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World Health Day — April 7, 2004

“Road Safety” is the theme for World Health Day, April 7, when hundreds of organizations will host events to raise awareness of traffic injuries as a global health problem. In the United States, improvements in roadway and vehicle design and in driver and passenger behavior have resulted in a steady decrease in the rate of motor-vehicle–related fatalities during the previous 75 years (1). Despite these improvements, each year motor-vehicle crashes cause approximately 40,000 deaths in the United States and approximately 1 million deaths worldwide (2,3).

Many programs and policies exist to improve road safety and reduce injuries. These include strategies to reduce high-risk behaviors (e.g., alcohol consumption and speeding); promote use of cycle helmets, safety belts, and other protective devices; and protect pedestrians and cyclists by increasing their visibility and separating them from motorized traffic.

The World Health Organization is responsible for coordinating World Health Day activities and will release its *World Report on Road Traffic Injury Prevention* (4), underscoring the magnitude of the problem and global prevention strategies. Additional information about road safety events and activities is available at <http://www.who.int/world-health-day/2004/en>.

References

1. CDC. Motor-vehicle safety: a 20th century public health achievement. *MMWR* 1999;48:369–74.
2. CDC. Web-based Injury Statistics Query and Reporting System (WISQARS). U.S. Department of Health and Human Services, CDC, National Center for Injury Prevention and Control, 2001. Available at <http://www.cdc.gov/ncipc/wisqars>.
3. Peden M, McGee K, Krug E, eds. Injury: a leading cause of the global burden of disease, 2000. Geneva, Switzerland: World Health Organization, 2002. Available at <http://whqlibdoc.who.int/publications/2002/9241562323.pdf>.
4. Peden M, Scurfield R, Sleet D, et al. *World Report on Road Traffic Injury Prevention*. Geneva, Switzerland: World Health Organization, 2004 (in press).

Impact of Primary Laws on Adult Use of Safety Belts — United States, 2002

Motor-vehicle crashes are the leading cause of death among persons aged 1–34 years in the United States (1). Safety belts are the single most effective means of reducing crash-related deaths (2). State laws have had a critical role in increasing belt use. As of December 2003, the District of Columbia (DC), 20 states, and three U.S. territories* had primary laws (i.e., primary enforcement safety-belt laws), which allow police to stop a motorist and issue a citation solely for being unbelted. Another 29 states had secondary laws, which allow police to issue a safety-belt citation only after stopping a motorist for a different violation. Primary laws are more effective than secondary laws for increasing safety-belt use and reducing traffic fatalities (3). To assess safety-belt use among U.S. states and territories with and without primary laws, CDC analyzed data from the 2002 Behavioral Risk Factor Surveillance System (BRFSS) survey. This report summarizes the results of that analysis, which indicated that the prevalence of self-reported safety-belt use was higher among states with primary laws (85.3%) than among states with secondary laws (74.4%). To reduce deaths from motor-vehicle crashes, states should consider enactment of primary laws.

* Alabama, California, Connecticut, Delaware, Georgia, Hawaii, Illinois, Indiana, Iowa, Louisiana, Maryland, Michigan, New Jersey, New Mexico, New York, North Carolina, Oklahoma, Oregon, Texas, Washington; Guam, Puerto Rico, and U.S. Virgin Islands.

INSIDE

- 260 [Work-Related Roadway Crashes — United States, 1992–2002](#)
- 264 [Update: Cutaneous Leishmaniasis in U.S. Military Personnel — Southwest/Central Asia, 2002–2004](#)
- 265 [Two Cases of Visceral Leishmaniasis in U.S. Military Personnel — Afghanistan, 2002–2004](#)
- 268 [Blood Lead Levels in Residents of Homes with Elevated Lead in Tap Water — District of Columbia, 2004](#)

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Notifiable Disease Morbidity and 122 Cities Mortality Data

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In 2002, all 50 states, DC, Guam, Puerto Rico, and the U.S. Virgin Islands (USVI) participated in BRFSS, a state-based, random-digit-dialed telephone survey of the noninstitutionalized, civilian U.S. population aged ≥ 18 years. Prevalence estimates were weighted to represent the state and territorial populations. SUDAAN was used to account for the complex sampling design.

Safety-belt use was estimated on the basis of responses to the following question: "How often do you use safety belts when you drive or ride in a car?" Response options were "always," "nearly always," "sometimes," "seldom," "never wear a belt," or "never drive or ride in cars." Respondents who never drove or rode in cars, refused to respond, or responded "don't know" ($n = 807$) were excluded from all analyses. Sample size for this study was 244,563; median response rate was 58.6% (range: 42.2%–82.6%). Jurisdictions were identified as having either primary or secondary safety-belt laws in effect during 2002. Washington enacted a primary law in July 2002 and was classified as a primary-law state for analysis; New Hampshire has no safety-belt law that applies to persons aged ≥ 18 years but was classified as a secondary-law state for analysis.

Among the 50 states and DC, prevalence of always using a safety belt ranged from 52.4% in North Dakota to 92.2% in California (Table). Safety-belt use was higher in states with primary laws (85.3%; 95% confidence interval [CI] = 84.9%–85.7%) than in states with secondary laws (74.4%; 95% CI = 74.1%–74.8%). In addition, the prevalence of never using a safety belt among states with secondary laws (4.1%; 95% CI = 3.9%–4.3%) was more than double the prevalence among states with primary laws (1.8%; 95% CI = 1.7%–2.0%). Among territories, the prevalence of always using safety belts was 85.7% in Guam, 92.6% in Puerto Rico, and 77.2% in USVI (Table). A total of 18 states, DC, and the three territories had primary laws during the study period; 17 of these 22 jurisdictions reported safety-belt use of $\geq 80\%$ (Figure). All 12 states with $<70\%$ belt use had secondary laws.

Reported by: LF Beck, MPH, KA Mack, PhD, RA Shults, PhD, Div of Unintentional Injury Prevention, National Center for Injury Prevention and Control, CDC.

Editorial Note: Increasing the use of safety belts could substantially reduce deaths from motor-vehicle crashes in the United States, where safety-belt use ranks among the lowest of high-income countries (i.e., countries with annual gross national product of $\geq \$9,206$ per capita) (4). Residents of states with secondary laws were less likely to use safety belts than residents of states with primary laws, a finding supported by observational studies (i.e., studies in which belt use is observed directly by an independent data collector) (5). In contrast to BRFSS, observational studies provide information about

TABLE. Prevalence of safety-belt use among persons aged ≥ 18 years, by area and type of law* — Behavioral Risk Factor Surveillance System, United States, 2002

Area	Sample size	Always use safety belt (%)	(95% CI [†])	Never use safety belt (%)	(95% CI)	Year enacted [§]
Areas with primary laws[¶]						
Alabama	3,088	83.4	(81.7–85.1)	1.3	(0.6–2.0)	1999
California	4,209	92.2	(91.2–93.3)	0.8	(0.4–1.3)	1993
Connecticut	5,546	82.2	(80.9–83.5)	2.8	(2.3–3.3)	1986
District of Columbia	2,385	87.8	(85.9–89.6)	2.0	(1.0–3.0)	1997
Georgia	5,050	83.1	(81.6–84.5)	2.3	(1.8–2.9)	1996
Hawaii	5,976	89.5	(88.4–90.7)	0.8	(0.4–1.2)	1985
Indiana	5,784	76.8	(75.6–78.1)	3.6	(3.0–4.1)	1998
Iowa	3,657	75.9	(74.2–77.6)	2.2	(1.6–2.8)	1986
Louisiana	5,000	79.3	(77.8–80.7)	2.8	(2.2–3.3)	1995
Maryland	4,387	87.5	(86.1–88.8)	1.9	(1.2–2.5)	1997
Michigan	5,924	83.8	(82.5–85.0)	1.8	(1.3–2.2)	2000
New Jersey	6,148	82.5	(80.3–84.6)	2.7	(1.8–3.5)	2000
New Mexico	4,658	86.7	(85.5–88.0)	1.0	(0.6–1.3)	1986
New York	4,410	80.6	(79.1–82.0)	2.6	(2.0–3.2)	1984
North Carolina	6,739	87.3	(86.0–88.5)	1.4	(1.0–1.8)	1985
Oklahoma	6,760	77.5	(76.3–78.8)	2.3	(1.8–2.7)	1997
Oregon	3,070	87.9	(86.5–89.3)	1.1	(0.7–1.6)	1990
Texas	6,083	86.1	(85.1–87.2)	2.0	(1.5–2.4)	1985
Washington	4,883	85.7	(84.4–87.1)	1.2	(0.8–1.6)	2002
Guam	828	85.7	(82.8–88.6)	2.0	(0.9–3.1)	1986
Puerto Rico	4,117	92.6	(91.6–93.6)	0.5	(0.2–0.7)	1975
U.S. Virgin Islands	2,254	77.2	(74.9–79.5)	3.0	(2.0–3.9)	1998
Areas with secondary laws^{**}						
Alaska	2,638	70.2	(67.5–72.8)	4.1	(3.0–5.2)	1990
Arizona	3,217	80.4	(78.1–82.7)	4.5	(2.8–6.2)	1991
Arkansas	3,892	64.6	(62.8–66.4)	4.1	(3.3–4.8)	1991
Colorado	4,041	78.9	(77.3–80.5)	2.3	(1.7–2.8)	1987
Delaware	4,020	80.3	(78.5–82.1)	3.8	(2.9–4.8)	1992
Florida	6,131	83.4	(82.2–84.6)	3.0	(2.4–3.6)	1986
Idaho	5,025	65.2	(63.6–66.8)	3.2	(2.6–3.8)	1986
Illinois	2,643	74.6	(72.4–76.8)	2.9	(2.2–3.7)	1988
Kansas	4,597	66.7	(65.1–68.3)	4.8	(4.1–5.5)	1986
Kentucky	7,034	74.4	(72.6–76.3)	4.9	(3.9–5.8)	1994
Maine	2,432	72.6	(70.5–74.6)	5.5	(4.4–6.6)	1995
Massachusetts	7,375	72.0	(70.7–73.4)	6.7	(5.9–7.5)	1994
Minnesota	4,481	75.5	(74.0–76.9)	3.3	(2.7–3.9)	1986
Mississippi	4,074	72.7	(70.9–74.5)	3.3	(2.5–4.1)	1994
Missouri	4,722	66.8	(64.9–68.7)	5.1	(4.2–5.9)	1985
Montana	4,022	68.5	(66.6–70.3)	3.9	(3.1–4.6)	1987
Nebraska	4,367	68.7	(67.0–70.3)	5.4	(4.6–6.3)	1993
Nevada	3,150	78.8	(76.6–80.9)	2.2	(1.5–2.9)	1987
New Hampshire	5,025	63.8	(62.2–65.3)	10.3	(9.3–11.2)	—††
North Dakota	2,988	52.4	(50.3–54.4)	3.6	(2.8–4.5)	1994
Ohio	4,076	76.5	(74.9–78.0)	4.1	(3.4–4.8)	1986
Pennsylvania	13,454	68.5	(67.5–69.6)	5.7	(5.2–6.3)	1987
Rhode Island	3,826	75.5	(73.8–77.1)	5.6	(4.7–6.6)	1991
South Carolina	4,489	74.8	(73.0–76.6)	3.5	(2.6–4.3)	1989
South Dakota	4,774	54.8	(53.1–56.5)	5.7	(5.0–6.5)	1995
Tennessee	3,203	81.2	(79.6–82.8)	2.8	(2.2–3.5)	1986
Utah	4,077	72.0	(70.1–73.9)	2.2	(1.6–2.8)	1986
Vermont	4,226	76.4	(75.0–77.9)	4.0	(3.2–4.8)	1994
Virginia	4,379	77.8	(76.1–79.6)	2.8	(2.1–3.5)	1988
West Virginia	3,345	74.4	(72.7–76.2)	3.5	(2.8–4.3)	1993
Wisconsin	4,343	66.2	(64.5–67.9)	4.7	(3.9–5.5)	1987
Wyoming	3,541	58.2	(56.3–60.1)	4.2	(3.4–5.0)	1989
Total	244,563	80.5	(80.3–80.8)	2.8	(2.7–2.9)	

* As of 2002; Delaware and Illinois enacted primary laws in 2003.

† Confidence interval.

§ In effect as of 2002.

¶ Allow police to stop a motorist and issue a citation solely for being unbelted.

** Allow police to issue a safety-belt citation only after stopping a motorist for a different violation.

†† No law in effect for persons aged ≥ 18 years.

safety-belt use for a single occasion and for drivers and front-seat passengers only. In 2002, the prevalence of observed safety-belt use was 69% in states with secondary laws and 80% in states with primary laws (5).

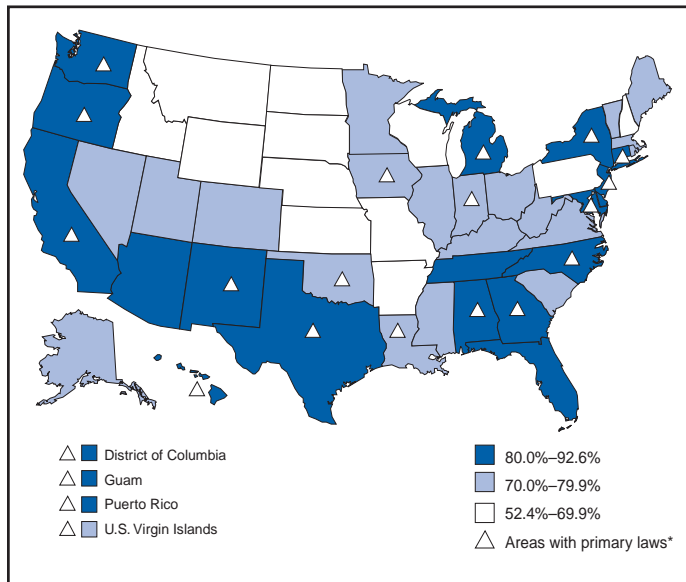
The findings in this report are subject to at least three limitations. First, BRFSS excludes households without telephones; however, because only an estimated 2.4% of U.S. homes are without telephones, this limitation should have minimal impact on the findings. Second, the BRFSS sample is limited to noninstitutionalized, civilian adults and might not be representative of safety-belt use among youths, institutionalized persons, or military personnel. Finally, the data are self-reported, and social-desirability bias might result in overestimates of safety-belt use.

In April 1997, the U.S. Department of Transportation recommended that all states enact and actively enforce primary enforcement safety-belt laws (6). Since those recommendations were issued, only eight additional states have enacted primary laws. As of December 2003, a total of 29 states had secondary laws, and one state (New Hampshire) had no law mandating safety-belt use by adults.

Perceived public opposition to primary laws is a potential barrier to their implementation. Infringement on personal freedom and the potential for differential enforcement on the basis of race/ethnicity are the concerns voiced most frequently (7). However, a national survey conducted in 2000 indicated that 61% of U.S. residents supported primary laws, with support higher in states with primary laws (70%) than in states with secondary laws (53%) (8). In response to concerns about differential enforcement, certain states have added anti-harassment language to their laws to reduce the potential for discrimination (7); available evidence does not demonstrate problems with differential enforcement (9).

On the basis of systematic reviews of published studies, the Task Force on Community Preventive Services issues recommendations on population-based interventions to promote health and prevent disease, injury, disability, and premature death.

FIGURE. Prevalence of always using a safety belt among persons aged ≥ 18 years, by area — Behavioral Risk Factor Surveillance System, United States, 2002



*Allow police to stop a motorist and issue a citation solely for being unbelted.

The Task Force recommends the use of primary laws because of strong evidence demonstrating that they have a greater impact than secondary laws (10). The Task Force also recommends high-visibility enforcement of the laws (e.g., safety-belt checkpoints) to further increase safety-belt use (10). The findings in this report indicate that differences in safety-belt use persist on the basis of the type of law in effect in the state. States should consider primary-enforcement safety-belt laws as an effective strategy to increase safety-belt use and decrease serious injuries and deaths associated with motor-vehicle crashes.

Acknowledgment

This report is based on data contributed by state BRFSS coordinators.

References

1. CDC. Web-based Injury Statistics Query and Reporting System (WISQARS). U.S. Department of Health and Human Services, CDC, National Center for Injury Prevention and Control, 2002. Available at <http://www.cdc.gov/ncipc/wisqars>.
2. National Highway Traffic Safety Administration. Traffic safety facts 2002: occupant protection. Washington, DC: U.S. Department of Transportation, 2003; publication no. DOT-HS-809-610.
3. Shults RA, Elder RW, Sleet DA, Thompson RS. Primary enforcement seat belt laws are effective even in the face of rising belt use rates. *Accid Anal Prev* 2004;36:491–3.
4. Peden M, Scurfield R, Sleet D, et al., eds. World Report on Road Traffic Injury Prevention. Geneva, Switzerland: World Health Organization, 2004 (in press).

5. Glassbrenner D. Safety belt and helmet use in 2002—overall results. Washington, DC: U.S. Department of Transportation, 2002; publication no. DOT-HS-809-500.
6. National Highway Traffic Safety Administration. Presidential initiative for increasing seat belt use nationwide: recommendations from the Secretary of Transportation. Washington, DC: U.S. Department of Transportation, 1997; publication no. DOT-HS-808-576.
7. Russell N, Dreyfuss M, Cosgrove M, Low & Associates. Legislative history of recent primary safety belt laws. Washington, DC: U.S. Department of Transportation, 1999; publication no. DOT-HS-808-833.
8. National Highway Traffic Safety Administration. 2000 Motor Vehicle Occupant Safety Survey. Volume 2: seat belt report. Washington, DC: U.S. Department of Transportation, 2001; publication no. DOT-HS-809-389.
9. National Highway Traffic Safety Administration. Standard enforcement saves lives: the case for strong seat belt laws. Washington, DC: U.S. Department of Transportation, 1999; publication no. DOT-HS-808-846.
10. Task Force on Community Preventive Services. Recommendations to reduce injuries to motor vehicle occupants: increasing child safety seat use, increasing safety belt use, and reducing alcohol-impaired driving. *Am J Prev Med* 2001;21(suppl 4):16–22.

Work-Related Roadway Crashes — United States, 1992–2002

The risk for roadway crashes associated with driving or riding in a motor vehicle at work affects millions of persons in the United States. In 2001, approximately 4.2 million U.S. workers were classified as motor-vehicle operators (Bureau of Labor Statistics [BLS], unpublished data, 2001). Workers who use motor vehicles to perform their jobs include those who operate vehicles owned or leased by their employers and those who drive personal vehicles for work purposes. To characterize fatal occupational roadway crashes and identify workers at highest risk for fatality, CDC analyzed data for 1992–2002 from the Fatality Analysis Reporting System (FARS) of the National Highway Traffic Safety Administration and the Census of Fatal Occupational Injuries (CFOI) of BLS. This report summarizes the results of that analysis, which indicated that roadway crashes were the leading cause of occupational fatalities and that workers in transportation-related occupations were at highest risk. Effective strategies to prevent motor-vehicle-related crashes in the general public also can reduce work-related crashes. Employers should promote safe driving through vehicle selection and company policy.

FARS is a census of all police-reported traffic crashes resulting in a fatality within 30 days of a crash and relies on death certificates to ascertain work relationship. CFOI is a multi-source surveillance system for occupational fatalities and provides a more complete count of work-related crashes. Unlike FARS, CFOI includes information on the occupation and

a•ware: *adj*

(ə-'wâr) 1 : marked by comprehension, cognizance, and perception; see also *MMWR*.



know what matters.



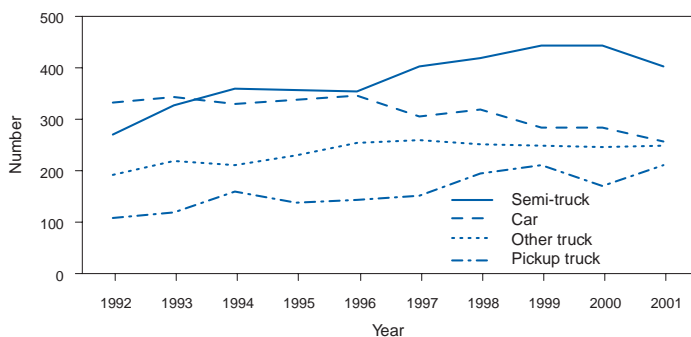
industry of the fatally injured worker; however, FARS provides more detailed information on crash circumstances and contributing factors. National death rates were calculated by using employment data from the BLS Current Population Survey, a household-sample survey of the civilian, noninstitutional population. Rates were calculated for persons aged ≥ 15 years.

During 1992–2001, a total of 13,337 civilians died in work-related roadway crashes in the United States (FOI, unpublished data, 1992–2001). Rates remained stable during the decade, averaging approximately one fatality per 100,000 full-time equivalent (FTE) workers. Of the 13,337 fatalities, 11,931 (89%) were males, whose fatality rate was six times that of females (1.7 per 100,000 FTE workers versus 0.3). Rates increased markedly beginning at age 55 years: 1.6 deaths per 100,000 FTE among workers aged 55–64 years ($n = 1,875$), 3.8 among those aged 65–74 years ($n = 749$), and 6.4 among those aged ≥ 75 years ($n = 241$).

During 1992–2001, fatal work-related roadway crashes most often involved collisions of vehicles (6,593 [49%]), followed by single-vehicle incidents that did not involve a collision with another vehicle or with a pedestrian (e.g., rollovers) (3,492 [26%]), and collisions between a vehicle and a stationary object (2,369 [18%]). Vehicles most commonly occupied by fatally injured workers were semi-trucks (3,780 [28%]), cars (3,140 [24%]), other and unspecified trucks (2,359 [18%]), and pickup trucks (1,607 [12%]). The annual number of deaths of pickup truck occupants increased 96%, and deaths of semi-truck occupants increased 49%. Deaths of car occupants decreased 33% (Figure).

The transportation, communications, and public utilities industries, which include commercial trucking, had the largest number and rate of roadway deaths (4,358 deaths; 4.6 per 100,000 FTE workers) (Table 1). The services industry accounted for the second highest number of deaths (1,884) but

FIGURE. Number of work-related roadway fatalities, by vehicle type and year — United States, 1992–2001*



* Excludes New York City.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

TABLE 1. Number and rate* of work-related roadway fatalities, by industry — United States, 1992–2001†

Industry	No.	Rate
Transportation, communications, and public utilities	4,358	4.6
Services	1,884	0.5
Construction	1,403	1.7
Manufacturing	1,093	0.5
Public administration	1,038	1.8
Retail trade	1,029	0.5
Agriculture, forestry, and fishing	970	2.6
Wholesale trade	945	1.8
Finance, insurance, and real estate	253	0.3
Mining	241	3.4
Unclassified	123	—
Total	13,337	1.1

* Per 100,000 full-time equivalent workers aged ≥ 15 years.

† Excludes New York City.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

had a low fatality rate (0.5). The construction; public administration; wholesale trade; agriculture, forestry, and fishing; and mining industries all had higher death rates than the overall rate for workers (1.1), ranging from 1.7 to 3.4 (Table 1).

Occupations in which the largest numbers of roadway deaths occurred were transportation and material moving (6,212 deaths; 11.1 per 100,000 FTE workers). These occupations accounted for 47% of all work-related roadway fatalities (Table 2). Truck drivers, who are classified within transportation and material-moving occupations, accounted for 5,375 deaths (17.6), the highest number and rate for any single occupation.

During 1997–2002, of 5,798 workers who died in work-related roadway crashes in 5,626 vehicles identified by FARS, 1,595 (28%) used safety belts, and 3,224 (56%) did not use safety belts or had none available; safety-belt use was unknown for 16% of fatalities. A total of 3,479 (62%) worker-occupied vehicles were registered to a business or government, 967

TABLE 2. Number and rate* of work-related roadway fatalities, by occupation — United States, 1992–2001†

Occupation	No.	Rate
Transportation and material moving	6,212	11.1
Precision production, craft, and repair	1,178	0.8
Sales	975	0.7
Service	961	0.7
Farming, forestry, and fishing	914	2.5
Executive, administrative, and managerial	895	0.5
Professional specialty	724	0.4
Laborers	632	1.4
Clerical	376	0.2
Technicians and related support	248	0.6
Unclassified	96	—
Total	13,337	1.1

* Per 100,000 full-time equivalent workers aged ≥ 15 years.

† Excludes New York City.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

(17%) were registered to the driver, and 679 (12%) were registered to a person other than the driver. Factors associated with workers' vehicles that contributed to fatal crashes included running off the road or failing to stay in the proper lane (2,599 [46%]), driving over the speed limit or too fast for conditions (1,284 [23%]), driver inattention (609 [11%]), and driver drowsiness (373 [7%]). In 470 (8%) crashes in which a worker was fatally injured, the driver of the worker's vehicle was determined to have been drinking (FARS, unpublished data, 1997–2002).

During 1992–2001, persons who died in crashes involving large trucks (gross vehicle weight rating: >10,000 pounds) were seven times as likely to be occupants of other vehicles as truck occupants. An average of 4,425 occupants of other vehicles involved in collisions with large trucks died each year, compared with 681 occupants of large trucks (1).

Reported by: *S Pratt, Div of Safety Research, National Institute for Occupational Safety and Health, CDC.*

Editorial Note: During 1992–2001, roadway crashes were the leading cause of occupational fatalities in the United States, accounting for an average of 1,300 civilian worker deaths each year (22% of all worker deaths). Despite overall declines in the number and rate of occupational fatalities from all causes, annual numbers of work-related roadway deaths increased during the decade, and rates showed little change.

Because occupational drivers operate vehicles in various work settings, they are not subject to uniform levels of oversight. Commercial vehicles that carry freight or passengers in interstate commerce are covered by the Federal Motor Carrier Safety Regulations, which address nearly all aspects of vehicle operation, including driver qualification and fitness for duty, vehicle inspection, periodic checks of driving records, use of retroreflective sheeting to make trailers more visible, securing of cargo, and hours of service of drivers (2). No equivalent body of regulations is applicable to workers who drive other types of company-owned or personal vehicles for work purposes. For those drivers, the content, implementation, and enforcement of workplace driver–safety policies is left primarily to the employer.

To reduce work-related roadway deaths, employers of workers who drive company or personal vehicles on the job should adhere to applicable safety regulations. Workplace driver–safety policies should be communicated, implemented, and enforced (Box). For worker drivers not covered by regulations, employers have an especially important role. Employers can demonstrate their commitment to occupational road safety by implementing company driver–safety policies and selecting safe vehicles.

Effective strategies to prevent roadway crashes among the general population also can reduce work-related roadway crashes. Information regarding effective community-based

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BOX. Key elements of a workplace driver safety policy

- Give a member of the management team responsibility and authority to set and enforce comprehensive driver safety policy.
- Require use of safety belts by all persons in the vehicle.
- Select vehicles that offer high levels of occupant protection.
- Maintain complete and accurate records of driving performance, including crash and injury data to help guide interventions at the company level.
- Set a policy stipulating that driving is a task that requires full attention; include instructions to avoid placing or taking cell phone calls while the vehicle is in operation.
- Set schedules that allow adequate time for workers to make deliveries or client visits without violating traffic laws or safety regulations.
- Ensure that workers are licensed and trained properly to operate the vehicle they are assigned.
- Implement a vehicle maintenance program that requires pre-trip inspections, immediate withdrawal from service of any vehicle with mechanical defects, and regularly scheduled withdrawal from service for comprehensive inspection and maintenance (3,4).

interventions to increase safety-belt use and reduce impaired driving is available from the Task Force on Community Preventive Services at <http://www.thecommunityguide.org>. Health-care and safety professionals can 1) support collection and analysis of data on fatal and nonfatal crashes, 2) foster partnerships among diverse groups with interests in road safety, 3) evaluate the effectiveness of safety interventions (5), 4) promote safe driving practices among workers, and 5) educate the public about occupational road safety.

References

1. National Highway Traffic Safety Administration. Traffic safety facts 2001. Washington, DC: U.S. Department of Transportation, 2002; publication no. DOT-HS-809-484. Available at <http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/ncsa/tsfann/tsf2001.pdf>.
2. Federal Motor Carrier Safety Administration. Federal motor carrier safety regulations, rules, and notices. Washington, DC: U.S. Department of Transportation, Federal Motor Carrier Safety Administration, 2004. Available at <http://www.fmcsa.dot.gov/rulesregs/fmcsrhome.htm>.
3. National Institute for Occupational Safety and Health. Work-related roadway crashes: challenges and opportunities for prevention [NIOSH Hazard Review]. Available at <http://www.cdc.gov/niosh/docs/2003-119/pdfs/2003-119.pdf>.
4. National Institute for Occupational Safety and Health. Work-related roadway crashes: prevention strategies for employers [NIOSH fact sheet]. Cincinnati, Ohio: U.S. Department of Health and Human Services, CDC, National Institute for Occupational Safety and Health, 2004; DHHS publication no. (NIOSH) 2004-136.
5. World Health Organization. Road traffic injuries [fact sheet]. Geneva, Switzerland: World Health Organization, 2004. Available at http://www.who.int/world-health-day/2004/en/traffic_facts_en.pdf.

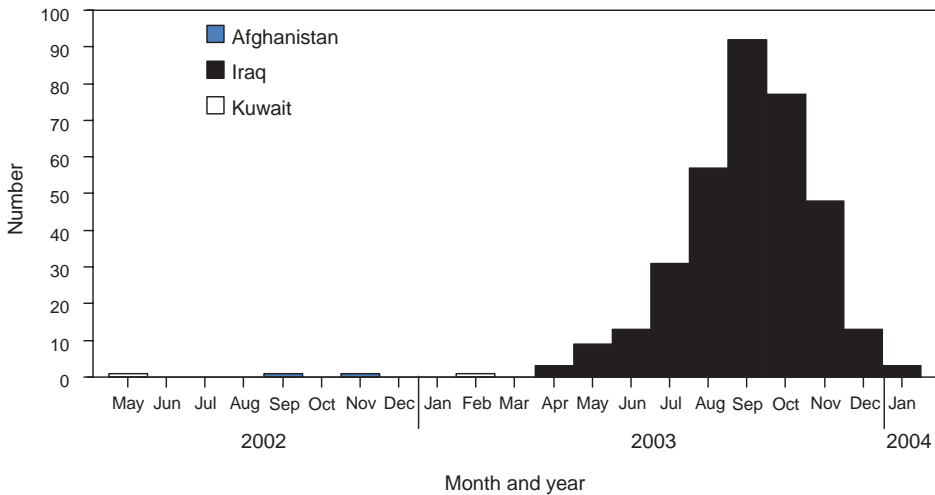
Update: Cutaneous Leishmaniasis in U.S. Military Personnel — Southwest/Central Asia, 2002–2004

Cutaneous leishmaniasis (CL) is a sand fly–borne parasitic infection. Preliminary data about cases of CL in military personnel deployed to three countries (Afghanistan, Iraq, and Kuwait) in Southwest/Central Asia have been published previously (1). During August 2002–February 2004, Department of Defense (DoD) staff identified 522 parasitologically confirmed cases of CL in military personnel. *Leishmania major* was the etiologic agent for all 176 cases for which species data, obtained by isoenzyme electrophoresis of cultured parasites, are available. This update focuses on the 361 cases (69% of 522) in patients whose demographic data were collected systematically under treatment protocols for therapy with the pentavalent antimonial compound sodium stibogluconate (Pentostam®; GlaxoSmithKline, United Kingdom) at Walter Reed Army Medical Center, District of Columbia (1). U.S. health-care providers should consider CL in persons with persistent skin lesions who were deployed to Southwest/Central Asia or who were in other areas where leishmaniasis is endemic.

Of the 361 patients with CL, 352 (98%) were male; 274 (76%) were non-Hispanic white, 54 (15%) were non-Hispanic black, and 25 (7%) were Hispanic. The median age was 25 years (range: 18–57 years). On the basis of the patients' deployment histories, all but four of the patients probably were infected in Iraq (Figure), notably in areas near the Iraq-Syria border (e.g., Tall Afar) and the Iraq-Iran border (e.g., Balad Ruz, Kanaquin, Mandali, and Tursaq). The patients represented multiple branches of the U.S. military, including the Active Force, Reserve, and National Guard components of the Army, Air Force, and Marine Corps; the majority of the patients were in the Active Force component of the Army. Self-reported dates of onset of skin lesions ranged from May 2002 to January 2004, with 274 (78% of 350) occurring during August–November 2003 (Figure), including 169 (48% of 350) during September–October.

DoD is implementing measures to decrease the risk for CL among U.S. military personnel in Southwest/Central Asia and to expedite detection and treatment of cases of CL. The measures include 1) improving living conditions for deployed personnel; 2) heightening awareness that leishmaniasis is endemic in this region (e.g., through publicity about cases of CL in U.S. military personnel and pre- and postdeployment briefings about leishmaniasis); 3) emphasizing the importance of deployed personnel using personal protective measures (e.g., using permethrin-treated clothing and bed nets or other barriers to sand flies, minimizing the amount of exposed skin, and applying insect repellent containing 30%–35% DEET

FIGURE. Number* of cases of cutaneous leishmaniasis in U.S. military personnel, by self-reported onset of skin lesions — Afghanistan, Iraq, and Kuwait, May 2002–January 2004



*N = 350 (Iraq 346, Afghanistan two, and Kuwait two); onset data were not available for 11 cases.

to exposed skin, especially from dusk through dawn); and 4) enhancing vector-control activities.

Persons deployed previously to Southwest/Central Asia who have questions about their general health or leishmaniasis may contact DoD's Deployment Health Clinical Center, telephone 866-559-1627 or at <http://www.pdhealth.mil>. For evaluation, treatment, and referral of military health-care beneficiaries with suspected or confirmed cases of leishmaniasis, clinicians should contact the Infectious Disease Service of either Walter Reed Army Medical Center (District of Columbia), telephone 202-782-1663/8691, or Brooke Army Medical Center (San Antonio, Texas), telephone 210-916-5554/1286. Diagnostic support can be obtained by contacting the director of the leishmaniasis diagnostic laboratory at Walter Reed Army Institute of Research (Silver Spring, Maryland), telephone 301-319-9956.

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Acknowledgments

This report is based in part on data provided by L Figuero, E Fleming, MS, J Mendez, J Tally, Walter Reed Army Institute of Research, Silver Spring, Maryland, and staff of the Infectious Disease Svc, Walter Reed Army Medical Center, District of Columbia.

Reference

1. CDC. Cutaneous leishmaniasis in U.S. military personnel—Southwest/Central Asia, 2002–2003. *MMWR* 2003;52:1009–12.

Two Cases of Visceral Leishmaniasis in U.S. Military Personnel — Afghanistan, 2002–2004

Visceral leishmaniasis (VL), a sand fly–borne parasitic disease also known as kala-azar (Hindi, for black sickness or fever), is a risk for persons who travel to or live in areas of the tropics, subtropics, and southern Europe where the disease is endemic (1). The World Health Organization estimates that approximately 500,000 new cases of

this potentially fatal disease occur each year, >90% of which are acquired in parts of the Indian subcontinent, Sudan, and Brazil (1). A total of 21 cases of VL acquired in Afghanistan, all in the 1980s, have been reported previously (2–5). This report provides preliminary data about two cases of VL that have been diagnosed in U.S. military personnel deployed to Afghanistan in support of Operation Enduring Freedom, which began in 2001. U.S. health-care providers should consider VL in persons who were deployed to Southwest/Central Asia (or were in other areas where VL is endemic) who have persistent febrile illnesses, especially if associated with other clinical manifestations suggestive of VL (e.g., splenomegaly and pancytopenia) (1).

Case Reports

Patients A and B were previously healthy men with febrile illnesses that began in December 2003, approximately 3 months and 14 months, respectively, after leaving Afghanistan (Table). They had been deployed during different periods (Table), in the same Special Forces unit of the U.S. Army. Both had traveled extensively in Afghanistan and had lived and worked with local Afghanis. Although they reportedly had used personal protective measures (e.g., permethrin-impregnated bed netting and insect repellent containing 30%–35% DEET), they had noted multiple insect bites. Both had used mefloquine for prophylaxis against malaria and ciprofloxacin for empiric treatment of occasional diarrheal illnesses. Neither patient had a history of blood transfusions or

TABLE. Characteristics of two U.S. Army soldiers with visceral leishmaniasis (VL) who had been deployed to Afghanistan

Characteristics	Patient A	Patient B
Age when first hospitalized	31 years	39 years
Period in Afghanistan	March–September 2003	May–October 2002
Self-reported symptom onset date/time	Late December 2003	December 14, 2003
Interval from end of deployment until onset of symptoms	3 months	14 months
Date/time first evaluated by medical personnel	Late December 2003	Late December 2003
Date first hospitalized	January 14, 2004	January 7, 2004
Date/time VL parasitologically confirmed, by light-microscopic examination of liver-biopsy specimen	February 12, 2004	Early February 2004
Date therapy for VL begun	February 14, 2004	February 3, 2004
Treatment regimen	Liposomal amphotericin B (AmBisome®), 21 mg/kg (3 mg/kg/d, intravenously; days 1–5, 7, and 14)	ABLC (Abelcet®), 30 mg/kg (5 mg/kg/d, intravenously; days 1–5 and 15)*
Response to therapy	Became afebrile and resumed physical training (e.g., fast walking) after 1 week of therapy	Symptoms improved in mid-February but worsened in late February; patient rehospitalized March 5, 2004*

* Patient B's second course of treatment is described in Case Reports.

travel, since the mid-1990s, to other countries where VL is endemic.

Both patients had classic manifestations of advanced cases of VL, including fever, cachexia, hepatosplenomegaly, pancytopenia, and hypergammaglobulinemia with hypoalbuminemia (1); both patients also had elevated aminotransferase levels. However, not all of these manifestations were present when the patients were evaluated initially; in addition, these manifestations are not specific for VL, and the results of the initial testing conducted to diagnose VL (e.g., light-microscopic examination of bone-marrow specimens) were negative. For these reasons, both patients were evaluated extensively for noninfectious diseases and for evidence of infection with nonleishmanial organisms (e.g., human immunodeficiency virus, cytomegalovirus, other viruses that cause hepatitis, and malaria parasites).

In February 2004, both patients' cases of VL were diagnosed, and antileishmanial therapy was initiated (Table). Various criteria were considered when the cases of VL were diagnosed initially, including 1) clinical; 2) serologic (i.e., demonstration of antibody to rK39, a recombinant leishmanial polypeptide, by using antigen-impregnated nitrocellulose paper strips [InBios International, Inc., Seattle, Washington]) (6); and 3) parasitologic (i.e., demonstration of leishmanial parasites by light-microscopic examination of liver-biopsy specimens). Additional serologic and parasitologic evidence that the patients had VL became available later in their medical evaluations. For example, serum specimens from patients A and B showed marked reactivity to leishmanial antigens in indirect fluorescent antibody testing (titers of 1:1,024 and 1:2,048, respectively).

Patient A. Fever (maximum documented temperature, 104° F [40° C]) was first noted by patient A in late December 2003 and rigors, flushing, sweats, and mild orthostasis in early January 2004. During the course of his illness, patient A

experienced fluctuating temperatures and lost 13 pounds of body weight. No leishmanial parasites were noted on light-microscopic examinations or cultures of bone-marrow and liver-biopsy specimens, and no leishmanial DNA was detected by genus-specific polymerase chain reaction (PCR) analysis (7) of the bone-marrow specimen. The findings in the splenic region of a whole-body Positron Emission Tomography scan were suggestive of lymphoma, and surgical splenectomy was considered briefly. In February 2004, because of continuing concern that the patient had VL, the liver-biopsy specimen was reexamined by light microscopy; one definite and multiple probable leishmanial parasites were noted. The patient became afebrile after 1 week of antileishmanial therapy with a lipid formulation of amphotericin B (Table).

Patient B. Abrupt onset of fever (maximum documented temperature, 104° F [40° C]), myalgia, and abdominal pain were noted by patient B in mid-December 2003 (Table). These and other symptoms (e.g., anorexia, with an unintentional loss of 25 pounds of body weight) worsened during the next 6 weeks. Leishmanial parasites were not found on light-microscopic examinations of bone-marrow and buffy-coat specimens but were prevalent in a liver-biopsy specimen. During February 3–17, 2004, the patient was administered 6 doses of a lipid formulation of amphotericin B (Table). Although his symptoms improved during and after the course of therapy, they worsened in late February. He was rehospitalized on March 5, with a temperature of 102° F (39° C). Leishmanial parasites and DNA were detected by light-microscopic examination and genus-specific PCR of a liver-biopsy specimen; the test results were negative for a bone-marrow specimen. In addition, for the liver specimen, the results of PCR analysis specific for the *Leishmania donovani-L. infantum* species complex were positive, whereas the PCR results for *L. major* were negative. On March 19, a 28-day

course of antileishmanial therapy was begun with the pentavalent antimonial compound sodium stibogluconate (Pentostam[®]; GlaxoSmithKline, United Kingdom) (dose: 20 mg/kg/d, intravenously) (1).

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Editorial Note: The term “leishmaniasis” includes three primary clinical syndromes: VL, cutaneous leishmaniasis (CL), and mucosal leishmaniasis (1). In visceral infections, leishmanial parasites replicate in the reticuloendothelial system (e.g., spleen, liver, and bone marrow). The infection can remain asymptomatic or subclinical or can become clinically manifest, with an acute, subacute, or chronic course. In the classic kala-azar syndrome of VL, patients have potentially life-threatening disease, typically after an incubation period of weeks to months, with fever, marked cachexia, hepatosplenomegaly, pancytopenia, and hypergammaglobulinemia with hypoalbuminemia (1).

The two patients whose cases are described in this report had classic manifestations of advanced VL; however, their cases are unusual in certain respects. For example, for patient B, a long period (i.e., 14 months) elapsed between the end of his deployment in Afghanistan and the self-reported onset of his illness, and his symptoms recurred after treatment with a lipid formulation of amphotericin B. The possibility that he has underlying or concurrent illnesses is being considered.

Although CL is common in Afghanistan, including an ongoing epidemic in Kabul with an estimated 200,000 cases (1,8,9), only 21 cases of VL attributed to exposures in Afghanistan have been reported previously (2–4). Additional cases might have occurred that were not diagnosed or reported (10). The possibility cannot be excluded that foci of VL previously considered limited to border regions of neighboring countries might have expanded into Afghanistan. The first three reported VL cases in Afghanistan, described in 1982 (2), occurred in children aged 4–5 years who lived in Kabul or Badghis Province. The cases were confirmed by demonstration of leishmanial parasites in bone-marrow specimens (2). Although the etiologic agent of these cases of what commonly is called “infantile VL” was not determined, *L. infantum* is considered the probable etiologic agent of VL in



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Blood Lead Levels in Residents of Homes with Elevated Lead in Tap Water — District of Columbia, 2004

On March 30, this report was posted as an MMWR Dispatch on the MMWR website (<http://www.cdc.gov/mmwr>).

Lead exposure adversely affects intellectual development in young children and might increase the risk for hypertension in adults (1). In the District of Columbia (DC), of an estimated 130,000 residences, approximately 23,000 (18%) have lead service pipes (Daniel Lucey, MD, DC Department of Health [DCDOH], personal communication, March 24, 2004). The Environmental Protection Agency (EPA) requires water authorities to test tap water in 10–100 residences annually for lead. In March 2003, DC Water and Sewer Authority (WASA) expanded its lead-in-water testing program to homes with lead service pipes extending from the water main to the house. By late January 2004, results of the expanded water testing indicated that the majority of homes tested had water lead levels above EPA's action level of 15 parts per billion (ppb). On February 16, DCDOH requested CDC assistance to assess health effects of elevated lead levels in residential tap water. DCDOH also requested deployment of officers of the United States Public Health Service (USPHS) to assist in the investigations. This report summarizes the results of the preliminary investigations, which indicated that the elevated water lead levels might have contributed to a small increase in blood lead levels (BLLs). The investigation of elevated water lead levels is ongoing. In the interim, DCDOH has recommended that young children and pregnant and breast-feeding women refrain from drinking unfiltered tap water (2).

CDC's BLL of concern for children, 10 $\mu\text{g}/\text{dL}$, was adopted in 1991 in response to evidence associating BLLs $\geq 10 \mu\text{g}/\text{dL}$ with adverse health effects (3). Adverse health effects have been reported recently at BLLs $< 10 \mu\text{g}/\text{dL}$, particularly in vulnerable populations (e.g., infants and children) (4,5); no safe BLL has been identified (6). Longitudinal analysis was conducted to identify trends in BLLs in DC before and after changes in the water disinfection process by comparing homes with lead service pipes to homes without lead service pipes. Both the percentage of BLLs $\geq 10 \mu\text{g}/\text{dL}$ and those $\geq 5 \mu\text{g}/\text{dL}$ were examined over time. Cross-sectional analysis of BLLs of residents in homes with the highest water lead levels was conducted to determine if residents had BLLs $\geq 10 \mu\text{g}/\text{dL}$.

Afghanistan (4). PCR data obtained for patient B suggest that the U.S. soldiers were infected with organisms in the *L. donovani-L. infantum* species complex; the PCR method used cannot distinguish *L. infantum* from *L. donovani*.

U.S. health-care providers should consider the possibility of VL in persons who have been in areas where VL is endemic and have persistent, febrile illnesses, especially if associated with other clinical signs suggestive of VL (1). Persons deployed previously to Southwest/Central Asia who have questions about their general health or leishmaniasis can contact the Deployment Health Clinical Center of the Department of Defense, telephone 866-559-1627 or at <http://www.pdhealth.mil>. For evaluation, treatment, and referral of military health-care beneficiaries with suspected or confirmed cases of leishmaniasis, clinicians should contact the Infectious Disease Service of either Walter Reed Army Medical Center (District of Columbia), telephone 202-782-1663/6740, or Brooke Army Medical Center (San Antonio, Texas), telephone 210-916-5554/1286. Diagnostic support can be obtained by contacting the director of the leishmaniasis diagnostic laboratory at Walter Reed Army Institute of Research (Silver Spring, Maryland), telephone 301-319-9956.

Acknowledgments

This report is based in part on contributions from D Hack, MD, Walter Reed Army Medical Center; P McEvoy, MD, R Neafie, MS, Armed Forces Institute of Pathology, District of Columbia. M Lim, MD, Naval Medical Center San Diego, California.

References

1. Herwaldt BL. Leishmaniasis. *Lancet* 1999;354:1191–9.
2. Singh M, Arya LS, Aram N, Fazal MI, Qureshi MA, Goel RG. Kala-azar in Afghanistan. *J Trop Med Hyg* 1982;85:201–4.
3. Goel RG. Endemic foci of visceral leishmaniasis in Afghanistan. *Indian Pediatr* 1982;19:857–60.
4. World Health Organization. Control of the leishmaniasis: report of a WHO expert committee. Geneva, Switzerland: World Health Organization, 1990; technical report series no. 793.
5. Wallace MR, Hale BR, Utz GC, et al. Endemic infectious diseases of Afghanistan. In: Wallace MR, ed. Afghanistan: health challenges facing deployed troops, peacekeepers, and refugees. *Clin Infect Dis* 2002;34:S171–S207.
6. Sundar S, Reed SG, Singh VP, Kumar PC, Murray HW. Rapid accurate field diagnosis of Indian visceral leishmaniasis. *Lancet* 1998;351:563–5.
7. Wortmann G, Sweeney C, Houng H-S, et al. Rapid diagnosis of leishmaniasis by fluorogenic polymerase chain reaction. *Am J Trop Med Hyg* 2001;65:583–7.
8. Reyburn H, Rowland M, Mohsen M, Khan B, Davies C. The prolonged epidemic of anthroponotic cutaneous leishmaniasis in Kabul, Afghanistan: 'bringing down the neighbourhood.' *Trans R Soc Trop Med Hyg* 2003;97:170–6.
9. World Health Organization. Cutaneous leishmaniasis, Afghanistan. *Wkly Epidemiol Rec* 2002;77:246.
10. Simpson RA. Mission in Afghanistan. *Med J Austral* 2002;177:633–7.

Longitudinal Analysis of Childhood Blood Lead Screening Tests

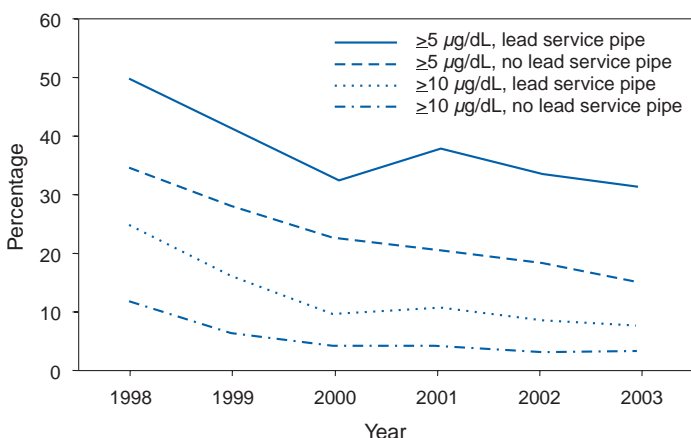
WASA provided DCDOH and CDC with a list of homes ($n = 26,141$) with lead service pipes. During January 1998–December 2003, the DCDOH blood lead surveillance system recorded 84,929 BLLs. Of these, 43,314 (51%) tests were venous, and 6,794 (8%) were fingerstick; sample type was not listed on the remaining tests. All blood tests were used in this analysis. For each year of testing, these databases were linked by address. A total of 11,061 BLL laboratory requisition slips listed an address with a lead service pipe.

During 1998–2000, the percentage of BLLs ≥ 10 $\mu\text{g}/\text{dL}$ and ≥ 5 $\mu\text{g}/\text{dL}$ decreased substantially, regardless of the type of service pipe (Figure). During 2000–2003, the percentage of BLLs ≥ 10 $\mu\text{g}/\text{dL}$ in persons living in homes known to have lead service pipes decreased from 9.8% to 7.6% ($p = 0.008$). The percentage of BLLs ≥ 5 $\mu\text{g}/\text{dL}$ in persons living in houses without lead service pipes continued to decrease, from 22.7% to 15.6% ($n = 14,152$; $p < 0.001$). However, the percentage of BLLs ≥ 5 $\mu\text{g}/\text{dL}$ in persons living in homes with lead service pipes did not decrease statistically significantly (from 696 [32.4%] to 405 [31.2%]; $p = 0.34$).

Cross-Sectional Study of Homes with >300 ppb Lead in Water

WASA provided the results of lead testing on water samples from 6,170 homes. Of these, 163 (3%) had lead levels >300 ppb in second-draw water collected after a change in water temperature, indicating that some of the lead in the water leached from water pipes outside the home. USPHS officers working in the DCDOH Incident Command structure contacted residents in the 140 (86%) homes that had telephones

FIGURE. Percentage of tests with elevated blood lead levels, by year and water-line type — District of Columbia, January 1998–September 2003



and arranged for visits to draw venous samples for BLLs. The DC Public Health Laboratory determined BLLs by using graphite furnace atomic absorption spectrophotometry for 184 persons in 86 households who consented to having blood drawn. Residents were provided with a water filter and information about reducing lead exposure. In addition, in 12 of the households contacted, 17 persons had a venous blood test drawn independently and reported to DCDOH since January 2004. These test results also were included in this analysis.

Of the 201 residents from 98 homes with water lead levels >300 ppb tested for BLLs, all had BLLs below CDC's levels of concern (10 $\mu\text{g}/\text{dL}$ for children aged 6 months–15 years and 25 $\mu\text{g}/\text{dL}$ for adults) (Table). Of the 201 residents, a total of 153 (76%) reported drinking tap water, and 52 households (53%) reported using a water filter. On February 26, 2004, DCDOH sent a letter to all DC homes with lead service pipes, recommending that young children and pregnant and breastfeeding women refrain from drinking unfiltered tap water (2).

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Editorial Note: The findings in this report indicate that although lead in tap water contributed to a small increase in BLLs in DC, no children were identified with BLLs ≥ 10 $\mu\text{g}/\text{dL}$, even in homes with the highest water lead levels. In addition, the longitudinal surveillance data indicate a continued decline in the percentage of BLLs ≥ 10 $\mu\text{g}/\text{dL}$. The findings in this report suggest that levels exceeding the EPA action level of 15 ppb can result in an increase in the percentage of BLLs ≥ 5 $\mu\text{g}/\text{dL}$. Homes with lead service pipes are older, and persons living in these homes are more likely to be exposed to high-dose lead sources (e.g., paint and dust hazards). For this reason, in all years reported, the percentage of test results ≥ 10 $\mu\text{g}/\text{dL}$ and the percentage of test results ≥ 5 $\mu\text{g}/\text{dL}$ at addresses

TABLE. Blood lead levels (BLLs) of residents in homes with >300 parts per billion in drinking water, by age group — District of Columbia, March 2004

Age group (yrs)	BLL ($\mu\text{g}/\text{dL}$)	
	Median	Range
1–5 ($n = 17$)	3	1–6
6–15 ($n = 13$)	2	1–4
16–40 ($n = 56$)	3	1–14
41–60 ($n = 69$)	4	1–20
≥ 61 ($n = 46$)	6	2–22
Total ($n = 201$)		

with lead service pipes were higher than at addresses without lead service pipes.

The findings in this report are subject to at least three limitations. First, the BLL surveillance data include multiple tests on the same person, and persons with lead poisoning are tested more frequently than those with low BLLs. Second, fingerstick tests are more subject than venous samples to contamination by ambient lead (7). Finally, neither the blood nor the water lead test results were collected from a randomized sample. Water was collected from homes with a high probability of having lead service pipes; the March 2004 BLL screening program was limited to families living in homes with the highest water lead levels, and the routine blood lead surveillance program focused on identifying children at highest risk for lead exposure. For these reasons, the percentages of BLLs ≥ 5 $\mu\text{g}/\text{dL}$ or ≥ 10 $\mu\text{g}/\text{dL}$ reported probably are higher than those found in the general population. However, none of these factors should affect the relative differences between percentage of tests ≥ 5 $\mu\text{g}/\text{dL}$ by water line type, nor do they explain the change in trajectory of the percentage of tests ≥ 5 $\mu\text{g}/\text{dL}$ by year after 2000.

The cause of the elevated water lead levels in DC is under review. Although the increase is associated temporally with the change in the disinfection process from chlorine to chloramines that occurred in November 2000, whether this change contributed to increased lead in the water is unknown.

Because no threshold for adverse health effects in young children has been demonstrated (6), public health interventions should focus on eliminating all lead exposures in children (8). Lead concentrations in drinking water should be below the EPA action level of 15 ppb. Officials in communities that are considering changes in water chemistry or that

have implemented such changes recently should assess whether these changes might result in increased lead in residential tap water. EPA has asked all state health and environmental officials to monitor lead in drinking water at schools and day care centers. More information about lead poisoning is available from CDC at <http://www.cdc.gov/nceh/lead/lead.htm>.

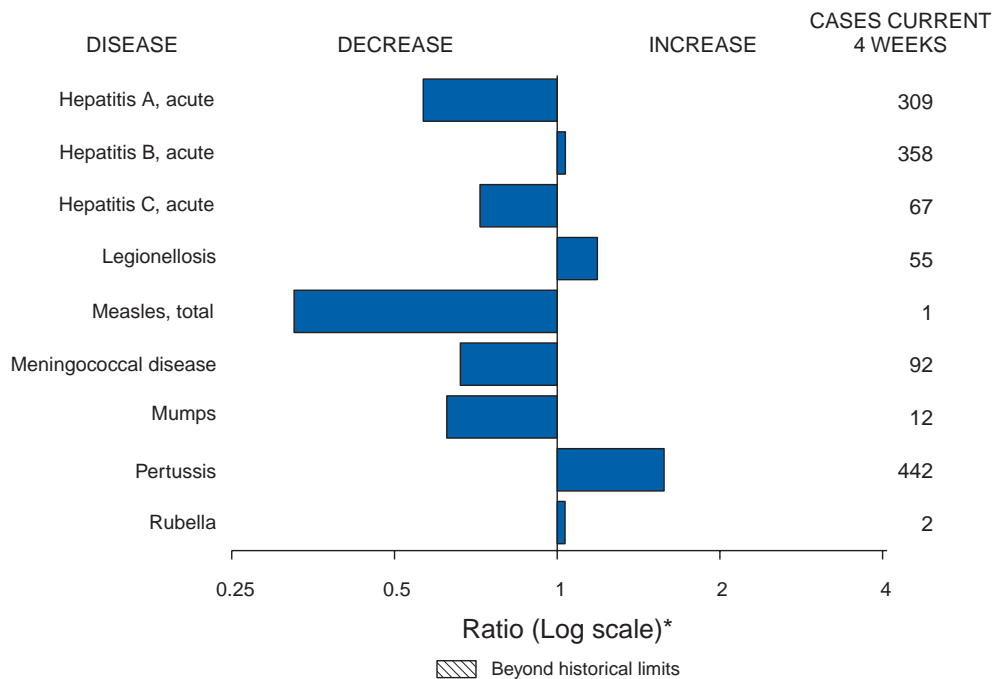
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References

1. Agency for Toxic Substances and Disease Registry. Toxicological profile for lead. Atlanta, Georgia: U.S. Department of Health and Human Services, Agency for Toxic Substances and Disease Registry, 1999. Available at <http://www.atsdr.cdc.gov/toxprofiles/tp13.html>.
2. District of Columbia Department of Health. Health advisory: lead in Washington, DC. February 26, 2004. Available at <http://www.dchealth.dc.gov>.
3. CDC. Preventing lead poisoning in young children: a statement by the Centers for Disease Control—October 1991. Atlanta, Georgia: U.S. Department of Health and Human Services, Public Health Service, CDC, 1991.
4. Canfield RL, Henderson CR Jr, Cory-Slechta DA, Cox C, Jusko TA, Lanphear BP. Intellectual impairment in children with blood lead concentrations below 10 μg per deciliter. *N Engl J Med* 2003;348:1517–26.
5. Bellinger DC, Needleman HL. Intellectual impairment and blood lead levels. *N Engl J Med* 2003;349:500–2.
6. Schwartz J. Low-level lead exposure and children's IQ: a meta-analysis and search for a threshold. *Environ Res* 1994;65:42–55.
7. Schlenker TL, Fritz CJ, Mark D, et al. Screening for pediatric lead poisoning: comparability of simultaneously drawn capillary and venous blood samples. *JAMA* 1994;271:1346–8.
8. Rogan WJ, Ware JH. Exposure to lead in children—how low is low enough? *N Engl J Med* 2003;348:1515–6.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals March 27, 2004, with historical data



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

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending March 27, 2004 (12th Week)*

	Cum. 2004	Cum. 2003		Cum. 2004	Cum. 2003
Anthrax	-	-	Hemolytic uremic syndrome, postdiarrheal [†]	10	31
Botulism:	-	-	HIV infection, pediatric [§]	-	48
foodborne	2	4	Measles, total	3 [¶]	4 ^{**}
infant	15	17	Mumps	34	51
other (wound & unspecified)	4	5	Plague	-	-
Brucellosis [†]	12	25	Poliomyelitis, paralytic	-	-
Chancroid	7	10	Psittacosis [†]	2	5
Cholera	1	-	Q fever [†]	4	14
Cyclosporiasis [†]	8	21	Rabies, human	-	-
Diphtheria	-	-	Rubella	8	1
Ehrlichiosis:	-	-	Rubella, congenital syndrome	1	-
human granulocytic (HGE) [†]	5	18	SARS-associated coronavirus disease ^{† ††}	-	4
human monocytic (HME) [†]	6	20	Smallpox ^{† §§}	-	NA
human, other and unspecified	-	1	<i>Staphylococcus aureus</i> :	-	-
Encephalitis/Meningitis:	-	-	Vancomycin-intermediate (VISA) ^{† §§}	4	NA
California serogroup viral [†]	-	-	Vancomycin-resistant (VRSA) ^{† §§}	-	NA
eastern equine [†]	-	2	Streptococcal toxic-shock syndrome [†]	24	54
Powassan [†]	-	-	Tetanus	2	4
St. Louis [†]	1	2	Toxic-shock syndrome	31	31
western equine [†]	-	-	Trichinosis	2	-
Hansen disease (leprosy) [†]	11	24	Tularemia [†]	3	4
Hantavirus pulmonary syndrome [†]	2	5	Yellow fever	-	-

-: No reported cases.

* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

[†] Not notifiable in all states.

[§] Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update December 28, 2003.

[¶] Of three cases reported, two were indigenous, and one was imported from another country.

^{**} Of four cases reported, two were indigenous, and two were imported from another country.

^{††} Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (notifiable as of July 2003).

^{§§} Not previously notifiable.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending March 27, 2004, and March 22, 2003 (12th Week)*

Reporting area	AIDS		Chlamydia†		Coccidiomycosis		Cryptosporidiosis		Encephalitis/Meningitis West Nile	
	Cum. 2004§	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	-	8,321	172,890	191,345	1,158	890	569	523	6	57
NEW ENGLAND	-	279	6,430	6,322	-	-	31	31	-	-
Maine	-	8	350	426	N	N	4	2	-	-
N.H.	-	3	408	356	-	-	8	3	-	-
Vt.	-	5	269	259	-	-	3	5	-	-
Mass.	-	111	3,244	2,433	-	-	10	16	-	-
R.I.	-	21	828	695	-	-	1	3	-	-
Conn.	-	131	1,331	2,153	N	N	5	2	-	-
MID. ATLANTIC	-	2,163	24,316	22,106	-	-	98	58	2	-
Upstate N.Y.	-	92	4,722	3,682	N	N	21	11	-	-
N.Y. City	-	1,272	7,433	7,640	-	-	20	24	-	-
N.J.	-	296	2,630	3,428	-	-	7	2	-	-
Pa.	-	503	9,531	7,356	N	N	50	21	2	-
E.N. CENTRAL	-	856	28,264	35,966	4	2	112	90	-	-
Ohio	-	128	4,807	9,985	-	-	39	12	-	-
Ind.	-	119	3,988	4,017	N	N	18	6	-	-
Ill.	-	365	7,381	11,489	-	-	8	16	-	-
Mich.	-	202	9,106	6,573	4	2	25	20	-	-
Wis.	-	42	2,982	3,902	-	-	22	36	-	-
W.N. CENTRAL	-	136	9,453	11,245	2	1	66	36	1	-
Minn.	-	23	1,849	2,542	N	N	27	21	-	-
Iowa	-	23	-	1,084	N	N	8	5	-	-
Mo.	-	73	3,990	4,029	1	1	14	2	1	-
N. Dak.	-	-	207	282	N	N	-	-	-	-
S. Dak.	-	4	553	550	-	-	5	6	-	-
Nebr.†	-	6	1,143	1,070	1	-	-	2	-	-
Kans.	-	7	1,711	1,688	N	N	12	-	-	-
S. ATLANTIC	-	1,814	28,196	34,318	-	1	122	174	2	57
Del.	-	49	698	693	N	N	-	1	-	-
Md.	-	187	4,455	3,668	-	1	7	6	-	-
D.C.	-	233	810	784	-	-	1	-	-	-
Va.	-	264	1,245	3,638	-	-	10	6	-	-
W. Va.	-	13	667	570	N	N	2	-	-	-
N.C.	-	192	6,488	5,312	N	N	24	7	-	-
S.C.†	-	169	4,266	3,082	-	-	2	1	1	-
Ga.	-	415	908	7,270	-	-	42	24	-	-
Fla.	-	292	8,659	9,301	N	N	34	129	1	57
E.S. CENTRAL	-	324	11,758	12,710	N	N	27	27	-	-
Ky.	-	38	1,368	1,944	N	N	6	7	-	-
Tenn.	-	145	4,708	4,383	N	N	11	10	-	-
Ala.	-	64	3,077	3,263	-	-	7	8	-	-
Miss.	-	77	2,605	3,120	N	N	3	2	-	-
W.S. CENTRAL	-	940	24,032	23,533	2	1	20	9	1	-
Ark.	-	23	1,815	1,455	1	-	8	2	-	-
La.	-	49	5,882	4,575	N	N	-	-	1	-
Okla.	-	40	1,936	1,936	N	N	8	1	-	-
Tex.	-	828	14,399	15,567	1	1	4	6	-	-
MOUNTAIN	-	312	9,923	11,897	726	645	31	18	-	-
Mont.	-	7	42	483	N	N	3	2	-	-
Idaho	-	4	751	627	N	N	1	4	-	-
Wyo.	-	2	244	247	-	-	-	-	-	-
Colo.	-	72	1,790	3,011	N	N	18	3	-	-
N. Mex.	-	27	1,245	1,837	6	-	1	-	-	-
Ariz.	-	145	4,230	3,703	707	636	5	2	-	-
Utah	-	14	567	604	4	1	-	5	-	-
Nev.	-	41	1,054	1,385	9	8	1	2	-	-
PACIFIC	-	1,497	30,518	33,248	422	240	62	80	-	-
Wash.	-	117	3,936	3,448	N	N	3	-	-	-
Oreg.	-	66	1,449	1,672	-	-	7	6	-	-
Calif.	-	1,294	24,339	26,096	422	240	51	74	-	-
Alaska	-	7	783	799	-	-	-	-	-	-
Hawaii	-	13	11	1,233	-	-	1	-	-	-
Guam	-	1	-	-	-	-	-	-	-	-
P.R.	-	235	298	561	N	N	N	N	-	-
V.I.	-	6	20	75	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	32	U	-	U	-	U	-	U

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

* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

† Chlamydia refers to genital infections caused by *C. trachomatis*.

§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update December 28, 2003.

¶ Contains data reported through National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 27, 2004, and March 22, 2003 (12th Week)*

Reporting area	<i>Escherichia coli</i> , Enterohemorrhagic (EHEC)						Giardiasis		Gonorrhea	
	O157:H7		Shiga toxin positive, serogroup non-O157		Shiga toxin positive, not serogrouped		Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003				
UNITED STATES	192	260	30	61	24	21	3,104	4,340	60,767	73,534
NEW ENGLAND	12	11	2	4	2	3	267	247	1,548	1,640
Maine	-	-	-	-	-	-	25	20	64	28
N.H.	2	3	-	1	-	-	9	15	28	27
Vt.	-	-	-	-	-	-	16	19	17	22
Mass.	1	3	1	1	2	3	139	128	750	624
R.I.	1	1	-	-	-	-	23	21	217	223
Conn.	8	4	1	2	-	-	55	44	472	716
MID. ATLANTIC	18	25	1	1	5	2	677	715	8,012	8,977
Upstate N.Y.	6	4	1	-	2	-	213	147	1,592	1,463
N.Y. City	4	3	-	-	-	-	217	296	2,444	3,021
N.J.	-	4	-	-	1	-	49	98	1,100	2,047
Pa.	8	14	-	1	2	2	198	174	2,876	2,446
E.N. CENTRAL	41	57	7	10	4	2	394	603	11,170	16,380
Ohio	12	14	-	7	4	2	173	184	2,315	5,226
Ind.	9	7	-	-	-	-	-	-	1,426	1,523
Ill.	5	9	-	-	-	-	59	180	2,911	5,083
Mich.	8	10	1	-	-	-	118	148	3,658	3,153
Wis.	7	17	6	3	-	-	44	91	860	1,395
W.N. CENTRAL	33	32	7	4	6	2	316	343	3,297	3,859
Minn.	13	12	3	3	-	-	113	92	740	632
Iowa	4	3	-	-	-	-	44	48	-	212
Mo.	5	9	4	1	1	-	91	118	1,629	1,997
N. Dak.	2	1	-	-	3	1	6	12	24	11
S. Dak.	-	2	-	-	-	-	12	12	59	31
Nebr.	4	4	-	-	-	-	23	36	255	334
Kans.	5	1	-	-	2	1	27	25	590	642
S. ATLANTIC	13	53	9	33	3	10	520	1,427	13,138	17,289
Del.	-	-	N	N	N	N	12	12	236	310
Md.	2	-	-	-	-	-	22	26	1,888	1,814
D.C.	-	-	-	-	-	-	11	5	527	583
Va.	-	3	3	-	-	-	70	46	472	1,841
W. Va.	1	-	-	-	-	-	7	5	196	193
N.C.	-	-	3	6	-	-	N	N	3,662	3,041
S.C.	-	-	-	-	-	-	10	22	1,962	1,751
Ga.	5	3	2	2	-	-	133	175	605	3,532
Fla.	5	47	1	25	3	10	255	1,136	3,590	4,224
E.S. CENTRAL	8	11	1	-	3	-	70	66	5,466	6,413
Ky.	4	1	1	-	3	-	N	N	589	806
Tenn.	2	6	-	-	-	-	28	29	1,760	1,984
Ala.	1	3	-	-	-	-	42	37	1,783	2,038
Miss.	1	1	-	-	-	-	-	-	1,334	1,585
W.S. CENTRAL	9	12	-	2	-	2	62	46	8,988	9,695
Ark.	1	1	-	-	-	-	32	28	837	840
La.	-	-	-	-	-	-	7	3	2,786	2,570
Okla.	3	-	-	-	-	-	23	15	874	780
Tex.	5	11	-	2	-	2	-	-	4,491	5,505
MOUNTAIN	32	23	2	6	1	-	294	277	2,447	2,578
Mont.	2	-	-	-	-	-	6	6	8	32
Idaho	3	6	1	3	-	-	46	33	14	18
Wyo.	-	-	-	-	-	-	1	3	11	10
Colo.	19	7	1	2	1	-	90	76	556	716
N. Mex.	1	-	-	1	-	-	11	13	152	305
Ariz.	2	8	N	N	N	N	68	57	1,190	1,031
Utah	2	2	-	-	-	-	55	58	61	54
Nev.	3	-	-	-	-	-	17	31	455	412
PACIFIC	26	36	1	1	-	-	504	616	6,701	6,703
Wash.	5	11	-	-	-	-	46	36	649	648
Oreg.	2	4	1	1	-	-	82	74	179	212
Calif.	15	21	-	-	-	-	352	467	5,737	5,485
Alaska	-	-	-	-	-	-	9	15	135	124
Hawaii	4	-	-	-	-	-	15	24	1	234
Guam	N	N	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	18	2	13	24	68
V.I.	-	-	-	-	-	-	-	-	4	25
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	3	U

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

* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 27, 2004, and March 22, 2003 (12th Week)*

Reporting area	<i>Haemophilus influenzae</i> , invasive								Hepatitis (viral, acute), by type	
	All ages		Age <5 years						A	
	All serotypes		Serotype b		Non-serotype b		Unknown serotype		Cum.	Cum.
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	2004	2003
UNITED STATES	466	488	5	6	28	32	46	55	1,230	1,730
NEW ENGLAND	44	31	1	1	2	2	1	-	238	42
Maine	5	1	-	-	-	-	-	-	7	1
N.H.	9	3	-	-	1	-	-	-	6	3
Vt.	4	6	-	-	-	-	-	-	5	2
Mass.	16	14	1	1	-	2	1	-	194	24
R.I.	1	-	-	-	-	-	-	-	5	2
Conn.	9	7	-	-	1	-	-	-	21	10
MID. ATLANTIC	91	72	-	-	1	1	15	10	140	261
Upstate N.Y.	32	23	-	-	1	1	3	4	16	21
N.Y. City	13	11	-	-	-	-	4	2	47	101
N.J.	15	11	-	-	-	-	2	1	26	45
Pa.	31	27	-	-	-	-	6	3	51	94
E.N. CENTRAL	60	58	-	1	9	2	5	13	99	157
Ohio	34	16	-	-	2	-	4	4	15	27
Ind.	12	7	-	-	3	1	1	-	5	10
Ill.	-	24	-	-	-	-	-	8	34	58
Mich.	7	5	-	1	4	1	-	-	37	46
Wis.	7	6	-	-	-	-	-	1	8	16
W.N. CENTRAL	18	29	1	-	1	3	-	3	29	35
Minn.	9	9	-	-	1	3	-	-	1	4
Iowa	1	-	1	-	-	-	-	-	6	9
Mo.	4	13	-	-	-	-	-	3	10	9
N. Dak.	-	1	-	-	-	-	-	-	-	-
S. Dak.	-	1	-	-	-	-	-	-	2	-
Nebr.	4	-	-	-	-	-	-	-	7	3
Kans.	-	5	-	-	-	-	-	-	3	10
S. ATLANTIC	129	173	-	1	3	8	11	12	259	657
Del.	3	-	-	-	-	-	2	-	2	3
Md.	22	17	-	-	1	1	-	-	43	39
D.C.	-	-	-	-	-	-	-	-	3	4
Va.	9	8	-	-	-	-	-	2	24	22
W. Va.	6	2	-	-	-	-	3	-	1	4
N.C.	11	5	-	-	-	-	-	-	16	20
S.C.	-	1	-	-	-	-	-	-	5	17
Ga.	45	17	-	-	-	-	6	1	101	136
Fla.	33	123	-	1	2	7	-	9	64	412
E.S. CENTRAL	18	25	-	-	-	1	5	3	38	43
Ky.	-	3	-	-	-	1	-	-	3	7
Tenn.	10	10	-	-	-	-	4	2	25	20
Ala.	8	11	-	-	-	-	1	1	4	9
Miss.	-	1	-	-	-	-	-	-	6	7
W.S. CENTRAL	15	20	-	-	2	2	-	1	46	119
Ark.	-	3	-	-	-	-	-	-	6	6
La.	1	6	-	-	-	-	-	1	1	22
Okla.	14	11	-	-	2	2	-	-	11	4
Tex.	-	-	-	-	-	-	-	-	28	87
MOUNTAIN	75	49	1	1	9	8	7	7	129	90
Mont.	-	-	-	-	-	-	-	-	-	1
Idaho	2	-	-	-	-	-	1	-	4	4
Wyo.	-	-	-	-	-	-	-	-	1	1
Colo.	21	9	-	-	-	-	4	3	16	5
N. Mex.	12	4	-	-	2	2	1	-	3	7
Ariz.	36	28	-	1	6	3	1	3	85	55
Utah	1	5	1	-	-	1	-	1	18	5
Nev.	3	3	-	-	1	2	-	-	2	12
PACIFIC	16	31	2	2	1	5	2	6	252	326
Wash.	3	3	2	-	-	2	1	1	11	13
Oreg.	9	12	-	-	-	-	-	3	14	21
Calif.	2	14	-	2	1	3	1	2	220	286
Alaska	-	-	-	-	-	-	-	-	2	3
Hawaii	2	2	-	-	-	-	-	-	5	3
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	3	7
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

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

* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 27, 2004, and March 22, 2003 (12th Week)*

Reporting area	Hepatitis (viral, acute), by type				Legionellosis		Listeriosis		Lyme disease	
	B		C		Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003						
UNITED STATES	1,184	2,208	298	570	223	357	78	134	1,313	1,721
NEW ENGLAND	50	72	-	-	3	10	3	5	65	106
Maine	1	-	-	-	-	-	1	-	13	-
N.H.	10	2	-	-	-	-	1	1	6	2
Vt.	1	1	-	-	-	1	-	-	2	3
Mass.	38	54	-	-	1	4	-	2	17	76
R.I.	-	-	-	-	1	1	-	-	13	8
Conn.	-	15	U	U	1	4	1	2	14	17
MID. ATLANTIC	150	256	33	31	46	44	20	20	1,057	1,293
Upstate N.Y.	11	16	3	4	11	11	5	2	399	395
N.Y. City	12	120	-	-	-	6	2	7	-	-
N.J.	65	62	-	-	11	4	5	3	173	260
Pa.	62	58	30	27	24	23	8	8	485	638
E.N. CENTRAL	86	104	14	35	59	61	11	9	20	41
Ohio	44	35	2	3	32	25	5	1	14	7
Ind.	2	-	-	-	4	3	1	1	-	3
Ill.	-	1	1	10	2	10	-	3	-	-
Mich.	40	50	11	22	19	17	4	4	-	-
Wis.	-	18	-	-	2	6	1	-	6	31
W.N. CENTRAL	95	65	135	65	4	7	3	2	21	19
Minn.	8	4	1	1	-	2	2	1	6	13
Iowa	1	4	-	-	-	2	-	-	3	2
Mo.	79	45	134	64	3	1	1	-	11	3
N. Dak.	1	-	-	-	-	1	-	-	-	-
S. Dak.	-	1	-	-	1	-	-	-	-	-
Nebr.	5	6	-	-	-	-	-	1	-	-
Kans.	1	5	-	-	-	1	-	-	1	1
S. ATLANTIC	403	1,044	41	106	59	182	14	55	124	201
Del.	3	2	-	-	2	-	N	N	8	30
Md.	36	26	1	6	9	12	2	3	67	66
D.C.	5	-	1	-	-	1	-	-	1	1
Va.	35	27	8	-	4	4	-	2	3	9
W. Va.	-	1	1	-	2	-	1	-	1	-
N.C.	43	38	3	3	7	5	4	5	30	12
S.C.	11	26	-	11	-	3	-	2	1	-
Ga.	127	288	6	6	6	6	3	5	-	3
Fla.	143	636	21	80	29	151	4	38	13	80
E.S. CENTRAL	94	83	42	21	8	4	3	4	1	10
Ky.	11	13	8	2	2	-	1	-	-	1
Tenn.	42	25	32	3	5	2	2	-	1	2
Ala.	15	20	-	4	1	1	-	3	-	-
Miss.	26	25	2	12	-	1	-	1	-	7
W.S. CENTRAL	16	241	19	289	9	18	4	9	2	27
Ark.	4	25	-	2	-	-	-	-	-	-
La.	6	36	9	42	-	-	-	-	-	3
Okla.	6	12	-	-	2	2	-	1	-	-
Tex.	-	168	10	245	7	16	4	8	2	24
MOUNTAIN	120	138	6	8	19	12	3	10	3	3
Mont.	-	4	1	1	-	-	-	1	-	-
Idaho	3	2	-	-	1	1	1	-	-	1
Wyo.	1	3	-	-	4	1	-	-	1	-
Colo.	16	18	1	3	3	2	1	5	-	-
N. Mex.	4	9	-	-	-	1	-	-	-	-
Ariz.	76	76	2	3	4	3	-	4	1	-
Utah	9	8	-	-	6	2	-	-	1	1
Nev.	11	18	2	1	1	2	1	-	-	1
PACIFIC	170	205	8	15	16	19	17	20	20	21
Wash.	17	12	2	1	3	1	3	1	2	-
Oreg.	22	35	3	3	N	N	3	1	7	6
Calif.	126	152	2	10	13	18	11	18	11	14
Alaska	4	2	-	-	-	-	-	-	-	1
Hawaii	1	4	1	1	-	-	-	-	N	N
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	5	24	-	-	-	-	-	-	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

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

* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 27, 2004, and March 22, 2003 (12th Week)*

Reporting area	Malaria		Meningococcal disease		Pertussis		Rabies, animal		Rocky Mountain spotted fever	
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	203	304	418	547	1,660	1,516	679	1,127	104	79
NEW ENGLAND	16	8	20	22	449	141	89	91	4	-
Maine	-	1	6	1	-	-	11	6	-	-
N.H.	-	2	2	1	10	9	5	5	-	-
Vt.	1	-	1	-	12	17	5	7	-	-
Mass.	8	5	11	18	416	114	33	32	4	-
R.I.	2	-	-	-	7	-	4	4	-	-
Conn.	5	-	-	2	4	1	31	37	-	-
MID. ATLANTIC	37	53	50	53	485	145	98	171	8	9
Upstate N.Y.	10	8	13	8	356	61	69	52	1	-
N.Y. City	17	31	10	11	-	-	-	1	1	4
N.J.	3	4	6	8	35	22	-	43	1	4
Pa.	7	10	21	26	94	62	29	75	5	1
E.N. CENTRAL	14	24	50	73	201	105	3	5	2	1
Ohio	3	5	21	20	106	59	2	-	2	1
Ind.	-	-	6	12	11	7	1	2	-	-
Ill.	1	11	1	17	-	-	-	1	-	-
Mich.	5	6	19	15	29	11	-	2	-	-
Wis.	5	2	3	9	55	28	-	-	-	-
W.N. CENTRAL	15	6	20	35	82	79	79	111	3	2
Minn.	6	4	5	8	14	27	9	5	-	-
Iowa	1	2	4	5	13	30	10	15	-	1
Mo.	3	-	5	17	44	12	3	-	3	1
N. Dak.	1	-	-	-	3	1	11	15	-	-
S. Dak.	1	-	1	-	1	1	10	14	-	-
Nebr.	-	-	1	2	-	1	15	17	-	-
Kans.	3	-	4	3	7	7	21	45	-	-
S. ATLANTIC	75	131	78	154	94	209	313	615	75	63
Del.	1	-	1	7	3	1	9	-	-	-
Md.	22	19	4	7	24	16	50	76	5	6
D.C.	4	1	-	-	1	-	-	-	-	-
Va.	4	6	3	6	26	28	15	87	-	1
W. Va.	-	2	3	1	2	1	15	15	-	-
N.C.	3	5	9	6	22	42	134	152	66	34
S.C.	3	1	6	8	3	3	20	38	-	2
Ga.	11	5	10	12	-	4	64	73	2	2
Fla.	27	92	42	107	13	114	6	174	2	18
E.S. CENTRAL	7	6	21	23	26	24	28	42	8	2
Ky.	1	1	3	2	3	3	4	7	-	-
Tenn.	1	3	7	4	15	11	9	30	2	1
Ala.	4	2	6	6	4	8	15	5	1	-
Miss.	1	-	5	11	4	2	-	-	5	1
W.S. CENTRAL	6	20	42	67	25	51	32	48	-	2
Ark.	1	1	7	5	2	3	11	17	-	-
La.	2	1	10	22	2	4	-	-	-	-
Okla.	1	-	1	5	1	4	21	31	-	-
Tex.	2	18	24	35	20	40	-	-	-	2
MOUNTAIN	10	9	24	19	197	238	19	14	-	-
Mont.	-	-	1	1	4	-	3	1	-	-
Idaho	-	1	2	-	13	7	-	-	-	-
Wyo.	-	-	2	2	2	59	-	-	-	-
Colo.	4	7	11	5	105	85	-	-	-	-
N. Mex.	1	-	3	2	9	18	-	-	-	-
Ariz.	2	1	4	6	45	44	16	13	-	-
Utah	2	-	1	-	19	20	-	-	-	-
Nev.	1	-	-	3	-	5	-	-	-	-
PACIFIC	23	47	113	101	101	524	18	30	4	-
Wash.	2	5	7	8	71	54	-	-	-	-
Oreg.	2	5	26	22	26	59	-	-	2	-
Calif.	19	37	76	66	-	410	16	29	2	-
Alaska	-	-	1	-	1	-	2	1	-	-
Hawaii	-	-	3	5	3	1	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	3	1	-	14	13	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 27, 2004, and March 22, 2003 (12th Week)*

Reporting area	Salmonellosis		Shigellosis		Streptococcal disease, invasive, group A		<i>Streptococcus pneumoniae</i> , invasive			
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Drug resistant, all ages		Age <5 years	
							Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
UNITED STATES	5,172	9,678	2,186	6,439	1,249	1,843	704	1,183	103	106
NEW ENGLAND	236	255	50	74	52	147	3	28	3	1
Maine	7	14	-	3	2	8	-	-	-	-
N.H.	17	18	3	-	7	9	-	-	N	N
Vt.	10	4	-	1	1	6	1	4	1	1
Mass.	143	160	34	48	40	74	N	N	N	N
R.I.	13	15	1	2	2	1	2	-	2	-
Conn.	46	44	12	20	-	49	-	24	U	U
MID. ATLANTIC	626	694	235	376	180	283	40	37	25	22
Upstate N.Y.	147	104	106	48	67	90	18	19	18	15
N.Y. City	181	220	63	99	23	40	U	U	U	U
N.J.	107	131	38	96	28	69	N	N	N	N
Pa.	191	239	28	133	62	84	22	18	7	7
E.N. CENTRAL	742	798	196	334	206	404	164	127	39	57
Ohio	204	224	44	64	75	92	129	84	28	33
Ind.	75	52	40	24	16	27	35	43	8	5
Ill.	188	293	62	161	17	110	-	-	-	-
Mich.	145	114	28	54	90	111	N	N	N	N
Wis.	130	115	22	31	8	64	N	N	3	19
W.N. CENTRAL	315	319	69	164	100	106	66	75	8	14
Minn.	68	84	11	21	48	42	-	-	7	11
Iowa	68	74	11	7	N	N	N	N	N	N
Mo.	93	81	24	60	18	24	3	3	1	1
N. Dak.	8	5	1	3	3	5	-	3	-	2
S. Dak.	13	17	1	8	7	12	1	-	-	-
Nebr.	26	21	3	48	7	11	-	-	N	N
Kans.	39	37	18	17	17	12	62	69	N	N
S. ATLANTIC	1,286	5,431	705	3,658	327	431	356	844	3	3
Del.	7	15	2	79	1	3	2	-	N	N
Md.	92	132	25	139	63	73	-	1	-	-
D.C.	8	5	11	12	2	3	-	-	3	-
Va.	136	95	22	54	13	22	N	N	N	N
W. Va.	26	8	-	-	8	5	27	15	-	3
N.C.	162	245	111	161	33	28	N	N	U	U
S.C.	73	82	79	48	18	6	21	51	N	N
Ga.	241	180	130	316	128	60	134	166	N	N
Fla.	541	4,669	325	2,849	61	231	172	611	N	N
E. S. CENTRAL	295	337	134	197	59	42	44	27	2	-
Ky.	49	62	21	34	23	7	10	2	N	N
Tenn.	83	120	49	58	36	35	34	25	N	N
Ala.	113	102	48	71	-	-	-	-	N	N
Miss.	50	53	16	34	-	-	-	-	-	-
W.S. CENTRAL	296	478	285	821	38	136	21	35	21	7
Ark.	46	59	12	11	3	2	3	7	4	2
La.	25	73	24	87	-	1	18	28	2	3
Okla.	48	40	85	154	18	23	N	N	9	2
Tex.	177	306	164	569	17	110	N	N	6	-
MOUNTAIN	506	374	235	225	153	151	10	9	2	2
Mont.	20	25	3	1	-	-	-	-	-	-
Idaho	38	30	1	3	3	8	N	N	N	N
Wyo.	9	4	1	1	4	-	4	-	-	-
Colo.	113	106	38	34	46	44	-	-	-	-
N. Mex.	30	31	31	39	21	42	5	9	-	-
Ariz.	230	120	141	130	69	54	-	-	N	N
Utah	45	33	10	7	10	3	-	-	2	2
Nev.	21	25	10	10	-	-	1	-	-	-
PACIFIC	870	992	277	590	134	143	-	1	-	-
Wash.	58	71	13	36	10	-	-	-	N	N
Oreg.	56	67	15	16	N	N	N	N	N	N
Calif.	669	802	235	526	98	120	N	N	N	N
Alaska	26	22	2	3	1	-	-	-	N	N
Hawaii	61	30	12	9	25	23	-	1	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	24	99	1	2	N	N	N	N	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	3	U	-	U	-	U	-	U	-	U

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

* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending March 27, 2004, and March 22, 2003 (12th Week)*

Reporting area	Syphilis				Tuberculosis		Typhoid fever		Varicella (Chickenpox)	
	Primary & secondary		Congenital		Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003
	Cum. 2004	Cum. 2003	Cum. 2004	Cum. 2003						
UNITED STATES	1,393	1,613	43	116	1,215	2,306	46	79	3,313	3,675
NEW ENGLAND	21	38	1	-	40	62	6	5	202	592
Maine	-	-	-	-	-	-	-	-	25	302
N.H.	1	6	-	-	-	4	-	-	-	-
Vt.	-	-	-	-	-	1	-	-	177	231
Mass.	13	26	-	-	34	30	6	2	-	57
R.I.	2	3	-	-	5	10	-	2	-	2
Conn.	5	3	1	-	1	17	-	1	-	-
MID. ATLANTIC	191	173	5	17	326	420	8	13	9	4
Upstate N.Y.	12	4	2	1	32	37	-	2	-	-
N.Y. City	109	88	3	8	188	206	3	7	-	-
N.J.	30	46	-	8	56	68	3	3	-	-
Pa.	40	35	-	-	50	109	2	1	9	4
E.N. CENTRAL	139	228	15	22	214	219	3	5	1,475	1,784
Ohio	47	47	1	2	41	35	1	-	335	396
Ind.	10	8	-	5	13	29	-	2	-	-
Ill.	40	89	-	10	137	105	-	1	-	-
Mich.	37	81	14	5	8	40	2	2	1,108	1,135
Wis.	5	3	-	-	15	10	-	-	32	253
W.N. CENTRAL	25	49	-	1	48	97	-	-	86	10
Minn.	3	16	-	-	23	30	-	-	-	-
Iowa	-	4	-	-	4	5	-	-	N	N
Mo.	15	19	-	1	11	28	-	-	2	-
N. Dak.	-	-	-	-	2	-	-	-	62	10
S. Dak.	-	-	-	-	2	9	-	-	22	-
Nebr.	4	1	-	-	2	2	-	-	-	-
Kans.	3	9	-	-	4	23	-	-	-	-
S. ATLANTIC	366	387	5	24	239	383	8	28	482	600
Del.	2	1	-	-	-	-	-	-	1	1
Md.	57	57	1	4	38	30	2	3	1	-
D.C.	12	8	-	-	-	-	-	-	5	7
Va.	1	19	-	1	6	39	2	8	87	116
W. Va.	1	-	-	-	5	3	-	-	332	436
N.C.	37	40	1	3	26	28	2	1	-	-
S.C.	30	29	-	4	23	35	-	-	56	40
Ga.	46	81	-	5	11	102	-	1	-	-
Fla.	180	152	3	7	130	146	2	15	-	-
E. S. CENTRAL	77	97	2	7	70	135	-	1	1	-
Ky.	14	16	-	1	10	19	-	-	-	-
Tenn.	33	38	1	1	30	40	-	-	-	-
Ala.	24	35	1	4	30	58	-	1	-	-
Miss.	6	8	-	1	-	18	-	-	1	-
W. S. CENTRAL	249	191	13	16	59	351	2	1	333	651
Ark.	12	10	-	-	24	17	-	-	-	-
La.	51	22	-	-	-	-	-	-	-	7
Okla.	7	10	2	-	28	18	-	-	-	-
Tex.	179	149	11	16	7	316	2	1	333	644
MOUNTAIN	92	71	2	14	41	54	3	2	725	34
Mont.	-	-	-	-	-	-	-	-	-	-
Idaho	7	1	-	-	-	1	-	-	-	-
Wyo.	1	-	-	-	-	1	-	-	13	2
Colo.	-	8	-	2	5	23	-	2	512	-
N. Mex.	20	15	-	4	-	2	-	-	23	-
Ariz.	60	44	2	8	24	21	1	-	-	-
Utah	2	1	-	-	12	6	1	-	177	32
Nev.	2	2	-	-	-	-	1	-	-	-
PACIFIC	233	379	-	15	178	585	16	24	-	-
Wash.	20	16	-	-	43	47	1	-	-	-
Oreg.	9	13	-	-	15	17	1	2	-	-
Calif.	204	345	-	15	87	482	8	22	-	-
Alaska	-	-	-	-	7	14	-	-	-	-
Hawaii	-	5	-	-	26	25	6	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	20	39	-	6	-	11	-	-	75	112
V.I.	-	1	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	-	U	10	U	-	U	-	U

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

* Incidence data for reporting years 2003 and 2004 are provisional and cumulative (year-to-date).

TABLE III. Deaths in 122 U.S. cities,* week ending March 27, 2004 (12th Week)

Reporting Area	All causes, by age (years)							P&I [†] Total	Reporting Area	All causes, by age (years)							P&I [†] Total
	All Ages	≥65	45-64	25-44	1-24	<1	All Ages			≥65	45-64	25-44	1-24	<1			
NEW ENGLAND	558	398	106	31	12	11	53	S. ATLANTIC	1,252	790	290	107	39	26	70		
Boston, Mass.	145	84	36	13	5	7	17	Atlanta, Ga.	147	76	37	25	7	2	6		
Bridgeport, Conn.	30	23	2	4	1	-	4	Baltimore, Md.	221	139	51	21	7	3	12		
Cambridge, Mass.	20	17	1	2	-	-	5	Charlotte, N.C.	109	61	35	5	2	6	8		
Fall River, Mass.	32	28	3	1	-	-	3	Jacksonville, Fla.	144	95	28	12	5	4	8		
Hartford, Conn.	58	39	15	2	2	-	5	Miami, Fla.	102	67	18	14	3	-	10		
Lowell, Mass.	22	22	-	-	-	-	2	Norfolk, Va.	58	42	12	4	-	-	4		
Lynn, Mass.	9	9	-	-	-	-	1	Richmond, Va.	50	25	18	2	3	2	4		
New Bedford, Mass.	23	18	4	1	-	-	1	Savannah, Ga.	60	50	8	2	-	-	2		
New Haven, Conn.	23	15	6	-	1	1	3	St. Petersburg, Fla.	73	51	13	4	2	3	4		
Providence, R.I.	65	43	18	3	1	-	-	Tampa, Fla.	166	111	38	7	7	3	8		
Somerville, Mass.	2	1	1	-	-	-	-	Washington, D.C.	99	62	25	9	-	3	2		
Springfield, Mass.	45	32	8	3	1	1	2	Wilmington, Del.	23	11	7	2	3	-	2		
Waterbury, Conn.	31	25	4	1	-	1	3	E.S. CENTRAL	987	658	233	56	26	14	76		
Worcester, Mass.	53	42	8	1	1	1	7	Birmingham, Ala.	191	129	45	10	3	4	19		
MID. ATLANTIC	2,964	2,073	615	173	49	47	185	Chattanooga, Tenn.	102	74	22	5	1	-	7		
Albany, N.Y.	45	33	6	-	3	3	4	Knoxville, Tenn.	101	70	19	4	4	4	-		
Allentown, Pa.	19	18	1	-	-	-	1	Lexington, Ky.	93	59	25	5	4	-	5		
Buffalo, N.Y.	86	66	15	4	1	-	9	Memphis, Tenn.	209	135	52	11	9	2	16		
Camden, N.J.	21	13	4	2	-	2	-	Mobile, Ala.	104	70	22	10	2	-	4		
Elizabeth, N.J.	16	9	5	2	-	-	3	Montgomery, Ala.	26	22	2	1	-	1	8		
Erie, Pa.	43	34	6	2	-	1	5	Nashville, Tenn.	161	99	46	10	3	3	17		
Jersey City, N.J.	45	34	6	5	-	-	-	W.S. CENTRAL	1,499	961	329	115	38	56	92		
New York City, N.Y.	1,810	1,264	392	104	24	20	107	Austin, Tex.	94	59	23	5	3	4	9		
Newark, N.J.	40	19	13	5	1	2	4	Baton Rouge, La.	58	45	9	4	-	-	-		
Paterson, N.J.	21	18	3	-	-	-	-	Corpus Christi, Tex.	72	48	16	2	3	3	6		
Philadelphia, Pa.	469	309	99	33	15	12	23	Dallas, Tex.	184	107	41	19	6	11	11		
Pittsburgh, Pa. [‡]	15	8	6	1	-	-	1	El Paso, Tex.	U	U	U	U	U	U	U		
Reading, Pa.	18	16	1	-	1	-	3	Ft. Worth, Tex.	112	75	27	4	5	1	5		
Rochester, N.Y.	112	81	22	5	-	4	9	Houston, Tex.	428	262	97	42	7	20	23		
Schenectady, N.Y.	28	19	7	1	1	-	1	Little Rock, Ark.	90	52	28	3	3	4	8		
Scranton, Pa.	28	23	5	-	-	-	1	New Orleans, La.	45	32	9	3	1	-	-		
Syracuse, N.Y.	87	70	11	3	-	3	10	San Antonio, Tex.	234	151	49	19	7	8	22		
Trenton, N.J.	21	11	5	3	2	-	-	Shreveport, La.	23	18	4	-	1	-	4		
Utica, N.Y.	17	13	4	-	-	-	1	Tulsa, Okla.	159	112	26	14	2	5	4		
Yonkers, N.Y.	23	15	4	3	1	-	3	MOUNTAIN	1,002	673	209	74	26	18	80		
E.N. CENTRAL	2,166	1,444	477	136	50	57	149	Albuquerque, N.M.	122	75	29	11	7	-	7		
Akron, Ohio	38	32	4	2	-	-	3	Boise, Idaho	47	38	5	2	-	2	5		
Canton, Ohio	62	45	14	2	1	-	6	Colo. Springs, Colo.	76	47	22	6	1	-	4		
Chicago, Ill.	348	197	95	32	15	7	29	Denver, Colo.	101	70	23	4	1	3	12		
Cincinnati, Ohio	80	53	21	3	-	3	5	Las Vegas, Nev.	262	181	55	19	5	2	20		
Cleveland, Ohio	275	193	58	13	3	8	6	Ogden, Utah	29	22	4	2	-	1	4		
Columbus, Ohio	200	133	42	16	3	6	12	Phoenix, Ariz.	84	48	15	13	3	3	5		
Dayton, Ohio	127	89	25	8	5	-	10	Pueblo, Colo.	U	U	U	U	U	U	U		
Detroit, Mich.	171	93	46	20	7	5	13	Salt Lake City, Utah	118	78	25	7	3	5	18		
Evansville, Ind.	46	35	8	2	-	1	3	Tucson, Ariz.	163	114	31	10	6	2	5		
Fort Wayne, Ind.	65	47	14	4	-	-	7	PACIFIC	1,751	1,225	348	114	35	28	184		
Gary, Ind.	12	6	3	1	2	-	1	Berkeley, Calif.	8	6	2	-	-	-	1		
Grand Rapids, Mich.	73	50	10	3	3	7	7	Fresno, Calif.	181	120	36	14	9	2	16		
Indianapolis, Ind.	183	120	40	8	5	10	13	Glendale, Calif.	32	27	5	-	-	-	2		
Lansing, Mich.	58	40	14	3	1	-	3	Honolulu, Hawaii	81	65	8	7	-	1	9		
Milwaukee, Wis.	124	86	29	7	1	1	8	Long Beach, Calif.	58	41	11	4	2	-	6		
Peoria, Ill.	46	36	8	2	-	-	2	Los Angeles, Calif.	398	303	63	19	8	5	43		
Rockford, Ill.	44	36	7	1	-	-	3	Pasadena, Calif.	U	U	U	U	U	U	U		
South Bend, Ind.	45	32	9	2	-	2	4	Portland, Oreg.	U	U	U	U	U	U	U		
Toledo, Ohio	105	67	24	4	4	6	7	Sacramento, Calif.	210	144	49	13	2	2	21		
Youngstown, Ohio	64	54	6	3	-	1	7	San Diego, Calif.	210	134	44	17	7	7	27		
W.N. CENTRAL	691	464	147	45	25	10	55	San Francisco, Calif.	146	98	31	11	1	5	22		
Des Moines, Iowa	55	42	10	2	-	1	6	San Jose, Calif.	151	98	34	12	4	3	22		
Duluth, Minn.	30	22	6	1	-	1	2	Santa Cruz, Calif.	20	14	4	2	-	-	-		
Kansas City, Kans.	33	21	5	5	1	1	3	Seattle, Wash.	81	54	19	8	-	-	7		
Kansas City, Mo.	98	65	20	8	5	-	5	Spokane, Wash.	58	34	18	3	1	2	2		
Lincoln, Nebr.	35	26	7	2	-	-	3	Tacoma, Wash.	117	87	24	4	1	1	6		
Minneapolis, Minn.	66	43	14	2	4	3	9	TOTAL	12,870 [†]	8,686	2,754	851	300	267	944		
Omaha, Nebr.	77	57	13	4	2	1	8										
St. Louis, Mo.	110	63	35	5	7	-	7										
St. Paul, Minn.	47	34	10	3	-	-	6										
Wichita, Kans.	140	91	27	13	6	3	6										

U: Unavailable. -:No reported cases.

* Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of ≥100,000. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

† Pneumonia and influenza.

‡ Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

§ Total includes unknown ages.

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