

MMWR™

MORBIDITY AND MORTALITY WEEKLY REPORT

- 437 World No-Tobacco Day—May 31, 2000
- 438 Prevalence of Cigarette Smoking Among Secondary School Students—Budapest, Hungary, 1995 and 1999
- 441 Costs of Smoking Among Active Duty U.S. Air Force Personnel—United States, 1997
- 445 Progress Toward Poliomyelitis Eradication—African Region, 1999–March 2000
- 449 Notice to Readers

World No-Tobacco Day — May 31, 2000

May 31 is World No-Tobacco Day (WNTD) 2000. This year's theme, "Entertainment and Tobacco Promotion—Countering the Deception," intends to raise awareness of the tobacco industry's global marketing practices and to mobilize action to counter the industry's recruitment of new customers through glamorizing tobacco use in films, music, art, and sports. Worldwide, tobacco use will cause an estimated 10 million deaths annually by 2030 (1). Each day, the tobacco industry must recruit 11,000 new users to replace smokers who die (2).

To build global support for tobacco-control measures, the World Health Organization (WHO) has developed the "Tobacco Kills—Don't Be Duped" media initiative. This effort includes distribution of products with the "Bob" image (Figure 1), public service announcements featuring a super model and pop group, and a video with entertainers, artists, and sports figures endorsing antitobacco messages. Local and regional WNTD events will take place around the world, especially in countries where tobacco marketing remains largely unregulated.

FIGURE 1. "Bob" from "Don't Be Duped," No-Tobacco Day Message, 2000



Additional information about World No-Tobacco Day 2000 is available at WHO's World-Wide Web site, <http://www.who.int/toh/media/wntd2000/wntd2000.htm>*, and at CDC's Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion site, <http://www.cdc.gov/tobacco>, or telephone (800) 232-1311.

References

1. World Health Organization. Combating the tobacco epidemic. In: World Health Organization's world health report 1999. Geneva, Switzerland: World Health Organization;1999:65–79.
2. World Health Organization. Tobacco kills—don't be duped. Available at: <http://www.who.int/toh/media/wntd2000/posters.html>. Accessed April 3, 2000.

*References to sites of non-CDC organizations on the World-Wide Web are provided as a service to *MMWR* readers and do not constitute or imply endorsement of these organizations or their programs by CDC or the U.S. Department of Health and Human Services. CDC is not responsible for the content of pages found at these sites.

Prevalence of Cigarette Smoking Among Secondary School Students — Budapest, Hungary, 1995 and 1999

The average per capita cigarette consumption in Hungary is among the highest in the world (World Health Organization [WHO], unpublished data, 1997) (1). In 1999, the Metropolitan Institute of State Public Health and Public Health Officer Service, Budapest, Hungary, collaborating with CDC, conducted a survey of cigarette smoking among secondary school students aged 14–18 years in Budapest (1999 population of Budapest: approximately 2 million), similar to a survey conducted in 1995 (2). This report summarizes the survey findings, which indicate that current smoking among secondary school students in Budapest increased from 36% in 1995 to 46% in 1999.

The objective of the 1999 survey was to compare changes that had occurred since the 1995 survey in the prevalence of current* cigarette smoking, in the factors associated with current cigarette smoking, and in the smoking behaviors of current cigarette smokers (i.e., number of cigarettes smoked per day and number of days smoking occurred on school property). Among the 80,352 secondary school students in Budapest in 1999, 67,253 attended traditional high schools and 13,099 attended vocational/technical schools. Of 222 secondary schools (grades 9–12), 21 traditional high schools and nine vocational/technical schools were selected with a probability proportional to enrollment size. Classrooms in the 30 schools were selected randomly. All selected schools and classrooms agreed to participate, and all students in the selected classrooms were eligible to participate.

From March through May 1999, 2615 (85%) of 3092 eligible students† completed a pretested, standardized questionnaire that included questions about tobacco use translated from the U.S. Youth Risk Behavior Survey (3). Of the 2615 completed surveys, 2434 (93%) were from students aged 14–18 years; 24 (<1.0%) were age 14 years, a number too small for meaningful analysis. Therefore, analysis of data from 1999 was limited to students aged 15–18 years. The 1995 data for students aged 15–18 years were compared with 1999 data using Epi Info version 6.0. Prevalence odds ratios (POR)[§] and 95% confidence intervals (CIs) were calculated using CSAMPLE to account for the complex survey design (4).

Among the 2410 students, 1148 (46.0%) (95% CI=42.4%–49.5%) reported current smoking (Table 1). Prevalence of current smoking among male and female students was similar (44.9% and 46.9%, respectively) (POR=0.9; 95% CI=0.8–1.1). Students aged 18 years were more likely to be current smokers than students aged 15 years (51.8% and 37.2%, respectively) (POR=1.8; 95% CI=1.3–2.6). Prevalence of current smoking was higher among vocational/technical students than traditional high school students (60.2% and 43.1%, respectively) (POR=2.0; 95% CI=1.5–2.6); among students whose friends smoked than those whose friends did not smoke (51.9% and 5.2%, respectively) (POR=19.5; 95% CI=9.8–38.9); among students who reported that they had seen a teacher smoking during the school year than those who had not seen a teacher smoking (47.2% and 35.8%, respectively) (POR=1.6; 95% CI=1.4–1.9); and among students with a family member who smoked than students whose family members did not smoke (51.9% and 36.6%, respectively) (POR=1.9; 95% CI=1.5–2.3). The prevalence of current smoking was

*Smoked on at least 1 day during the 30 days preceding the survey.

† 350 were absent; 127 refused to participate.

§ Used to calculate odds ratios from cross-sectional data; an odds ratio from studies of prevalent rather than incident cases.

*Cigarette Smoking Among Secondary School Students — Continued***TABLE 1. Number and percentage of current* smokers among secondary school students aged 15–18 years, by selected characteristics — Budapest, Hungary, 1995 and 1999**

Characteristic	Sample size [§]	No.	Current smokers			
			1999		1995 [†]	
			%	(95% CI) [¶]	%	(95% CI)
Sex						
Male	1181	558	44.9	(40.0–49.8)	36.7	(31.8–41.7)
Female	1209	586	46.9	(43.2–50.6)	35.2	(30.1–40.3)
Age (yrs)						
15	375	145	37.2	(28.5–45.9)	26.5	(21.7–31.3)
16	664	295	43.0	(38.6–47.4)	35.5	(29.3–41.7)
17	843	424	49.4	(45.9–52.9)	39.4	(35.5–45.3)
18	515	284	51.8	(47.3–56.3)	47.9	(42.1–53.6)
Grade						
9	548	234	40.9	(33.0–48.8)	34.0	(28.5–39.7)
10	764	366	45.5	(40.9–50.2)	32.8	(28.5–37.1)
11	733	376	50.1	(45.3–54.8)	41.9	(36.6–47.2)
12	333	159	47.2	(42.4–51.9)	36.1	(29.0–43.1)
School type						
Vocational/Technical	680	409	60.2	(55.2–65.2)	54.2	(47.7–60.5)
Traditional high school	1717	739	43.1	(39.0–47.3)	31.5	(27.1–36.0)
Total	2410	1148	46.0	(42.4–49.5)	35.9	(32.0–39.8)

*Smoked a cigarette on at least 1 day of the preceding 30 days.

[†] Reference 2. The survey consists of 942 students who indicated that they were current smokers aged 15–18 years.

[§] For some characteristics, the sample size does not equal 2410 because of missing data.

[¶] Confidence interval.

similar among students who discussed issues related to smoking and health in any of their classes and those who did not receive such instruction (44.8% and 48.6%, respectively) (POR=0.9; 95% CI=0.7–1.1). Among students who were current smokers, 23.5% smoked ≥ 11 cigarettes on the days that they smoked, 46.7% smoked daily, and 36.9% smoked on school property on ≥ 10 days during the preceding month.

From 1995 to 1999, current smoking increased among female students (35.2% versus 46.9%), 17-year-old students (39.4% versus 49.4%), 10th graders (32.8% versus 45.5%), and traditional high school students (31.5% versus 43.1%). Although the prevalence of daily smoking was similar among male and female students in 1999 (46.2% and 46.4%, respectively), daily smoking among female students increased from 32% in 1995 while the rate for male students remained stable. The percentage of secondary school students in Budapest who smoked ≥ 11 cigarettes per day during the preceding month increased from 1995 to 1999 (Table 2).

Reported by: É Kiss, MD, Div of Health Promotion and Protection; F Ferenczi, E Végh, MD, Dept of Child and Youth Health, Div of Health Promotion and Protection; K Lun, MD, Metropolitan Institute of State Public Health and Public Health Officer Svc, Budapest, Republic of Hungary. Epidemiology Br, Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion; and an EIS Officer, CDC.

Editorial Note: The survey findings indicate that the prevalence of current cigarette smoking among secondary school students aged 15–18 years in Budapest increased

*Cigarette Smoking Among Secondary School Students — Continued***TABLE 2. Number and percentage of secondary school students aged 15–18 years who were current* smokers, by selected characteristics — Budapest, Hungary, 1995 and 1999†**

Characteristic	No.‡	Current smokers			
		1999		1995§	
		(%)	(95%CI**)	(%)	(95%CI)
No. cigarettes smoked per day					
1	205	19.8	(16.1–23.4)	22.9	(20.3–25.4)
2–10	629	56.7	(52.8–60.7)	59.6	(56.1–63.1)
≥11	294	23.5	(20.9–26.2)	17.5	(15.5–19.5)
No. days used per month					
1–2	171	16.1	(12.9–19.3)	20.2	(18.0–22.4)
3–9	158	14.6	(12.0–17.2)	14.7	(11.7–17.6)
10–29	257	22.6	(20.2–25.0)	26.6	(22.9–30.4)
≥30	562	46.7	(42.6–50.7)	38.5	(34.1–43.0)
No. days used on school property per month					
0	459	43.2	(37.6–48.8)	48.6	(41.6–55.6)
1–2	104	8.7	(6.5–10.9)	10.4	(8.5–12.2)
3–9	143	11.2	(8.3–14.0)	11.1	(8.8–13.3)
≥10	440	36.9	(33.4–40.5)	30.0	(23.9–36.1)

* Smoked a cigarette on at least 1 day of the preceding 30 days.

† n=1148.

§ Reference 2. The survey consisted of 942 students who indicated that they were current smokers aged 15–18 years.

¶ For each characteristic, the sample size does not equal 1148 because of missing data.

**Confidence interval.

significantly from 1995 to 1999. In 1999, the prevalence of current smoking among adolescents aged 15 years was 37.2%. This finding is consistent with smoking rates among adolescents aged 13–15 years during 1999 in the Russian Federation, Moscow, where 33.4% were current smokers (5). The estimated 46% smoking prevalence for students in Budapest in 1999 is higher than the estimated 28.4% prevalence for U.S. high school students (grades 9–12) who participated in the 1999 National Youth Tobacco Survey (6).

In 1999, the Hungarian Parliament passed stronger legislation to enforce restrictions on smoking in the workplace and other public places. However, factors that may have contributed to the increased prevalence of smoking among youth in Budapest include a lack of regulation of the sale of cigarettes to minors until 1999 (T. Szilágyi, Health 21 Hungarian Foundation, personal communication, 2000), fewer advertising restrictions since 1997, free distribution of cigarette samples, weak health warnings, availability of contraband cigarettes, low fines for advertising violations, and lack of enforcement of existing regulations (7).

The findings in this report are subject to at least one important limitation. These data apply only to youth who attended secondary school and are not representative of all persons in this age group (e.g., secondary school students who dropped out and approximately 80% of gypsy children who do not attend secondary school) (7).

To better understand increasing prevalence rates of smoking among youth in Budapest and other central and eastern European countries, national health agencies must expand and evaluate tobacco prevention efforts and continue surveillance of trends in tobacco use among youth. The Global Youth Tobacco Survey (GYTS), sponsored by WHO's Tobacco Free Initiative (8) and CDC, will be conducted in Budapest by the end of

Cigarette Smoking Among Secondary School Students — Continued

2000 and throughout Hungary in 2001. GYTS will evaluate a wide range of variables, including knowledge and attitudes about tobacco, exposure to environmental tobacco smoke, familiarity with prosmoking and antismoking media messages, and exposure to tobacco-use prevention curricula in schools. These efforts, along with Hungary's development of a plan for tobacco control as part of the Framework Convention on Tobacco Control (8), are important steps in curbing the increase in smoking among secondary school students in Hungary.

References

1. World Tobacco Marketfile. Emerging markets in central and eastern Europe. Available at <http://www.marketfile.co.uk/tobacco>. Accessed March 2000.
2. CDC. Prevalence of cigarette smoking among secondary school students—Budapest, Hungary, 1995. *MMWR* 1997;46:56–9.
3. CDC. Youth risk behavior survey—United States, 1997. *MMWR* 1998;47(no. SS-3).
4. Dean AG, Dean JA, Coulombier D, et al. Epi Info, version 6: a word processing, database, and statistics program for public health on IBM-compatible microcomputers. Atlanta, Georgia: US Department of Health and Human Services, CDC, 1996.
5. Canadian Public Health Association. Tobacco, smoking and youth. *CPHA Health Digest* April 1999;23:1–8.
6. CDC. Tobacco use among middle and high school students—United States, 1999. *MMWR* 2000;49:49–53.
7. Kézdi G. Secondary school education of Roma youngsters. In: Hungarian Academy of Sciences, ed. *Gypsies in Hungary*. Budapest, Hungary: Hungarian Academy of Sciences, 1999.
8. World Health Organization. *The world health report 1999—making a difference. Combating the tobacco epidemic*. Geneva, Switzerland: World Health Organization, 1999.

Costs of Smoking Among Active Duty U.S. Air Force Personnel — United States, 1997

Smoking is the leading cause of preventable disease and death in the United States (1). The health consequences of smoking impose a substantial economic toll on persons, employers, and society. Smoking accounts for \$50–\$73 billion in annual medical-care expenditures, or 6%–12% of all U.S. medical costs (2–5). The costs associated with lost productivity also are extensive (2). In 1997, approximately 25% of male and 27% of female active duty Air Force (ADAF) personnel aged 17–64 years were smokers (6). A 1997 retrospective cohort study was conducted among ADAF personnel to estimate the short-term medical and lost productivity costs of current smoking to the U.S. Air Force (USAF). This report summarizes the results of the study, which indicate that current smoking costs the USAF approximately \$107.2 million per year: \$20 million from medical-care expenditures and \$87 million from lost workdays.

Study participants completed a health assessment survey and were followed for 1 year; then researchers calculated participants' use of medical care and health-related lost work time (i.e., time spent on smoke breaks, days spent in the hospital, and time away from duty station for outpatient clinic visits). Total expenditures among current smokers and never smokers were used to compute population-attributable fractions (PAFs) (i.e., the fraction of expenditures attributable to ADAF members who currently smoked). Data were collected from 5164 active duty TRICARE Prime enrollees aged 17–64 years in Arkansas, Louisiana, Oklahoma, and Texas who completed the Health

Costs of Smoking — Continued

Enrollment Assessment Review (HEAR) survey during September–December 1996, and who remained enrolled in the health plan the year following the HEAR survey. The HEAR instrument is a voluntary survey given to all TRICARE Prime enrollees. Self-reported demographic data were obtained by written questionnaires from the Air Force personnel system; smoking status, weekly alcohol consumption, frequency of aerobic exercise, and body mass index data also were obtained through self-administered questionnaires from HEAR (Table 1) (7). Respondents were classified as current, former, or never smokers*. Results for former smokers were not included in this study. Inpatient and outpatient visits, clinical diagnoses, bed days, and encounter costs were obtained from the Corporate Executive Information System (CEIS) and the TRICARE Management Activity. Prevalence estimates of all currently smoking ADAF personnel during 1997 were based on a linear interpolation of results from the 1995 and 1998 U.S. Department of Defense (DoD) Survey of Health Related Behaviors Among Military Personnel† (6–8). Prevalence estimates in the DoD survey were 22% and 49% higher than HEAR among men and women, respectively. The DoD survey of risk behaviors is anonymous and is assumed to reflect current smoking in the ADAF population more accurately than the HEAR survey, which is not anonymous.

*HEAR defined current smokers as those who, at the time of the interview, smoked cigarettes every day or some days, and former smokers as those who currently did not smoke but had smoked in the past.

† The DoD survey defined current smokers as those who had smoked ≥ 100 cigarettes during their lifetime and smoked within the 30 days preceding the survey, former smokers as those who had smoked ≥ 100 cigarettes during their lifetime but had not smoked within the 30 days preceding the survey, and never smokers as those who had smoked < 100 cigarettes during their lifetime.

TABLE 1. Characteristics of study cohort and all active duty Air Force (ADAF) personnel and current smoking-attributable costs among ADAF personnel — United States, 1997*

Characteristic	Men		Women		ADAF
	Cohort	All	Cohort	All	
Age (yrs) [†]	31.9	30.4	30.9	28.2	
Race					
White	70.5%	78.4%	62.1%	67.7%	
Black	12.2%	13.5%	18.0%	22.8%	
Other [‡]	17.3%	8.1%	19.9%	9.5%	
Current smoker	20.9%	25.5%	18.0%	26.8%	
Type of cost [¶]					
Smoking-attributable direct medical costs		\$18,442,979		\$1,655,360	\$20,098,339
Smoking-attributable expenditures		7.7%		1.5%	5.8%
Smoking-attributable productivity** costs		\$75,989,629		\$11,153,087	\$87,142,716
Lost FTEs ^{††}		2,957		615	3,573

* Age and race data for all ADAF personnel supplied by Air Force Personnel Center, Randolph Air Force Base, Texas.

† Mean.

‡ Includes Hispanics, Asians/Pacific Islanders, and American Indians/Alaska Natives.

¶ Based on 1995 and 1998 ADAF estimates from the U.S. Department of Defense Survey of Health Related Behaviors Among Military Personnel.

**Time lost spent on breaks, days spent in the hospital, and time away from duty station for outpatient clinic visits.

†† Full-time equivalents (i.e., the amount of time worked by one ADAF member in 1 year).

Costs of Smoking — Continued

An empirical model was used to compare medical-care expenditures and lost work time among current smokers and never smokers. Men and women were modeled separately because of the influence of pregnancy-related events. A log-linear Poisson regression model was used to compare the rates of accumulating medical-care costs. Sex-specific rate ratios (RRs) were adjusted for age, race, weekly alcohol consumption, frequency of aerobic exercise, and body mass index. Adjusted RRs from HEAR were combined with current smoking prevalence data from the DoD survey to estimate PAFs of expenditures associated with current smoking for all ADAF personnel. The use of two distinct datasets in the PAF formula precluded computing confidence intervals (CIs). The average margin of error (one half the width of the CI around the mean) was $\pm 3.6\%$ for the RR estimates and $\pm 4.1\%$ for the prevalence estimates. The RR margins of error and smoking prevalence estimates indicate the overall stability of the PAFs. Smoking-attributable expenditures (SAEs) among men and women were calculated by multiplying the PAFs by total medical-care costs for each sex. Total medical-care costs for all ADAF personnel were \$347 million and were estimated by using CEIS data to extrapolate the sex-specific medical-care costs for the study cohort to the entire ADAF population. Productivity costs were estimated using 1996 age-specific and sex-specific salary and benefit data among ADAF personnel. Hospital days, outpatient clinic visit time, and excess break time for current smokers were included; nonhospital sick days were excluded.

Smoking-attributable medical-care costs for ADAF personnel were approximately \$20 million (Table 1), representing approximately 6% of the total annual Air Force medical system expenditures. In 1997, current smoking was associated with 893,128 lost workdays: 739,374 among men and 153,755 among women. Assuming 250 workdays per year, this lost work time represents a loss of approximately 3573 full-time equivalent positions (FTEs) in 1997: 2957 among men and 615 among women. Lost workdays represent approximately \$87 million in annual productivity losses: \$76 million among men and \$11 million among women.

Reported by: AS Robbins, MD, SY Chao, MS, GA Coil, MPH, VP Fonseca, MD, Office for Prevention and Health Svcs Assessment, Air Force Medical Operations Agency, Brooks Air Force Base, Texas. Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.

Editorial Note: Current smoking among ADAF personnel is associated with large medical expenditures and lost productivity each year, particularly among men. The 6% SAF of medical expenditures is within the 6%–12% range of recent SAF estimates of total U.S. medical costs (2–5). DoD estimated that current smoking among all U.S. military health system beneficiaries cost the DoD an estimated \$930 million in 1995: \$584 million in annual health care expenditures and \$346 million in lost productivity (9). Among ADAF personnel, smoking-attributable productivity losses were more than four times the cost of medical care: 6.7 times among women and 4.1 times among men. The number of lost FTEs is larger than the number of FTEs on active duty at 35 (40%) of 87 USAF installations.

The findings in this report differ from previous cost-of-smoking estimates because the study population in this report excludes persons aged ≥ 65 years; the costs for former smokers were excluded. Consequently, medical costs among this younger population are a much smaller percentage of total smoking-attributable costs than in other studies (2,3). The exclusion of results for former smokers also lowers the costs of smoking estimates for women compared with men. Pregnancy-related events were a large portion of health-care use among ADAF women. Because a substantial proportion of women

Costs of Smoking — Continued

quit smoking during pregnancy and many others conceal their smoking status during pregnancy (10), the SAEs PAFs among women who are classified as current smokers may be artificially low; this may account for the lower costs of smoking for women relative to men. In 1993, smoking-attributable medical costs for the United States were approximately 51% lower for women than men (4).

The findings in this report are subject to at least four limitations. First, the study cohort may not be representative of all ADAF personnel. Second, study participants knew their HEAR survey responses would become part of their medical record. This might have reduced the rate of self-reported smoking and other risk behaviors when compared with anonymous ADAF surveys (6–8); however, anonymity may be only one factor influencing differences in reported risk behaviors. Third, the medical-care costs and productivity losses of former smokers were not included. Finally, the study excluded lost productivity on days that ADAF personnel were on convalescent leave or confined to quarters; a large number of work days may have been missed because of less severe illnesses that did not require hospitalization. Limitations two, three, and four may underestimate the costs of smoking among ADAF personnel.

These results support USAF and DoD efforts to decrease the prevalence of smoking among ADAF personnel. Smoking-attributable lost work time is particularly important for USAF operational commanders because it adversely affects military readiness; however, the impact of smoking on productivity also is relevant to civilian employers. The prevalence of smoking among ADAF members is approximately the same as among the U.S. population aged 18–64 years (1). However, because of physical training requirements, smokers in the ADAF population are probably healthier than smokers in the civilian population. If so, average productivity losses to civilian employers could be larger than those found in this military group. Costs related to tobacco use are largely preventable. Implementing comprehensive tobacco-control programs remains an effective way to reduce associated medical and productivity losses.

References

1. CDC. Tobacco use—United States, 1900–1999. *MMWR* 1999;48:986–93.
2. Rice DP, Hodgson TA, Sinsheimer P, Browner W, Kopstein AN. The economic costs of the health effects of smoking, 1984. *Milbank Q* 1986;64:489–547.
3. CDC. Medical-care expenditures attributable to cigarette smoking—United States, 1993. *MMWR* 1994;43:469–72.
4. Miller VP, Ernst C, Collin F. Smoking-attributable medical care costs in the USA. *Soc Sci Med* 1999;48:375–91.
5. Miller LS, Zhang X, Rice DP, Max W. State estimates of total medical expenditures attributable to cigarette smoking, 1993. *Public Health Reports* 1998;113:447–58.
6. Bray RM, Sanchez RP, Ornstein ML, et al. 1998 Department of Defense Survey of Health Related Behaviors Among Military Personnel. Research Triangle Park, North Carolina: Research Triangle Institute, 1999.
7. US Air Force Office for Prevention and Health Services Assessment. Health Enrollment Assessment Review 1.0 (HEAR) High Resource Utilization (HRU) Validation Study: final report. Washington, DC: Report for the Air Force Medical Operations Agency, January 1999.
8. Bray RM, Kroutil LA, Wheeless SC, et al. 1995 Department of Defense Survey of Health Related Behaviors Among Military Personnel. Research Triangle Park, North Carolina: Research Triangle Institute, 1995.
9. Helyer AJ, Brehm WT, Perino L. Economic consequences of tobacco use for the Department of Defense, 1995. *Mil Med* 1998;163:217–21.

Costs of Smoking — Continued

10. Kendrick JS, Zahniser SC, Miller N, et al. Integrating smoking cessation into routine public prenatal care: the smoking cessation in pregnancy project. *Am J Public Health* 1995;85:217–22.

Progress Toward Poliomyelitis Eradication — African Region, 1999–March 2000

In 1988, the World Health Assembly resolved to eradicate poliomyelitis globally by 2000 (1). The African Region (AFR) of the World Health Organization (WHO) began implementing polio eradication strategies in 1996, including National Immunization Days (NIDs*) and acute flaccid paralysis (AFP) surveillance (2,3). This report summarizes progress toward polio eradication in AFR during 1999–March 2000, and suggests that although substantial progress has been reported toward interrupting poliovirus transmission in eastern and southern Africa, poliovirus remains endemic in other African countries in west and central Africa, especially among those experiencing internal strife or civil war.

Routine vaccination

AFR includes 48 countries and territories and is divided geographically into five major epidemiologic blocks: eastern, western, southern, central, and countries in special situations. Reported regional coverage with three doses of oral poliovirus vaccine (OPV3) among children aged 1 year was approximately 55% in 1999 and has remained relatively stable since 1990. OPV3 coverage by country ranged from 65%–75% in the eastern and southern blocks, 50%–55% in the western block, and approximately 40% in the central block. Coverage was lower (approximately 30%) among countries in difficult circumstances (e.g., Angola, Democratic Republic of Congo [DR Congo], and Ethiopia).

Supplemental vaccination

From January 1999 through March 2000, two or more rounds of NIDs or Subnational Immunization Days (SNIDs) were conducted in all 35 (73%) countries and territories of the region where polio is either endemic (20 countries) or was considered endemic until recently (15). An estimated 133 million children received at least two supplemental doses of OPV during 1999, representing a 50% increase over the number of children reached in similar campaigns in 1998. NIDs coverage was reported to be >80% in all countries, with the exception of Sierra Leone (76%) and Congo Brazzaville (55%). Countries conducting SNIDs (predominantly eastern and southern block countries) reported coverage >80%.

To accelerate progress toward eradication, intensified NIDs were conducted in nine countries in the region (Angola, Benin, Chad, DR Congo, Guinea-Bissau, Liberia, Niger, Nigeria, and Sierra Leone) during 1999. Intensified NIDs consisted of either additional rounds or administering the vaccine house-to-house. DR Congo conducted three rounds of NIDs during July–September 1999 and reported coverage rates of 81%, 91%, and 80% for the first, second, and third rounds, respectively (4). Nigeria targeted 13 million children residing in 15 (35%) of 37 states during April–May 1999; all OPV doses were

*Nationwide mass campaigns over a short period (days to weeks), in which two doses of oral poliovirus vaccine are administered to all children in the target age group (usually aged <5 years), regardless of vaccination history, with an interval of 4–6 weeks between doses.

Poliomyelitis Eradication — Continued

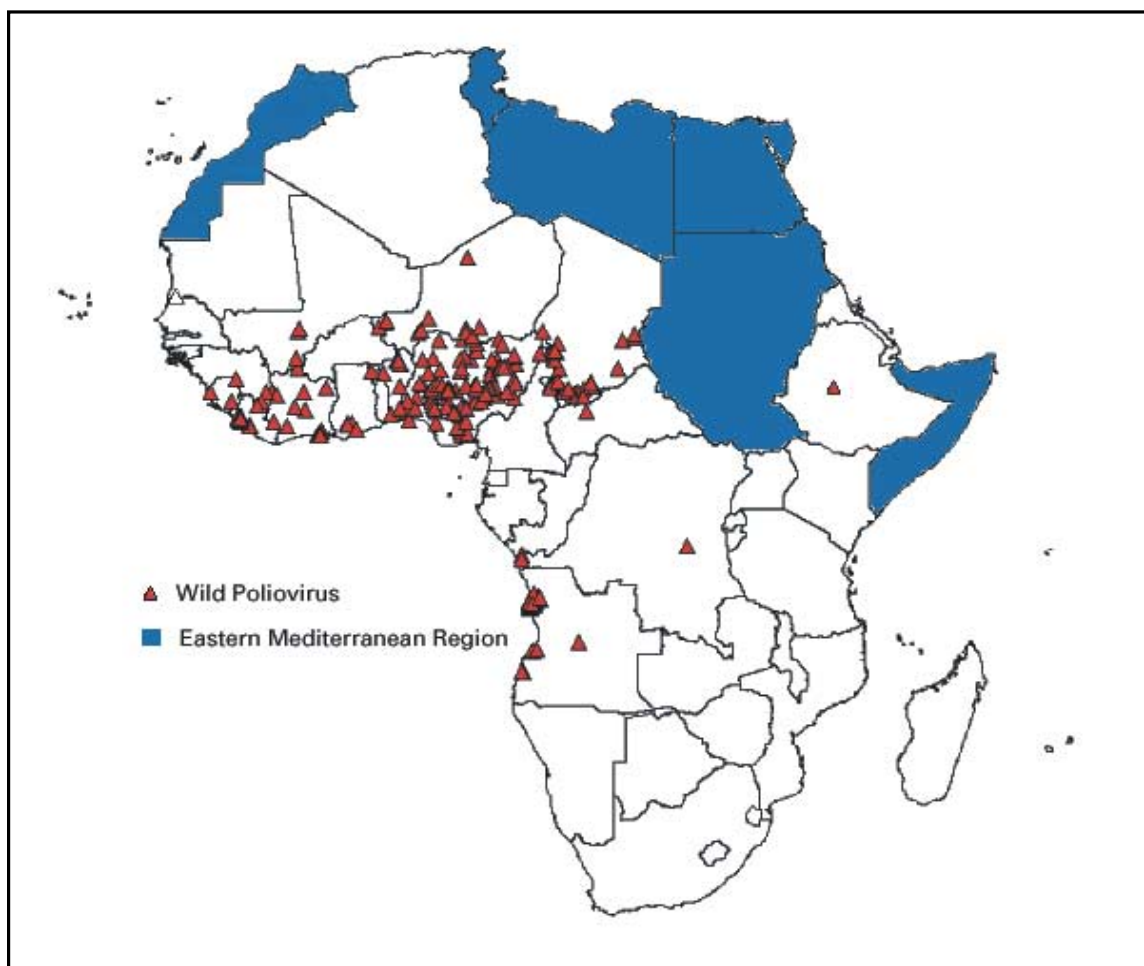
administered in house-to-house vaccination campaigns. This effort reached 10%–40% more children in each state than had been reported from previous NID rounds (5). SNIDs also were conducted in the capitals of Central African Republic (Bangui) and Burkina Faso (Ouagadougou) in May and June 1999.

AFP surveillance

AFP surveillance improved rapidly in AFR during 1999; 4999 AFP cases were reported in 1999 compared with 1754 in 1998, an increase of nearly 200%. The nonpolio AFP rate more than doubled from 0.3 cases per 100,000 children aged <15 years in 1998 to 0.8 in 1999 (target: ≥ 1 nonpolio AFP case per 100,000 population aged <15 years) (Table 1). However, the proportion of AFP cases with two stool specimens collected within 14 days of onset of paralysis declined from 35% in 1998 to 31% in 1999. Of the 15 polio laboratories in the region, 13 were accredited during 1999, and all stool specimens were processed in accredited network laboratories.

Impact on poliovirus transmission

In 1999, wild poliovirus was isolated from 238 AFP case-patients residing in 16 AFR countries, mainly in central and western Africa and Angola (Figure 1). Angola experienced the largest polio outbreak ever recorded in Africa with 1093 cases and 89 deaths

FIGURE 1. Reported wild poliovirus — African Region, World Health Organization, 1999

*Poliomyelitis Eradication — Continued***TABLE 1. Performance indicators for acute flaccid paralysis (AFP) surveillance, by country — African Region, World Health Organization, 1998 and 1999**

Block/ Country	1998				1999			
	No. AFP cases	Nonpolio AFP rate*	% Cases with adequate specimens†	Confirmed polio (Wild virus)	No. AFP cases	Nonpolio AFP rate	% Cases with adequate specimens	Confirmed polio (Wild virus)
Central								
Cameroon	40	0.4	60%	16 (0)	95	1.5	74%	1 (1)
C. African								
Republic	59	3.3	41%	6 (2)	38	1.3	43%	18 (1)
Chad	12	0.3	83%	4 (4)	156	1.6	38%	109 (35)
Congo	0				11	0.8	100%	2 (0)
Equatorial Guinea	0				1	0.0	0	1 (0)
Gabon	1	0.2	100%	0 (0)	2	0.3	50%	0 (0)
Western								
Algeria	88	0.8	75%	0 (0)	78	0.5	47%	10 (0)
Benin	15	0.3	67%	8 (3)	71	1.4	42%	37 (8)
Burkina Faso	12	0.1	50%	8 (4)	53	0.9	26%	5 (0)
Gambia	0				0	0.0	0	0 (0)
Ghana	154	0.5	30%	112 (18)	114	1.4	50%	3 (3)
Guinea	7	0.1	43%	4 (0)	51	0.9	43%	22 (3)
Guinea-Bissau	0				0	0.0	0	0 (0)
Côte d'Ivoire	71	0.4	42%	38 (11)	144	1.8	60%	9 (9)
Liberia	0				75	2.4	36%	42 (11)
Mali	23	0.2	30%	14 (2)	43	0.4	51%	22 (4)
Mauritania	0				13	0.6	31%	6 (0)
Niger	12	0.1	50%	8 (4)	110	1.1	44%	56 (10)
Senegal	17	0.2	39%	10 (2)	65	1.5	58%	0 (0)
Sierra Leone	3	<0.1	0	3 (0)	24	0.5	33%	14 (2)
Togo	10	0.2	60%	5 (1)	36	1.5	58%	1 (1)
Southern								
Botswana	5	0.7	80%	0 (0)	11	1.6	45%	0 (0)
Lesotho	5	0.2	40%	3 (0)	12	1.3	75%	0 (0)
Madagascar	17	0.2	53%	6 (0)	28	0.4	52%	0 (0)
Malawi	28	0.5	79%	5 (0)	22	0.4	73%	0 (0)
Mozambique	16	0.1	56%	7 (0)	32	0.4	22%	0 (0)
Namibia	11	1.3	64%	2 (0)	16	1.9	6%	3 (0)
South Africa	167	0.4	13%	104 (0)	147	1.0	29%	4 (0)
Swaziland	5	1.3	60%	0 (0)	5	1.3	80%	0 (0)
Zimbabwe	51	0.7	43%	17 (0)	57	1.1	42%	2 (0)
Eastern								
Burundi	0				16	0.5	94%	1 (0)
Eritrea	0				12	0.3	38%	7 (0)
Kenya	123	0.1	8%	109 (0)	270	0.8	41%	63 (0)
Rwanda	2	0.1	0	2 (0)	45	0.5	38%	28 (0)
Tanzania	127	0.4	48%	66 (0)	199	1.3	71%	0 (0)
Uganda	61	0.1	23%	46 (0)	187	1.8	49%	0 (0)
Zambia	23	0.4	39%	6 (0)	68	0.8	41%	30 (0)
Special Situation								
Angola	16	0.1	56%	7 (3)	1176	1.2	7%	1103 (53)
DR Congo	21	0.1	52%	10 (0)	84	0.2	43%	45 (1)
Ethiopia	63	0.1	13%	55 (0)	189	0.2	24%	132 (1)
Nigeria	489	0.4	39%	312 (42)	1242	0.5	26%	981 (95)
Total	1754	0.3	39%	993 (96)	4999	0.8	31%	2856 (238)

* Per 100,000 children aged <15 years.

† Two stool specimens collected at an interval of at least 24 hours within 14 days of onset of paralysis and adequately shipped to the laboratory.

Polioomyelitis Eradication — Continued

(6). Wild poliovirus circulation was detected in stool specimens from AFP cases in Nigeria (95), Angola (53), Chad (35), Liberia (11), Niger (10), Côte d'Ivoire (nine), and Benin (eight). Wild poliovirus also was detected in Cameroon, Central African Republic, DR Congo, Ethiopia, Ghana, Guinea, Mali, Sierra Leone, and Togo. No wild poliovirus was detected in southern Africa.

Reported by: Expanded Program on Immunization, World Health Organization Regional Office for Africa, Harare, Zimbabwe; Vaccines and Biologicals Div, World Health Organization, Geneva, Switzerland. Respiratory and Enteric Viruses Br, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; Vaccine Preventable Disease Eradication Div, National Immunization Program, CDC.

Editorial Note: Intensified efforts to achieve polio eradication were implemented in the remaining countries of AFR where polio is endemic during 1999. Specific actions to improve the quality of supplemental vaccination campaigns (NIDs and SNIDs) included 1) intensified NIDs using the house-to-house strategy; 2) increased provision of technical assistance (e.g., logisticians, epidemiologists, and social mobilization experts); 3) dissemination of guidelines to achieve quality NIDs; and 4) synchronization of NIDs among countries having contiguous borders, including special cross-border coordination strategies. In addition, SNIDs were implemented in at least two countries, and special attention was given to improving the quality and geographic coverage of AFP surveillance.

Serious constraints to improving the quality and the geographic coverage of NIDs persisted in 1999. Wars, civil unrest, and political instability made it impossible to reach all unvaccinated children in certain countries during NIDs (Angola, Congo Brazzaville, DR Congo, Nigeria, and Sierra Leone). In October and November of 1999, the global shortfall in the OPV supply made it necessary to postpone NIDs in Burkina Faso, Chad, Ghana, Kenya, Niger, Sierra Leone, and Togo. In addition, some countries received OPV without vaccine vial monitors.

Although AFP surveillance has improved substantially from 1998 to 1999, further improvements are needed to increase the nonpolio AFP rate from 0.8 to the standard threshold of ≥ 1.0 , indicating a sensitive surveillance system. The stool collection rate remains low in AFR. Although some of the decrease in the collection rate during 1998–1999 may be because not all cases associated with the 1999 Angola outbreak needed to be virologically confirmed, stool collection rates in the region did not increase in 1999.

Wild poliovirus is assumed to circulate in Sierra Leone and Congo Brazzaville, but surveillance was not operating for most of 1999 in these countries. In addition, the quality of surveillance is inadequate to determine whether wild poliovirus transmission continues in Madagascar, Malawi, and Mozambique. These three countries have low routine vaccination coverage and no longer conduct supplementary vaccination activities.

Efforts to improve the quality of AFP surveillance in 1999 and early 2000 include 1) increased funding for AFP surveillance; 2) expansion of active surveillance to the provincial level; and 3) provision of additional technical support for AFP surveillance through the Stop Transmission of Polio (STOP) Initiative in Chad, DR Congo, Ghana, Guinea, Kenya, Niger, Nigeria, and Uganda.

Although indigenous wild poliovirus is virtually absent in southern and eastern Africa and wild poliovirus circulation has declined to low levels in the some parts of west Africa, countries with intense circulation of wild poliovirus, including Angola, Chad, DR Congo, Ethiopia, Nigeria, and Sierra Leone, pose a risk for delaying global polio eradication. The remaining major challenges to polio eradication in AFR are 1) conducting high-quality

Poliomyelitis Eradication — Continued

supplemental vaccination activities and additional rounds and mopping-up activities where indicated, with emphasis on reaching previously unvaccinated children; 2) gaining access to all children in countries affected by conflict (e.g., Angola, Congo Brazzaville, DR Congo, and Sierra Leone); 3) assuring adequate quantities of potent OPV vaccines for routine and supplemental vaccination activities; 4) addressing basic routine EPI infrastructure in Angola, DR Congo, Liberia, Nigeria, and Sierra Leone; 5) filling the shortfall in funding[†] for polio eradication in AFR; and 6) rapidly improving the quality of AFP surveillance.

References

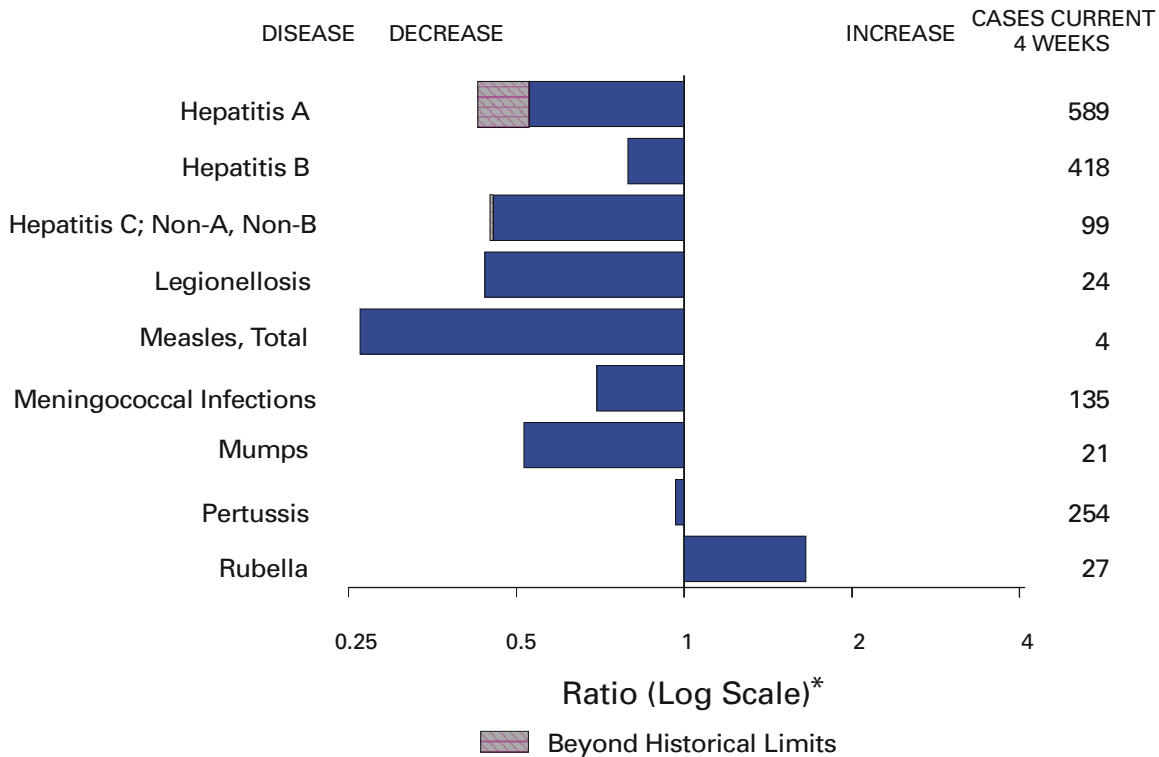
1. World Health Assembly. Global eradication of poliomyelitis by the year 2000: resolution of the 41st World Health Assembly. Geneva, Switzerland: World Health Organization, 1988 (Resolution WHA 41.28).
2. Regional Committee for Africa. Expanded Program on Immunization: disease control goals, the countdown has started—resolutions of the 45th Regional Committee for Africa. Brazzaville, Congo: World Health Organization, 1995 (Resolution AFR/RC45/R5).
3. Organization of African Unity. Yaounde declaration on polio eradication in Africa. In: Proceedings of the 32nd Ordinary Session of the Organization of African Unity meeting. Yaounde, Cameroon: Organization of African Unity, 1996 (AHG/Declaration 1 [XXXII]).
4. CDC. Progress toward poliomyelitis eradication—Democratic Republic of Congo, 1996–1999. *MMWR* 2000;49:253–8.
5. CDC. Progress toward poliomyelitis eradication—Nigeria, 1996–1998. *MMWR* 1999;48:312–6.
6. Valente F, Otten M, Balbina F, et al. Massive outbreak of poliomyelitis caused by type-3 wild poliovirus in Angola in 1999. *Bull WHO* 2000;78:339–46.

[†] The polio eradication initiative in AFR is supported by AFR member countries. External funding is provided by Rotary International, United Nations Children's Fund, the governments of Canada, United States, United Kingdom, Norway, and Belgium, the United Nations Foundation, the Gates Foundation, the De Beers Corporation, WHO, and CDC.

*Notice to Readers***Satellite Broadcast on Preparing for the Next Influenza Pandemic**

A Public Health Training Network (PHTN) satellite broadcast titled "Update: Preparing for the Next Influenza Pandemic," is scheduled for July 13, 2000, from 9 to 11 a.m. and rebroadcast from 1 to 3 p.m. eastern time. This broadcast will update local, state, and national plans; describe the integration of local, state, and federal partners in pandemic influenza planning; and describe roles for antiviral drug use and triage and infection control measures. Additional information is available on the World-Wide Web at <http://www.cdc.gov/phtn/pandemic/pandemicflu.htm>, by telephone at (404) 639-8799, or by e-mail at cwilkins@cdc.gov. This program is a production of the PHTN and CDC's National Immunization Program and National Vaccine Program Office.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending May 20, 2000, with historical data



*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 of provisional cases of selected notifiable diseases, United States, cumulative, week ending May 20, 2000 (20th Week)

	Cum. 2000		Cum. 2000
Anthrax	-	HIV infection, pediatric**	86
Brucellosis*	15	Plague	2
Cholera	-	Poliomyelitis, paralytic	-
Congenital rubella syndrome	4	Psittacosis*	5
Cyclosporiasis*	6	Rabies, human	-
Diphtheria	-	Rocky Mountain spotted fever (RMSF)	52
Encephalitis: California serogroup viral*	2	Streptococcal disease, invasive, group A	1,205
eastern equine*	-	Streptococcal toxic-shock syndrome*	43
St. Louis*	-	Syphilis, congenital†	38
western equine*	-	Tetanus	8
Ehrlichiosis human granulocytic (HGE)*	26	Toxic-shock syndrome	52
human monocytic (HME)*	3	Trichinosis	4
Hansen disease (leprosy)*	14	Typhoid fever	103
Hantavirus pulmonary syndrome*†	4	Yellow fever	-
Hemolytic uremic syndrome, postdiarrheal*	31		

-: No reported cases.

*Not notifiable in all states.

† Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).

‡ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP). Last update April 30, 2000.

§ Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending May 20, 2000, and May 22, 1999 (20th Week)

Reporting Area	AIDS		Chlamydia [†]		Cryptosporidiosis		Escherichia coli O157:H7*			
	Cum. 2000 [‡]	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	NETSS		PHLIS	
							Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	13,355	16,929	210,632	255,327	422	616	587	484	357	416
NEW ENGLAND	802	895	8,247	8,058	21	32	56	78	56	72
Maine	14	15	516	276	5	4	4	4	3	-
N.H.	11	25	399	409	2	4	5	8	4	10
Vt.	2	6	202	197	9	6	2	8	2	1
Mass.	535	614	3,903	3,465	3	15	23	35	26	32
R.I.	34	52	906	892	2	-	-	4	-	6
Conn.	206	183	2,321	2,819	-	3	22	19	21	23
MID. ATLANTIC	3,280	4,308	12,365	30,219	38	142	72	33	53	22
Upstate N.Y.	186	529	N	N	28	39	68	25	40	2
N.Y. City	1,943	2,108	2,188	14,560	5	84	3	2	-	-
N.J.	703	846	2,337	4,844	1	11	1	6	8	20
Pa.	448	825	7,840	10,815	4	8	N	N	5	-
E.N. CENTRAL	1,310	1,142	35,606	39,727	84	110	102	89	35	70
Ohio	194	186	8,300	11,801	19	16	20	33	11	22
Ind.	100	146	4,425	4,525	7	8	19	14	9	11
Ill.	809	505	10,099	10,893	4	17	30	23	-	18
Mich.	153	248	9,245	8,495	14	16	16	19	11	13
Wis.	54	57	3,537	4,013	40	53	17	N	4	6
W.N. CENTRAL	299	298	12,545	14,728	35	35	110	85	65	84
Minn.	55	45	2,319	2,969	4	13	29	22	30	23
Iowa	26	37	1,675	1,615	11	7	18	9	4	3
Mo.	139	105	4,764	5,392	8	4	37	8	17	10
N. Dak.	-	4	61	352	2	3	6	3	4	2
S. Dak.	3	11	664	647	3	2	2	3	2	5
Nebr.	20	24	1,049	1,365	5	5	11	33	5	41
Kans.	56	72	2,013	2,388	2	1	7	7	3	-
S. ATLANTIC	3,641	4,706	44,205	54,819	86	108	53	54	26	37
Del.	65	50	1,143	1,104	2	-	-	3	-	-
Md.	392	561	4,515	5,184	5	6	8	4	1	-
D.C.	264	161	1,280	N	-	4	-	-	U	U
Va.	278	263	5,940	5,542	3	6	12	15	10	12
W. Va.	21	24	753	715	-	-	2	1	2	1
N.C.	195	358	7,913	8,903	8	1	9	10	2	10
S.C.	294	473	3,508	7,796	-	-	3	6	1	5
Ga.	357	588	7,016	13,865	50	67	5	3	5	U
Fla.	1,775	2,228	12,137	11,710	18	24	14	12	5	9
E.S. CENTRAL	639	713	18,770	17,073	19	6	31	32	21	27
Ky.	80	127	3,084	2,952	1	1	10	8	8	7
Tenn.	287	312	5,515	5,471	4	3	14	12	11	11
Ala.	169	112	5,947	3,828	8	1	1	7	-	8
Miss.	103	162	4,224	4,822	6	1	6	5	2	1
W.S. CENTRAL	1,128	2,043	32,164	34,192	12	46	23	24	37	28
Ark.	69	69	1,978	2,196	1	-	4	5	3	4
La.	232	378	7,212	5,509	-	19	-	3	8	5
Okla.	65	55	3,297	3,271	2	1	7	4	3	5
Tex.	762	1,541	19,677	23,216	9	26	12	12	23	14
MOUNTAIN	477	622	12,045	13,123	32	29	55	37	23	25
Mont.	6	4	591	512	4	3	9	3	-	-
Idaho	9	8	731	680	3	2	7	1	-	3
Wyo.	2	3	302	302	2	-	3	2	2	3
Colo.	99	143	1,862	2,754	9	4	19	14	7	5
N. Mex.	50	37	1,687	1,880	1	11	2	2	2	1
Ariz.	165	270	4,899	4,949	3	7	13	7	11	4
Utah	52	61	966	801	8	N	1	6	1	7
Nev.	94	96	1,007	1,245	2	2	1	2	-	2
PACIFIC	1,779	2,202	34,685	43,388	95	108	85	52	41	51
Wash.	202	115	4,830	4,679	N	N	18	13	22	21
Oreg.	47	50	1,799	2,400	3	10	12	13	14	12
Calif.	1,476	1,989	26,413	34,332	92	98	50	25	-	17
Alaska	5	6	974	750	-	-	1	-	-	-
Hawaii	49	42	669	1,227	-	-	4	1	5	1
Guam	13	1	-	181	-	-	N	N	U	U
P.R.	284	583	142	U	-	-	2	8	U	U
V.I.	18	13	-	U	-	U	-	U	U	U
Amer. Samoa	-	-	-	U	-	U	-	U	U	U
C.N.M.I.	-	-	-	U	-	U	-	U	U	U

N: Not notifiable. U: Unavailable. -: No reported cases. C.N.M.I.: Commonwealth of Northern Mariana Islands.

* Individual cases can be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

[†] Chlamydia refers to genital infections caused by *C. trachomatis*. Totals reported to the Division of STD Prevention, NCHSTP.

[‡] Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update April 30, 2000.

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending May 20, 2000, and May 22, 1999 (20th Week)

Reporting Area	Gonorrhea		Hepatitis C; Non-A, Non-B		Legionellosis		Lyme Disease	
	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	111,035	134,634	999	1,456	236	328	1,242	2,019
NEW ENGLAND	2,238	2,538	23	7	16	22	217	477
Maine	32	22	-	1	2	3	-	1
N.H.	35	28	-	-	2	3	26	-
Vt.	20	24	3	2	-	3	1	-
Mass.	1,017	990	18	1	8	5	97	108
R.I.	233	228	2	3	1	2	-	16
Conn.	901	1,246	-	-	3	6	93	352
MID. ATLANTIC	8,172	16,173	22	53	43	90	772	1,104
Upstate N.Y.	2,252	2,325	22	26	20	24	371	381
N.Y. City	824	6,115	-	-	-	11	4	32
N.J.	1,282	2,808	-	-	-	6	-	221
Pa.	3,814	4,925	-	27	23	49	397	470
E.N. CENTRAL	22,212	23,858	93	833	62	96	12	86
Ohio	4,823	6,326	3	-	30	29	10	14
Ind.	2,020	2,500	1	-	13	8	1	3
Ill.	7,173	7,713	6	21	4	12	1	3
Mich.	6,680	5,739	83	288	10	28	-	1
Wis.	1,516	1,580	-	524	5	19	U	65
W.N. CENTRAL	5,389	6,154	244	62	17	16	47	39
Minn.	932	1,112	1	2	1	1	13	8
Iowa	358	361	1	-	3	5	1	3
Mo.	2,812	3,012	222	57	10	7	9	19
N. Dak.	4	35	-	-	-	-	-	1
S. Dak.	96	61	-	-	1	1	-	-
Nebr.	349	616	3	3	-	2	-	4
Kans.	838	957	17	-	2	-	24	4
S. ATLANTIC	32,230	40,624	42	85	50	36	154	215
Del.	636	661	-	-	4	2	12	12
Md.	3,135	4,736	5	23	14	4	103	160
D.C.	899	2,472	-	-	-	-	-	1
Va.	3,843	3,729	1	8	3	9	14	11
W. Va.	227	244	4	11	N	N	6	4
N.C.	6,648	7,605	12	20	6	7	8	25
S.C.	3,980	4,093	-	12	2	6	1	1
Ga.	4,462	8,877	-	1	3	-	-	-
Fla.	8,400	8,207	20	10	18	8	10	1
E.S. CENTRAL	13,272	13,283	167	104	7	15	4	29
Ky.	1,279	1,275	16	5	5	7	-	2
Tenn.	4,208	4,223	36	38	1	6	3	13
Ala.	4,456	3,659	6	1	1	2	1	6
Miss.	3,329	4,126	109	60	-	-	-	8
W.S. CENTRAL	16,815	19,189	260	176	4	1	1	6
Ark.	1,065	1,032	3	9	-	-	-	-
La.	5,030	4,678	162	116	2	1	1	3
Okla.	1,450	1,660	2	3	1	-	-	2
Tex.	9,270	11,819	93	48	1	-	-	1
MOUNTAIN	3,848	3,581	85	80	15	24	1	4
Mont.	20	17	1	4	-	-	-	-
Idaho	34	34	-	4	1	-	-	-
Wyo.	25	11	54	30	1	-	-	1
Colo.	1,268	835	12	11	7	4	1	-
N. Mex.	367	328	5	13	1	1	-	1
Ariz.	1,610	1,810	10	14	2	3	-	-
Utah	105	81	-	2	3	10	-	1
Nev.	419	465	3	2	-	6	-	1
PACIFIC	6,859	9,234	63	56	22	28	34	59
Wash.	847	828	8	5	8	7	-	1
Oreg.	216	346	15	7	N	N	2	3
Calif.	5,594	7,758	40	44	14	20	32	55
Alaska	119	134	-	-	-	1	-	-
Hawaii	83	168	-	-	-	-	N	N
Guam	-	27	-	-	-	-	-	-
P.R.	170	144	1	-	-	-	N	N
V.I.	-	U	-	U	-	U	-	U
Amer. Samoa	-	U	-	U	-	U	-	U
C.N.M.I.	-	U	-	U	-	U	-	U

N: Not notifiable.

U: Unavailable.

- : No reported cases.

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending May 20, 2000, and May 22, 1999 (20th Week)

Reporting Area	Malaria		Rabies, Animal		Salmonellosis*			
	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	NETSS		PHLIS	
					Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	328	428	1,857	2,188	9,150	10,157	6,060	9,058
NEW ENGLAND	12	16	240	341	584	573	578	605
Maine	2	1	59	60	50	40	25	25
N.H.	1	-	3	24	44	29	43	29
Vt.	2	1	16	53	43	23	44	25
Mass.	3	6	83	76	328	332	329	344
R.I.	2	-	6	40	25	32	36	44
Conn.	2	8	73	88	94	117	101	138
MID. ATLANTIC	44	123	356	403	1,153	1,367	1,137	1,076
Upstate N.Y.	19	29	255	269	314	292	349	323
N.Y. City	15	56	U	U	271	395	402	407
N.J.	4	27	57	79	322	330	215	311
Pa.	6	11	44	55	246	350	171	35
E.N. CENTRAL	32	51	17	25	1,316	1,540	768	1,361
Ohio	4	8	4	8	324	297	259	262
Ind.	2	7	-	-	164	131	142	129
Ill.	14	23	-	-	418	480	1	493
Mich.	10	9	13	17	236	338	275	321
Wis.	2	4	-	-	174	294	91	156
W.N. CENTRAL	15	15	195	292	555	625	588	699
Minn.	4	2	30	38	73	170	185	223
Iowa	-	5	30	46	76	63	25	58
Mo.	1	7	5	11	222	199	220	237
N. Dak.	2	-	54	60	14	11	22	21
S. Dak.	2	-	40	84	25	26	24	36
Nebr.	-	-	-	1	53	67	37	51
Kans.	6	1	36	52	92	89	75	73
S. ATLANTIC	93	102	793	782	1,754	1,803	1,026	1,608
Del.	2	-	13	23	32	41	30	50
Md.	35	32	154	172	251	248	223	270
D.C.	2	9	-	-	1	34	U	U
Va.	20	20	208	187	224	218	184	194
W. Va.	-	1	48	45	47	31	33	29
N.C.	9	9	175	168	252	330	155	335
S.C.	1	-	51	57	139	95	113	110
Ga.	4	7	91	61	292	307	282	444
Fla.	20	24	53	69	516	499	6	176
E.S. CENTRAL	14	9	70	106	465	543	307	366
Ky.	2	2	10	20	98	125	56	88
Tenn.	5	4	41	37	120	140	144	148
Ala.	6	3	19	49	151	158	91	112
Miss.	1	-	-	-	96	120	16	18
W.S. CENTRAL	4	11	29	46	711	1,138	644	742
Ark.	1	2	-	-	102	110	22	76
La.	2	7	-	-	59	137	79	156
Okla.	1	1	29	46	94	108	73	73
Tex.	-	1	-	-	456	783	470	437
MOUNTAIN	18	18	71	71	928	888	641	827
Mont.	1	2	23	25	38	18	-	1
Idaho	-	1	-	-	45	32	-	37
Wyo.	-	-	22	26	18	9	14	13
Colo.	10	7	-	1	281	285	246	290
N. Mex.	-	2	4	-	71	100	59	102
Ariz.	2	4	21	19	253	260	197	199
Utah	3	1	1	-	138	118	125	132
Nev.	2	1	-	-	84	66	-	53
PACIFIC	96	83	86	122	1,684	1,680	371	1,774
Wash.	8	5	-	-	143	140	157	255
Oreg.	19	9	-	1	117	138	145	174
Calif.	67	64	71	116	1,337	1,278	-	1,238
Alaska	-	-	15	5	23	15	16	7
Hawaii	2	5	-	-	64	109	53	100
Guam	-	-	-	-	-	20	U	U
P.R.	-	-	16	35	24	169	U	U
V.I.	-	U	-	U	-	U	U	U
Amer. Samoa	-	U	-	U	-	U	U	U
C.N.M.I.	-	U	-	U	-	U	U	U

N: Not notifiable. U: Unavailable. -: No reported cases.

*Individual cases can be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending May 20, 2000, and May 22, 1999 (20th Week)

Reporting Area	Shigellosis*				Syphilis (Primary & Secondary)		Tuberculosis	
	NETSS		PHLIS		Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999 [†]
	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999				
UNITED STATES	5,369	4,883	2,489	2,654	2,276	2,565	3,631	5,277
NEW ENGLAND	106	126	89	113	26	24	134	130
Maine	4	2	-	-	-	-	2	6
N.H.	1	6	4	6	-	-	2	1
Vt.	1	4	-	3	-	1	-	-
Mass.	71	77	57	69	22	14	88	62
R.I.	9	12	8	9	1	1	12	16
Conn.	20	25	20	26	3	8	30	45
MID. ATLANTIC	690	358	493	191	74	114	813	866
Upstate N.Y.	326	76	136	26	7	9	88	111
N.Y. City	283	123	264	87	23	46	464	430
N.J.	38	102	61	76	14	29	195	178
Pa.	43	57	32	2	30	30	66	147
E.N. CENTRAL	943	806	325	408	464	409	454	526
Ohio	78	228	45	46	29	35	94	75
Ind.	234	30	29	11	181	122	22	41
Ill.	274	299	2	258	115	167	253	266
Mich.	287	121	234	78	119	70	51	111
Wis.	70	128	15	15	20	15	34	33
W.N. CENTRAL	435	298	260	234	31	57	172	180
Minn.	51	38	93	44	2	6	61	75
Iowa	108	4	22	7	10	4	13	14
Mo.	226	211	119	153	14	40	68	64
N. Dak.	2	2	1	2	-	-	-	1
S. Dak.	2	7	-	4	-	-	9	3
Nebr.	19	22	9	11	2	4	6	8
Kans.	27	14	16	13	3	3	15	15
S. ATLANTIC	748	784	154	201	759	903	727	1,009
Del.	5	7	3	2	2	2	-	11
Md.	37	48	10	10	119	179	86	89
D.C.	-	24	U	U	22	46	2	17
Va.	49	28	35	9	53	63	57	83
W. Va.	2	4	2	2	1	2	15	19
N.C.	44	77	16	43	230	207	112	153
S.C.	18	36	28	15	76	107	30	131
Ga.	90	83	28	30	116	165	137	205
Fla.	503	477	32	90	140	132	288	301
E.S. CENTRAL	276	421	191	245	362	457	250	321
Ky.	47	45	31	33	37	44	42	42
Tenn.	154	293	148	190	229	238	102	99
Ala.	14	46	9	21	44	116	106	120
Miss.	61	37	3	1	52	59	-	60
W.S. CENTRAL	638	1,049	540	333	314	387	115	800
Ark.	77	41	3	21	44	27	72	56
La.	54	67	38	47	77	91	1	U
Okla.	14	201	8	61	68	89	42	41
Tex.	493	740	491	204	125	180	-	703
MOUNTAIN	367	268	153	154	82	77	145	162
Mont.	3	6	-	-	-	-	4	5
Idaho	28	4	-	3	-	-	3	-
Wyo.	1	2	2	1	1	-	-	1
Colo.	63	45	30	33	2	1	13	U
N. Mex.	38	37	20	21	11	5	19	21
Ariz.	143	142	66	72	66	68	66	87
Utah	31	17	35	18	-	1	12	16
Nev.	60	15	-	6	2	2	28	32
PACIFIC	1,166	773	284	775	164	137	821	1,283
Wash.	229	37	222	47	23	28	72	57
Oreg.	87	27	51	26	2	2	6	39
Calif.	827	688	-	683	139	105	677	1,101
Alaska	7	-	3	-	-	1	28	25
Hawaii	16	21	8	19	-	1	38	61
Guam	-	4	U	U	-	-	-	-
P.R.	1	32	U	U	49	78	-	73
V.I.	-	U	U	U	-	U	-	U
Amer. Samoa	-	U	U	U	-	U	-	U
C.N.M.I.	-	U	U	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.

*Individual cases can be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

[†]Cumulative reports of provisional tuberculosis cases for 1999 are unavailable ("U") for some areas using the Tuberculosis Information System (TIMS).

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending May 20, 2000, and May 22, 1999 (20th Week)

Reporting Area	<i>H. influenzae</i> , Invasive		Hepatitis (Viral), By Type				Measles (Rubeola)					
	Cum. 2000 [†]	Cum. 1999	A		B		Indigenous		Imported*		Total	
			Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	2000	Cum. 2000	2000	Cum. 2000	Cum. 2000	Cum. 1999
UNITED STATES	472	482	4,254	7,421	2,107	2,544	-	12	-	4	16	51
NEW ENGLAND	32	36	93	83	20	59	-	-	-	-	-	9
Maine	1	4	6	2	4	-	-	-	-	-	-	-
N.H.	6	6	11	7	8	5	-	-	-	-	-	1
Vt.	2	4	3	1	3	1	-	-	-	-	-	-
Mass.	16	15	39	26	3	26	-	-	-	-	-	6
R.I.	1	-	1	9	2	11	-	-	-	-	-	-
Conn.	6	7	33	38	-	16	U	-	U	-	-	2
MID. ATLANTIC	66	73	179	475	193	373	-	-	-	-	-	2
Upstate N.Y.	30	29	89	95	45	79	-	-	-	-	-	2
N.Y. City	14	23	90	127	148	120	-	-	-	-	-	-
N.J.	18	20	-	62	-	53	-	-	-	-	-	-
Pa.	4	1	-	191	-	121	-	-	-	-	-	-
E.N. CENTRAL	62	73	541	1,362	243	229	-	3	-	-	3	1
Ohio	26	25	125	315	40	42	-	2	-	-	2	-
Ind.	10	11	20	47	20	19	-	-	-	-	-	1
Ill.	22	30	187	263	38	-	-	-	-	-	-	-
Mich.	4	7	196	698	144	149	-	1	-	-	1	-
Wis.	-	-	13	39	1	19	-	-	-	-	-	-
W.N. CENTRAL	19	22	503	305	200	111	-	1	-	-	1	-
Minn.	7	12	97	25	7	16	-	-	-	-	-	-
Iowa	-	1	40	63	19	19	-	-	-	-	-	-
Mo.	4	2	252	174	134	63	-	-	-	-	-	-
N. Dak.	1	-	-	1	2	-	-	-	-	-	-	-
S. Dak.	-	1	-	8	-	-	-	-	-	-	-	-
Nebr.	3	3	17	27	18	10	-	-	-	-	-	-
Kans.	4	3	97	7	20	3	-	1	-	-	1	-
S. ATLANTIC	135	105	521	658	439	397	-	-	-	-	-	4
Del.	-	-	-	2	-	-	-	-	-	-	-	-
Md.	28	30	65	133	44	82	-	-	-	-	-	-
D.C.	-	3	2	30	6	10	-	-	-	-	-	-
Va.	27	10	60	54	57	39	-	-	-	-	-	3
W. Va.	4	3	37	9	4	11	-	-	-	-	-	-
N.C.	10	20	84	50	109	93	-	-	-	-	-	-
S.C.	6	2	15	11	3	35	-	-	-	-	-	-
Ga.	39	25	67	193	67	45	-	-	-	-	-	-
Fla.	21	12	191	176	149	82	-	-	-	-	-	1
E.S. CENTRAL	25	35	139	175	122	186	-	-	-	-	-	2
Ky.	9	5	18	32	32	13	-	-	-	-	-	2
Tenn.	13	17	21	75	27	82	-	-	-	-	-	-
Ala.	3	11	26	32	20	46	-	-	-	-	-	-
Miss.	-	2	74	36	43	45	-	-	-	-	-	-
W.S. CENTRAL	26	35	746	2,040	249	396	-	-	-	-	-	3
Ark.	-	1	76	18	40	31	-	-	-	-	-	-
La.	6	9	26	66	45	77	-	-	-	-	-	-
Okla.	19	23	130	227	46	46	-	-	-	-	-	-
Tex.	1	2	514	1,729	118	242	-	-	-	-	-	3
MOUNTAIN	54	51	358	627	168	239	-	8	-	1	9	-
Mont.	-	1	1	12	3	15	-	-	-	-	-	-
Idaho	2	1	13	24	4	12	-	-	-	-	-	-
Wyo.	-	1	6	3	-	4	-	-	-	-	-	-
Colo.	11	6	68	108	35	37	-	1	-	1	2	-
N. Mex.	11	10	37	20	37	81	-	-	-	-	-	-
Ariz.	25	27	179	386	64	52	-	-	-	-	-	-
Utah	4	4	29	23	8	14	-	3	-	-	3	-
Nev.	1	1	25	51	17	24	U	4	U	-	4	-
PACIFIC	53	52	1,174	1,696	473	554	-	-	-	3	3	30
Wash.	3	1	112	101	22	21	-	-	-	-	-	5
Oreg.	14	18	91	118	37	46	-	-	-	-	-	10
Calif.	22	28	966	1,467	406	475	-	-	-	3	3	15
Alaska	1	4	5	4	3	7	-	-	-	-	-	-
Hawaii	13	1	-	6	5	5	U	-	U	-	-	-
Guam	-	-	-	2	-	2	U	-	U	-	-	1
P.R.	-	1	40	112	24	107	U	-	U	-	-	-
V.I.	-	U	-	U	-	U	U	-	U	-	-	U
Amer. Samoa	-	U	-	U	-	U	U	-	U	-	-	U
C.N.M.I.	-	U	-	U	-	U	U	-	U	-	-	U

N: Not notifiable.

U: Unavailable.

- : No reported cases.

*For imported measles, cases include only those resulting from importation from other countries.

†Of 112 cases among children aged <5 years, serotype was reported for 47 and of those, 10 were type b.

TABLE III. (Cont'd) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending May 20, 2000, and May 22, 1999 (20th Week)

Reporting Area	Meningococcal Disease		Mumps			Pertussis			Rubella		
	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999
UNITED STATES	966	1,107	8	157	158	57	1,698	2,327	4	48	64
NEW ENGLAND	56	58	-	2	3	9	428	225	-	5	7
Maine	3	4	-	-	-	-	11	-	-	-	-
N.H.	4	9	-	-	1	-	54	45	-	1	-
Vt.	2	4	-	-	-	6	94	9	-	-	-
Mass.	37	33	-	-	2	3	244	159	-	3	7
R.I.	3	2	-	1	-	-	7	3	-	-	-
Conn.	7	6	U	1	-	U	18	9	U	1	-
MID. ATLANTIC	86	108	-	9	19	1	132	509	-	2	9
Upstate N.Y.	22	28	-	6	3	1	77	447	-	2	5
N.Y. City	21	36	-	-	3	-	-	10	-	-	-
N.J.	21	18	-	-	1	-	-	13	-	-	1
Pa.	22	26	-	3	12	-	55	39	-	-	3
E.N. CENTRAL	175	197	-	17	20	17	222	187	-	-	-
Ohio	36	73	-	7	6	10	156	95	-	-	-
Ind.	22	22	-	-	2	3	22	9	-	-	-
Ill.	43	55	-	3	4	-	18	39	-	-	-
Mich.	56	24	-	7	7	4	16	17	-	-	-
Wis.	18	23	-	-	1	-	10	27	-	-	-
W.N. CENTRAL	77	117	-	10	6	9	75	66	-	2	26
Minn.	3	26	-	-	1	4	40	18	-	-	-
Iowa	15	23	-	4	3	-	11	14	-	-	2
Mo.	48	40	-	1	1	3	12	17	-	-	-
N. Dak.	1	3	-	-	-	-	1	-	-	-	-
S. Dak.	4	5	-	-	-	-	1	2	-	-	-
Nebr.	3	8	-	2	-	-	3	1	-	-	24
Kans.	3	12	-	3	1	2	7	14	-	2	-
S. ATLANTIC	159	153	3	25	28	4	147	105	-	28	2
Del.	-	3	-	-	-	2	3	-	-	-	-
Md.	15	27	-	5	4	1	36	36	-	-	1
D.C.	-	1	-	-	2	-	-	-	-	-	-
Va.	28	22	-	4	8	-	13	13	-	-	-
W. Va.	4	3	-	-	-	-	-	1	-	-	-
N.C.	26	22	-	3	5	-	39	26	-	20	1
S.C.	10	21	1	7	3	-	16	7	-	6	-
Ga.	26	29	-	2	-	1	19	12	-	-	-
Fla.	50	25	2	4	6	-	21	10	-	2	-
E.S. CENTRAL	68	85	1	5	3	1	30	49	-	4	2
Ky.	13	16	-	-	-	-	16	12	-	1	-
Tenn.	32	31	-	2	-	1	5	25	-	-	-
Ala.	19	21	1	2	1	-	8	10	-	3	2
Miss.	4	17	-	1	2	-	1	2	-	-	-
W.S. CENTRAL	80	105	-	15	21	3	61	62	-	2	4
Ark.	6	20	-	1	-	1	9	4	-	-	-
La.	25	37	-	3	3	-	3	2	-	-	-
Okla.	19	18	-	-	1	-	5	8	-	-	-
Tex.	30	30	-	11	17	2	44	48	-	2	4
MOUNTAIN	54	78	4	15	9	5	315	255	-	1	12
Mont.	1	1	-	1	-	-	6	1	-	-	-
Idaho	6	8	-	-	-	-	37	89	-	-	-
Wyo.	-	3	-	1	-	-	-	2	-	-	-
Colo.	15	20	-	1	3	4	173	68	-	1	-
N. Mex.	7	10	-	1	N	-	57	19	-	-	-
Ariz.	16	26	3	3	-	1	33	45	-	-	10
Utah	7	5	1	5	5	-	6	29	-	-	1
Nev.	2	5	U	3	1	U	3	2	U	-	1
PACIFIC	211	206	-	59	49	8	288	869	4	4	2
Wash.	22	28	-	3	1	6	103	435	-	-	-
Oreg.	27	38	N	N	N	2	31	16	-	-	-
Calif.	155	131	-	51	42	-	144	398	4	4	2
Alaska	3	5	-	4	1	-	6	3	-	-	-
Hawaii	4	4	U	1	5	U	4	17	U	-	-
Guam	-	1	U	-	1	U	-	1	U	-	-
P.R.	2	7	U	-	-	U	-	7	U	-	-
V.I.	-	U	U	-	U	U	-	U	U	-	U
Amer. Samoa	-	U	U	-	U	U	-	U	U	-	U
C.N.M.I.	-	U	U	-	U	U	-	U	U	-	U

N: Not notifiable.

U: Unavailable.

- : No reported cases.

**TABLE IV. Deaths in 122 U.S. cities,* week ending
May 20, 2000 (20th 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	573	429	94	33	11	6	48	S. ATLANTIC	1,082	700	232	105	21	22	78
Boston, Mass.	154	103	29	14	5	3	16	Atlanta, Ga.	U	U	U	U	U	U	U
Bridgeport, Conn.	31	25	5	1	-	-	1	Baltimore, Md.	159	96	33	21	6	3	13
Cambridge, Mass.	26	21	3	2	-	-	2	Charlotte, N.C.	104	73	23	7	-	1	8
Fall River, Mass.	30	27	2	1	-	-	2	Jacksonville, Fla.	134	96	26	10	1	1	10
Hartford, Conn.	45	31	13	-	1	-	4	Miami, Fla.	97	55	24	17	-	1	16
Lowell, Mass.	27	17	7	3	-	-	3	Norfolk, Va.	52	31	9	3	2	7	3
Lynn, Mass.	12	9	2	1	-	-	-	Richmond, Va.	74	31	28	10	1	4	2
New Bedford, Mass.	20	17	1	2	-	-	2	Savannah, Ga.	37	23	9	4	1	-	-
New Haven, Conn.	40	29	8	2	1	-	5	St. Petersburg, Fla.	76	57	12	5	1	1	5
Providence, R.I.	53	43	3	3	1	3	2	Tampa, Fla.	239	164	47	20	5	2	18
Somerville, Mass.	6	3	2	1	-	-	2	Washington, D.C.	100	68	21	8	1	2	3
Springfield, Mass.	40	27	9	2	2	-	2	Wilmington, Del.	10	6	-	-	3	-	-
Waterbury, Conn.	27	22	4	-	1	-	-	E.S. CENTRAL	785	525	158	69	15	18	68
Worcester, Mass.	62	55	6	1	-	-	9	Birmingham, Ala.	179	124	32	18	1	4	17
MID. ATLANTIC	2,097	1,475	408	141	40	33	101	Chattanooga, Tenn.	79	60	14	5	-	-	7
Albany, N.Y.	40	29	7	4	-	-	1	Knoxville, Tenn.	79	52	17	5	4	1	4
Allentown, Pa.	U	U	U	U	U	U	U	Lexington, Ky.	70	47	16	4	2	1	8
Buffalo, N.Y.	78	55	15	5	2	1	6	Memphis, Tenn.	201	130	37	22	6	6	15
Camden, N.J.	32	23	4	2	2	1	1	Mobile, Ala.	U	U	U	U	U	U	U
Elizabeth, N.J.	15	12	1	1	-	1	2	Montgomery, Ala.	40	29	7	2	2	-	11
Erie, Pa.§	43	32	9	-	2	-	3	Nashville, Tenn.	137	83	35	13	-	6	6
Jersey City, N.J.	35	24	8	2	-	1	-	W.S. CENTRAL	1,565	1,021	307	136	65	34	94
New York City, N.Y.	1,136	805	225	79	17	10	41	Austin, Tex.	119	86	18	8	3	4	8
Newark, N.J.	48	24	9	3	3	2	2	Baton Rouge, La.	38	32	5	1	-	-	1
Paterson, N.J.	18	12	3	1	-	2	-	Corpus Christi, Tex.	56	38	10	5	2	1	7
Philadelphia, Pa.	256	154	64	24	9	5	14	Dallas, Tex.	210	121	45	25	11	8	9
Pittsburgh, Pa.§	63	43	11	3	2	4	3	El Paso, Tex.	70	39	16	9	3	3	1
Reading, Pa.	31	28	1	1	-	1	1	Ft. Worth, Tex.	98	69	21	4	1	3	9
Rochester, N.Y.	128	97	25	4	1	1	10	Houston, Tex.	413	259	87	47	17	3	29
Schenectady, N.Y.	25	21	4	-	-	-	6	Little Rock, Ark.	77	49	12	9	4	3	4
Scranton, Pa.§	29	23	6	-	-	-	2	New Orleans, La.	99	64	16	1	12	4	-
Syracuse, N.Y.	75	57	11	2	2	3	6	San Antonio, Tex.	207	145	37	14	9	2	16
Trenton, N.J.	22	16	3	3	-	-	2	Shreveport, La.	57	43	10	3	1	-	4
Utica, N.Y.	23	20	2	1	-	-	1	Tulsa, Okla.	121	76	30	10	2	3	6
Yonkers, N.Y.	U	U	U	U	U	U	U	MOUNTAIN	910	615	177	74	26	18	62
E.N. CENTRAL	2,018	1,332	422	158	37	67	120	Albuquerque, N.M.	U	U	U	U	U	U	U
Akron, Ohio	48	33	10	4	-	1	2	Boise, Idaho	38	28	3	4	2	1	1
Canton, Ohio	35	21	12	2	-	-	2	Colo. Springs, Colo.	73	48	13	9	3	-	5
Chicago, Ill.	395	242	84	41	9	17	38	Denver, Colo.	106	68	29	6	2	1	5
Cincinnati, Ohio	96	63	23	9	-	1	6	Las Vegas, Nev.	234	169	48	11	2	4	20
Cleveland, Ohio	122	77	26	11	4	4	5	Ogden, Utah	25	21	2	2	-	-	3
Columbus, Ohio	210	143	35	13	9	10	16	Phoenix, Ariz.	169	100	40	17	6	6	11
Dayton, Ohio	109	73	24	6	3	3	9	Pueblo, Colo.	32	16	8	7	1	-	9
Detroit, Mich.	176	98	48	23	1	6	8	Salt Lake City, Utah	114	77	16	8	8	5	9
Evansville, Ind.	53	39	8	5	-	1	2	Tucson, Ariz.	119	88	18	10	2	1	8
Fort Wayne, Ind.	76	53	17	1	-	5	6	PACIFIC	1,391	981	270	86	24	28	106
Gary, Ind.	18	10	5	1	1	1	1	Berkeley, Calif.	9	6	2	-	-	1	1
Grand Rapids, Mich.	42	25	12	3	1	1	1	Fresno, Calif.	U	U	U	U	U	U	U
Indianapolis, Ind.	178	114	41	13	3	7	3	Glendale, Calif.	9	8	1	-	-	-	-
Lansing, Mich.	31	21	5	4	-	1	1	Honolulu, Hawaii	75	57	13	4	-	1	8
Milwaukee, Wis.	98	75	20	2	-	1	4	Long Beach, Calif.	64	45	9	6	1	3	15
Peoria, Ill.	54	41	7	5	-	1	2	Los Angeles, Calif.	409	286	86	28	5	4	16
Rockford, Ill.	39	33	1	2	-	3	3	Pasadena, Calif.	16	9	4	1	1	1	-
South Bend, Ind.	64	46	11	3	2	2	1	Portland, Oreg.	129	86	24	11	5	3	7
Toledo, Ohio	103	75	21	5	2	-	8	Sacramento, Calif.	U	U	U	U	U	U	U
Youngstown, Ohio	71	50	12	5	2	2	3	San Diego, Calif.	167	122	26	8	3	7	18
W.N. CENTRAL	859	637	144	40	16	22	69	San Francisco, Calif.	U	U	U	U	U	U	U
Des Moines, Iowa	44	36	7	-	1	-	8	San Jose, Calif.	181	124	42	10	2	3	8
Duluth, Minn.	28	22	6	-	-	-	1	Santa Cruz, Calif.	34	30	2	2	-	-	6
Kansas City, Kans.	98	74	15	7	2	-	8	Seattle, Wash.	126	80	27	11	4	4	12
Kansas City, Mo.	81	56	12	11	1	1	2	Spokane, Wash.	56	44	11	1	-	-	5
Lincoln, Nebr.	36	26	6	2	1	1	-	Tacoma, Wash.	116	84	23	4	3	1	10
Minneapolis, Minn.	147	113	22	3	3	6	16	TOTAL	11,280†	7,715	2,212	842	255	248	746
Omaha, Nebr.	64	46	16	1	-	1	2								
St. Louis, Mo.	91	63	15	5	2	6	4								
St. Paul, Minn.	87	66	15	3	1	2	9								
Wichita, Kans.	183	135	30	8	5	5	19								

U: Unavailable. --: No reported cases.

*Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of ≥100,000. 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 this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

§Total includes unknown ages.

**Contributors to the Production of the *MMWR* (Weekly)
Weekly Notifiable Disease Morbidity Data and 122 Cities Mortality Data**

Samuel L. Groseclose, D.V.M., M.P.H.

State Support Team

Robert Fagan
Jose Aponte
Paul Gangarosa, M.P.H.
Gerald Jones
David Nitschke
Carol A. Worsham

CDC Operations Team

Carol M. Knowles
Deborah A. Adams
Willie J. Anderson
Patsy A. Hall
Pearl Sharp
Kathryn Snaveley

Informatics

T. Demetri Vacalis, Ph.D.

Michele D. Renshaw

Erica R. Shaver

The *Morbidity and Mortality Weekly Report (MMWR)* Series is prepared by the Centers for Disease Control and Prevention (CDC) and is available free of charge in electronic format and on a paid subscription basis for paper copy. To receive an electronic copy on Friday of each week, send an e-mail message to listserv@listserv.cdc.gov. The body content should read *SUBscribe mmwr-toc*. Electronic copy also is available from CDC's World-Wide Web server at <http://www.cdc.gov/> or from CDC's file transfer protocol server at <ftp.cdc.gov>. To subscribe for paper copy, contact Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone (202) 512-1800.

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 following Friday. Address inquiries about the *MMWR* Series, including material to be considered for publication, to: Editor, *MMWR* Series, Mailstop C-08, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333; telephone (888) 232-3228.

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

Director, Centers for Disease Control and Prevention Jeffrey P. Koplan, M.D., M.P.H.	Acting Director, Epidemiology Program Office Barbara R. Holloway, M.P.H.	Writers-Editors, <i>MMWR</i> (Weekly) Jill Crane David C. Johnson Teresa F. Rutledge
Acting Deputy Director for Science and Public Health, Centers for Disease Control and Prevention Walter W. Williams, M.D., M.P.H.	Editor, <i>MMWR</i> Series John W. Ward, M.D.	Desktop Publishing Lynda G. Cupell Morie M. Higgins
	Acting Managing Editor, <i>MMWR</i> (Weekly) Caran R. Wilbanks	

☆U.S. Government Printing Office: 2000-533-206/28014 Region IV