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MORBIDITY AND MORTALITY WEEKLY REPORT

Carbon Monoxide Poisoning at an Indoor Ice Arena and Bingo Hall — Seattle, 1996

On March 16, 1996, paramedics and fire department personnel were requested to evaluate complaints of illness among persons exposed to exhaust fumes in an indoor ice skating facility in Seattle. Indoor-air measurements detected elevated levels of carbon monoxide (CO), prompting evacuation of the building. An investigation of the cluster of CO poisonings related to the exposure was conducted March 16–18, by a pulmonary and hyperbaric medicine physician who treated one of the ill persons. This report summarizes the investigation findings, which underscore the importance of adequate maintenance of machinery equipped with internal combustion engines that are operated at indoor ice arenas and of proper ventilation of such arenas.

The skating facility comprised two adjoining ice rinks on the lower level and a bingo hall on the upper level. On the evening of March 16, the ice in both rinks was smoothed with a 20-year-old ice-resurfacing machine powered by a propane engine. Immediately after the first rink was resurfaced, skaters in that rink had onset of fatigue, headache, and dizziness. Because several persons complained of these symptoms, paramedics and fire department personnel were requested to evaluate the symptoms. After measurements by fire department personnel indicated maximum CO levels of 354 ppm inside the ice arena, the approximately 300 persons in the building were evacuated.

Outside the building, paramedics evaluated, triaged, and treated the exposed persons. Two persons were intubated at the site because of acute respiratory distress. A total of 67 persons were transported to emergency departments (EDs) of nine different area hospitals by 22 emergency medical units and one city bus. Persons transported to EDs included those who had been in either of the ice rinks or in the bingo hall at the time of building evacuation. In addition to those referred to EDs from the scene, some persons independently sought medical evaluation.

Overall, 78 persons were evaluated in EDs; 47 (60%) were female. The median age was 14 years (range: 6 years–70 years).Based on data for 17 persons, the average carboxyhemoglobin (COHb) level was 8.6% (range: 3.3%–13.9%). One 15-year-old patient was referred for hyperbaric oxygen therapy for symptoms of possible myocardial ischemia. All other patients were treated in the EDs and discharged. Some returned to skate the following day when the rink was reopened after CO levels had decreased to 2 ppm.

Carbon Monoxide Poisoning — Continued

Based on the investigation, the source of CO was determined to be a malfunction of the ice-resurfacing machine (the only source of combustion in the arena). The building's ventilation system, which alternates with a dehumidifier, may have been off during operation of the machine. An open access door from the ice arena to the bingo hall probably permitted CO to diffuse throughout the facility.

Use of the ice-resurfacing machine was discontinued, and the machine was replaced by a newer model. Until a CO detector system is installed in the arena, ambient CO levels are monitored after each ice resurfacing. To assist in preventing future CO poisonings at the arena, the Seattle-King County Health Department advised the arena manager to submit a CO-monitoring plan to the health department.

Reported by: NB Hampson, MD, Virginia Mason Medical Center, Seattle. Air Pollution and Respiratory Health Br, Div of Environmental Hazards and Health Effects, National Center for Environmental Health, CDC.

Editorial Note: CO is a colorless, odorless gas produced by the incomplete combustion of carbon-based fuels. CO induces toxic effects by tightly binding to hemoglobin to form COHb and reducing the oxygen-carrying capacity of blood; by binding with mitochondrial cytochrome oxidase, CO also interferes with cellular respiration (*1*). Because CO can induce toxicity through different pathways and because COHb levels begin to decrease as soon as exposure ceases, COHb levels indicate exposure but do not correlate consistently with either symptoms or prognosis.

Because early symptoms of CO exposure are nonspecific (e.g., headache, dizziness, weakness, and confusion) (*1,2*), CO poisoning may be misdiagnosed as acute, self-limited illnesses (e.g., upper respiratory tract infection and food poisoning). Four factors are associated with COHb levels and the severity of symptoms: 1) concentration of CO in the environment, 2) duration of exposure, 3) the activity level of those exposed, and 4) interval between exposure and clinical assessment. In general, however, exposure to CO concentrations of 80 ppm–140 ppm for 1–2 hours can result in blood COHb levels of 3%–6% (the normal COHb concentration is <2%; concentrations in smokers frequently may be 5%–9%) (*3*); this concentration may be associated with decreased exercise tolerance and, in persons who are otherwise at risk, can precipitate angina pectoris and cardiac arrhythmias (*3*). Clinical manifestations associated with CO concentrations of 105 ppm–205 ppm and COHb levels of 10%–20% include headache, nausea, and mental impairment. Manifestations associated with COHb levels of >20% include more profound central nervous system effects, coma, and death (*2*).

CO intoxication is the most common form of unintentional poisoning in the United States (*1*). Although most unintentional exposures involve small numbers of persons and typically occur during the winter, episodes such as that described in this report (i.e., during indoor public gatherings) can occur throughout the year. For example, elevated ambient levels of CO and nitrogen dioxide have been documented at indoor sporting venues including arenas for tractor pulls, monster-truck jumps, and ice rinks (*4–6*). Production of CO in ice arenas has been attributed to ice-resurfacing machines, with rink CO levels of up to 150 ppm measured in simulation tests during operation of the machines (*4*), and CO levels as high as 117 ppm have been detected during ice hockey games in six arenas surfaced by propane-fueled machines (*6*). Some episodes of indoor CO exposure during sports events have been associated with substantial morbidity requiring acute medical evaluation of patients (*4,7*).

Carbon Monoxide Poisoning — Continued

Skaters especially may be at risk for CO poisoning because they are engaged in strenuous activity that increases total lung ventilation and oxygen consumption. To ensure that COHb levels are ≤2% among nonsmoking skaters, the CO level for enclosed ice skating rinks should be ≤20 ppm (*6*). Workplace standards for CO exposure have been established by the Occupational Safety and Health Administration, and the permissible exposure limit for CO is 50 ppm as an 8-hour time-weighted average (*8*). In addition, CDC's National Institute for Occupational Safety and Health recommended exposure limit for CO is 35 ppm as a time-weighted average, and the maximum exposure of 200 ppm should not be exceeded at any time. Workplace standards were developed to protect generally healthy working-aged persons; therefore, these standards may not be applicable to children, the elderly, or persons with preexisting cardiopulmonary disease—all of whom might attend events at public arenas. In the arena involved in the investigation in this report, CO levels substantially exceeded workplace standards because of the combination of a malfunctioning ice-resurfacing machine and inadequate ventilation.

Although recommendations to help minimize CO accumulation in ice rinks have been published (*4*), routine monitoring of indoor-air quality in ice arenas is not required in most states (*9*). Because of the potential for mass exposure to and intoxication with CO in indoor ice rinks, public health agencies in jurisdictions with indoor ice rinks should ensure that 1) operators of ice arenas are educated about prevention of CO poisonings, 2) routine monitoring of CO levels is conducted, 3) routine testing and maintenance of CO detectors are performed, 4) ice-resurfacing machines and heating systems are properly maintained, 5) battery-operated resurfacing equipment is used if available, and 6) air-circulation systems capable of exchanging air are used throughout the arena, locker rooms, and any other rooms. In addition, organizations (e.g., hockey leagues and figure skating clubs) should require periodic CO monitoring at the arenas they rent for practices and games.

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HIV/AIDS Education and Prevention Programs For Adults in Prisons and Jails and Juveniles in Confinement Facilities — United States, 1994

By the end of 1994, at least 4588 adult inmates of U.S. prisons and jails had died as a result of acquired immunodeficiency syndrome (AIDS), and during 1994, at least 5279 adult inmates with AIDS were incarcerated in prisons and jails (*1*). Periodically conducted national surveys instituted in 1985 (*2*) and sponsored by the U.S. Department of Justice's National Institute of Justice (NIJ) and CDC have documented the prevalence of human immunodeficiency virus (HIV)/AIDS and the incidence of sexually transmitted diseases (STDs) among adult inmates and confined juveniles*. In addition, these surveys have enabled an assessment of HIV/AIDS education and prevention programs in prisons and jails for adults and confinement facilities for juveniles. This report presents findings from the eighth survey, conducted in 1994, which indicate the need to increase HIV/AIDS education and prevention services among adult inmates and confined juveniles.

In the 1994 NIJ/CDC survey, questionnaires were sent to and responses received from the Federal Bureau of Prisons, all 50 state prison systems for adults, city/county jail systems with adult inmate populations among the largest in the country (29 [81%] of 36)†, state systems for juveniles (41 [82%] of 50), and city/county systems with the largest populations of confined juveniles (32 [64%] of 50)§. Most questionnaires were completed by health services staff, but some portions were completed by other administrators. Although most systems for adults and juveniles include a number of individual facilities, systems were asked to provide single answers covering all of their facilities. However, for some questions, systems were asked to report the number of their facilities providing certain types of programs. Rates of AIDS and gonorrhea among the U.S. population were based on data reported by state health departments to CDC.

Prisons and Jails for Adults

Prison and jail systems for adults participating in the 1994 survey reported 5279 cases of AIDS among current inmates, representing 5.2 AIDS cases per 1000 adult inmates—a rate almost six times that of the total U.S. adult (aged ≥18 years) population (0.9 cases per 1000 population) (CDC, unpublished data, 1995). Based on mandatory testing of all incoming inmates or blinded studies, reported HIV seroprevalence rates of inmates ranged from <1% to 22%; 12 state systems reported rates >2% (*1*).

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*In most states, offenders aged <18 years are handled by the juvenile justice system and confined in juvenile facilities; those aged ≥18 years are prosecuted in adult courts and incarcerated in prisons and jails. However, the cutoff age varies by state and even within some states on a case-by-case basis.

†The sample of 36 city/county jail systems for adults was selected to represent systems with large inmate populations and to provide geographic diversity. All 36 systems were among the 50 largest in the United States in inmate population in 1994. The Washington, D.C., system was considered a city/county system.

§The 50 city/county systems for juveniles selected for the survey included the largest confined populations in 1994 based on information provided by the Office of Juvenile Justice and Delinquency Prevention, Office of Justice Programs, U.S. Department of Justice.

HIV/AIDS Programs — Continued

HIV/AIDS education included interactive programs (e.g., peer-led programs and instructor-led sessions such as lectures, discussions, or question-and-answer periods) and passive programs (e.g., use of videotapes, other audio-visual materials, or written materials). Based on reports from all 51 state and federal systems, the percentage of systems providing instructor-led HIV/AIDS education in at least one of their facilities decreased from 96% in 1990 to 75% in 1994 (*1*). In 1994, of the 1207 state and federal facilities, 582 (48%) were providing instructor-led HIV/AIDS education programs, 90 (7%) were operating peer-led programs, 865 (72%) were using audio-visual materials, and 1068 (88%) were using written materials. Of the 80 federal, state, and city/county adult systems participating in the 1994 survey, 30 (59%) responded to a specific question that they would like to receive public health department assistance with their HIV/AIDS education programs.

Two state prison systems (Vermont and Mississippi) and four city/county jail systems (New York City; Philadelphia; San Francisco; and Washington, DC) reported making condoms available to inmates in their facilities. Of the 80 prison and jail systems participating in the 1994 survey, one city/county jail system reported making bleach available to inmates (*1*).

Confinement Facilities for Juveniles

As of December 1994, the 41 state and city/county systems for juveniles participating in the 1994 survey reported a cumulative total of 60 cases of AIDS and four cases of AIDS among currently confined juveniles. The HIV seroprevalence among confined juveniles in six state systems and one county system was <1% (*3*). However, compared with the total U.S. population of equivalent age, the incidence rates for gonorrhea, a marker of high-risk sexual activity associated with HIV transmission, were 152 times and 42 times higher among confined juvenile females and males, respectively (*4*). Twenty-six state systems reported a mean of 137 gonorrhea cases¶ per 1000 confined females during the 12 months preceding completion of the 1994 survey, compared with 0.9 cases per 1000 total U.S. females aged 15–19 years during 1994. Twenty-one state systems reported a mean of 25 gonorrhea cases per 1000 confined males during the 12 months preceding completion of the 1994 survey, compared with 0.6 cases per 1000 total U.S. males aged 15–19 years during 1994 (*3,4*).

Of 456 confinement facilities in the 40 state systems responding to the question, 31 (7%) were operating peer-led HIV/AIDS education, 258 (57%) were providing instructor-led education, 246 (54%) were using audio-visual materials, and 270 (59%) were using written materials. Of the 73 state and city/county systems for juveniles participating in the survey, 40 (55%) responded to the question that they would like to receive public health department assistance with their HIV/AIDS education programs. One county system (Alameda County, California) reported making condoms available to juveniles confined in its facilities (*3*).

Reported by: TM Hammett, PhD, R Widom, Abt Associates Inc, Cambridge, Massachusetts. National Institute of Justice, Office of Justice Programs, US Dept of Justice. Behavioral Intervention Research Br, Div of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention (proposed), CDC.

¶The NIJ/CDC questionnaire sought numbers of gonorrhea cases presumptively diagnosed and numbers of cases confirmed by laboratory findings during the preceding 12 months. Incidence rates for the 26 state juvenile systems providing the requested data were calculated based on the total of these two categories of cases. The reported means represent a simple average of the incidence rates in these 26 systems.

HIV/AIDS Programs — Continued

Editorial Note: The findings in this report underscore the need to take advantage of important missed opportunities to provide HIV/AIDS prevention programs in prisons and jails for adults and in confinement facilities for juveniles (*5*). These facilities are important settings for HIV/AIDS education and prevention efforts because of 1) high prevalences in their populations of HIV-infected persons and persons with risk factors for HIV infection (*6*); 2) demonstrated occurrence of and continuing high potential for HIV transmission in these facilities through sexual activity and sharing of drug-injection equipment (*7,8*); 3) eventual release of almost all adult inmates and confined juveniles to the community; 4) high rates of re-incarceration and re-confinement (*9*); and 5) feasibility of providing HIV/AIDS education and prevention programs in these facilities. Despite the established HIV/AIDS epidemic among adult inmates and high STD rates among confined juveniles, many facilities have not provided interactive HIV/AIDS education programs. In facilities for juveniles, HIV/AIDS education often is presented as a curriculum unit of the school program, which many juveniles may not receive because of their short lengths of stay. Peer-led programs are provided in even fewer facilities for adults and juveniles, although such programs may be more credible and effective than those provided by educators affiliated with the correctional system for adults or the system for juveniles (*1*).

Findings from the NIJ/CDC surveys presented in this report are subject to at least one limitation. Because the surveys did not include all city/county jail systems and because of possible underreporting by participating systems, the numbers of cumulative AIDS deaths and AIDS cases among current adult inmates reported in the survey probably were underestimated.

To assist in reducing the transmission of HIV in the United States, comprehensive and credible programs of interactive education, counseling, testing, partner notification, and practical risk-reduction techniques (e.g., safer sex and safer drug injection) should be implemented for adult inmates in prisons and jails and for juveniles in confinement facilities. In addition, because many adult inmates and confined juveniles have established patterns of high-risk behavior for HIV/AIDS, ongoing programs of support and counseling are needed to assist them in initiating and sustaining positive behavior change. Although counseling, testing, and partner-notification programs have been implemented in some correctional facilities for adults (*10*), few systems for adults or juveniles make available the means to practice risk reduction (e.g., condoms or bleach). Interviews with correctional administrators indicate that condom and bleach distribution have been rejected because such policies are believed to condone and encourage behavior prohibited to inmates. Public health agencies at all levels should collaborate with correctional systems for adults, justice systems for juveniles, and community-based organizations to strengthen HIV/AIDS education and prevention programs in facilities for adults and juveniles. Collaborative efforts could be used to formulate strategies for HIV/AIDS prevention and to implement comprehensive HIV/AIDS education and prevention programs. Finally, the needs of adult inmates and confined juveniles should be included in the community HIV/AIDS prevention planning process.

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HIV/AIDS Programs — Continued

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Diphtheria Outbreak — Saraburi Province, Thailand, 1994

Following the introduction of diphtheria toxoid in Thailand in 1978 and the acceleration of vaccination efforts by the Expanded Program on Immunization (EPI), the incidence of diphtheria in Thailand decreased substantially. A total of 1021 diphtheria cases were reported nationwide in 1984, compared with 25 cases in 1993. However, on July 19, 1994, a cluster of cases of diphtheria was reported in Saraburi province (1994 population: 565,067) to the Division of Epidemiology (DOE), Thailand Ministry of Public Health; no cases had been reported during the previous year in Saraburi. This report summarizes the outbreak investigation by the DOE, which identified 18 cases during April–August 1994 and identified carriage rates of *Corynebacterium diphtheriae* of 4% and 8% among household contacts and school contacts, respectively.

To determine the extent of the outbreak in Saraburi province, trainees in the Thai Field Epidemiology Training Program conducted chart reviews of patients admitted to the Saraburi provincial hospital during January–August 1994. Persons with laboratory-confirmed or clinically diagnosed diphtheria were included in the case counts. In addition, active surveillance for diphtheria cases was conducted among household contacts and among students attending the same school as one person with confirmed diphtheria with onset during August 9–10.

Based on chart reviews, a total of 18 cases of diphtheria were identified from Prabhuddabath District (the locus of the outbreak) during April–August. Of these, three (17%) cases were fatal; nine (50%) cases occurred among males, and the median age of persons with diphtheria was 6.5 years (range: 2 years–37 years). Three (17%) cases occurred among children aged <5 years, and 12 (67%) among children aged 5–14 years. Manifestations in all cases included fever, sore throat, tonsillitis, and pseudomembranes. A history of completing the recommended series of three or

Diphtheria — Continued

more doses of diphtheria and tetanus toxoids and pertussis vaccine (DTP) was reported for six cases. The probable index patient had onset of symptoms on April 12, was a member of the Hmong hilltribe, and had migrated from Northern Thailand to Saraburi Province within the previous month; however, most (16 [89%]) cases occurred among ethnic Thais.

To further characterize transmission, public health officials examined and collected throat swabs from 23 household and 74 school contacts. Although no additional symptomatic cases of diphtheria were detected, carriage rates of *Corynebacterium diphtheriae* were 4% (one of 23) among household contacts and 8% (six of 74) among school contacts.

In response to the outbreak, DOE and the Saraburi provincial health office initiated outbreak control among household contacts and school contacts by providing treatment with antibiotics and vaccination. Active case-finding was followed by active surveillance for 6 months. In addition, laboratory surveillance has been established in the Saraburi provincial hospital.

Reported by: P Prempree, MD, S Chitpitaklert, MD, N Silarug, MD, Field Epidemiology Training Program, Div of Epidemiology, Ministry of Public Health, Bangkok, Thailand. National Immunization Program, CDC.

Editorial Note: Based on the recent resurgence of diphtheria in the New Independent States of the former Soviet Union (*1,2*) and outbreaks in other countries (Ecuador [*3*], Algeria, and elsewhere [*4*]), the epidemiology of diphtheria in the vaccine era has changed—adolescents and adults now are most likely to be affected during outbreaks (*5*). Following the introduction and widespread use of diphtheria toxoid-containing vaccines in many developing countries during the late 1970s and early 1980s, the incidence of diphtheria and the circulation of toxigenic diphtheria decreased rapidly (*6–9*). However, concomitantly, the number of susceptible persons began to increase because of incomplete vaccination coverage, suboptimal vaccine efficacy, and waning immunity among vaccinated persons in the absence of periodic booster doses and natural infection. The accumulation of susceptible persons over time may be sufficient to sustain epidemic diphtheria transmission.

In Thailand, the introduction and widespread use of DTP resulted in a >97% decrease in the incidence of diphtheria during 1984–1993. However, despite high vaccination coverage among infants (90%), the outbreak in this report probably resulted from the introduction of *C. diphtheriae* by a Hmong migrant. The age distribution of outbreak-associated cases suggests that many preschool-aged and school-aged children in Saraburi Province, and possibly in other areas, had remained susceptible to diphtheria. This partially susceptible cohort may not have been vaccinated because of suboptimal coverage during the early years of the EPI program and may not have been exposed to natural *C. diphtheriae* infection because of rapid decreases in the circulation of toxigenic strains following the implementation of infant vaccination programs (*10*).

To reduce the risk for diphtheria epidemics, policy makers and public health officials should evaluate the feasibility of bringing unvaccinated preschool- and school-aged children up-to-date with diphtheria and tetanus toxoids after age 1 year. In addition, a policy of regular diphtheria-tetanus toxoid booster vaccination should be considered to ensure protection of adolescents and adults against diphtheria and tetanus and to enhance population immunity against diphtheria.

Diphtheria — Continued

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Notice to Readers

Cancer Control Month and National Minority Cancer Awareness Week

April is designated Cancer Control Month by the American Cancer Society (ACS), and April 14–20, 1996, is National Minority Cancer Awareness Week. One of every four deaths in the United States results from cancer, and in 1996, an estimated 554,740 persons in the United States will die from cancer (*1*). Of the estimated 1,359,150 cancer cases that will be diagnosed in the United States during 1996, approximately 174,380 will be among racial/ethnic minorities (*1*). Cancer incidence and death rates vary among different racial/ethnic groups, in part because of differences in lifestyle, behavior, and access to health care. CDC collaborates with public, private, and volunteer partners to promote cancer prevention and control activities.

Additional information is available from CDC's National Center for Chronic Disease Prevention and Health Promotion, Division of Cancer Prevention and Control, telephone (770) 488-4751, and from local ACS chapters. Materials for National Minority Awareness Week are available from the Cancer Information Service, National Cancer Institute, National Institutes of Health, telephone (800) 422-6237.

Reference

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Notice to Readers

International Course in Applied Epidemiology

CDC and Emory University will cosponsor a course designed to provide international health professionals with basic epidemiology skills. This "International Course in Applied Epidemiology" is conducted in English and will be held at CDC during October 7–November 1, 1996. It emphasizes the practical application of epidemiology to public health problems and comprises lectures, workshops, classroom exercises (including actual epidemiologic problems), discussions, and an on-site community survey. Topics covered include descriptive epidemiology and biostatistics, analytic epidemiology, epidemic investigations, public health surveillance, surveys and sampling, computers and Epi Info software, and discussions of selected prevalent diseases. There is a tuition charge.

Applications must be received by June 1, 1996. Additional information and applications are available from PSB, Rollins School of Public Health, Emory University, 7th Floor, 1518 Clifton Road, N.E., Atlanta, GA 30322; telephone (404) 727-3485 or (404) 727-0199; fax (404) 727-4590; e-mail address ogostan@sph.emory.edu.

Notice to Readers

Introduction to Public Health Surveillance

CDC and Emory University will cosponsor a new course to provide public health professionals with the ability to design, implement, maintain, and evaluate effective public health surveillance programs. "Introduction to Public Health Surveillance" will be held in Atlanta during June 3–7, 1996. Topics include overview and history of public health surveillance systems; planning considerations; sources and collection of data; analysis, interpretation, and communication of data; surveillance systems technology; program evaluation; ethics and legalities; state, regional, and local concerns; issues in developing countries; and future considerations. Surveillance problems will be presented and discussed, and the use of the computer in public health surveillance will be demonstrated. There is a tuition charge.

Additional information and applications are available from PSB, Rollins School of Public Health, Emory University, 7th Floor, 1518 Clifton Road, N.E., Atlanta, GA 30322; telephone (404) 727-3485 or (404) 727-0199; fax (404) 727-4590; e-mail address ogostan@sph.emory.edu.

Notice to Readers

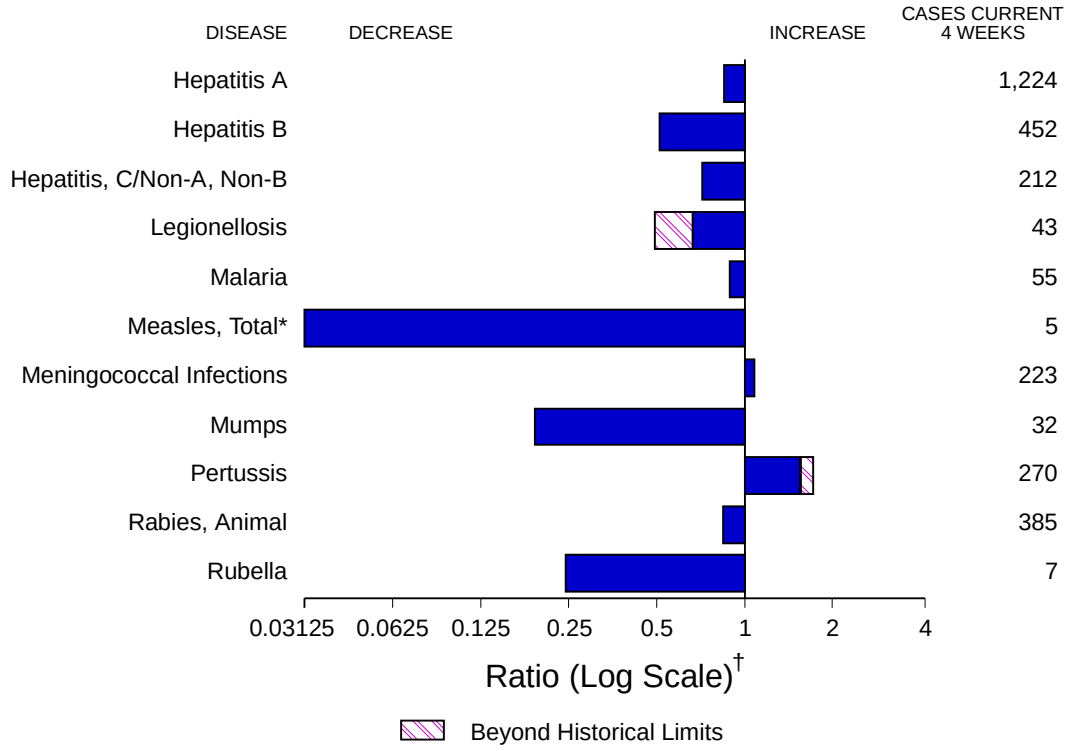
Satellite Videoconference on Epidemiology and Prevention of Vaccine-Preventable Diseases

Epidemiology and Prevention of Vaccine-Preventable Diseases, a live satellite videoconference, will be broadcast to sites nationwide from noon until 3:30 p.m. eastern daylight time on May 31 and June 7, 14, and 21 over the Public Health Training Network. Cosponsors are CDC, the Association of Schools of Public Health; The University of North Carolina at Chapel Hill School of Public Health; and the North Carolina Department of Environment, Health, and Natural Resources.

The four-module interactive videoconference will provide up-to-date information on vaccine-preventable diseases, vaccine management and safety, and standard vaccination practices. Toll-free telephone lines will be available for participants to ask questions about related topics. Physicians, nurses, physicians' assistants, nurse practitioners, and their colleagues who work in immunization, communicable disease, and infection-control programs will benefit. Continuing Medical Education credits, Continuing Education Units, and Nursing Contact Hours will be given to participants who complete the course. There is a fee for materials.

Information about materials is available from the National Technical Information Service (NTIS), telephone (800) 232-1824 (order number PB96-780531LTE). Registration information is available from state immunization coordinators; from CDC, telephone (404) 639-8225, e-mail jmg1@nip1.em.cdc.gov; or from the World-Wide Web site (which includes state immunization coordinator contact information), http://www.sph.unc.edu/oce/course_list.html.

FIGURE I. Selected notifiable disease reports, comparison of 4-week totals ending March 30, 1996, with historical data — United States



*The large apparent decrease in the number of reported cases of measles (total) reflects dramatic fluctuations in the historical baseline. (Ratio [log scale] for week 13 measles [total] is 0.021658.)
†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 selected notifiable diseases, United States, cumulative, week ending March 30, 1996 (13th Week)

	Cum. 1996		Cum. 1996
Anthrax	-	HIV infection, pediatric*§	76
Brucellosis	12	Plague	-
Cholera	1	Poliomyelitis, paralytic¶	-
Congenital rubella syndrome	-	Psittacosis	5
Cryptosporidiosis*	305	Rabies, human	-
Diphtheria	1	Rocky Mountain spotted fever (RMSF)	21
Encephalitis: California*	-	Streptococcal toxic shock syndrome*	10
eastern equine*	1	Syphilis, congenital**	-
St. Louis*	-	Tetanus	3
western equine*	-	Toxic-shock syndrome	30
Hansen Disease	26	Trichinosis	6
Hantavirus pulmonary syndrome*†	1	Typhoid fever	57

*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 to the Division of HIV/AIDS Prevention, National Center for Prevention Services (NCPS), last update March 26, 1996.
¶No suspected cases of polio reported for 1996.
**Updated quarterly from reports to the Division of STD Prevention, NCPS. First quarter 1996 is not yet available.
-: no reported cases

TABLE II. Cases of selected notifiable diseases, United States, weeks ending March 30, 1996, and April 1, 1995 (13th Week)

Reporting Area	AIDS*		Chlamydia	*Escherichia coli* O157:H7		Gonorrhea		Hepatitis C/NA,NB		Legionellosis	
				NETSS†	PHLIS§						
	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995
UNITED STATES	16,791	19,472	54,118	164	60	68,687	98,160	796	1,045	164	275
NEW ENGLAND	657	829	2,395	22	3	1,794	1,352	20	27	5	3
Maine	10	23	-	3	-	10	16	-	-	1	-
N.H.	23	37	165	1	1	36	28	1	2	-	-
Vt.	7	6	-	4	2	17	10	12	2	-	-
Mass.	392	447	1,674	10	-	582	796	5	22	3	2
R.I.	38	55	556	2	-	140	151	2	1	1	1
Conn.	187	261	-	2	-	1,009	351	-	-	N	N
MID. ATLANTIC	4,440	4,487	8,576	29	15	6,514	11,744	73	93	36	39
Upstate N.Y.	538	521	N	13	10	1,299	2,768	66	38	7	8
N.Y. City	2,443	2,320	2,288	-	-	1,785	3,932	1	1	-	1
N.J.	928	1,079	1,253	9	-	703	1,181	-	43	5	9
Pa.	531	567	5,035	N	5	2,727	3,863	6	11	24	21
E.N. CENTRAL	1,395	1,599	9,814	23	10	10,902	20,365	106	76	57	98
Ohio	300	403	2,366	16	7	1,280	6,532	4	3	28	39
Ind.	269	106	2,224	4	-	1,788	2,051	4	-	12	21
Ill.	518	731	-	2	1	4,307	5,128	9	29	2	13
Mich.	228	271	4,095	1	2	2,909	4,950	89	44	14	14
Wis.	80	88	1,129	N	-	618	1,704	-	-	1	11
W.N. CENTRAL	413	413	6,046	17	13	3,950	5,414	93	15	11	16
Minn.	84	91	-	2	8	998	786	-	-	-	-
Iowa	31	20	638	4	2	214	399	63	2	2	7
Mo.	175	146	3,639	1	-	2,005	3,155	27	6	1	6
N. Dak.	1	1	2	1	1	1	9	-	-	-	1
S. Dak.	5	1	309	-	-	47	48	-	1	2	-
Nebr.	32	43	388	4	-	57	274	-	4	6	1
Kans.	85	111	1,070	5	2	628	743	3	2	-	1
S. ATLANTIC	4,590	5,675	13,202	13	1	26,290	28,213	40	62	21	43
Del.	93	114	-	-	-	357	526	1	-	-	-
Md.	444	961	1,384	N	-	3,312	3,596	-	2	4	10
D.C.	225	369	N	-	-	1,124	1,531	-	-	1	3
Va.	224	369	3,011	N	1	2,293	2,898	3	-	6	2
W. Va.	24	21	-	N	-	99	181	4	16	1	3
N.C.	191	246	-	4	-	4,944	6,270	8	17	3	7
S.C.	229	267	-	1	-	2,808	2,978	7	1	1	6
Ga.	685	614	3,139	3	-	6,642	4,809	-	10	-	6
Fla.	2,475	2,714	5,668	2	-	4,711	5,424	17	16	5	6
E.S. CENTRAL	540	601	5,531	7	1	6,288	11,332	125	423	14	9
Ky.	86	63	1,817	-	-	1,027	1,236	5	8	2	2
Tenn.	201	262	1,458	N	1	1,492	3,093	119	414	6	4
Ala.	157	157	2,203	2	-	3,433	4,821	1	1	-	2
Miss.	96	119	53	2	-	336	2,182	-	-	6	1
W.S. CENTRAL	1,480	1,382	1,587	7	1	5,519	8,915	85	51	1	3
Ark.	70	64	-	5	-	681	1,188	1	-	-	-
La.	435	296	-	N	1	2,042	3,015	33	24	-	1
Okla.	54	83	1,587	1	-	968	880	34	21	1	2
Tex.	921	939	-	1	-	1,828	3,832	17	6	-	-
MOUNTAIN	469	640	4,155	20	8	1,710	2,353	144	118	5	32
Mont.	4	8	-	-	-	6	24	8	6	-	2
Idaho	7	17	390	7	4	20	37	38	14	-	1
Wyo.	2	4	173	-	-	10	13	41	46	-	-
Colo.	152	214	-	8	4	505	802	4	23	4	16
N. Mex.	25	69	-	-	-	216	297	25	18	-	3
Ariz.	136	135	2,733	N	-	734	776	20	5	-	2
Utah	64	37	254	3	-	49	54	6	3	-	2
Nev.	79	156	605	2	-	170	350	2	3	1	6
PACIFIC	2,807	3,846	2,812	26	8	5,720	8,472	110	180	14	32
Wash.	220	355	2,450	4	4	628	675	23	44	1	-
Oreg.	153	122	-	10	-	108	129	3	11	-	-
Calif.	2,394	3,262	-	8	-	4,799	7,275	45	116	13	28
Alaska	3	29	N	-	-	99	227	2	1	-	-
Hawaii	37	78	342	N	4	86	166	37	8	-	4
Guam	3	-	-	N	-	-	23	-	-	-	-
P.R.	420	638	N	N	U	60	138	18	43	-	-
V.I.	3	14	N	N	U	-	9	-	-	-	-
Amer. Samoa	-	-	-	N	U	-	8	-	-	-	-
C.N.M.I.	-	-	N	N	U	11	5	-	-	-	-

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

*Updated monthly to the Division of HIV/AIDS Prevention, National Center for Prevention Services, last update March 26, 1996.
†National Electronic Telecommunications System for Surveillance.
§Public Health Laboratory Information System.

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending March 30, 1996, and April 1, 1995 (13th Week)

Reporting Area	Lyme Disease		Malaria		Meningococcal Disease		Syphilis (Primary & Secondary)		Tuberculosis		Rabies, Animal	
	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995
UNITED STATES	844	1,091	217	240	926	903	2,708	4,135	3,035	3,588	1,021	1,616
NEW ENGLAND	39	58	7	12	22	54	49	60	86	74	116	469
Maine	-	1	2	1	7	3	-	2	4	-	-	-
N.H.	-	7	1	1	1	11	1	1	3	1	17	62
Vt.	-	1	1	-	1	5	-	-	-	1	34	59
Mass.	15	7	3	1	13	17	21	19	30	33	25	190
R.I.	19	1	-	2	-	-	-	1	14	10	11	61
Conn.	5	41	-	7	-	18	27	37	35	29	29	97
MID. ATLANTIC	718	859	57	55	77	93	99	259	490	720	153	403
Upstate N.Y.	289	422	13	9	20	30	4	26	69	74	66	182
N.Y. City	140	29	24	25	12	11	34	141	226	371	-	-
N.J.	41	119	17	14	21	27	35	50	132	128	40	74
Pa.	248	289	3	7	24	25	26	42	63	147	47	147
E.N. CENTRAL	8	11	22	31	120	133	453	711	442	415	8	2
Ohio	6	5	4	1	49	34	180	237	71	66	2	1
Ind.	2	5	3	3	11	23	68	60	41	22	1	-
Ill.	-	1	4	21	39	37	124	273	280	223	-	1
Mich.	-	-	8	2	10	22	40	86	39	93	1	-
Wis.	U	U	3	4	11	17	41	55	11	11	4	-
W.N. CENTRAL	28	19	3	7	76	51	121	218	83	119	86	69
Minn.	1	-	-	3	4	10	26	14	15	27	4	5
Iowa	16	1	1	-	17	9	4	17	11	15	49	22
Mo.	2	8	1	3	30	18	88	174	33	51	8	10
N. Dak.	-	-	-	-	2	-	-	-	1	-	8	6
S. Dak.	-	-	-	-	3	-	-	-	9	-	10	15
Nebr.	-	-	-	1	9	6	3	5	4	5	2	-
Kans.	9	10	1	-	11	8	-	8	10	21	5	11
S. ATLANTIC	28	106	38	51	177	147	852	1,087	363	598	523	464
Del.	1	11	2	1	2	2	11	6	-	12	16	26
Md.	18	73	13	17	18	6	146	97	63	105	137	104
D.C.	-	-	2	3	2	1	36	38	17	21	2	2
Va.	-	2	6	10	14	20	120	174	25	29	125	88
W. Va.	3	6	-	-	4	3	1	1	18	27	20	22
N.C.	4	6	5	4	25	23	258	278	71	45	119	110
S.C.	1	4	1	-	24	23	107	186	40	68	10	34
Ga.	-	4	5	6	54	40	75	188	6	115	66	69
Fla.	1	-	4	10	34	29	98	119	123	176	28	9
E.S. CENTRAL	6	7	2	3	66	52	671	932	286	307	32	58
Ky.	-	1	-	-	11	18	42	60	50	55	7	5
Tenn.	-	4	1	1	3	11	203	201	72	92	11	29
Ala.	-	-	1	2	26	14	155	162	95	99	14	23
Miss.	6	2	-	-	26	9	271	509	69	61	-	1
W.S. CENTRAL	1	14	6	5	99	101	326	609	200	286	14	37
Ark.	1	-	-	1	13	9	58	121	20	40	2	20
La.	-	-	-	1	19	14	152	278	-	-	8	9
Okla.	-	11	-	-	7	10	42	52	21	37	4	8
Tex.	-	3	6	3	60	68	74	158	159	209	-	-
MOUNTAIN	-	1	17	16	59	76	32	68	97	116	14	17
Mont.	-	-	1	1	1	2	-	3	-	3	-	9
Idaho	-	-	-	1	7	4	1	-	2	5	-	-
Wyo.	-	-	2	-	3	2	1	-	-	1	8	-
Colo.	-	-	9	8	8	20	13	40	15	5	-	-
N. Mex.	-	-	1	3	12	18	-	1	7	22	1	-
Ariz.	-	-	1	2	19	25	14	11	50	69	3	7
Utah	-	-	2	1	3	2	-	2	10	10	-	-
Nev.	-	1	1	-	6	3	3	11	13	1	2	1
PACIFIC	16	16	65	60	230	196	105	191	988	953	75	97
Wash.	-	-	1	6	31	29	1	5	50	54	-	-
Oreg.	4	1	5	4	40	36	2	4	28	10	-	-
Calif.	11	15	56	46	154	129	102	182	855	829	68	94
Alaska	-	-	-	1	3	-	-	-	15	19	7	3
Hawaii	1	-	3	3	2	2	-	-	40	41	-	-
Guam	-	-	-	-	-	1	-	1	-	4	-	-
P.R.	-	-	-	-	3	10	47	83	20	23	12	18
V.I.	-	-	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	-	-	-	-	2	-	-
C.N.M.I.	-	-	-	-	-	-	1	-	-	10	-	-

N: Not notifiable U: Unavailable -: no reported cases

TABLE III. Cases of selected notifiable diseases preventable by vaccination, United States, weeks ending March 30, 1996, and April 1, 1995 (13th Week)

Reporting Area	*H. influenzae*, invasive		Hepatitis (viral), by type				Measles (Rubeola)			
			A		B		Indigenous		Imported†	
	Cum. 1996*	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	1996	Cum. 1996	1996	Cum. 1996
UNITED STATES	340	356	5,602	6,138	1,665	2,176	2	42	-	3
NEW ENGLAND	8	16	61	43	29	63	-	5	-	1
Maine	-	1	8	6	2	2	-	-	-	-
N.H.	6	1	3	3	-	6	-	-	-	-
Vt.	-	1	-	3	2	1	-	1	-	-
Mass.	2	4	30	16	4	17	-	3	-	1
R.I.	-	-	2	7	2	7	-	-	-	-
Conn.	-	9	18	8	19	30	-	1	-	-
MID. ATLANTIC	48	38	381	327	250	248	-	1	-	1
Upstate N.Y.	12	13	85	72	70	73	-	-	-	-
N.Y. City	5	5	179	126	149	47	-	1	-	1
N.J.	17	8	75	65	4	89	-	-	-	-
Pa.	14	12	42	64	27	39	-	-	-	-
E.N. CENTRAL	53	70	512	907	203	299	2	2	-	-
Ohio	32	37	248	517	28	25	2	2	-	-
Ind.	2	10	96	43	35	61	-	-	-	-
Ill.	14	19	62	188	25	83	-	-	-	-
Mich.	2	4	81	98	109	108	-	-	-	-
Wis.	3	-	25	61	6	22	-	-	-	-
W.N. CENTRAL	11	16	453	272	128	158	-	-	-	-
Minn.	1	4	12	21	2	9	-	-	-	-
Iowa	5	1	128	11	57	14	-	-	-	-
Mo.	5	8	196	195	51	114	-	-	-	-
N. Dak.	-	-	5	4	-	1	-	-	-	-
S. Dak.	-	-	26	3	-	1	-	-	-	-
Nebr.	-	1	49	16	3	9	-	-	-	-
Kans.	-	2	37	22	15	10	-	-	-	-
S. ATLANTIC	75	90	209	260	299	293	-	2	-	-
Del.	1	-	5	3	1	3	-	1	-	-
Md.	19	32	49	53	75	60	-	1	-	-
D.C.	-	-	6	2	5	8	-	-	-	-
Va.	3	12	36	50	38	23	-	-	-	-
W. Va.	-	2	5	7	8	19	-	-	-	-
N.C.	10	11	26	24	103	87	-	-	-	-
S.C.	3	-	19	7	24	9	-	-	-	-
Ga.	38	19	-	36	1	28	-	-	-	-
Fla.	1	14	63	78	44	56	-	-	-	-
E.S. CENTRAL	7	3	237	361	49	243	-	-	-	-
Ky.	2	1	6	19	19	27	-	-	-	-
Tenn.	-	-	77	281	16	185	-	-	-	-
Ala.	4	2	73	35	14	31	-	-	-	-
Miss.	1	-	81	26	-	-	-	-	-	-
W.S. CENTRAL	10	13	912	557	126	193	-	-	-	-
Ark.	-	1	151	21	14	2	-	-	-	-
La.	-	1	16	16	12	17	-	-	-	-
Okla.	10	9	442	129	22	25	-	-	-	-
Tex.	-	2	303	391	78	149	-	-	-	-
MOUNTAIN	38	34	764	1,046	199	153	-	3	-	-
Mont.	-	-	18	19	2	6	-	-	-	-
Idaho	1	2	101	132	26	20	-	-	-	-
Wyo.	16	1	6	38	5	3	-	-	-	-
Colo.	4	4	22	141	8	26	-	-	-	-
N. Mex.	7	5	133	222	91	57	-	-	-	-
Ariz.	5	10	218	215	31	21	-	-	-	-
Utah	3	4	221	243	26	13	-	-	-	-
Nev.	2	8	45	36	10	7	-	3	-	-
PACIFIC	90	76	2,073	2,365	382	526	-	29	-	1
Wash.	1	4	128	125	21	39	-	4	-	-
Oreg.	11	9	308	459	20	27	-	-	-	-
Calif.	76	61	1,593	1,721	337	453	-	1	-	-
Alaska	-	-	22	14	2	2	-	24	-	-
Hawaii	2	2	22	46	2	5	-	-	-	1
Guam	-	-	-	1	-	-	U	-	U	-
P.R.	-	3	28	11	85	79	-	-	-	-
V.I.	-	-	-	-	-	1	U	-	U	-
Amer. Samoa	-	-	-	5	-	-	U	-	U	-
C.N.M.I.	10	-	1	8	5	-	U	-	U	-

*Of 77 cases among children aged <5 years, serotype was reported for 20 and of those, 4 were type B.
†For imported measles, cases include only those resulting from importation from other countries.
N: Not notifiable U: Unavailable -: no reported cases

TABLE III. (Cont'd.) Cases of selected notifiable diseases preventable by vaccination, United States, weeks ending March 30, 1996, and April 1, 1995 (13th Week)

Reporting Area	Measles (Rubeola), cont'd. Total		Mumps			Pertussis			Rubella		
	Cum. 1996	Cum. 1995	1996	Cum. 1996	Cum. 1995	1996	Cum. 1996	Cum. 1995	1996	Cum. 1996	Cum. 1995
UNITED STATES	45	160	8	145	201	112	557	669	1	39	16
NEW ENGLAND	6	3	-	-	3	30	105	109	1	3	2
Maine	-	-	-	-	2	2	5	10	-	-	-
N.H.	-	-	-	-	-	1	14	5	-	-	1
Vt.	1	-	-	-	-	-	6	2	-	-	-
Mass.	4	1	-	-	-	27	77	88	1	1	1
R.I.	-	2	-	-	-	-	-	-	-	-	-
Conn.	1	-	-	-	1	-	3	4	-	2	-
MID. ATLANTIC	2	2	-	18	29	6	62	59	-	3	2
Upstate N.Y.	-	-	-	6	9	6	38	32	-	2	-
N.Y. City	2	-	-	3	2	-	9	12	-	1	1
N.J.	-	2	-	-	4	-	-	6	-	-	1
Pa.	-	-	-	9	14	-	15	9	-	-	-
E.N. CENTRAL	2	-	2	40	30	27	109	69	-	1	-
Ohio	2	-	-	16	15	-	46	30	-	-	-
Ind.	-	-	-	5	5	2	9	7	-	-	-
Ill.	-	-	1	8	-	25	43	-	-	1	-
Mich.	-	-	1	11	10	-	9	26	-	-	-
Wis.	-	-	-	-	-	-	2	6	-	-	-
W.N. CENTRAL	-	1	-	2	14	-	3	32	-	-	-
Minn.	-	-	-	-	2	-	1	5	-	-	-
Iowa	-	-	-	-	3	-	2	1	-	-	-
Mo.	-	1	-	-	7	-	-	7	-	-	-
N. Dak.	-	-	-	2	-	-	-	5	-	-	-
S. Dak.	-	-	-	-	-	-	-	4	-	-	-
Nebr.	-	-	-	-	2	-	-	3	-	-	-
Kans.	-	-	-	-	-	-	-	7	-	-	-
S. ATLANTIC	2	-	-	14	36	-	44	68	-	-	1
Del.	1	-	-	-	-	-	7	4	-	-	-
Md.	1	-	-	7	7	-	22	-	-	-	-
D.C.	-	-	-	-	-	-	-	1	-	-	-
Va.	-	-	-	3	8	-	-	7	-	-	-
W. Va.	-	-	-	-	-	-	-	-	-	-	-
N.C.	-	-	-	-	15	-	-	47	-	-	-
S.C.	-	-	-	3	3	-	3	7	-	-	-
Ga.	-	-	-	1	-	-	2	-	-	-	-
Fla.	-	-	-	-	3	-	10	2	-	-	1
E.S. CENTRAL	-	-	1	6	6	-	10	18	-	2	-
Ky.	-	-	-	-	-	-	5	1	-	-	-
Tenn.	-	-	-	-	-	-	1	4	-	-	-
Ala.	-	-	-	3	2	-	1	13	-	-	-
Miss.	-	-	1	3	4	-	3	-	N	N	N
W.S. CENTRAL	-	2	1	6	12	-	4	22	-	-	1
Ark.	-	2	-	-	3	-	2	2	-	-	-
La.	-	-	1	6	2	-	2	1	-	-	-
Okla.	-	-	-	-	-	-	-	1	-	-	-
Tex.	-	-	-	-	7	-	-	18	-	-	1
MOUNTAIN	3	55	-	11	10	26	84	179	-	-	2
Mont.	-	-	-	-	-	-	3	3	-	-	-
Idaho	-	-	-	-	2	23	39	50	-	-	-
Wyo.	-	-	-	-	-	-	-	-	-	-	-
Colo.	-	17	-	-	-	-	8	32	-	-	-
N. Mex.	-	27	N	N	N	3	18	9	-	-	-
Ariz.	-	10	-	1	1	-	2	82	-	-	2
Utah	-	-	-	-	1	-	1	2	-	-	-
Nev.	3	1	-	10	6	-	13	1	-	-	-
PACIFIC	30	97	4	48	61	23	136	113	-	30	8
Wash.	4	14	1	5	3	8	34	19	-	1	-
Oreg.	-	1	N	N	N	-	16	5	-	-	1
Calif.	1	81	3	35	51	15	81	87	-	27	7
Alaska	24	-	-	1	6	-	-	-	-	-	-
Hawaii	1	1	-	7	1	-	5	2	-	2	-
Guam	-	-	U	-	2	U	-	-	U	-	-
P.R.	-	3	-	1	1	-	-	4	-	-	-
V.I.	-	-	U	-	1	U	-	-	U	-	-
Amer. Samoa	-	-	U	-	-	U	-	-	U	-	-
C.N.M.I.	-	-	U	-	-	U	-	-	U	-	-

N: Not notifiable U: Unavailable -: no reported cases

TABLE IV. Deaths in 121 U.S. cities,* week ending March 30, 1996 (13th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	582	413	105	44	10	9	37
Boston, Mass.	157	106	30	15	-	5	8
Bridgeport, Conn.	32	26	6	-	-	-	1
Cambridge, Mass.	21	16	3	2	-	-	2
Fall River, Mass.	27	23	4	-	-	-	-
Hartford, Conn.	43	27	9	4	2	1	-
Lowell, Mass.	23	15	6	1	-	1	2
Lynn, Mass.	15	9	3	3	-	-	-
New Bedford, Mass.	22	17	2	3	-	-	-
New Haven, Conn.	63	38	16	6	3	-	8
Providence, R.I.	52	41	7	3	-	1	8
Somerville, Mass.	4	1	1	2	-	-	-
Springfield, Mass.	36	26	6	2	2	-	2
Waterbury, Conn.	31	26	3	1	1	-	1
Worcester, Mass.	56	42	9	2	2	1	5
MID. ATLANTIC	2,399	1,631	442	255	41	29	121
Albany, N.Y.	44	30	7	6	-	1	3
Allentown, Pa.	23	21	1	1	-	-	-
Buffalo, N.Y.	U	U	U	U	U	U	U
Camden, N.J.	26	17	2	4	2	1	-
Elizabeth, N.J.	25	16	6	2	1	-	-
Erie, Pa.§	51	40	9	2	-	-	4
Jersey City, N.J.	49	30	11	6	1	1	1
New York City, N.Y.	1,251	840	235	147	14	14	56
Newark, N.J.	93	43	21	21	4	4	7
Paterson, N.J.	20	12	5	3	-	-	3
Philadelphia, Pa.	400	275	78	37	9	1	18
Pittsburgh, Pa.§	54	37	10	5	2	-	6
Reading, Pa.	21	17	1	3	-	-	4
Rochester, N.Y.	145	107	23	5	5	5	6
Schenectady, N.Y.	17	13	1	3	-	-	2
Scranton, Pa.§	30	23	5	2	-	-	2
Syracuse, N.Y.	69	48	15	3	2	1	5
Trenton, N.J.	29	19	5	3	1	1	3
Utica, N.Y.	23	17	5	1	-	-	1
Yonkers, N.Y.	29	26	2	1	-	-	-
E.N. CENTRAL	2,074	1,404	383	181	63	43	140
Akron, Ohio	55	35	13	4	3	-	-
Canton, Ohio	47	39	5	2	1	-	6
Chicago, Ill.	435	275	83	58	14	5	35
Cincinnati, Ohio	76	56	8	9	3	-	7
Cleveland, Ohio	154	94	42	9	4	5	3
Columbus, Ohio	125	86	17	13	-	9	12
Dayton, Ohio	109	81	17	6	3	2	11
Detroit, Mich.	231	135	51	26	10	9	8
Evansville, Ind.	58	42	13	3	-	-	4
Fort Wayne, Ind.	70	51	10	6	1	2	4
Gary, Ind.	15	7	4	2	1	1	-
Grand Rapids, Mich.	68	52	9	4	2	1	10
Indianapolis, Ind.	157	104	30	11	7	5	8
Madison, Wis.	57	37	14	4	2	-	6
Milwaukee, Wis.	104	75	14	12	2	1	5
Peoria, Ill.	40	30	6	2	1	1	5
Rockford, Ill.	58	44	8	4	2	-	7
South Bend, Ind.	50	40	8	-	2	-	2
Toledo, Ohio	100	69	20	6	4	1	5
Youngstown, Ohio	65	52	11	-	1	1	2
W.N. CENTRAL	1,318	944	223	90	27	26	70
Des Moines, Iowa	104	77	22	3	1	-	16
Duluth, Minn.	42	35	4	2	-	1	2
Kansas City, Kans.	180	122	40	14	2	2	6
Kansas City, Mo.	134	75	25	17	4	6	5
Lincoln, Nebr.	38	28	6	3	1	-	2
Minneapolis, Minn.	192	138	33	17	1	3	10
Omaha, Nebr.	95	74	18	2	-	1	13
St. Louis, Mo.	122	89	15	10	5	3	-
St. Paul, Minn.	53	43	5	3	-	2	3
Wichita, Kans.	358	263	55	19	13	8	13
S. ATLANTIC	1,390	921	237	154	50	28	72
Atlanta, Ga.	162	97	32	24	7	2	12
Baltimore, Md.	186	128	29	20	5	4	18
Charlotte, N.C.	93	59	16	8	8	2	6
Jacksonville, Fla.	133	91	19	15	6	2	5
Miami, Fla.	108	69	20	11	5	3	1
Norfolk, Va.	44	26	7	5	3	3	2
Richmond, Va.	90	58	16	9	2	5	5
Savannah, Ga.	47	31	8	4	2	2	2
St. Petersburg, Fla.	74	57	10	2	4	1	4
Tampa, Fla.	218	149	33	33	2	1	11
Washington, D.C.	216	137	47	23	6	3	6
Wilmington, Del.	19	19	-	-	-	-	-
E.S. CENTRAL	864	561	186	79	26	10	63
Birmingham, Ala.	112	78	18	9	3	2	7
Chattanooga, Tenn.	66	41	17	5	2	1	-
Knoxville, Tenn.	103	66	26	3	6	2	14
Lexington, Ky.	73	48	14	7	3	1	8
Memphis, Tenn.	211	139	45	25	1	1	17
Mobile, Ala.	94	65	16	8	5	-	8
Montgomery, Ala.	50	32	8	8	1	1	1
Nashville, Tenn.	155	92	42	14	5	2	8
W.S. CENTRAL	1,583	1,022	311	154	52	43	124
Austin, Tex.	74	47	15	9	3	-	8
Baton Rouge, La.	57	36	10	7	3	1	3
Corpus Christi, Tex.	65	44	13	5	1	2	8
Dallas, Tex.	227	145	41	27	6	8	6
El Paso, Tex.	82	48	11	16	4	2	8
Ft. Worth, Tex.	81	48	18	6	6	3	5
Houston, Tex.	397	250	86	41	13	7	44
Little Rock, Ark.	51	34	9	3	4	1	3
New Orleans, La.	96	61	19	7	5	4	-
San Antonio, Tex.	311	213	63	20	3	12	22
Shreveport, La.	52	39	8	4	1	-	8
Tulsa, Okla.	90	57	18	9	3	3	9
MOUNTAIN	941	629	162	95	37	15	74
Albuquerque, N.M.	93	57	15	11	7	3	4
Colo. Springs, Colo.	52	42	5	2	2	1	3
Denver, Colo.	100	60	22	11	4	1	10
Las Vegas, Nev.	183	109	47	21	2	3	17
Ogden, Utah	24	22	1	1	-	-	2
Phoenix, Ariz.	199	131	32	22	8	6	14
Pueblo, Colo.	26	20	2	3	1	-	1
Salt Lake City, Utah	112	80	16	9	7	-	11
Tucson, Ariz.	152	108	22	15	6	1	12
PACIFIC	2,103	1,447	353	190	63	49	179
Berkeley, Calif.	20	12	6	2	-	-	-
Fresno, Calif.	101	71	16	9	3	2	10
Glendale, Calif.	U	U	U	U	U	U	U
Honolulu, Hawaii	80	57	12	6	4	1	12
Long Beach, Calif.	73	52	13	4	2	2	12
Los Angeles, Calif.	711	477	119	64	27	24	36
Pasadena, Calif.	28	21	5	1	1	-	6
Portland, Oreg.	129	86	26	11	4	2	7
Sacramento, Calif.	183	130	26	19	5	3	13
San Diego, Calif.	141	113	15	10	2	1	21
San Francisco, Calif.	143	89	29	23	1	1	22
San Jose, Calif.	181	123	41	8	7	2	21
Santa Cruz, Calif.	37	27	7	3	-	-	5
Seattle, Wash.	130	88	16	19	2	5	3
Spokane, Wash.	56	41	5	5	2	3	5
Tacoma, Wash.	90	60	17	6	3	3	6
TOTAL	13,254¶	8,972	2,402	1,242	369	252	880

*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 -: no reported cases

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