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World Health Day — April 7, 1999

"Healthy Aging, Healthy Living—Start Now!" is the theme in the United States for World Health Day, April 7, 1999. This day will focus on the health issues of older adults. In the United States, the proportion of adults aged ≥65 years has tripled since 1900. During this same period, U.S. residents aged ≥85 years have increased 31-fold. By 2030, when the last of the "baby-boom" generation reaches age 65 years, adults aged ≥65 years will account for 20% of the U.S. population (*1*).

Increased longevity reflects successes achieved by public health and medical care during the 20th century. Although the aging population poses substantial challenges, older persons can improve their quality of life substantially and delay disability by following healthful lifestyle strategies (*2,3*). Healthful lifestyle choices (e.g., regular physical activity, good nutrition, and avoidance of smoking and overuse of alcohol) are more important than genetic factors in contributing to healthy aging (*2*). These choices can help aging persons avoid deterioration and dependency. Moreover, it is almost never too late to adopt healthful lifestyle habits.

The United Nations has proclaimed October 1, 1998–December 31, 1999, as the International Year of Older Persons (IYOP). Federal agencies are working together to sponsor IYOP activities. CDC will publish a special *MMWR* Surveillance Summary during 1999 describing the critical public health issues facing older adults in the United States.

The World Health Day Advisory Committee coordinates World Health Day activities in the United States. Additional information about special events and resource materials about World Health Day 1999 is available from the American Association for World Health, 1825 K Street, N.W., Suite 1208, Washington, DC 20006; telephone (202) 466-5883; e-mail: AAWHstaff@aol.com; or from the World-Wide Web, <http://www.aawhworldhealth.org>.

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Total Tooth Loss Among Persons Aged ≥65 Years — Selected States, 1995–1997

Loss of all natural permanent teeth (edentulism) substantially reduces quality of life, self-image, and daily functioning (*1*). Although loss of teeth results from oral diseases such as dental caries and periodontitis, it also reflects patient and dentist attitudes, availability and accessibility of dental care, and the prevailing standard of care (*2*). One of the national health objectives for 2000 is to reduce to no more than 20% the proportion of persons aged ≥65 years who have lost all their natural teeth (objective 13.4) (*3*). Edentulism has been declining in the United States since the 1950s (*2*), but few state-specific data are available on adult tooth loss. To estimate the prevalence of edentulism among persons aged ≥65 years, CDC analyzed data from the 46 states that participated in the oral health module of the 1995–1997 Behavioral Risk Factor Surveillance System (BRFSS). This report summarizes the findings from this analysis, which indicate a large state-specific variation in edentulism and that many states have not yet achieved the national health objective for preventing total tooth loss.

BRFSS is a state-based, random-digit–dialed telephone survey of the U.S. civilian, noninstitutionalized population aged ≥18 years. During 1995–1997, 46 states administered the optional oral health module during at least 1 year. Participants were asked how many of their permanent teeth were removed because of tooth decay or gum disease. Of the 28,979 persons aged ≥65 years who were asked this question, 27,736 (95.7%) responded. Edentate persons were those who reported having lost all their teeth. Data were aggregated and weighted according to state population estimates, and prevalence estimates and standard errors were calculated using SUDAAN (*4*). To increase the precision of prevalence estimates within age groups, data from multiple years were aggregated for states that administered the BRFSS oral health module during >1 year.

The prevalence of edentulism among persons aged ≥65 years ranged from 13.9% (Hawaii) to 47.9% (West Virginia) (Table 1). In five states (Arizona, California, Hawaii, Oregon, and Wisconsin), <20% of persons were edentate; in three states (Kentucky, Louisiana, and West Virginia), >40% were edentate.

In 1997, edentulism was more common among persons aged ≥75 years (26.7%) than among those aged 65–74 years (22.9%) (Table 2). Edentulism was more prevalent among persons with less than a high school education (42.1%) than among those with more education (10.1%–25.1%); among those without dental insurance (27.0%) than among those who had insurance (18.3%); among non-Hispanic blacks (31.9%) than among Hispanics (18.2%) and non-Hispanic whites (24.1%); and among current every day cigarette smokers (41.3%) than among occasional smokers (28.9%), former smokers (25.7%), or persons who had never smoked (19.9%).

Reported by: State Behavioral Risk Factor Surveillance System coordinators. Surveillance, Investigations, and Research Br, Div of Oral Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.

Editorial Note: The findings in this report indicate that most states have not yet achieved the national health objective for edentulism prevention. However, edentulism among older persons probably reflects total tooth loss that occurred many years earlier. Because younger birth cohorts seem less likely than persons born earlier

Tooth Loss — Continued

TABLE 1. Percentage of persons aged ≥65 years who reported having lost all their natural teeth, by state and age group — United States, Behavioral Risk Factor Surveillance System, 1995–1997*

State	65–74 years		≥75 years		Total	
	%	(95% CI†)	%	(95% CI)	%	(95% CI)
Alabama§¶	35.3	(± 4.9)	37.2	(± 6.3)	**36.0**	**(± 3.9)**
Alaska§	24.4	(±17.8)	28.5	(±16.1)	**25.1**	**(±14.7)**
Arizona§**	17.6	(± 4.3)	19.9	(± 5.1)	**18.5**	**(± 3.3)**
Arkansas§	32.1	(± 6.7)	50.1	(± 8.0)	**39.2**	**(± 5.3)**
California§¶	14.9	(± 2.9)	18.4	(± 3.7)	**16.2**	**(± 2.4)**
Colorado¶	20.6	(± 7.1)	28.1	(± 8.4)	**23.0**	**(± 5.5)**
Connecticut**	22.3	(± 6.9)	22.3	(± 8.0)	**22.3**	**(± 5.1)**
Florida¶	20.2	(± 3.9)	24.2	(± 4.5)	**21.9**	**(± 2.9)**
Georgia§	36.2	(± 5.5)	35.8	(±10.0)	**36.1**	**(± 4.9)**
Hawaii**	12.1	(± 5.1)	17.4	(± 8.2)	**13.9**	**(± 2.3)**
Idaho§¶	25.9	(± 3.5)	32.7	(± 4.3)	**28.7**	**(± 2.7)**
Illinois§**	27.2	(± 5.7)	30.2	(± 7.4)	**28.3**	**(± 4.5)**
Indiana§¶**	26.7	(± 3.5)	32.0	(± 4.1)	**28.8**	**(± 2.7)**
Iowa§	28.1	(± 4.7)	38.8	(± 5.5)	**32.7**	**(± 3.5)**
Kansas**	28.7	(± 6.3)	36.1	(± 7.3)	**31.8**	**(± 4.7)**
Kentucky**	40.0	(± 6.7)	50.6	(± 8.0)	**44.0**	**(± 5.3)**
Louisiana**	38.6	(± 7.6)	51.7	(± 9.4)	**43.0**	**(± 6.1)**
Maine§	35.7	(± 8.2)	41.3	(±10.6)	**37.8**	**(± 6.5)**
Maryland¶	27.2	(± 7.3)	32.7	(±10.8)	**29.2**	**(± 6.1)**
Massachusetts§	19.5	(± 5.9)	27.1	(± 8.6)	**22.0**	**(± 4.9)**
Michigan**	22.1	(± 5.9)	17.7	(± 6.5)	**20.6**	**(± 4.5)**
Mississippi¶	30.1	(± 7.1)	44.2	(± 9.4)	**35.3**	**(± 5.9)**
Missouri¶	27.0	(± 6.5)	35.5	(± 7.8)	**30.4**	**(± 4.9)**
Montana§¶**	28.5	(± 3.9)	33.3	(± 4.7)	**30.4**	**(± 2.9)**
Nebraska**	26.8	(± 5.7)	34.7	(± 6.7)	**30.0**	**(± 4.3)**
Nevada¶**	23.3	(± 7.1)	26.4	(±10.0)	**24.1**	**(± 5.9)**
New Hampshire**	27.7	(± 7.6)	26.7	(± 9.4)	**27.4**	**(± 5.9)**
New Jersey¶**	20.7	(± 3.7)	23.7	(± 4.5)	**21.8**	**(± 2.9)**
New Mexico¶	20.0	(± 5.9)	27.4	(± 7.6)	**22.7**	**(± 4.7)**
New York§¶**	22.5	(± 3.7)	31.7	(± 5.7)	**26.0**	**(± 3.3)**
North Dakota§	25.1	(± 5.9)	43.9	(± 7.1)	**32.5**	**(± 4.7)**
Ohio§¶	24.7	(± 4.1)	28.5	(± 5.7)	**26.1**	**(± 3.3)**
Oklahoma**	31.9	(± 5.3)	45.9	(± 7.8)	**36.2**	**(± 4.3)**
Oregon§	15.6	(± 4.1)	18.0	(± 5.1)	**16.5**	**(± 3.1)**
Pennsylvania**	26.5	(± 4.3)	38.1	(± 6.5)	**30.2**	**(± 3.5)**
Rhode Island§	24.0	(± 6.7)	28.2	(± 8.0)	**25.6**	**(± 5.1)**
South Dakota**	27.2	(± 5.7)	40.7	(± 6.3)	**33.2**	**(± 4.1)**
Tennessee¶	33.6	(± 5.9)	38.0	(± 7.1)	**35.3**	**(± 4.5)**
Texas§**	23.6	(± 5.3)	26.6	(± 6.7)	**24.7**	**(± 4.1)**
Utah§¶**	18.2	(± 3.5)	29.1	(± 4.5)	**22.8**	**(± 2.7)**
Vermont§	30.7	(± 6.3)	41.1	(± 7.6)	**34.8**	**(± 4.9)**
Virginia§¶**	20.6	(± 3.7)	31.5	(± 6.3)	**24.1**	**(± 3.3)**
Washington§	17.4	(± 4.9)	28.6	(+ 6.7)	**21.5**	**(± 3.9)**
West Virginia¶	44.2	(± 6.1)	54.3	(± 7.3)	**47.9**	**(± 4.7)**
Wisconsin§	15.1	(± 5.1)	26.9	(± 7.8)	**19.4**	**(± 4.3)**
Wyoming§	24.8	(± 5.7)	43.2	(± 8.2)	**31.5**	**(± 4.7)**

* n=27,736. For states in which data were collected in >1 year, analysis was conducted by aggregating data for multiple years.
† Confidence interval.
§ 1995.
¶ 1997.
** 1996.

Tooth Loss — Continued

TABLE 2. Percentage of persons aged ≥65 years who reported having lost all their natural teeth, by selected characteristics — United States, Behavioral Risk Factor Surveillance System, 1997*

Characteristic	Sample size†	Edentate	
		%	(95% CI§)
Sex			
Men	3420	23.6	(± 2.0)
Women	6282	24.9	(± 1.6)
Age group (yrs)			
65–74	5646	22.9	(± 1.6)
≥75	4056	26.7	(± 2.0)
Education level			
Less than high school graduate	2437	42.1	(± 2.9)
High school graduate	3391	25.1	(± 2.2)
Some college	2166	17.1	(± 2.2)
College graduate	1662	10.1	(± 2.0)
Dental insurance status			
Insured	2670	18.3	(± 2.0)
Uninsured	6855	27.0	(± 1.4)
Race/Ethnicity			
Non-Hispanic white	8539	24.1	(± 1.2)
Non-Hispanic black	641	31.9	(± 5.1)
Hispanic	352	18.2	(± 5.3)
Other¶	134	26.2	(±12.5)
Cigarette smoking status			
Current, every day	919	41.3	(± 4.5)
Current, some days	215	28.9	(± 8.0)
Former	3551	25.7	(± 2.0)
Never	4983	19.9	(± 1.6)
Total	**9702**	**24.4**	**(± 1.2)**

*Includes respondents in Alabama, California, Colorado, Florida, Idaho, Indiana, Maryland, Mississippi, Missouri, Montana, Nevada, New Jersey, New Mexico, New York, Ohio, Tennessee, Texas, Utah, Virginia, and West Virginia.
†Numbers may not add to total because of missing data.
§Confidence interval.
¶Numbers for races other than black and white were too small for meaningful analysis.

in the 20th century to lose all their teeth (*2*), the prevalence of edentulism among persons aged ≥65 years will probably continue to decline in succeeding birth cohorts.

Dental caries and its complications are the primary reasons for tooth extraction for persons of all ages (*2*). Dental caries is largely preventable, and community water fluoridation remains the most effective and cost-effective prevention method (*5*). The destruction of tooth-supporting structures from advanced periodontitis is also a substantial etiologic factor for tooth loss (*6*).

The approximately fourfold range in total tooth loss among states and sociodemographic variations in edentulism supports the contention that total tooth loss is

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not an inevitable consequence of aging. Changes in attitudes toward dentistry, advancements in dental restorative technologies, periodontal treatment, and effectiveness of water fluoridation and other preventive measures have helped ensure tooth retention.

The association between edentulism and educational attainment may reflect differences in access to preventive and restorative dental services and attitudes toward oral health. Racial/ethnic differences in the prevalence of edentulism may reflect varying disease experiences, cultural differences in attitudes toward oral health and dentistry, or socioeconomic status, which can influence use of dental care and type of treatment received. In addition, the higher prevalence of total tooth loss among persons without dental insurance than among those with dental insurance may, in part, result from reduced use of preventive and restorative dental services (*7*). However, dental insurance in the United States is almost entirely employment-based, and Medicare does not cover most dental procedures; therefore, relatively few persons aged ≥65 years have dental insurance.

Cigarette smoking is a risk factor for adult periodontitis and tooth loss (*8*). The higher prevalence of edentulism among current smokers may be directly related to the adverse effects of smoking on periodontal health. Cigarette smoking among adults in the United States is concentrated among persons with low levels of education and income (*9*), and its association with edentulism may reflect some degree of confounding of the association between low socioeconomic status and edentulism. However, the association between cigarette smoking and tooth loss remained after controlling for level of education (CDC, unpublished data, 1999).

The findings in this report are subject to at least two limitations. First, because BRFSS is administered as a telephone survey, only persons with telephones are represented. Second, results are based on self-reported data that have not been validated. However, previous studies have documented strong agreement between self-reported and clinically assessed total tooth loss (*10*).

Public health strategies to prevent edentulism include maintenance of optimal levels of fluoride in community water supplies, oral health promotion for all age groups, and expansion of dental insurance coverage, particularly for older persons. Other preventive measures include the appropriate use of fluoride-containing or antibacterial agents such as dentifrices, topical gels, mouth rinses, and varnishes. In addition, improved access to clinical dental services and expanded community tobacco-control activities can help prevent total tooth loss.

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Outbreaks of Gastrointestinal Illness of Unknown Etiology Associated with Eating Burritos — United States, October 1997–October 1998

From October 1997 through October 1998, 16 outbreaks of gastrointestinal illness associated with eating burritos occurred in Florida, Georgia, Illinois, Indiana, Kansas, North Dakota, and Pennsylvania. All but one outbreak occurred in schools, and most of the approximately 1700 persons affected were children. This report summarizes investigations of two of these outbreaks and describes the collaborative efforts of CDC, the U.S. Department of Agriculture (USDA), and the Food and Drug Administration (FDA) to identify the etiologic agent(s); these outbreaks may have been caused by an undetected toxin or a new agent not previously associated with illness.

Georgia

On March 23, 1998, the Hall County Health Department received a report that students in an elementary school became ill after eating lunch. Health officials obtained food and illness histories from 452 (77%) of the 584 students. A case was defined as nausea, abdominal cramps, vomiting, or diarrhea within 24 hours in a person after eating the school lunch on March 23. Of the 452 students, 155 (34%) had illnesses meeting the case definition. Symptoms most commonly reported were nausea (89%), headache (65%), abdominal cramps (53%), vomiting (29%), and diarrhea (17%). The median incubation period was approximately 15 minutes (range: 5–25 minutes), and median duration of illness was 4.5 hours (range: 10 minutes–8 hours).

The children had access to nine foods during lunch. One hundred forty-five (48%) of 304 who ate burritos, and 10 (7%) of 148 who did not eat burritos became ill (relative risk [RR]=7.1; 95% confidence interval [CI]=3.8–13.0). The burritos were produced by company A; the main ingredients were beef, chicken, pinto beans, seasoning, textured vegetable protein, and tortillas.

Florida

On October 8, 1998, the Hillsborough County Health Department was notified that students at 12 elementary schools became ill after eating lunch. Health officials conducted investigations at two schools. A case was defined as nausea, abdominal cramps, or vomiting in a person after eating the school lunch on October 8. In both schools, students who initially reported illness and classmates in the three classes with the highest number of cases were interviewed. Twenty-seven cases were identified. The predominant symptoms of the 14 ill children identified in one school were abdominal cramps (88%), vomiting (62%), headache (62%), and nausea (39%). In the

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other school, symptoms among the 13 identified ill children were abdominal cramps (82%), vomiting (55%), headache (27%), nausea (18%), and dizziness (18%).

In a case-control study at one school, eight (57%) of 14 case-patients and five (13%) of 38 well children ate burritos (odds ratio [OR]=8.8; 95% CI=1.8–47.6). In the other school, 11 (85%) of 13 case-patients and 11 (33%) of 33 well children ate burritos (OR=11.0; 95% CI=1.8–87.6). The tortillas used to make the burritos were supplied by company B; the fillings, beef at one school and beef and pinto beans at the other, were made in the two school kitchens.

Summary Findings

During October 1997–March 1998, burritos from three outbreaks of gastrointestinal illness were traced to company A, and during May–October 1998, burritos from another 13 outbreaks were traced to company B. Three outbreaks were linked to chicken and bean burritos, pork-sausage and egg burritos, and beef burritos; the other 13 were linked to beef and pinto bean burritos. All burritos used tortillas made with wheat flour. The burritos were distributed frozen and prepackaged except in Florida, where the filling was prepared locally.

The major symptoms were nausea, headache, abdominal cramps, and vomiting, typically beginning within 60 minutes after eating a burrito and lasting <24 hours. No one was hospitalized.

USDA requested that both companies A and B initiate timely national recalls, and approximately 2 million lbs of burritos were recalled or withheld from distribution. Company A and its tortilla supplier were unrelated to company B and its supplier.

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Editorial Note: Data from the two outbreaks described in this report and the other 14 outbreaks indicate that the symptoms, incubation period, and duration of illness were similar. The variations in symptoms in the outbreaks in Florida and Georgia could be associated with differences in case finding methods. Epidemiologic investigations in several of the other outbreaks also have implicated burritos, which consisted of meat or vegetable filling wrapped in a tortilla. Data from the Florida outbreak suggest that the etiologic agent was in the tortillas because the filling was made locally. Outbreaks associated with products made by two unrelated companies that used different tortilla suppliers suggest that the agent was an ingredient common to the products made by both companies. No common first-line suppliers were identified; however, whether the source of any ingredients was shared has not been determined.

The short incubation periods suggest that a preformed toxin or other short-acting agent was the cause of illness. Possible agents include bacterial toxins (e.g., *Staphy-*

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lococcus aureus enterotoxin and *Bacillus cereus* emetic toxin); mycotoxins (e.g., deoxynivalenol [DON], acetyl-deoxynivalenol, and other tricothecenes), trace metals, nonmetal ions (e.g., fluorine, bromine, and iodine), plant toxins (e.g., alkaloids such as solanines, opiates, ipecac, and ergot; lectins such as phytohemagglutinin; and glycosides), pesticides (e.g., pyrethrins, organophosphates, and chlorinated hydrocarbons), food additives (e.g., bromate, glutamate, nitrite, salicylate, sorbate, and sulfite), detergents (e.g., anionic detergents and quaternary amines), fat-soluble vitamins, spoilage factors (e.g., biogenic amines, putrefaction, and free fatty acids), or an unknown toxin. Mass sociogenic illness is an unlikely explanation based on the number of different sites where outbreaks have been reported over a short interval and the link to only two companies.

B. cereus emetic toxin and *S. aureus* enterotoxin are common causes of food poisoning, but headache is not usually a prominent feature, and most outbreaks traced to these toxins have incubation periods of 2–4 hours, which is longer than observed in these outbreaks (*1,2*). Food samples from five outbreaks were negative for *B. cereus* and *S. aureus* by culture and toxin analysis; testing from these same outbreaks for alkaloids, biogenic amines, and pesticides also did not identify the causative agent.

Some metals, such as cadmium, copper, tin, and zinc, can irritate mucosal membranes and cause gastrointestinal illness after short incubation periods; however, only elemental aluminum was mildly elevated in the burrito samples, and there is no evidence that it causes these symptoms (*3,4*). Several plant toxins, such as phytohemagglutinin, may survive cooking and cause gastrointestinal symptoms; however, previous outbreaks associated with phytohemagglutinin have been linked to red kidney beans and not pinto beans (*5*).

Outbreaks with symptoms and incubation periods similar to those described in this report have occurred in China and India, where illness has been linked to consumption of products made with grains contaminated with fungi. These fungi produce heat-stable tricothecene mycotoxins called vomitoxin (*6*). In China, 35 outbreaks affecting 7818 persons during 1961–1985 were attributed to consumption of foods made with moldy grain (*7*). Corn and wheat samples collected during two outbreaks had higher levels of DON than those collected at other times. In India in 1987, 97 persons consumed wheat products following heavy rains (*8*). DON and other tricothecene mycotoxins were detected in the implicated wheat products, and extracted toxins caused vomiting in laboratory tests on puppies (*8*). High doses of DON are known to cause vomiting in pigs (*9*). Laboratory testing from burrito samples from some of the U.S. outbreaks in this report detected DON within the acceptable FDA advisory level of 1 ppm for finished wheat products (*10*). However, the possibility remains that a mycotoxin is the cause.

To facilitate coordination of outbreak investigation and traceback activities, local health departments are encouraged to report immediately any outbreaks characterized by an incubation period of <1 hour, duration of <1 day, and symptoms including nausea, headache, abdominal cramps, and vomiting regardless of the suspected vehicle through state health departments to CDC. CDC recommends that vomitus, serum, stool, and urine specimens be obtained from at least 10 ill persons, if possible, in each outbreak and that any leftover food samples and shipping containers be saved.

In addition to testing food specimens for specific toxins and agents, laboratories at USDA, FDA, and CDC are examining these specimens by cell culture assays, biologic

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toxicity assays, and chemical analyses for toxins. The interagency investigating team seeks to collaborate with groups capable of analyzing suspect burritos and tortillas to identify the etiologic agent. Additional information is available from CDC's Foodborne and Diarrheal Diseases Branch, Division of Bacterial and Mycotic Diseases, National Center for Infectious Diseases, telephone (404) 639-2206.

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Adult Blood Lead Epidemiology and Surveillance — United States, Second and Third Quarters, 1998, and Annual 1994–1997

Chronic lead exposure in adults can damage the cardiovascular, central nervous, renal, reproductive, and hematologic systems. CDC's Adult Blood Lead Epidemiology and Surveillance (ABLES) program monitors laboratory-reported elevated blood lead levels (BLLs) among adults in the United States. During 1998, 27 states* reported surveillance data to ABLES. This report presents prevalence data for elevated BLLs for the second and third quarters of 1998 and compares them with corresponding quarters of 1997, and presents annual prevalence data for elevated BLLs from 1994 through 1997 for each participating state. The findings indicate that of the approximately 20,000 persons tested for blood lead and reported to ABLES each quarter, approximately 4000 BLLs were elevated. The 1994–1997 prevalence rates of elevated BLLs among adults provide a crude comparison of the levels and trends among the 27 states participating in the program.

*Alabama, Arizona, California, Connecticut, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.

ABLES — Continued

ABLES defines an adult as a person aged ≥16 years and an elevated BLL in an adult as ≥25 μg/dL, although BLL reporting thresholds vary among the states. Persons with duplicate BLL tests are included once per quarter and once per year at the highest BLL for that person. Denominators for calculating prevalence during 1994–1997 are the population figures (aged 16–64 years) of the individual participating states (*1*). An upper age cutoff of 64 years is used because 90%–95% of adult lead exposures occur at work. Not all of the current 27 ABLES states reported data over the entire period from 1994 through 1997.

Second Quarter, 1998

During April 1–June 30, 1998, of the 20,212 adults for whom BLLs were reported by the states, 3727 (18%) had levels ≥25 μg/dL, a 14% decrease compared with the 4335 reported for the second quarter of 1997 (*2*) and a 12% decrease compared with the 4243 reported for the first quarter of 1998 (*3*) (Figure 1). Of the 3727, 182 (5%) were reported with BLLs ≥50 μg/dL (the Occupational Safety and Health Administration [OSHA] level for medical removal from the workplace [*4*]), an 8% decrease compared with 197 reported for the second quarter of 1997 (*2*) and a 4% increase compared with 175 reported for the first quarter of 1998 (*3*).

Third Quarter, 1998

During July 1–September 30, 1998, of the 20,511 adults for whom BLLs were reported by the participating states, 3322 (16%) had BLLs ≥25 μg/dL**,** a 21% decrease compared with 4180 persons reported for the third quarter of 1997 (*5*) and an 11% decrease compared with 3727 reported for the second quarter of 1998 (Figure 1). Of the 3322, 182 (6%) were reported with BLLs ≥50 μg/dL, a 13% decrease compared with 209 reported for the third quarter of 1997 (*5*) and an equal number compared with the second quarter of 1998.

Annual ABLES Prevalence, 1994–1997

The prevalence of adults with BLLs ≥25 μg/dL per million adults aged 16–64 years varied among the participating states for 1994 through 1997 (Figure 2). These rates ranged from 15 per million for Arizona (1994) to 442 per million for Pennsylvania (1997). Michigan, New Mexico, Rhode Island, and Wyoming began reporting in 1997; Ohio and Minnesota began reporting in 1996; and Illinois last reported in 1996.

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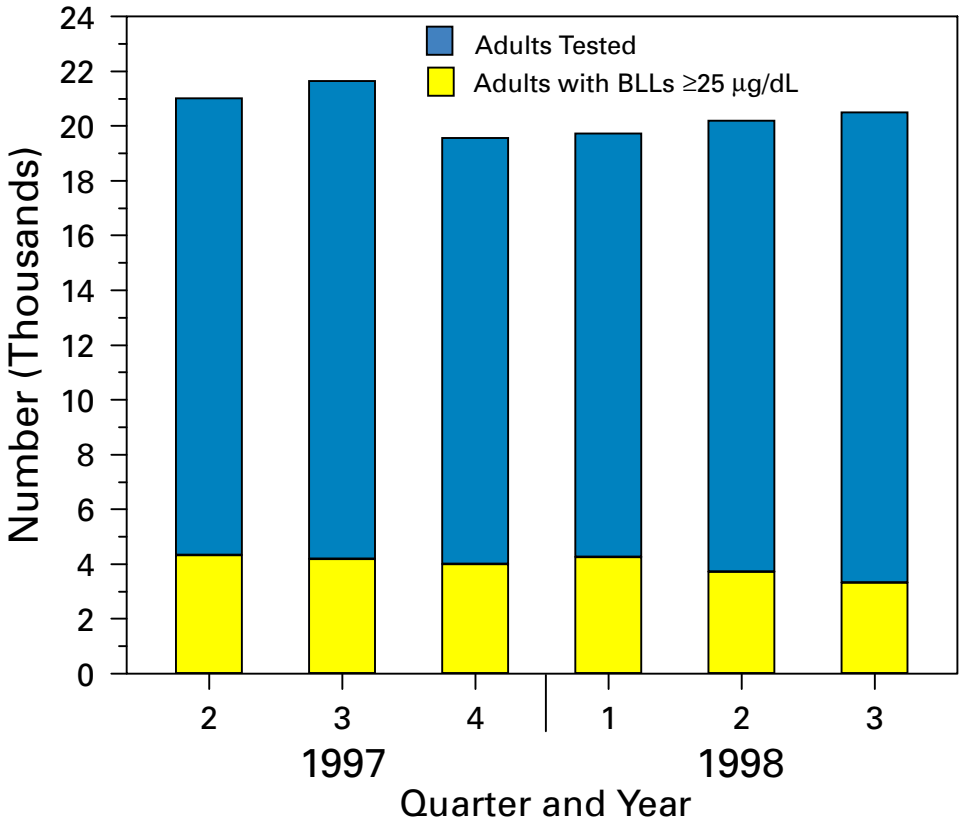
ABLES — Continued

FIGURE 1. Total number of adults* tested† and whose blood lead levels (BLLs) were ≥25 µg/dL, by quarter — 27 states participating in Adult Blood Lead Epidemiology and Surveillance,§ 1997–1998



*Persons aged 16–64 years, categorized according to the highest reported BLL for that person during the given quarter. Data for the second and third quarters of 1998 were not available for New Mexico; the corresponding 1997 quarters were used as estimates.

†The reporting threshold varies among the participating states; the value includes persons with BLLs <25 µg/dL. However, the following states do not report persons with BLLs <25 µg/dL: Maryland, Massachusetts, New Jersey, North Carolina, and Oregon.

§Alabama, Arizona, California, Connecticut, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming.

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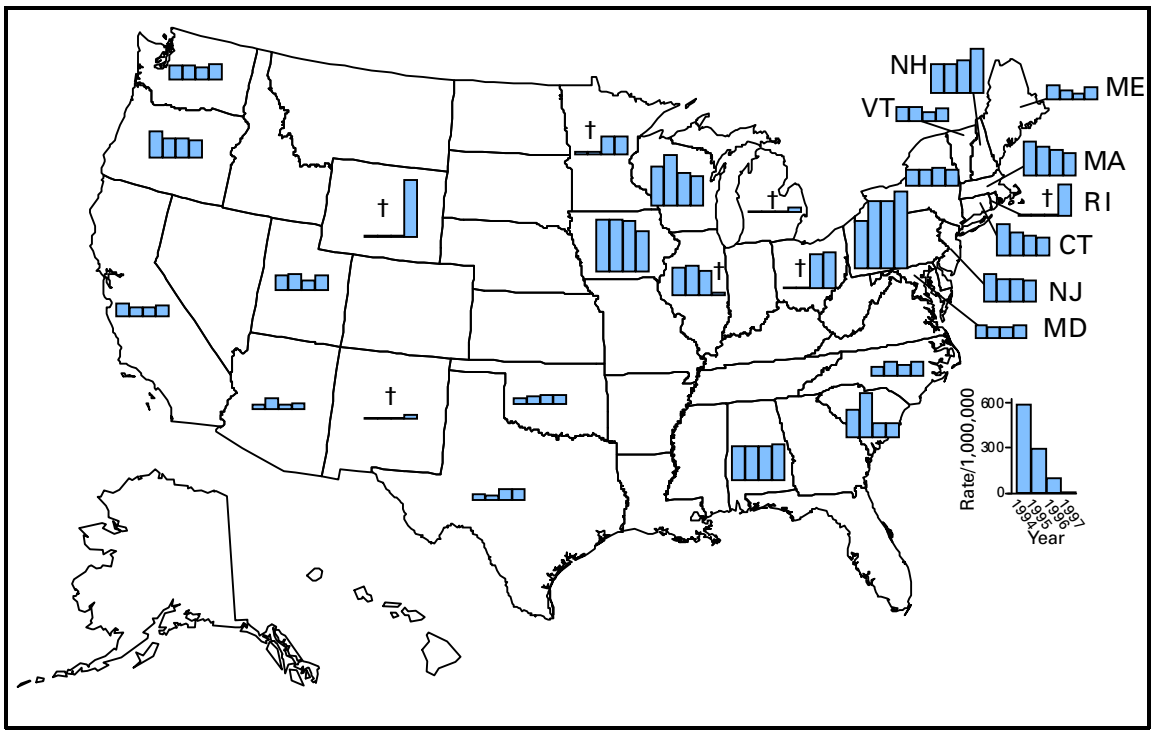
Editorial Note: The symptoms of adult lead poisoning include fatigue, irritability, insomnia, and headaches. Occupations known to expose workers to lead include radiator repair, battery manufacture and recycling, smelting, and construction or remodeling involving lead-based paint. Lead exposure can be prevented by engineering controls, good housekeeping, personal protective equipment, and fastidious hy-

ABLES — Continued

FIGURE 2. Prevalence of blood lead levels ≥25 µg/dL among adults*, reported by states participating in Adult Blood Lead Epidemiology and Surveillance — United States, 1994–1997



*Per 1 million adults aged 16–64 years.
†Minnesota and Ohio began reporting in 1996. Illinois last reported in 1996. Michigan, New Mexico, Rhode Island, and Wyoming reported for the first time in 1997. ABLES program data are known to be underreported. These data represent the level of functioning of the various state ABLES programs, but do not necessarily represent a true picture of workplace lead exposure in individual states.

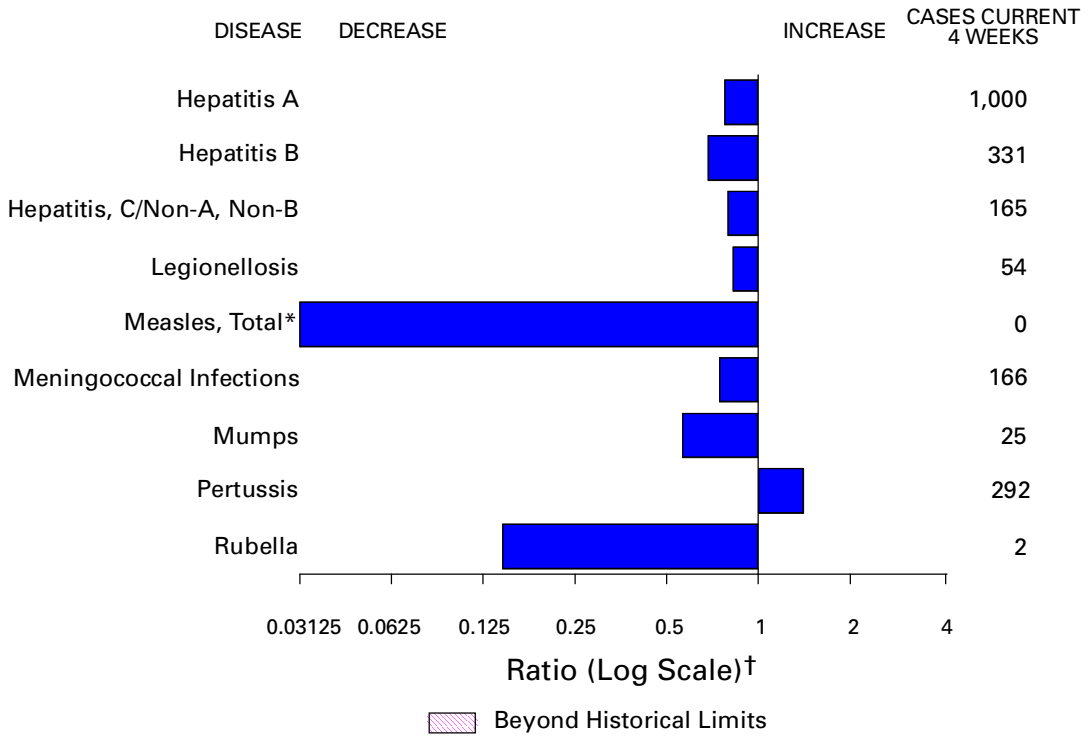
giene. Medical removal from a lead-exposed job is required by OSHA when a workers' BLL is ≥50 µg/dL.

Second quarter data for 1997 through the first quarter of 1998 indicate that the number of persons with BLLs ≥25 µg/dL reported by participating states was approximately 4000 per quarter. An apparent decrease in the number of persons with BLLs ≥25 µg/dL occurred in both the second and third quarters of 1998. Furthermore, the testing level has remained relatively constant, indicating that the decrease probably is not caused by the performance of fewer BLL tests. However, amendments to previous quarterly reports are likely to occur when fourth quarter reports are received. These amendments occur because ABLES is concerned with the diagnosis date of the blood lead laboratory report and not the date the laboratory result was received by the state health department. Therefore, additional data collected through ABLES are needed to interpret the current quarterly data and their implications for projecting trends.

State-specific prevalences presented in this report may not accurately reflect workplace lead exposures because not all employers tested lead-exposed employees for elevated BLLs and not all laboratories reported results. For example, data from the

(Continued on page 223)

FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending March 13, 1999, with historical data — United States



*No measles cases were reported for the current 4-week period, yielding a ratio for week 10 of zero (0).

† 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 — provisional cases of selected notifiable diseases, United States, cumulative, week ending March 13, 1999 (10th Week)

	Cum. 1999		Cum. 1999
Anthrax	-	Plague	-
Brucellosis	9	Poliomyelitis, paralytic	-
Cholera	-	Psittacosis	6
Congenital rubella syndrome	-	Rabies, human	-
Cryptosporidiosis*	192	Rocky Mountain spotted fever (RMSF)	24
Diphtheria	-	Streptococcal disease, invasive Group A	325
Encephalitis: California*	1	Streptococcal toxic-shock syndrome*	6
eastern equine*	-	Syphilis, congenital¶	-
St. Louis*	-	Tetanus	3
western equine*	-	Toxic-shock syndrome	17
Hansen Disease	9	Trichinosis	2
Hantavirus pulmonary syndrome*†	1	Typhoid fever	47
Hemolytic uremic syndrome, post-diarrheal*	5	Yellow fever	-
HIV infection, pediatric*§	18		

-: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 February 21, 1999.
¶ Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending March 13, 1999, and March 14, 1998 (10th Week)

Reporting Area	AIDS		Chlamydia		*Escherichia coli* O157:H7		Gonorrhea		Hepatitis C/NA,NB	
					NETSS†	PHLIS§				
	Cum. 1999*	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1999	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
UNITED STATES	7,049	7,874	94,232	106,851	190	72	53,231	63,700	436	759
NEW ENGLAND	359	198	3,321	4,112	29	23	1,077	1,184	40	20
Maine	5	4	141	192	2	-	10	8	-	-
N.H.	13	10	175	186	1	1	16	23	-	-
Vt.	4	8	85	60	1	-	10	1	1	2
Mass.	245	70	1,730	1,638	17	13	571	431	39	18
R.I.	20	22	412	476	-	-	108	62	-	-
Conn.	72	84	778	1,560	8	9	362	659	-	-
MID. ATLANTIC	1,497	2,173	12,711	12,587	12	1	6,987	7,448	31	64
Upstate N.Y.	74	299	N	N	10	-	594	1,126	27	59
N.Y. City	837	1,157	6,540	6,767	-	1	3,216	3,185	-	-
N.J.	375	351	1,041	2,279	2	-	672	1,396	-	-
Pa.	211	366	5,130	3,541	N	-	2,505	1,741	4	5
E.N. CENTRAL	487	570	14,248	16,464	33	8	9,914	12,483	98	96
Ohio	95	154	4,636	5,531	21	3	2,797	3,294	-	5
Ind.	52	79	-	-	5	-	726	1,230	-	2
Ill.	231	248	5,201	4,211	2	-	3,397	3,749	1	15
Mich.	80	57	3,717	4,025	5	2	2,697	3,161	97	74
Wis.	29	32	694	2,697	N	3	297	1,049	-	-
W.N. CENTRAL	161	147	3,138	6,911	31	12	1,154	2,948	3	134
Minn.	26	22	1,085	1,387	14	10	428	472	-	-
Iowa	12	9	396	731	5	2	160	199	-	3
Mo.	84	77	-	2,418	1	-	-	1,406	2	131
N. Dak.	3	3	-	194	2	-	-	18	-	-
S. Dak.	4	5	339	336	-	-	32	57	-	-
Nebr.	11	14	605	587	2	-	268	233	-	-
Kans.	21	17	713	1,258	7	-	266	563	1	-
S. ATLANTIC	1,888	2,199	22,421	21,504	26	7	17,027	17,169	40	24
Del.	31	36	592	445	1	-	336	287	-	-
Md.	254	239	1,571	1,493	2	-	2,017	1,571	16	3
D.C.	67	189	N	N	-	-	538	682	-	-
Va.	103	112	2,629	2,328	6	2	1,954	1,502	6	1
W. Va.	14	19	472	1,023	-	1	88	308	2	2
N.C.	126	107	4,358	4,072	5	2	3,874	3,581	-	7
S.C.	132	161	4,434	3,505	1	1	2,230	2,345	5	-
Ga.	209	230	3,088	4,966	1	-	2,162	3,935	1	6
Fla.	952	1,106	5,277	3,672	10	1	3,828	2,958	10	5
E.S. CENTRAL	303	310	6,629	7,642	13	1	5,810	7,429	24	19
Ky.	37	39	-	1,193	5	-	-	738	1	4
Tenn.	132	124	2,634	2,595	6	-	2,125	2,259	22	12
Ala.	71	86	2,849	2,019	2	-	2,534	2,566	1	3
Miss.	63	61	1,146	1,835	-	1	1,151	1,866	-	-
W.S. CENTRAL	989	905	11,407	15,247	5	1	6,913	9,412	19	12
Ark.	34	52	992	661	2	-	434	1,026	2	2
La.	69	148	3,170	2,383	1	1	2,802	2,079	8	-
Okla.	20	53	1,506	1,713	1	-	804	905	-	-
Tex.	866	652	5,739	10,490	1	-	2,873	5,402	9	10
MOUNTAIN	213	227	5,112	5,377	15	2	1,389	1,482	43	103
Mont.	3	8	210	175	-	-	3	8	4	4
Idaho	5	5	326	375	-	-	23	35	4	34
Wyo.	1	1	136	157	1	-	6	9	13	26
Colo.	57	39	1,400	1,400	4	1	369	504	7	7
N. Mex.	9	36	831	819	1	-	153	151	4	17
Ariz.	89	61	1,376	1,846	4	1	558	626	10	-
Utah	27	26	283	279	5	-	30	33	1	8
Nev.	22	51	550	326	-	-	247	116	-	7
PACIFIC	1,152	1,145	15,245	17,007	26	17	2,960	4,145	138	287
Wash.	59	73	2,344	2,159	1	4	394	374	2	2
Oreg.	32	31	939	1,141	9	8	132	161	-	1
Calif.	1,040	1,026	11,424	12,916	16	5	2,335	3,470	136	249
Alaska	5	-	264	377	-	-	48	58	-	1
Hawaii	16	15	274	414	-	-	51	82	-	34
Guam	1	-	-	54	N	-	-	5	-	-
P.R.	214	271	U	U	1	U	59	89	-	-
V.I.	3	8	N	N	N	U	U	U	U	U
Amer. Samoa	-	-	U	U	N	U	U	U	U	U
C.N.M.I.	-	-	N	N	N	U	-	7	-	-

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

*Updated monthly from reports to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, last update February 21, 1999.

†National Electronic Telecommunications System for Surveillance.

§Public Health Laboratory Information System.

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending March 13, 1999, and March 14, 1998 (10th Week)

Reporting Area	Legionellosis		Lyme Disease		Malaria		Syphilis (Primary & Secondary)		Tuberculosis		Rabies, Animal
	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999*	Cum. 1998*	Cum. 1999
UNITED STATES	141	229	595	703	193	215	1,075	1,368	753	1,284	763
NEW ENGLAND	11	15	99	92	3	6	15	15	57	55	120
Maine	2	-	-	1	-	-	-	-	1	-	19
N.H.	1	2	-	4	-	-	-	1	-	2	4
Vt.	3	-	-	1	-	-	1	-	-	1	20
Mass.	2	5	79	24	3	6	10	12	26	25	31
R.I.	1	3	2	13	-	-	1	-	15	8	12
Conn.	2	5	18	49	-	-	3	2	15	19	34
MID. ATLANTIC	35	47	347	481	51	79	40	53	264	284	178
Upstate N.Y.	10	10	103	222	18	20	4	4	19	34	116
N.Y. City	-	12	1	12	11	43	14	7	169	176	U
N.J.	5	2	85	43	14	8	1	18	76	74	37
Pa.	20	23	158	204	8	8	21	24	U	U	25
E.N. CENTRAL	32	87	18	18	12	18	214	205	43	49	1
Ohio	15	22	12	13	2	1	19	40	U	U	-
Ind.	5	21	5	4	4	1	32	31	U	U	-
Ill.	-	14	-	-	-	9	137	80	U	U	-
Mich.	12	15	1	1	5	6	26	38	36	31	1
Wis.	-	15	U	U	1	1	-	16	7	18	-
W.N. CENTRAL	4	13	5	6	5	7	5	37	63	42	64
Minn.	-	-	1	-	-	1	-	1	33	20	17
Iowa	3	1	1	5	2	1	1	-	-	-	18
Mo.	1	6	-	1	3	4	-	26	24	11	-
N. Dak.	-	-	1	-	-	-	-	-	-	-	15
S. Dak.	-	-	-	-	-	-	-	-	3	4	-
Nebr.	-	6	-	-	-	-	1	4	1	-	1
Kans.	-	-	2	-	-	1	3	6	2	7	13
S. ATLANTIC	24	30	77	76	60	44	413	513	130	270	297
Del.	2	4	-	-	-	1	1	5	-	4	-
Md.	3	8	61	70	19	19	89	147	U	U	65
D.C.	-	2	1	3	6	2	10	14	8	21	-
Va.	2	3	-	-	9	4	29	41	17	30	69
W. Va.	N	N	1	-	1	-	1	-	7	16	15
N.C.	4	4	11	-	3	5	118	150	52	141	67
S.C.	4	3	1	-	-	-	49	54	46	58	23
Ga.	-	-	-	2	5	10	53	40	U	U	28
Fla.	9	6	2	1	17	3	63	62	U	U	30
E.S. CENTRAL	8	8	9	9	3	5	173	248	52	108	46
Ky.	2	4	-	-	-	-	-	25	U	U	13
Tenn.	5	2	4	5	2	3	103	127	U	U	19
Ala.	1	1	5	4	1	1	58	53	46	72	14
Miss.	-	1	-	-	-	1	12	43	6	36	-
W.S. CENTRAL	1	2	-	-	5	4	171	177	33	364	11
Ark.	-	-	-	-	-	-	19	22	14	12	-
La.	1	-	-	-	3	3	48	72	U	U	-
Okla.	-	-	-	-	1	-	48	10	19	23	11
Tex.	-	2	-	-	1	1	56	73	-	329	-
MOUNTAIN	11	11	2	1	9	13	16	52	27	48	22
Mont.	-	1	-	-	1	-	-	-	-	2	10
Idaho	-	-	-	-	1	1	-	-	-	1	-
Wyo.	-	-	1	-	-	-	-	-	-	1	6
Colo.	1	4	-	-	3	4	-	3	U	U	1
N. Mex.	1	1	1	-	1	4	-	4	10	8	-
Ariz.	1	-	-	-	3	2	15	40	U	U	5
Utah	4	4	-	-	-	1	-	2	11	8	-
Nev.	4	1	-	1	-	1	1	3	6	28	-
PACIFIC	15	16	38	20	45	39	28	68	84	64	24
Wash.	2	-	-	-	2	-	5	4	50	37	-
Oreg.	-	-	1	-	7	6	-	1	U	U	-
Calif.	13	16	37	20	34	33	22	63	U	U	22
Alaska	-	-	-	-	-	-	-	-	6	8	2
Hawaii	-	-	-	-	2	-	1	-	28	19	-
Guam	-	1	-	-	-	-	-	-	-	25	-
P.R.	-	-	-	-	-	-	48	42	-	6	9
V.I.	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	-	-	-	-	-	-	18	-	17	-

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

*Cumulative reports of provisional tuberculosis cases for 1998 and 1999 are unavailable ("U") for some areas using the Tuberculosis Information Management System (TIMS).

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending March 13, 1999, and March 14, 1998 (10th Week)

Reporting Area	*H. influenzae*, invasive		Hepatitis (Viral), by type				Measles (Rubeola)					
			A		B		Indigenous		Imported†		Total	
	Cum. 1999*	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	1999	Cum. 1999	1999	Cum. 1999	Cum. 1999	Cum. 1998
UNITED STATES	212	229	2,706	3,646	956	1,547	-	8	-	3	11	6
NEW ENGLAND	17	13	28	77	16	27	-	-	-	1	1	1
Maine	2	-	2	9	-	-	-	-	-	-	-	-
N.H.	2	1	4	5	2	3	-	-	-	1	1	-
Vt.	3	-	-	4	-	-	-	-	-	-	-	-
Mass.	10	12	9	19	12	13	-	-	-	-	-	1
R.I.	-	-	-	5	2	-	-	-	-	-	-	-
Conn.	-	-	13	35	-	11	-	-	-	-	-	-
MID. ATLANTIC	30	35	166	285	121	235	-	-	-	-	-	1
Upstate N.Y.	18	13	52	62	31	56	-	-	-	-	-	-
N.Y. City	2	10	20	113	18	60	-	-	-	-	-	-
N.J.	10	11	25	51	19	39	U	-	U	-	-	1
Pa.	-	1	69	59	53	80	-	-	-	-	-	-
E.N. CENTRAL	21	36	685	613	93	376	-	-	-	-	-	1
Ohio	14	17	153	80	20	16	-	-	-	-	-	-
Ind.	1	2	29	77	4	189	-	-	-	-	-	-
Ill.	5	16	66	161	-	51	-	-	-	-	-	-
Mich.	1	-	435	255	69	99	-	-	-	-	-	1
Wis.	-	1	2	40	-	21	-	-	-	-	-	-
W.N. CENTRAL	10	3	65	329	25	81	-	-	-	-	-	-
Minn.	4	-	4	5	4	2	-	-	-	-	-	-
Iowa	2	1	22	121	8	11	-	-	-	-	-	-
Mo.	-	-	18	163	5	58	-	-	-	-	-	-
N. Dak.	-	-	-	1	-	1	-	-	-	-	-	-
S. Dak.	1	-	-	1	-	1	-	-	-	-	-	-
Nebr.	1	-	13	9	6	3	U	-	U	-	-	-
Kans.	2	2	8	29	2	5	-	-	-	-	-	-
S. ATLANTIC	56	47	304	281	180	163	-	-	-	-	-	3
Del.	-	-	-	-	-	-	-	-	-	-	-	-
Md.	20	12	71	80	32	32	-	-	-	-	-	1
D.C.	2	-	11	11	5	3	-	-	-	-	-	-
Va.	5	6	21	42	13	17	-	-	-	-	-	2
W. Va.	1	2	1	-	-	1	-	-	-	-	-	-
N.C.	5	7	28	18	44	48	-	-	-	-	-	-
S.C.	2	-	3	7	19	-	-	-	-	-	-	-
Ga.	12	15	66	80	23	41	-	-	-	-	-	-
Fla.	9	5	103	43	44	21	-	-	-	-	-	-
E.S. CENTRAL	19	15	85	101	66	88	-	-	-	-	-	-
Ky.	2	4	6	3	7	5	U	-	U	-	-	-
Tenn.	12	6	56	52	44	65	-	-	-	-	-	-
Ala.	4	5	22	28	15	18	-	-	-	-	-	-
Miss.	1	-	1	18	-	-	U	-	U	-	-	-
W.S. CENTRAL	10	13	203	253	38	105	-	-	-	2	2	-
Ark.	-	-	8	7	8	21	-	-	-	-	-	-
La.	3	6	9	4	8	6	-	-	-	-	-	-
Okla.	5	5	71	90	14	7	-	-	-	-	-	-
Tex.	2	2	115	152	8	71	-	-	-	2	2	-
MOUNTAIN	30	40	294	649	92	149	-	1	-	-	1	-
Mont.	1	-	4	6	1	1	-	-	-	-	-	-
Idaho	1	-	8	43	4	5	-	-	-	-	-	-
Wyo.	1	-	1	10	-	1	-	-	-	-	-	-
Colo.	1	7	66	51	22	18	-	1	-	-	1	-
N. Mex.	7	-	6	36	34	53	-	-	-	-	-	-
Ariz.	15	21	166	415	13	37	-	-	-	-	-	-
Utah	4	2	14	37	8	16	-	-	-	-	-	-
Nev.	-	10	29	51	10	18	-	-	-	-	-	-
PACIFIC	19	27	876	1,058	325	323	-	7	-	-	7	-
Wash.	-	1	56	100	3	21	-	-	-	-	-	-
Oreg.	8	13	51	69	12	27	-	6	-	-	6	-
Calif.	10	10	766	872	304	268	-	1	-	-	1	-
Alaska	1	1	2	1	3	2	-	-	-	-	-	-
Hawaii	-	2	1	16	3	5	-	-	-	-	-	-
Guam	-	-	-	-	-	-	U	-	U	-	-	-
P.R.	-	1	13	7	15	109	-	-	-	-	-	-
V.I.	U	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	-	-	-	-	16	U	-	U	-	-	-

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

*Of 41 cases among children aged <5 years, serotype was reported for 17 and of those, 3 were type b.

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

TABLE III. (Cont'd.) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending March 13, 1999, and March 14, 1998 (10th Week)

Reporting Area	Meningococcal Disease		Mumps			Pertussis			Rubella		
	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998
UNITED STATES	474	705	6	67	83	81	646	786	1	6	67
NEW ENGLAND	25	39	-	1	-	2	84	159	-	-	13
Maine	3	3	-	-	-	-	-	4	-	-	-
N.H.	-	1	-	1	-	-	17	15	-	-	-
Vt.	2	1	-	-	-	-	11	24	-	-	-
Mass.	17	15	-	-	-	-	54	112	-	-	1
R.I.	2	3	-	-	-	2	2	-	-	-	-
Conn.	1	16	-	-	-	-	-	4	-	-	12
MID. ATLANTIC	51	71	3	9	6	6	86	95	-	-	44
Upstate N.Y.	9	16	-	2	2	2	59	56	-	-	39
N.Y. City	17	10	-	-	4	-	-	6	-	-	1
N.J.	13	18	U	-	-	U	-	6	U	-	4
Pa.	12	27	3	7	-	4	27	27	-	-	-
E.N. CENTRAL	71	119	1	6	10	12	80	88	-	-	-
Ohio	33	45	1	3	7	10	66	33	-	-	-
Ind.	7	20	-	-	-	-	2	8	-	-	-
Ill.	23	26	-	-	-	-	-	3	-	-	-
Mich.	8	13	-	3	3	2	12	11	-	-	-
Wis.	-	15	-	-	-	-	-	33	-	-	-
W.N. CENTRAL	44	50	-	2	8	-	9	58	-	-	-
Minn.	16	-	-	-	4	-	-	28	-	-	-
Iowa	9	9	-	2	2	-	3	13	-	-	-
Mo.	8	25	-	-	1	-	5	10	-	-	-
N. Dak.	-	-	-	-	1	-	-	-	-	-	-
S. Dak.	5	4	-	-	-	-	1	-	-	-	-
Nebr.	2	1	U	-	-	U	-	3	U	-	-
Kans.	4	11	-	-	-	-	-	4	-	-	-
S. ATLANTIC	88	103	-	12	12	6	58	57	-	3	1
Del.	1	1	-	-	-	-	-	-	-	-	-
Md.	13	13	-	2	-	2	19	13	-	-	-
D.C.	1	-	-	1	-	-	-	-	-	-	-
Va.	10	11	-	2	2	-	7	-	-	-	-
W. Va.	1	3	-	-	-	-	-	-	-	-	-
N.C.	10	18	-	1	5	1	19	30	-	3	1
S.C.	12	13	-	2	3	1	5	5	-	-	-
Ga.	14	33	-	-	-	2	2	-	-	-	-
Fla.	26	11	-	4	2	-	6	9	-	-	-
E.S. CENTRAL	37	59	-	1	1	-	14	13	-	-	-
Ky.	10	11	U	-	-	U	1	-	U	-	-
Tenn.	14	21	-	-	-	-	9	4	-	-	-
Ala.	9	22	-	1	1	-	4	9	-	-	-
Miss.	4	5	U	-	-	U	-	-	U	-	-
W.S. CENTRAL	21	44	-	9	16	-	18	21	1	3	3
Ark.	7	8	-	-	-	-	3	4	-	-	-
La.	6	12	-	-	-	-	-	-	-	-	-
Okla.	7	17	-	1	-	-	2	-	-	-	-
Tex.	1	7	-	8	16	-	13	17	1	3	3
MOUNTAIN	48	47	-	4	4	5	131	150	-	-	5
Mont.	-	2	-	-	-	1	1	1	-	-	-
Idaho	5	3	-	-	-	-	72	66	-	-	-
Wyo.	2	3	-	-	1	-	1	-	-	-	-
Colo.	15	12	-	2	-	4	13	25	-	-	-
N. Mex.	7	6	N	N	N	-	7	41	-	-	1
Ariz.	14	17	-	-	1	-	18	10	-	-	1
Utah	3	3	-	1	-	-	17	3	-	-	2
Nev.	2	1	-	1	2	-	2	4	-	-	1
PACIFIC	89	173	2	23	26	50	166	145	-	-	1
Wash.	12	20	-	-	2	40	63	54	-	-	-
Oreg.	12	31	N	N	N	-	3	8	-	-	-
Calif.	58	119	2	20	16	10	99	83	-	-	1
Alaska	3	1	-	1	2	-	1	-	-	-	-
Hawaii	4	2	-	2	6	-	-	-	-	-	-
Guam	-	-	U	-	1	U	-	-	U	-	-
P.R.	2	1	-	-	-	-	-	2	-	-	-
V.I.	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	-	U	-	2	U	-	-	U	-	-

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

TABLE IV. Deaths in 122 U.S. cities,* week ending March 13, 1999 (10th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	>65	45-64	25-44	1-24	<1	
NEW ENGLAND	660	494	105	40	12	9	92
Boston, Mass.	143	92	30	16	3	2	26
Bridgeport, Conn.	44	37	5	1	1	-	4
Cambridge, Mass.	15	10	3	2	-	-	4
Fall River, Mass.	37	32	3	1	1	-	-
Hartford, Conn.	60	39	13	5	1	2	6
Lowell, Mass.	26	21	3	1	1	-	3
Lynn, Mass.	13	11	-	2	-	-	-
New Bedford, Mass.	32	26	5	1	-	-	-
New Haven, Conn.	49	38	7	2	2	-	5
Providence, R.I.	64	49	10	2	1	2	2
Somerville, Mass.	6	6	-	-	-	-	-
Springfield, Mass.	45	39	3	2	1	-	10
Waterbury, Conn.	38	30	7	1	-	-	6
Worcester, Mass.	88	64	16	4	1	3	26
MID. ATLANTIC	2,519	1,818	466	159	49	26	151
Albany, N.Y.	46	40	2	2	1	1	1
Allentown, Pa.	18	12	6	-	-	-	1
Buffalo, N.Y.	104	77	20	3	2	2	5
Camden, N.J.	46	30	7	6	-	3	6
Elizabeth, N.J.	15	10	5	-	-	-	-
Erie, Pa.	65	50	10	3	1	1	9
Jersey City, N.J.	51	32	11	6	1	1	-
New York City, N.Y.	1,230	866	244	80	28	11	27
Newark, N.J.	47	26	12	9	-	-	1
Paterson, N.J.	25	15	5	4	1	-	-
Philadelphia, Pa.	300	203	55	28	10	4	24
Pittsburgh, Pa.§	56	44	8	3	-	1	4
Reading, Pa.	26	21	2	2	1	-	3
Rochester, N.Y.	246	195	43	5	2	1	42
Schenectady, N.Y.	33	28	3	2	-	-	5
Scranton, Pa.	37	31	5	-	1	-	1
Syracuse, N.Y.	112	93	14	3	1	1	17
Trenton, N.J.	42	28	11	3	-	-	5
Utica, N.Y.	20	17	3	-	-	-	-
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	2,662	1,877	497	178	57	51	258
Akron, Ohio	51	38	12	-	-	1	1
Canton, Ohio	57	47	6	2	-	2	11
Chicago, Ill.	502	314	117	47	11	11	42
Cincinnati, Ohio	142	102	17	11	6	6	16
Cleveland, Ohio	168	103	33	20	4	8	4
Columbus, Ohio	257	185	46	18	6	2	29
Dayton, Ohio	143	117	17	6	3	-	21
Detroit, Mich.	234	146	56	24	3	5	14
Evansville, Ind.	57	44	11	1	1	-	3
Fort Wayne, Ind.	75	55	12	4	3	1	6
Gary, Ind.	21	18	2	1	-	-	2
Grand Rapids, Mich.	82	61	14	3	3	1	13
Indianapolis, Ind.	287	196	58	23	3	7	22
Lansing, Mich.	55	41	11	2	-	1	7
Milwaukee, Wis.	125	94	18	8	4	1	22
Peoria, Ill.	67	55	11	-	1	-	9
Rockford, Ill.	70	55	10	3	2	-	10
South Bend, Ind.	71	61	6	2	1	1	11
Toledo, Ohio	129	96	26	-	4	3	10
Youngstown, Ohio	69	49	14	3	2	1	5
W.N. CENTRAL	681	511	117	34	8	11	77
Des Moines, Iowa	U	U	U	U	U	U	U
Duluth, Minn.	41	35	5	1	-	-	13
Kansas City, Kans.	U	U	U	U	U	U	U
Kansas City, Mo.	107	73	23	7	1	3	7
Lincoln, Nebr.	46	36	6	3	-	1	7
Minneapolis, Minn.	194	154	30	7	2	1	22
Omaha, Nebr.	100	78	16	4	1	1	13
St. Louis, Mo.	113	73	26	8	4	2	4
St. Paul, Minn.	80	62	11	4	-	3	11
Wichita, Kans.	U	U	U	U	U	U	U
S. ATLANTIC	1,260	860	234	111	28	26	91
Atlanta, Ga.	U	U	U	U	U	U	U
Baltimore, Md.	265	169	53	30	8	4	33
Charlotte, N.C.	119	86	20	10	-	3	11
Jacksonville, Fla.	132	92	24	10	6	-	1
Miami, Fla.	108	73	17	10	6	2	-
Norfolk, Va.	52	38	12	1	1	-	6
Richmond, Va.	73	46	14	10	2	1	7
Savannah, Ga.	58	39	10	6	-	3	4
St. Petersburg, Fla.	60	49	5	4	-	2	5
Tampa, Fla.	208	160	31	10	2	5	24
Washington, D.C.	158	93	36	20	3	6	-
Wilmington, Del.	27	15	12	-	-	-	-
E.S. CENTRAL	1,043	705	197	76	25	36	68
Birmingham, Ala.	222	145	37	23	4	9	30
Chattanooga, Tenn.	70	48	18	1	2	1	5
Knoxville, Tenn.	106	70	26	8	-	2	1
Lexington, Ky.	110	78	25	5	-	2	10
Memphis, Tenn.	225	158	38	15	6	8	15
Mobile, Ala.	91	59	17	6	7	2	1
Montgomery, Ala.	39	28	5	4	2	-	6
Nashville, Tenn.	180	119	31	14	4	12	-
W.S. CENTRAL	1,416	1,004	248	102	31	31	119
Austin, Tex.	110	82	16	9	2	1	10
Baton Rouge, La.	49	38	8	2	1	-	6
Corpus Christi, Tex.	60	46	7	3	1	3	3
Dallas, Tex.	221	133	48	26	7	7	2
El Paso, Tex.	102	77	15	4	6	-	8
Ft. Worth, Tex.	165	126	23	5	3	8	29
Houston, Tex.	U	U	U	U	U	U	U
Little Rock, Ark.	69	46	16	3	3	1	2
New Orleans, La.	168	108	39	18	2	1	12
San Antonio, Tex.	287	215	40	22	2	8	33
Shreveport, La.	43	32	10	1	-	-	6
Tulsa, Okla.	142	101	26	9	4	2	8
MOUNTAIN	1,039	757	182	71	15	14	102
Albuquerque, N.M.	120	90	16	12	2	-	8
Boise, Idaho	50	39	6	3	-	2	2
Colo. Springs, Colo.	73	53	12	6	1	1	7
Denver, Colo.	152	106	24	13	3	6	18
Las Vegas, Nev.	229	148	63	14	3	1	12
Ogden, Utah	37	31	5	1	-	-	3
Phoenix, Ariz.	56	43	8	2	3	-	2
Pueblo, Colo.	38	32	4	1	-	1	7
Salt Lake City, Utah	121	88	21	6	3	3	21
Tucson, Ariz.	163	127	23	13	-	-	22
PACIFIC	1,749	1,281	324	102	20	21	184
Berkeley, Calif.	15	9	6	-	-	-	4
Fresno, Calif.	93	62	21	8	2	-	7
Glendale, Calif.	29	23	3	3	-	-	3
Honolulu, Hawaii	76	54	20	2	-	-	8
Long Beach, Calif.	81	54	14	9	3	1	13
Los Angeles, Calif.	510	359	101	37	6	7	23
Pasadena, Calif.	31	28	2	1	-	-	4
Portland, Oreg.	129	92	26	10	1	-	9
Sacramento, Calif.	206	161	32	8	1	4	38
San Diego, Calif.	150	101	33	9	3	3	14
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	216	170	34	7	2	3	37
Santa Cruz, Calif.	53	48	4	1	-	-	8
Seattle, Wash.	U	U	U	U	U	U	U
Spokane, Wash.	75	58	11	2	1	3	7
Tacoma, Wash.	85	62	17	5	1	-	9
TOTAL	13,029¶	9,307	2,370	873	245	225	1,142

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 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 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.

ABLES — Continued

National Health and Nutrition Examination Survey (NHANES III, 1988–1991) (*6,7*) predicted approximately 700,000 adults with BLLs ≥25 μg/dL in the entire United States; ABLES data, adjusted for a national estimate, predicted approximately 18,000 persons with BLLs ≥25 μg/dL in 1994. In addition, the denominators for the prevalence rates are the respective state populations aged 16–64 years, but the percentage of working persons in this age group who were reported to be exposed to lead is unknown and varies from state to state.

All ABLES data are subject to certain limitations and, as with state-specific prevalence data, may not convey a true picture of workplace lead exposure. Variation in the number of persons with BLLs ≥25 μg/dL reported quarterly and annually to ABLES may reflect changes in 1) the year-to-year efforts of participating states and lead-using industries within them to identify lead-exposed workers and to prevent new exposures; 2) occupational exposures to lead; 3) compliance with OSHA requirements regarding blood lead monitoring; and 4) workforce size in lead-using industries. Variations in quarterly and annual nationwide reporting totals might represent normal fluctuations in case reporting, which might result from changes in staffing and funding in state-based surveillance programs, interstate differences in worker BLL testing by lead-using industries, or random variations. Individual state contributors must be consulted for accurate interpretations of state-specific prevalences and trends.

The findings in this report document the continuing hazard of lead exposure as an occupational health problem in the United States. ABLES enhances surveillance for this preventable condition by increasing the number of participating states, exploring ways to increase the usefulness of reporting, and alerting the public to potential new sources of lead.

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