}$ |
| Aseptic meningitis | 221 | 131 | 102 | 2,575 | 1,906 | 1,354 |
| Brucellosis | 5 | 5 | 5 | 153 | 184 | 184 |
| Diphtheria. | 13 | 9 | 5 | 132 | 88 | 132 |
| Encephalitis, primary: <br> Arthropod-borne \& unspecified | 75 | 55 | $\cdots$ | 869 | 1,139 | -. |
| Encephalitis, post-infectious | 6 | 10 | .-. | 373 | 637 | .-. |
| Hepatitis, serum | 89 | 38 | 617 | 3.038 | 1,518 | 27.679 |
| Hepatitis, infectious | 1,009 | 857 | 617 | 31.258 | 27,036 | 27,679 |
| Malaria | 65 | 47 | 5 | 1,575 | 1,402 | 71 |
| Measles (rubeola) | 115 | 225 | 425 | 19,673 | 57,845 | 240.213 |
| Meningococcal infections, total | 31 | 16 | 26 | 2,031 | 1,679 | 2,044 |
| Civilian | 29 | 16 | ... | 1,852 | 1,566 | $\cdots$ |
| Military | 2 | - | -.. | 179 | 113 | -. |
| Mumps | 644 | $\cdots$ | - - | 125,052 | - | - |
| Poliomyelitis, total | 2 | - | - | 39 | 26 | 71 |
| Paralytic ............................... | 2 | - | - | 39 | 22 | 63 |
| Rubella (German measles) | 309 | 153 | … | 43,898 | 39,876 | . . |
| Streptococcal sore throat \& scarlet fever. | 4,748 | 5,348 | 4,246 | 305,238 | 328,822 | 295,333 |
| Tetanus . . . . . . . . . . . . . . . . . . . | 5 | 3 | 6 | 111 | 155 | 180 |
| Tularemia | 4 | 6 | 6 | 142 | 131 | 187 |
| Typhoid fever | 19 | 14 | 16 | 263 | 299 | 297 |
| Typhus, tick-borne (Rky. Mt. spotted fever). | 9 | 12 | 9 | 237 | 262 | 207 |
| Rabies in animals . . . . . . . . . . . . . . . . . . . . | 61 | 82 | 82 | 2,544 | 3,212 | 3.212 |

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

|  | Cum. | Rabies in man: | Cum. |
| :---: | :---: | :---: | :---: |
| Anthrax: | 3 |  | - |
| Botulism: | 4 | Rubella, Congenital Syndrome: | 5 |
| Leptospirosis: | 30 | Trichinosis: | 47 |
| Plague: . . . . . | 2 | Typhus, murine: Tex.-1 | 22 |
| Psittacosis: | 35 |  |  |

## OUTBREAK OF ST. LOUIS ENCEPHALITIS - (Continued from front page)

In addition to the occurrence of frank encephalitis, cases of aseptic meningitis have also been reported from this vicinity. Recently three young adults, one in Eldorado and two in the town of Carmi in White County approximately 30 miles from Eldorado, were hospitalized with aseptic meningitis.

Eldorado lies approximately 25 miles south of McCleansborough, Illinois, site of a 1964 outbreak of 19 cases of St. Louis encephalitis (MMWR, Vol. 14, No. 29). Since 1964 continuing virological and ecological investigations in Eldorado have shown activity of St. Louis encephalitis in Culex pipiens mosquitoes and certain avian species. On September $13,1968,15$ pools of C. pipiens were collected and are now being processed.

At the present time, intensive surveillance, emphasizing case confirmation and detection of milder clinical syndromes, including aseptic meningitis, febrile headache, and other syndromes possibly due to St. Louis encephalitis virus, is in progress.
(Reported by Allen Kelly, Acting Administrator, Egyptian Health Department; Dr. E. L. Sederlin, Regional Health Officei, Illinois Region V, Chicago, Illinois; Norman J. Rose, M.D., M.P.H., Chief, Bureau of Epidemiology, and Richard Morrissey, M.P.H., Chief, Division of Laboratories, Illinois Department of Public Health; E. I. Pilchard, M.S., Ph.D., D.V.M., Zoonoses Research Center, University of Illinois, Urbana, Illinois; and three EIS Officers.)

## PRESUMPTIVE A2/HONG KONG/68 INFLUENZA - Vancouver, Washington

An outbreak of influenza-like disease which occurred during the last 2 weeks of August in seamen aboard a U.S. Merchant Marine Vessel, returning from the Far East, has been diagnosed as presumptive A2/Hong Kong/ 68 influenza by hemagglutination-inhibition (HI) tests. On September 6, the S.S. Raleigh, docked in Vancouver, Washington, and reported that during the voyage 11 of its 40 crew members had had an influenza-like illness. In the past 3 months, the vessel had made one trip to the Far East, and its only port of call had been Saigon; the ship docked in Saigon on August 12 and left on August 18. One crew member became ill on August 14, two others on August 16, and eventually eight others became ill. The clinical syndrome was typical for influenza-like illness: fever, myalgia, cough, headache, and chills.

On September 6, 1968, 27 crew members including the 11 persons who had been ill were bled and the sera was tested for HI antibodies on September 12 (Table 1). There is a fivefold difference in the geometric mean titer (GMT) against the A 2 /Hong Kong/ 68 strain between those with a history of influenza-like disease and those without a history. This difference is significant with $\mathrm{P}<0.01$. Although there is a slightly greater than twofold difference in GMT against A2/Japan/170/62 in these two groups. it is not statistically significant.
(Lawrence O.Berg, Quarantine Inspector, Portland, Oregon, Gordon C. Edwards, M.D., M.P.H., Director, Division of Preventive MedicalServices, and Gatlin R.Brandon, M.P.H. Director, Section of Public Health Laboratory, Oregon State Board of Health; Byron J. Francis, M.D., M.P.H.,

Table 1
$\begin{array}{lc}\text { Persons With Influenza-like Illness } & \text { Persons With No Influenza-like Illness } \\ 10 \text { or More Days Prior to Docking } & \text { During the Voyage }\end{array}$

| Patient No. | ANTIGENS |  |  | Patient No. | ANTIGENS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A2/Hong Kong | A2/Jap/170/62 | B/Mass |  | A2/Hong Kong | A2/Jap/170/62 | B. Mass |
| 6 | 80 | 80 | $<10$ | 1 | $<10$ | 10 | $<10$ |
| 10 | $<10$ | 40 | $<10$ | 2 | $<10$ | 20 | 10 |
| 16 | 80 | <10 | $<10$ | 3 | <10 | 40 | $<10$ |
| 17 | 40 | 160 | 20 | 4 | 10 | 160 | $<10$ |
| 20 | 80 | 160 | $<10$ | 5 | 40 | 160 | -10 |
| 21 | 40 | 80 | $<10$ | 7 | $<10$ | 160 | <10 |
| 22 | 40 | 80 | 20 | 8 | $<10$ | -10 | $<10$ |
| 24 | 80 | 40 | $<10$ | 9 | 40 | -10 | <10 |
| 25 | 40 | 80 | $<10$ | 11 | 80 | 160 | 40 |
| 26 | 40 | 80 | $<10$ | 12 | 20 | 320 | $<10$ |
| 27 | 320 | 640 | 40 | 13 | $<10$ | 40 | 80 |
|  |  |  |  | 14 | $<10$ | 20 | 10 |
|  |  |  |  | 15 | $<10$ | 10 | 10 |
|  |  |  |  | 18 | $<10$ | 10 | 10 |
|  |  |  |  | 19 | $<10$ | 10 | 10 |
|  |  |  |  | 23 | 40 | 160 | 10 |
| GMT* | 31.46 | 75.11 | 7.77 | GMT | 10.00 | 33.64 | 6.77 |

Acting Chief, Division of Epidemiology, Washington State Department of Health; Respiratory Virus Infections Unit, Laboratory Program, NCDC; and an EIS Officer.)

## Editorial Note

This investigation illustrates a method for rapid diagnosis of influenza as described by several investigators. ${ }^{1,2}$ Sera from acutely ill and convalescent patients are collected at one time and the same serologic test (HI
or CF) is performed in a single run on the sera in each group. Geometric mean titers are then calculated for the acute and convalescent groups and statistically analyzed. If the difference in GMT is found to be statistically significant, a presumptive diagnosis of influenza can be made. References:
${ }^{1}$ Milstone, J.H., et al.: 1954 Influenza B Epidemic in the Pacific Area, Military Surgeon, 1946.
${ }^{2}$ Grist, N.R., et al.: Rapid Serological Diagnosis of an Outbreak of Influenza, Brit Med J $2: 5249,1961$.

## INTERNATIONAL NOTES <br> SMALLPOX - West and Central Africa

As reported to the World Health Organization, smallpox in the 19 countries of West and Central Africa during the first 6 months of 1968 decreased markedly from previous characteristic levels (Figure 1). For the period, the 19 countries reported 3,982 cases of smallpox compared with 7,891 cases reported during the first 6 months of 1967. The average number of reported cases for the first 6 months of the years $1960-67$ was 7,108 . The characteristic seasonal distribution of smallpox in these countries is an epidemic upsurge during the dry season (early in the year) followed by a gradual decline in cases during the rainy season (generally, May-September) and an eventual seasonal low during the inter-seasonal months (September-November). In 1968, however, peak incidence occurred earlier than usual and reached a level approximately one-half that of the usual peak incidence. These findings are in contrast to experience in the remainder of Africa where reported cases during the first half of 1968 paralleled those reported in 1967.

The changes in the long-term trend of smallpox in West and Central Africa reflect the activities of the West and Central African Smallpox Eradication and Measles Control Program, a collaborative effort of 19 countries which is jointly assisted by USAID and the U.S. Public Health Service and is part of the WHO Global Smallpox Eradication Program. Since its beginning in January 1967, the "attack phase" of the regional eradication drive, with scheduled completion in all but one country by December 1969 , has aimed at vaccinating all the population against smallpox and children age $0-4$ years against measles. As of September 5,1968 , a total of 55 million vaccinations had been administered in the population of $110,000,000$ people. In February 1968 when over 25 million vaccinations had been performed, the first evidence of a substantial change in the long-term trend of smallpox occurred (Figure 1).

Figure 1
REPORTED SMALLPOX CASES BY MONTH, 1960-67
AVERAGE, 1967 AND 1968 WEST AND CENTRAL AFRICA


The reduction of smallpox incidence together with the expected seasonal decrease in smallpox incidence during the current rainy season affords a unique opportunity to interrupt smallpox transmission. During the September-November period, presently infected countries plan to intensify methods of active case detection and outbreak control.
(Reported by the Smallpox Eradication Program, NCDC.)
Editorial Note:
The year of lowest incidence of smallpox in West and Central Africa from $1960-67$ was 1964 . Although records of smallpox occurrence prior to 1960 are incomplete, 1964 was probably the year of lowest incidence in history. Provisional data suggest that despite known improvements in reporting. the incidence of smallpox in June 1968 is significantly lower than that recorded in June 1964.

EPIDEMIOLOGIC NOTES AND REPORTS
MALARIA - Balitimore, Maryland

On April 18, 1968, a Liberian freighter departed from Buchanan, Liberia, bound for Baltimore, Maryland. On May 2 while at sea, the third engineer aboard this vessel, a 27 -year-old West German, developed nausea, vomiting,
and bilateral costovertebral angle pain. On May 6, 2 days after arrival in Baltimore, he was hospitalized because of persistence of these symptoms and the development of (Continued on page 344)

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
SEPTEMBER 14, 1968 AND SEPTEMBER 16, 1967 (37th WEEK)

| AREA | ASEPTIC MENINGITIS |  | matcell | DIPHTHERA | ENCEPHALITIS |  |  | HEPATITIS |  |  | MALARIA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Primary including unsp. cases |  | PostInfectious | Serum | Infectious |  |  |
|  | 1968 | 1967 |  | 1968 | 1968 | 1968 | 1967 | 1968 | 1968 | 1968 | 1967 | 1968 |
| UNITED STATES... | 221 | 131 | 5 | 13 | 75 | 55 | 6 | 89 | 1,009 | 857 | 65 |
| new england.......... | 11 | 4 | - | - | - | - | - | 4 | 49 | 44 | 2 |
| Maine...*........... | - | - | - | - | - | - | - | - | 2 | 1 | - |
| New Hampshire...... | - | - | - | - | - | - | - | - | - | - | 1 |
| Vermont............. | - | - | - | - | - | - | - | - | 7 | - | - |
| Massachusetts...... | 6 | 2 | - | - | - | - | - | 1 | 14 | 18 | - |
| Rhode Is land....... | 3 | 1 | - | - | - | - | - | - | 15 | 7 | - |
| Connecticut........ | 2 | 1 | - | - | - | - | - | 3 | 11 | 18 | 1 |
| middle atlantic...... | 50 | 11 | - | - | 11 | 4 | 1 | 20 | 167 | 125 | 9 |
| New York City...... | 16 | 6 | - | - | 2 | 1 | - | 14 | 59 | 28 | 3 |
| New York, up-State. | 6 | - | - | - | 1 | 1 | - | 2 | 32 | 30 | 1 |
| New Jersey..*...... | 25 | 4 | - | - | 3 | - | - | 3 | 29 | 17 | 2 |
| Pennsylvania....... | 3 | 1 | - | - | 5 | 2 | 1 | 1 | 47 | 50 | 3 |
| EAST NORTH CENTRAL... | 60 | 18 | - | - | 38 | 28 | 1 | 7 | 124 | 108 | 1 |
| Ohio............... | 10 | 11 | - | - | 32 | 23 | - | - | 22 | 18 | - |
| Indiana....*........ | 2 | - | - | - |  | 2 | - | - | 4 | 7 | - |
| Illinois........... | 5 | 5 | - | - | 1 | 2 | 1 | 4 | 40 | 34 | 1 |
| Michigan........... | 43 | 2 | - | - | 5 | - | - | 3 | 55 | 37 | - |
| Wisconsin.......... | - | - | - | - | - | 1 | - | - | 3 | 12 | - |
| WEST NORTH CENTRAL... | 6 | 1 | 2 | - | - | 9 | 2 | 2 | 62 | 61 | 6 |
| Minnesota.......... | 2 | 1 | - | - | - | 2 | 2 | 2 | 16 | 13 | - |
| Iowa................ | 1 | - | 2 | - | - | 5 | - | - | 6 | 8 | - |
| Missouri........... | - | - | - | - | - | 2 | - | - | 25 | 26 | 2 |
| North Dakota....... | 3 | - | - | - | - | - | - | - | 1 | 2 | - |
| South Daknta....... | - | - | - | - | - | - | - | - | 9 | - | - |
| Nebraska........... | - | - | - | - | - | - | - | - | 1 | 1 | - |
| Kansas.............. | - | - | - | - | - | - | - | - | 4 | 11 | 4 |
| SOUTH ATLANTIC....... | 14 | 42 | 2 | 2 | 7 | 5 | 1 | 2 | 106 | 81 | 27 |
| Delaware............ | - | - | - |  | - | - | - | - | 9 | 5 | - |
| Maryland............ | 9 | 33 | - | - | - | 3 | - | - | 9 | 21 | - |
| Dist. of Columbia.. | - | - | - | - | - | - | - | - | - | 3 | - |
| Virginia........... | 1 | 2 | - | - | 2 | 2 | - | 1 | 14 | 7 | - |
| West Virginia..t... | 4 | 7 | - | - | 1 | - | - | - | 8 | 5 | - |
| North Carolina..... | - | - | - | - | - | - | - | - | 3 | 11 | 15 |
| South Carolina..... | - | - | - | - | 2 | - | - | - | 8 | 2 | - |
| Georgia............. | - | - | 2 | 1 | - | - | - | - | 39 | 16 | 12 |
| Florida............ | - | - | - | 1 | 2 | - | 1 | 1 | 16 | 11 | - |
| EAST SOUTH CENTRAL... | 14 | 11 | 1 | - | 2 | - | - | 1 | 56 | 82 | - |
| Kentucky........... | - | 6 |  | - |  | - | - | - | 24 | 54 | - |
| Tennessce........... | 13 | 4 | 1 | - | 2 | - | - | - | 12 | 13 | - |
| Alabama............. | 1 | - | - | - | - | - | - | 1 | 16 | 6 | - |
| Mississippi........ | - | 1 | - | - | - | - | - | - | 4 | 9 | - |
| WEST SOUTH CENTRAL... | 5 | 10 | - | 11 | 6 | 2 | - | 4 | 52 | 111 | 1 |
| Arkansas............ | - | - | - | - | - | - | - | - | - | 33 | 1 |
| Louisiana...*...... | 4 | 2 | - | 2 | 2 | 1 | - | 2 | 17 | 14 | - |
| Oklahoma. . . . . . . . . | - | 5 | - |  | 3 | - | - | - | 2 | 1 | - |
| Texas............... | 1 | 3 | - | 9 | 1 | 1 | - | 2 | 33 | 63 | - |
| mountain. . . . . . . . . . . | 3 | - | - | - | - | 2 | - | - | 73 | 29 | 11 |
| Montana............. | - | - | - | - | - | - | - | - | 11 | 4 | - |
| Idaho............... | - | - | - | - | - | - | - | - | 1 | 3 | - |
| Wyoming............. | - | - | - | - | - | - | - | - | - | - | - |
| Colorado............ | 3 | - | - | - | - | 1 | - | - | 6 | 3 | 11 |
| New Mexico......... | - | - | - | - | - | 1 | - | - | 7 | 3 | - |
| Arizona............ | - | - | - | - | - | - | - | - | 31 | 14 | - |
| Utah................ | - | - | - | - | - | - | - | - | 10 | 2 | - |
| Nevada.............. | - | - | - | - | - | - | - | - | 7 | - | - |
| PACIFIC.............. | 58 | 34 | - | - | 11 | 5 | 1 | 49 | 320 | 216 | 8 |
| Washington. . . . . . . . | 1 | - | - | - | - | 2 | - | - | 36 | 13 | 1 |
| Oregon.............. | - | 2 | - | - | - | - | - | 3 | 26 | 20 | 1 |
| California.......... | 54 | 26 | - | - | 11 | 1 | 1 | 46 | 254 | 180 | 5 |
| Alaska.............. | - | - | - | - | - | 2 | - | - | 2 | 2 | - |
| Hawaii.............. | 3 | 6 | - | - | - | - | - | - | 2 | 1 | 1 |
| Puerto Rico...*...... | - | - | - | - | - | - | - | - | 26 | 14 | - |

*Delayed Reports: Diphtheria: La. delete 2
Hepatitis, serum: N.J. 2, Ind. 1
Hepatitis, infectious: Me. 1, N.J. 2, Ind. delete 1, W. Va. delete 1, P.R. 1
Malaria: N.J. 2, La. delete 1

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
SEPTEMBER 14, 1968 AND SEPTEMBER 16, 1967 (37th WEEK) - CONTINUED

| AREA | MEASLES (Rubeola) |  |  | MENINGOCOCCAL INFECTIONS, total |  |  | MMPS $1968$ | POLIOMYELITIS |  |  | $\qquad$ <br> 1968 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Cumulative |  |  | Cumulative |  | $1968$ | Total <br> 1968 | Paralytic |  | 1968 |
|  | 1968 | $\frac{1968}{19,673}$ | $\frac{1967}{57,845}$ | 1968 | 1968 | 1967 |  |  | 1968 | $1968$ |  |
| UNITED STATES... | 115 |  |  | 31 | 2,031 | 1,679 | 644 | 2 | 2 | 39 | 309 |
| NEW ENGLAND. . . . . . . . . | 7 | 1,157 | 846 | 5 | 121 | 68 | 68 | - | - | 1 | 34 |
| Maine. . . . . . . . . . . . | - | 37 | 239 | - | 6 | 3 | 6 | - | - | - | 1 |
| New Hampshire...... | - | 141 | 74 | - | 7 | 2 | 2 | - | - | - | - |
| Vermont............ | - | 2 | 34 | - | 1 | 1 | 6 | - | - | - | - |
| Massachusetts.... | 4 | 365 | 347 | - | 63 | 32 | 35 | - | - | 1 | 11 |
| Rhode Is land. . . . . . | - | 5 | 62 | 1 | 9 | 4 | 7 | - | - | - | 3 |
| Connecticut........ | 3 | 607 | 90 | 4 | 35 | 26 | 12 | - | - | - | 19 |
| Middle atlantic...... | 37 | 4,091 | 2,261 | 5 | 363 | 275 | 51 | - | - | - | 26 |
| New York City...... | 30 | 2,110 | 456 | 1 | 73 | 48 | 43 | - | - | - | 16 |
| New York, Up-State. | 1 | 1,218 | 585 | - | 64 | 67 | NN | - | - | - | 9 |
| New Jersey.......... | 4 | 636 | 487 | 2 | 128 | 93 | 8 | - | - | - | - |
| Pennsylvania....... | 2 | 127 | 733 | 2 | 98 | 67 | NN | - | - | - | 1 |
| EAST NORTH CENTRAL. . . | 18 | 3,780 | 5,445 | 8 | 245 | 227 | 163 | - | - | 1 | 127 |
| Ohio................ | 1 | 294 | 1,142 | - | 64 | 80 | 4 | - | - | - | 6 |
| Indiana............. | 1 | 672 | 595 | 5 | 35 | 22 | 14 | - | - | - | 7 |
| Illinois. | 4 | 1,364 | 977 | 1 | 54 | 54 | 15 | - | - | 1 | 80 |
| Michigan........... | 2 | 266 | 932 | 2 | 72 | 55 | 35 | - | - | - | 32 |
| Wisconsin.......... | 10 | 1,184 | 1,799 | - | 20 | 16 | 95 | - | - | - | 2 |
| WEST NORTH CENTRAL. . . | 1 | 384 | 2,860 | - | 108 | 72 | 54 | - | - | 2 | 16 |
| Minnesota......... | - | 16 | 134 | - | 26 | 18 | - | - | - | - | - |
| Iowa... | - | 98 | 749 | - | 6 | 14 | 35 | - | - | - | 9 |
| Missouri............ | - | 81 | 333 | - | 35 | 15 | 1 | - | - | 2 | - |
| North Dakota....... | 1 | 134 | 870 | - | 3 | 1 | 17 | * | - | - | 6 |
| South Dakota....... | - | 4 | 53 | - | 5 | 6 | NN | - | - | - | - |
| Nebraska........... | - | 41 | 628 | - | 6 | 12 | 1 | - | - | - | 1 |
| Kansas............. | - | 10 | 93 | - | 27 | 6 | - | - | - | - | - |
| SOUTH ATLANTIC....... | 5 | 1,507 | 6,880 | 7 | 410 | 325 | 38 | - | - | 1 | 22 |
| Delaware........... | - | 16 | 46 | - | 8 | 6 | 2 | - | - | - | - |
| Maryland............ | - | 96 | 158 | 2 | 34 | 43 | 13 | - | - | - | 4 |
| Dist. of Columbia.. | - | 6 | 22 | - | 14 | 10 | - | - | - | - | - |
| Virginia............ | 2 | 301 | 2,189 | - | 35 | 40 | 8 | - | - | - | - |
| West Virginia...... | - | 288 | 1,386 | - | 11 | 25 | 10 | - | - | - | 9 |
| North Carolina..... | - | 282 | 849 | - | 76 | 67 | NN | - | - | 1 | - |
| South Carolina..... | - | 12 | 511 | - | 56 | 29 | - | - | - | - | 1 |
| Georgia............ | - | 4 | 36 | 4 | 85 | 49 | - | - | - | - | - |
| Florida............ | 3 | 502 | 1,683 | 1 | 91 | 56 | 5 | - | - | - | 8 |
| EAST SOUTH CENTRAL... | - | 492 | 5,196 | 2 | 185 | 129 | 37 | - | - | 2 | 5 |
| Kentucky........... | - | 100 | 1,331 | - | 84 | 35 | 3 | - | - | 1 | 1 |
| Tennessee.......... | - | 62 | 1,872 | 2 | 54 | 55 | 29 | - | - | - | 2 |
| Alabama. | - | 94 | 1,329 | - | 26 | 26 | 5 | - | - | 1 | 2 |
| Mississippi........ | - | 236 | 664 | - | 21 | 13 | - | - | - | - | - |
| WEST SOUTH CENTRAL... | 21 | 4,779 | 17,392 | 2 | 305 | 219 | 63 | 1 | 1 | 21 | 14 |
| Arkansas.. | - | 2 | 1,404 | - | 20 | 31 | - | - | - | - | - |
| Louisiana. | - | 2 | 155 | 1 | 88 | 86 | - | - | - | - | 1 |
| Oklahoma. | - | 117 | 3,351 | - | 50 | 16 | 2 | - | - | 2 | - |
| Texas. | 21 | 4,658 | 12,482 | 1 | 147 | 86 | 61 | 1 | 1 | 19 | 13 |
| Mountain. . . . . . . . . . . | 3 | 982 | 4,655 | 2 | 31 | 31 | 69 | - | - | - | 29 |
| Montana............ | - | 58 | 282 | 1 | 4 | 1 | 10 | - | - | - | - |
| Idaho.............. | 1 | 21 | 384 | - | 11 | 3 | 6 | - | - | - | 2 |
| Wyoming. . . . . . . . . . | - | 51 | 181 | - | - | 1 | - | - | - | - | - |
| Colorado............ | - | 502 | 1,561 | - | 10 | 13 | 31 | - | - | - | 3 |
| New Mexico......... | - | 102 | 586 | - | - | 3 | 5 | - | - | - | 3 |
| Arizona. | 2 | 222 | 1,018 | 1 | 2 | 4 | 13 | - | - | - | 21 |
| Utah............... | - | 21 | 374 | - | 1 | 4 | 4 | - | - | - | - |
| Nevada. | - | 5 | 269 | - | 3 | 2 | - | - | - | - | - |
| PACIFIC.............. | 23 | 2,501 | 12,310 | - | 263 | 333 | 101 | 1 | 1 | 11 | 36 |
| Washington...-..... | 5 | 520 | 5,431 | - | 38 | 29 | 29 | - | - | 1 | 6 |
| Oregon.............. | 12 | 526 | 1,604 | - | 21 | 25 | 2 | - | - | - | 12 |
| California......... | 6 | 1,418 | 4,964 | - | 190 | 265 | 53 | 1 | 1 | 10 | 14 |
| Alaska............. | - | 2 | 140 | - | 2 | 10 | 12 | - | - | - | 1 |
| Hawai1.............. | - | 35 | 171 | - | 12 | 4 | 5 | - | - | - | 3 |
| Puerto Rico.......... | 4 | 407 | 2,112 | - | 19 | 12 | 17 | - | - | - | - |

*Delayed reports: Mumpsifa: Me. ${ }^{2}$

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
SEPTEMBER 14, 1968 AND SEPTEMBER 16, 1967 (37th WEEK) - CONTINUED

| AREA | STREPTOCOCCAL SORE THROAT \& SCARLET FEVER | TETANUS |  | TULAREMIA |  | TYPHOID |  | TYPHUS FEVERTICK-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 | $\begin{aligned} & \text { Cum. } \\ & 1968 \end{aligned}$ | 1968 | $\begin{aligned} & \text { Cum. } \\ & 1968 \end{aligned}$ | 1968 | $\begin{aligned} & \text { Cum. } \\ & 1968 \\ & \hline \end{aligned}$ |
| UNITED States... | 4,748 | 5 | 111 | 4 | 142 | 19 | 263 | 9 | 237 | 61 | 2,544 |
| NEW ENGLAND. . . . . . . . | 474 | - | 2 | - | 46 | - | 7 | - | 1 | - | 70 |
| Maine.... ${ }^{\text {\% }}$. . . . . . . | 6 | - | - | - | - | - | - | - | - | - | 53 |
| New Hampshire...... | 8 | - | - | - | - | - | 1 | - | - | - | 2 |
| Vermont............ | 11 | - | - | - | 46 | - | - | - | - | - | 11 |
| Massachusetts..... | 61 | - | 1 | - | - | - | 3 | - | 1 | - | 3 |
| Rhode Island....... | 70 | - | - | - | - | - | - | - | - | - | - |
| Connecticut........ | 318 | - | 1 | - | - | - | 3 | - | - | - | 1 |
| MIDDLE ATLANTIC..... | 159 | - | 13 | - | 7 | 1 | 21 | 2 | 18 | 3 | 39 |
| New York City...... | 6 | - | 6 | - | - | 1 | 10 | - | - | - | - |
| New York, Up-State. | 151 | - | 4 | - | 7 | - | 4 | 1 | 4 | 3 | 32 |
| New Jersey......... | NN | - | - | - | - | - | 4 | - | 6 | - | - |
| Pennsylvania....... | 2 | - | 3 | - | - | - | 3 | 1 | 8 | - | 7 |
| EAST NORTH CENTRAL. . | 446 | 1 | 10 | - | 8 | 7 | 35 | - | 8 | 6 | 242 |
| Ohio................ | 66 | - | - | - | 1 | 1 | 13 | - | 6 | - | 86 |
| Indiana............. | 87 | - | 2 | - | 1 | - | 3 | - | - | 1 | 77 |
| Illinois........... | 116 | - | 5 | - | 5 | 6 | 18 | - | 2 | 2 | 34 |
| Michigan........... | 128 | - | 2 | - | 1 | - | - | - | - | - | 12 |
| Wisconsin.......... | 49 | 1 | 1 | - | - | - | 1 | - | - | 3 | 33 |
| WEST NORTH CENTRAL... | 214 | - | 8 | 1 | 13 | 1 | 30 | 2 | 9 | 15 | 624 |
| Minnesota.......... | 10 | - | 2 | - | - | - | - | - | - | 5 | 190 |
| Iowa.... *. . . . . . . . . | 77 | - | 3 | - | - | - | 1 | - | 1 | 3 | 103 |
| Missouri........... | 4 | - | 2 | - | 7 | 1 | 23 | 2 | 3 | 2 | 90 |
| North Dakota....... | 14 | - | - | - | - | - | - | - | - | 4 | 102 |
| Scuth Dakota. | 12 | - | - | 1 | 3 | - | 1 | - | 4 | - | 79 |
| Nebraska. . . . . . . . . | 87 | - | 1 | - | - | - | 3 | - | 1 | - | 25 |
| Kansas............. | 10 | - | - | - | 3 | - | 2 | - | - | 1 | 35 |
| SOUTH ATLANTIC....... | 561 | 1 | 25 | - | 9 | 5 | 54 | 2 | 127 | 13 | 290 |
| Delaware........... | 5 | - | - | - | - | - | - | - | - | - | - |
| Maryland........... | 39 | - | 3 | - | - | - | 9 | 1 | 14 | - | 5 |
| Dist. of Columbia.. | 4 | - | 2 | - | - | - | 1 | - | - | - | 1 |
| Virginia........... | 211 | - | 4 | - | 2 | - | 9 | 1 | 42 | 4 | 107 |
| West Virginia...*.. | 171 | - | 2 | - | - - | - | - | - | - | - | 34 |
| North Carolina..... | 13 | - | 2 | - | 2 | - | 2 | - | 34 | 1 | 11 |
| South Carolina..... | 12 | 1 | 3 | - | - | - | 3 | - | 8 | - | - |
| Georgia............ | 14 | - | - | - | 3 | 1 | 14 | - | 26 | 5 | 49 |
| Florida............ | 92 | - | 9 | - | 2 | 4 | 16 | - | 3 | 3 | 83 |
| EAST SOUTH CENTRAL. . | 876 | - | 14 | 1 | 8 | - | 29 | 2 | 45 | 9 | 549 |
| Kentucky........... | 54 | - | 1 | - | 1 | - | 6 | - | 10 | 8 | 278 |
| Tennessee.......... | 612 | - | 5 | - | 5 | - | 16 | 2 | 30 | 1 | 248 |
| Alabama............. | 111 | - | 5 | - | - | - | - | - | 3 | - | 22 |
| Mississippi........ | 99 | - | 3 | 1 | 2 | - | 7 | - | 2 | - | 1 |
| WEST SOUTH CENTRAL. . | 383 | 1 | 21 | 1 | 42 | 2 | 32 | 1 | 23 | 9 | 419 |
| Arkansas........... | - | - | 4 | - | 14 | - | 5 | - | 5 | 1 | 54 |
| Louisiana.......... | - | - | 8 | - | 6 | 2 | 5 | - | - | 1 | 38 |
| Oklahoma........... | 5 | - | - | - | 8 | - | 12 | 1 | 11 | - | 117 |
| Texas.............. | 378 | 1 | 9 | 1 | 14 | - | 10 | - | 7 | 7 | 210 |
| mountain. . . . . . . . . . | 1,068 | - | - | 1 | 7 | 1 | 14 | - | 5 | 4 | 71 |
| Montana............. | 14 | - | - | - | - | - | - | - | - | - | - |
| Idaho.............. . | 113 | - | - | - | - | - | - | - | 1 | - | - |
| Wyoming............ | 27 | - | - | - | 1 | - | 1 | - | - | - | 3 |
| Colorado........... | 568 | - | - | - | 3 | - | 2 | - | 4 | - | 3 |
| New Mexico......... | 157 | - | - | - | - | 1 | 7 | - | - | 2 | 30 |
| Arizona............ | 107 | - | - | - | - | - | 3 | - | - | 2 | 34 |
| Utah............... | 82 | - | - | 1 | 3 | - | - | - | - | - | - |
| Nevada... | - | - | - | - | - | - | 1 | - | - | - | 1 |
| PACIFIC.............. | 567 | 2 | 18 | - | 2 | 2 | 41 | - | 1 | 2 | 240 |
| Washington. . . . . . . | 80 | - | 1 | - | - | - | 2 | - | - | - | 2 |
| Oregon............. | 72 | - | 1 | - | 1 | 1 | 5 | - | - | - | 6 |
| California......... | 331 | 2 | 16 | - | 1 | 1 | 34 | - | 1 | 2 | 232 |
| Alaska............ | 11 | - | - | - | - | - | - | - | - | - | - |
| Hawaii.............. | 73 | - | - | - | - | - | - | - | - | - | - |
| Puerto Rico.......... | 3 | - | 8 | - | - | - | 2 | - | - | - | 17 |

*Delayed reports: SST: Me. 3, W.Va. delete 18
Tetanus: Iowa 1
(By place of occurrence and week of filing certificate. Excludes fetal deaths)

| Area | All Causes |  | ```Pneumonia and Influenza All Ages``` | Under <br> 1 year <br> A11 <br> Causes | Area | All Causes |  | $\begin{aligned} & \text { Pneumonia } \\ & \text { and } \\ & \text { Influenza } \\ & \text { All Ages } \end{aligned}$ | Under <br> 1 year <br> Al1 <br> Causes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { All } \\ & \text { Ages } \end{aligned}$ | 65 years and over |  |  |  | $\begin{aligned} & \text { All } \\ & \text { Ages } \end{aligned}$ | 65 years and over |  |  |
| NEW ENGLAND: | 711 | 400 | 39 | 34 | SOUTH ATLANTIC: | 1,228 | 635 | 43 | 69 |
| Boston, Mass.--------- | 225 | 118 | 9 | 12 | Atlanta, Ga.----------- | 143 | 66 | - | 8 |
| Bridgeport, Conn.----- | 65 | 33 | 8 | 1 | Baltimore, Md. | 244 | 127 | 6 | 16 |
| Cambridge, Mass.------ | 24 | 13 | - | - | Charlotte, N. C. | 64 | 29 | 2 | 5 |
| Fall River, Mass.----- | 22 | 14 | - | 1 | Jacksonville, Fla. | 96 | 43 | 3 | 7 |
| Hartford, Conn.------- | 48 | 23 | 4 | 6 | Miami, Fla.---- | 100 | 57 | 2 | 5 |
| Lowe 11, Mass.--------- | 30 | 16 | 3 | - | Norfolk, Va. | 66 | 35 | - | 5 |
| Lynn, Mass.----------- | 10 | 6 | - | - | Richmond, Va. | 68 | 32 | 4 | 4 |
| New Bedford, Mass.---- | 36 | 24 | 2 | - | Savannah, Ga. | 41 | 21 | 3 | - |
| New Haven, Conn.- | 49 | 34 | 2 | 6 | St. Petersburg, Fla.--- | 74 | 57 | 7 | 1 |
| Providence, R. I.----- | 66 | 40 | 6 | 3 | Tampa, Fla.------------ | 78 | 45 | 6 | 7 |
| Somerville, Mass.----- | 9 | 7 | - | - | Washington, D. C.------ | 212 | 98 | 7 | 11 |
| Springfield, Mass.---- | 47 | 25 | 4 | - | Wilmington, Del.------- | 42 | 25 | 3 | - |
| Waterbury, Conn.------ | 35 | 21 | - | 3 |  |  |  |  |  |
| Worcester, Mass.------ | 45 | 26 | 1 | 2 | EAST SOUTH CENTRAL: | 764 | 378 | 31 | 41 |
|  |  |  |  |  | Birmingham, Ala.-.----- | 122 | 68 | - | 11 |
| MTDDLE ATLANTIC: | 3,137 | 1,764 | 86 | 127 | Chattanooga, Tenn.----- | 50 | 32 | 3 | 1 |
| Albany, N. Y.--------- | 48 | 19 | 1 | 3 | Knoxville, Tenn.------- | 34 | 22 | 1 | 1 |
| Allentown, Pa.-.-.-.-- | 30 | 16 | 2 | 1 | Louisville, Ky.-------- | 165 | 79 | 19 | 8 |
| Buffalo, N. Y. | 118 | 63 | - | 10 | Memphis, Tenn.--------- | 156 | 73 | - | 5 |
| Camden, N. J.--------- | 38 | 24 | 4 | - | Mobile, Ala.----------- | 44 | 13 | 2 | 4 |
| Elizabeth, N. J.------ | 18 | 9 | - | - | Montgomery, Ala | 53 | 25 | 3 | 5 |
| Erie, Pa.------------ | 36 | 22 | 1 | 3 | Nashville, Tenn.------- | 140 | 66 | 3 | 6 |
| Jersey City, N. J.---- | 69 | 39 | 1 | 1 |  |  |  |  |  |
| Newark, N. J.--------- | 75 | 36 | 1 | 3 | WEST SOUTH CENTRAL: | 1,128 | 594 | 36 | 70 |
| New York City, N. Y.-- | 1,544 | 863 | 39 | 60 | Austin, Tex.----------- | 1, 40 | 25 | 4 | - |
| Paterson, N. J.------- | 38 | 18 | - | 2 | Baton Rouge, La | 37 | 16 | - | 2 |
| Philadelphia, Pa.----- | 508 | 291 | 11 | 23 | Corpus Christi, Tex.--- | 32 | 19 | - | 3 |
| Pittsburgh, Pa.------- | 186 | 94 | 3 | 9 | Dallas, Tex.----------- | 152 | 72 | 2 | 15 |
| Reading, Pa.---------- | 51 | 32 | 4 | 1 | E1 Paso, Tex.---------- | 56 | 30 | 3 | 4 |
| Rochester, N. Y.------ | 119 | 71 | 6 | 6 | Fort Worth, Tex.------- | 90 | 44 | 3 | 8 |
| Schenectady, N. Y.---- | 33 | 20 | - | - | Houston, Tex.---------- | 177 | 95 | 4 | 13 |
| Scranton, Pa.--------- | 35 | 25 | 2 | 1 | Little Rock, Ark.------ | 60 | 39 | 7 | 1 |
| Syracuse, N. Y.------- | 76 | 53 | 2 | 4 | New Orleans, La.-.----- | 151 | 75 | 3 | 8 |
| Trenton, N. J.-------- | 62 | 38 | 3 | - | Oklahoma City, Okla.--- | 84 | 44 | 1 | - |
| Utica, N. Y.---------- | 25 | 16 | 3 | - | San Antonio, Tex.-.---- | 127 | 68 | 2 | 10 |
| Yonkers, N. Y.-------- | 28 | 15 | 3 | - | Shreveport, La.-...----------- | 65 | 34 | 3 | 4 |
| EAST NORTH CENTRAL: | 2,544 | 1,386 | 66 | 142 | Tulsa, Okla.------------ | 57 | 33 | 4 | 2 |
| Akron, Ohio----------- | - 59 | 29 | - | 4 | MOUNTAIN: | 439 | 246 | 17 | 40 |
| Canton, Ohio---------- | 34 | 19 | 3 | 1 | Albuquerque, N. Mex.--- | 39 | 22 | 4 | 2 |
| Chicago, Il1.--------- | 723 | 402 | 20 | 42 | Colorado Springs, Colo. | 30 | 17 | - | 5 |
| Cincinnati, Ohio------ | 177 | 108 | 4 | 9 | Denver, Colo.------------ | 134 | 76 | 3 | 10 |
| Cleveland, Ohio------ | 218 | 114 | 1 | 10 | Ogden, Utah------------- | 20 | 7 | 2 | 2 |
| Columbus, Ohio-----.-- | 140 | 62 | 3 | 7 | Phoenix, Ariz.--------- | 100 | 46 | 2 | 11 |
| Dayten, Ohio---------- | 80 | 40 | 3 | 4 | Pueblo, Colo.---------- | 15 | 14 | - | - |
| Detroit, Mich.-------- | 305 | 162 | 6 | 17 | Salt Lake City, Utah--- | 54 | 29 | 4 | 6 |
| Evansville, Ind.------ | 39 | 22 | 2 | 1 | Tucson, Ariz.---------- | 47 | 35 | 2 | 4 |
| Flint, Mich.---------- | 36 | 16 | - | 2 |  |  |  |  |  |
| Fort Wayne, Ind.------ | 53 | 22 | 1 | 3 | PACIFIC: | 1,638 | 1,004 | 26 | 55 |
| Gary, Ind.------------ | 20 | 6 | 3 | 3 | Berkeley, Calif..------- | 18 | 14 | - | - |
| Grand Rapids, Mich.--- | 53 | 29 | 2 | 5 | Fresno, Calif.--------- | 38 | 20 | 1 | 3 |
| Indianapolis, Ind.---- | 157 | 87 | 4 | 10 | Glendale, Calif.------- | 40 | 32 | 1 | 1 |
| Madison, Wis.--------- | 43 | 21 | 3 | 2 | Honolulu, Hawaii------- | 48 | 19 | - | 2 |
| Milwaukee, Wis.------- | 124 | 83 | 2 | 7 | Long Beach, Calif.----- | 99 | 62 | 1 | - |
| Peoria, Ill.---------- | 38 | 21 | - | 8 | Los Angeles, Calif.--- | 512 | 313 | 9 | 13 |
| Rockford, Ill.-------- | 40 | 20 | 4 | 1 | Oakland, Calif.--------- | 86 | 50 | 2 | 4 |
| South Bend, Ind.------ | 42 | 26 | 4 | - | Pasadena, Calif.-------- | 44 | 35 | 1 | 1 |
| Toledo, Ohio---------- | 100 | 57 | 1 | 4 | Portland, Oreg.-------- | 100 | 65 | 1 | 2 |
| Youngstown, Ohio----- | 63 | 40 | - | 2 | Sacramento, Calif.------- San Diego, Calif.---- | 41 106 | 23 57 | 1 | 1 |
| WEST NORTH CENTRAL: | 881 | 535 | 21 | 46 | San Francisco, Calif.-- | 106 157 | 57 82 | 1 | 6 |
| Des Moines, Iowa------ | 51 | 36 | 1 | 4 | San Jose, Calif.------ | 35 | 27 | - | 1 |
| Duluth, Minn.---------- | 31 | 20 | 3 | 3 | Seattle, Wash.--------- | 187 | 113 | 3 | 9 |
| Kansas City, Kans.---- | 52 | 24 | 4 | 6 | Spokane, Wash.--------- | 63 | 49 | 1 | 2 |
| Kansas City, Mo.------ | 156 | 100 | 2 | 4 | Tacoma, Wash.---------- | 64 | 43 | 1 | 4 |
| Lincoln, Nebr.-------- | 17 | 12 | 1 | 1 |  |  |  |  |  |
| Minneapolis, Minn.---- | 132 | 79 | 1 | 6 | Total | 12,470 | 6,942 | 365 | 624 |
| Omaha, Nebr.---------- | 68 | 44 | - | 6 |  |  |  |  |  |
| St. Louis, Mo.-------- | 234 | 127 | 7 | 12 | Cu | lative | otals |  |  |
| St. Paul, Minn.------- | 71 | 50 | 2 | 3 | including report | correc | ions for | evious we | eeks |
| Wichita, Kans.-------- | 69 | 43 | - | 1 |  |  |  |  |  |
|  |  |  |  |  | All Causes, Al1 Ages -- All Causes, Age 65 and | er- |  | -- 472,5 |  |
|  |  |  |  |  | Pneumonia and Influenza | All Age | - | -- 19,2 | 40 |
|  |  |  |  |  | All Causes, Under 1 Yea | of Age- | ----- | -- 22,2 |  |

MALARIA - (Continued from page 339)
oliguria. Physical examination revealed a healthy appearing male with a temperature of $100^{\circ} \mathrm{F}$., bilateral costovertebral angle tenderness, and hepatosplenomegaly. Initial laboratory results included a normal urinalysis, a hematocrit of 48 percent, and a white cell count of 7,900 ; a peripheral blood smear was obtained but not examined. An X-ray of the abdomen revealed calcific densities in the path of the right ureter which led to an initial diagnosis of obstructive uropathy. However, retrograde pyelograms performed several days later, showed that no calcific densities were in the ureter.

On May 7 , the BUN was 78 mg percent, and the bilirubin was 1.6 mg percent. On May 8 and 10 , the patient experienced spiking temperatures to $103{ }^{\circ} \mathrm{F}$. By the afternoon of May 10, the hematocrit had fallen to 33 percent, the bilirubin had increased to 20.3 mg percent, the BUN had risen to 180 mg percent, and the urinalysis showed occult blood. Blood smears obtained at this time revealed a heavy parasitemia with Plasmodium falciparum; both trophozoites and gametocytes were present. Chloroquine therapy was immediately instituted, but in less than 18 hours, the patient developed pulmonary edema and died.

An autopsy revealed pulmonary congestion and pulmonary edema, calcific deposits in the ileum, and focal tubular neurosis and hemoglobin cases in the kidneys. The heart was normal. P.falciparum parasites were found in the capillaries and small vessels of all organs examined. Postmortem review of the blood smears taken on May 6 revealed the presence of many $P$. falciparum parasites.

The patient probably acquired his malaria infection in Liberia since all previous ports of call had been in nonmalarious areas. None of his 42 crew mates had reported ill prior to arrival in Baltimore. A malaria survey of the crew could not be conducted before the ship's departure for Canada, but officers of the Medical Services Branch of the National Department of Health and Welfare (Ottawa) reported that no illnesses had occurred aboard the ship when she arrived in Canada.
(Reported by J.H. Janney, M.D., M.P.H., Director, Division of Communicable Diseases, Maryland State Department of Health; E.J. Hinman, M.D., Director, USPHS Hospital, Baltimore, Maryland; the Canadian Department of Health and Helfare; the ForeignQuarantine Program, NCDC; and an EIS Officer.)

## Editorial Note:

In the $5-1 / 2$-year period between January 1, 1963, and July $1,1968,4,715$ cases of malaria, including 18 deaths, were reported to NCDC; 128 of these cases, including five deaths, were merchant seamen. The case fatality ratio for seamen was 14 times that for non-seamen (39.1 deaths per 1,000 cases for seamen versus 2.8 deaths per 1,000 cases for non-seamen). This high fatality ratio in merchant seamen may have occurred because 1) 55 percent of their malaria infections were due to $P$.falciparum, and 2) seamen frequently have their onset of illness at sea where adequate medical care may not be available.

THE MOREIDITY AND MORTALITY WEEKLY REPORT. WITH A CIRCULATION OF 17,OOC, IS PUELISHEO AT THE NATIONAL COMMUNICABLE

DIRECTOR, NATIONAL COMMUNICABLE DISEASE CENTER
CHIEF EPIDEMIOLOGYPROGRAM
DAVIDJ. SENCER, M-D. ACTING CHIEF, STATISTICS SECTION A.D. LANGMUIR. M.D.
IDA L. SHERMAN, M.S. EDITOR

MICHAEL B GREGG, M.D.

IN ADDITION TO THE ESTABLISHED PROCEDURES FOR REPORTING IN ADOITION TO THE ESTABLISHED PROCEDURES FOR REPORTING CENTER WELCOMESACCOUNTSOFINTERESTING OUTEREAKS OR CASE INVESTIGATIONS WHICH ARE OF CURRENT INTEREST TO HEALTH OFFIGIALS AND WHICH ARE OIRECTLYRELATED TO THE CONTROL OF COMMUNICABLE DISEASES. SUCH COMMUNICATIONS SHOULD BE ADDRESSED TO:

NATIONAL COMMUNICABLE DISEASE CENTER ATLANTA. GEORGIA 30333
ATTN: THE EDITOR $\quad$ MOREIDITY AND MORTALITY WEEKLY REPORT

NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE NOTE: THE OATA IN THIS REPORT ARE PROVISIONAL AND ARE STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES ON SATURDAYB COMPILEDDATA ONANATIONAL BASISARERELEASED ON THE SUCCEEDING FRIDAY.
OFFICIAL BUSINESS

