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Asbestosis-Related Years of Potential Life Lost Before Age 65 Years – United States, 1968–2005

Exposure to asbestos fibers can cause asbestosis and other diseases (1) after a latency of 10–40 years from initial exposure to onset of illness. Asbestos still is used in the United States (approximately 2,200 metric tons in 2006) in certain products manufactured domestically (2). In addition, an undocumented amount of asbestos continues to be imported in products manufactured elsewhere, and a substantial amount of asbestos remains in existing buildings and manufactured products. An estimated 1.3 million construction and general industry workers in the United States potentially are exposed to asbestos each year, mainly from manipulation of asbestos during renovation or demolition activities (3). Also, although asbestos ore is no longer mined in the United States (4), some U.S. mine workers might remain at risk for exposure to asbestos contained in other ores. To characterize trends in premature mortality attributed to asbestosis in the United States, CDC analyzed annual underlying cause-of-death data for 1968–2005, the most recent years for which data were available.* This report describes the results of that analysis, which indicated that annual years of potential life lost before age 65 years (YPLL) attributed to asbestosis increased 64%, from an average of 146.0 YPLL per year during 1968–1972 to 239.6 per year during 2001–2005 (regression trend for the 5-year moving average, $p < 0.001$), for an overall total of 7,267 YPLL (mean per decedent: 6.2) over the entire period. These results demonstrate that asbestosis-attributable

YPLL continue to occur and that efforts to prevent, track, and eliminate asbestosis need to be maintained.

For this analysis, decedents for whom the *International Classification of Diseases* (ICD) code for asbestosis was listed as the underlying cause of death were identified from 1968–2005 mortality data.† Given the occupational etiology and long latency of asbestosis, analysis was restricted to deaths of persons aged ≥ 25 years. Standard industry and occupation information that met CDC quality criteria was available for decedents in 26 states during the 1985–1999 period.§ After 1999, funds for coding industry and occupation were not available, and coding at the state level ceased. The number of states reporting data in any particular year varied from 16 to 22, and the number

† ICD-8 code 515.2 (asbestosis) for years 1968–1978, ICD-9 code 501 (asbestosis) for years 1979–1998, and ICD-10 code J61 (pneumoconiosis due to asbestos and other mineral fibers) for years 1999–2005. For years 1999–2005, decedents with ICD-10 underlying cause coded as J65 (pneumoconiosis associated with tuberculosis) or J92.0 (pleural plaque with presence of asbestos) also were included in the underlying cause-of-death tabulation for asbestosis if code J61 also was listed on the death certificate.

§ Alaska, Colorado, Georgia, Hawaii, Idaho, Indiana, Kansas, Kentucky, Maine, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, North Carolina, Ohio, Oklahoma, Rhode Island, South Carolina, Tennessee, Utah, Vermont, Washington, West Virginia, and Wisconsin.

* Since 1968, CDC's National Center for Health Statistics (NCHS) has compiled multiple cause-of-death data annually from death certificates in the United States. CDC's National Institute for Occupational Safety and Health (NIOSH) extracts information on deaths from occupationally related respiratory diseases and conditions from the NCHS data and stores the information in the National Occupational Respiratory Mortality System (NORMS), available at <http://webappa.cdc.gov/ords/norms.html>.

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of years of data available for any one state varied from 2 to 15. Industry and occupation were classified according to two U.S. Census Bureau coding systems.[†] YPLL and mean YPLL were calculated using 5-year age groups and standard methodology (5). A simple linear regression model was used for time-trend analysis of YPLL (using 5-year moving averages).

During 1968–2005, asbestosis was identified as the underlying cause of death for 9,024 decedents. Of these, 1,169 (13.0%) were aged 25–64 years, including one (0.1%) decedent aged 25–34 years; 17 (1.5%) aged 35–44 years; 165 (14.1%) aged 45–54 years; and 986 (84.3%) aged 55–64 years, accounting for 7,267 YPLL (mean per decedent: 6.2). The majority of asbestosis decedents aged 25–64 years were male (1,125 [96.2%]) and white (1,064 [91.0%]), accounting for 7,038 (96.8%) and 6,470 (89.0%) YPLL, respectively (Table 1).

YPLL attributed to asbestosis deaths increased 64%, from an average of 146.0 per year during 1968–1972 to 239.6 per year during 2001–2005 (regression trend, $p < 0.001$). YPLL varied annually, from a low of 69 (mean per decedent: 8.6) in 1973 to a high of 306 (mean per decedent: 5.9) in 1990 (Figure). The rate varied annually, from a low of 0.73 per million in 1973 to a high of 2.78 per million in 1970. During 1968–2005, asbestosis deaths in Texas (85; 577 YPLL), Pennsylvania (99; 544 YPLL), New Jersey (90; 527 YPLL), and California (76; 468 YPLL) accounted for 29.9% of all decedents aged 25–64 years with asbestosis as the underlying cause of death and 29.1% of the total YPLL attributed to asbestosis (Table 1).

Industry and occupation information was available for 153 (28.8%) of the 531 decedents aged 25–64 years with asbestosis as the underlying cause of death during 1985–1999 (Table 2). Of 54 industries reported, the greatest YPLL were in construction (244 YPLL; mean per decedent: 5.7); ship and boat building and repairing (41; mean per decedent: 5.9); and military (41; mean per decedent: 5.9). Of 59 occupations reported, the greatest YPLL were for insulation workers (112; mean per decedent: 5.9); managers and administrators, not elsewhere classified (43; mean per decedent: 7.2); and plumbers, pipefitters, and steamfitters (42; mean per decedent: 4.7).

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Editorial Note: YPLL are a measure of premature mortality that emphasizes deaths occurring among younger persons during their most productive years (5,6). Persons dying before

[†] Industry and occupation information from death certificates was coded on the NCHS multiple cause-of-death data files according to the 1980 U.S. Bureau of Census Index of Industries and Occupations classification system from 1985 to 1992, and according to the 1990 U.S. Bureau of Census classification system from 1993 to 1999. For the industries and occupations listed in this report, the 1980 and 1990 classification system codes and titles were the same.

TABLE 1. Years of potential life lost before age 65 years (YPLL) for decedents aged 25–64 years with asbestosis as the underlying cause of death,* by sex, race, and state of residence — United States, 1968–2005

Characteristic	Deaths		YPLL		Mean YPLL per decedent	Characteristic	Deaths		YPLL		Mean YPLL per decedent
	No.	(%)	No.	(%)			No.	(%)	No.	(%)	
Total	1,169	(100.0)	7,267	(100.0)	6.2	State of residence					
Sex						Michigan	29	(2.5)	182	(2.5)	6.3
Male	1,125	(96.2)	7,038	(96.8)	6.3	Minnesota	16	(1.4)	123	(1.7)	7.7
Female	44	(3.8)	229	(3.2)	5.2	Mississippi	26	(2.2)	143	(2.0)	5.5
Race						Missouri	21	(1.8)	143	(2.0)	6.8
White	1,064	(91.0)	6,470	(89.0)	6.1	Montana	6	(0.5)	38	(0.5)	6.3
Black	98	(8.4)	766	(10.5)	7.8	Nebraska	1	(0.1)	8	(0.1)	8.0
Other	7	(0.6)	31	(0.4)	4.4	Nevada	7	(0.6)	56	(0.8)	8.0
State of residence						New Hampshire	6	(0.5)	33	(0.5)	5.5
Alabama	30	(2.6)	180	(2.5)	6.0	New Jersey	90	(7.7)	527	(7.3)	5.9
Alaska	1	(0.1)	3	(0.0)	3.0	New Mexico	4	(0.3)	22	(0.3)	5.5
Arizona	13	(1.1)	84	(1.2)	6.5	New York	55	(4.7)	365	(5.0)	6.6
Arkansas	12	(1.0)	71	(1.0)	5.9	North Carolina	30	(2.6)	235	(3.2)	7.8
California	76	(6.5)	468	(6.4)	6.2	North Dakota	1	(0.1)	3	(0.0)	3.0
Colorado	4	(0.3)	22	(0.3)	5.5	Ohio	50	(4.3)	340	(4.7)	6.8
Connecticut	16	(1.4)	78	(1.1)	4.9	Oklahoma	5	(0.4)	25	(0.3)	5.0
Delaware	11	(0.9)	78	(1.1)	7.1	Oregon	19	(1.6)	107	(1.5)	5.6
District of Columbia	2	(0.2)	21	(0.3)	10.5	Pennsylvania	99	(8.5)	544	(7.5)	5.5
Florida	60	(5.1)	340	(4.7)	5.7	Rhode Island	8	(0.7)	79	(1.1)	9.9
Georgia	27	(2.3)	173	(2.4)	6.4	South Carolina	31	(2.7)	140	(1.9)	4.5
Hawaii	5	(0.4)	15	(0.2)	3.0	South Dakota	0	(0.0)	0	(0.0)	0.0
Idaho	6	(0.5)	38	(0.5)	6.3	Tennessee	20	(1.7)	135	(1.9)	6.8
Illinois	31	(2.7)	187	(2.6)	6.0	Texas	85	(7.3)	577	(7.9)	6.8
Indiana	5	(0.4)	25	(0.3)	5.0	Utah	2	(0.2)	16	(0.2)	8.0
Iowa	6	(0.5)	53	(0.7)	8.8	Vermont	1	(0.1)	3	(0.0)	3.0
Kansas	6	(0.5)	38	(0.5)	6.3	Virginia	49	(4.2)	292	(4.0)	6.0
Kentucky	11	(0.9)	63	(0.9)	5.7	Washington	41	(3.5)	293	(4.0)	7.1
Louisiana	33	(2.8)	261	(3.6)	7.9	West Virginia	17	(1.5)	86	(1.2)	5.1
Maine	6	(0.5)	33	(0.5)	5.5	Wisconsin	15	(1.3)	82	(1.1)	5.5
Maryland	31	(2.7)	188	(2.6)	6.1	Wyoming	1	(0.1)	8	(0.1)	8.0
Massachusetts	42	(3.6)	243	(3.3)	5.8						

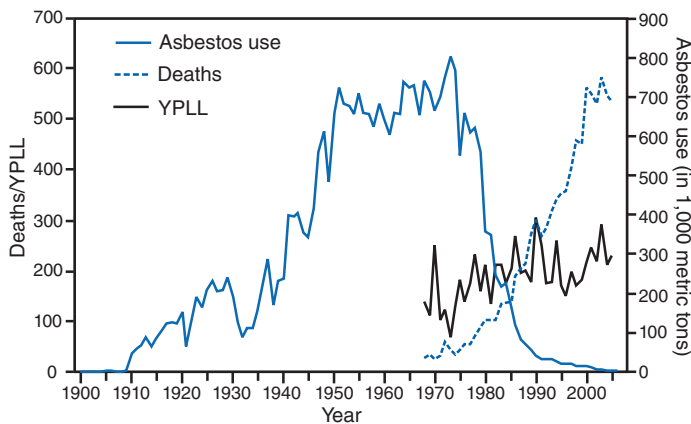
* Decedents for whom the *International Classification of Diseases* (ICD) code for asbestosis was listed as the underlying cause of death were identified from 1968–2005 mortality data. ICDA-8 code 515.2 (asbestosis) for years 1968–1978, ICD-9 code 501 (asbestosis) for years 1979–1998, and ICD-10 code J61 (pneumoconiosis due to asbestos and other mineral fibers) for years 1999–2005. For years 1999–2005, decedents with ICD-10 underlying cause coded as J65 (pneumoconiosis associated with tuberculosis) or J92.0 (pleural plaque with presence of asbestos) also were included in the underlying cause of death tabulation for asbestosis if code J61 also was listed on the death certificate.

age 65 years are considered as having years of potential work tenure lost, on the assumption that these are a worker's most productive years. During 1968–2005, asbestosis was identified as the underlying cause of death for 1,169 decedents aged 25–64 years, accounting for 7,267 YPLL. Overall, a mean of 6.2 YPLL per decedent was attributed to asbestosis during 1968–2005, indicating that, on average, decedents aged 25–64 years with asbestosis listed as the underlying cause of death died at age 58 years. Despite the decline in asbestos use and reduced exposures, the findings described in this report indicate that asbestosis-attributable YPLL continue to occur. Because asbestosis mortality typically manifests several decades after initial exposure to asbestos, much of the continuing YPLL likely is attributed to exposures experienced decades ago. During 1970–2004, the annual number of asbestosis-related deaths (based on the analysis of asbestosis deaths coded on the entity

axis in multiple cause-of-death files**) in the United States increased nearly 17-fold, from 89 (age-adjusted death rate: 0.6 per million persons aged >15 years) in 1970 to 1,493 (6.9) in 2000, and then declined slightly to 1,470 (6.3) in 2004, for an overall total of 25,413 asbestosis deaths over the entire period (7). This slight decline in the age-adjusted death rate was attributed to several factors, including reduced use of asbestos and improved control of asbestos exposure (8,9). Beginning several decades ago, increased awareness of the health consequences of asbestos exposure stimulated voluntary and regulatory actions by the Environmental Protection Agency and the Occupational Safety and Health Administration (8,9).

** Entity axis includes information on all of the diseases, injuries, or medical complications, as well as the location (part, line, and sequence) of the information recorded on each death certificate. "Detail Record Layout" available at <http://www.cdc.gov/nchs/about/major/dvs/mcd/1998mcd.htm>.

FIGURE. Number of deaths among persons aged ≥ 25 years with asbestosis as the underlying cause of death,* years of potential life lost before age 65 years (YPLL) for decedents aged 25–64 years, and asbestos use — United States, 1900–2006



*Decedents for whom the *International Classification of Diseases* (ICD) code for asbestosis was listed as the underlying cause of death were identified from 1968–2005 mortality data. ICDA-8 code 515.2 (asbestosis) for years 1968–1978, ICD-9 code 501 (asbestosis) for years 1979–1998, and ICD-10 code J61 (pneumoconiosis due to asbestos and other mineral fibers) for years 1999–2005. For years 1999–2005, decedents with ICD-10 underlying cause coded as J65 (pneumoconiosis associated with tuberculosis) or J92.0 (pleural plaque with presence of asbestos) also were included in the underlying cause of death tabulation for asbestosis if code J61 also was listed on the death certificate.

Available data (for 153 decedents) indicated that the greatest industry-specific YPLL values were associated with work in construction and ship and boat building and repairing, which is consistent with documented past industry-specific asbestos exposures (1). Likewise, two of the three occupations with the greatest YPLL values, insulation workers and plumbers, pipefitters, and steamfitters, are well known to have been associated with asbestos exposures.

The findings in this report are subject to at least six limitations. First, this report used a death certificate–based definition of asbestosis as the underlying cause of death. Because some deaths from asbestosis might have been attributed to other diseases (e.g., idiopathic pulmonary fibrosis) instead of to asbestosis, the findings in this report likely underestimate deaths and YPLL attributable to asbestosis. Second, complete work histories are not listed on death certificates, and the relevance of the reported usual industry and occupation to actual hazardous exposures could not be verified. Although no studies have examined the accuracy of usual industry and occupation information on death certificates specifically for asbestosis decedents, research suggests a generally good agreement of this information compared with that from other sources (10). Third, coded information on usual industry and occupation

were available for decedents in only 26 states, accounting for 28.8% of all U.S. asbestosis decedents during 1985–1999. Thus, these data might not be nationally representative for 1985–1999. Fourth, the state issuing a death certificate is not always the state in which the decedent's asbestos exposure occurred. Fifth, ICD cause-of-death codes used in this analysis changed twice during 1968–2005. However, these revisions likely did not introduce bias or affect the temporal trend in asbestosis deaths (7). Finally, YPLL, as calculated, do not account for the full burden of asbestosis. During the period for which CDC analyzed U.S. death data, approximately 87% of the deaths with asbestosis listed as the underlying cause of death occurred in persons aged ≥ 65 years. Moreover, although YPLL do reflect premature mortality during the most productive years of life, YPLL do not account for all reduced quality of life or work years lost attributed to disability from asbestosis. Persons with asbestosis can live for many years with severely limited lung function and few treatment options, leading to inability to work.

The continuing occurrence of cases of asbestos in younger persons (asbestosis-attributable YPLL) underscores the need for persistent asbestosis prevention and elimination efforts. Effective primary prevention is critical because asbestos-related diseases can develop or progress even after occupational exposure ends. Guidance for persons concerned about exposure to asbestos and for health-care providers who work with patients potentially exposed to asbestos is available at <http://www.cdc.gov/health/asbestos.htm>. CDC continues to conduct surveillance for asbestosis and other asbestos-related deaths to follow trends and identify problems.

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TABLE 2. Top 10 industries and occupations with greatest years of potential life lost before age 65 years (YPLL) for decedents aged 25–64 years with asbestosis as the underlying cause of death* — selected U.S. states† and years, 1985–1999

Industry and occupation§	Deaths (N = 153)	YPLL (N = 869)		Mean YPLL per decedent
		No.	(%)	
Industry (Census Industry Code)				
Construction (060)	43	244	(28.1)	5.7
Ship and boat building and repairing (360)	7	41	(4.7)	5.9
Military (942)	7	41	(4.7)	5.9
Automotive repair and related services (751)	5	35	(4.0)	7.0
Motor vehicles and motor vehicle equipment (351)	2	31	(3.6)	15.5
Industrial and miscellaneous chemicals (192)	4	22	(2.5)	5.5
National security and international affairs (932)	3	19	(2.2)	6.3
Miscellaneous nonmetallic mineral and stone products (262)	3	19	(2.2)	6.3
Not specified metal industries (301)	1	18	(2.1)	18.0
Agricultural production, livestock (011)	1	18	(2.1)	18.0
Industry not reported	13	84	(9.7)	6.5
All other industries	64	297	(34.2)	4.6
Occupation (Census Occupation Code)				
Insulation workers (593)	19	112	(12.9)	5.9
Managers and administrators, not elsewhere classified (019)	6	43	(4.9)	7.2
Plumbers, pipefitters, and steamfitters (585)	9	42	(4.8)	4.7
Machinists (637)	5	40	(4.6)	8.0
Machine operators, not specified (779)	6	38	(4.4)	6.3
Electricians (575)	8	34	(3.9)	4.3
Automobile mechanics (505)	4	32	(3.7)	8.0
Military occupations (905)	5	30	(3.5)	6.0
Supervisors and proprietors, sales occupations (243)	3	29	(3.3)	9.7
Construction laborers (869)	5	25	(2.9)	5.0
Occupation not reported	10	50	(5.8)	5.0
All other occupations	73	394	(45.3)	5.4

*Decedents for whom the *International Classification of Diseases* (ICD) code for asbestosis was listed as the underlying cause of death were identified from mortality data using ICD-9 code 501 (asbestosis) for years 1979–1998, and ICD-10 code J61 (pneumoconiosis due to asbestos and other mineral fibers) for 1999. For 1999, decedents with ICD-10 underlying cause coded as J65 (pneumoconiosis associated with tuberculosis) or J92.0 (pleural plaque with presence of asbestos) also were included in the underlying cause of death tabulation for asbestosis if code J61 also was listed on the death certificate.

†Alaska, Colorado, Georgia, Hawaii, Idaho, Indiana, Kansas, Kentucky, Maine, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, North Carolina, Ohio, Oklahoma, Rhode Island, South Carolina, Tennessee, Utah, Vermont, Washington, West Virginia, and Wisconsin.

§Industry and occupation information from death certificates was coded on the NCHS multiple cause-of-death data files according to the 1980 U.S. Bureau of Census Index of Industries and Occupations classification system from 1985 to 1992, and according to the 1990 U.S. Bureau of Census classification system from 1993 to 1999. For the industries and occupations listed, the 1980 and 1990 classification system codes and titles were the same.

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Potential Effects of Electronic Laboratory Reporting on Improving Timeliness of Infectious Disease Notification — Florida, 2002–2006

Electronic laboratory reporting (ELR) potentially can improve the timeliness of notifiable disease case reporting and subsequent disease control activities (1,2), but the extent of this improvement and the resulting effects on the workload of state or local surveillance teams are unknown. To estimate those effects, investigators from the Florida Department of Health (FDOH) evaluated the timeliness of reporting for four notifiable diseases of varying incubation periods: salmonellosis, shigellosis, meningococcal disease, and hepatitis A. Investigators then calculated the potential improvement expected with ELR using the assumption that ELR can reduce to 1 day the time

from completion of a diagnostic laboratory test to notification of the county health department (CHD) of the result. This report summarizes the results of that analysis, which showed that ELR would reduce the total time from symptom onset to CHD notification of a case by nearly half for salmonellosis (from 12 days to 7 days) and shigellosis (from 10 days to 6 days), but would produce no change for meningococcal disease (4 days) and minimal improvement for hepatitis A (from 13 days to 10 days). In Florida, the benefits of ELR for reporting timeliness likely will vary by disease.

The FDOH web-based reportable disease surveillance database (Merlin) was used to conduct this evaluation. The Florida Bureau of Epidemiology annually receives from CHDs approximately 30,000 reports of cases of notifiable infectious diseases. With full implementation of ELR, participating laboratories will transmit electronically all reportable laboratory results directly to Merlin, which can then be accessed by all CHD epidemiologists. To evaluate the potential of ELR to change the timeliness of disease reporting in Florida, FDOH investigators selected four key notifiable diseases, either because of high severity or significant public health concern: salmonellosis, shigellosis, meningococcal disease, and hepatitis A. Confirmed cases of the four diseases were analyzed for the study period, 2002–2006 (Box). Florida began implementation of ELR from commercial laboratories in 2006, but ELR was not in use for any of the four diseases included in this analysis during the study period.

The regular practice during the study period was for CHD epidemiologists to manually enter all data for the four diseases into Merlin, including dates of symptom onset (as reported by patients), laboratory reporting, and CHD notification. Symptom onset date was defined as the date of illness reported by patient. Laboratory reporting date was the date the laboratory report was mailed, faxed, or conveyed to the CHD by telephone. CHD notification date was the date the CHD recorded receipt of the laboratory report. However, all three date fields were not required for a final case report to be submitted through Merlin to FDOH. Three time intervals were calculated: symptom onset date to laboratory reporting date (interval A), laboratory reporting date to CHD notification date (interval B), and symptom onset date to CHD notification date (interval C). Next, the percentage of cases reported within one and two incubation periods for each disease was calculated. Incubation period was used as a proxy for period of transmissibility (3). The incubation period for each of the four diseases (1 day for salmonellosis, 3 days for shigellosis, 4 days for meningococcal disease, and 30 days for hepatitis A) was assumed to be the midpoint of the range most commonly reported in the literature (4,5). Although the electronic transmission of laboratory reports is instantaneous, interval B

BOX. Summary of notifiable disease case definitions used to assess potential timeliness effects of electronic laboratory reporting system — Florida, 2002–2006

Salmonellosis

- Laboratory criteria: isolation of *Salmonella* from a clinical specimen.
- Confirmed case: meets laboratory criteria for diagnosis.

Shigellosis

- Laboratory criteria: isolation of *Shigella* from a clinical specimen.
- Confirmed case: meets laboratory criteria for diagnosis.

Meningococcal disease

- Clinical description: meningitis or meningococcemia, purpura fulminans, and shock.
- Laboratory criteria: isolation of *Neisseria meningitidis* from a normally sterile site or skin scrapings of purpuric lesions.
- Confirmed case: a clinically compatible case that also meets laboratory criteria.

Hepatitis A

- Laboratory criteria: immunoglobulin M (IgM) antibody to hepatitis A virus (anti-HAV) positive.
- Clinical case definition: discrete onset of symptoms (might include fever, malaise, anorexia, nausea, and abdominal discomfort) and jaundice or elevated serum aminotransferase.
- Confirmed case: meets clinical case definition and is laboratory confirmed.

SOURCE: CDC. Nationally notifiable infectious diseases — United States, 2006. Available at <http://www.cdc.gov/ncphi/diss/nndss/phs/infdis2006.htm>.

was assumed to be 1 day when ELR was implemented because many laboratories batch their electronic reporting once per shift or once per day.

Among the 23,263 confirmed cases of salmonellosis reported during the 5-year period, 81% of reports included symptom onset date, 72% included laboratory reporting date, and 96% included CHD notification date. Time intervals A, B, and C could be calculated for 57%, 68%, and 78% of cases, respectively (Table 1). The median number of days for intervals A, B, and C were 6, 5, and 12, respectively (Table 2). If ELR were used for salmonellosis reporting, interval B would decrease from 5 days to 1 day, which would result in a decrease of interval C (symptom onset date to CHD notification date) from 12 to 7 days (Table 2, Figure). The percentage reported within two incubation periods would increase from 1% to 10%. Reporting

TABLE 1. Percentage of laboratory records for which date was recorded in communicable disease reporting system (Merlin) and time intervals were calculated for four diseases — Florida, 2002–2006

Disease	Dates recorded			Intervals calculated		
	Symptom onset* (%)	Laboratory reported† (%)	Reported to CHD‡ (%)	Symptom onset to laboratory report (A) (%)	Laboratory report to CHD notified (B) (%)	Symptom onset to CHD notified (C) (%)
Salmonellosis (N = 23,263)	81	72	96	57	68	78
Shigellosis (N = 8,014)	85	68	96	56	64	82
Meningococcal disease (N = 450)	94	75	98	70	62	92
Hepatitis A (N = 2,104)	96	66	99	63	59	94

* Date patient said symptoms began.

† Date reporting laboratory sent results to county health department.

‡ County health department.

TABLE 2. Timeliness of reporting laboratory results for four diseases to county health department (CHD) for existing and projected electronic laboratory reporting (ELR) systems — Florida, 2002–2006

Disease (Incubation period)	Existing system			Projected ELR system			Existing system		Projected ELR system	
	Interval A*	Interval B†	Interval C‡	Interval A	Interval B§	Interval C	Interval C		Interval C	
							% within 1 IP**	% within 2 IP**	% within 1 IP**	% within 2 IP**
Salmonellosis (1 day)	6	5	12	6	1	7	<1	1	4	10
Shigellosis (3 days)	5	4	10	5	1	6	5	28	22	60
Meningococcal disease (4 days)	3	1	4	3	1	4	61	84	84	94
Hepatitis A (30 days)	9	3	13	9	1	10	83	92	92	98

* Interval A = symptom onset date to laboratory report date.

† Interval B = laboratory report date to CHD notification date.

‡ Interval C = symptom onset date to CHD notification date.

§ Although electronic transmission of laboratory reports is instantaneous, interval B was assumed to be 1 day when ELR is fully implemented because many laboratories batch their electronic reporting once per shift or once per day.

** Incubation period.

within two incubation periods would improve from 28% to 60% for shigellosis, from 84% to 94% for meningococcal disease, and from 92% to 98% for hepatitis A (Table 2).

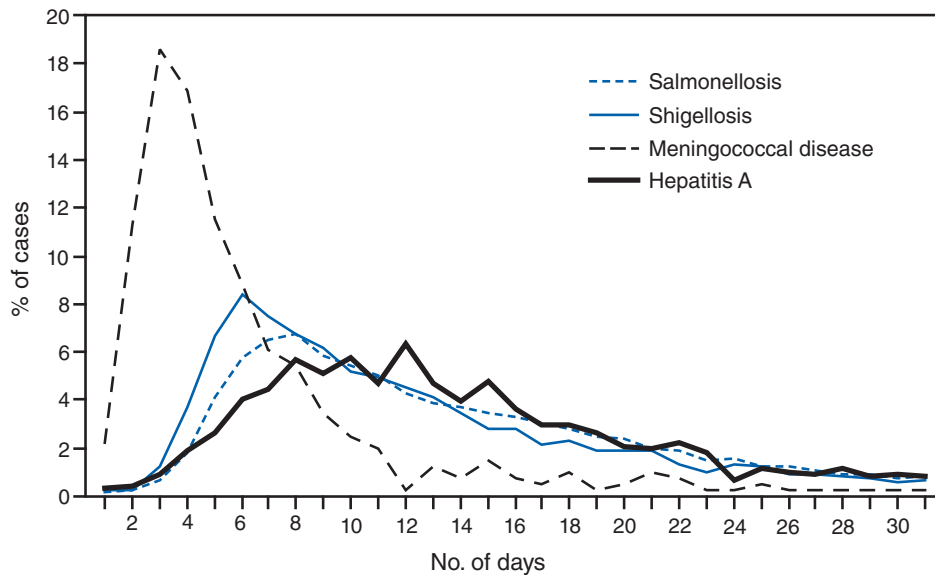
Reported by: *A Kite-Powell, MS, JJ Hamilton, MPH, RS Hopkins, MD, Florida Dept of Health. JM DePasquale, MD, EIS Officer, CDC.*

Editorial Note: Investments in ELR systems for notifiable diseases generally are justified by expected improvements in timeliness and sensitivity of reporting. This analysis determined that, in Florida, improvements in timeliness in reporting would be highly disease specific. The greatest improvements in timeliness of reporting (i.e., the absolute number of days for CHDs to be notified of illness) would be expected for salmonellosis and shigellosis. In Florida, these two diseases often are reported by postal mail. With implementation of ELR, the reporting time from symptom onset to CHD notification would be nearly halved. These two diseases also would experience the greatest increase in timeliness of reporting within two incubation periods, in part because they have the shortest incubation periods of the four diseases tested in this analysis (1 and 3 days, respectively). When laboratory reports for a condition with a short incubation period are mailed from laboratory to

CHD, only a small fraction of cases are reported to CHDs within two incubation periods. Results for meningococcal disease and hepatitis A, which have longer incubation periods, often are reported from laboratories by faster methods (fax or telephone). Because clinicians, laboratorians, and health departments already place great importance on timely reporting of meningococcal disease, more cases are reported within two incubation periods and the potential improvement with use of ELR is less. Under the assumptions of this analysis, the median number of days to report laboratory results to a CHD for meningococcal disease (1 day) would not change.

In addition to timeliness, the completeness of reporting dates will improve for all conditions reported with ELR, approaching 100% for the laboratory reporting and CHD notification dates, which will be required fields automatically populated by ELR software. This information will permit time intervals to be more completely calculated. The date of symptom onset and any time interval using this date are, however, dependent on patient recall and not on programming of surveillance system software.

FIGURE. Distribution of reporting time from symptom onset date to date the county health department is notified of the case (interval C) — Florida, 2002–2006



The findings in this report are subject to at least three limitations. First, depending on the disease and category of date, from 1% to 33% of key dates were missing from the Merlin database (Table 1). Results might have differed if all such dates had been available for all cases. Second, interpretation and application of date field definitions by those entering data into Merlin vary, and this might lead to inconsistent data entry practices. Finally, Merlin does not allow for recording times in less than 1-day increments; thus, shorter intervals for reporting laboratory results could not be assessed.

This analysis did not assess directly the potential effect of ELR on the workload of CHD communicable disease investigators in Florida. However, the implementation of ELR likely will have some effects. For example, most cases of meningococcal disease in Florida are reported quickly to FDOH and intensively investigated under the existing reporting system. Thus, the number of cases of meningococcal disease requiring investigation is not likely to increase with ELR. However, for salmonellosis, shigellosis, and hepatitis A, an increase in reported cases is anticipated with ELR, because all positive cultures and immunoglobulin (IgM) results will be transmitted electronically. Under the existing system, in 2005, 84% of hospitalized salmonellosis patients were recorded in the Merlin database, 73% of hospitalized shigellosis patients, and 52% of hospitalized hepatitis A patients. If ELR captures more cases than currently are entered into Merlin manually, the workload of county and state health staff will increase. For some reportable conditions (e.g., hepatitis A), a large amount of clinical information and additional laboratory data often is required to confirm the diagnosis after a laboratory report is

received. Much of this information is not included among the ELR data but is needed to classify the case according to the case definition. The implementation of ELR might cause an increase in the number of preliminary reports that must be investigated, thus increasing workload, without a corresponding increase in the number of confirmed cases (6,7).

ELR is being introduced in Florida in a stepwise fashion, with laboratory facilities brought on incrementally rather than all at once. This is allowing CHDs to assess the effects of ELR on workflow and human resource requirements for various reportable diseases. The analysis in this report suggests the effects of ELR will be disease specific, with differing limitations and challenges for each condition. Under a newly implemented

ELR system, local and state public health officials should be able to 1) monitor timeliness and completeness of reporting, 2) assess workload and workflow, 3) ensure that reporting of high-priority conditions is not adversely affected by ELR, and 4) interact with clinicians in a manner that fosters respect for the clinician-patient relationship and compliance with state-mandated reporting requirements. If the number of reported cases increases substantially when ELR is implemented, jurisdictions will need to establish priorities for investigation and follow-up of laboratory reports received (6).

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Update: Influenza Activity – United States, September 28–November 29, 2008

During September 28–November 29, 2008, influenza activity remained low in the United States. Of the few influenza viruses characterized thus far this season, most are antigenically related to the strains included in the 2008–09 influenza vaccine. Oseltamivir-resistant influenza A (H1N1) viruses have been detected, but currently available data are insufficient to predict their prevalence for the 2008–09 season. This report summarizes U.S. influenza activity* since the last update (1) and reviews new influenza vaccine recommendations for the current season.

Viral Surveillance

During September 28–November 29, 2008, approximately 150 World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System collaborating laboratories in the United States tested 24,657 respiratory specimens for influenza viruses; 365 (1.5%) were positive (Figure 1). Of these, 282 (77.3%) were influenza A viruses, and 83 (22.7%) were influenza B viruses. One hundred twenty-eight (45.4%) of the 282 influenza A viruses were subtyped; 112 (87.5%) of these were influenza A (H1) viruses, and 16 (12.5%) were influenza A (H3) viruses. Influenza-positive tests have been reported from 26 states in eight of the nine surveillance regions since September 28.

Antigenic Characterization

WHO collaborating laboratories in the United States are requested to submit a subset of their influenza-positive respiratory specimens to CDC for further antigenic characterization. CDC has antigenically characterized 30 influenza viruses collected by U.S. laboratories during the 2008–09 season, including 20 influenza A (H1N1), three influenza A (H3N2), and seven influenza B viruses. Twenty-seven of the 30 viruses were antigenically related to the components included in the 2008–09 influenza vaccine (A/Brisbane/59/2007-like (H1N1), A/Brisbane/10/2007-like (H3N2), and B/Florida/04/2006-

like). The other three influenza B viruses belong to the B/Victoria/02/87 lineage.

Antiviral Resistance of Influenza Virus Isolates

With limited influenza activity in the United States, few viruses have been available for antiviral resistance testing. Since September 28, 2008, 39 influenza viruses from 11 states have been tested for antiviral resistance; of the viruses tested, 28 (71.8%) were collected from only two states. Preliminary data show that 24 of the 25 influenza A (H1N1) isolates tested were resistant to oseltamivir; all H1N1 isolates were sensitive to zanamivir. All five influenza A (H3N2) and the nine influenza B isolates tested were sensitive to oseltamivir and zanamivir. Twenty-five influenza A (H1N1) isolates and five influenza A (H3N2) isolates were tested for adamantane resistance. All influenza A (H1N1) isolates were sensitive to adamantanes, and all influenza A (H3N2) isolates tested were resistant to adamantanes. The adamantanes are not effective against influenza B viruses.

Currently, data on antiviral resistance, and information on which influenza virus types or subtypes will circulate, are insufficient to provide an indication of the prevalence of antiviral resistance at a national or regional level during this season. CDC has solicited a representative sample of viruses from WHO collaborating laboratories in the United States for resistance testing throughout the season, and more specimens are expected as influenza activity increases.

Novel Influenza A Viruses

One case of human infection with a novel influenza A virus was reported from Texas during the week ending November 15, 2008. A child aged 14 years was infected with swine influenza A (H1N1) in October 2008 after several reported swine exposures. The child recovered from the illness, and no contacts of the child were reported to be ill.

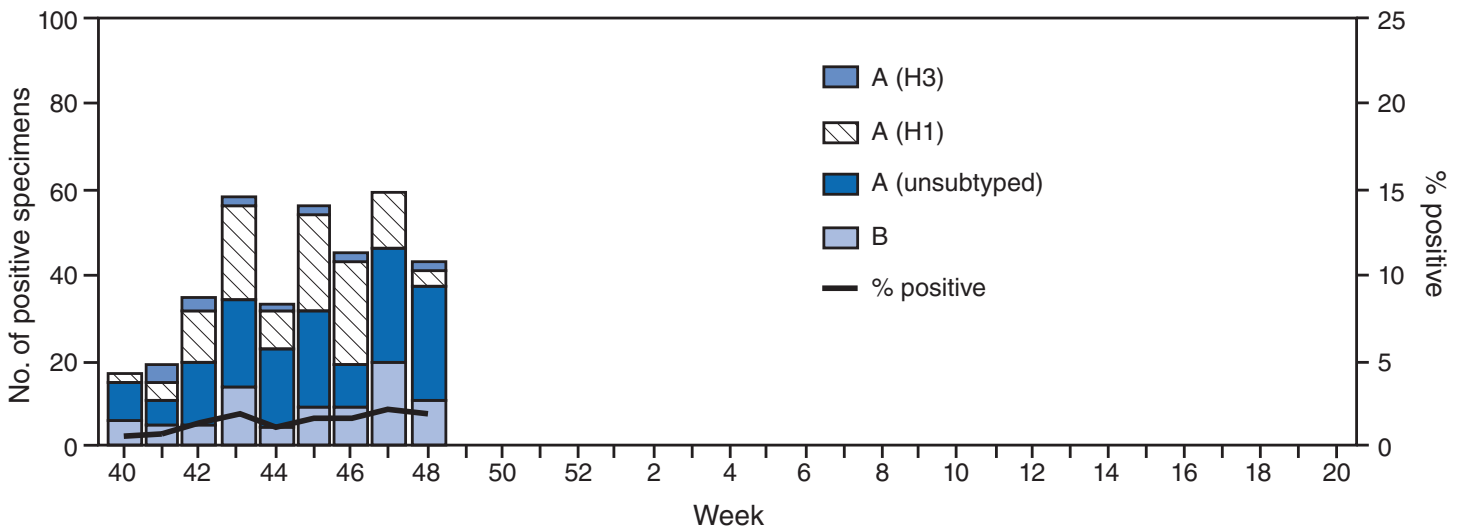
State-Specific Activity Levels

For the week ending November 29, 2008, influenza activity[†] was reported as sporadic in Puerto Rico and 22 states, and one

* The CDC influenza surveillance system collects five categories of information from 10 data sources. Viral surveillance: U.S. World Health Organization collaborating laboratories, the National Respiratory and Enteric Virus Surveillance System, and novel influenza A virus case reporting. Outpatient illness surveillance: U.S. Influenza Sentinel Provider Surveillance Network and the U.S. Department of Veterans Affairs/U.S. Department of Defense BioSense Outpatient Surveillance System. Mortality: 122 Cities Mortality Reporting System and influenza-associated pediatric mortality reports. Hospitalizations: Emerging Infections Program and New Vaccine Surveillance Network. Summary of geographic spread of influenza: state and territorial epidemiologist reports.

[†] Levels of activity are 1) no activity; 2) sporadic: isolated laboratory-confirmed influenza cases or a laboratory-confirmed outbreak in one institution, with no increase in activity; 3) local: increased ILI, or at least two institutional outbreaks (ILI or laboratory-confirmed influenza) in one region with recent laboratory evidence of influenza in that region; virus activity no greater than sporadic in other regions; 4) regional: increased ILI activity or institutional outbreaks (ILI or laboratory-confirmed influenza) in at least two but less than half of the regions in the state with recent laboratory evidence of influenza in those regions; and 5) widespread: increased ILI activity or institutional outbreaks (ILI or laboratory-confirmed influenza) in at least half the regions in the state with recent laboratory evidence of influenza in the state.

FIGURE 1. Number* and percentage of respiratory specimens testing positive for influenza reported to CDC by U.S. World Health Organization/National Respiratory and Enteric Virus Surveillance System collaborating laboratories, by week — United States, 2008–09 influenza season



* N = 365 (of 24,657 tested).

state (Hawaii) reported local activity. Twenty-seven states and the District of Columbia reported no activity. No states have reported regional or widespread activity this season.

Outpatient Illness Surveillance

Since September 28, 2008, the weekly percentage of outpatient visits for influenza-like illness (ILI)[§] reported by approximately 1,500 U.S. sentinel providers in 50 states, New York City, Chicago, and the District of Columbia that comprise the U.S. Outpatient ILI Surveillance Network (ILINet), has ranged from 0.9% to 1.3% (Figure 2). This is below the national baseline of 2.4%. In addition, all nine surveillance regions reported percentages below their respective region-specific baselines.[¶]

Pneumonia- and Influenza-Related Mortality

For the week ending November 29, 2008, pneumonia and influenza (P&I) was reported as an underlying or contributing cause of death for 6.7% of all deaths reported to the 122 Cities Mortality Reporting System. This is below the epidemic threshold of 7.1% for that period. Since September 28, 2008,

[§] Defined as a temperature of $\geq 100.0^{\circ}\text{F}$ ($\geq 37.8^{\circ}\text{C}$), oral or equivalent, and cough and/or sore throat, in the absence of a known cause other than influenza.

[¶] The national and regional baselines are the mean percentage of visits for ILI during noninfluenza weeks for the previous three seasons plus two standard deviations. A noninfluenza week is a week during which $<10\%$ of specimens tested positive for influenza. National and regional percentages of patient visits for ILI are weighted on the basis of state population. Use of the national baseline for regional data is not appropriate.

the weekly percentage of deaths attributed to P&I ranged from 6.0%–6.7%, remaining below the epidemic threshold.**

Influenza-Associated Pediatric Hospitalizations

Pediatric hospitalizations associated with laboratory-confirmed influenza infections are monitored by two population-based surveillance networks, the Emerging Infections Program (EIP) and the New Vaccine Surveillance Network (NVSN). No influenza-associated pediatric hospitalizations have yet been reported by either network this season.

Influenza-Related Pediatric Mortality

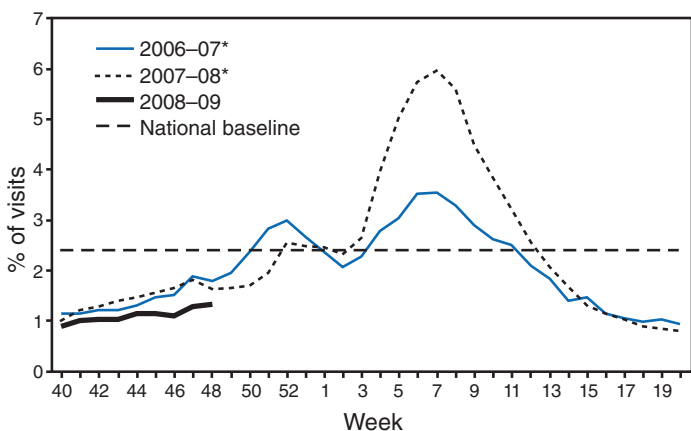
No influenza-related pediatric deaths have been reported for the 2008–09 season.

Reported by: WHO Collaborating Center for Surveillance, Epidemiology, and Control of Influenza. L Brammer, MPH, S Epperson, MPH, L Blanton, MPH, R Dhara, MPH, T Wallis, MS, L Finelli, DrPH, A Fiore, MD, L Gubavera, PhD, J Bresee, MD, A Klimov, PhD, N Cox, PhD, Influenza Div, National Center for Immunization and Respiratory Diseases; S Doshi, MD, EIS Officer, CDC.

Editorial Note: During September 28–November 29, 2008, the United States experienced a low level of influenza activity which is typical for this time of year and similar to the past four influenza seasons. The peak of influenza activity has come

** The seasonal baseline proportion of P&I deaths is projected using a robust regression procedure in which a periodic regression model is applied to the observed percentage of deaths from P&I that were reported by the 122 Cities Mortality Reporting System during the preceding 5 years. The epidemic threshold is 1.645 standard deviations above the seasonal baseline.

FIGURE 2. Percentage of visits for influenza-like illness (ILI) reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), by week — United States, September 28–November 29, 2008 and 2006–07 and 2007–08 influenza seasons



* The 2006–07 and 2007–08 seasons reported 52 weeks; therefore, the week 53 data point for those seasons is an average of weeks 52 and 1.

before January in only five of the past 20 seasons; February or March has been the peak month in 11 of those 20 seasons (CDC, unpublished data, 2008). Influenza vaccine first became available in August, allowing persons to be vaccinated before influenza activity began. Vaccination efforts should continue during December given the most common timing of peak influenza activity, and providers should offer influenza vaccine throughout the influenza season (which can persist as late as April or May) to protect as many persons from influenza infection and its complications as possible.

Most of the U.S. influenza viruses identified and characterized thus far in the 2008–09 season are antigenically similar to the components included in the 2008–09 influenza vaccine. However, these viruses were isolated in few states and early in the influenza season; CDC will test more viruses as flu activity increases and more samples become available. The season has not progressed enough to determine which influenza virus type or subtype will predominate this season.

On average, influenza is estimated to cause approximately 226,000 hospitalizations and 36,000 deaths per year in the United States. Annual vaccination remains the best method for preventing influenza and its potentially severe complications. The Advisory Committee on Immunization Practices (ACIP) recently expanded its recommendations for influenza vaccination to include all children aged 6 months–18 years. In addition, influenza vaccine should be administered to other persons at high risk for influenza-related complications, close contacts of those at high risk (including health-care workers), and anyone else who wants to decrease their risk for influenza (2).

CDC conducts surveillance for resistance of circulating influenza viruses to licensed antiviral medications: adamantanes (amantadine and rimantadine) and neuraminidase inhibitors (zanamivir and oseltamivir). Antiviral resistance testing is not commercially available to guide clinical management of individual patients. Influenza A (H1N1) viruses that have a genetic mutation conferring oseltamivir resistance appeared and circulated during the 2007–08 Northern Hemisphere influenza season (3), and during the 2008 Southern Hemisphere season, with some Southern Hemisphere countries reporting that a majority of tested A (H1N1) viruses were resistant to oseltamivir (4). To date, oseltamivir-resistant A (H1N1) viruses from all countries that have submitted specimens to CDC have been sensitive to zanamivir, and most have been susceptible to the adamantanes. All tested influenza A (H1N1), influenza A (H3N2), and influenza B viruses have been sensitive to zanamivir. Most recent influenza A (H3N2) viruses circulating worldwide are resistant to adamantanes, and adamantanes are not effective against influenza B infections. The prevalence of oseltamivir resistance this season will depend on the level of influenza activity, the proportion of resistance among influenza A (H1N1) viruses and the proportion of A (H1N1) viruses among all circulating influenza viruses. At this time, too few specimens from a limited geographic area have been tested to accurately estimate either proportion; thus the prevalence of oseltamivir resistance for the 2008–09 season cannot be estimated accurately.

Enhanced surveillance for oseltamivir-resistant viruses is ongoing at CDC. Alternatives for antiviral treatment in the context of widely circulating oseltamivir-resistant viruses have been suggested. These treatment options, which might include preferential use of zanamivir or therapy with a combination of antivirals for certain patients, have been outlined in the ACIP 2008 influenza recommendations.^{††} Currently, the neuraminidase inhibitors oseltamivir and zanamivir remain the recommended medications for treatment and chemoprophylaxis of influenza.

Clinicians should remain alert for changes in recommendations that might occur as the 2008–09 influenza season progresses. Recommendations regarding the use of antiviral medications might be revised if surveillance data indicate a substantial and widespread increase in the prevalence of oseltamivir-resistant influenza viruses in the United States.

Vaccination remains the cornerstone of influenza prevention efforts. Influenza vaccination can prevent influenza infections from strains that are sensitive or resistant to antiviral medications; the influenza A (H1N1) viruses found to be oseltamivir resistant are antigenically similar to the components included

^{††} Available at <http://www.cdc.gov/flu/professionals/antivirals/resistance.htm>.

in the 2008–09 vaccine. December 8–14 is National Influenza Vaccination Week. Health-care providers are encouraged to take advantage of heightened awareness of the benefits of influenza vaccination and to increase vaccination efforts during this week to reach persons who have not yet been vaccinated.

CDC continues to conduct surveillance to provide up-to-date recommendations regarding prevention and treatment of influenza. Influenza surveillance reports for the United States are posted online weekly during October–May and are available at <http://www.cdc.gov/flu/weekly/fluactivity.htm>. Additional information regarding influenza viruses, influenza surveillance, influenza vaccine, and avian influenza is available at <http://www.cdc.gov/flu>.

Acknowledgments

This report is based, in part, on data contributed by participating state and territorial health departments and state public health laboratories, WHO collaborating laboratories, National Respiratory and Enteric Virus Surveillance System collaborating laboratories, the U.S. Influenza Sentinel Provider Surveillance System, and the 122 Cities Mortality Reporting System; WHO National Influenza Centers, WHO Global Influenza Programme, Geneva, Switzerland; A Kelso, PhD, I Barr, PhD, WHO Collaborating Center for Reference and Research on Influenza, Parkville, Australia; A Hay, PhD, WHO Collaborating Center for Reference and Research on Influenza, National Institute of Medical Research, London, England; and M Tashiro, MD, WHO Collaborating Center for Reference and Research on Influenza, National Institute of Infectious Diseases, Tokyo, Japan.

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Notice to Readers

Publication of World Report on Child Injury Prevention

Child injuries are a growing global public health problem. Worldwide each year, approximately 10–30 million persons aged <18 years are injured, and 875,000 die from their injuries (1,2). Moreover, 95% of these injuries occur in low- and middle-income countries (1). In 2005, the World Health Organization (WHO) and United Nations Children's Fund

(UNICEF) called for an expanded global effort to prevent child injury (2).

On December 10, 2008, WHO and UNICEF released their *World Report on Child Injury Prevention*. The report examines the five major mechanisms of child injuries: road traffic injuries, drownings, burns, falls, and poisonings (3). Each mechanism is reviewed according to its epidemiology, known risk factors, existing interventions and their effectiveness, and strategies to prevent or manage the particular type of injury. The report documents what is known about child and adolescent injuries worldwide and how these injuries can be prevented.

In the United States each year, approximately 12,000 deaths and an estimated 9.2 million nonfatal unintentional injuries are reported among persons aged ≤19 years (4); unintentional injuries are the leading cause of death among those aged 1–19 years (4,5). Creating a safe environment, adopting and enforcing stringent safety laws, improving product safety, educating parents, and encouraging behavior change are all important in the prevention of injuries in children. Information regarding U.S. data and efforts to prevent child injuries, including the CDC Childhood Injury Report, is available at <http://www.cdc.gov/safecild>. Other tools at this site include fact sheets, podcasts, and state-specific data on the leading causes of child and adolescent injury, and how these injuries can be prevented.

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Notice to Readers

Pre-Beta Version of Open Source Epi Info Released

CDC has released a pre-beta version of the Epi Info™ Community Edition for developers and information technology professionals who wish to contribute enhancements and features. This release represents the beginning of a rewrite of the Epi Info suite of tools into the C#.net development

environment. CDC is emphasizing increased collaboration and open development methods to increase the pace of innovation in public health informatics. The transition to open source is expected to benefit the global community by enabling Epi Info projects to receive broader, worldwide participation and open collaboration.

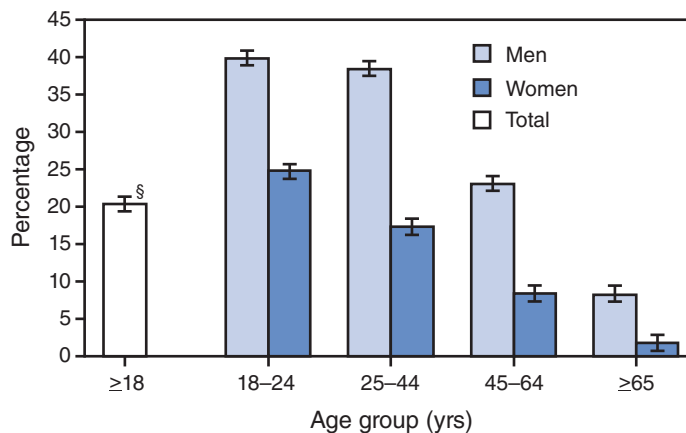
Epi Info Community Edition and its source code are available at <http://www.codeplex.com/epiinfo>. This release includes

support for the nonproprietary database format, MySQL, compatible on Windows and Linux operating systems, and the more common formats of Microsoft Access and Microsoft SQL Server. A stable distribution of Epi Info Version 3.5.1 remains available at <http://www.cdc.gov/epiinfo>. Additional information about either distribution is available via the Epi Info help desk at epiinfo@cdc.gov.

QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Percentage of Adults Aged ≥ 18 Years Who Consumed Five or More Alcoholic Drinks in 1 Day at Least Once in the Preceding Year,* by Sex and Age Group — National Health Interview Survey, United States, 2007†



* Based on responses to the following questions: "In your entire life, have you had at least 12 drinks of any type of alcoholic beverage?" and if "yes," "In the past year, on how many days did you have five or more drinks of any alcoholic beverage?"

† Estimates are based on household interviews of a sample of the civilian noninstitutionalized U.S. population.

§ 95% confidence interval.

Overall, 20.4% of adults aged ≥ 18 years had five or more alcoholic drinks in 1 day at least once in the preceding year. For both men and women, the percentage decreased with age. In all four age groups, men were substantially more likely than women to have had five or more drinks in 1 day at least once in the preceding year.

SOURCE: Heyman KM, Schiller JS, Barnes P. Early release of selected estimates based on data from the 2007 National Health Interview Survey. Available at <http://www.cdc.gov/nchs/about/major/nhis/released200806.htm>.

TABLE 1. Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending December 6, 2008 (49th week)*

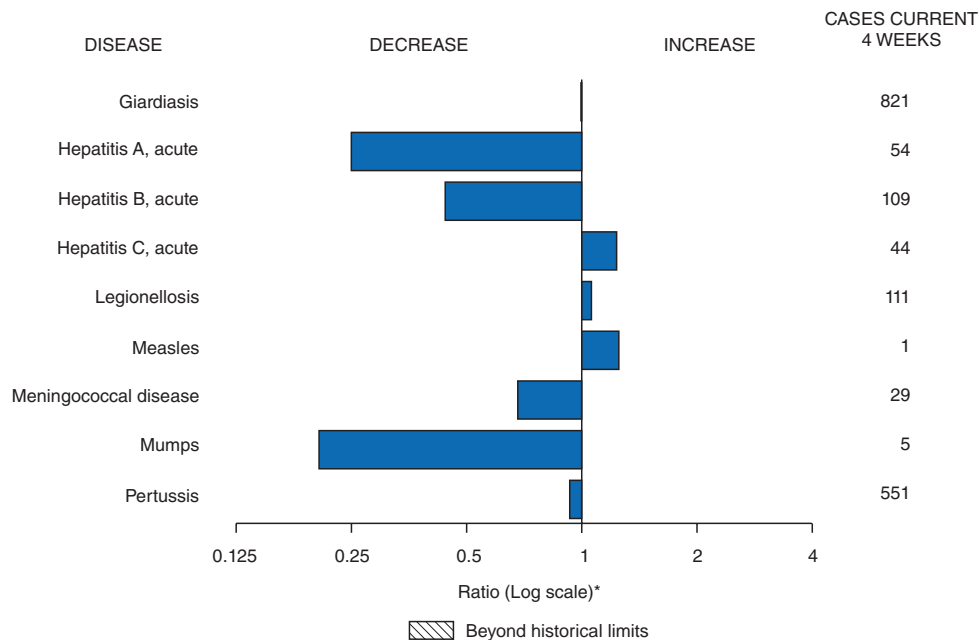
Disease	Current week	Cum 2008	5-year weekly average†	Total cases reported for previous years					States reporting cases during current week (No.)
				2007	2006	2005	2004	2003	
Anthrax	—	—	—	1	1	—	—	—	
Botulism:									
foodborne	—	12	1	32	20	19	16	20	
infant	—	91	2	85	97	85	87	76	
other (wound & unspecified)	—	21	1	27	48	31	30	33	
Brucellosis	—	82	2	131	121	120	114	104	
Chancroid	—	30	1	23	33	17	30	54	
Cholera	—	2	0	7	9	8	6	2	
Cyclosporiasis§	2	121	2	93	137	543	160	75	FL (1), TX (1)
Diphtheria	—	1	—	—	—	—	—	1	
Domestic arboviral diseases§,¶:									
California serogroup	—	43	0	55	67	80	112	108	
eastern equine	—	2	0	4	8	21	6	14	
Powassan	—	1	—	7	1	1	1	—	
St. Louis	—	8	—	9	10	13	12	41	
western equine	—	—	—	—	—	—	—	—	
Ehrlichiosis/Anaplasmosis§,**:									
<i>Ehrlichia chaffeensis</i>	5	799	7	828	578	506	338	321	MN (1), NC (3), FL (1)
<i>Ehrlichia ewingii</i>	—	7	—	—	—	—	—	—	
<i>Anaplasma phagocytophilum</i>	7	433	12	834	646	786	537	362	ME (1), NY (1), MN (5)
undetermined	—	64	1	337	231	112	59	44	
<i>Haemophilus influenzae</i> ,††									
invasive disease (age <5 yrs):									
serotype b	1	26	0	22	29	9	19	32	MN (1)
nonserotype b	1	152	2	199	175	135	135	117	AZ (1)
unknown serotype	4	174	4	180	179	217	177	227	OH (1), NE (1), NC (1), FL (1)
Hansen disease§	—	67	2	101	66	87	105	95	
Hantavirus pulmonary syndrome§	—	14	1	32	40	26	24	26	
Hemolytic uremic syndrome, postdiarrheal§	3	210	3	292	288	221	200	178	CT (1), FL (1), CA (1)
Hepatitis C viral, acute	9	763	18	849	766	652	720	1,102	NY (2), PA (1), IN (2), FL (2), WA (1), CA (1)
HIV infection, pediatric (age <13 years)§§	—	—	4	—	—	380	436	504	
Influenza-associated pediatric mortality§,¶¶	—	90	0	77	43	45	—	N	
Listeriosis	11	597	14	808	884	896	753	696	NY (3), PA (2), OH (1), FL (2), WA (2), CA (1)
Measles***	1	134	1	43	55	66	37	56	OH (1)
Meningococcal disease, invasive†††:									
A, C, Y, & W-135	2	250	5	325	318	297	—	—	IN (1), NC (1)
serogroup B	—	142	3	167	193	156	—	—	
other serogroup	—	30	0	35	32	27	—	—	
unknown serogroup	7	559	11	550	651	765	—	—	OH (1), MO (1), MS (1), AR (2), TX (1), CA (1)
Mumps	1	359	18	800	6,584	314	258	231	NY (1)
Novel influenza A virus infections	—	1	—	4	N	N	N	N	
Plague	—	1	0	7	17	8	3	1	
Poliomyelitis, paralytic	—	—	—	—	—	1	—	—	
Polio virus infection, nonparalytic§	—	—	—	—	N	N	N	N	
Psittacosis§	—	11	0	12	21	16	12	12	
Qfever§,§§§ total:	2	109	1	171	169	136	70	71	
acute	2	97	—	—	—	—	—	—	CO (1), CA (1)
chronic	—	12	—	—	—	—	—	—	
Rabies, human	—	—	0	1	3	2	7	2	
Rubella¶¶¶	—	17	0	12	11	11	10	7	
Rubella, congenital syndrome	—	—	—	—	1	1	—	1	
SARS-CoV§,****	—	—	—	—	—	—	—	8	
Smallpox§	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome§	1	121	2	132	125	129	132	161	IN (1)
Syphilis, congenital (age <1 yr)	—	210	8	430	349	329	353	413	
Tetanus	—	12	1	28	41	27	34	20	
Toxic-shock syndrome (staphylococcal)§	2	62	2	92	101	90	95	133	NY (1), CO (1)
Trichinellosis	—	6	0	5	15	16	5	6	
Tularemia	1	94	2	137	95	154	134	129	CA (1)
Typhoid fever	2	366	5	434	353	324	322	356	FL (1), TN (1)
Vancomycin-intermediate <i>Staphylococcus aureus</i> §	—	30	0	37	6	2	—	N	
Vancomycin-resistant <i>Staphylococcus aureus</i> §	—	—	0	2	1	3	1	N	
Vibriosis (noncholera <i>Vibrio</i> species infections)§	5	420	3	447	N	N	N	N	OH (1), MN (1), NC (1), GA (1), CA (1)
Yellow fever	—	—	—	—	—	—	—	—	

See Table 1 footnotes on next page.

TABLE 1. (Continued) Provisional cases of infrequently reported notifiable diseases (<1,000 cases reported during the preceding year) — United States, week ending December 6, 2008 (49th week)*

—: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts.
 * Incidence data for reporting year 2008 are provisional, whereas data for 2003, 2004, 2005, 2006, and 2007 are finalized.
 † Calculated by summing the incidence counts for the current week, the 2 weeks preceding the current week, and the 2 weeks following the current week, for a total of 5 preceding years. Additional information is available at <http://www.cdc.gov/epo/dphsi/phs/files/5yearweeklyaverage.pdf>.
 § Not notifiable in all states. Data from states where the condition is not notifiable are excluded from this table, except in 2007 and 2008 for the domestic arboviral diseases and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at <http://www.cdc.gov/epo/dphsi/phs/infdis.htm>.
 ¶ Includes both neuroinvasive and nonneuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for West Nile virus are available in Table II.
 ** The names of the reporting categories changed in 2008 as a result of revisions to the case definitions. Cases reported prior to 2008 were reported in the categories: Ehrlichiosis, human monocytic (analogous to *E. chaffeensis*); Ehrlichiosis, human granulocytic (analogous to *Anaplasma phagocytophilum*), and Ehrlichiosis, unspecified, or other agent (which included cases unable to be clearly placed in other categories, as well as possible cases of *E. ewingii*).
 †† Data for *H. influenzae* (all ages, all serotypes) are available in Table II.
 §§ Updated monthly from reports to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. Implementation of HIV reporting influences the number of cases reported. Updates of pediatric HIV data have been temporarily suspended until upgrading of the national HIV/AIDS surveillance data management system is completed. Data for HIV/AIDS, when available, are displayed in Table IV, which appears quarterly.
 ¶¶ Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. There are no reports of confirmed influenza-associated pediatric deaths for the current 2008-09 season.
 *** The one measles case reported for the current week was indigenous.
 ††† Data for meningococcal disease (all serogroups) are available in Table II.
 §§§ In 2008, Q fever acute and chronic reporting categories were recognized as a result of revisions to the Q fever case definition. Prior to that time, case counts were not differentiated with respect to acute and chronic Q fever cases.
 ¶¶¶ No rubella cases were reported for the current week.
 **** Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals December 6, 2008, 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.

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TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending December 6, 2008, and December 8, 2007 (49th week)*

Reporting area	Giardiasis					Gonorrhea					Haemophilus influenzae, invasive All ages, all serotypes†				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
United States	184	306	1,158	15,990	17,445	3,361	5,944	8,913	278,655	333,249	26	48	173	2,353	2,271
New England	6	24	49	1,186	1,397	73	101	227	4,912	5,309	1	3	12	137	175
Connecticut	—	6	11	291	351	22	50	199	2,383	2,033	1	0	9	41	45
Maine§	6	3	12	177	185	2	2	6	91	114	—	0	2	16	13
Massachusetts	—	9	17	343	579	39	39	90	2,018	2,580	—	1	5	57	86
New Hampshire	—	2	11	142	33	2	2	6	96	135	—	0	1	9	18
Rhode Island§	—	1	8	76	80	6	6	13	295	386	—	0	1	6	9
Vermont§	—	3	13	157	169	2	0	5	29	61	—	0	3	8	4
Mid. Atlantic	49	59	131	3,002	3,035	298	621	1,028	30,477	34,215	6	10	31	465	442
New Jersey	—	7	14	302	389	54	95	167	4,676	5,753	—	1	7	71	66
New York (Upstate)	33	23	111	1,142	1,109	108	120	545	5,653	6,544	3	3	22	142	128
New York City	4	15	28	757	816	—	179	636	9,885	9,882	—	1	6	81	99
Pennsylvania	12	15	45	801	721	136	214	394	10,263	12,036	3	4	8	171	149
E.N. Central	25	46	79	2,326	2,744	527	1,228	1,647	57,861	68,688	6	7	28	341	347
Illinois	—	10	24	512	837	—	364	589	16,067	19,218	—	2	7	102	110
Indiana	N	0	0	N	N	143	147	284	7,704	8,457	—	1	20	66	57
Michigan	6	11	21	536	586	318	320	657	15,638	14,516	1	0	3	20	29
Ohio	19	16	31	849	781	4	297	531	14,200	20,080	5	2	6	126	97
Wisconsin	—	8	19	429	540	62	89	175	4,252	6,417	—	1	2	27	54
W.N. Central	15	28	621	1,906	1,413	265	316	425	15,440	18,416	2	3	24	185	134
Iowa	2	6	18	306	293	34	29	48	1,476	1,823	—	0	1	2	1
Kansas	2	3	11	156	174	66	41	130	2,171	2,171	—	0	3	16	11
Minnesota	—	0	575	666	168	—	56	92	2,650	3,295	1	0	21	57	59
Missouri	5	8	22	431	500	123	149	199	7,471	9,417	—	1	6	69	39
Nebraska§	6	4	10	201	153	30	24	47	1,244	1,358	1	0	2	28	18
North Dakota	—	0	36	23	24	—	2	6	91	111	—	0	3	13	6
South Dakota	—	2	10	123	101	12	7	15	337	241	—	0	0	—	—
S. Atlantic	38	54	87	2,631	2,898	959	1,186	3,072	59,344	78,804	9	12	29	632	562
Delaware	—	1	3	39	40	25	19	44	973	1,225	—	0	2	7	8
District of Columbia	—	1	5	52	73	57	48	101	2,449	2,252	—	0	2	11	3
Florida	33	23	57	1,259	1,202	393	448	549	21,500	22,057	6	3	10	177	152
Georgia	—	9	27	511	653	3	123	560	6,912	16,546	—	2	9	134	112
Maryland§	2	5	12	237	253	—	116	206	5,649	6,365	2	2	6	90	83
North Carolina	N	0	0	N	N	—	0	1,949	2,638	13,838	1	1	9	73	51
South Carolina§	3	2	6	123	116	199	180	830	8,844	9,618	—	1	7	47	51
Virginia§	—	8	39	356	513	280	177	486	9,697	6,019	—	1	6	73	74
West Virginia	—	1	5	54	48	2	14	26	682	884	—	0	3	20	28
E.S. Central	2	9	21	441	538	526	552	837	27,400	30,458	—	2	8	119	132
Alabama§	1	5	12	247	249	—	175	250	7,825	10,284	—	0	2	19	28
Kentucky	N	0	0	N	N	86	90	153	4,338	3,204	—	0	1	2	9
Mississippi	N	0	0	N	N	257	130	401	6,928	7,844	—	0	2	13	9
Tennessee§	1	4	13	194	289	183	161	297	8,309	9,126	—	2	6	85	86
W.S. Central	4	7	41	405	412	175	953	1,355	44,534	48,919	—	2	29	97	95
Arkansas§	1	3	8	132	144	90	84	167	4,267	3,992	—	0	3	10	9
Louisiana	—	2	10	120	134	85	169	317	8,552	10,655	—	0	2	8	9
Oklahoma	3	2	35	153	134	—	63	124	2,903	4,602	—	1	21	71	67
Texas§	N	0	0	N	N	—	633	1,102	28,812	29,670	—	0	3	8	10
Mountain	19	28	60	1,393	1,759	154	210	338	9,999	13,087	2	5	14	262	246
Arizona	4	2	8	129	186	43	64	109	3,119	4,773	1	2	11	105	86
Colorado	7	11	27	528	553	52	58	100	2,900	3,210	1	1	4	53	56
Idaho§	—	3	14	183	198	6	3	13	171	256	—	0	4	12	8
Montana§	3	1	9	80	107	—	2	10	103	112	—	0	1	2	2
Nevada§	1	1	8	88	136	23	39	130	1,968	2,266	—	0	2	14	12
New Mexico§	—	1	7	83	112	22	24	104	1,200	1,639	—	0	4	34	39
Utah	4	5	22	278	424	8	10	36	426	755	—	1	6	38	38
Wyoming§	—	0	3	24	43	—	2	9	112	76	—	0	2	4	5
Pacific	26	53	185	2,700	3,249	384	602	746	28,688	35,353	—	2	7	115	138
Alaska	2	2	10	96	77	6	10	24	469	533	—	0	2	16	15
California	24	35	91	1,766	2,181	306	506	657	23,849	29,558	—	0	3	25	46
Hawaii	—	1	4	40	73	5	11	22	540	629	—	0	2	19	11
Oregon§	—	8	18	425	441	31	23	48	1,179	1,160	—	1	4	52	63
Washington	—	8	87	373	477	36	54	90	2,651	3,473	—	0	3	3	3
American Samoa	—	0	0	—	—	—	0	1	3	3	—	0	0	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	2	—	1	15	73	127	—	0	0	—	1
Puerto Rico	—	2	13	150	363	—	5	25	254	300	—	0	0	—	2
U.S. Virgin Islands	—	0	0	—	—	—	2	6	93	39	N	0	0	N	N

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

* Incidence data for reporting year 2008 are provisional.

† Data for *H. influenzae* (age <5 yrs for serotype b, nonserotype b, and unknown serotype) are available in Table I.

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

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending December 6, 2008, and December 8, 2007 (49th week)*

Reporting area	Hepatitis (viral, acute), by type†										Legionellosis				
	A					B									
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
	Med	Max				Med	Max				Med	Max			
United States	13	48	171	2,244	2,702	34	68	259	3,212	4,089	30	44	140	2,564	2,486
New England	—	2	7	101	128	—	1	7	60	121	3	2	16	125	150
Connecticut	—	0	4	26	25	—	0	7	23	38	3	0	5	41	38
Maine§	—	0	2	11	5	—	0	2	11	15	—	0	2	9	9
Massachusetts	—	0	5	38	65	—	0	1	9	42	—	0	3	13	47
New Hampshire	—	0	2	12	12	—	0	2	11	5	—	0	5	27	8
Rhode Island§	—	0	2	12	13	—	0	1	4	16	—	0	14	30	39
Vermont§	—	0	1	2	8	—	0	1	2	5	—	0	1	5	9
Mid. Atlantic	2	6	12	284	432	2	9	14	398	533	14	13	58	876	800
New Jersey	—	1	4	57	120	—	2	7	111	155	—	1	7	79	112
New York (Upstate)	1	1	6	60	71	1	1	4	61	84	4	5	19	315	218
New York City	—	2	6	101	151	—	2	6	86	113	—	2	12	110	178
Pennsylvania	1	1	6	66	90	1	3	8	140	181	10	6	33	372	292
E.N. Central	3	6	16	292	326	1	7	13	365	432	2	10	40	537	561
Illinois	—	1	10	85	113	—	1	5	88	126	—	1	7	66	106
Indiana	—	0	4	21	27	1	1	6	47	54	—	1	7	49	58
Michigan	—	2	7	109	92	—	2	6	117	114	—	2	16	147	164
Ohio	3	1	4	48	65	—	2	8	107	118	2	4	18	257	199
Wisconsin	—	0	2	29	29	—	0	1	6	20	—	0	3	18	34
W.N. Central	—	5	29	241	166	1	2	9	97	110	2	2	9	117	110
Iowa	—	1	7	105	44	—	0	2	14	25	—	0	2	15	11
Kansas	—	0	3	14	11	—	0	3	7	8	—	0	1	2	10
Minnesota	—	0	23	36	68	—	0	5	10	20	2	0	4	23	28
Missouri	—	1	3	42	20	—	1	4	56	38	—	1	5	54	43
Nebraska§	—	0	5	40	17	1	0	2	9	12	—	0	4	20	14
North Dakota	—	0	2	—	—	—	0	1	1	—	—	0	2	—	—
South Dakota	—	0	1	4	6	—	0	0	—	7	—	0	1	3	4
S. Atlantic	5	7	15	359	457	13	17	60	826	941	4	9	28	437	413
Delaware	—	0	1	7	8	—	0	3	10	14	—	0	2	12	11
District of Columbia	U	0	0	U	U	U	0	0	U	U	—	0	2	15	15
Florida	4	2	8	140	145	8	6	12	318	321	1	3	7	140	140
Georgia	—	1	4	45	65	—	3	6	131	144	—	0	4	32	38
Maryland§	—	1	3	39	71	1	2	4	77	107	3	2	10	113	80
North Carolina	1	0	9	60	60	4	0	17	78	124	—	0	7	36	44
South Carolina§	—	0	3	17	18	—	1	6	57	61	—	0	2	12	17
Virginia§	—	1	5	46	81	—	2	16	100	122	—	1	6	56	51
West Virginia	—	0	2	5	9	—	1	30	55	48	—	0	3	21	17
E.S. Central	—	1	9	76	103	7	7	13	352	359	—	2	10	108	96
Alabama§	—	0	4	12	20	—	2	6	97	123	—	0	2	15	11
Kentucky	—	0	3	29	20	4	2	5	88	73	—	1	4	53	47
Mississippi	—	0	2	5	8	1	1	3	44	37	—	0	1	1	—
Tennessee§	—	0	6	30	55	2	3	8	123	126	—	1	5	39	38
W.S. Central	—	4	55	188	255	5	12	131	591	893	—	1	23	70	130
Arkansas§	—	0	1	5	12	—	0	4	30	69	—	0	2	11	15
Louisiana	—	0	1	10	27	—	1	4	73	95	—	0	2	9	6
Oklahoma	—	0	3	7	10	4	2	22	109	127	—	0	6	10	6
Texas§	—	3	53	166	206	1	7	107	379	602	—	1	18	40	103
Mountain	1	4	12	195	216	1	4	10	181	204	1	2	7	77	105
Arizona	1	2	11	99	144	—	1	5	63	80	1	0	2	20	37
Colorado	—	0	3	35	24	—	0	3	30	35	—	0	2	10	21
Idaho§	—	0	3	18	8	—	0	2	8	14	—	0	1	3	6
Montana§	—	0	1	1	9	—	0	1	2	—	—	0	1	4	3
Nevada§	—	0	3	9	11	1	1	3	33	46	—	0	2	10	9
New Mexico§	—	0	3	17	11	—	0	2	11	12	—	0	1	7	10
Utah	—	0	2	13	6	—	0	5	30	12	—	0	2	23	16
Wyoming§	—	0	1	3	3	—	0	1	4	5	—	0	0	—	3
Pacific	2	11	51	508	619	4	7	30	342	496	4	4	18	217	121
Alaska	—	0	1	3	4	—	0	2	9	9	—	0	1	2	—
California	2	9	42	417	531	3	5	19	243	364	4	3	14	175	88
Hawaii	—	0	2	17	7	—	0	1	7	16	—	0	1	8	2
Oregon§	—	0	3	25	28	—	1	3	39	57	—	0	2	15	12
Washington	—	1	7	46	49	1	1	9	44	50	—	0	3	17	19
American Samoa	—	0	0	—	—	—	0	0	—	14	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	1	—	2	—	0	0	—	—
Puerto Rico	—	0	4	17	62	—	0	5	39	84	—	0	1	1	4
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

* Incidence data for reporting year 2008 are provisional.

† Data for acute hepatitis C, viral are available in Table I.

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

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending December 6, 2008, and December 8, 2007 (49th week)*

Table with 15 columns: Reporting area, Current week, Previous 52 weeks (Med, Max), Cum 2008, Cum 2007. Rows are categorized by disease: Lyme disease, Malaria, and Meningococcal disease, invasive (All serotypes). Each category has multiple sub-rows for different states and territories.

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

* Incidence data for reporting year 2008 are provisional.

† Data for meningococcal disease, invasive caused by serogroups A, C, Y, & W-135; serogroup B; other serogroup; and unknown serogroup are available in Table I.

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

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending December 6, 2008, and December 8, 2007 (49th week)*

Reporting area	Pertussis					Rabies, animal					Rocky Mountain spotted fever				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max				Med	Max		
United States	136	169	849	8,561	9,189	23	102	160	4,733	5,739	12	42	195	2,196	1,975
New England	5	13	49	591	1,455	1	7	20	346	504	—	0	1	2	9
Connecticut	—	0	4	34	86	—	4	17	190	210	—	0	0	—	—
Maine†	—	1	5	40	78	—	1	5	55	84	N	0	0	N	N
Massachusetts	—	10	33	420	1,122	N	0	0	N	N	—	0	1	1	8
New Hampshire	1	0	4	38	78	—	0	3	35	52	—	0	1	1	1
Rhode Island†	4	0	25	47	32	N	0	0	N	N	—	0	0	—	—
Vermont†	—	0	4	12	59	1	1	6	66	158	—	0	0	—	—
Mid. Atlantic	18	19	43	950	1,219	12	28	63	1,516	961	1	1	5	78	81
New Jersey	—	1	9	54	214	—	0	0	—	—	—	0	2	12	31
New York (Upstate)	8	7	24	406	510	12	9	20	480	499	—	0	2	17	6
New York City	—	1	5	46	146	—	0	2	19	43	—	0	2	24	27
Pennsylvania	10	9	22	444	349	—	18	48	1,017	419	1	0	2	25	17
E.N. Central	33	24	189	1,473	1,453	—	3	28	244	408	—	1	13	128	59
Illinois	—	5	18	293	189	—	1	21	103	113	—	0	10	84	39
Indiana	—	1	15	100	56	—	0	2	10	12	—	0	3	8	5
Michigan	8	5	14	258	282	—	1	8	71	201	—	0	1	3	4
Ohio	25	9	176	715	601	—	1	7	60	82	—	0	4	32	10
Wisconsin	—	2	7	107	325	N	0	0	N	N	—	0	1	1	1
W.N. Central	32	15	142	1,043	695	1	3	12	182	252	1	5	36	505	363
Iowa	—	1	9	71	144	—	0	5	28	31	—	0	2	6	17
Kansas	3	1	13	63	101	—	0	7	—	99	—	0	0	—	12
Minnesota	—	2	131	224	213	—	0	10	65	39	—	0	4	1	2
Missouri	17	6	49	414	102	1	0	9	53	38	1	4	35	475	313
Nebraska†	12	2	34	238	69	—	0	0	—	—	—	0	4	20	14
North Dakota	—	0	5	1	7	—	0	8	24	21	—	0	0	—	—
South Dakota	—	0	3	32	59	—	0	2	12	24	—	0	1	3	5
S. Atlantic	19	15	50	821	895	7	37	101	1,931	2,111	10	12	70	853	946
Delaware	—	0	3	16	11	—	0	0	—	—	—	0	4	31	16
District of Columbia	—	0	1	7	9	—	0	0	—	—	—	0	2	8	3
Florida	10	5	20	282	205	—	0	77	137	128	—	0	3	18	16
Georgia	2	1	6	67	35	—	6	42	298	286	1	1	8	73	60
Maryland†	3	2	8	117	113	—	8	17	403	416	—	1	7	68	63
North Carolina	—	0	38	79	292	4	9	16	434	465	9	2	55	450	610
South Carolina†	3	2	22	108	78	—	0	0	—	46	—	1	9	53	62
Virginia†	1	2	10	136	122	—	12	24	583	693	—	2	15	145	111
West Virginia	—	0	2	9	30	3	1	9	76	77	—	0	1	7	5
E.S. Central	6	7	18	327	453	—	3	7	165	149	—	3	23	306	273
Alabama†	—	1	5	52	89	—	0	0	—	—	—	1	8	88	95
Kentucky	5	1	8	107	28	—	0	4	45	18	—	0	1	1	5
Mississippi	—	2	6	89	255	—	0	1	2	2	—	0	1	6	20
Tennessee†	1	1	6	79	81	—	2	6	118	129	—	2	19	211	153
W.S. Central	5	27	198	1,451	1,051	—	1	40	85	1,023	—	2	153	282	205
Arkansas†	5	1	18	81	159	—	0	6	47	31	—	0	14	65	109
Louisiana	—	1	7	70	21	—	0	0	—	6	—	0	1	5	4
Oklahoma	—	0	21	53	49	—	0	32	36	45	—	0	132	170	53
Texas†	—	22	179	1,247	822	—	0	12	2	941	—	1	8	42	39
Mountain	6	15	37	729	1,047	—	1	8	76	97	—	0	4	38	36
Arizona	1	3	10	188	204	N	0	0	N	N	—	0	2	16	10
Colorado	2	3	8	142	289	—	0	0	—	—	—	0	1	1	3
Idaho†	—	0	5	29	44	—	0	0	—	12	—	0	1	1	4
Montana†	—	1	11	83	46	—	0	2	9	21	—	0	1	3	1
Nevada†	—	0	7	19	37	—	0	4	5	13	—	0	2	2	—
New Mexico†	—	1	8	54	73	—	0	3	25	15	—	0	1	2	5
Utah	3	4	27	198	331	—	0	6	13	16	—	0	1	3	—
Wyoming†	—	0	2	16	23	—	0	3	24	20	—	0	2	10	13
Pacific	12	24	303	1,176	921	2	3	13	188	234	—	0	1	4	3
Alaska	8	3	21	233	86	—	0	4	14	43	N	0	0	N	N
California	1	8	129	383	430	2	3	12	160	179	—	0	1	1	1
Hawaii	—	0	2	16	18	—	0	0	—	—	N	0	0	N	N
Oregon†	—	3	10	159	115	—	0	4	14	12	—	0	1	3	2
Washington	3	6	169	385	272	—	0	0	—	—	N	0	0	N	N
American Samoa	—	0	0	—	—	N	0	0	N	N	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	N	0	0	N	N
Puerto Rico	—	0	0	—	—	—	1	5	59	47	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	N	0	0	N	N	N	0	0	N	N

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

* Incidence data for reporting year 2008 are provisional.

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

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending December 6, 2008, and December 8, 2007 (49th week)*

Reporting area	Streptococcal diseases, invasive, group A					<i>Streptococcus pneumoniae</i> , invasive disease, nondrug resistant†				
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
		Med	Max				Med	Max		
United States	60	95	259	4,805	4,861	34	34	166	1,528	1,740
New England	4	6	31	320	365	—	1	14	71	120
Connecticut	3	0	26	99	113	—	0	11	11	13
Maine§	—	0	3	26	26	—	0	1	2	4
Massachusetts	—	3	8	138	174	—	0	5	39	80
New Hampshire	1	0	2	27	27	—	0	1	11	13
Rhode Island§	—	0	9	18	8	—	0	2	7	8
Vermont§	—	0	2	12	17	—	0	1	1	2
Mid. Atlantic	15	18	43	945	885	1	4	19	201	305
New Jersey	—	3	11	138	161	—	1	6	62	63
New York (Upstate)	8	6	17	309	267	1	2	14	98	100
New York City	—	3	10	178	218	—	0	8	41	142
Pennsylvania	7	6	16	320	239	N	0	0	N	N
E.N. Central	6	19	42	864	916	6	6	23	251	295
Illinois	—	4	16	225	273	—	1	5	48	80
Indiana	1	2	11	123	114	—	0	14	35	20
Michigan	—	3	10	162	195	2	1	5	73	77
Ohio	5	5	14	248	214	3	1	5	58	60
Wisconsin	—	1	10	106	120	1	1	4	37	58
W.N. Central	2	5	39	360	318	7	2	16	147	98
Iowa	—	0	0	—	—	—	0	0	—	—
Kansas	—	0	5	36	31	1	0	3	19	2
Minnesota	—	0	35	166	153	6	0	13	69	53
Missouri	—	2	10	83	80	—	1	2	33	25
Nebraska§	1	1	3	40	24	—	0	2	8	17
North Dakota	—	0	5	12	18	—	0	2	8	1
South Dakota	1	0	2	23	12	—	0	1	10	—
S. Atlantic	10	21	37	1,042	1,191	8	6	16	284	316
Delaware	—	0	2	9	10	—	0	0	—	—
District of Columbia	—	0	4	24	17	—	0	1	2	3
Florida	1	5	10	255	296	4	1	4	65	62
Georgia	3	4	14	229	241	1	1	5	66	77
Maryland§	3	4	8	170	203	3	1	5	57	64
North Carolina	—	2	10	130	157	N	0	0	N	N
South Carolina§	3	1	5	70	97	—	1	4	48	55
Virginia§	—	2	12	123	144	—	0	6	38	48
West Virginia	—	0	3	32	26	—	0	1	8	7
E.S. Central	1	4	9	165	200	—	2	11	94	97
Alabama§	N	0	0	N	N	N	0	0	N	N
Kentucky	1	1	3	39	37	N	0	0	N	N
Mississippi	N	0	0	N	N	—	0	3	20	10
Tennessee§	—	3	6	126	163	—	1	9	74	87
W.S. Central	13	9	85	441	302	9	5	66	255	262
Arkansas§	—	0	2	5	17	—	0	2	7	16
Louisiana	—	0	2	16	16	—	0	2	10	35
Oklahoma	2	2	19	110	65	1	1	7	60	57
Texas§	11	6	65	310	204	8	3	58	178	154
Mountain	6	10	22	505	547	3	4	12	208	234
Arizona	1	3	9	184	202	2	2	8	106	115
Colorado	4	3	8	141	137	1	1	4	56	46
Idaho§	—	0	2	15	18	—	0	1	5	2
Montana§	N	0	0	N	N	—	0	1	4	1
Nevada§	—	0	1	12	2	N	0	0	N	N
New Mexico§	—	2	8	93	101	—	0	3	17	40
Utah	1	1	5	54	82	—	0	3	19	30
Wyoming§	—	0	2	6	5	—	0	1	1	—
Pacific	3	3	8	163	137	—	0	2	17	13
Alaska	3	0	4	39	25	N	0	0	N	N
California	—	0	0	—	—	N	0	0	N	N
Hawaii	—	2	8	124	112	—	0	2	17	13
Oregon§	N	0	0	N	N	N	0	0	N	N
Washington	N	0	0	N	N	N	0	0	N	N
American Samoa	—	0	12	30	4	N	0	0	N	N
C.N.M.I.	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	14	—	0	0	—	—
Puerto Rico	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	—	0	0	—	—	N	0	0	N	N

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

* Incidence data for reporting year 2008 are provisional.

† Includes cases of invasive pneumococcal disease, in children aged <5 years, caused by *S. pneumoniae*, which is susceptible or for which susceptibility testing is not available (NNDSS event code 11717).

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

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending December 6, 2008, and December 8, 2007 (49th week)*

Reporting area	<i>Streptococcus pneumoniae</i> , invasive disease, drug resistant†										Syphilis, primary and secondary				
	All ages				Age <5 years										
	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007	Current week	Previous 52 weeks		Cum 2008	Cum 2007
	Med	Max				Med	Max				Med	Max			
United States	52	56	307	2,647	2,879	14	9	43	402	494	78	240	351	11,192	10,572
New England	—	1	49	100	106	—	0	8	13	13	3	5	13	283	257
Connecticut	—	0	48	55	55	—	0	7	5	4	1	0	6	31	33
Maine§	—	0	2	16	12	—	0	1	2	2	—	0	2	10	9
Massachusetts	—	0	0	—	—	—	0	0	—	2	2	4	11	203	150
New Hampshire	—	0	0	—	—	—	0	0	—	—	—	0	2	19	28
Rhode Island§	—	0	3	16	20	—	0	1	4	3	—	0	5	13	34
Vermont§	—	0	2	13	17	—	0	1	2	2	—	0	5	7	3
Mid. Atlantic	5	4	13	223	155	2	0	2	22	29	12	32	51	1,586	1,457
New Jersey	—	0	0	—	—	—	0	0	—	—	4	4	10	195	216
New York (Upstate)	1	1	6	59	51	1	0	2	7	10	4	3	13	130	130
New York City	1	1	5	67	—	—	0	0	—	—	—	21	37	1,012	858
Pennsylvania	3	2	9	97	104	1	0	2	15	19	4	5	12	249	253
E.N. Central	5	13	64	642	738	—	1	14	88	119	8	20	34	951	835
Illinois	—	0	17	71	193	—	0	3	14	45	—	5	14	246	432
Indiana	—	2	39	187	157	—	0	11	21	24	2	2	10	129	51
Michigan	—	0	3	16	3	—	0	1	2	2	1	3	19	204	109
Ohio	5	8	17	368	385	—	1	4	51	48	4	6	15	319	184
Wisconsin	—	0	0	—	—	—	0	0	—	—	1	1	4	53	59
W.N. Central	3	2	115	146	236	—	0	9	10	44	5	8	15	368	344
Iowa	—	0	0	—	—	—	0	0	—	—	—	0	2	15	20
Kansas	1	1	5	59	86	—	0	1	4	10	3	0	5	29	28
Minnesota	—	0	114	—	72	—	0	9	—	26	—	2	5	100	57
Missouri	2	1	8	80	61	—	0	1	3	3	2	5	10	216	227
Nebraska§	—	0	0	—	—	—	0	0	—	—	—	0	1	7	4
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	1	—	1
South Dakota	—	0	2	7	15	—	0	1	3	5	—	0	1	—	7
S. Atlantic	34	21	53	1,158	1,239	12	4	10	206	225	26	52	215	2,534	2,415
Delaware	—	0	1	3	11	—	0	0	—	2	—	0	4	15	17
District of Columbia	—	0	3	18	20	—	0	1	1	1	1	2	8	125	169
Florida	27	13	30	691	673	12	3	6	138	121	7	20	37	946	843
Georgia	6	7	23	353	465	—	1	5	56	93	—	11	175	550	466
Maryland§	1	0	2	5	1	—	0	1	1	—	—	6	14	297	315
North Carolina	N	0	0	N	N	N	0	0	N	N	3	5	19	263	300
South Carolina§	—	0	0	—	—	—	0	0	—	—	2	1	6	84	89
Virginia§	N	0	0	N	N	N	0	0	N	N	13	4	17	252	210
West Virginia	—	1	9	88	69	—	0	2	10	8	—	0	1	—	6
E.S. Central	4	5	15	256	258	—	1	4	43	36	6	21	37	1,051	861
Alabama§	N	0	0	N	N	N	0	0	N	N	—	8	17	414	361
Kentucky	1	1	6	72	28	—	0	2	12	3	1	1	7	79	54
Mississippi	—	0	2	4	56	—	0	1	1	—	—	3	19	161	108
Tennessee§	3	3	13	180	174	—	0	3	30	33	5	9	19	397	338
W.S. Central	—	2	7	82	86	—	0	2	12	11	6	41	61	1,975	1,786
Arkansas§	—	0	2	16	6	—	0	1	3	2	5	2	19	163	115
Louisiana	—	1	6	66	80	—	0	2	9	9	1	10	30	530	503
Oklahoma	N	0	0	N	N	N	0	0	N	N	—	1	5	54	64
Texas§	—	0	0	—	—	—	0	0	—	—	—	25	48	1,228	1,104
Mountain	1	1	7	38	58	—	0	2	6	14	3	9	17	410	503
Arizona	—	0	0	—	—	—	0	0	—	—	—	4	12	200	282
Colorado	—	0	0	—	—	—	0	0	—	—	—	2	7	91	51
Idaho§	N	0	0	N	N	N	0	0	N	N	—	0	2	6	1
Montana§	—	0	1	1	—	—	0	0	—	—	—	0	3	—	5
Nevada§	N	0	0	N	N	N	0	0	N	N	1	1	6	69	99
New Mexico§	—	0	1	2	—	—	0	0	—	—	2	1	4	40	44
Utah	1	0	7	32	41	—	0	2	6	11	—	0	2	1	17
Wyoming§	—	0	1	3	17	—	0	1	—	3	—	0	1	3	4
Pacific	—	0	1	2	3	—	0	1	2	3	9	44	65	2,034	2,114
Alaska	N	0	0	N	N	N	0	0	N	N	—	0	1	—	7
California	N	0	0	N	N	N	0	0	N	N	6	39	59	1,834	1,938
Hawaii	—	0	1	2	3	—	0	1	2	3	—	0	2	19	8
Oregon§	N	0	0	N	N	N	0	0	N	N	—	0	3	24	17
Washington	N	0	0	N	N	N	0	0	N	N	3	3	9	156	144
American Samoa	N	0	0	N	N	N	0	0	N	N	—	0	0	—	4
C.N.M.I.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guam	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Puerto Rico	—	0	0	—	—	—	0	0	—	—	—	3	11	152	156
U.S. Virgin Islands	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

* Incidence data for reporting year 2008 are provisional.

† Includes cases of invasive pneumococcal disease caused by drug-resistant *S. pneumoniae* (DRSP) (NNDSS event code 11720).

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

TABLE III. Deaths in 122 U.S. cities,* week ending December 6, 2008 (49th 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	602	420	132	27	12	11	37		S. Atlantic	1,456	917	368	80	48	43	92	
Boston, MA	149	90	39	12	5	3	12		Atlanta, GA	108	58	26	9	3	12	3	
Bridgeport, CT	36	23	12	—	—	1	5		Baltimore, MD	186	103	56	13	10	4	18	
Cambridge, MA	17	15	2	—	—	—	—		Charlotte, NC	153	108	29	6	6	4	12	
Fall River, MA	35	29	5	1	—	—	3		Jacksonville, FL	237	144	64	16	9	4	23	
Hartford, CT	66	40	19	2	4	1	3		Miami, FL	143	102	32	3	2	4	7	
Lowell, MA	22	19	3	—	—	—	1		Norfolk, VA	61	41	15	—	3	2	2	
Lynn, MA	13	12	1	—	—	—	2		Richmond, VA	78	49	16	8	3	2	2	
New Bedford, MA	33	28	5	—	—	—	—		Savannah, GA	54	37	14	1	1	1	6	
New Haven, CT	U	U	U	U	U	U	U		St. Petersburg, FL	55	36	14	1	1	3	3	
Providence, RI	78	59	15	2	—	2	5		Tampa, FL	277	179	72	15	6	5	12	
Somerville, MA	1	—	—	—	1	—	—		Washington, D.C.	92	55	27	4	4	2	3	
Springfield, MA	47	31	12	3	—	1	5		Wilmington, DE	12	5	3	4	—	—	1	
Waterbury, CT	28	16	10	2	—	—	—		E.S. Central	941	619	222	51	28	21	78	
Worcester, MA	77	58	9	5	2	3	1		Birmingham, AL	225	148	56	12	8	1	20	
Mid. Atlantic	2,587	1,821	541	143	35	46	141		Chattanooga, TN	94	69	14	6	1	4	8	
Albany, NY	52	40	11	1	—	—	3		Knoxville, TN	111	74	28	3	3	3	1	
Allentown, PA	32	22	9	—	—	1	—		Lexington, KY	45	27	12	4	—	2	2	
Buffalo, NY	83	57	12	8	1	5	6		Memphis, TN	125	80	31	9	3	2	10	
Camden, NJ	21	15	4	1	—	1	—		Mobile, AL	102	74	18	3	4	3	11	
Elizabeth, NJ	18	15	2	—	1	—	—		Montgomery, AL	49	29	11	4	4	1	3	
Erie, PA	67	53	10	1	2	1	5		Nashville, TN	190	118	52	10	5	5	23	
Jersey City, NJ	29	18	5	5	—	1	2		W.S. Central	1,749	1,136	414	110	43	46	78	
New York City, NY	1,149	810	249	61	12	16	52		Austin, TX	117	72	33	7	2	3	5	
Newark, NJ	32	12	11	5	2	2	1		Baton Rouge, LA	47	37	7	3	—	—	—	
Paterson, NJ	21	13	4	2	—	2	2		Corpus Christi, TX	66	56	8	—	—	2	5	
Philadelphia, PA	580	374	144	41	8	13	29		Dallas, TX	240	142	62	21	7	8	15	
Pittsburgh, PA§	40	27	8	2	3	—	3		El Paso, TX	124	79	29	8	5	3	1	
Reading, PA	26	20	4	2	—	—	3		Fort Worth, TX	168	112	39	13	2	2	1	
Rochester, NY	167	131	27	2	4	3	19		Houston, TX	446	274	119	27	13	13	19	
Schenectady, NY	13	10	1	1	1	—	—		Little Rock, AR	104	74	17	5	2	6	1	
Scranton, PA	40	35	3	2	—	—	4		New Orleans, LA¶	U	U	U	U	U	U	U	
Syracuse, NY	160	122	30	6	1	1	10		San Antonio, TX	277	184	59	21	7	6	18	
Trenton, NJ	25	20	3	2	—	—	—		Shreveport, LA	48	29	15	1	1	2	4	
Utica, NY	14	11	2	1	—	—	1		Tulsa, OK	112	77	26	4	4	1	9	
Yonkers, NY	18	16	2	—	—	—	1		Mountain	875	597	188	50	19	21	49	
E.N. Central	2,379	1,586	566	135	45	47	167		Albuquerque, NM	U	U	U	U	U	U	U	
Akron, OH	66	42	16	4	4	—	5		Boise, ID	35	28	5	1	1	—	2	
Canton, OH	41	27	12	2	—	—	5		Colorado Springs, CO	85	59	17	6	1	2	1	
Chicago, IL	436	254	124	39	9	10	35		Denver, CO	76	47	21	5	—	3	6	
Cincinnati, OH	113	70	26	9	4	4	13		Las Vegas, NV	217	154	43	10	4	6	17	
Cleveland, OH	270	194	60	13	2	1	11		Ogden, UT	40	27	10	1	2	—	1	
Columbus, OH	212	141	49	9	5	8	16		Phoenix, AZ	82	41	25	7	5	4	3	
Dayton, OH	151	111	32	7	1	—	9		Pueblo, CO	42	32	8	1	1	—	3	
Detroit, MI	187	85	71	18	8	5	13		Salt Lake City, UT	135	92	29	9	2	3	9	
Evansville, IN	62	52	7	2	1	—	6		Tucson, AZ	163	117	30	10	3	3	7	
Fort Wayne, IN	69	47	13	4	2	3	2		Pacific	1,787	1,247	375	85	47	33	172	
Gary, IN	20	9	6	2	—	3	—		Berkeley, CA	17	13	3	—	—	1	—	
Grand Rapids, MI	72	49	16	5	2	—	7		Fresno, CA	115	72	23	8	7	5	9	
Indianapolis, IN	179	120	46	4	4	5	9		Glendale, CA	33	28	4	—	—	1	8	
Lansing, MI	57	47	8	2	—	—	6		Honolulu, HI	64	46	12	4	1	1	7	
Milwaukee, WI	92	63	23	3	1	2	6		Long Beach, CA	67	50	13	2	1	1	9	
Peoria, IL	52	41	10	1	—	—	11		Los Angeles, CA	257	175	56	14	7	5	32	
Rockford, IL	65	49	12	3	1	—	3		Pasadena, CA	29	24	3	—	—	2	—	
South Bend, IN	64	50	8	5	—	1	2		Portland, OR	84	59	15	5	3	2	5	
Toledo, OH	104	81	17	2	1	3	1		Sacramento, CA	212	136	59	11	3	3	24	
Youngstown, OH	67	54	10	1	—	2	7		San Diego, CA	228	162	41	12	8	5	21	
W.N. Central	648	446	139	31	22	10	26		San Francisco, CA	130	92	27	7	2	2	16	
Des Moines, IA	44	34	10	—	—	—	—		San Jose, CA	195	138	43	7	6	1	16	
Duluth, MN	35	26	5	4	—	—	2		Santa Cruz, CA	34	25	8	1	—	—	4	
Kansas City, KS	32	21	7	—	4	—	1		Seattle, WA	135	88	33	8	4	2	10	
Kansas City, MO	100	67	19	6	4	4	2		Spokane, WA	89	66	17	3	2	1	7	
Lincoln, NE	53	43	9	—	1	—	2		Tacoma, WA	98	73	18	3	3	1	4	
Minneapolis, MN	81	53	16	5	5	2	2		Total**	13,024	8,789	2,945	712	299	278	840	
Omaha, NE	86	62	16	5	3	—	8										
St. Louis, MO	68	31	26	7	3	1	4										
St. Paul, MN	55	43	8	1	1	2	3										
Wichita, KS	94	66	23	3	1	1	2										

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.

¶ Because of Hurricane Katrina, weekly reporting of deaths has been temporarily disrupted.

** Total includes unknown ages.

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