



Morbidity and Mortality

Vol. 16, No. 50

WEEKLY REPORT

Week Ending December 16, 1967

DEC 22 1967

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BUREAU OF DISEASE PREVENTION AND ENVIRONMENTAL CONTROL

CURRENT TRENDS
INFLUENZA - Further Reports

Influenza-like illnesses continue to be reported from Michigan, now including the upper peninsula. This week, the first 2 isolates of influenza virus, both A₂, were reported. One specimen was from Detroit, and the other from Ann Arbor. Other states also reported influenza-like disease (Figure 1).

In Alabama, outbreaks of influenza-like illnesses were reported from five counties. In Mobile County, during the week of December 3, approximately 6,700 persons visited their family physicians with complaints consistent with influenza. A group of 12 acute versus 13 convalescent, matched unpaired sera taken from this outbreak

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demonstrated a fourfold rise in geometric mean titer against the soluble influenza A antigen by the complement fixation test.

In Tulsa, Oklahoma, for the week of December 3, an outbreak of febrile illness in a parochial high school led

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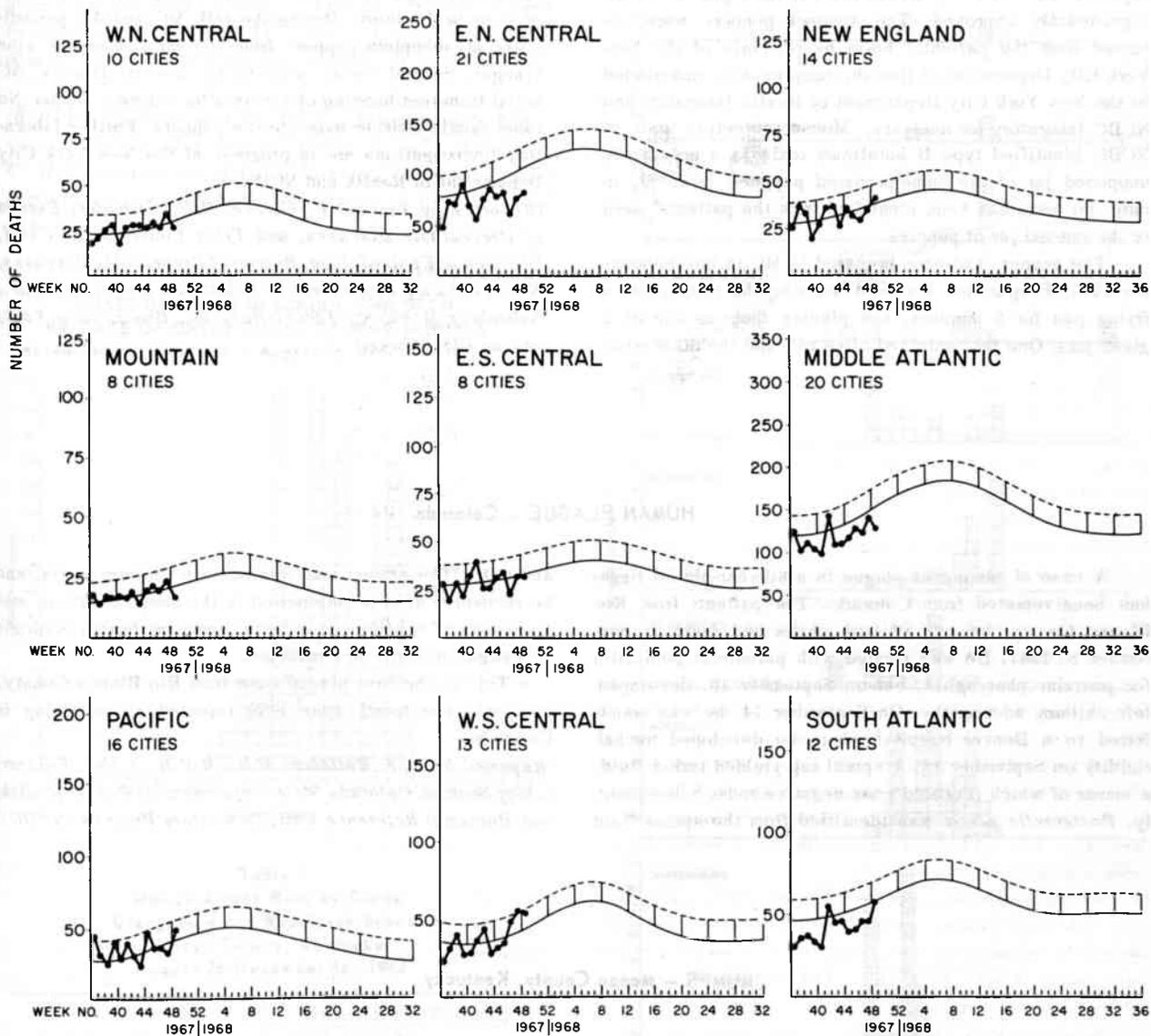
CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
(Cumulative totals include revised and delayed reports through previous weeks)

| DISEASE | 50th WEEK ENDED | | MEDIAN 1962 - 1966 | CUMULATIVE, FIRST 50 WEEKS | | |
|---|----------------------|----------------------|-----------------------|----------------------------|---------|-----------------------|
| | DECEMBER 16, 1967 | DECEMBER 17, 1966 | | 1967 | 1966 | MEDIAN 1962 - 1966 |
| Aseptic meningitis | 35 | 33 | 34 | 2,920 | 2,867 | 2,076 |
| Brucellosis | 4 | 4 | 4 | 240 | 239 | 347 |
| Diphtheria | 2 | 4 | 11 | 199 | 188 | 282 |
| Encephalitis, primary: | | | | | | |
| Arthropod-borne & unspecified | 27 | 29 | --- | 1,524 | 2,083 | --- |
| Encephalitis, post-infectious | 14 | 12 | --- | 738 | 698 | --- |
| Hepatitis, serum | 62 | 44 | 758 | 2,265 | 1,427 | 36,394 |
| Hepatitis, infectious | 734 | 714 | | 37,235 | 31,275 | |
| Malaria | 36 | 24 | 2 | 2,021 | 496 | 103 |
| Measles (rubeola) | 425 | 1,437 | 3,249 | 61,537 | 200,780 | 380,794 |
| Meningococcal infections, total | 45 | 58 | 58 | 2,072 | 3,288 | 2,683 |
| Civilian | 40 | 52 | --- | 1,943 | 2,969 | --- |
| Military | 5 | 6 | --- | 129 | 319 | --- |
| Poliomyelitis, total | — | 1 | 2 | 41 | 98 | 114 |
| Paralytic | — | 1 | 2 | 28 | 92 | 92 |
| Rubella (German measles) | 412 | 385 | --- | 43,478 | 45,303 | --- |
| Streptococcal sore throat & scarlet fever | 10,277 | 8,042 | 8,042 | 429,808 | 404,864 | 375,078 |
| Tetanus | 7 | 4 | 4 | 223 | 191 | 270 |
| Tularemia | 6 | 4 | 4 | 165 | 176 | 277 |
| Typhoid fever | 4 | 1 | 5 | 393 | 364 | 437 |
| Typhus, tick-borne (Rky. Mt. spotted fever) | — | — | — | 297 | 251 | 222 |
| Rabies in animals | 48 | 64 | 64 | 4,048 | 3,867 | 3,867 |

NOTIFIABLE DISEASES OF LOW FREQUENCY

| | Cum. | | Cum. |
|---|------|--|------|
| Anthrax: | 2 | Rabies in man: | 2 |
| Botulism: | 3 | Rubella, Congenital Syndrome: | 9 |
| Leptospirosis: L.A.-1, Maine-1, N.Y. Upstate-1, Texas-1 | 45 | Trichinosis: Kans.-1, N.Y. Upstate-1 | 59 |
| Plague: Colo.-1 | 3 | Typhus, murine: Texas-1 | 43 |
| Psittacosis: Tenn.-1 | 44 | Polio, Unsp. | 13 |

Figure 2
PNEUMONIA-INFLUENZA DEATHS IN 122 UNITED STATES CITIES
1967-1968



EPIDEMIOLOGIC NOTES AND REPORTS
BOTULISM - Bronx, New York

In Bronx, New York, botulism has occurred in a father (MC) and his son (AC), following ingestion of home-prepared peppers. On December 9, 48 hours after eating a hamburger sprinkled with home-prepared chopped green and red peppers, MC developed mild abdominal cramps, nausea, and transient diarrhea. During the next 3 days, he developed the onset and progression of lethargy, blurred vision, diplopia, dysphonia, dry mouth, dysarthria, dysphagia, neck muscle weakness, and urinary hesitancy. AC, 80 hours after ingestion, developed generalized weakness, lethargy, blurred vision, diplopia, dry mouth, dysarthria.

MC and AC were hospitalized on December 13 and 14 respectively. Upon examination, each patient showed pronounced lethargy, dilated reactive pupils, ptosis, palatal erythema, dysarthria, dysphagia, and bilateral VI nerve palsies. Mentation was unaffected. The New York City Department of Health promptly provided AB botulinum antitoxin, and on December 14, each man received 100,000 units of botulinum antitoxin AB intravenously. On December 15, each received 10,000 units of type E antitoxin. Following the AB antitoxin, AC demonstrated a transient

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BOTULISM – Bronx, New York

(Continued from page 419)

erythematous rash. By December 16, both patients were significantly improved. The suspect peppers were obtained from the patients' home by officials of the New York City Department of Health. Samples were distributed to the New York City Department of Health laboratory and NCDC laboratory for analysis. Mouse protection tests at NCDC identified type B botulinum toxin in a previously unopened jar of the home-prepared peppers; however, to date, no toxin has been identified from the patients' sera or the opened jar of peppers.

The peppers had been prepared by MC in late September 1967. Preparation involved warming the peppers in a frying pan for 5 minutes, and placing them in one of 2 glass jars. One jar contained olive oil, and the other wine

vinegar. The jars were closed with screw caps and stored at room temperature. During the fall, MC and AC periodically ate chopped peppers from the jar containing wine vinegar. Several weeks prior to his present illness, AC noted transient blurring of vision after eating a pepper. No other family member ever ate the peppers. Further laboratory investigations are in progress at the New York City Department of Health and NCDC.

(Reported by Vincent F. Guinee, M.D., Director, Bureau of Preventable Diseases, and Tibor Fodor, M.D., Chief, Division of Epidemiology, Bureau of Preventable Diseases, New York City Department of Health; Stewart Cook, M.D., Neurology Resident, Jacobi Hospital, Bronx, New York; and an EIS Officer.)

HUMAN PLAGUE – Colorado

A case of meningial plague in a 60-year-old oil rigger has been reported from Colorado. The patient, from Rio Blanco County, became ill with chills and fever on September 8, 1967. He was treated with parenteral penicillin for pustular pharyngitis, but on September 10, developed left axillary adenopathy. On September 14, he was transferred to a Denver hospital where he developed nuchal rigidity on September 18. A spinal tap yielded turbid fluid, a smear of which revealed gram negative rods. Subsequently, *Pasteurella pestis* was identified from the spinal fluid

at NCDC. The patient was treated with Chloromycetin, and he recovered after a long period in the hospital. There was no history of exposure to rodents; however, further ecologic investigations will be conducted.

This is the first plague case from Rio Blanco County, and only the fourth case ever reported as occurring in Colorado.

(Reported by C. S. Mollohan, M.D., M.P.H., Chief, Epidemiology Section, Colorado State Department of Public Health; and Bacterial Reference Unit, Laboratory Program, NCDC.)

MUMPS – Mason County, Kentucky

Between June 1 and December 16, 1967, 407 cases of mumps, with an overall attack rate of 2.2 percent, occurred in Mason County, Kentucky (pop. 18,750). The majority of cases occurred in school children with 286 cases among the 4,076 enrolled school children; 104 cases were in pre-school children, and 17 cases were in adults. Data, acquired by questionnaire and by school absentee records, yielded both the distribution of cases in Mason County between June 1 and December 16, and the epidemic curve for cases among school children between August 26 and December 16 (Figure 3). The peak incidence occurred in October with the largest outbreaks occurring in the Orangeburg and Woodleigh schools (Figure 4). At the 2 schools, 104 and 51 cases, respectively, were reported through December 16. Highest attack rates were noted in the first

and second grade children, with somewhat lower rates in the third and fourth grade children. Only sporadic cases have been noted beyond the fourth grade (Table 1). Analysis of individual classroom outbreaks showed that cases continued to occur for 2 or more months following the initial classroom case. Data also showed that clinical mumps developed in 29 percent of the males and in 27 percent of the females in the 2 schools.

Cases have now been noted in 7 of the 8 remaining grade schools (Figure 4), including 26 cases in Washington school. Clinical illnesses have been typical and mild, with school absence averaging 4 to 5 days per child. No serious complications or fatalities have been reported to date.

A review of physician reported cases of mumps in Mason County since 1950, shows a pattern of 4-year cycles with the most recent peaks in the springs of 1960 and 1964. All county grade schools were involved in these 2 epidemics. In contrast, cases for 1967 were first reported by physicians in June (2 cases) with the highest number being reported in October (41 cases). A detailed epidemiologic investigation of the current outbreak is in progress.

(Reported by James R. Sills, M.P.H., Administrator, Mason County Health Department, Mason County, Kentucky; C. Hernandez, M.D., M.P.H., Director, Division of Epidemiology, Kentucky State Department of Health; and 2 EIS Officers.)

Figure 3
CASES OF MUMPS IN SCHOOL CHILDREN
BY DATE OF ONSET TOTAL OF NINE SCHOOLS
 Mason County, Kentucky - August 26, 1967

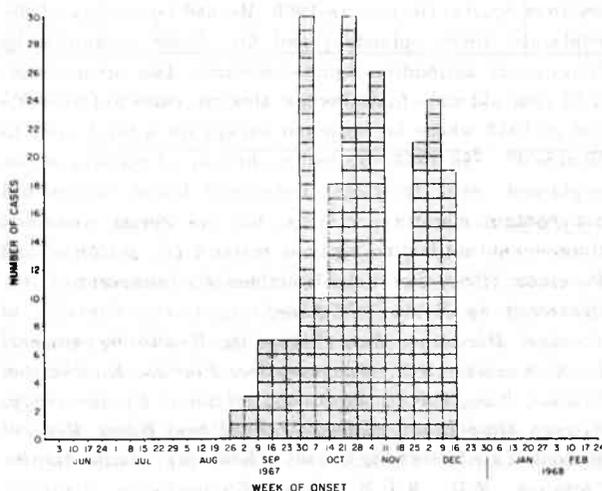
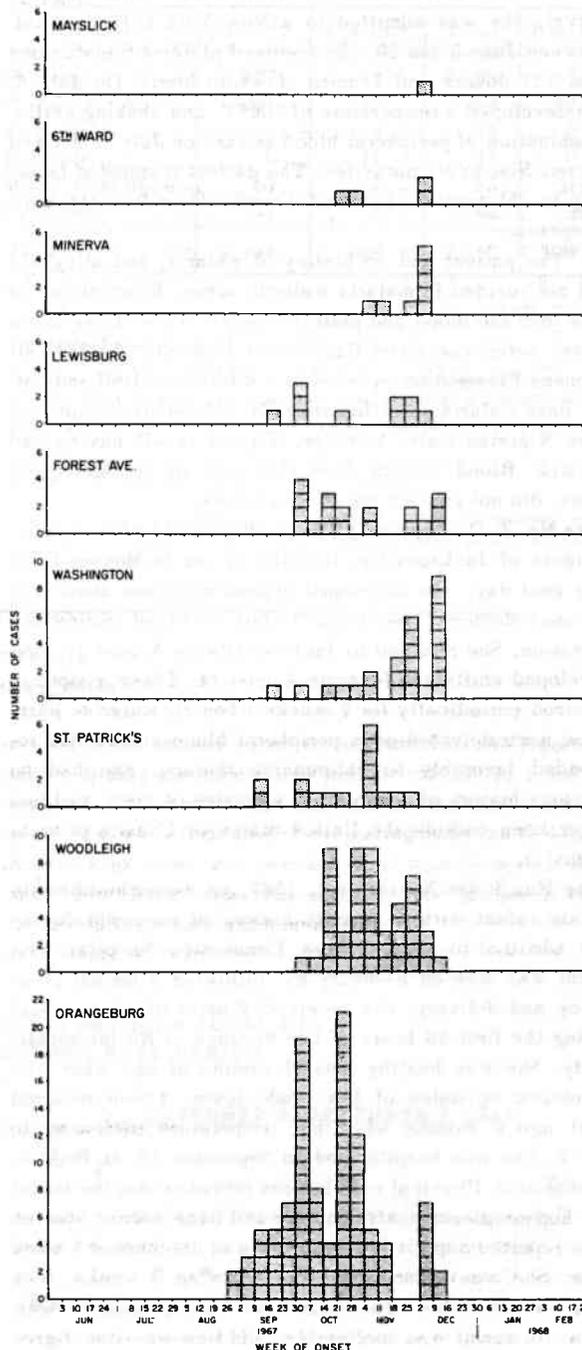


Table 1
Mumps Attack Rate by Grade
Orangeburg and Woodleigh Schools
Mason County, Kentucky
August 26-December 16, 1967

| School | (enrollment) | Attack Rate (Percent) | | | | | | | |
|------------|--------------|-----------------------|----|----|----|---|----|---|----|
| | | Grade | | | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Orangeburg | (416) | 54 | 40 | 17 | 30 | 2 | 12 | 3 | 11 |
| Woodleigh | (344) | 41 | 26 | 17 | 13 | 3 | 2 | - | - |

Figure 4
CASES OF MUMPS IN SCHOOL CHILDREN
BY DATE OF ONSET IN EACH OF NINE SCHOOLS
 Mason County, Kentucky - August 26-December 16, 1967



MALARIA - Blood Transfusion Induced Cases

Between August and November 1967, three cases of blood transfusion induced malaria were reported to the Malaria Surveillance Unit.

Case No. 1: In May 1967, a 55-year-old woman, a resident

of Hungary, came to the United States for treatment of idiopathic thrombocytopenia. Her illness was diagnosed in 1955; she had a splenectomy in 1956, and had been

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MALARIA - Blood Transfusion Induced Cases

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treated with corticosteroids since 1961. Following her arrival, she was admitted to a New York City hospital. Between June 5 and 20, she received platelet transfusions from 121 donors and 7 units of whole blood. On July 6, she developed a temperature of 106°F. and shaking chills. Examination of peripheral blood smears on July 7, showed *Plasmodium ovale* parasites. The patient responded favorably to chloroquine, but died 2 weeks later from thrombocytopenia.

The patient had no history of malaria, and allegedly had not resided in malaria endemic areas. Examination of sera from the blood and platelet donors, showed one donor whose serum contained fluorescent antibodies against all 4 human *Plasmodium* species in a dilution of 1:80, indicating past malaria infection from an undetermined species. This Nigerian male, however, did not recall having had malaria. Blood smears from this man on 2 subsequent dates, did not contain malaria parasites.

Case No. 2: On August 5, 1967, a 29-year-old white female, resident of Jacksonville, traveled by air to Mexico City. The next day, she developed appendicitis and underwent an appendectomy, receiving 1 unit of blood during the operation. She returned to Jacksonville on August 10, and developed chills and fever on August 14. These symptoms recurred periodically for 3 weeks when *P. malariae* parasites were detected on a peripheral blood smear. She responded favorably to chloroquine therapy. She had no previous history of unexplained episodes of fever, and had never been outside the United States or Canada prior to August 5.

Case No. 3: On November 1, 1967, an 8-month-old white female infant with a 5-month history of recurrent fevers was admitted to a New Haven, Connecticut hospital. The infant was born on February 25, following a normal pregnancy and delivery; she received 2 units of whole blood during the first 36 hours of life because of Rh incompatibility. She was healthy until 3 months of age when she developed episodes of low grade fever. These recurred until age 6 months when her temperature increased to 102°F. She was hospitalized on September 15, in Bristol, Connecticut. Physical examination revealed that the infant had hepatosplenomegaly. Culture and bone marrow studies were reported negative. The infant was discharged 1 week later. She was afebrile for the following 3 weeks, then high fever recurred. The infant was rehospitalized. Antibiotic treatment was ineffective, and she was transferred to a New Haven hospital for further evaluation.

Physical examination revealed a well-developed, febrile, lethargic child with hepatosplenomegaly. Multiple laboratory investigations were normal except for a sedimentation rate of 27. An open liver biopsy and splenoportogram were performed; no gross abnormalities of liver or spleen were seen. Liver histology was normal except for slightly swollen Kupffer cells containing dark pigment. The presence of this pigment prompted examination of peripheral blood smears in which *P. malariae* were found. The patient was given chloroquine, and her fever defervesced completely within 36 hours.

The patient had never been outside Connecticut, and her parents had no history of malaria or travel to malarious areas. The two persons who donated blood for the exchange transfusion were identified, and their sera examined. The first donor, a 31-year-old Greek male, arrived in this country from Sparta, Greece, in 1966. He had no history of unexplained fever episodes, and his serum contained no fluorescent antibodies against malaria. The other donor, a 32-year-old male from Oaxaca, Mexico, came to Connecticut in 1956 where he remained except for a brief visit to Mexico City in 1963. He had no history of malaria or unexplained fever episodes. Peripheral blood smears did not contain malaria parasites, but his serum contained fluorescent antibodies against malaria (*P. malariae* and *P. vivax* 1:160; *P. ovale* 1:80; and *P. falciparum* 1:10). (Reported by Howard B. Shookhoff, Chief, Division of Tropical Diseases, New York City Health Department; L. M. Wachtel, M.D., Jacksonville, Florida; E. Charlton Prather, M.D., M.P.H., Director, Division of Epidemiology, Florida State Board of Health; Mr. David Barry, Medical Student, Yale University School of Medicine; and Barbara W. Christine, M.D., M.P.H., Chief, Epidemiology Division, Connecticut State Department of Health.)

Editorial Comment:

Case 1 is the first transfusion induced *P. ovale* infection reported to NCDC. Case 2 developed her malaria 9 days after her arrival in Mexico. This interval is too short for mosquito transmitted *P. malariae* infection, but is compatible with transfusion induced infection. Investigations are continuing to identify the donor. It is noteworthy that the donors in Cases 1 and 3 did not have a past history of malaria despite the positive serologic findings. However, both were natives of malarious areas. They may have been infected early in life and acquired sufficient immunity to allow asymptomatic parasitemia.

SURVEILLANCE SUMMARY

MALARIA - 1967

Epidemiologic information was received on 2,303 cases of malaria with onset in the United States from January 1

to November 15, 1967, by the Malaria Surveillance Unit. Of these, 2,174 cases were in servicemen who acquired

infection in Vietnam (Table 2). Only seven of the 2,303 cases acquired infection in the United States: three blood transfusion induced cases (MMWR, Vol. 16, Nos. 15 and the present issue); two introduced cases (MMWR, Vol. 16, No. 29); one cryptic case (MMWR, Vol. 16, No. 36); and one congenital infection (MMWR, Vol. 16, No. 37).*

The Plasmodium species was identified in 97.3 percent of all cases (Table 3).

Table 2
Cases of Malaria, United States
1962-1967*

| Year | Military | | Civilian | Total |
|--------|---------------------|--------------------|----------|-------|
| | Acquired in Vietnam | Acquired Elsewhere | | |
| 1962 | 0 | 75 | 44 | 119 |
| 1963 | 7 | 51 | 90 | 148 |
| 1964 | 14 | 38 | 119 | 171 |
| 1965 | 35 | 16 | 105 | 156 |
| 1966 | 585 | 25 | 137 | 747 |
| 1967** | 2,174 | 20 | 109 | 2,303 |

*Through November 15, 1967

**Includes recently discharged veterans.

Table 3
Cases of Malaria by Plasmodium Species
United States, Jan. 1-Nov. 15, 1967

| Species | Military | Civilian | Total | Percent |
|----------------------|--------------|------------|--------------|--------------|
| <i>P. vivax</i> | 1,827 | 71 | 1,898 | 82.5 |
| <i>P. falciparum</i> | 267 | 17 | 284 | 12.3 |
| <i>P. malariae</i> | 8 | 4 | 12 | 0.5 |
| <i>P. ovale</i> | 0 | 11 | 11 | 0.5 |
| Mixed infections | 35 | 0 | 35 | 1.5 |
| Unknown | 57 | 6 | 63 | 2.7 |
| Total | 2,194 | 109 | 2,303 | 100.0 |

***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., malariotherapy, blood transfusion, common syringes.

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

CURRENT TRENDS
MEASLES - United States

For the week ending December 16 (week 50), 425 cases of measles were reported to NCDC. Although there has been an increase in measles cases reported during the last 2 weeks, the cases reported are less than one-third of the reported cases in these weeks a year ago.

For the 4-week period, November 5 through December 2 (weeks 45-48), 21 counties or health districts reported

a total of ten or more cases of measles from 291 reporting areas. During the comparable period in 1966, 94 counties reported a total of ten or more cases from 432 reporting areas. Figure 5 indicates the reporting counties or health districts in these two periods. It is interesting to note that 19 of the 21 reporting areas for this period in 1967 include a large metropolitan area.

Figure 5
COUNTIES OR HEALTH DISTRICTS REPORTING A TOTAL OF
10 OR MORE CASES OF MEASLES IN 4-WEEK PERIOD

NOVEMBER 6-DECEMBER 3, 1966



NOVEMBER 5-DECEMBER 2, 1967



CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

DECEMBER 16, 1967 AND DECEMBER 17, 1966 (50th WEEK) - CONTINUED

| AREA | MALARIA | MEASLES (Rubeola) | | MENINGOCOCCAL INFECTIONS, TOTAL | | | POLIOMYELITIS | | | RUBELLA | |
|-------------------------|---------|-------------------|--------|---------------------------------|------|-------|---------------|-------|-----------|---------|------|
| | | 1967 | 1966 | 1967 | 1966 | 1967 | 1966 | Total | Paralytic | | |
| | | | | | | | | 1967 | 1966 | | Cum. |
| UNITED STATES... | 36 | 425 | 61,537 | 200,780 | 45 | 2,072 | 3,288 | - | - | 28 | 412 |
| NEW ENGLAND..... | - | 3 | 938 | 2,572 | 1 | 82 | 151 | - | - | - | 58 |
| Maine..... | - | - | 262 | 297 | - | 3 | 12 | - | - | - | 10 |
| New Hampshire..... | - | - | 78 | 80 | 1 | 4 | 9 | - | - | - | 1 |
| Vermont..... | - | - | 42 | 345 | - | 1 | 4 | - | - | - | 1 |
| Massachusetts..... | - | 2 | 395 | 836 | - | 37 | 62 | - | - | - | 8 |
| Rhode Island..... | - | - | 62 | 75 | - | 6 | 21 | - | - | - | 4 |
| Connecticut..... | - | 1 | 99 | 939 | - | 31 | 43 | - | - | - | 34 |
| MIDDLE ATLANTIC..... | 5 | 42 | 2,559 | 18,530 | 11 | 348 | 434 | - | - | 5 | 33 |
| New York City..... | 1 | 6 | 520 | 8,372 | 5 | 67 | 65 | - | - | 1 | 13 |
| New York, Up-State..... | 1 | 12 | 641 | 2,656 | 2 | 84 | 114 | - | - | 1 | 13 |
| New Jersey..... | - | 16 | 611 | 2,006 | 3 | 113 | 132 | - | - | - | 6 |
| Pennsylvania..... | 3 | 8 | 787 | 5,496 | 1 | 84 | 123 | - | - | 3 | 1 |
| EAST NORTH CENTRAL... | 2 | 138 | 6,228 | 70,321 | 7 | 286 | 521 | - | - | 6 | 92 |
| Ohio..... | - | 21 | 1,202 | 6,456 | - | 94 | 151 | - | - | - | 9 |
| Indiana..... | - | 13 | 669 | 5,817 | - | 31 | 88 | - | - | 3 | 8 |
| Illinois..... | - | 74 | 1,239 | 11,535 | 5 | 66 | 93 | - | - | - | 17 |
| Michigan..... | 2 | 9 | 1,026 | 15,120 | 2 | 74 | 135 | - | - | 3 | 28 |
| Wisconsin..... | - | 21 | 2,092 | 31,393 | - | 21 | 54 | - | - | - | 30 |
| WEST NORTH CENTRAL... | 4 | 42 | 2,997 | 9,289 | 6 | 100 | 170 | - | - | 3 | 31 |
| Minnesota..... | - | 3 | 139 | 1,684 | 1 | 22 | 36 | - | - | - | 4 |
| Iowa..... | 3 | 32 | 816 | 5,451 | 3 | 22 | 22 | - | - | 1 | 23 |
| Missouri..... | - | - | 340 | 539 | 2 | 21 | 65 | - | - | - | - |
| North Dakota..... | - | 4 | 890 | 1,389 | - | 3 | 11 | - | - | - | 1 |
| South Dakota..... | - | - | 58 | 40 | - | 7 | 6 | - | - | - | - |
| Nebraska..... | - | 3 | 660 | 186 | - | 15 | 11 | - | - | - | 3 |
| Kansas..... | 1 | - | 94 | NN | - | 10 | 19 | - | - | 2 | - |
| SOUTH ATLANTIC..... | 8 | 52 | 7,347 | 16,141 | 7 | 406 | 558 | - | - | 2 | 63 |
| Delaware..... | - | - | 51 | 267 | - | 8 | 7 | - | - | - | - |
| Maryland..... | 1 | 2 | 180 | 2,125 | 1 | 56 | 49 | - | - | 1 | 30 |
| Dist. of Columbia.. | - | - | 25 | 390 | - | 15 | 15 | - | - | - | - |
| Virginia..... | - | 11 | 2,326 | 2,265 | 2 | 45 | 70 | - | - | - | 3 |
| West Virginia..... | - | 14 | 1,477 | 5,542 | - | 38 | 44 | - | - | - | 15 |
| North Carolina..... | 6 | 8 | 935 | 738 | - | 86 | 142 | - | - | 1 | - |
| South Carolina..... | 1 | 1 | 514 | 664 | 1 | 33 | 55 | - | - | - | - |
| Georgia..... | - | - | 42 | 243 | 1 | 60 | 77 | - | - | - | - |
| Florida..... | - | 16 | 1,797 | 3,907 | 2 | 65 | 99 | - | - | - | 15 |
| EAST SOUTH CENTRAL... | 1 | 22 | 5,509 | 20,704 | 4 | 166 | 283 | - | - | 2 | 9 |
| Kentucky..... | - | 2 | 1,432 | 4,852 | 2 | 47 | 97 | - | - | - | - |
| Tennessee..... | - | 20 | 2,043 | 12,684 | 1 | 73 | 95 | - | - | - | 8 |
| Alabama..... | - | - | 1,357 | 1,807 | - | 29 | 62 | - | - | - | 1 |
| Mississippi..... | 1 | - | 677 | 1,361 | 1 | 17 | 29 | - | - | 2 | - |
| WEST SOUTH CENTRAL... | 1 | 48 | 18,126 | 26,954 | 4 | 259 | 439 | - | - | 10 | - |
| Arkansas..... | - | - | 1,404 | 1,168 | - | 41 | 37 | - | - | 1 | - |
| Louisiana..... | - | - | 156 | 103 | 3 | 102 | 166 | - | - | 1 | - |
| Oklahoma..... | 1 | - | 3,359 | 659 | - | 18 | 23 | - | - | 1 | - |
| Texas..... | - | 48 | 13,207 | 25,024 | 1 | 98 | 213 | - | - | 7 | - |
| MOUNTAIN..... | 9 | 25 | 4,895 | 12,614 | - | 40 | 94 | - | - | - | 27 |
| Montana..... | - | 3 | 334 | 1,913 | - | 5 | 5 | - | - | - | - |
| Idaho..... | - | 6 | 405 | 1,703 | - | 3 | 5 | - | - | - | 1 |
| Wyoming..... | - | 2 | 204 | 235 | - | 1 | 6 | - | - | - | 4 |
| Colorado..... | 7 | 6 | 1,632 | 1,431 | - | 13 | 49 | - | - | - | 7 |
| New Mexico..... | 1 | 1 | 607 | 1,232 | - | 5 | 10 | - | - | - | - |
| Arizona..... | 1 | 6 | 1,059 | 5,370 | - | 6 | 13 | - | - | - | 15 |
| Utah..... | - | 1 | 385 | 665 | - | 4 | 1 | - | - | - | - |
| Nevada..... | - | - | 269 | 65 | - | 3 | 5 | - | - | - | - |
| PACIFIC..... | 6 | 53 | 12,938 | 23,655 | 5 | 385 | 638 | - | - | - | 99 |
| Washington..... | 3 | 20 | 5,674 | 5,177 | 1 | 38 | 58 | - | - | - | 46 |
| Oregon..... | - | 4 | 1,706 | 2,527 | - | 30 | 42 | - | - | - | 3 |
| California..... | 3 | 29 | 5,235 | 15,151 | 4 | 302 | 516 | - | - | - | 46 |
| Alaska..... | - | - | 141 | 636 | - | 11 | 18 | - | - | - | 4 |
| Hawaii..... | - | - | 182 | 164 | - | 4 | 4 | - | - | - | - |
| Puerto Rico..... | - | 1 | 2,242 | 3,462 | - | 15 | 18 | - | - | - | 1 |

Morbidity and Mortality Weekly Report

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED

DECEMBER 16, 1967 AND DECEMBER 17, 1966 (50th WEEK) - CONTINUED

| AREA | STREPTOCOCCAL SORE THROAT & SCARLET FEVER | TETANUS | | TULAREMIA | | TYPHOID | | TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted) | | RABIES IN ANIMALS | |
|-----------------------|---|---------|--------------|-----------|--------------|---------|--------------|--|--------------|----------------------|--------------|
| | 1967 | 1967 | Cum. 1967 | 1967 | Cum. 1967 | 1967 | Cum. 1967 | 1967 | Cum. 1967 | 1967 | Cum. 1967 |
| UNITED STATES... | 10,277 | 7 | 223 | 6 | 165 | 4 | 393 | - | 297 | 48 | 4,048 |
| NEW ENGLAND..... | 1,038 | - | 3 | - | 1 | - | 10 | - | 1 | 1 | 104 |
| Maine..... | 25 | - | - | - | - | - | - | - | - | - | 24 |
| New Hampshire..... | 18 | - | - | - | - | - | - | - | - | - | 48 |
| Vermont..... | 50 | - | - | - | - | - | - | - | - | - | 25 |
| Massachusetts..... | 214 | - | 1 | - | 1 | - | 6 | - | 1 | 1 | 5 |
| Rhode Island..... | 138 | - | - | - | - | - | 1 | - | - | - | 2 |
| Connecticut..... | 593 | - | 2 | - | - | - | 3 | - | - | - | - |
| MIDDLE ATLANTIC..... | 338 | - | 16 | - | 1 | - | 40 | - | 35 | 3 | 100 |
| New York City..... | 6 | - | 9 | - | - | - | 21 | - | - | - | - |
| New York, Up-State. | 296 | - | 1 | - | 1 | - | 11 | - | 9 | 3 | 84 |
| New Jersey..... | NN | - | 1 | - | - | - | 4 | - | 15 | - | - |
| Pennsylvania..... | 36 | - | 5 | - | - | - | 4 | - | 11 | - | 16 |
| EAST NORTH CENTRAL... | 997 | 1 | 27 | - | 15 | 1 | 43 | - | 22 | 4 | 376 |
| Ohio..... | 228 | - | 4 | - | - | 1 | 15 | - | 11 | - | 131 |
| Indiana..... | 155 | - | 3 | - | 2 | - | 11 | - | 1 | 2 | 86 |
| Illinois..... | 261 | - | 13 | - | 13 | - | 7 | - | 10 | - | 71 |
| Michigan..... | 223 | 1 | 6 | - | - | - | 8 | - | - | 1 | 24 |
| Wisconsin..... | 130 | - | 1 | - | - | - | 2 | - | - | 1 | 64 |
| WEST NORTH CENTRAL... | 631 | 1 | 17 | 1 | 23 | - | 21 | - | 4 | 9 | 955 |
| Minnesota..... | 23 | 1 | 6 | - | - | - | 2 | - | 1 | 2 | 191 |
| Iowa..... | 220 | - | 2 | 1 | 2 | - | 3 | - | - | 5 | 133 |
| Missouri..... | 2 | - | 7 | - | 9 | - | 10 | - | 1 | 2 | 172 |
| North Dakota..... | 92 | - | - | - | - | - | - | - | - | - | 166 |
| South Dakota..... | 59 | - | 1 | - | 2 | - | - | - | - | - | 116 |
| Nebraska..... | 176 | - | - | - | - | - | 4 | - | 2 | - | 70 |
| Kansas..... | 59 | - | 1 | - | 10 | - | 2 | - | - | - | 107 |
| SOUTH ATLANTIC..... | 1,047 | 1 | 47 | 1 | 12 | - | 63 | - | 119 | 1 | 476 |
| Delaware..... | 8 | - | - | - | - | - | - | - | - | - | - |
| Maryland..... | 135 | - | - | - | - | - | 2 | - | 21 | - | 4 |
| Dist. of Columbia.. | - | - | - | - | - | - | 3 | - | - | - | 6 |
| Virginia..... | 300 | - | 10 | 1 | 2 | - | 9 | - | 28 | - | 205 |
| West Virginia..... | 247 | - | 1 | - | 2 | - | 2 | - | 1 | - | 62 |
| North Carolina..... | 15 | 1 | 8 | - | - | - | 4 | - | 47 | - | 3 |
| South Carolina..... | 30 | - | 1 | - | 2 | - | 10 | - | 5 | - | 2 |
| Georgia..... | 19 | - | 4 | - | 5 | - | 21 | - | 17 | 1 | 116 |
| Florida..... | 293 | - | 23 | - | 1 | - | 12 | - | - | - | 78 |
| EAST SOUTH CENTRAL... | 1,677 | - | 33 | 1 | 13 | 1 | 65 | - | 53 | 16 | 778 |
| Kentucky..... | 114 | - | 4 | - | 2 | - | 24 | - | 15 | 4 | 177 |
| Tennessee..... | 1,276 | - | 8 | 1 | 8 | 1 | 12 | - | 26 | 11 | 540 |
| Alabama..... | 143 | - | 11 | - | 1 | - | 12 | - | 12 | 1 | 51 |
| Mississippi..... | 144 | - | 10 | - | 2 | - | 17 | - | - | - | 10 |
| WEST SOUTH CENTRAL... | 728 | 3 | 54 | 3 | 83 | 1 | 43 | - | 43 | 7 | 902 |
| Arkansas..... | 8 | - | 6 | 1 | 48 | 1 | 13 | - | 14 | 1 | 113 |
| Louisiana..... | - | - | 4 | - | 8 | - | 17 | - | 2 | 2 | 70 |
| Oklahoma..... | 19 | - | 4 | 2 | 20 | - | 8 | - | 16 | 1 | 354 |
| Texas..... | 701 | 3 | 40 | - | 7 | - | 5 | - | 11 | 3 | 365 |
| MOUNTAIN..... | 2,180 | - | 3 | - | 11 | 1 | 22 | - | 9 | 2 | 115 |
| Montana..... | 54 | - | - | - | 2 | - | 2 | - | - | - | - |
| Idaho..... | 283 | - | - | - | - | - | - | - | - | - | - |
| Wyoming..... | 269 | - | - | - | 2 | - | 1 | - | - | - | 5 |
| Colorado..... | 1,138 | - | 2 | - | 1 | - | 12 | - | 9 | - | 10 |
| New Mexico..... | 169 | - | 1 | - | - | 1 | 3 | - | - | - | 34 |
| Arizona..... | 119 | - | - | - | - | - | 4 | - | - | 2 | 54 |
| Utah..... | 148 | - | - | - | 6 | - | - | - | - | - | 3 |
| Nevada..... | - | - | - | - | - | - | - | - | - | - | 9 |
| PACIFIC..... | 1,641 | 1 | 23 | - | 6 | - | 86 | - | 11 | 5 | 242 |
| Washington..... | 458 | - | - | - | 2 | - | 2 | - | 2 | - | 2 |
| Oregon..... | 162 | - | 1 | - | 1 | - | 3 | - | 3 | - | 4 |
| California..... | 926 | 1 | 18 | - | 3 | - | 78 | - | 6 | 5 | 236 |
| Alaska..... | 32 | - | - | - | - | - | - | - | - | - | - |
| Hawaii..... | 63 | - | 4 | - | - | - | 3 | - | - | - | - |
| Puerto Rico..... | 9 | - | 18 | - | - | - | 8 | - | - | 3 | 35 |

Morbidity and Mortality Weekly Report

427

Week No.

DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED DECEMBER 16, 1967

50

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

| Area | All Causes | | Pneumonia and Influenza All Ages | Under 1 year All Causes | Area | All Causes | | Pneumonia and Influenza All Ages | Under 1 year All Causes |
|----------------------------|------------|-------------------|----------------------------------|-------------------------|---|---------------|-------------------|----------------------------------|-------------------------|
| | All Ages | 65 years and over | | | | All Ages | 65 years and over | | |
| NEW ENGLAND: | 800 | 493 | 39 | 38 | SOUTH ATLANTIC: | 1,266 | 676 | 47 | 56 |
| Boston, Mass.----- | 248 | 139 | 11 | 12 | Atlanta, Ga.----- | 128 | 55 | 5 | 8 |
| Bridgeport, Conn.----- | 48 | 27 | 3 | 2 | Baltimore, Md.----- | 275 | 153 | 9 | 6 |
| Cambridge, Mass.----- | 28 | 20 | - | 1 | Charlotte, N. C.----- | 38 | 23 | - | 2 |
| Fall River, Mass.----- | 32 | 25 | 2 | - | Jacksonville, Fla.----- | 70 | 32 | 2 | - |
| Hartford, Conn.----- | 64 | 36 | 3 | 6 | Miami, Fla.----- | 116 | 62 | 1 | 5 |
| Lowell, Mass.----- | 31 | 21 | 1 | 1 | Norfolk, Va.----- | 66 | 37 | 7 | 6 |
| Lynn, Mass.----- | 34 | 23 | 1 | - | Richmond, Va.----- | 119 | 63 | 1 | 8 |
| New Bedford, Mass.----- | 32 | 23 | 1 | 1 | Savannah, Ga.----- | 37 | 16 | 3 | 2 |
| New Haven, Conn.----- | 45 | 22 | 2 | 8 | St. Petersburg, Fla.--- | 85 | 71 | 5 | 2 |
| Providence, R. I.----- | 65 | 40 | 1 | 1 | Tampa, Fla.----- | 72 | 45 | 3 | 2 |
| Somerville, Mass.----- | 16 | 14 | 3 | - | Washington, D. C.----- | 211 | 91 | 8 | 13 |
| Springfield, Mass.----- | 46 | 36 | 5 | 1 | Wilmington, Del.----- | 49 | 28 | 3 | 2 |
| Waterbury, Conn.----- | 41 | 23 | - | 2 | | | | | |
| Worcester, Mass.----- | 70 | 44 | 6 | 3 | EAST SOUTH CENTRAL: | 650 | 366 | 16 | 36 |
| MIDDLE ATLANTIC: | 3,574 | 2,120 | 151 | 150 | Birmingham, Ala.----- | 111 | 59 | 1 | 9 |
| Albany, N. Y.----- | 39 | 25 | 1 | 2 | Chattanooga, Tenn.----- | 46 | 29 | 2 | 4 |
| Allentown, Pa.----- | 43 | 32 | 3 | 3 | Knoxville, Tenn.----- | 39 | 30 | - | 1 |
| Buffalo, N. Y.----- | 153 | 92 | 3 | 10 | Louisville, Ky.*----- | 130 | 74 | 6 | 6 |
| Camden, N. J.----- | 44 | 27 | 1 | - | Memphis, Tenn.----- | 151 | 77 | 5 | 11 |
| Elizabeth, N. J.----- | 40 | 23 | 1 | 2 | Mobile, Ala.----- | 65 | 40 | 1 | 2 |
| Erie, Pa.----- | 45 | 19 | 3 | 3 | Montgomery, Ala.----- | 35 | 15 | - | 2 |
| Jersey City, N. J.----- | 59 | 33 | 1 | 3 | Nashville, Tenn.----- | 73 | 42 | 1 | 1 |
| Newark, N. J.----- | 94 | 53 | 9 | 7 | WEST SOUTH CENTRAL: | 1,150 | 586 | 39 | 83 |
| New York City, N. Y.--- | 1,862 | 1,085 | 88 | 67 | Austin, Tex.----- | 50 | 24 | 3 | 4 |
| Paterson, N. J.----- | 40 | 20 | 1 | 6 | Baton Rouge, La.----- | 28 | 13 | 1 | 6 |
| Philadelphia, Pa.----- | 534 | 337 | 11 | 12 | Corpus Christi, Tex.--- | 37 | 17 | - | 4 |
| Pittsburgh, Pa.----- | 199 | 97 | 6 | 19 | Dallas, Tex.----- | 168 | 89 | 3 | 10 |
| Reading, Pa.----- | 60 | 47 | 1 | 1 | El Paso, Tex.----- | 24 | 12 | 1 | 4 |
| Rochester, N. Y.----- | 109 | 66 | 9 | 4 | Fort Worth, Tex.----- | 85 | 42 | 8 | 12 |
| Schenectady, N. Y.----- | 22 | 12 | - | - | Houston, Tex.----- | 199 | 92 | 2 | 9 |
| Scranton, Pa.----- | 44 | 30 | 2 | 1 | Little Rock, Ark.----- | 57 | 34 | 4 | 2 |
| Syracuse, N. Y.----- | 55 | 33 | 2 | 2 | New Orleans, La.----- | 169 | 78 | 7 | 14 |
| Trenton, N. J.----- | 54 | 31 | 2 | 7 | Oklahoma City, Okla.--- | 81 | 47 | - | 3 |
| Utica, N. Y.----- | 44 | 34 | 5 | - | San Antonio, Tex.----- | 136 | 79 | 2 | 5 |
| Yonkers, N. Y.----- | 34 | 24 | 2 | 1 | Shreveport, La.----- | 58 | 28 | 7 | 6 |
| | | | | | Tulsa, Okla.----- | 58 | 31 | 1 | 4 |
| EAST NORTH CENTRAL: | 2,823 | 1,626 | 101 | 161 | MOUNTAIN: | 416 | 252 | 16 | 12 |
| Akron, Ohio----- | 68 | 39 | - | 2 | Albuquerque, N. Mex.--- | 42 | 27 | 3 | 1 |
| Canton, Ohio----- | 37 | 27 | 3 | 2 | Colorado Springs, Colo. | 30 | 21 | 5 | - |
| Chicago, Ill.----- | 877 | 471 | 35 | 55 | Denver, Colo.----- | 118 | 72 | 3 | 5 |
| Cincinnati, Ohio----- | 151 | 80 | 3 | 12 | Ogden, Utah----- | 16 | 12 | - | - |
| Cleveland, Ohio----- | 212 | 124 | 6 | 4 | Phoenix, Ariz.----- | 81 | 44 | - | 3 |
| Columbus, Ohio----- | 92 | 49 | 5 | 8 | Pueblo, Colo.----- | 22 | 19 | 3 | - |
| Dayton, Ohio----- | 95 | 51 | - | 7 | Salt Lake City, Utah--- | 64 | 33 | 1 | 2 |
| Detroit, Mich.----- | 450 | 261 | 13 | 23 | Tucson, Ariz.----- | 43 | 24 | 1 | 1 |
| Evansville, Ind.----- | 45 | 31 | 3 | 1 | PACIFIC: | 1,592 | 987 | 45 | 56 |
| Flint, Mich.----- | 59 | 32 | 4 | 2 | Berkeley, Calif.----- | 20 | 14 | 1 | - |
| Fort Wayne, Ind.----- | 38 | 25 | 1 | 2 | Fresno, Calif.----- | 54 | 29 | 4 | 6 |
| Gary, Ind.----- | 35 | 16 | 4 | 3 | Glendale, Calif.*----- | 32 | 23 | 1 | 1 |
| Grand Rapids, Mich.--- | 64 | 46 | 9 | 3 | Honolulu, Hawaii----- | 53 | 31 | 2 | 2 |
| Indianapolis, Ind.----- | 153 | 90 | 2 | 14 | Long Beach, Calif.----- | 73 | 50 | 2 | 1 |
| Madison, Wis.----- | 30 | 15 | - | 1 | Los Angeles, Calif.--- | 457 | 280 | 9 | 14 |
| Milwaukee, Wis.----- | 144 | 99 | 3 | 6 | Oakland, Calif.----- | 97 | 62 | 3 | 3 |
| Peoria, Ill.----- | 40 | 23 | - | 4 | Pasadena, Calif.----- | 46 | 36 | - | 1 |
| Rockford, Ill.----- | 29 | 21 | 1 | 1 | Portland, Oreg.----- | 120 | 78 | 3 | 2 |
| South Bend, Ind.----- | 43 | 26 | 1 | 3 | Sacramento, Calif.--- | 51 | 31 | 1 | - |
| Toledo, Ohio----- | 111 | 30 | 1 | 4 | San Diego, Calif.----- | 105 | 61 | 1 | 9 |
| Youngstown, Ohio----- | | | | | San Francisco, Calif.--- | 176 | 105 | 7 | 4 |
| WEST NORTH CENTRAL: | 827 | 509 | 30 | 31 | San Jose, Calif.----- | 35 | 24 | 1 | 3 |
| Des Moines, Iowa----- | 60 | 41 | 1 | 2 | Seattle, Wash.----- | 175 | 91 | 8 | 6 |
| Duluth, Minn.----- | 14 | 11 | - | - | Spokane, Wash.----- | 58 | 46 | 2 | 4 |
| Kansas City, Kans.----- | 70 | 37 | 10 | 3 | Tacoma, Wash.----- | 40 | 26 | - | - |
| Kansas City, Mo.----- | 128 | 83 | 1 | 2 | | | | | |
| Lincoln, Nebr.----- | 21 | 15 | - | - | Total | 13,098 | 7,615 | 484 | 623 |
| Minneapolis, Minn.--- | 100 | 62 | 3 | 6 | Cumulative Totals including reported corrections for previous weeks | | | | |
| Omaha, Nebr.----- | 72 | 46 | 2 | 1 | All Causes, All Ages ----- | 616,464 | | | |
| St. Louis, Mo.----- | 246 | 140 | 7 | 10 | All Causes, Age 65 and over----- | 352,168 | | | |
| St. Paul, Minn.----- | 50 | 32 | - | 4 | Pneumonia and Influenza, All Ages----- | 21,575 | | | |
| Wichita, Kans.----- | 66 | 42 | 6 | 3 | All Causes, Under 1 Year of Age----- | 31,204 | | | |

*Estimate - based on average percent of divisional total.

INTERNATIONAL NOTES
QUARANTINE MEASURES

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

Section 5

AFRICA

Malawi—Page 31

Under cholera add: and from India and Pakistan.*

Somalia (Northern and Southern)—Page 34

Under yellow fever, insert the following information:
Yellow fever vaccination is required of all arrivals from
infected areas. No certificate is required for travelers who
arrive in and remain in Berbera or Hargeisa.

United Arab Republic—Page 38

Add to the previous cholera information: and from Burma,
East Pakistan, India, Indonesia, Mainland China, Nepal,
Philippines, Thailand, and Vietnam.* The certificate re-
cording the negative results of stool culture must be is-
sued by a licensed laboratory and attested to by the health
authority.*

ASIA

Iran—Page 56

In the note concerning cholera, delete: Iraq. Insert:
Thailand.

*Conformity of these measures with the Regulations may be
open to question, and the World Health Organization is in com-
munication with the health administration concerned.

ERRATUM, Vol. 16, No. 49, p. 416.

In the article "Measles—Chicago," (Reported by
Samuel L. Andelson, M.D., M.P.H.), should be corrected to
read:

(Reported by Samuel L. Andelman, M.D., M.P.H.)

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

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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.

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