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MORBIDITY AND MORTALITY WEEKLY REPORT

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Epidemiologic Notes and Reports

Brucellosis Outbreak at a Pork Processing Plant — North Carolina, 1992

During 1992, the North Carolina Department of Environment, Health, and Natural Resources (NCDEHNR) received reports from the Sampson County Health Department of 18 cases of brucellosis among employees at a local pork processing plant; onsets of illness occurred from November 1991 through September 1992. Clinical features and serologic testing of all patients were consistent with brucellosis, and *Brucella suis* was isolated from blood samples obtained from 11 persons at the time of acute illness. Two patients were hospitalized. All of the affected employees had documented exposure to the kill floor of the plant. In March 1993, plant employees requested that CDC's National Institute for Occupational Safety and Health (NIOSH) evaluate occupational transmission of brucellosis at the facility.

The NIOSH investigation was conducted during May–June 1993 and included a questionnaire survey, serologic testing, and an industrial hygiene survey. Serologic status was determined using the standard tube agglutination (STA) test*. The 2-mercaptoethanol (2-ME) test was also used to assist in differentiating recent or persistent infection from past infection with low-titered antibody.† A case of brucellosis was defined as an STA titer $\geq 160:1$ and either 1) two or more symptoms (fever, chills, headache, myalgia/arthritis, fatigue, anorexia, sweats, weight loss, and weakness) during the preceding 12 months or 2) a positive 2-ME test (2-ME titer $\geq 20:1$).‡

Of the 156 workers in the kill division, 154 (99%) participated in the survey; of these, 30 (19%) met the case definition for brucellosis, including 16 (53%) with previously

*This test uses a *B. abortus* antigen to detect infections with *B. abortus*, *B. melitensis*, and *B. suis*.

†The use of 2-ME in the STA disrupts the disulfide bonds of immunoglobulin M and allows measurement of only immunoglobulin G (IgG), which appears within weeks after infection. In patients who have been adequately treated and achieved a clinical cure, IgG generally declines, although it can persist for up to 1 year; in the absence of adequate treatment, IgG usually persists. IgG, as detected by the 2-ME test, is therefore used as a marker for persistent or recent infection.

‡The case definition used in this investigation differs from the national surveillance case definition, which is based on a compatible clinical illness supported by culture or serologic evidence.

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unrecognized cases. Twelve of these 16 had been symptomatic. Within the kill division, risk for brucellosis was highest among workers in the head (33%) and red offal (25%) departments (Table 1). Twenty-nine of the 30 employees with cases reported a history of ever having been cut or scratched at work, compared with 102 of 124 employees without cases (odds ratio=6.3; 95% confidence interval=0.9–267) (Table 1).

NIOSH investigators distributed educational material concerning swine brucellosis to all kill floor employees, notified participants of their individual results by mail, and met with individual employees to supplement the mail notifications. Information about swine brucellosis was provided to local physicians. NIOSH staff recommended that the plant process only brucellosis-free swine. In addition, NIOSH staff provided recommendations to management and employees concerning personal protective equipment usage (i.e., rubber gloves and face shields), the need to maintain the kill floor at negative pressure with respect to the contiguous building, and the importance of ongoing education.

The plant processes approximately 8000 swine per day, and the animals originate in at least 10 states. NIOSH and NCDEHNR are working with the U.S. Department of Agriculture (USDA) to determine the possible source of infected swine processed at the plant.

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Editorial Note: Brucellosis (also termed undulant, Mediterranean, or Malta fever) is a febrile illness caused by several species of bacteria of the genus *Brucella*¹. The

¹*Brucella* species known to cause human disease (and their usual reservoir hosts) are: *B. abortus* (cattle), *B. canis* (dogs), *B. melitensis* (goats and sheep), and *B. suis* (swine). The distribution of disease caused by the various *Brucella* species varies from region to region.

TABLE 1. Number of employees in the kill division who reported ever being cut at work, by department and by persons with and without brucellosis — North Carolina pork processing plant, 1993

| Department | No. employees | Cases* | | Noncases | |
|----------------|---------------|-----------|--------------------|------------|--------------------|
| | | No. | No. reporting cuts | No. | No. reporting cuts |
| Kill-Mezzanine | 37 | 7 | 7 | 30 | 26 |
| White offal | 32 | 6 | 6 | 26 | 23 |
| Head | 21 | 7 | 6 | 14 | 11 |
| Red offal | 16 | 4 | 4 | 12 | 10 |
| Kill-Machine | 12 | 1 | 1 | 11 | 10 |
| Kill-Other | 11 | 2 | 2 | 9 | 6 |
| Maintenance | 8 | 1 | 1 | 7 | 6 |
| Kill-Scale | 7 | 1 | 1 | 6 | 3 |
| Kill-Bleed | 4 | 0 | 0 | 4 | 2 |
| Pet food | 3 | 1 | 1 | 2 | 2 |
| Supervisors | 3 | 0 | 0 | 3 | 3 |
| Total | 154 | 30 | 29 | 124 | 102 |

* Standard tube agglutination test $\geq 160:1$ and either 1) two or more symptoms consistent with brucellosis or 2) a positive 2-mercaptoethanol test.

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incubation period is typically more than 30 days but can range from 5 days to several months. Symptoms are nonspecific and include fever, chills, sweats, headache, myalgia/arthralgia, anorexia, fatigue, and weight loss. The most common physical findings (other than fever) are lymphadenopathy and splenomegaly. Subclinical *Brucella* infection occurs commonly, and the ratio of subclinical to clinical infection varies from 1:1 to 12:1 (1). The antibiotic regimen recommended by the World Health Organization is a 6-week course of doxycycline (100 mg every 12 hours orally) and rifampin (15 mg/kg of body weight per day [maximum: 600 mg] in a single morning dose) (2). Even with treatment and clinical improvement, fatigability may persist for a month or more and be accompanied by pronounced disability; relapsing illness occurs in approximately 2%–10% of patients treated with recommended antibiotic regimens (3).

Definitive diagnosis requires isolation of the causative organism in cultures of blood or bone marrow. However, brucellosis is more commonly diagnosed serologically, either by a fourfold rise in STA titer over several weeks or a single titer $\geq 160:1$ in a person with compatible clinical manifestations (4).

In the United States, human brucellosis is a reportable disease in every state except Nevada. In 1992, 105 cases were reported to CDC by state health departments (5), compared with a peak of approximately 6300 in 1947 (6). However, because of the variable clinical manifestations of brucellosis, only an estimated 4%–10% of cases are recognized and reported in the United States (7). The findings in this report indicate that occupational transmission of brucellosis remains a public health hazard, particularly among persons exposed to swine.

Person-to-person transmission of brucellosis is rare (8), and a substantial proportion of reported cases are associated with ingestion of unpasteurized dairy products contaminated with *B. melitensis* that have been imported from Mediterranean countries or Mexico (6). Occupational transmission of brucellosis occurs primarily among packing plant workers, veterinarians, livestock producers, and laboratory workers. Among packing plant workers, transmission of brucellosis occurs from infected swine to workers through breaks in the workers' skin, inhalation, and conjunctival contact (9). The primary strategy for prevention of brucellosis in workers is to reduce exposure to infected animals by eliminating commercial slaughter of such animals. Although personal protective equipment is often recommended, the efficacy of personal protective equipment in preventing the occupational transmission of *Brucella* requires further assessment.

A unified national program to eradicate swine brucellosis was initiated in 1961. The Cooperative USDA Animal and Plant Health Inspection Service–State Animal Health Swine Brucellosis Eradication Program, in which all states participate, has established surveillance and procedures necessary for locating infected herds, controlling infected and exposed swine, and eliminating infected swine (10). In addition, specific provisions exist to designate entire states or individual swine herds as brucellosis-free. As of December 31, 1993, 34 swine herds nationwide were under quarantine for brucellosis in seven states (Florida, Georgia, Hawaii, Oklahoma, South Carolina, Tennessee, and Texas). These brucellosis-infected herds can be moved for slaughter only under permit issued by USDA. In general, processing plants that receive brucellosis-infected herds do not employ special precautions to prevent occupational exposure to the infected swine, potentially placing workers at increased risk for infection. USDA is

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evaluating its swine brucellosis control/eradication program, including the disposition of known brucellosis-infected herds.

References

1. Buchanan TM, Faber LC, Feldman RA. Brucellosis in the United States, 1960–1972: an abattoir-associated disease. Part I. Clinical features and therapy. *Medicine* 1974;53:403–13.
2. Ariza J, Gudiol F, Pallares R, et al. Treatment of human brucellosis with doxycycline plus rifampin or doxycycline plus streptomycin. *Ann Intern Med* 1992;117:25–30.
3. Moyer NP, Holcomb LA. Brucellosis. In: Balows A, Hausler WJ, eds. *Diagnosis of infectious diseases—principles and practice*. Vol 1. New York: Springer Verlag, 1988:143–54.
4. Young EJ. Serologic diagnosis of human brucellosis: analysis of 214 cases by agglutination tests and review of the literature. *Rev Infect Dis* 1991;13:359–72.
5. CDC. Summary of notifiable diseases, United States, 1992. *MMWR* 1992;41(no. 55):67.
6. Kaufmann AF, Wenger JD. Brucellosis. In: Last JM, Wallace RB, eds. *Public health and preventive medicine*. Norwalk, Connecticut: Appleton and Lange, 1992:263–4.
7. Wise RI. Brucellosis in the United States—past, present, and future. *JAMA* 1980;244:2318–22.
8. Ruben B, Band JD, Wong P, Colville J. Person-to-person transmission of *Brucella melitensis*. *Lancet* 1991;337:14–5.
9. Kaufmann AF, Fox MD, Boyce JM, et al. Airborne spread of brucellosis. *Ann N Y Acad Sci* 1980;353:105–14.
10. Swine Brucellosis Control/Eradication. State-federal-industry uniform methods and rules. Washington, DC: US Department of Agriculture, Animal and Plant Health Inspection Service, August 1993; publication no. (APHIS)91-55-016 (revised).

Health Objectives for the Nation

**Daily Dietary Fat and Total Food-Energy Intakes —
Third National Health and Nutrition Examination Survey,
Phase 1, 1988–91**

Excessive dietary fat intake has been linked to increased risk for obesity, coronary heart disease, and certain cancers (1,2). The Third National Health and Nutrition Examination Survey (NHANES III), conducted by CDC's National Center for Health Statistics (NCHS), provides data to monitor changes in the dietary, nutritional, and health status of the U.S. population (3) and to track progress toward achieving the national health objectives for the year 2000, including that related to dietary fat intake (1). This report uses data from NHANES III, Phase 1 (October 1988–October 1991), to present findings about daily total food-energy, total dietary fat, and saturated fat intakes for the U.S. population.

NHANES III (1988–94) uses a highly stratified multistage probability design to obtain a sample of the civilian, noninstitutionalized U.S. population aged ≥ 2 months. The survey comprises two 3-year nationally representative phases with oversampling of children aged 2 months–5 years, persons aged ≥ 60 years, blacks, and Mexican Americans (4). Total food energy intake (TFEI) was defined as all nutrients (i.e., protein, fat, carbohydrate, and alcohol) derived from consumption of foods and beverages (excluding plain drinking water), measured in kilocalories (kcal). Total dietary fat intake was defined as all fat (i.e., saturated and unsaturated) derived from consumption of foods and beverages, measured in grams. Daily TFEI was estimated for each respondent using a 24-hour dietary-recall interview coded reliable and complete. Nutrient estimates were computed and coded using the United States Department of Agricul-

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ture (USDA) Survey Nutrient Data Base (SNDB); estimates were not computed for nursing infants and children or for recalls coded unreliable or incomplete.

Of the 20,277 persons selected for the survey, 17,467 (86%) were interviewed, and 15,630 (77%) underwent a standardized physical examination. Of those examined, 14,801 (95%) had a complete and reliable 24-hour dietary recall, resulting in an overall analytic response rate of 73%. Data were weighted to account for survey design and nonresponse.

A computer-based, automated dietary interview and coding system (5) was used to collect all 24-hour dietary recalls. Respondents reported their TFEI during the preceding 24 hours (midnight to midnight). Proxy respondents reported for infants and children aged 2 months–11 years and for respondents who were unable to self-report (6).

During 1988–91, the overall mean daily TFEI for the population aged ≥ 2 months was 2095 kcal (range: 877–2533 kcal) (Table 1). For persons aged ≥ 2 years, 34% (82 g) of their TFEI was from total dietary fat; 12% (29 g) was from saturated fat (Table 1). Mean daily TFEI was higher for males than for females (Table 2, page 123). The overall mean percentages of TFEI derived from total dietary fat and from saturated fat did not differ by sex (Table 2, page 123).

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(Continued on page 123)

TABLE 1. Mean daily total food-energy intake (TFEI)* and mean percentages of TFEI from total dietary fat† and from saturated fat, by age group — Third National Health and Nutrition Examination Survey, Phase 1, 1988–91

| Age group (yrs) | Sample size | Daily TFEI | | % TFEI from total dietary fat | | % TFEI from saturated fat | |
|-----------------------|---------------|-------------|--------------------|-------------------------------|---------------|---------------------------|---------------|
| | | No. | (SE [§]) | % | (SE) | % | (SE) |
| 2–11 mos [¶] | 871 | 877 | (±10.9) | 37.2 | (±0.3) | 15.8 | (±0.1) |
| 1– 2 [¶] | 1,231 | 1289 | (±21.2) | 33.7 | (±0.4) | 13.9 | (±0.2) |
| 3– 5 | 1,547 | 1591 | (±20.5) | 33.0 | (±0.3) | 12.6 | (±0.1) |
| 6–11 | 1,745 | 1897 | (±25.0) | 34.0 | (±0.4) | 12.8 | (±0.2) |
| 12–15 | 711 | 2218 | (±48.8) | 33.4 | (±0.6) | 12.2 | (±0.2) |
| 16–19 | 765 | 2533 | (±88.2) | 34.5 | (±0.4) | 12.4 | (±0.2) |
| 20–29 | 1,682 | 2484 | (±44.4) | 34.0 | (±0.4) | 12.0 | (±0.2) |
| 30–39 | 1,526 | 2372 | (±43.4) | 34.4 | (±0.4) | 11.9 | (±0.2) |
| 40–49 | 1,228 | 2146 | (±44.5) | 34.4 | (±0.5) | 11.6 | (±0.2) |
| 50–59 | 929 | 1967 | (±30.7) | 34.7 | (±0.4) | 11.6 | (±0.2) |
| 60–69 | 1,106 | 1822 | (±39.0) | 33.0 | (±0.3) | 11.2 | (±0.2) |
| 70–79 | 851 | 1624 | (±25.3) | 32.9 | (±0.5) | 11.2 | (±0.3) |
| ≥80 | 609 | 1484 | (±27.4) | 32.0 | (±0.3) | 11.0 | (±0.2) |
| Total | 14,801 | 2095 | (±20.0) | 34.0 | (±0.2) | 12.0 | (±0.1) |
| ≥2 | 13,314 | 2123 | (±20.4) | 33.9 | (±0.2) | 11.9 | (±0.1) |

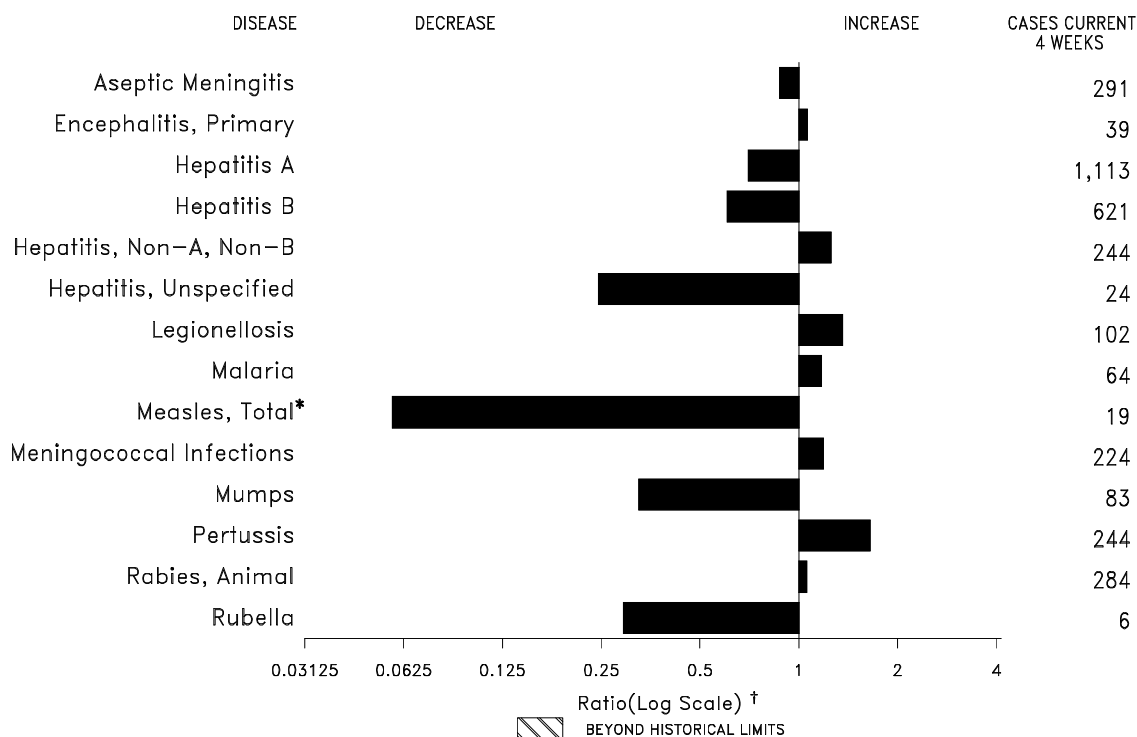
* Defined as all nutrients (i.e., protein, fat, carbohydrate, and alcohol) derived from consumption of foods and beverages (excluding plain drinking water), measured in kilocalories (kcal).

† Defined as all fat (i.e., saturated and unsaturated) derived from consumption of foods and beverages, measured in grams.

§ Standard error.

¶ Excludes nursing infants and children.

FIGURE I. Notifiable disease reports, comparison of 4-week totals ending February 19, 1994, with historical data — United States



*The large apparent decrease in reported cases of measles (total) reflects dramatic fluctuations in the historical baseline.

† Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary — cases of specified notifiable diseases, United States, cumulative, week ending February 19, 1994 (7th Week)

| | Cum. 1994 | | Cum. 1994 |
|---|-----------|---------------------------------------|-----------|
| AIDS* | 6,528 | Measles: imported | 4 |
| Anthrax | - | indigenous | 22 |
| Botulism: Foodborne | 6 | Plague | - |
| Infant | 11 | Poliomyelitis, Paralytic [§] | - |
| Other | 3 | Psittacosis | 3 |
| Brucellosis | 26 | Rabies, human | - |
| Cholera | - | Syphilis, primary & secondary | 2,212 |
| Congenital rubella syndrome | 2 | Syphilis, congenital, age < 1 year | - |
| Diphtheria | - | Tetanus | 3 |
| Encephalitis, post-infectious | 11 | Toxic shock syndrome | 27 |
| Gonorrhea | 42,334 | Trichinosis | 12 |
| <i>Haemophilus influenzae</i> (invasive disease) [†] | 139 | Tuberculosis | 1,648 |
| Hansen Disease | 14 | Tularemia | 1 |
| Leptospirosis | 5 | Typhoid fever | 26 |
| Lyme Disease | 269 | Typhus fever, tickborne (RMSF) | 10 |

*Updated monthly; last update January 25, 1994.

[†]Of 131 cases of known age, 40 (31%) were reported among children less than 5 years of age.

[§]No cases of suspected poliomyelitis have been reported in 1994; 3 cases of suspected poliomyelitis have been reported in 1993; 4 of the 5 suspected cases with onset in 1992 were confirmed; the confirmed cases were vaccine associated.

TABLE II. Cases of selected notifiable diseases, United States, weeks ending February 19, 1994, and February 20, 1993 (7th Week)

| Reporting Area | AIDS* | Aseptic Meningitis | Encephalitis | | Gonorrhea | | Hepatitis (Viral), by type | | | | Legionellosis | Lyme Disease |
|----------------|-----------|--------------------|--------------|-----------------|-----------|-----------|----------------------------|-----------|-----------|-------------|---------------|--------------|
| | | | Primary | Post-infectious | | | A | B | NA,NB | Unspecified | | |
| | Cum. 1994 | Cum. 1994 | Cum. 1994 | Cum. 1994 | Cum. 1994 | Cum. 1993 | Cum. 1994 | Cum. 1994 | Cum. 1994 | Cum. 1994 | Cum. 1994 | Cum. 1994 |
| UNITED STATES | 6,528 | 564 | 76 | 11 | 42,334 | 53,824 | 2,070 | 1,130 | 501 | 41 | 179 | 269 |
| NEW ENGLAND | 188 | 32 | 4 | - | 1,027 | 1,108 | 37 | 43 | 15 | 7 | 11 | 31 |
| Maine | - | 4 | 1 | - | 5 | 10 | 3 | - | - | - | 1 | - |
| N.H. | 10 | - | - | - | - | 10 | 2 | 2 | 3 | - | - | 3 |
| Vt. | 2 | 3 | - | - | 6 | 11 | - | - | - | - | - | - |
| Mass. | 79 | 11 | 2 | - | 414 | 444 | 17 | 39 | 6 | 7 | 9 | 23 |
| R.I. | 42 | 14 | 1 | - | 61 | 60 | 10 | 2 | 6 | - | 1 | 5 |
| Conn. | 55 | - | - | - | 541 | 573 | 5 | - | - | - | - | - |
| MID. ATLANTIC | 2,489 | 40 | 4 | 3 | 2,035 | 6,180 | 65 | 82 | 53 | 2 | 16 | 140 |
| Upstate N.Y. | 151 | 13 | 2 | - | 505 | 602 | 26 | 30 | 21 | - | 3 | 38 |
| N.Y. City | 1,874 | - | - | - | - | 2,602 | - | - | - | - | - | - |
| N.J. | 284 | - | - | - | - | 1,092 | 14 | 23 | 23 | - | 3 | 24 |
| Pa. | 180 | 27 | 2 | 3 | 1,530 | 1,884 | 25 | 29 | 9 | 2 | 10 | 78 |
| E.N. CENTRAL | 441 | 117 | 24 | 5 | 9,299 | 10,996 | 209 | 128 | 38 | 1 | 57 | 5 |
| Ohio | 109 | 37 | 8 | - | 4,261 | 3,721 | 84 | 34 | 1 | - | 34 | 5 |
| Ind. | 40 | 36 | - | - | 1,119 | 1,070 | 50 | 34 | 1 | - | 8 | - |
| Ill. | 256 | 8 | 4 | - | 1,486 | 3,366 | 24 | 2 | - | - | 1 | - |
| Mich. | 24 | 36 | 12 | 5 | 2,342 | 1,932 | 40 | 51 | 36 | 1 | 13 | - |
| Wis. | 12 | - | - | - | 91 | 907 | 11 | 7 | - | - | 1 | - |
| W.N. CENTRAL | 71 | 36 | 3 | 1 | 2,182 | 2,713 | 73 | 44 | 43 | 1 | 26 | 3 |
| Minn. | 18 | - | 1 | - | 493 | 377 | 9 | 6 | 1 | - | - | 1 |
| Iowa | 5 | 16 | - | - | 146 | 236 | 5 | 3 | - | - | 13 | 1 |
| Mo. | 8 | 9 | - | - | 1,071 | 1,393 | 38 | 30 | 42 | 1 | 6 | - |
| N. Dak. | - | - | 1 | - | - | 11 | - | - | - | - | - | - |
| S. Dak. | 3 | - | - | - | 20 | 21 | - | - | - | - | - | - |
| Nebr. | 5 | 1 | 1 | 1 | - | 129 | 17 | 2 | - | - | 6 | - |
| Kans. | 32 | 10 | - | - | 452 | 546 | 4 | 3 | - | - | 1 | 1 |
| S. ATLANTIC | 1,180 | 134 | 10 | - | 14,593 | 13,818 | 138 | 282 | 87 | 5 | 32 | 76 |
| Del. | 2 | 1 | - | - | 213 | 187 | 3 | 9 | 19 | - | 1 | 40 |
| Md. | 45 | 21 | 3 | - | 2,502 | 2,320 | 25 | 33 | 9 | 1 | 7 | 6 |
| D.C. | 40 | 3 | - | - | 1,267 | 735 | 4 | 8 | - | - | - | - |
| Va. | 48 | 14 | 5 | - | 2,126 | 766 | 10 | 12 | 5 | - | 2 | 7 |
| W. Va. | 4 | 3 | - | - | 87 | 97 | 1 | 3 | 1 | - | 1 | 2 |
| N.C. | 82 | 22 | 2 | - | 3,833 | 3,132 | 14 | 60 | 13 | - | 2 | 12 |
| S.C. | 25 | 5 | - | - | 1,598 | 1,413 | 6 | 5 | - | - | 1 | - |
| Ga. | 252 | 6 | - | - | - | 1,950 | 14 | 103 | 20 | - | 10 | 9 |
| Fla. | 682 | 59 | - | - | 2,967 | 3,218 | 61 | 49 | 20 | 4 | 8 | - |
| E.S. CENTRAL | 99 | 48 | 8 | 1 | 5,915 | 4,818 | 56 | 166 | 122 | - | 12 | 2 |
| Ky. | 22 | 22 | 3 | 1 | 599 | 661 | 30 | 3 | 2 | - | 1 | 1 |
| Tenn. | 42 | 13 | 5 | - | 1,452 | 1,003 | 13 | 151 | 120 | - | 7 | - |
| Ala. | 22 | 11 | - | - | 2,441 | 1,799 | 9 | 12 | - | - | 2 | 1 |
| Miss. | 13 | 2 | - | - | 1,423 | 1,355 | 4 | - | - | - | 2 | - |
| W.S. CENTRAL | 754 | 18 | 2 | - | 3,158 | 7,476 | 204 | 93 | 40 | 6 | 1 | - |
| Ark. | 10 | 2 | - | - | 835 | 1,264 | 7 | 4 | - | - | - | - |
| La. | 83 | 1 | - | - | 2,080 | 1,505 | 8 | 9 | 3 | - | - | - |
| Okla. | 13 | - | - | - | 243 | 344 | 30 | 36 | 36 | - | 1 | - |
| Tex. | 648 | 15 | 2 | - | - | 4,363 | 159 | 44 | 1 | 6 | - | - |
| MOUNTAIN | 75 | 13 | 2 | - | 1,101 | 1,553 | 454 | 64 | 49 | 3 | 14 | 5 |
| Mont. | 2 | - | - | - | 20 | 13 | 7 | 2 | - | - | 6 | - |
| Idaho | 1 | - | - | - | 11 | 16 | 34 | 6 | 16 | 1 | - | 1 |
| Wyo. | - | - | - | - | 18 | 6 | 3 | 3 | 12 | - | - | - |
| Colo. | 27 | 5 | - | - | 346 | 594 | 19 | 1 | 4 | 1 | 1 | - |
| N. Mex. | 13 | 1 | - | - | 145 | 149 | 134 | 33 | 4 | 1 | 1 | 4 |
| Ariz. | 21 | 5 | - | - | 267 | 462 | 196 | 9 | 4 | - | 1 | - |
| Utah | - | 2 | - | - | 43 | 24 | 36 | 4 | 5 | - | - | - |
| Nev. | 11 | - | 2 | - | 251 | 289 | 25 | 6 | 4 | - | 5 | - |
| PACIFIC | 1,231 | 126 | 19 | 1 | 3,024 | 5,162 | 834 | 228 | 54 | 16 | 10 | 7 |
| Wash. | 47 | - | - | - | 442 | 563 | 61 | 12 | 10 | - | 2 | - |
| Oreg. | 53 | - | - | - | 176 | 198 | 72 | 11 | 1 | - | - | - |
| Calif. | 1,108 | 100 | 18 | - | 2,257 | 4,306 | 664 | 192 | 40 | 14 | 7 | 7 |
| Alaska | 3 | 3 | 1 | - | 61 | 46 | 28 | 1 | - | - | - | - |
| Hawaii | 20 | 23 | - | 1 | 88 | 49 | 9 | 12 | 3 | 1 | 1 | - |
| Guam | - | - | - | - | - | 15 | - | - | - | - | - | - |
| P.R. | 209 | 2 | - | - | 73 | 53 | - | 16 | 2 | 2 | - | - |
| V.I. | 5 | - | - | - | 3 | 15 | - | 1 | - | - | - | - |
| Amer. Samoa | - | - | - | - | 4 | 5 | 2 | - | - | - | - | - |
| C.N.M.I. | 1 | - | - | - | 9 | 9 | - | - | - | - | - | - |

N: Not notifiable

U: Unavailable

C.N.M.I.: Commonwealth of Northern Mariana Islands

*Updated monthly; last update January 25, 1994.

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending February 19, 1994, and February 20, 1993 (7th Week)

| Reporting Area | Malaria | Measles (Rubeola) | | | | | Men- gococcal infections | Mumps | | Pertussis | | | Rubella | | |
|----------------|---------|-------------------|------|--------------|------|--------------|--------------------------------|-------|--------------|-----------|--------------|--------------|---------|--------------|--------------|
| | | Indigenous | | Imported* | | Total | | 1994 | Cum. 1994 | 1994 | Cum. 1994 | Cum. 1993 | 1994 | Cum. 1994 | Cum. 1993 |
| | | Cum. 1994 | 1994 | Cum. 1994 | 1994 | Cum. 1994 | | | | | | | | | |
| UNITED STATES | 101 | 14 | 22 | - | 4 | 41 | 429 | 19 | 138 | 51 | 410 | 403 | 1 | 17 | 20 |
| NEW ENGLAND | 11 | - | 1 | - | - | 26 | 27 | - | 4 | 1 | 21 | 95 | 1 | 10 | 1 |
| Maine | 1 | - | - | - | - | - | 3 | - | 3 | - | 2 | 3 | - | - | 1 |
| N.H. | - | - | - | - | - | - | 1 | - | 1 | 1 | 5 | 38 | - | - | - |
| Vt. | - | - | - | - | - | - | 16 | - | - | - | 7 | 19 | - | - | - |
| Mass. | 3 | - | 1 | - | - | 3 | 14 | - | - | - | 5 | 32 | 1 | 10 | - |
| R.I. | 4 | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - |
| Conn. | 3 | - | - | - | - | 7 | 9 | - | - | - | 2 | 2 | - | - | - |
| MID. ATLANTIC | 16 | - | 1 | - | 1 | 3 | 29 | 4 | 14 | 16 | 88 | 75 | - | 1 | 4 |
| Upstate N.Y. | 8 | - | - | - | - | - | 9 | - | 1 | 6 | 22 | 24 | - | 1 | - |
| N.Y. City | - | - | 1 | - | - | 1 | - | - | - | 5 | 7 | - | - | - | - |
| N.J. | 6 | - | - | - | - | 2 | 9 | - | - | - | - | 24 | - | - | 3 |
| Pa. | 2 | - | - | - | 1 | - | 11 | 4 | 13 | 5 | 59 | 27 | - | - | 1 |
| E.N. CENTRAL | 6 | - | - | - | - | - | 72 | 3 | 28 | 20 | 80 | 97 | - | 1 | 1 |
| Ohio | 1 | - | - | - | - | - | 20 | 1 | 8 | 14 | 49 | 32 | - | - | - |
| Ind. | 2 | - | - | - | - | - | 10 | - | 2 | 5 | 10 | 5 | - | - | - |
| Ill. | - | - | - | - | - | - | 24 | - | 8 | - | 6 | 10 | - | 1 | - |
| Mich. | 3 | - | - | - | - | - | 9 | 2 | 10 | 1 | 10 | 5 | - | - | - |
| Wis. | - | - | - | - | - | - | 9 | - | - | - | 5 | 45 | - | - | 1 |
| W.N. CENTRAL | 2 | - | - | - | - | - | 25 | - | 4 | 2 | 10 | 17 | - | - | 1 |
| Minn. | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - |
| Iowa | 1 | - | - | - | - | - | 2 | - | 1 | - | - | - | - | - | - |
| Mo. | 1 | - | - | - | - | - | 13 | - | 3 | - | 3 | 9 | - | - | 1 |
| N. Dak. | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - |
| S. Dak. | - | - | - | - | - | - | 2 | - | - | - | - | 1 | - | - | - |
| Nebr. | - | - | - | - | - | - | 1 | - | - | 1 | 1 | 4 | - | - | - |
| Kans. | - | - | - | - | - | - | 6 | - | - | 1 | 6 | 2 | - | - | - |
| S. ATLANTIC | 31 | - | 3 | - | - | 4 | 78 | 2 | 33 | 4 | 75 | 19 | - | 1 | 2 |
| Del. | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Md. | 4 | - | - | - | - | 1 | 5 | - | 4 | 3 | 24 | 6 | - | - | - |
| D.C. | 5 | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - |
| Va. | 5 | - | 1 | - | - | 1 | 9 | 1 | 4 | 1 | 9 | 1 | - | - | - |
| W. Va. | - | - | - | - | - | - | 5 | - | 2 | - | 1 | 1 | - | - | - |
| N.C. | 1 | - | - | - | - | - | 11 | - | 16 | - | 26 | - | - | - | - |
| S.C. | 1 | - | - | - | - | - | 3 | 1 | 4 | - | 5 | 2 | - | - | - |
| Ga. | 5 | - | - | - | - | - | 12 | - | 1 | - | 6 | 7 | - | - | - |
| Fla. | 8 | - | 2 | - | - | 2 | 32 | - | 2 | - | 4 | 2 | - | 1 | 1 |
| E.S. CENTRAL | 3 | 14 | 14 | - | - | - | 43 | 1 | 2 | 1 | 18 | 11 | - | - | - |
| Ky. | 1 | - | - | - | - | - | 11 | - | - | - | 1 | 5 | - | - | - |
| Tenn. | 1 | 14 | 14 | - | - | - | 9 | - | - | - | 13 | 1 | - | - | - |
| Ala. | 1 | - | - | - | - | - | 17 | - | - | 1 | 4 | 4 | - | - | - |
| Miss. | 1 | - | - | - | - | - | 6 | 1 | 2 | - | - | 1 | - | - | - |
| W.S. CENTRAL | - | - | - | - | 1 | 1 | 45 | 3 | 23 | - | 9 | 7 | - | - | 1 |
| Ark. | - | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - |
| La. | - | - | - | - | - | 1 | 2 | - | 1 | - | 1 | - | - | - | - |
| Okla. | - | - | - | - | - | - | 6 | - | 5 | - | 5 | 7 | - | - | 1 |
| Tex. | - | - | - | - | 1 | - | 35 | 3 | 17 | - | 3 | - | - | - | - |
| MOUNTAIN | 1 | - | 1 | - | - | 2 | 32 | 3 | 5 | 3 | 12 | 20 | - | - | 4 |
| Mont. | - | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - |
| Idaho | - | - | 1 | - | - | - | 4 | - | 1 | 2 | 4 | - | - | - | 1 |
| Wyo. | - | - | - | - | - | - | 1 | - | - | - | - | 1 | - | - | - |
| Colo. | - | - | - | - | - | 2 | 2 | - | - | - | 1 | 8 | - | - | - |
| N. Mex. | - | - | - | - | - | - | 4 | N | N | - | 2 | 9 | - | - | - |
| Ariz. | - | - | - | - | - | - | 12 | - | - | 1 | 5 | 2 | - | - | - |
| Utah | 1 | - | - | - | - | - | 5 | 1 | 1 | - | - | - | - | - | 2 |
| Nev. | - | - | - | - | - | - | 2 | 2 | 3 | - | - | - | - | - | 1 |
| PACIFIC | 31 | - | 2 | - | 2 | 5 | 78 | 3 | 25 | 4 | 97 | 62 | - | 4 | 6 |
| Wash. | 1 | - | - | - | - | - | 6 | - | 1 | - | 8 | 2 | - | - | - |
| Oreg. | 1 | - | - | - | - | - | 7 | N | N | 4 | 8 | - | - | - | 1 |
| Calif. | 25 | - | 2 | - | 2 | 1 | 62 | 2 | 21 | - | 76 | 56 | - | 4 | 3 |
| Alaska | - | - | - | - | - | - | - | - | 2 | - | - | - | - | - | 1 |
| Hawaii | 4 | - | - | - | - | 4 | 3 | 1 | 1 | - | 5 | 4 | - | - | 1 |
| Guam | - | U | - | U | - | - | - | U | - | U | - | - | U | - | - |
| P.R. | - | 2 | 2 | - | - | 55 | 1 | - | - | - | - | - | - | - | - |
| V.I. | - | U | - | U | - | - | - | U | - | U | - | - | U | - | - |
| Amer. Samoa | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| C.N.M.I. | 1 | U | 19 | U | - | - | - | U | - | U | - | - | U | - | - |

*For measles only, imported cases include both out-of-state and international importations.

N: Not notifiable

U: Unavailable

† International

§ Out-of-state

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending February 19, 1994, and February 20, 1993 (7th Week)

| Reporting Area | Syphilis (Primary & Secondary) | | Toxic-Shock Syndrome | Tuberculosis | | Tula- remia | Typhoid Fever | Typhus Fever (Tick-borne) (RMSF) | Rabies, Animal |
|----------------|-----------------------------------|--------------|-------------------------|--------------|--------------|----------------|------------------|--|-------------------|
| | Cum. 1994 | Cum. 1993 | Cum. 1994 | Cum. 1994 | Cum. 1993 | Cum. 1994 | Cum. 1994 | Cum. 1994 | Cum. 1994 |
| UNITED STATES | 2,212 | 3,917 | 27 | 1,648 | 1,749 | 1 | 26 | 10 | 497 |
| NEW ENGLAND | 25 | 70 | 1 | 31 | 15 | - | 5 | - | 168 |
| Maine | - | 2 | - | - | 3 | - | - | - | - |
| N.H. | - | 5 | - | 1 | - | - | - | - | 19 |
| Vt. | - | - | - | - | - | - | - | - | 10 |
| Mass. | 6 | 37 | 1 | 7 | 1 | - | 3 | - | 74 |
| R.I. | 4 | 2 | - | 2 | - | - | - | - | - |
| Conn. | 15 | 24 | - | 21 | 11 | - | 2 | - | 65 |
| MID. ATLANTIC | 137 | 291 | 4 | 172 | 343 | - | 1 | - | 51 |
| Upstate N.Y. | 12 | 26 | 3 | 9 | 51 | - | - | - | - |
| N.Y. City | 98 | 215 | - | 115 | 209 | - | - | - | - |
| N.J. | - | 39 | - | 27 | 38 | - | 1 | - | 33 |
| Pa. | 27 | 11 | 1 | 21 | 45 | - | - | - | 18 |
| E.N. CENTRAL | 242 | 614 | 8 | 173 | 210 | - | 3 | 1 | 2 |
| Ohio | 107 | 163 | 4 | 34 | 22 | - | - | - | - |
| Ind. | 39 | 45 | 1 | 13 | 14 | - | 1 | - | - |
| Ill. | 59 | 251 | - | 85 | 150 | - | 1 | - | - |
| Mich. | 32 | 80 | 3 | 35 | 13 | - | 1 | 1 | - |
| Wis. | 5 | 75 | - | 6 | 11 | - | - | - | 2 |
| W.N. CENTRAL | 150 | 229 | 6 | 38 | 30 | 1 | - | - | 14 |
| Minn. | 8 | 14 | - | 10 | - | - | - | - | - |
| Iowa | 9 | 14 | 5 | 3 | 5 | - | - | - | 8 |
| Mo. | 133 | 198 | - | 18 | 17 | 1 | - | - | 1 |
| N. Dak. | - | - | - | - | 1 | - | - | - | - |
| S. Dak. | - | - | - | 4 | 2 | - | - | - | 1 |
| Nebr. | - | 3 | 1 | - | 2 | - | - | - | - |
| Kans. | - | - | - | 3 | 3 | - | - | - | 4 |
| S. ATLANTIC | 766 | 1,070 | - | 260 | 250 | - | 7 | 6 | 194 |
| Del. | 1 | 20 | - | - | 6 | - | - | - | 2 |
| Md. | 30 | 57 | - | 31 | 42 | - | 2 | - | 62 |
| D.C. | 25 | 44 | - | 20 | 15 | - | 1 | - | 1 |
| Va. | 79 | 75 | - | - | - | - | - | - | 45 |
| W. Va. | 1 | 1 | - | 5 | 5 | - | - | - | 7 |
| N.C. | 265 | 304 | - | - | 51 | - | - | 4 | 13 |
| S.C. | 97 | 179 | - | 49 | 40 | - | - | - | 17 |
| Ga. | 125 | 194 | - | 133 | 91 | - | - | 2 | 44 |
| Fla. | 143 | 196 | - | 22 | - | - | 4 | - | 3 |
| E.S. CENTRAL | 513 | 440 | - | 82 | 105 | - | - | 1 | 22 |
| Ky. | 35 | 45 | - | 20 | 35 | - | - | - | - |
| Tenn. | 112 | 87 | - | 1 | - | - | - | - | 9 |
| Ala. | 97 | 118 | - | 46 | 52 | - | - | - | 13 |
| Miss. | 269 | 190 | - | 15 | 18 | - | - | 1 | - |
| W.S. CENTRAL | 350 | 982 | - | 84 | 16 | - | 1 | 1 | 8 |
| Ark. | 54 | 133 | - | 25 | 13 | - | - | - | 3 |
| La. | 291 | 340 | - | - | - | - | - | - | - |
| Okla. | 5 | 62 | - | 7 | 3 | - | - | 1 | 5 |
| Tex. | - | 447 | - | 52 | - | - | 1 | - | - |
| MOUNTAIN | 28 | 19 | 2 | 61 | 43 | - | 3 | - | 9 |
| Mont. | - | - | - | - | - | - | - | - | - |
| Idaho | - | - | 1 | 4 | - | - | - | - | - |
| Wyo. | - | - | - | 1 | - | - | - | - | 2 |
| Colo. | 15 | 9 | 1 | - | - | - | 2 | - | - |
| N. Mex. | - | 1 | - | 9 | - | - | - | - | - |
| Ariz. | 9 | 8 | - | 33 | 36 | - | - | - | 7 |
| Utah | 4 | - | - | - | - | - | 1 | - | - |
| Nev. | - | 1 | - | 14 | 7 | - | - | - | - |
| PACIFIC | 1 | 202 | 6 | 747 | 737 | - | 6 | 1 | 29 |
| Wash. | 1 | 6 | - | 33 | 32 | - | 1 | - | - |
| Oreg. | - | 7 | - | 14 | 7 | - | - | - | - |
| Calif. | - | 188 | 6 | 668 | 660 | - | 4 | 1 | 17 |
| Alaska | - | - | - | 5 | 3 | - | - | - | 12 |
| Hawaii | - | 1 | - | 27 | 35 | - | 1 | - | - |
| Guam | - | - | - | - | 1 | - | - | - | - |
| P.R. | 54 | 66 | - | - | - | - | - | - | 8 |
| V.I. | 1 | 11 | - | - | 1 | - | - | - | - |
| Amer. Samoa | - | - | - | - | - | - | 1 | - | - |
| C.N.M.I. | - | - | - | 11 | 1 | - | - | - | - |

U: Unavailable

**TABLE III. Deaths in 121 U.S. cities,* week ending
February 19, 1994 (7th Week)**

| Reporting Area | All Causes, By Age (Years) | | | | | | P&I [†] Total | Reporting Area | All Causes, By Age (Years) | | | | | | P&I [†] Total |
|---------------------|----------------------------|-------|-------|-------|------|----|---------------------------|-----------------------|----------------------------|-------|-------|-------|------|-----|---------------------------|
| | All Ages | ≥65 | 45-64 | 25-44 | 1-24 | <1 | | | All Ages | ≥65 | 45-64 | 25-44 | 1-24 | <1 | |
| NEW ENGLAND | 711 | 528 | 107 | 48 | 14 | 14 | 65 | S. ATLANTIC | 1,701 | 1,077 | 327 | 176 | 67 | 52 | 115 |
| Boston, Mass. | 194 | 125 | 34 | 21 | 8 | 6 | 30 | Atlanta, Ga. | 243 | 161 | 49 | 21 | 4 | 8 | 23 |
| Bridgeport, Conn. | 39 | 32 | 7 | - | - | - | 4 | Baltimore, Md. | 270 | 176 | 46 | 36 | 10 | 2 | 30 |
| Cambridge, Mass. | 22 | 17 | 4 | 1 | - | - | 1 | Charlotte, N.C. | 85 | 55 | 16 | 8 | 5 | 1 | 5 |
| Fall River, Mass. | 36 | 27 | 6 | 3 | - | - | 1 | Jacksonville, Fla. | 129 | 88 | 30 | 5 | 4 | 1 | 7 |
| Hartford, Conn. | 59 | 43 | 9 | 5 | - | 2 | 1 | Miami, Fla. | 134 | 81 | 21 | 29 | 3 | - | - |
| Lowell, Mass. | 32 | 23 | 7 | 2 | - | - | 3 | Norfolk, Va. | 72 | 40 | 16 | 5 | 2 | 9 | 7 |
| Lynn, Mass. | 12 | 10 | - | 2 | - | - | 1 | Richmond, Va. | 120 | 76 | 19 | 10 | 5 | 10 | 9 |
| New Bedford, Mass. | 21 | 19 | - | 2 | - | - | 2 | Savannah, Ga. | 61 | 41 | 10 | 4 | 3 | 3 | 5 |
| New Haven, Conn. | 63 | 45 | 10 | 5 | 1 | 2 | 1 | St. Petersburg, Fla. | 75 | 55 | 11 | 6 | 2 | 1 | 2 |
| Providence, R.I. | 50 | 38 | 6 | 3 | 3 | - | 1 | Tampa, Fla. | 176 | 121 | 28 | 13 | 8 | 5 | 19 |
| Somerville, Mass. | 5 | 4 | 1 | - | - | - | - | Washington, D.C. | 314 | 168 | 79 | 35 | 20 | 12 | 8 |
| Springfield, Mass. | 40 | 33 | 4 | - | - | 3 | 4 | Wilmington, Del. | 22 | 15 | 2 | 4 | 1 | - | - |
| Waterbury, Conn. | 56 | 46 | 8 | 1 | 1 | - | 3 | E.S. CENTRAL | 836 | 592 | 158 | 45 | 22 | 19 | 91 |
| Worcester, Mass. | 82 | 66 | 11 | 3 | 1 | 1 | 13 | Birmingham, Ala. | 131 | 90 | 27 | 7 | 4 | 3 | 9 |
| MID. ATLANTIC | 2,669 | 1,758 | 519 | 286 | 57 | 48 | 116 | Chattanooga, Tenn. | 79 | 54 | 17 | 5 | - | 3 | 9 |
| Albany, N.Y. | 57 | 44 | 9 | 2 | - | 2 | 3 | Knoxville, Tenn. | 112 | 75 | 29 | 5 | 3 | - | 23 |
| Allentown, Pa. | 38 | 33 | 5 | - | - | - | 1 | Lexington, Ky. | 96 | 70 | 16 | 4 | 2 | 4 | 11 |
| Buffalo, N.Y. | 108 | 76 | 25 | 3 | 3 | 1 | 3 | Memphis, Tenn. | 137 | 98 | 22 | 7 | 7 | 3 | 18 |
| Camden, N.J. | 53 | 35 | 12 | 2 | 1 | 3 | 3 | Mobile, Ala. | 70 | 44 | 12 | 7 | 3 | 4 | 1 |
| Elizabeth, N.J. | 25 | 19 | 3 | 3 | - | - | - | Montgomery, Ala. | 60 | 49 | 8 | 3 | - | - | 1 |
| Erie, Pa.§ | 56 | 31 | 14 | 8 | 1 | 2 | 4 | Nashville, Tenn. | 151 | 112 | 27 | 7 | 3 | 2 | 19 |
| Jersey City, N.J. | 48 | 24 | 13 | 7 | 3 | 1 | 2 | W.S. CENTRAL | 1,672 | 1,051 | 335 | 181 | 57 | 44 | 124 |
| New York City, N.Y. | 1,429 | 899 | 292 | 186 | 24 | 27 | 44 | Austin, Tex. | 91 | 45 | 25 | 14 | 5 | 2 | 6 |
| Newark, N.J. | 60 | 26 | 17 | 14 | 3 | - | 6 | Baton Rouge, La. | 71 | 54 | 12 | 3 | 2 | - | 4 |
| Paterson, N.J. | U | U | U | U | U | U | U | Corpus Christi, Tex. | 76 | 52 | 14 | 7 | 2 | 1 | 6 |
| Philadelphia, Pa. | 307 | 199 | 57 | 31 | 15 | 5 | 16 | Dallas, Tex. | 209 | 136 | 34 | 28 | 5 | 6 | 6 |
| Pittsburgh, Pa.§ | 92 | 69 | 15 | 5 | 2 | 1 | 6 | El Paso, Tex. | 84 | 56 | 11 | 13 | 2 | 2 | 5 |
| Reading, Pa. | 16 | 12 | 1 | 2 | 1 | - | 2 | Ft. Worth, Tex. | 108 | 69 | 22 | 9 | 2 | 6 | 2 |
| Rochester, N.Y. | 128 | 92 | 23 | 9 | 1 | 3 | 7 | Houston, Tex. | 452 | 258 | 100 | 63 | 20 | 11 | 49 |
| Schenectady, N.Y. | 30 | 26 | 2 | 2 | - | - | 3 | Little Rock, Ark. | 88 | 53 | 22 | 8 | 4 | 1 | 8 |
| Scranton, Pa.§ | 41 | 35 | 5 | 1 | - | - | 2 | New Orleans, La. | 120 | 74 | 25 | 9 | 4 | 4 | - |
| Syracuse, N.Y. | 105 | 82 | 16 | 3 | 3 | 1 | 11 | San Antonio, Tex. | 192 | 122 | 36 | 16 | 9 | 9 | 16 |
| Trenton, N.J. | 41 | 33 | 5 | 1 | - | - | 2 | Shreveport, La. | 66 | 48 | 12 | 4 | 1 | 1 | 9 |
| Utica, N.Y. | U | U | U | U | U | U | U | Tulsa, Okla. | 115 | 84 | 22 | 7 | 1 | 1 | 13 |
| Yonkers, N.Y. | 35 | 23 | 5 | 7 | - | - | 3 | MOUNTAIN | 892 | 630 | 151 | 83 | 16 | 11 | 93 |
| E.N. CENTRAL | 2,677 | 1,727 | 475 | 273 | 142 | 60 | 196 | Albuquerque, N.M. | 106 | 80 | 16 | 7 | 1 | 2 | 7 |
| Akron, Ohio | 67 | 46 | 11 | 6 | 2 | 2 | - | Colo. Springs, Colo. | 41 | 33 | 4 | 3 | 1 | - | 6 |
| Canton, Ohio | 44 | 34 | 7 | 3 | - | - | 3 | Denver, Colo. | 140 | 93 | 29 | 13 | 3 | 2 | 16 |
| Chicago, Ill. | 644 | 280 | 129 | 127 | 94 | 14 | 55 | Las Vegas, Nev. | 121 | 77 | 31 | 8 | 3 | 1 | 9 |
| Cincinnati, Ohio | 202 | 147 | 35 | 10 | 4 | 6 | 25 | Ogden, Utah | 31 | 24 | 6 | 1 | - | - | 5 |
| Cleveland, Ohio | 181 | 110 | 37 | 16 | 7 | 11 | 3 | Phoenix, Ariz. | 171 | 114 | 26 | 26 | 4 | 1 | 23 |
| Columbus, Ohio | 212 | 158 | 34 | 9 | 5 | 6 | 12 | Pueblo, Colo. | 31 | 26 | 4 | 1 | - | - | 1 |
| Dayton, Ohio | 128 | 97 | 23 | 4 | 3 | 1 | 13 | Salt Lake City, Utah | 100 | 68 | 16 | 9 | 3 | 4 | 11 |
| Detroit, Mich. | 295 | 181 | 53 | 40 | 15 | 6 | 14 | Tucson, Ariz. | 151 | 115 | 19 | 15 | 1 | 1 | 15 |
| Evansville, Ind. | 66 | 54 | 7 | 3 | 1 | 1 | 2 | PACIFIC | 1,965 | 1,347 | 320 | 185 | 53 | 52 | 169 |
| Fort Wayne, Ind. | 73 | 54 | 10 | 6 | - | 3 | 8 | Berkeley, Calif. | 18 | 14 | 2 | 2 | - | - | 2 |
| Gary, Ind. | 21 | 12 | 3 | 3 | 2 | 1 | 1 | Fresno, Calif. | 78 | 47 | 13 | 8 | 4 | 6 | 10 |
| Grand Rapids, Mich. | 39 | 24 | 7 | 4 | 1 | 3 | 13 | Glendale, Calif. | 14 | 11 | 1 | 1 | 1 | - | 1 |
| Indianapolis, Ind. | 152 | 101 | 33 | 15 | 1 | 2 | 10 | Honolulu, Hawaii | 83 | 56 | 13 | 5 | 3 | 6 | 8 |
| Madison, Wis. | 49 | 36 | 9 | 4 | - | - | 2 | Long Beach, Calif. | 105 | 70 | 18 | 7 | 1 | 9 | 14 |
| Milwaukee, Wis. | 153 | 118 | 26 | 6 | 1 | 2 | 9 | Los Angeles, Calif. | 431 | 287 | 77 | 43 | 12 | 4 | 38 |
| Peoria, Ill. | 53 | 43 | 5 | 3 | 1 | 1 | 2 | Pasadena, Calif. | U | U | U | U | U | U | U |
| Rockford, Ill. | 60 | 48 | 9 | 2 | 1 | - | 7 | Portland, Ore. | 162 | 115 | 28 | 11 | 2 | 6 | 6 |
| South Bend, Ind. | 44 | 36 | 5 | 2 | 1 | - | 7 | Sacramento, Calif. | 184 | 132 | 28 | 16 | 4 | 4 | 19 |
| Toledo, Ohio | 128 | 92 | 25 | 8 | 2 | 1 | 10 | San Diego, Calif. | 148 | 100 | 16 | 20 | 7 | 5 | 18 |
| Youngstown, Ohio | 66 | 56 | 7 | 2 | 1 | - | - | San Francisco, Calif. | 172 | 103 | 31 | 31 | 6 | 1 | 8 |
| W.N. CENTRAL | 887 | 646 | 132 | 59 | 22 | 28 | 76 | San Jose, Calif. | 222 | 156 | 39 | 16 | 5 | 6 | 27 |
| Des Moines, Iowa | 142 | 110 | 19 | 5 | 1 | 7 | 16 | Santa Cruz, Calif. | 40 | 32 | 4 | 3 | - | 1 | 5 |
| Duluth, Minn. | 16 | 8 | 5 | 1 | - | 2 | 2 | Seattle, Wash. | 153 | 100 | 30 | 17 | 4 | 2 | 1 |
| Kansas City, Kans. | 47 | 30 | 8 | 6 | 2 | 1 | 1 | Spokane, Wash. | 59 | 47 | 8 | 1 | 1 | 2 | 6 |
| Kansas City, Mo. | 134 | 93 | 20 | 13 | 5 | 3 | 4 | Tacoma, Wash. | 96 | 77 | 12 | 4 | 3 | - | 6 |
| Lincoln, Nebr. | U | U | U | U | U | U | U | TOTAL | 14,010 [†] | 9,356 | 2,524 | 1,336 | 450 | 328 | 1,045 |
| Minneapolis, Minn. | 183 | 133 | 26 | 13 | 4 | 7 | 19 | | | | | | | | |
| Omaha, Nebr. | 96 | 71 | 15 | 6 | 2 | 2 | 10 | | | | | | | | |
| St. Louis, Mo. | 118 | 88 | 15 | 8 | 4 | 3 | 14 | | | | | | | | |
| St. Paul, Minn. | 72 | 50 | 15 | 3 | 3 | 1 | 4 | | | | | | | | |
| Wichita, Kans. | 79 | 63 | 9 | 4 | 1 | 2 | 6 | | | | | | | | |

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

[†]Pneumonia and influenza.

[§]Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

^{††}Total includes unknown ages.

U: Unavailable.

Health and Nutrition Examination Surveys — Continued

Editorial Note: The findings from NHANES III in this report update national population estimates of daily dietary fat and TFEIs. Since NHANES II (1976–80), the mean percentages of TFEI derived from total dietary fat and from saturated fat have decreased (7), sustaining a trend observed since the mid-1960s (8). Mean serum cholesterol level for adults also decreased from NHANES II to NHANES III (9).

One national health objective for the year 2000 is to reduce dietary fat intake to an average of 30% or less and average saturated fat intake to less than 10% of calories among persons aged ≥ 2 years (baseline: 36% of calories from total fat and 13% from

TABLE 2. Mean daily total food-energy intake (TFEI)* and percentages of TFEI from total dietary fat† and from saturated fat, by age group and sex — Third National Health and Nutrition Examination Survey, Phase 1, 1988–91

| Sex/Age group (yrs) | Sample size | Daily TFEI | | % TFEI from total dietary fat | | % TFEI from saturated fat | |
|-----------------------|-------------|-------------|--------------------|-------------------------------|---------------|---------------------------|---------------|
| | | No. | (SE [§]) | % | (SE) | % | (SE) |
| Males | | | | | | | |
| 2–11 mos [¶] | 439 | 903 | (± 13.3) | 36.9 | (±0.4) | 15.8 | (±0.2) |
| 1– 2 [¶] | 601 | 1339 | (± 26.3) | 33.5 | (±0.5) | 13.8 | (±0.2) |
| 3– 5 | 744 | 1663 | (± 26.5) | 32.8 | (±0.4) | 12.6 | (±0.2) |
| 6–11 | 868 | 2036 | (± 44.4) | 33.9 | (±0.3) | 12.8 | (±0.2) |
| 12–15 | 338 | 2578 | (± 75.4) | 33.1 | (±0.8) | 12.4 | (±0.3) |
| 16–19 | 368 | 3097 | (±114.4) | 34.6 | (±0.7) | 12.6 | (±0.2) |
| 20–29 | 844 | 3025 | (± 66.5) | 34.0 | (±0.5) | 12.0 | (±0.2) |
| 30–39 | 735 | 2872 | (± 88.4) | 34.6 | (±0.6) | 11.9 | (±0.3) |
| 40–49 | 626 | 2545 | (± 54.4) | 33.9 | (±0.5) | 11.4 | (±0.2) |
| 50–59 | 473 | 2341 | (± 51.5) | 35.7 | (±0.6) | 11.8 | (±0.2) |
| 60–69 | 546 | 2110 | (± 57.7) | 33.3 | (±0.6) | 11.3 | (±0.3) |
| 70–79 | 444 | 1887 | (± 39.7) | 33.8 | (±0.5) | 11.6 | (±0.2) |
| ≥ 80 | 296 | 1776 | (± 35.7) | 33.3 | (±0.6) | 11.4 | (±0.2) |
| Total | 7322 | 2478 | (± 30.3) | 34.1 | (±0.3) | 12.1 | (±0.1) |
| ≥ 2 | 6594 | 2518 | (± 29.5) | 34.1 | (±0.3) | 12.0 | (±0.1) |
| Females | | | | | | | |
| 2–11 mos [¶] | 432 | 850 | (± 15.0) | 37.6 | (±0.5) | 15.9 | (±0.2) |
| 1– 2 [¶] | 630 | 1236 | (± 26.5) | 34.0 | (±0.5) | 13.9 | (±0.2) |
| 3– 5 | 803 | 1516 | (± 23.8) | 33.1 | (±0.4) | 12.6 | (±0.2) |
| 6–11 | 877 | 1753 | (± 20.4) | 34.2 | (±0.5) | 12.7 | (±0.2) |
| 12–15 | 373 | 1838 | (± 48.4) | 33.7 | (±0.7) | 12.0 | (±0.2) |
| 16–19 | 397 | 1958 | (± 70.3) | 34.4 | (±0.7) | 12.3 | (±0.4) |
| 20–29 | 838 | 1957 | (± 32.3) | 34.0 | (±0.4) | 11.9 | (±0.2) |
| 30–39 | 791 | 1883 | (± 37.0) | 34.2 | (±0.4) | 11.9 | (±0.2) |
| 40–49 | 602 | 1764 | (± 35.7) | 34.9 | (±0.7) | 11.8 | (±0.2) |
| 50–59 | 456 | 1629 | (± 32.2) | 33.8 | (±0.6) | 11.4 | (±0.2) |
| 60–69 | 560 | 1578 | (± 38.3) | 32.8 | (±0.6) | 11.0 | (±0.3) |
| 70–79 | 407 | 1435 | (± 28.5) | 32.3 | (±0.7) | 10.8 | (±0.4) |
| ≥ 80 | 313 | 1329 | (± 26.8) | 31.3 | (±0.4) | 10.8 | (±0.2) |
| Total | 7479 | 1732 | (± 14.5) | 33.9 | (±0.3) | 11.9 | (±0.1) |
| ≥ 2 | 6720 | 1751 | (± 15.0) | 33.8 | (±0.3) | 11.8 | (±0.1) |

* Defined as all nutrients (i.e., protein, fat, carbohydrate, and alcohol) derived from consumption of foods and beverages (excluding plain drinking water), measured in kilocalories (kcal).

† Defined as all fat (i.e., saturated and unsaturated) derived from consumption of foods and beverages, measured in grams.

§ Standard error.

¶ Excludes nursing infants and children.

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saturated fat for persons aged 20–74 years in 1976–80; 36% and 13%, respectively, for women aged 19–50 years in 1985) (objective 2.5) (1). Although the findings in this report indicate a decline in the mean percentage of TFEI derived from total dietary fat and from saturated fat, these intake levels remain higher than the year 2000 objective.

At least three changes in the dietary methodology used for NHANES III may account for the differences in total dietary fat and saturated fat intakes when compared with NHANES II. First, automated data collection for NHANES III standardized and improved data quality. Second, the NHANES III protocol was specifically designed to probe for information about food sources of dietary fat; additional questions ensured that a complete 1-day recall of food intake could be obtained. Third, different nutrient databases were used for NHANES II and NHANES III; therefore, the impact on nutrient estimates of changes in food-composition data could not be readily assessed. In the future, completion of the trends database for the SNDB and redesign of the National Nutrient Data Bank should facilitate interpretation of changes in food-consumption patterns.

Previous studies have documented that, when large-scale surveys of food-consumption employ 24-hour recalls, TFEI is underreported by as much as 25% (10). However, the differential effect of this underreporting on specific food components and on population subgroups is not well understood. During NHANES III, Phase 1, mean TFEIs were approximately 100–300 kcal higher for persons aged ≥ 12 years of both sexes and in all age groups compared with those during NHANES II (1976–80), suggesting either a true increase in TFEI or substantial improvements in the collection of more complete dietary-recall data during NHANES III. The hypothesis of real increases in TFEI during NHANES III is supported by a substantial increase in overweight among U.S. adults.

The findings in this report can assist in tracking progress toward achieving the goals of public health initiatives aimed at reducing and modifying total dietary fat and saturated fat intakes. Additional changes in diet are necessary for the U.S. population to further reduce total dietary fat and saturated fat intakes as well as serum cholesterol levels and overweight. Subsequent analyses of NHANES III will be used to elucidate differences and changes in dietary fat intakes by socioeconomic status and race/ethnicity; identify population subgroups at risk for high dietary fat intakes; assess food sources of dietary fat; and examine the interrelation between total dietary fat and saturated fat, serum cholesterol level, and other health variables.

References

1. Public Health Service. Healthy people 2000: national health promotion and disease prevention objectives. Washington, DC: US Department of Health and Human Services, Public Health Service, 1991; DHHS publication no. (PHS)91-50213.
2. Public Health Service. The Surgeon General's report on nutrition and health. Washington, DC: US Department of Health and Human Services, Public Health Service, 1988; DHHS publication no. (PHS)88-50210.
3. Woteki CE, Briefel R, Hitchcock D, Ezzati T, Maurer K. Selection of nutrition status indicators for field surveys: the NHANES III design. *J Nutr* 1990;120(suppl):1440–5.
4. Ezzati TM, Massey JT, Waksberg J, Chu A, Maurer KR. Sample design: Third National Health and Nutrition Examination Survey. Hyattsville, Maryland: US Department of Health and Human Services, Public Health Service, CDC, NCHS, 1992. (Vital and health statistics; series 2, no. 113).
5. McDowell M, Briefel RR, Warren RA, Buzzard M, Seskanich D, Gardner S. The dietary data collection system: an automated interview and coding system for NHANES III. In: Proceedings

Health and Nutrition Examination Surveys — Continued

- of the 14th National Nutrient Databank Conference. Ithaca, New York: CBORD Group, Inc, 1990.
6. Westat, Inc. NHANES III dietary interviewer's manual, prepared for the National Center for Health Statistics. Hyattsville, Maryland: US Department of Health and Human Services, Public Health Service, CDC, September 1992.
 7. Life Sciences Research Office, Federation of American Societies for Experimental Biology. Nutrition monitoring in the United States: an update report on nutrition monitoring. Washington, DC: US Department of Health and Human Services, Public Health Service, 1989; DHHS publication no. (PHS)89-1255.
 8. Stephen AM, Wald NJ. Trends in individual consumption of dietary fat in the United States, 1920-1984. *Am J Clin Nutr* 1990;52:457-69.
 9. Johnson CL, Rifkind BM, Sempos CT, et al. Declining serum total cholesterol levels among US adults. *JAMA* 1993;269:3002-8.
 10. Bingham SA. The dietary assessment of individuals: methods, accuracy, new techniques, and recommendations. *Nutrition Abstracts and Reviews* 1987;57:705-42.

Notice to Readers**Publication of Surgeon General's Report on Smoking and Health**

The Surgeon General's report *Preventing Tobacco Use Among Young People* (1) was released on February 24, 1994. This report examines various aspects of adolescent behavior and is the first Surgeon General's report to focus exclusively on tobacco use among this age group.

The six major conclusions in the report are

- Nearly all first use of tobacco occurs before high school graduation; this finding suggests that if adolescents can be kept tobacco-free, most will never start using tobacco.
- Most adolescent smokers are addicted to nicotine and report that they want to quit but are unable to do so; they experience relapse rates and withdrawal symptoms similar to those reported by adults.
- Tobacco is often the first drug used by those young people who use alcohol, marijuana, and other drugs.
- Adolescents with lower levels of school achievement, with fewer skills to resist pervasive influences to use tobacco, with friends who use tobacco, and with lower self images are more likely than their peers to use tobacco.
- Cigarette advertising appears to increase young people's risk of smoking by affecting their perceptions of the pervasiveness, image, and function of smoking.
- Communitywide efforts that include tobacco tax increases, enforcement of minors' access laws, youth-oriented mass media campaigns, and school-based tobacco-use prevention programs are successful in reducing adolescent use of tobacco.

Additional information about the report or a free copy of the executive summary is available from CDC's Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Mailstop K-50, 4770 Buford Highway, NE, Atlanta, GA 30341-3724; telephone (800) 232-1311. Copies of the full report (stock no. 017-001-00491-0) can be purchased for \$19 from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9328; fax (202) 512-2250. The

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executive summary of the report will be published as an *MMWR Recommendations and Reports*.

Reference

1. US Department of Health and Human Services. Preventing tobacco use among young people: a report of the Surgeon General. Atlanta: US Department of Health and Human Services, Public Health Service, CDC, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1994.

*Notice to Readers***International Course in Surveillance
and Applied Epidemiology for HIV and AIDS**

CDC will cosponsor the fourth International Course in Surveillance and Applied Epidemiology for human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) September 12–30, 1994, in Atlanta. The course is designed for government public health and medical officials, primarily from developing countries, who are responsible for surveillance and epidemiologic assessment of HIV/AIDS. Lectures, discussion seminars and exercises, and hands-on computer training will teach basic epidemiologic skills, applied statistics, methods for surveillance of AIDS and HIV infection, and techniques to conduct applied research and to interpret and analyze data. Additional information about curriculum and course content is available from CDC's HIV/AIDS Course Coordinator, International Activity, Division of HIV/AIDS, Mailstop E-50, 1600 Clifton Road, NE, Atlanta, GA 30333; telephone (404) 639-6100; fax (404) 639-6118.

The deadline for submitting applications is April 1, 1994. Additional information about enrollment and applications are available from Visions, USA, Inc., 3485 N Desert Drive, Building 2, Suite 102, Atlanta, GA 30344; telephone (404) 768-3091; fax (404) 768-3594.

*Notice to Readers***Course in Hospital Epidemiology**

CDC, the Society for Hospital Epidemiology of America (SHEA), and the American Hospital Association will cosponsor a hospital epidemiology training course May 7–10, 1994, in Washington, D.C. The course, designed for infectious disease fellows, new hospital epidemiologists, and infection-control practitioners, provides hands-on exercises to improve skills in detection, investigation, and control of epidemiologic problems encountered in the hospital setting and lectures and seminars on fundamental aspects of hospital epidemiology.

Additional information is available from SHEA Meetings Department, 875 Kings Highway, Suite 200, Woodbury, NJ 08096-3172; telephone (609) 845-1720; fax (609) 853-0411.

Erratum: Vol. 43, No. 3

In the article "Hantavirus Pulmonary Syndrome—United States, 1993," on page 48, some references were misnumbered. Reference 6 should be numbered 10, and references 7, 8, 9, and 10 should be numbered 6, 7, 8, and 9, respectively.

Erratum: Vol. 43, No. 5

In the article "Foodborne Outbreaks of Enterotoxigenic *Escherichia coli*—Rhode Island and New Hampshire, 1993," in the third paragraph of the editorial note, the first sentence should read "In contrast to illness caused by ETEC, gastroenteritis from infection with Norwalk virus is usually characterized by vomiting *in addition to diarrhea.*"

The *Morbidity and Mortality Weekly Report (MMWR)* Series is prepared by the Centers for Disease Control and Prevention (CDC) and is available on a paid subscription basis from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone (202) 783-3238.

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