



# Morbidity and Mortality

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE / PUBLIC HEALTH SERVICE HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION

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**SURVEILLANCE SUMMARY**

**RUBELLA - United States, First 39 Weeks, 1972**

Through the first 39 weeks of 1972, 21,424 cases of rubella were reported in the United States, a 44% decrease compared with the same period in 1971. There has not been a nationwide epidemic of rubella since 1964, when 448,796 cases occurred, and there has been a downward trend in rubella incidence since 1969, when rubella vaccines were licensed for use (Figure 1).

Seven states - Wisconsin, Kentucky, Colorado, Arizona, New Jersey, Minnesota, and Georgia - reported an increase in the incidence of rubella (cases per 100,000 population under 18 years of age) in the first 39 weeks of 1972 compared with the same period of 1971. The remaining states reported a decrease (Figure 2).

As of August 1972, 29,199,697 doses of rubella vaccine have been distributed through public programs, which were

**CONTENTS**

Surveillance Summary  
 Rubella - United States, First 39 Weeks, 1972 . . . . . 417  
 International Notes  
 Rubella - Czechoslovakia . . . . . 419  
 Current Trends  
 Influenza - Worldwide, United States . . . . . 419  
 Epidemiologic Notes and Reports  
 Staphylococcal Food Poisoning - Wisconsin . . . . . 422  
 Possible Introduced Malaria - New York State . . . . . 423  
 Wound Botulism - Idaho . . . . . 423

sufficient to immunize 50.4% of the population age 1 through 9 years.

Twenty-five cases of congenital rubella syndrome were reported to CDC in the first 39 weeks of 1972; 42 cases were reported for the comparable period of 1971.

(Reported by the Immunization Branch, State and Community Services Division, CDC.)

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

| DISEASE   | 49th WEEK ENDING    |                      | MEDIAN<br>1967-1971 | CUMULATIVE, FIRST 49 WEEKS |         |                     |
|---|---------------------|----------------------|---------------------|----------------------------|---------|---------------------|
|   | December 9,<br>1972 | December 11,<br>1971 |                     | 1972                       | 1971    | MEDIAN<br>1967-1971 |
| Aseptic meningitis . . . . .                          | 86                  | 55                   | 74                  | 4,074                      | 4,928   | 4,194               |
| Brucellosis . . . . .                                 | 4                   | 6                    | 5                   | 177                        | 159     | 220                 |
| Chickenpox . . . . .                                  | 3,753               | ---                  | ---                 | 130,925                    | ---     | ---                 |
| Diphtheria . . . . .                                  | 4                   | 3                    | 10                  | 112                        | 185     | 197                 |
| Encephalitis, primary:                                |                     |                      |                     |                            |         |                     |
| Arthropod-borne and unspecified . . . . .             | 22                  | 37                   | 29                  | 1,078                      | 1,464   | 1,464               |
| Encephalitis, post-infectious . . . . .               | 9                   | 3                    | 6                   | 261                        | 316     | 358                 |
| Hepatitis, serum (Hepatitis B) . . . . .              | 177                 | 200                  | 149                 | 8,435                      | 8,314   | 5,023               |
| Hepatitis, infectious (Hepatitis A) . . . . .         | 1,155               | 1,162                | 1,059               | 51,689                     | 57,246  | 45,259              |
| Malaria . . . . .                                     | 7                   | 24                   | 51                  | 798                        | 2,762   | 2,762               |
| Measles (rubeola) . . . . .                           | 483                 | 536                  | 381                 | 30,170                     | 73,646  | 44,946              |
| Meningococcal infections, total . . . . .             | 36                  | 23                   | 39                  | 1,265                      | 2,079   | 2,330               |
| Civilian . . . . .                                    | 35                  | 22                   | 39                  | 1,217                      | 1,861   | 2,054               |
| Military . . . . .                                    | 1                   | 1                    | 1                   | 48                         | 218     | 218                 |
| Mumps . . . . .                                       | 1,520               | 2,456                | ---                 | 67,212                     | 116,364 | ---                 |
| Rubella (German measles) . . . . .                    | 259                 | 326                  | 409                 | 23,889                     | 42,302  | 47,371              |
| Tetanus . . . . .                                     | 3                   | 3                    | 6                   | 113                        | 110     | 154                 |
| Tuberculosis, new active . . . . .                    | 611                 | ---                  | ---                 | 31,621                     | ---     | ---                 |
| Tularemia . . . . .                                   | 3                   | 2                    | 2                   | 132                        | 173     | 157                 |
| Typhoid fever . . . . .                               | 8                   | 7                    | 8                   | 362                        | 400     | 382                 |
| Typhus, tick-borne (Rky. Mt. spotted fever) . . . . . | 2                   | ---                  | ---                 | 518                        | 400     | 337                 |
| Veneral Diseases: †                                   |                     |                      |                     |                            |         |                     |
| Gonorrhea . . . . .                                   | 15,728              | 13,939               | ---                 | 714,710                    | 628,448 | ---                 |
| Syphilis, primary and secondary . . . . .             | 542                 | 471                  | ---                 | 24,257                     | 22,364  | ---                 |
| Rabies in animals . . . . .                           | 52                  | 63                   | 61                  | 3,809                      | 3,724   | 3,197               |

**TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY**

|  | Cum. |                                 | Cum. |
|--|------|---------------------------------|------|
| Anthrax: . . . . .                     | 2    | Poliomyelitis, total: . . . . . | 23   |
| Botulism: . . . . .                    | 9    | Paralytic: . . . . .            | 20   |
| Congenital rubella syndrome: . . . . . | 33   | Psittacosis: . . . . .          | 33   |
| Leprosy, Calif. - 1 . . . . .          | 117  | Rabies in man: . . . . .        | 1    |
| Leptospirosis: . . . . .               | 34   | Trichinosis: . . . . .          | 77   |
| Plague: . . . . .                      | 1    | Typhus, murine: . . . . .       | 14   |

†Numbers for 1971 are estimated from quarterly reports to the Venereal Disease Branch, CDC

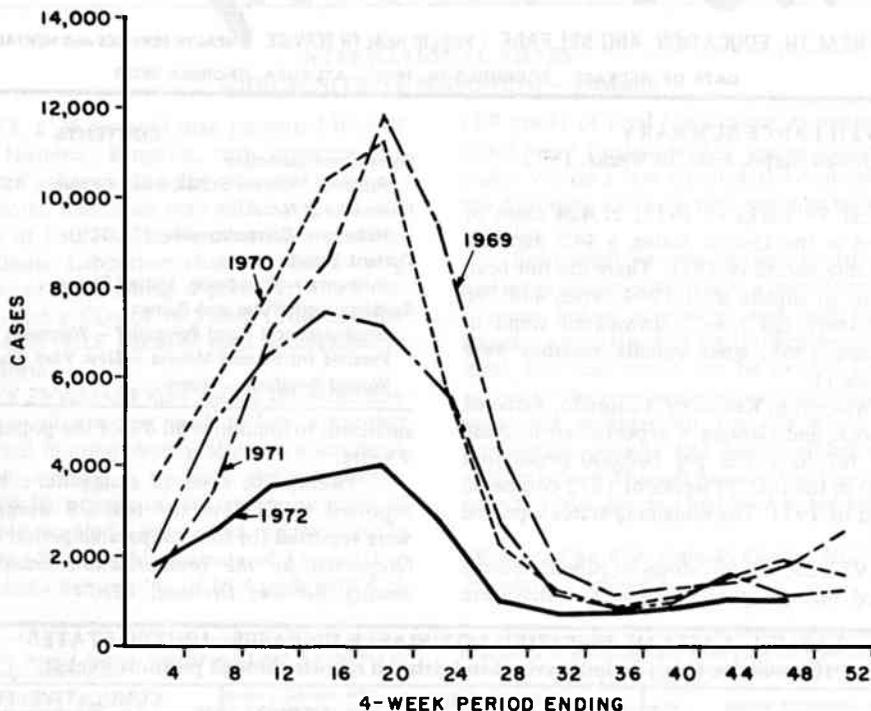
**RUBELLA – Continued  
Editorial Note**

While no major epidemic of rubella is anticipated in the United States during 1972-73, the potential for local outbreaks continues in areas where immunity levels remain

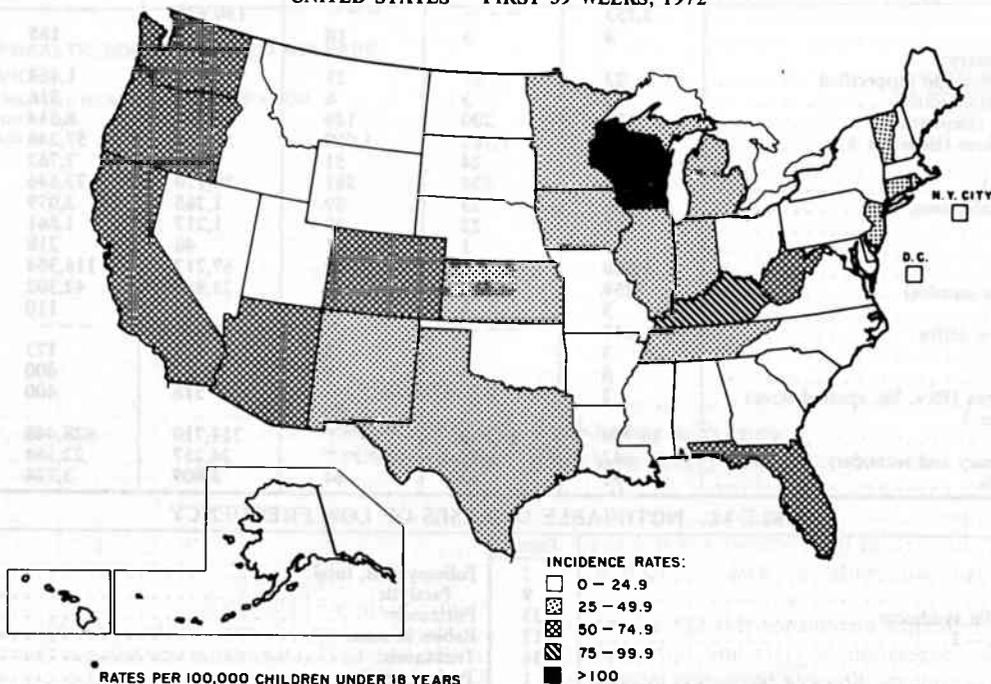
low or immunization programs have not been adequate.

Elimination of the congenital rubella syndrome remains the major objective of rubella immunization efforts, and while surveillance is incomplete, the reported cases of congenital rubella syndrome have decreased each year since 1969.

**Figure 1  
REPORTED CASES OF RUBELLA, BY 4-WEEK PERIODS  
UNITED STATES – 1969-1972**



**Figure 2  
INCIDENCE RATES\* OF REPORTED RUBELLA CASES, BY STATE  
UNITED STATES – FIRST 39 WEEKS, 1972**



## INTERNATIONAL NOTES

## RUBELLA - Czechoslovakia

One of the largest epidemics of rubella ever recorded in Europe has recently been experienced in the Czech regions of Bohemia and Moravia. An average of 2,100 cases were reported weekly in January, 9,950 in April, and 5,400 in June. In the eastern part of the country (Slovakia), the morbidity rate remained at comparatively low levels. The outbreak in the Czech region was preceded in 1971 by a distinct pre-epidemic wave, particularly affecting the city of Prague. In Czechoslovakia, there has been a marked increase in the annual incidence of rubella at approximately 5-year intervals—1961, 1966-1967, and now in 1972.

In an immunologic survey performed in September 1971 in the industrial center of the city of Ostrava and in three agricultural districts of Eastern Bohemia, 6% of preschool children examined (up to 5 years of age) and 38% of children 9 years of age were seropositive. In women aged 20-40 years,

a 96-100% seropositivity was found.

In Prague, in the first half of 1972, 14 patients with rubella encephalitis, six with rubella polyarthrititis, and two with thrombocytopenic purpura were hospitalized. Between 1957 and 1971, a total of 19 patients with rubella encephalitis were hospitalized. In the present outbreak, no deaths from rubella complications were recorded, and no cases of congenital rubella have been reported.

To facilitate rubella surveillance, district epidemiologists and obstetricians are operating dispensary services for pregnant women exposed to the disease, and training courses for provincial virologists in rubella virology and serology have been implemented. Field trials have been performed with live attenuated rubella vaccines RA 27/3 and Cendehill.

(Reported by the World Health Organization: Weekly Epidemiological Record, Vol. 27, No. 43.)

## CURRENT TRENDS

## INFLUENZA - Worldwide, United States

## WORLDWIDE

In Bulgaria, an influenza A epidemic started in mid-November. The virus is similar to A/England/42/72. Influenza seems to be widespread in England, where 71 strains of influenza A virus, all similar to A/England/42/72, have been isolated.

(Reported by the World Health Organization: Weekly Epidemiological Record, Vol. 47, No. 49.)

## UNITED STATES

Surveillance of influenza for the country by CDC has in the past consisted of 1) telephone surveys to state epidemiologists during the fall and winter season, which provide some assessment of influenza activity, and 2) weekly tabulation of mortality due to pneumonia and influenza from 122 large cities throughout the United States. The former method varies considerably from state to state and is a general assessment of the occurrence of influenza. The second method reflects more accurately the extent and impact of influenza but suffers from a 3- to 4-week lag behind the actual clinical events.

A sensitive and readily available source of information about influenza can be obtained from large, general community hospitals in major cities throughout the country. Studies have shown that when clinical influenza begins in a community, one of the first evidences of occurrence is a marked rise in the number of patients seen in outpatient clinics and emergency rooms of large hospitals. Although many of the patients do not have influenza, the marked increase in total outpatient visits usually closely reflects the appearance of influenza in the community. While all age groups contract influenza to a greater or lesser degree when epidemics occur, young children in both primary and secondary schools are usually the first group to be affected and serve as a good index population for influenza activity. Furthermore, when influenza occurs in the community in substantial numbers, absenteeism from schools and industry occurs nearly simultaneously with increased visits to hospitals and physicians.

To improve influenza surveillance this fall and winter, CDC enlisted the cooperation of state and territorial epidemiologists and laboratory directors to provide information

about 1) emergency room visits to large community hospitals in major cities within their states, 2) school and industrial absenteeism, 3) information regarding the number of specimens submitted for viral isolations, and 4) the number of influenza isolations made by each laboratory.

Information is currently being sent to the Regional Offices of CDC weekly by 43 states. These data show that as of Dec. 8, 1972, the only civilian outbreak of influenza-like disease was in Baltimore, Maryland, where emergency room visits in the participating hospitals were 30 to 40% higher than expected levels, with the majority of the increase represented by respiratory disease.

Laboratory data received from cooperating state and territorial laboratories of the World Health Organization Influenza Program throughout the country showed that of 279 specimens tested during the week ending Dec. 1, 1972, there were four influenza viral isolations; of 343 serum pairs tested, four showed a fourfold or greater rise in hemagglutination-inhibition or complement-fixation antibody titers to influenza A. Of the viral isolates, three were from Hawaii and were influenza B. The fourth, an influenza A isolate, was reported from the Kansas City Laboratories, Ecological Investigations Program, CDC (Table 1).

Mortality due to all causes and mortality due to pneumonia and influenza, reported from 122 cities, indicates that there is no increase above the epidemic threshold (Figures 3 and 4).

(Text continued on page 422)

Table 1  
Influenza Laboratory Surveillance - United States

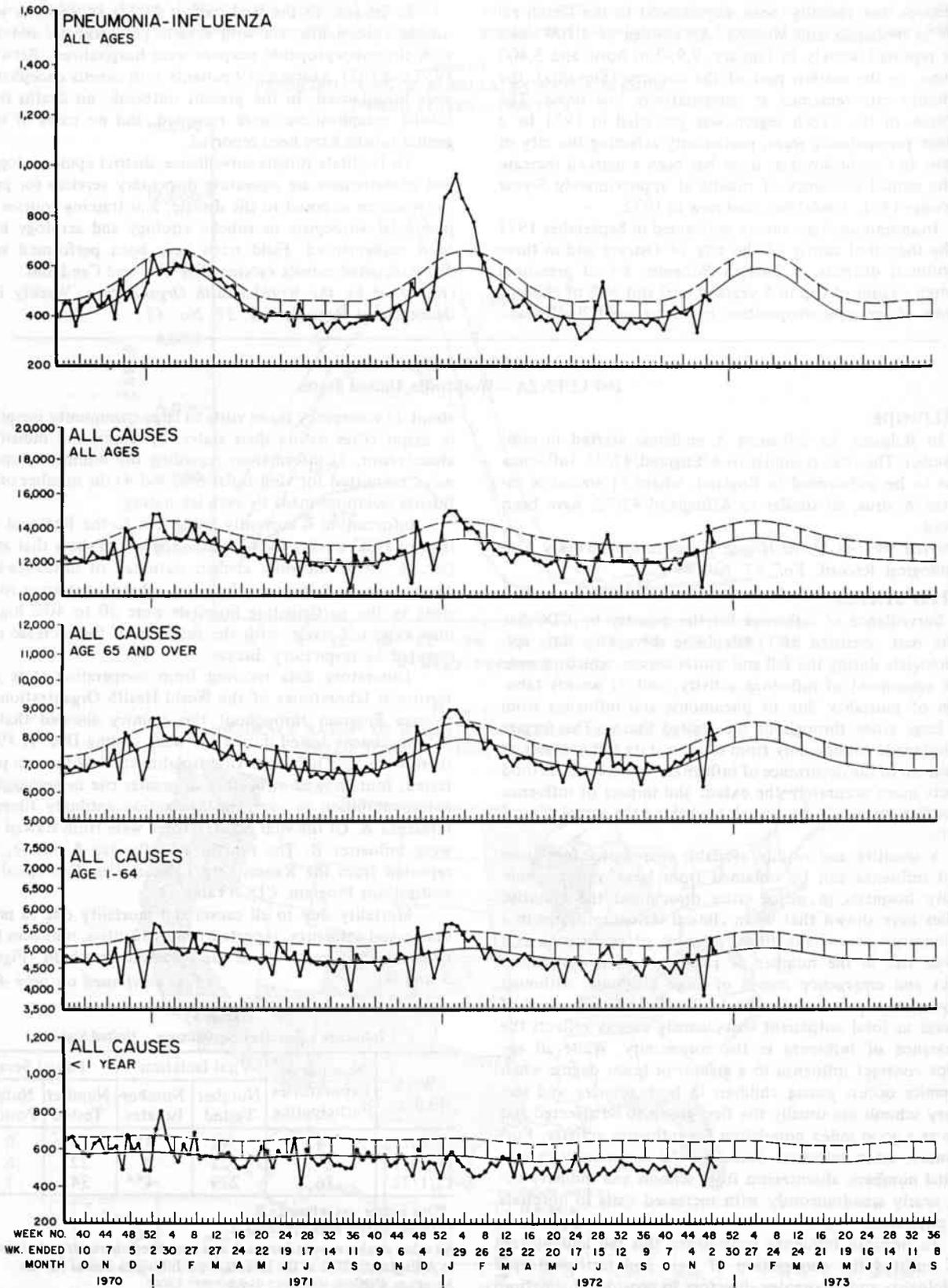
| Week Ending | Number of Laboratories Participating | Viral Isolation |                 | Paired Sera   |                 |
|-------------|--------------------------------------|-----------------|-----------------|---------------|-----------------|
|             |                                      | Number Tested   | Number Isolates | Number Tested | Number Positive |
| 11/17/72    | 14                                   | 92              | 3*              | 157           | 0               |
| 11/24/72    | 27                                   | 122             | 2               | 225           | 6               |
| 12/1/72     | 36                                   | 279             | 4**             | 343           | 1               |

\*One isolate was influenza B.

\*\*Three isolates were influenza B.

All other strains were influenza A and have been characterized as similar to A/England/42/72 at the International Influenza Center for the Americas, CDC.

Figure 3  
MORTALITY IN 122 UNITED STATES CITIES





**INFLUENZA — Continued**

(Reported by Yasushi Togo, M.D., University of Maryland School of Medicine; Robert D. Farber, M.D., Commissioner of Health, Baltimore Health Department; John D. Stafford, M.D., State Epidemiologist, Maryland State Department of Health; the International Influenza Center for the Americas, and the Viral Diseases Branch, Epidemiology Program, CDC.)

**Arizona:** Between Nov. 27 and Dec. 7, 1972, Fort Huachuca Army Base, Arizona, reported 621 cases of influenza. With a troop strength of 6,800, this number represents an attack rate of 91.3 per thousand.

The illness responsible was characterized by sudden onset of fever (temperatures of 101-102°F.), myalgia, headache, mild to moderate productive cough, with vomiting and diarrhea occurring in approximately 25% of the cases. Patients were moderately ill with clinical symptoms lasting 2 to 3 days followed by malaise for an additional 2 to 3 days. One-hundred-twenty-seven of the 621 cases were either hospitalized or assigned to quarters.

Twelve throat washings from 14 ill persons grew an influenza A virus, found to be similar to A/England/42/72.

A survey of base personnel showed that during 1972 approximately 33% of all persons at Fort Huachuca, including personnel ill in this episode, were immunized against influenza.

Physicians in nearby communities, reported that the number of patients with influenza-like disease is not exceeding the expected seasonal number.

(Reported by Maj. Jerome F. Beekman, MC USA, Chief, Preventive Medicine, Fort Huachuca, Arizona; Dora Woodall, Chief, Virology Unit, Philip M. Hotchkiss, D.V.M., Division Director, Epidemiology and Acute Disease Control, Arizona State Department of Health; and a Public Health Advisor, Immunization Branch, State and Community Services Division, CDC.)

**New York:** A virus similar to A/England/42/72 was isolated from patients with an influenza-like disease in a prison in New York City.

(Reported by Pascal J. Imperato, M.D., Principal Epidemiologist, New York City, Alan R. Hinman, M.D., Assistant Commissioner, New York State Department of Health.)

**Editorial Note**

The public generally believes that all febrile upper respiratory disease is the "flu" and that it occurs each winter. The diagnosis of influenza in a community must initially be made either serologically or by viral isolation. The facilities for this are available in almost all states and major cities. Private physicians are encouraged to utilize these facilities. If they suspect an outbreak of influenza in their community.

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**EPIDEMIOLOGIC NOTES AND REPORTS**  
**STAPHYLOCOCCAL FOOD POISONING — Wisconsin**

Between April 13 and July 9, 1972, three outbreaks of staphylococcal food poisoning were reported from Milwaukee, Wisconsin. Each is summarized below.

**OUTBREAK 1:** On April 13, 1972, a woman from Milwaukee, Wisconsin, had acute onset of nausea, vomiting, abdominal pain, and watery diarrhea 2 hours after eating a deviled egg and was admitted to a local hospital. She subsequently developed generalized weakness and numbness of the fingers and hands and was transferred to another hospital where she remained until April 20. Nose and throat cultures were obtained from the patient but failed to yield coagulase-positive staphylococci.

Epidemiologic investigation revealed that the patient had prepared the deviled eggs on April 12, using mustard, ketchup, and seasoning. The eggs had been wrapped in plastic, refrigerated overnight, and eaten the next morning. Further questioning disclosed the eggs had been hard-boiled and dyed on March 31. They had been used as a centerpiece display and had remained at room temperature for approximately 5 days. Laboratory analysis of one remaining deviled egg showed a population of  $3.5 \times 10^7$  coagulase-positive enterotoxin B-producing staphylococci per gm.

**OUTBREAK 2:** On May 25, 1972, an 84-year-old man from Milwaukee had onset of nausea, vomiting, and diarrhea approximately 3 1/2 hours after eating potato salad and Polish sausage at a local restaurant. A companion who had dined with him also was reported to have become ill, but he could not be located for follow-up. Four restaurant employees who had eaten the same potato salad shortly after it had been prepared did not become ill. A sample of the potato salad was collected from the restaurant and was found to contain

$1.7 \times 10^6$  coagulase-positive enterotoxin B-producing staphylococci per gm.

**OUTBREAK 3:** On July 9, 1972, five of six family members from Milwaukee became ill with weakness, chills, nausea, and vomiting 3 to 4 hours after eating barbecued beef. One reported having diarrhea, and another suffered general collapse. All five were admitted to a local hospital. A sample of the barbecued beef remaining from the meal was found to contain the following populations of bacteria per gm: *Clostridium perfringens*  $6.4 \times 10^5$ ; coagulase-positive staphylococci  $2.5 \times 10^8$ ; coliform bacteria  $2.0 \times 10^7$ ; and enterococci  $3.6 \times 10^6$ . The staphylococcus isolate was tested further and produced staphylococcus enterotoxin B.

(Reported by M. S. Bergdoll, Ph.D., Professor, Food Research Institute, University of Wisconsin; Paul J. Pace, Chief Bacteriologist, E. R. Krumbiegel, M.D., Commissioner of Health, Milwaukee Health Department; H. Grant Skinner, M.D., State Epidemiologist, Wisconsin Department of Health and Social Services.)

**Editorial Note**

*Staphylococcus aureus* was responsible for 45% of all foodborne outbreaks reported to CDC in 1971. The most significant factors contributing to staphylococcal intoxication include contamination of food by food handlers and inadequate refrigeration (1). Foods that contain a large amount of protein are usually the vehicles incriminated (2).

A protein enterotoxin, elaborated by staphylococci during their log-growth phase, is responsible for illness. The diagnosis of staphylococcal food poisoning is made on the basis of a compatible clinical picture, frequently by isolation of staphylococci with the same phage types in the implicated

food and the feces and vomitus of ill individuals, and most definitively by identification of enterotoxin in the implicated food. Many techniques have been recently established for identification of enterotoxin (3). Enterotoxin A is most commonly associated with foodborne disease; enterotoxin B, isolated in these three incidents, has only occasionally been implicated (4).

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outbreaks and their control. *Journal of Milk and Food Technology* 35:632-639, 1972

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### POSSIBLE INTRODUCED MALARIA — New York State

On Aug. 27, 1972, a 22-year-old Yugoslavian man had acute onset of headache and fever 1 day after leaving his summer job as counselor at a children's camp in southeastern New York State. The next day, he visited a hospital in New York City, where examination disclosed a temperature of 104°F. He was treated with oral penicillin, and his fever resolved. A blood smear for malaria was read as negative. On August 30, fever recurred, and he was given tetracycline. He remained febrile but traveled to Connecticut where, on September 1, he consulted another physician; his temperature was 105°F. A monospot test was negative, and a white blood cell count was 6,000. He was treated with aspirin and ampicillin and became afebrile. He then went to California where headache continued. Another febrile episode occurred approximately September 12, and he was treated with penicillin. He traveled through Arizona, and upon reaching Santa Fe, New Mexico, experienced chills and confusion and was admitted to a local hospital. Physical examination on admission revealed a temperature of 103°F., a blood pressure of 90/64, and a pulse of 110, but no hepatosplenomegaly or adenopathy. The hematocrit was 41% with a white blood cell count of 6,900 (35% polymorphonuclear leukocytes). On the second hospital day, a blood smear showed *Plasmodium falciparum* parasites, and therapy with quinine, pyrimethamine, and sulfadiazine was begun. He was afebrile within 24 hours and asymptomatic within 1 week.

Numerous interviews with the patient and his contacts failed to reveal any suggestion of illicit parenteral drug exposure. He had entered the United States on June 24, 1972, from Yugoslavia but gave no history of travel to a malarious area. He worked as a counselor from June 26 to August 26 except for a brief vacation in New Hampshire in late July. The camp enrolled approximately 300 campers in two sessions and had 36 counselors, 12 of which were international visitors. Epidemiologic investigation at the camp revealed that another counselor, a 24-year-old man from the Ivory Coast,

had reported to the infirmary on July 7, 1972, complaining of headache, chills, and abdominal pain. His liver was palpable, and the diagnosis of malaria was suspected but not confirmed. He recovered the following day. Although a physical examination performed in the Ivory Coast prior to entering the United States made no mention of malaria, the counselor told the infirmary physician that he had had the disease and later described his current illness as a relapse of malaria.

Populations of mosquitoes at the camp were consistently high throughout July. On the same day that the possible index case had his relapse, numerous campers complained of mosquito bites, and several were treated in the infirmary. Previous light trap records have indicated large populations of *Anopheles* mosquitoes in that area of New York State. Large collections of overwintering *Anopheles quadrimaculatus* were gathered from the cabins at the camp in the early part of October.

No other cases of malaria at the camp have been reported, but serologic tests are being done on those persons who attended the camp and had suspicious signs or symptoms in August and September.

(Reported by J. L. Benach, Ph.D., Senior Medical Entomologist, J. J. Howard, Medical Entomologist, Thomas F. Bast, Ph.D., Associate Medical Entomologist, and Alan R. Hinman, M.D., Assistant Commissioner, New York State Department of Health; and a team of EIS Officers.)

#### Editorial Note

It is likely that these two cases are related and that transmission occurred via mosquito. Although the diagnosis of introduced malaria is presumptive, there is no evidence of another source or route of transmission. This area of New York State was malarious through the 1920s, but there have been no cases of introduced malaria in New York State since 1944. No other introductions of falciparum malaria into the United States have been reported to CDC since investigation of cases began after World War II.

### WOUND BOTULISM — Idaho

On Nov. 6, 1972, a 43-year-old Mexican-American from Blackfoot, Idaho, injured his right hand in a potato sorter at a local factory and was taken to a nearby hospital. The palm was lacerated from side to side, the bones in the third, fourth, and fifth fingers were broken, and the wound was contaminated with grease, soil, and rocks. Following irrigation of the hand for 2 to 3 hours and pinning of the fingers with Steinman pins, a drain was placed in the palm, and the laceration was sewn up. When the drain was removed on November 8, serosanguineous fluid was noted coming from the drain.

Three years prior to this admission, the patient had received one tetanus toxoid booster after an injury, but he

had never received a primary tetanus immunization series. Therefore, he was given a tetanus toxoid booster and was started on 2.4 million units of procaine penicillin per day and 2 grams of Keflex\* per day.

The patient remained in the hospital after his injury and ate the same food as the rest of the patients. On November 11, he had difficulty swallowing, difficulty moving his tongue, and blurred vision. He was unable to eat or talk but

(Continued on page 428)

\*Inclusion of trade names does not imply endorsement by the Public Health Service or the U.S. Department of Health, Education, and Welfare.

## Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDING DECEMBER 9, 1972 AND DECEMBER 11, 1971 (49th WEEK)

| AREA                 | ASEPTIC<br>MENIN-<br>GITIS | BRUCEL-<br>LOSIS | CHICKEN-<br>POX | DIPHTHERIA |     | ENCEPHALITIS                       |      |                      | HEPATITIS              |                             |       |
|----------------------|----------------------------|------------------|-----------------|------------|-----|------------------------------------|------|----------------------|------------------------|-----------------------------|-------|
|                      |                            |                  |                 |            |     | Primary including<br>unspec. cases |      | Post In-<br>fectious | Serum<br>(Hepatitis B) | Infectious<br>(Hepatitis A) |       |
|                      |                            |                  |                 |            |     | 1972                               | 1971 |                      |                        | 1972                        | 1972  |
| UNITED STATES        | 86                         | 4                | 3,753           | 4          | 112 | 22                                 | 37   | 9                    | 177                    | 1,155                       | 1,162 |
| NEW ENGLAND          | 6                          | -                | 374             | -          | -   | 3                                  | -    | -                    | 11                     | 65                          | 71    |
| Maine *              | -                          | -                | 7               | -          | -   | -                                  | -    | -                    | -                      | 1                           | 12    |
| New Hampshire        | -                          | -                | 6               | -          | -   | -                                  | -    | -                    | -                      | 8                           | -     |
| Vermont              | -                          | -                | 15              | -          | -   | -                                  | -    | -                    | -                      | 1                           | 6     |
| Massachusetts        | 4                          | -                | 153             | -          | -   | 2                                  | -    | -                    | 2                      | 26                          | 27    |
| Rhode Island         | -                          | -                | 72              | -          | -   | -                                  | -    | -                    | 2                      | 3                           | 11    |
| Connecticut          | 2                          | -                | 121             | -          | -   | 1                                  | -    | -                    | 7                      | 26                          | 15    |
| MIDDLE ATLANTIC      | 29                         | -                | 90              | -          | 3   | 3                                  | 6    | -                    | 46                     | 185                         | 267   |
| Upstate New York     | 11                         | -                | -               | -          | 1   | -                                  | 1    | -                    | 7                      | 40                          | 35    |
| New York City        | 3                          | -                | 86              | -          | 2   | -                                  | -    | -                    | 11                     | 27                          | 79    |
| New Jersey           | 8                          | -                | NN              | -          | -   | 1                                  | 2    | -                    | 8                      | 47                          | 74    |
| Pennsylvania         | 7                          | -                | 4               | -          | -   | 2                                  | 3    | -                    | 20                     | 71                          | 79    |
| EAST NORTH CENTRAL   | 16                         | -                | 1,561           | -          | 4   | 6                                  | 7    | 3                    | 25                     | 185                         | 173   |
| Ohio                 | -                          | -                | 189             | -          | -   | 2                                  | 1    | -                    | 6                      | 57                          | 28    |
| Indiana *            | -                          | -                | 227             | -          | -   | -                                  | 2    | -                    | 4                      | 12                          | 20    |
| Illinois             | 5                          | -                | -               | -          | 3   | 1                                  | 1    | 3                    | 2                      | 32                          | 37    |
| Michigan             | 9                          | -                | 453             | -          | 1   | 3                                  | 3    | -                    | 11                     | 78                          | 82    |
| Wisconsin *          | 2                          | -                | 692             | -          | -   | -                                  | -    | -                    | 2                      | 6                           | 6     |
| WEST NORTH CENTRAL   | 4                          | 1                | 788             | -          | 18  | 1                                  | 5    | 2                    | 8                      | 25                          | 45    |
| Minnesota            | 1                          | -                | 1               | -          | -   | -                                  | 3    | -                    | -                      | 6                           | 2     |
| Iowa                 | 1                          | -                | 540             | -          | -   | 1                                  | 1    | 2                    | -                      | 3                           | 8     |
| Missouri             | 2                          | -                | 29              | -          | -   | -                                  | -    | -                    | -                      | 8                           | 18    |
| North Dakota         | -                          | -                | 106             | -          | -   | -                                  | -    | -                    | -                      | -                           | -     |
| South Dakota         | -                          | -                | 10              | -          | 15  | -                                  | -    | -                    | -                      | 5                           | 8     |
| Nebraska             | -                          | 1                | 52              | -          | 3   | -                                  | -    | -                    | 2                      | 1                           | 2     |
| Kansas               | -                          | -                | 50              | -          | -   | -                                  | 1    | -                    | 6                      | 2                           | 7     |
| SOUTH ATLANTIC       | 10                         | 1                | 422             | -          | 10  | 6                                  | 5    | 1                    | 28                     | 236                         | 161   |
| Delaware *           | -                          | -                | 2               | -          | -   | -                                  | -    | -                    | -                      | -                           | 3     |
| Maryland             | -                          | -                | 28              | -          | 1   | -                                  | 5    | -                    | -                      | 10                          | 45    |
| District of Columbia | -                          | -                | -               | -          | -   | -                                  | -    | -                    | -                      | -                           | 4     |
| Virginia             | 1                          | 1                | 24              | -          | -   | -                                  | -    | -                    | 3                      | 21                          | 23    |
| West Virginia *      | -                          | -                | 352             | -          | -   | -                                  | -    | -                    | -                      | 11                          | 11    |
| North Carolina       | 3                          | -                | NN              | -          | -   | -                                  | -    | -                    | 7                      | 42                          | 34    |
| South Carolina       | -                          | -                | 16              | -          | 1   | 1                                  | -    | -                    | -                      | 21                          | 5     |
| Georgia              | -                          | -                | -               | -          | 3   | 4                                  | -    | -                    | -                      | 21                          | 1     |
| Florida              | 6                          | -                | -               | -          | 5   | 1                                  | -    | 1                    | 18                     | 110                         | 35    |
| EAST SOUTH CENTRAL   | 5                          | 2                | 111             | -          | 7   | -                                  | 6    | 2                    | 7                      | 64                          | 41    |
| Kentucky             | -                          | -                | 87              | -          | -   | -                                  | 1    | -                    | 1                      | 16                          | 19    |
| Tennessee            | 1                          | 1                | NN              | -          | -   | -                                  | 4    | -                    | 2                      | 37                          | 14    |
| Alabama              | 4                          | 1                | 23              | -          | 7   | -                                  | -    | 2                    | 3                      | 5                           | 6     |
| Mississippi          | -                          | -                | 1               | -          | -   | -                                  | 1    | -                    | 1                      | 6                           | 2     |
| WEST SOUTH CENTRAL   | 10                         | -                | 154             | -          | 42  | 1                                  | 1    | -                    | 11                     | 92                          | 91    |
| Arkansas             | -                          | -                | -               | -          | -   | -                                  | -    | -                    | -                      | 7                           | 3     |
| Louisiana            | 2                          | -                | NN              | -          | 5   | -                                  | -    | -                    | 2                      | 9                           | 9     |
| Oklahoma             | -                          | -                | -               | -          | 1   | -                                  | -    | -                    | 2                      | 14                          | 21    |
| Texas                | 8                          | -                | 154             | -          | 36  | 1                                  | 1    | -                    | 7                      | 62                          | 58    |
| MOUNTAIN             | 1                          | -                | 92              | -          | 6   | -                                  | -    | -                    | 1                      | 61                          | 83    |
| Montana              | -                          | -                | 18              | -          | -   | -                                  | -    | -                    | -                      | 2                           | 19    |
| Idaho                | 1                          | -                | -               | -          | 2   | -                                  | -    | -                    | -                      | 16                          | 17    |
| Wyoming              | -                          | -                | -               | -          | -   | -                                  | -    | -                    | -                      | 1                           | -     |
| Colorado             | -                          | -                | 26              | -          | -   | -                                  | -    | -                    | 1                      | 8                           | 14    |
| New Mexico           | -                          | -                | 7               | -          | 2   | -                                  | -    | -                    | -                      | 15                          | 4     |
| Arizona              | -                          | -                | 21              | -          | 2   | -                                  | -    | -                    | -                      | 14                          | 21    |
| Utah                 | -                          | -                | 14              | -          | -   | -                                  | -    | -                    | -                      | 5                           | 7     |
| Nevada               | -                          | -                | 6               | -          | -   | -                                  | -    | -                    | -                      | -                           | 1     |
| PACIFIC              | 5                          | -                | 161             | 4          | 22  | 2                                  | 7    | 1                    | 40                     | 242                         | 230   |
| Washington           | -                          | -                | 142             | 4          | 18  | -                                  | -    | -                    | -                      | 44                          | 25    |
| Oregon               | 1                          | -                | -               | -          | 1   | -                                  | 1    | -                    | 1                      | 35                          | 23    |
| California           | 4                          | -                | -               | -          | 1   | 2                                  | 6    | 1                    | 39                     | 152                         | 174   |
| Alaska               | -                          | -                | -               | -          | 2   | -                                  | -    | -                    | -                      | -                           | -     |
| Hawaii               | -                          | -                | 19              | -          | -   | -                                  | -    | -                    | -                      | 11                          | 8     |
| Guam                 | -                          | -                | -               | -          | -   | -                                  | -    | -                    | -                      | -                           | -     |
| Puerto Rico          | -                          | -                | 7               | -          | -   | -                                  | -    | -                    | 2                      | 5                           | 13    |
| Virgin Islands       | -                          | -                | -               | -          | -   | -                                  | -    | -                    | -                      | -                           | -     |

\*Delayed reports: Aseptic meningitis: Del. 1  
Chickenpox: Me. 28Encephalitis, primary: Wis. 1  
Hepatitis A: Me. 6, Ind. delete 2, Del. 1, W. Va. delete 1

# Morbidity and Mortality Weekly Report

**TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDING DECEMBER 9, 1972 AND DECEMBER 11, 1971 (49th WEEK) - Continued**

| AREA                 | MALARIA |           | MEASLES (Rubeola) |            |        | MENINGOCOCCAL INFECTIONS, TOTAL |            |       | MUMPS |           | RUBELLA |           |
|----------------------|---------|-----------|-------------------|------------|--------|---------------------------------|------------|-------|-------|-----------|---------|-----------|
|                      | 1972    | Cum. 1972 | 1972              | Cumulative |        | 1972                            | Cumulative |       | 1972  | Cum. 1972 | 1972    | Cum. 1972 |
|                      |         |           |                   | 1972       | 1971   |                                 | 1972       | 1971  |       |           |         |           |
| UNITED STATES        | 7       | 798       | 483               | 30,170     | 73,646 | 36                              | 1,265      | 2,079 | 1,520 | 67,212    | 259     | 23,889    |
| NEW ENGLAND          | -       | 27        | 161               | 4,183      | 3,515  | 2                               | 56         | 98    | 63    | 2,916     | 21      | 1,078     |
| Maine *              | -       | 2         | 1                 | 253        | 1,491  | -                               | 4          | 9     | 1     | 308       | -       | 80        |
| New Hampshire *      | -       | 3         | 23                | 750        | 218    | -                               | 3          | 21    | 1     | 193       | 1       | 34        |
| Vermont              | -       | 1         | -                 | 128        | 121    | -                               | -          | -     | -     | 143       | -       | 70        |
| Massachusetts        | -       | 10        | 27                | 1,093      | 254    | 1                               | 25         | 37    | 25    | 742       | 6       | 504       |
| Rhode Island         | -       | 1         | 1                 | 526        | 241    | -                               | 12         | 3     | 7     | 421       | 1       | 97        |
| Connecticut          | -       | 10        | 109               | 1,433      | 1,190  | 1                               | 12         | 28    | 29    | 1,109     | 13      | 293       |
| MIDDLE ATLANTIC      | 3       | 78        | 6                 | 1,150      | 7,725  | 9                               | 156        | 273   | 151   | 4,216     | 16      | 1,987     |
| Upstate New York     | -       | 18        | 1                 | 168        | 699    | 2                               | 36         | 83    | NN    | NN        | 3       | 250       |
| New York City        | 2       | 19        | 5                 | 417        | 3,807  | -                               | 43         | 55    | 68    | 2,342     | 3       | 261       |
| New Jersey           | -       | 19        | -                 | 499        | 1,287  | 2                               | 30         | 60    | 60    | 1,023     | 7       | 1,194     |
| Pennsylvania         | 1       | 22        | -                 | 66         | 1,932  | 5                               | 47         | 75    | 23    | 851       | 3       | 282       |
| EAST NORTH CENTRAL   | -       | 88        | 153               | 12,041     | 16,664 | 1                               | 190        | 243   | 478   | 18,246    | 52      | 6,082     |
| Ohio *               | -       | 19        | 8                 | 295        | 4,064  | -                               | 74         | 80    | 49    | 2,446     | 3       | 440       |
| Indiana              | -       | 1         | 15                | 1,343      | 2,964  | -                               | 14         | 19    | 18    | 1,201     | 6       | 779       |
| Illinois             | -       | 33        | 31                | 4,374      | 3,277  | 1                               | 40         | 67    | 104   | 3,140     | 9       | 1,094     |
| Michigan *           | -       | 32        | 39                | 2,281      | 2,609  | -                               | 54         | 62    | 132   | 3,390     | 18      | 1,407     |
| Wisconsin            | -       | 3         | 60                | 3,748      | 3,750  | -                               | 8          | 15    | 175   | 8,069     | 16      | 2,362     |
| WEST NORTH CENTRAL   | -       | 50        | 79                | 1,205      | 7,270  | 1                               | 89         | 149   | 190   | 9,580     | 16      | 1,448     |
| Minnesota            | -       | 8         | -                 | 23         | 57     | 1                               | 25         | 27    | 1     | 707       | -       | 497       |
| Iowa                 | -       | 3         | 78                | 878        | 2,676  | -                               | 6          | 14    | 161   | 6,686     | 15      | 442       |
| Missouri             | -       | 12        | -                 | 170        | 2,606  | -                               | 26         | 51    | -     | 610       | -       | 195       |
| North Dakota         | -       | 1         | 1                 | 60         | 242    | -                               | -          | 6     | 7     | 416       | 1       | 55        |
| South Dakota         | -       | 4         | -                 | 12         | 221    | -                               | 2          | 6     | -     | 122       | -       | 13        |
| Nebraska             | -       | 3         | -                 | 23         | 69     | -                               | 10         | 16    | 1     | 273       | -       | 54        |
| Kansas               | -       | 19        | -                 | 39         | 1,399  | -                               | 20         | 29    | 20    | 766       | -       | 192       |
| SOUTH ATLANTIC       | -       | 127       | 13                | 2,309      | 8,856  | 7                               | 277        | 372   | 74    | 6,219     | 52      | 2,409     |
| Delaware *           | -       | -         | -                 | 54         | 42     | -                               | 1          | 2     | 6     | 150       | -       | 8         |
| Maryland             | -       | 10        | -                 | 15         | 555    | -                               | 39         | 53    | 13    | 523       | -       | 55        |
| District of Columbia | -       | 8         | -                 | 2          | 16     | -                               | 11         | 14    | -     | 28        | -       | 7         |
| Virginia             | -       | 9         | 4                 | 76         | 1,613  | 1                               | 61         | 45    | 20    | 1,277     | -       | 77        |
| West Virginia        | -       | 2         | -                 | 302        | 567    | -                               | 8          | 12    | 28    | 2,652     | 1       | 435       |
| North Carolina       | -       | 40        | -                 | 38         | 1,958  | 1                               | 35         | 71    | NN    | NN        | -       | 33        |
| South Carolina       | -       | 12        | -                 | 217        | 930    | 2                               | 25         | 20    | -     | 182       | 2       | 53        |
| Georgia              | -       | 29        | 2                 | 195        | 1,138  | 1                               | 22         | 25    | -     | 27        | 1       | 66        |
| Florida              | -       | 17        | 7                 | 1,410      | 2,037  | 2                               | 75         | 130   | 7     | 1,380     | 48      | 1,675     |
| EAST SOUTH CENTRAL   | -       | 170       | 4                 | 1,080      | 8,463  | 2                               | 98         | 188   | 73    | 3,563     | 7       | 1,645     |
| Kentucky             | -       | 147       | 1                 | 540        | 3,976  | -                               | 30         | 54    | 10    | 530       | 2       | 900       |
| Tennessee            | -       | -         | 1                 | 195        | 1,025  | 1                               | 32         | 75    | 22    | 2,121     | 4       | 560       |
| Alabama              | -       | 18        | -                 | 154        | 1,969  | -                               | 20         | 33    | 41    | 787       | -       | 68        |
| Mississippi          | -       | 5         | 2                 | 191        | 1,493  | 1                               | 16         | 26    | -     | 125       | 1       | 117       |
| WEST SOUTH CENTRAL   | 1       | 87        | 29                | 1,698      | 12,701 | 8                               | 155        | 181   | 133   | 5,574     | 16      | 1,724     |
| Arkansas             | 1       | 6         | -                 | 13         | 778    | -                               | 12         | 5     | 16    | 194       | -       | 36        |
| Louisiana            | -       | 7         | 4                 | 109        | 1,712  | 2                               | 48         | 68    | 1     | 333       | -       | 97        |
| Oklahoma             | -       | 6         | -                 | 10         | 758    | 1                               | 12         | 10    | -     | 166       | -       | 43        |
| Texas                | -       | 68        | 25                | 1,566      | 9,453  | 5                               | 83         | 98    | 116   | 4,881     | 16      | 1,548     |
| MOUNTAIN             | -       | 49        | 12                | 1,961      | 3,511  | -                               | 32         | 65    | 86    | 3,464     | 6       | 1,171     |
| Montana *            | -       | 2         | -                 | 18         | 925    | -                               | 6          | 7     | 19    | 239       | 1       | 35        |
| Idaho                | -       | 3         | -                 | 153        | 274    | -                               | 8          | 11    | 7     | 228       | 1       | 37        |
| Wyoming              | -       | 1         | -                 | 51         | 85     | -                               | 1          | 2     | -     | 335       | -       | 8         |
| Colorado             | -       | 31        | 1                 | 538        | 846    | -                               | 6          | 7     | 3     | 795       | 1       | 532       |
| New Mexico           | -       | 3         | 2                 | 134        | 401    | -                               | 3          | 5     | 34    | 711       | -       | 121       |
| Arizona              | -       | 7         | 9                 | 907        | 637    | -                               | 1          | 9     | 23    | 967       | 1       | 397       |
| Utah                 | -       | 2         | -                 | 159        | 336    | -                               | 6          | 20    | -     | 140       | 2       | 38        |
| Nevada               | -       | -         | -                 | 1          | 7      | -                               | 1          | 4     | -     | 49        | -       | 3         |
| PACIFIC              | 3       | 122       | 26                | 4,543      | 4,941  | 6                               | 212        | 510   | 272   | 13,434    | 73      | 6,345     |
| Washington           | -       | 1         | 3                 | 996        | 1,141  | 1                               | 20         | 35    | 51    | 4,011     | 2       | 916       |
| Oregon               | 1       | 12        | 9                 | 175        | 378    | -                               | 14         | 41    | 48    | 1,937     | 8       | 445       |
| California           | 2       | 94        | 14                | 3,261      | 2,837  | 5                               | 166        | 424   | 141   | 6,951     | 63      | 4,902     |
| Alaska               | -       | 3         | -                 | 13         | 63     | -                               | 9          | 1     | 29    | 229       | -       | 23        |
| Hawaii               | -       | 12        | -                 | 98         | 522    | -                               | 3          | 9     | 3     | 306       | -       | 59        |
| Guam                 | -       | 2         | -                 | 16         | ---    | -                               | 13         | ---   | -     | 12        | -       | 12        |
| Puerto Rico          | -       | 5         | 30                | 1,010      | 611    | -                               | 4          | 10    | 15    | 933       | -       | 33        |
| Virgin Islands       | -       | -         | -                 | 3          | 17     | -                               | 2          | -     | -     | 130       | -       | 3         |

\*Delayed reports: Malaria: N.H. delete 1

Mumps: Me. 5, Ohio 1, Del. 1

Measles: Me. 1

Rubella: Me. 2, Mich. delete 2

Meningococcal infections: Mont. 1

## Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDING DECEMBER 9, 1972 AND DECEMBER 11, 1971 (49th WEEK) - Continued

| AREA                 | TETANUS | TB<br>(New<br>Active) | TULAREMIA |     | TYPHOID<br>FEVER |     | TYPHUS FEVER<br>TICK-BORNE<br>(Rky. Mt. spotted fever) |     | VENEREAL DISEASES |                           | RABIES IN<br>ANIMALS |              |
|----------------------|---------|-----------------------|-----------|-----|------------------|-----|--|-----|-------------------|---------------------------|----------------------|--------------|
|                      |         |                       |           |     |                  |     |  |     | GONOR-<br>RHEA    | SYPHILIS<br>(Pri. & Sec.) | 1972                 | Cum.<br>1972 |
|                      |         |                       |           |     |                  |     |  |     |                   |                           |                      |              |
| UNITED STATES        | 3       | 611                   | 3         | 132 | 8                | 362 | 2  | 518 | 15,728            | 542                       | 52                   | 3,809        |
| NEW ENGLAND          | -       | 39                    | -         | -   | -                | 16  | -  | 2   | 336               | 8                         | 5                    | 116          |
| Maine *              | -       | 2                     | -         | -   | -                | -   | -  | -   | 32                | -                         | 4                    | 91           |
| New Hampshire        | -       | 2                     | -         | -   | -                | 2   | -  | -   | 13                | -                         | -                    | 4            |
| Vermont              | -       | -                     | -         | -   | -                | -   | -  | -   | 9                 | -                         | -                    | 9            |
| Massachusetts        | -       | 31                    | -         | -   | -                | 12  | -  | 2   | -                 | -                         | 1                    | 5            |
| Rhode Island         | -       | 4                     | -         | -   | -                | -   | -  | -   | 57                | 1                         | -                    | 2            |
| Connecticut          | -       | -                     | -         | -   | -                | 2   | -  | -   | 225               | 7                         | -                    | 5            |
| MIDDLE ATLANTIC      | -       | 108                   | -         | 1   | 1                | 55  | -  | 39  | 2,356             | 133                       | -                    | 101          |
| Upstate New York *   | -       | 13                    | -         | -   | -                | 15  | -  | 6   | 444               | -                         | -                    | 44           |
| New York City        | -       | 22                    | -         | -   | -                | 27  | -  | 2   | 907               | 77                        | -                    | -            |
| New Jersey           | -       | 30                    | -         | 1   | -                | 8   | -  | 16  | 373               | 28                        | -                    | -            |
| Pennsylvania         | -       | 43                    | -         | -   | 1                | 5   | -  | 15  | 632               | 28                        | -                    | 57           |
| EAST NORTH CENTRAL   | 1       | 109                   | 1         | 4   | -                | 24  | -  | 28  | 1,784             | 25                        | 4                    | 375          |
| Ohio *               | -       | 28                    | 1         | 2   | -                | 7   | -  | 23  | 702               | 4                         | -                    | 99           |
| Indiana              | 1       | 18                    | -         | -   | -                | 1   | -  | -   | 272               | 4                         | 1                    | 74           |
| Illinois             | -       | 40                    | -         | 2   | -                | 7   | -  | 4   | 173               | 7                         | -                    | 61           |
| Michigan             | -       | 22                    | -         | -   | -                | 7   | -  | -   | 637               | 7                         | -                    | 9            |
| Wisconsin            | -       | 1                     | -         | -   | -                | 2   | -  | 1   | -                 | 3                         | 3                    | 132          |
| WEST NORTH CENTRAL   | -       | 32                    | -         | 29  | -                | 8   | -  | 19  | 1,113             | 3                         | 17                   | 1,089        |
| Minnesota            | -       | 6                     | -         | -   | -                | 1   | -  | -   | 234               | -                         | 10                   | 278          |
| Iowa                 | -       | -                     | -         | -   | -                | -   | -  | 2   | 158               | 1                         | 3                    | 311          |
| Missouri             | -       | 19                    | -         | 21  | -                | 3   | -  | 11  | 505               | -                         | 3                    | 100          |
| North Dakota         | -       | 1                     | -         | -   | -                | -   | -  | -   | 21                | -                         | 1                    | 143          |
| South Dakota         | -       | 4                     | -         | 1   | -                | -   | -  | 4   | 44                | -                         | -                    | 116          |
| Nebraska             | -       | 2                     | -         | 1   | -                | 1   | -  | -   | 62                | -                         | -                    | 16           |
| Kansas               | -       | -                     | -         | 6   | -                | 3   | -  | 2   | 89                | 2                         | -                    | 125          |
| SOUTH ATLANTIC       | 2       | 102                   | 1         | 16  | -                | 45  | 2  | 257 | 4,052             | 158                       | 6                    | 393          |
| Delaware             | -       | -                     | -         | -   | -                | 1   | -  | 1   | 62                | -                         | -                    | 10           |
| Maryland             | -       | 12                    | -         | 1   | -                | 9   | -  | 31  | 485               | 4                         | 1                    | 19           |
| District of Columbia | -       | 11                    | -         | -   | -                | 3   | -  | 1   | 389               | 17                        | -                    | -            |
| Virginia             | -       | 5                     | 1         | 13  | -                | 11  | -  | 57  | 344               | 66                        | -                    | 98           |
| West Virginia        | -       | 7                     | -         | -   | -                | 1   | -  | 3   | 50                | -                         | -                    | 58           |
| North Carolina *     | -       | 25                    | -         | -   | -                | -   | -  | 119 | 434               | 11                        | -                    | 3            |
| South Carolina       | -       | 4                     | -         | -   | -                | 3   | -  | 20  | 642               | 33                        | -                    | 13           |
| Georgia              | 2       | 21                    | -         | 1   | -                | 7   | 2  | 24  | 606               | 1                         | 3                    | 108          |
| Florida              | -       | 17                    | -         | 1   | -                | 10  | -  | 1   | 1,040             | 26                        | 2                    | 84           |
| EAST SOUTH CENTRAL   | -       | 59                    | -         | 8   | 1                | 40  | -  | 99  | 820               | 40                        | 8                    | 613          |
| Kentucky             | -       | 17                    | -         | -   | -                | 13  | -  | 4   | 198               | 15                        | 3                    | 238          |
| Tennessee            | -       | 27                    | -         | 7   | -                | 11  | -  | 60  | 258               | 3                         | 2                    | 305          |
| Alabama              | -       | 6                     | -         | 1   | 1                | 11  | -  | 19  | 128               | 8                         | 3                    | 67           |
| Mississippi          | -       | 9                     | -         | -   | -                | 5   | -  | 16  | 236               | 14                        | -                    | 3            |
| WEST SOUTH CENTRAL   | -       | 53                    | 1         | 60  | -                | 44  | -  | 63  | 2,259             | 65                        | 9                    | 754          |
| Arkansas             | -       | 5                     | -         | 34  | -                | 14  | -  | 15  | 264               | 2                         | 5                    | 108          |
| Louisiana *          | -       | 7                     | -         | 4   | -                | 7   | -  | -   | 431               | 21                        | -                    | 45           |
| Oklahoma             | -       | 4                     | -         | 12  | -                | 3   | -  | 35  | 180               | 3                         | 1                    | 281          |
| Texas                | -       | 37                    | 1         | 10  | -                | 20  | -  | 13  | 1,384             | 39                        | 3                    | 320          |
| MOUNTAIN             | -       | 15                    | -         | 10  | -                | 15  | -  | 9   | 493               | 22                        | 1                    | 96           |
| Montana              | -       | 3                     | -         | 1   | -                | -   | -  | 2   | 26                | -                         | -                    | 7            |
| Idaho                | -       | 3                     | -         | -   | -                | -   | -  | 6   | 71                | -                         | -                    | -            |
| Wyoming              | -       | 1                     | -         | -   | -                | -   | -  | -   | 6                 | -                         | -                    | 1            |
| Colorado             | -       | 6                     | -         | 1   | -                | 2   | -  | -   | 132               | 7                         | -                    | -            |
| New Mexico           | -       | -                     | -         | -   | -                | 1   | -  | -   | 64                | 5                         | -                    | 23           |
| Arizona *            | -       | -                     | -         | 2   | -                | 9   | -  | -   | 76                | 1                         | -                    | 54           |
| Utah                 | -       | -                     | -         | 6   | -                | 3   | -  | 1   | 49                | -                         | 1                    | 9            |
| Nevada               | -       | 2                     | -         | -   | -                | -   | -  | -   | 69                | 9                         | -                    | 2            |
| PACIFIC              | -       | 94                    | -         | 4   | 6                | 115 | -  | 2   | 2,515             | 88                        | 2                    | 272          |
| Washington           | -       | 2                     | -         | -   | -                | 4   | -  | 1   | 269               | 10                        | -                    | -            |
| Oregon               | -       | 3                     | -         | 1   | -                | 1   | -  | 1   | 183               | 2                         | -                    | 4            |
| California           | -       | 83                    | -         | 2   | 6                | 106 | -  | -   | 1,929             | 69                        | 1                    | 259          |
| Alaska               | -       | -                     | -         | 1   | -                | -   | -  | -   | 81                | 7                         | 1                    | 9            |
| Hawaii               | -       | 6                     | -         | -   | -                | 4   | -  | -   | 53                | -                         | -                    | -            |
| Guam                 | -       | -                     | -         | -   | -                | -   | -  | -   | -                 | -                         | -                    | -            |
| Puerto Rico          | -       | 8                     | -         | -   | -                | 7   | -  | -   | 26                | 12                        | 2                    | 52           |
| Virgin Islands       | -       | -                     | -         | -   | -                | -   | -  | -   | 5                 | -                         | -                    | -            |

\*Delayed reports: TB: N.Y. Ups. 36, Ohio delete 4, N.C. delete 4, Ariz. delete 1

Gonorrhea: La. delete 1

Rabies in animals: Me. 2, Ariz. 1

# Morbidity and Mortality Weekly Report

427

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDING DECEMBER 9, 1972

Week No.  
49

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

| Area                      | All Causes |                   |              | Pneumonia and Influenza All Ages | Area   | All Causes |                   |              | Pneumonia and Influenza All Ages |
|---------------------------|------------|-------------------|--------------|----------------------------------|--|------------|-------------------|--------------|----------------------------------|
|                           | All Ages   | 65 years and over | Under 1 year |                                  |  | All Ages   | 65 years and over | Under 1 year |                                  |
| <b>NEW ENGLAND</b>        | 659        | 420               | 27           | 34                               | <b>SOUTH ATLANTIC</b>  | 1,310      | 690               | 46           | 49                               |
| Boston, Mass.             | 187        | 109               | 9            | 9                                | Atlanta, Ga.   | 168        | 83                | 10           | 4                                |
| Bridgeport, Conn.         | 38         | 21                | 6            | 2                                | Baltimore, Md.   | 245        | 125               | 8            | 6                                |
| Cambridge, Mass.          | 26         | 19                | 1            | 5                                | Charlotte, N. C.   | 77         | 27                | 6            | —                                |
| Fall River, Mass.         | 26         | 19                | —            | —                                | Jacksonville, Fla.   | 97         | 57                | 5            | —                                |
| Hartford, Conn.           | 54         | 37                | 2            | 1                                | Miami, Fla.  | 118        | 61                | 3            | 3                                |
| Lowell, Mass.             | 34         | 21                | 1            | 4                                | Norfolk, Va.   | 68         | 35                | 3            | 9                                |
| Lynn, Mass.               | 22         | 15                | —            | —                                | Richmond, Va.  | 120        | 63                | 2            | 9                                |
| New Bedford, Mass.        | 27         | 19                | 1            | —                                | Savannah, Ga.  | 44         | 20                | —            | 5                                |
| New Haven, Conn.          | 48         | 26                | 3            | —                                | St. Petersburg, Fla.   | 88         | 71                | 1            | 2                                |
| Providence, R. I.         | 57         | 33                | 3            | 6                                | Tampa, Fla.  | 79         | 52                | 3            | 6                                |
| Somerville, Mass.         | 13         | 8                 | —            | 1                                | Washington, D. C.  | 149        | 68                | 2            | 3                                |
| Springfield, Mass.        | 36         | 24                | 1            | 4                                | Wilmington, Del.   | 57         | 28                | 3            | 2                                |
| Waterbury, Conn.          | 31         | 23                | —            | —                                | <b>EAST SOUTH CENTRAL</b>  | 743        | 398               | 32           | 35                               |
| Worcester, Mass.          | 60         | 46                | —            | 2                                | Birmingham, Ala.   | 140        | 73                | 5            | 2                                |
| <b>MIDDLE ATLANTIC</b>    | 3,404      | 2,119             | 103          | 133                              | Chattanooga, Tenn.   | 51         | 25                | 3            | 4                                |
| Albany, N. Y.             | 38         | 26                | 3            | 1                                | Knoxville, Tenn.   | 32         | 21                | —            | —                                |
| Allentown, Pa.            | 37         | 29                | —            | 2                                | Louisville, Ky.  | 138        | 73                | 11           | 8                                |
| Buffalo, N. Y.            | 132        | 84                | 7            | 13                               | Memphis, Tenn.   | 153        | 76                | 1            | 2                                |
| Camden, N. J.             | 43         | 24                | 2            | 3                                | Mobile, Ala.   | 53         | 36                | 1            | 2                                |
| Elizabeth, N. J.          | 24         | 17                | —            | —                                | Montgomery, Ala.   | 53         | 32                | 6            | 9                                |
| Erie, Pa.                 | 37         | 21                | 5            | 3                                | Nashville, Tenn.   | 123        | 62                | 5            | 8                                |
| Jersey City, N. J.        | 45         | 30                | —            | 2                                | <b>WEST SOUTH CENTRAL</b>  | 1,370      | 766               | 47           | 37                               |
| Newark, N. J.             | 71         | 32                | 4            | 1                                | Austin, Tex.   | 51         | 24                | 1            | 2                                |
| New York City, N. Y. †    | 1,786      | 1,112             | 45           | 70                               | Baton Rouge, La.   | 55         | 31                | 4            | 2                                |
| Paterson, N. J.           | 41         | 27                | 1            | 4                                | Corpus Christi, Tex.   | 6          | 4                 | —            | —                                |
| Philadelphia, Pa.         | 498        | 305               | 11           | 6                                | Dallas, Tex.   | 185        | 98                | 7            | 4                                |
| Pittsburgh, Pa.           | 213        | 121               | 8            | 11                               | El Paso, Tex.  | 70         | 35                | 4            | 9                                |
| Reading, Pa.              | 34         | 27                | —            | 2                                | Fort Worth, Tex.   | 93         | 56                | 4            | —                                |
| Rochester, N. Y.          | 123        | 77                | 8            | 9                                | Houston, Tex.  | 303        | 155               | 8            | 6                                |
| Schenectady, N. Y.        | 27         | 17                | 1            | 2                                | Little Rock, Ark.  | 62         | 42                | 1            | 2                                |
| Scranton, Pa.             | 60         | 42                | 1            | —                                | New Orleans, La.   | 169        | 102               | 3            | 1                                |
| Syracuse, N. Y.           | 79         | 51                | 5            | 1                                | Oklahoma City, Okla. *   | 97         | 59                | 3            | 2                                |
| Trenton, N. J.            | 50         | 31                | 2            | —                                | San Antonio, Tex.  | 154        | 89                | 6            | 4                                |
| Utica, N. Y.              | 27         | 20                | —            | 2                                | Shreveport, La.  | 63         | 37                | 4            | —                                |
| Yonkers, N. Y.            | 39         | 26                | —            | 1                                | Tulsa, Okla.   | 62         | 34                | 2            | 5                                |
| <b>EAST NORTH CENTRAL</b> | 2,627      | 1,560             | 115          | 98                               | <b>MOUNTAIN</b>  | 515        | 285               | 29           | 27                               |
| Akron, Ohio               | 62         | 39                | 2            | —                                | Albuquerque, N. Mex.   | 53         | 15                | 1            | 3                                |
| Canton, Ohio              | 36         | 23                | 1            | 4                                | Colorado Springs, Colo.  | 27         | 20                | —            | 6                                |
| Chicago, Ill.             | 695        | 392               | 34           | 14                               | Denver, Colo.  | 120        | 57                | 13           | 2                                |
| Cincinnati, Ohio          | 172        | 106               | 9            | 9                                | Las Vegas, Nev.  | 20         | 10                | —            | —                                |
| Cleveland, Ohio           | 206        | 126               | 5            | 4                                | Ogden, Utah  | 27         | 19                | 1            | 4                                |
| Columbus, Ohio            | 176        | 102               | 5            | 10                               | Phoenix, Ariz.   | 111        | 64                | 8            | 2                                |
| Dayton, Ohio              | 107        | 56                | 7            | 2                                | Pueblo, Colo.  | 30         | 18                | 1            | 7                                |
| Detroit, Mich.            | 372        | 222               | 11           | 8                                | Salt Lake City, Utah   | 64         | 40                | 4            | —                                |
| Evansville, Ind.          | 36         | 25                | 2            | 5                                | Tucson, Ariz.  | 63         | 42                | 1            | 3                                |
| Fort Wayne, Ind.          | 35         | 16                | 1            | —                                | <b>PACIFIC</b>   | 1,927      | 1,175             | 70           | 30                               |
| Gary, Ind.                | 44         | 16                | 3            | 3                                | Berkeley, Calif.   | 12         | 11                | —            | —                                |
| Grand Rapids, Mich.       | 61         | 47                | 3            | 9                                | Fresno, Calif.   | 54         | 28                | 3            | —                                |
| Indianapolis, Ind.        | 149        | 91                | 8            | 5                                | Glendale, Calif.   | 40         | 30                | —            | —                                |
| Madison, Wis.             | 29         | 11                | 1            | 7                                | Honolulu, Hawaii *   | 62         | 31                | 5            | 1                                |
| Milwaukee, Wis.           | 131        | 81                | 9            | 4                                | Long Beach, Calif.   | 94         | 50                | 3            | 2                                |
| Peoria, Ill.              | 37         | 24                | 4            | 5                                | Los Angeles, Calif.  | 730        | 484               | 23           | 14                               |
| Rockford, Ill.            | 35         | 26                | 1            | 2                                | Oakland, Calif.  | 113        | 68                | 7            | 1                                |
| South Bend, Ind.          | 49         | 28                | —            | 6                                | Pasadena, Calif.   | 35         | 23                | 2            | 1                                |
| Toledo, Ohio              | 134        | 88                | 7            | —                                | Portland, Oreg.  | 129        | 71                | 8            | 1                                |
| Youngstown, Ohio          | 61         | 41                | 2            | 1                                | Sacramento, Calif.   | 70         | 39                | 3            | —                                |
| <b>WEST NORTH CENTRAL</b> | 857        | 566               | 43           | 27                               | San Diego, Calif.  | 143        | 84                | 2            | 1                                |
| Des Moines, Iowa          | 62         | 39                | 4            | —                                | San Francisco, Calif.  | 180        | 100               | 8            | 4                                |
| Duluth, Minn.             | 21         | 16                | 1            | 1                                | San Jose, Calif.   | 45         | 31                | 1            | —                                |
| Kansas City, Kans.        | 27         | 15                | 3            | 3                                | Seattle, Wash.   | 119        | 64                | 4            | 1                                |
| Kansas City, Mo.          | 141        | 101               | 7            | 5                                | Spokane, Wash.   | 44         | 28                | 1            | 2                                |
| Lincoln, Nebr.            | 46         | 30                | 1            | 3                                | Tacoma, Wash.  | 57         | 33                | —            | 2                                |
| Minneapolis, Minn.        | 108        | 67                | 4            | 3                                | <b>Total</b>   | 13,412     | 7,979             | 512          | 470                              |
| Omaha, Nebr.              | 96         | 63                | 7            | —                                | <b>Expected Number</b>   | 13,079     | 7,612             | 560          | 489                              |
| St. Louis, Mo.            | 221        | 139               | 10           | 6                                | <b>Cumulative Total (includes reported corrections for previous weeks)</b> | 620,462    | 361,519           | 24,518       | 23,602                           |
| St. Paul, Minn.           | 96         | 73                | 3            | 3                                |  |            |                   |              |                                  |
| Wichita, Kans.            | 39         | 23                | 3            | 3                                |  |            |                   |              |                                  |

†Delayed report for week ending Dec. 2, 1972.

\*Estimate based on average percent of divisional total.

**BOTULISM – Continued**

had no muscle spasms or convulsions. A tentative diagnosis of tetanus was made, and he was given 3,000 units of tetanus hyperimmune gamma globulin intramuscularly on November 12. The next day, reexamination of the hand showed no evidence of necrotic tissue or infection. Later that day, the patient complained of breathing difficulty. On November 15, he became apneic, and a tracheostomy was performed. He was given ventilatory assistance and transferred to the University of Utah Medical Center, Salt Lake City.

Physical examination on admission revealed a temperature of 99.8°F. The patient was unable to breathe without respirator assistance. His sensorium was clear. He had an external ophthalmoplegia with weakness of cranial nerves 3, 4, 6, and 7 and paralysis of cranial nerves 9 through 12. His pupils were dilated, slightly unequal, and reacted minimally to light. His deep tendon reflexes were normal. There was marked weakness in the muscles of the shoulder girdle. Sensory examination was normal. On the basis of these findings, the clinical diagnosis of botulism was made. Subsequent laboratory tests revealed a normal protein and the absence of cells in the cerebral spinal fluid. Myasthenia gravis was considered, but the Tensilon test was negative. An ulnar nerve conduction study was normal.

On the evening of admission, the patient was treated with two vials of trivalent botulinal antitoxin. The healing laceration was opened on each end, and there was no evidence of infection. Also, there was no growth in anaerobic

cultures of serosanguineous discharge from the laceration. Botulinal toxin type A was identified in serum drawn prior to the administration of antitoxin.

On November 17, a repeat ulnar nerve conduction study showed enhanced muscle contraction, consistent with botulism. On November 18, the patient was given two additional vials of botulinal AB antitoxin. That evening, the hand wound was opened down to the bone and tendon, approximately 20 cc of purulent fluid was removed, and extensive debridement was performed. Anaerobic cultures of tissue and of the purulent fluid are growing a *Clostridium* organism. Results of biochemical tests for *Clostridium* species are pending. Repeat serums taken on November 18 and 21 were negative for botulinal toxin. Guanidine treatment was started on November 21, but there was no demonstrable improvement as a result of this therapy. However, the patient has shown marked clinical improvement. He can now move his tongue and jaw but continues to require respiratory assistance.

(Reported by George Hales, M.D., private physician, Blackfoot, Idaho; John Mather, M.D., State Epidemiologist, Idaho Department of Environmental Protection and Health; Charles B. Smith, M.D., Associate Professor, Chief, Michael Britt, M.D., Fellow in Infectious Disease, James Wilfert, M.D., Division of Infectious Disease, and Richard Sontheimer, M.D., University of Utah Medical Center; James I. Miller, Bacteriologist, Intermountain Regional Medical Program; Taira Fukushima, M.D., State Epidemiologist, Utah State Division of Health; and an EIS Officer.)

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The data in this report are provisional, based on weekly telegraphs to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

In addition to the established procedures for reporting morbidity and mortality, the editor welcomes accounts of interesting outbreaks or case investigations of current interest to health officials.

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