
MNWR

MORBIDITY AND

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

Brucellosis — Continued

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.

Reported by: L Hunter, DVM, CG Smith, MD, JN MacCormack, MD, State Epidemiologist, North Carolina Dept of Environment, Health, and Natural Resources. Animal and Plant Health Inspection Svc, US Dept of Agriculture. National Center for Infectious Diseases; Hazard Evaluations and Technical Assistance Br, National Institute for Occupational Safety and Health, CDC.

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.

Brucellosis — Continued

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

Brucellosis — Continued

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-

Health and Nutrition Examination Surveys — Continued

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).

Reported by: C Lenfant, MD, N Ernst, National Heart, Lung, and Blood Institute, National Institutes of Health. Div of Health Examination Statistics, National Center for Health Statistics, CDC.

(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)

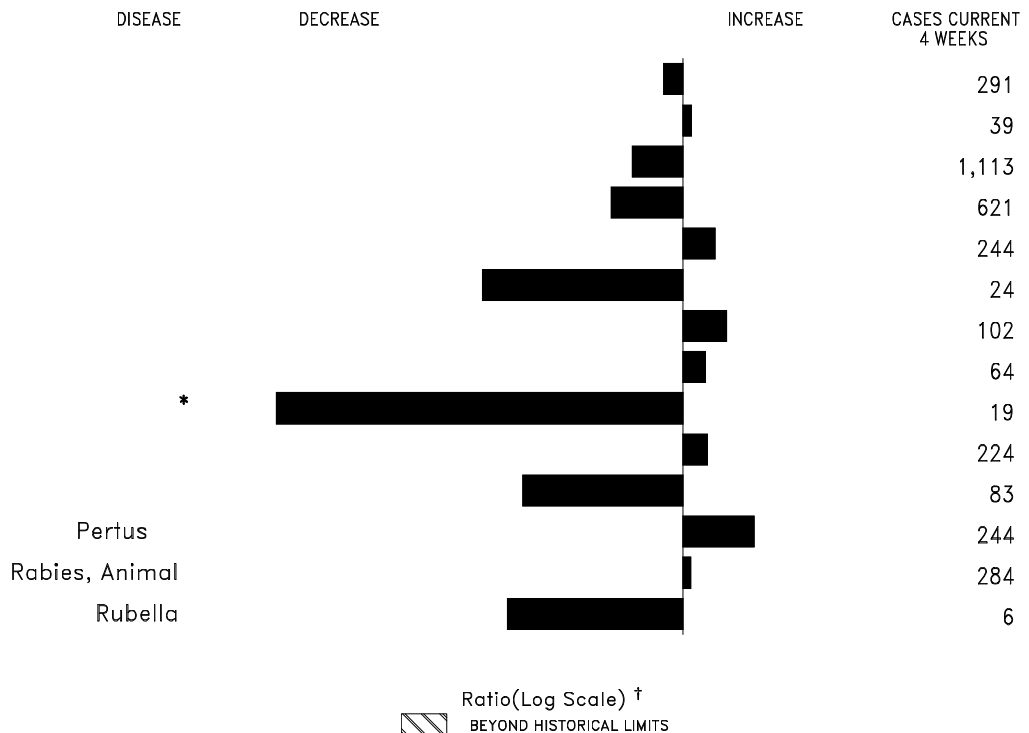
* Defined as all nutrients (i.e., protein, fat, carbohydrate, and alcohol) derived from consumption of foods and beverages (excluding plain drinking water), measured in kilocalories (kcal).

† 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	2	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.

Health and Nutrition Examination Surveys — Continued

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

Notices to Readers — Continued

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, Mail-stop 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.

The data in the weekly *MMWR* are provisional, based on weekly reports 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. Inquiries about the *MMWR* Series, including material to be considered for publication, should be directed to: Editor, *MMWR* Series, Mailstop C-08, Centers for Disease Control and Prevention, Atlanta, GA 30333; telephone (404) 332-4555.

All material in the *MMWR* Series is in the public domain and may be used and reprinted without special permission; citation as to source, however, is appreciated.

Director, Centers for Disease Control and Prevention
David Satcher, M.D., Ph.D.
Deputy Director, Centers for Disease Control
and Prevention
Walter R. Dowdle, Ph.D.
Acting Director, Epidemiology Program Office
Barbara R. Holloway, M.P.H.

Editor, *MMWR* Series
Richard A. Goodman, M.D., M.P.H.
Managing Editor, *MMWR* (weekly)
Karen L. Foster, M.A.
Writers-Editors, *MMWR* (weekly)
David C. Johnson
Patricia A. McGee
Darlene D. Rumph-Person
Caran R. Wilbanks

☆U.S. Government Printing Office: 1994-733-131/83060 Region IV