

**MMWR**<sup>TM</sup>  
**MORBIDITY AND MORTALITY  
WEEKLY REPORT**

- 485 Firearm-Associated Deaths and Hospitalizations — California, 1995–1996
- 488 Trichinellosis Outbreaks — Northrhine-Westfalia, Germany, 1998–1999
- 492 State-Specific Maternal Mortality Among Black and White Women — United States, 1987–1996
- 496 Notices to Readers

**Firearm-Associated Deaths and Hospitalizations —  
California, 1995–1996**

During 1995–1996, 27% of recorded injury-related deaths in California involved firearms (California Department of Health Services [CDHS], unpublished data, 1995–1996). In 1996, CDHS began passive surveillance of “severe” firearm-related injuries (i.e., resulting in death or hospitalization) with resources provided by the California Wellness Foundation (1). To characterize firearm-related injuries in California, CDHS analyzed death records and hospital discharge records for 1995 and 1996 (the most recent years for which population data are available to calculate rates). This report summarizes the results of the analysis, which indicate that most of the 21,985 firearm-related injuries and deaths resulted from assault.

CDHS compiles state death records annually from death certificates submitted by each county’s medical examiner or coroner, who investigates all firearm-related deaths. Patient discharge information from all nonfederal hospitals in California is reported to the Office of Statewide Health Planning and Development, which makes these data available for analysis. Data analyzed were for California residents for whom a firearm-related injury\* was listed as the underlying cause of death or external cause of injury resulting in hospitalization. Discharge records of patients who died in a hospital were excluded, and transfers or other subsequent hospitalizations were eliminated to avoid counting cases twice.

During 1995 and 1996, gunshots resulted in 8832 deaths and 13,153 nonfatal injuries resulting in hospitalization. Most firearm-related deaths resulted from assaults (4847 [55%]) and self-inflicted gunshots (3619 [41%]). Most hospitalizations resulted from assaults (10,495 [80%]) and unintentional firearm-related injuries (1769 [13%]). Lethality of firearm-related injuries varied by intent (assaultive, self-inflicted, or unin-

\* *International Classification of Diseases, Ninth Revision* (for death certificate data), and *International Classification of Diseases, Ninth Revision, Clinical Modification* (for hospital discharge data), codes E965.0–E965.4 (assault), E955.0–E955.4 (self-inflicted), E922 (unintentional), E970 (legal intervention), and E985.0–E985.4 (undetermined).

*Firearm-Associated Deaths and Hospitalizations — Continued*

tentional). Of all firearm-related injuries, 90% of self-inflicted gunshot wounds resulted in death compared with 32% of assaultive and 10% of unintentional injuries.

Assaultive and self-inflicted injuries accounted for 8466 (96%) firearm-related injury deaths and 10,915 (83%) nonfatal injuries resulting in hospitalization in California during 1995–1996 (Table 1); 7389 (87%) deaths and 9858 (90%) hospitalizations occurred among males. Although more whites than persons of any other racial/ethnic group died from firearm-related injuries, the death rate was highest for blacks (34.6 per 100,000 population), followed by Hispanics (15.2), whites (10.6), and Asians/Pacific Islanders (6.2). For whites, most firearm-related fatalities were suicides. The suicide rate for whites (8.1) was more than double the suicide rate for blacks, the next highest group. For nonfatal firearm-related injuries resulting in hospitalization, both number and rates were lower for whites (number: 1657; rate: 4.8) than for blacks (3143; 69.4) and Hispanics (5321; 28.9). Asians/Pacific Islanders had the fewest hospitalizations (473) but the third highest hospitalization rate (7.0).

Total firearm-related injury deaths and hospitalizations were substantially higher among adolescents and young adults (ages 15–24 years) than among persons in older age groups. Among older persons, the rate of fatal firearm-related assault decreased but the rate for suicide increased. Among persons aged 35–44 years and older, suicide was the most frequently reported manner of fatal firearm-related injuries; 919 firearm-related suicides occurred among persons aged  $\geq 65$  years compared with 73 firearm-related homicides and four unintentional firearm-related injury deaths.

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**Editorial Note:** The findings in this report demonstrate differences in fatal and nonfatal firearm-related injuries in California by focusing on the lethality of gunshots. Fatal and nonfatal firearm-related injury patterns are different, particularly among self-inflicted and unintentional injuries. During 1992–1993, data from the National Electronic Injury Surveillance System and vital statistics data indicated that the ratio of fatal firearm-related injuries to nonfatal injuries (including emergency department outpatients) was approximately 1:2.6 (2); in California, the ratio was 1:1.3. Analyses limited only to deaths or to hospitalizations give incomplete pictures of the problem. For example, only 10% of unintentional firearm-related injuries resulted in death, but 90% of self-inflicted firearm-related injuries resulted in death.

Some of the assaultive firearm-related injuries included in this report may have been inflicted in self-defense. The *International Classification of Diseases, Ninth Revision*, does not classify assaultive injuries as legally justifiable or unjustifiable. However, the California Department of Justice Supplemental Homicide Reports for 1995 and 1996 indicate that 2% of firearm-related homicides committed by persons other than peace officers were considered justifiable.

The findings in this report are subject to at least two limitations. First, the CDHS does not have statewide information on firearm-related injuries treated in emergency departments or outpatient settings. Injury reports from emergency departments will become mandatory in California on January 1, 2002<sup>†</sup>. Analyses of these reports will improve understanding of the incidence, cost, and nature of firearm-related injuries in

<sup>†</sup>California, Health and Safety Code amendments, 1997–1998, chapter 735, statutes of 1998.

**TABLE 1. Rate\* and total number of assaultive and self-inflicted firearm-related fatal and nonfatal injuries resulting in hospitalization†, by sex, race/ethnicity, and age of victim — California, 1995–1996**

Characteristic	Fatal injuries				Nonfatal injuries			
	Assault rate	Self-inflicted rate	Total		Assault rate	Self-inflicted rate	Total	
			Rate	No.			Rate	No.
<b>Sex</b>								
Male	13.2	9.7	22.9	7,389	29.5	1.0	30.5	9,858
Female	1.8	1.5	3.3	1,077	3.0	0.3	3.3	1,057
<b>Race/Ethnicity</b>								
White	2.4	8.1	10.6	3,621	4.0	0.8	4.8	1,657
Hispanic	12.5	2.6	15.2	2,797	28.3	0.5	28.9	5,321
Black	30.6	4.0	34.6	1,567	68.8	0.6	69.4	3,143
Asian/Pacific Islander	4.0	2.1	6.2	420	6.9	§	7.0	473
Other/Unknown¶	—	—	—	61	—	—	—	321
<b>Age (yrs)</b>								
0–14	0.9	0.2	1.2	178	2.5	§	2.6	396
15–24	24.8	5.6	30.3	2,567	68.8	1.1	69.9	5,917
25–34	13.6	5.8	19.4	2,102	23.5	0.9	24.5	2,648
35–44	5.9	6.0	11.9	1,272	11.2	0.9	12.0	1,285
45–54	4.1	6.9	11.1	824	4.8	0.7	5.4	406
55–64	2.4	8.9	11.4	531	2.8	0.6	3.4	158
≥65	1.1	13.3	14.3	992	0.9	0.6	1.5	105
<b>Total</b>	<b>7.5</b>	<b>5.6</b>	<b>13.1</b>	<b>8,466</b>	<b>16.3</b>	<b>0.7</b>	<b>16.9</b>	<b>10,915</b>

\*Per 100,000 population.

†*International Classification of Diseases, Ninth Revision* (for fatal injuries), and *International Classification of Diseases, Ninth Revision, Clinical Modification* (for nonfatal injuries), codes E965.0–E965.4 (assault) and E955.0–E955.4 (self-inflicted).

§ Rates not calculated for &lt;20 cases.

¶ Denominator data are unavailable to calculate rates.

*Firearm-Associated Deaths and Hospitalizations — Continued*

California. Second, this analysis excluded federal hospitals and non-California residents.

Few researchers have compared nonfatal and fatal firearm-related injuries (2–4). With assistance from CDC, systems permitting surveillance of both fatal and nonfatal firearm-related injuries have been developed in Colorado, Massachusetts, Missouri, New York City, Oklahoma, Washington, and Wisconsin (5). Other states and localities also conduct firearm injury surveillance (6).

Analyses such as the one described in this report can guide firearm-related injury prevention efforts by identifying populations at high risk for such injuries (e.g., blacks at risk for fatal and nonfatal firearm-related assault). These data also can contribute to analytic studies on costs associated with firearm-related injuries, evaluation of interventions and new laws, and assessment of firearm use in relation to other factors (e.g., alcohol use and domestic violence). One example would be to estimate the cost and health-care applications of firearm-related injuries by including persons who died after hospitalization in an analysis of hospital discharge data.

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**Trichinellosis Outbreaks — Northrhine-Westfalia, Germany, 1998–1999**

From November 1998 through January 1999, 52 cases of trichinellosis were identified by the public health surveillance systems in 11 cities and districts of the state of Northrhine-Westfalia (NRW), Germany. In comparison, zero to 10 cases were reported annually in Germany during 1987–1997. This report summarizes the investigation of these cases, which indicated the existence of two simultaneous outbreaks—one caused by contaminated ground meat and the other by a commercially prepared raw smoked sausage.

A case of trichinellosis was defined as a positive serologic test for *Trichinella* antibodies (IgG and/or IgM) in a NRW resident after September 1, 1998. Preliminary investigations indicated that 22 of 23 case-patients from 10 cities and districts in NRW had eaten a specific brand of raw smoked sausage made by company A; however, none of eight case-patients in Mettmann-Langenfeld (ML) had eaten this product. To identify the cause of each outbreak, two separate case-control studies were conducted. Case-patients and controls were interviewed by telephone using a standardized questionnaire. For case-patients, information about food consumption was gathered for the

*Trichinellosis — Continued*

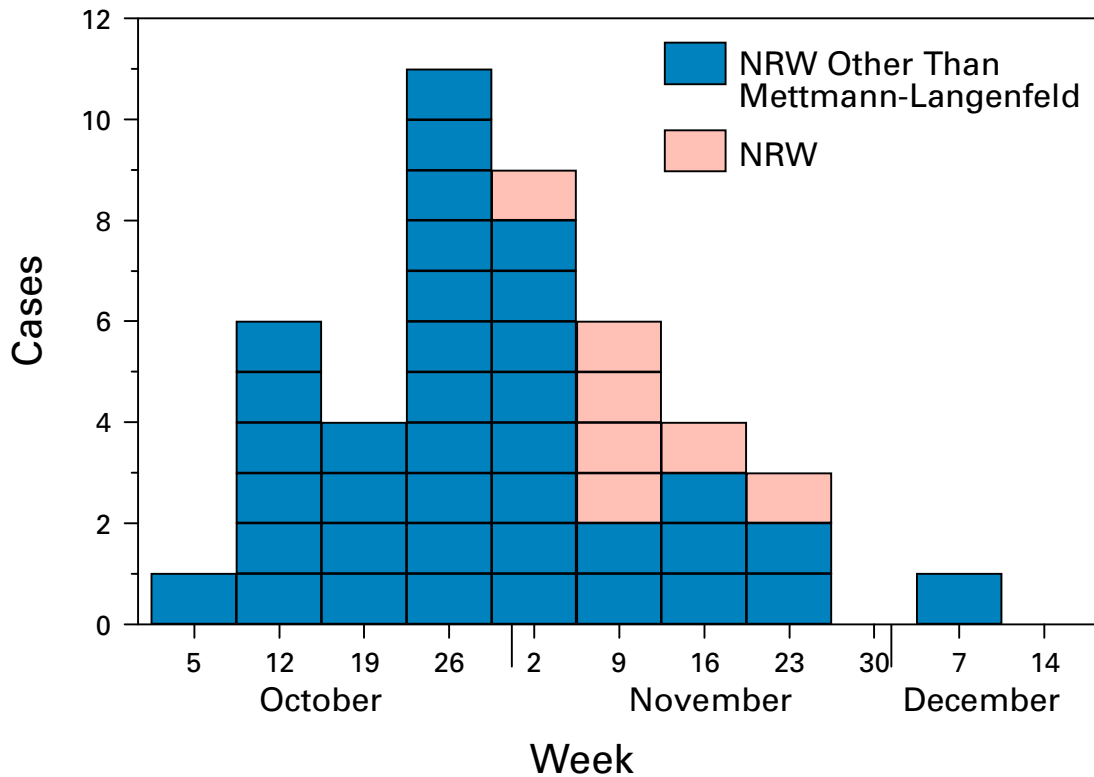
4 weeks before onset of illness; for controls, information was gathered from September 1, 1998, to the date of the interview. For each case-control study, controls were selected randomly from the same town using random-digit dialing. Analyses by individual cases and family clusters yielded similar results. Only data by individual cases are presented in this report.

**METTMANN-LANGENFELD**

**Case-Control Study**

Eight case-patients from ML were compared with 29 controls from the same area. Case-patients included a resident of another town who had eaten with ML case-patients. The seven symptomatic case-patients became ill during November 4–24, 1998 (Figure 1). Symptoms included myalgia (six patients [75%]), fever (five [63%]), headache (five [63%]), facial edema (four [50%]), and diarrhea (two [25%]). Seven case-patients received medical care; none was hospitalized. One control reported symptoms consistent with trichinellosis (i.e., myalgia, fever, and fatigue). Among the eight case-patients and 28 controls who had histories of eating ground pork, seven case-patients (88%) and 11 (39%) controls reported having eaten ground pork (odds ratio [OR]=10.8; p=0.02). Among the seven case-patients and 29 controls who had histories of eating ground mixed meat (beef and pork), all case-patients and 21 (72%) controls reported having eaten the product (OR=∞, p=0.3). No case-patients or con-

**FIGURE 1. Cases of trichinellosis, by week of symptom onset — Northrhine-Westfalia (NRW), Germany, weeks beginning October 5–December 20, 1998\***



\*Dates of illness onset were known for 45 of 46 symptomatic persons.

*Trichinellosis* — Continued

trols reported having eaten raw smoked sausage produced by company A. The location where the mixed meat and ground pork had been bought was available for six case-patients; all had obtained meat from supermarket A. In comparison, nine of 21 controls who had eaten mixed meat (OR= $\infty$ ,  $p=0.02$ ) and three of 11 controls who had eaten ground pork (OR= $\infty$ ,  $p=0.009$ ) had bought it from supermarket A.

**Environmental Investigation**

Frozen samples of ground meat bought in early November at supermarket A were collected from three case-families in ML. Larvae of *Trichinella* were detected in one sample of ground mixed meat. Supermarket A belongs to a chain of supermarkets with a central meat distribution station. During the week in which the contaminated meat was processed, the company had bought pork from nine different abattoirs in Germany, Belgium, and the Netherlands that had received pigs from approximately 40 producers. It was not possible to determine which producer provided the contaminated meat.

**NORTHRHINE-WESTFALIA OTHER THAN METTMANN-LANGENFELD****Case-Control Study**

Forty-four cases were identified from 10 cities in NRW other than ML. The 38 symptomatic case-patients with known dates of symptom onset became ill during October 6–December 8, 1998 (Figure 1). Additional data were obtained from 39 of the 44 case-patients and from 44 controls from the same area. Symptoms included myalgia (30 [77%]), fever (28 [72%]), headache (21 [54%]), diarrhea (19 [49%]), and facial edema (17 [44%]). One control reported typical symptoms of trichinellosis (i.e., diarrhea, headache, fever, myalgia, and leg edema). Of 39 case-patients, 32 (82%) received medical care, and 15 (38%) were hospitalized for a median of 13 days (range: 1–64 days). Among the 38 case-patients and 43 controls who had histories of eating smoked sausage, all case-patients and 30 (47%) controls reported having eaten raw smoked sausage (OR= $\infty$ ;  $p<0.0001$ ). Of 38 case-patients, 34 reported having eaten raw smoked sausage produced by company A (OR= $\infty$ ;  $p<0.0001$ ); no controls reported eating the product. Case-patients were more likely than controls to have eaten ground pork (OR=6.2;  $p=0.001$ ), mixed ground meat (OR=7.0;  $p=0.0002$ ), and sandwiches with raw ground meat (OR=4.7;  $p=0.002$ ). To control for possible confounding by smoked sausage consumption, a stratified analysis was conducted using only case-patients and controls who had eaten smoked sausage. The strength of association between consumption of ground pork (OR=2.6;  $p=0.2$ ), ground mixed meat (OR=2.7;  $p=0.2$ ), or sandwiches with raw ground meat (OR=2.0;  $p=0.3$ ) and illness was lower among these persons.

**Environmental Investigation**

Because the usual incubation period of trichinellosis is 8–15 days, the environmental investigation focused on the meat that had been used for sausage production during the last week of September. During this week, company A had produced its sausages from deep frozen pork from Belgium and Germany and from 1650 lbs (750 kg) of fresh pork neck from Spain. Samples from neither the meat nor the sausages remained for investigation. Samples from later production lots were negative for trichinellosis.

*Trichinellosis — Continued*

The meat from Belgium and Germany had been frozen at 5 F (–15 C) for at least 20 days. The trichinellosis control certificates for the fresh pork neck provided by the abattoir in Spain had control numbers that did not match the control numbers on the meat. Further investigations are ongoing.

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**Editorial Note:** The findings in this report indicate the existence of two outbreaks of trichinellosis. Because the exact source of the meat from either outbreak could not be determined, it is unclear whether the outbreaks were related. The large outbreak from the smoked sausage could have heightened awareness of trichinellosis in NRW, which resulted in the identification of the small outbreak that may have been otherwise unnoticed.

The 52 cases identified in these outbreaks may represent only a fraction of persons actually infected. The severity of trichinellosis varies from asymptomatic infection to death; however, only persons ill enough to seek medical care or their family members were identified in this investigation. In addition, the approximately 1650 lbs (750 kg) of fresh pork was sufficient to produce an estimated 10,000–40,000 sausages (W. Lotz, Veterinary Department, Essen, personal communication, 1999), which were distributed in at least 10 cities and districts with approximately 2 million inhabitants. As a result, hundreds of persons potentially were exposed. Approximately 2% of controls had symptoms compatible with trichinellosis.

Trichinellosis outbreaks in Europe typically are caused by meat or meat products distributed locally from a single infected animal (1–6). In comparison, the smoked sausage outbreak described in this report was caused by a widely distributed commercial product made from domestically produced meat and meat imported from several countries. The nature of this outbreak reflects a new foodborne outbreak scenario in which localized outbreaks are replaced by diffuse outbreaks spread over wide areas (7). These diffuse outbreaks, which result from low-level contamination of commercial food products, may not become apparent immediately unless the pathogen is unusual, such as occurred in this outbreak, or unless specific surveillance systems are designed to detect them (7).

In Germany, trichinellosis screening of all pork has been mandatory since 1937. The extremely low prevalence of *Trichinella* in pigs—three or fewer infected pigs identified among approximately 40 million pigs slaughtered each year in Germany—has led to debate about the need for continued routine testing of all slaughtered pigs. This outbreak indicates that it may be difficult to maintain a sufficient sensitivity of screening to prevent all outbreaks under routine conditions. Screening of meat for *Trichinella* involves visual identification of the larvae. The extremely low prevalence of trichinellosis among pigs may lead to a lack of experience in identifying positive samples, worker fatigue, and complacency. Nevertheless, this outbreak demonstrates that

*Trichinellosis — Continued*

modern mass food production can produce large outbreaks of trichinellosis when screening is absent or fails.

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### **State-Specific Maternal Mortality Among Black and White Women — United States, 1987–1996**

One of the national health objectives for 2000 is to reduce the overall maternal mortality ratio\* ([MMR] i.e., number of maternal deaths per 100,000 live-born infants) to no more than 3.3 (objective 14.3) (1); however, during 1982–1996, the MMR remained at approximately 7.5 (2). In addition, the risk for maternal mortality consistently has been higher among black women than white women. This report presents state-specific MMRs for 1987–1996, focusing on persistent disparities in maternal mortality between black and white women. The findings indicate that in every state where MMRs could be reliably calculated, black women were more likely than white women to die from complications of pregnancy and that the 2000 objective will not be met; however, for white women, it has been met in three states.

MMRs were calculated using information from birth and death certificates filed in state vital statistics offices and compiled by CDC's National Center for Health Statistics (3,4). Maternal deaths were defined as deaths that occurred during pregnancy or within 42 days after pregnancy termination, regardless of pregnancy duration and site, from any cause related to or aggravated by the pregnancy, but not from accidental† or incidental causes.§ Cause of death is recorded on the death certificate by the attending physician, medical examiner, or coroner. For the denominator (live-born in-

\*CDC's National Center for Health Statistics uses the term "rate" when reporting this indicator of maternal mortality. The term "ratio" is used instead of rate in this report because the numerator includes some maternal deaths that were not related to live-born infants and thus were not included in the denominator.

†When a death occurs under "accidental" circumstances, the preferred term within the public health community is "unintentional injury."

§ *International Classification of Diseases, Ninth Revision*, codes 630–676.



*Maternal Mortality — Continued*

fants), maternal race as indicated on the birth certificate was used; for the numerator (maternal deaths), maternal race as indicated on the death certificate was used. Data for racial groups other than black and white are not presented separately because numbers were too small to provide reliable estimates; however, data for other races were included in the totals for each state. Data for Hispanic women were not available from all states and were not analyzed.

Data from states with fewer than seven maternal deaths for black and white women were considered unreliable and were not reported (relative standard error [RSE]: >38%). Data for states with seven–19 maternal deaths for black and white women were reported. RSE for these maternal deaths was 23%–38%; however, data were not considered as reliable as those for states with at least 20 maternal deaths. Total MMRs were presented for all states, regardless of the total number of deaths.

During 1987–1996, for black women, MMRs in 26 states ranged from 8.7 (Massachusetts) to 28.7 (New York) (Table 1); for white women, MMRs in 41 states ranged from 2.7 (Massachusetts) to 9.2 (Vermont). The MMR for black women was higher than for white women in every state where ratios could be calculated. The black:white ratio of MMRs ranged from 2.6 (Iowa, Maryland, and South Carolina) to 6.3 (Michigan).

Total MMRs ranged from 1.9 (New Hampshire) to 22.8 (District of Columbia). Eight states and the District of Columbia had significantly higher MMRs than the national MMR. Because the MMR for black women was 3–6 times higher than for white women, states with higher percentages of births to black women tended to have higher total MMRs (Table 1).

To discern possible trends in maternal mortality, data were divided into two 5-year periods (1987–1991 and 1992–1996). The national MMR was 7.7 for each time period. The MMR did not differ significantly between these periods for black women (18.8 and 20.3, respectively) or for white women (5.5 and 5.0, respectively). The difference in MMRs for the two time periods was not significant in 48 states and the District of Columbia.

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**Editorial Note:** Although no progress has been made in achieving the 2000 objective to reduce maternal mortality, the findings in this report indicate that for white women, the goal has been achieved in three states (Massachusetts, Nebraska, and Washington) and has almost been met in eight other states (MMRs of <4). Therefore, in the United States, lower levels of maternal mortality can be achieved.

The proposed 2010 objective for maternal mortality using vital statistics data remains at 3.3 per 100,000 live-born infants. A focus for the 2010 objectives is to eliminate racial disparities in maternal mortality. The fourfold increase nationally in risk for maternal death among black women compared with white women is one of the largest racial disparities among major public health indicators; no improvement has occurred during 1987–1996 (2,5). Race and ethnicity are not risk factors for maternal mortality but instead may be markers of social, economic, cultural, health-care access and quality, and other interrelated factors that may increase the risk for death among pregnant women.

Black women have a higher risk than white women for dying from every pregnancy-related cause of death reported, including the three leading causes (i.e., hemor-

## Maternal Mortality — Continued

**TABLE 1. Maternal mortality ratios\* (MMRs) for black and white women, by state — United States, 1987–1996†**

State	MMR		Black:White ratio <sup>§</sup>	Total MMR	(95% CI <sup>¶</sup> )	% Births to black women
	Black	White				
Alabama	21.1	6.7	3.1	11.7	( 9.2–14.7)	34.0
Alaska	**	**	—	3.6**	( 1.0– 9.2)	4.5
Arizona	**	4.0	—	5.2	( 3.7– 7.2)	3.5
Arkansas	12.4 <sup>††</sup>	4.1 <sup>††</sup>	3.0	6.2	( 3.9– 9.4)	22.9
California	17.9	6.9	2.6	8.1	( 7.3– 8.8)	7.9
Colorado	**	6.5	—	6.9	( 4.8– 9.4)	5.2
Connecticut	**	5.0	—	5.3	( 3.4– 7.8)	12.5
Delaware	**	**	—	3.8**	( 1.0– 9.7)	23.5
District of Columbia	25.7	**	—	22.8	(16.4–34.0)	77.7
Florida	24.8	5.3	4.7	9.7	( 8.3–11.1)	23.1
Georgia	20.3	5.5	3.7	10.7	( 8.8–12.7)	35.3
Hawaii	**	**	—	4.6 <sup>††</sup>	( 2.5– 7.7)	5.7
Idaho	**	6.7 <sup>††</sup>	—	6.1 <sup>††</sup>	( 3.3–10.2)	0.4
Illinois	21.3	4.3	5.0	7.5	( 6.2– 8.7)	20.1
Indiana	13.3 <sup>††</sup>	4.0	3.3	4.5	( 3.2– 6.1)	9.3
Iowa	**	5.6 <sup>††</sup>	—	5.1	( 3.1– 7.9)	2.6
Kansas	27.3 <sup>††</sup>	5.2 <sup>††</sup>	5.2	6.3	( 4.1– 9.3)	7.3
Kentucky	**	7.0	—	6.7	( 4.7– 9.2)	8.4
Louisiana	18.9	6.2	3.0	11.7	( 9.3–14.5)	41.3
Maine	**	**	—	6.3 <sup>††</sup>	( 3.0–11.6)	0.5
Maryland	15.9	6.1	2.6	9.1	( 7.1–11.5)	31.5
Massachusetts	8.7 <sup>††</sup>	2.7	3.2	3.1	( 2.1– 4.6)	9.4
Michigan	22.6	3.6	6.3	7.5	( 6.0– 8.9)	19.6
Minnesota	**	3.4 <sup>††</sup>	—	3.8	( 2.5– 5.6)	4.1
Mississippi	20.5	5.1 <sup>††</sup>	4.0	12.3	( 9.2–16.1)	47.4
Missouri	15.3 <sup>††</sup>	5.8	2.7	7.4	( 5.6– 9.6)	16.4
Montana	**	**	—	3.5**	( 1.0– 8.9)	0.3
Nebraska	**	3.2 <sup>††</sup>	—	3.4 <sup>††</sup>	( 1.5– 6.7)	5.4
Nevada	**	5.9 <sup>††</sup>	—	6.4 <sup>††</sup>	( 3.5–10.8)	8.9
New Hampshire	**	**	—	1.9**	( 0.4– 5.4)	0.6
New Jersey	19.0	3.9	4.9	6.9	( 5.4– 8.5)	19.1
New Mexico	**	7.0 <sup>††</sup>	—	9.5	( 6.2–13.9)	1.9
New York	28.7	7.6	3.8	12.0	(10.7–13.3)	21.3
North Carolina	21.2	6.3	3.4	11.9	( 9.8–14.1)	28.4
North Dakota	**	6.1 <sup>††</sup>	—	7.7 <sup>††</sup>	( 3.1–15.8)	0.9
Ohio	16.8	4.5	3.7	6.3	( 5.1– 7.6)	15.3
Oklahoma	18.4 <sup>††</sup>	4.6 <sup>††</sup>	4.0	6.2	( 4.1– 8.9)	10.4
Oregon	**	3.6 <sup>††</sup>	—	4.6	( 2.7– 7.1)	2.2
Pennsylvania	20.5	3.9	5.2	6.4	( 5.2– 7.7)	14.7
Rhode Island	**	**	—	4.3**	( 1.6– 9.3)	7.6
South Carolina	17.4	6.6	2.6	10.8	( 8.2–14.0)	37.9
South Dakota	**	**	—	3.7**	( 1.0– 9.4)	0.7
Tennessee	19.5	4.9	4.0	8.2	( 6.3–10.6)	23.2
Texas	17.4	6.3	2.7	7.7	( 6.8– 8.7)	13.1
Utah	**	4.5 <sup>††</sup>	—	4.3 <sup>††</sup>	( 2.4– 7.0)	0.6
Vermont	**	9.2 <sup>††</sup>	—	9.1 <sup>††</sup>	( 3.7–18.7)	0.3
Virginia	12.0	3.8	3.2	5.8	( 4.4– 7.5)	23.8
Washington	**	3.0	—	3.3	( 2.1– 4.8)	3.9
West Virginia	**	5.7 <sup>††</sup>	—	5.9 <sup>††</sup>	( 3.2–10.2)	3.7
Wisconsin	16.2 <sup>††</sup>	3.9	4.1	5.3	( 3.7– 7.3)	9.7
Wyoming	**	**	—	5.9**	( 1.6–15.2)	1.0
<b>Total</b>	<b>19.6</b>	<b>5.3</b>	<b>3.7</b>	<b>7.7</b>	<b>( 7.4– 8.0)</b>	<b>16.0</b>

\* Maternal deaths per 100,000 live-born infants. CDC's National Center for Health Statistics uses the term "rate" when reporting this indicator of maternal mortality. The term "ratio" is used instead of rate in this report because the numerator includes some maternal deaths that were not related to live-born infants and thus were not included in the denominator.

† n=3086.

§ All ratios are significantly greater than 1.0 (p<0.02).

¶ Confidence interval.

\*\* Point estimates for states with fewer than seven maternal deaths for 1987–1996 are considered unreliable (relative standard error [RSE]: >38%).

†† Point estimates for states with seven–19 maternal deaths for 1987–1996 are considered less reliable (RSE: 23%–38%) than estimates from states with >19 maternal deaths.

*Maternal Mortality — Continued*

rhage, pregnancy-induced hypertension, and embolism) (6). Although prenatal care reduces the risk for maternal mortality, health-care access and use do not explain fully the disproportionate risk for maternal death for black women (7). Other factors, such as quality of prenatal, delivery, and postpartum care, and interaction between health-seeking behaviors and satisfaction with care, may explain part of this difference. Epidemiologic, sociologic, health-care delivery, and program research are needed to identify key factors that may contribute to the disparity between black and white women in maternal health whether at the individual, clinic, community, or health systems level.

The wide disparity that exists among states for both black and white MMRs is not attributable solely to small numbers. However, vital statistics data do not include information necessary to assess risk factors and case-fatality rates that may have contributed to these state-to-state disparities.

The findings in this report are subject to at least two limitations. First, although U.S. vital statistics data during 1987–1996 indicated that 3086 women died because of pregnancy complications, these data are underestimates because of misclassification on death certificates. Misclassification occurs when the cause of death on the death certificate does not reflect the relation between a woman's pregnancy and her death. The estimated number of maternal deaths is 1.3–3.0 times higher than that reported in vital statistics records (6). If a maternal mortality review discovers that the cause of death on the death certificate is reported incorrectly, the certifying physician should be contacted to file an amended record. Second, misclassification of race on death certificates may vary among the states and are not known.

To identify interventions that may reduce maternal mortality, 25 states have reestablished maternal mortality review committees. These committees review factors that may have contributed to maternal deaths, including the quality of medical care and problems in the health-care delivery system. All states should implement such review mechanisms to help identify and investigate maternal deaths, discuss each case in a multidisciplinary process, disseminate findings, and provide recommendations for preventing future deaths. Both public health surveillance and prevention research are needed to understand the underlying causes of maternal mortality and the disparity between black and white women and to guide appropriate interventions and improvements in maternal health care.

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*Maternal Mortality — Continued*

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*Notice to Readers***National HIV Testing Day — June 27, 1999**

June 27 is National HIV Testing Day. The purpose of National HIV Testing Day is to educate the public about HIV counseling and testing and encourage voluntary counseling and testing for those at risk for HIV infection as a critical step in personal control and responsibility for one's health.

On June 27, from 7 p.m. to 7:45 p.m. eastern time, CDC will present its first National HIV Testing Day Webcast. Participants are invited to visit <http://www.hivtest.org>\* for information about HIV testing and HIV/AIDS prevention. Transcripts of the webcast will be available online at the same address through the end of July.

The National Association of People with AIDS created National HIV Testing Day in 1995. In 1998, campaign participants included approximately 10,000 health departments; national, state, and local organizations; and the news media. Data from CDC's National Counseling and Testing Data System indicate that, in each of the past 3 years, the number of persons tested for HIV antibody in publicly funded HIV testing sites during the week of National HIV Testing Day was higher than the number during the previous week (CDC, unpublished data, 1998). These data also show an increase in the number of HIV-positive persons tested.

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

*Notice to Readers***Opening of Nonoccupational HIV Postexposure Prophylaxis Registry**

Effective June 7, 1999, the National Nonoccupational HIV Postexposure Prophylaxis (PEP) Registry opened for enrollment. The registry was established as a prospective surveillance project to monitor isolated episodes of potential HIV exposures through sexual activity, injecting-drug use, and other nonoccupational events. Receipt of antiretroviral PEP is not an eligibility requirement for enrollment in the registry. Registration and data collection are available through telephone, fax, postal mail, and a World-Wide Web site.

Information is being confidentially collected about the type of exposure, the decision to use or not use PEP, drugs taken, risk-reduction referrals made, and results of HIV-antibody tests. No names or other identifying information about patients will be collected. Information will be reported nationally and used in collaboration with data in the registries of other nations to monitor the use of PEP for nonoccupational HIV

*Notice to Readers — Continued*

exposures and its clinical outcomes. Providers will receive a small reimbursement for the time spent reporting.

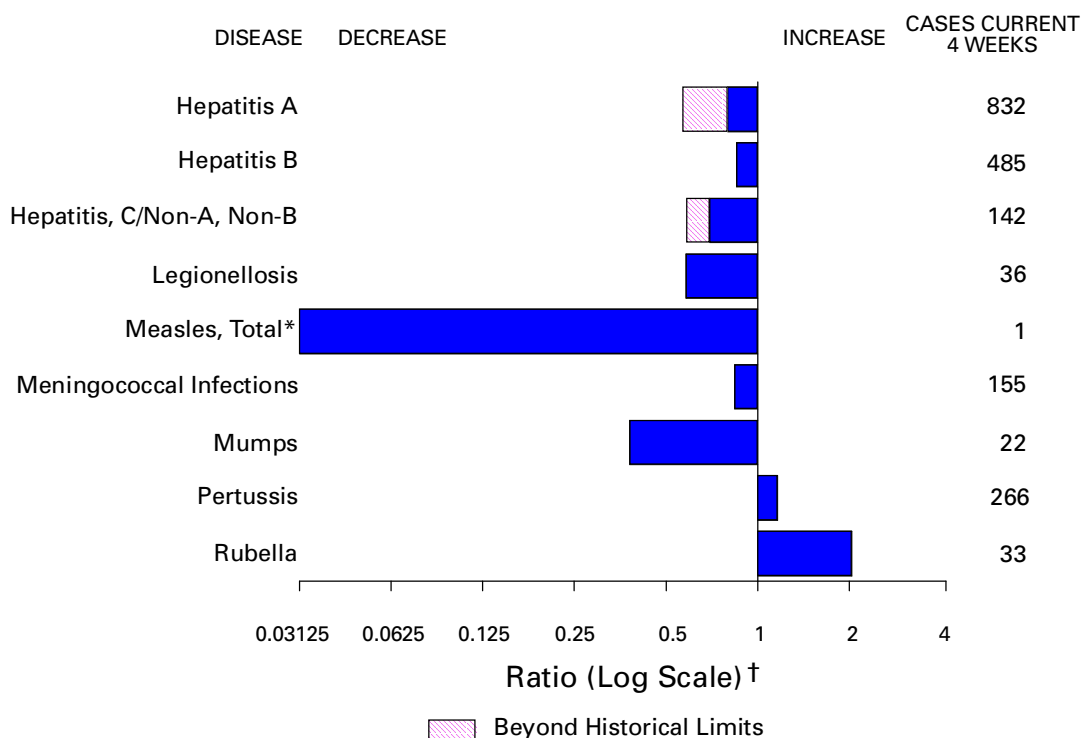
Additional information about the registry is available from the Nonoccupational HIV PEP Registry, telephone (toll-free 24 hours) (877) 448-1737 or the World-Wide Web, <http://www.HIVpepregistry.org>.\*

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**FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending June 12, 1999, with historical data — United States**



\*The large apparent decrease in the number of reported cases of measles (total) reflects dramatic fluctuations in the historical baseline. (Ratio [log scale] for week 23 measles [total] is 0.023184.)

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

**TABLE I. Summary — provisional cases of selected notifiable diseases, United States, cumulative, week ending June 12, 1999 (23rd Week)**

	Cum. 1999		Cum. 1999
Anthrax	-	HIV infection, pediatric* <sup>5</sup>	73
Brucellosis*	15	Plague	1
Cholera	2	Poliomyelitis, paralytic	-
Congenital rubella syndrome	3	Psittacosis*	14
Cyclosporiasis*	7	Rabies, human	-
Diphtheria	-	Rocky Mountain spotted fever (RMSF)	86
Encephalitis: California*	2	Streptococcal disease, invasive Group A	1,053
eastern equine*	2	Streptococcal toxic-shock syndrome*	21
St. Louis*	-	Syphilis, congenital <sup>¶</sup>	65
western equine*	1	Tetanus	9
Ehrlichiosis	29	Toxic-shock syndrome	52
human granulocytic (HGE)*	5	Trichinosis	5
human monocytic (HME)*	37	Typhoid fever	124
Hansen Disease*	7	Yellow fever	-
Hantavirus pulmonary syndrome* <sup>†</sup>	15		
Hemolytic uremic syndrome, post-diarrheal*			

-:no reported cases

\*Not notifiable in all states.

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

<sup>5</sup> Updated monthly from reports to the Division of HIV/AIDS Prevention—Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), last update May 23, 1999.

<sup>¶</sup> Updated from reports to the Division of STD Prevention, NCHSTP.

**TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending June 12, 1999, and June 13, 1998 (23rd Week)**

Reporting Area	AIDS		Chlamydia		Cryptosporidiosis		<i>Escherichia coli</i> O157:H7*			
	Cum. 1999 <sup>†</sup>	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	NETSS		PHLIS	
							Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
UNITED STATES	18,649	19,858	245,876	252,988	592	879	584	569	296	453
NEW ENGLAND	953	620	8,708	9,070	27	66	88	82	71	76
Maine	22	13	193	399	8	14	5	6	-	-
N.H.	24	13	420	429	5	3	11	11	7	16
Vt.	6	10	222	168	6	8	8	1	1	2
Mass.	627	264	4,006	3,705	8	37	39	45	36	42
R.I.	60	60	1,042	1,109	-	4	4	3	6	1
Conn.	214	260	2,825	3,260	-	-	21	16	21	15
MID. ATLANTIC	4,463	5,687	31,043	26,575	90	294	35	51	7	19
Upstate N.Y.	531	714	N	N	49	171	29	36	-	-
N.Y. City	2,110	3,149	16,503	11,912	22	91	-	6	2	6
N.J.	967	986	4,263	5,137	9	9	6	9	5	11
Pa.	855	838	10,277	9,526	10	23	N	N	-	2
E.N. CENTRAL	1,289	1,510	36,418	43,550	48	96	101	108	47	95
Ohio	209	287	9,635	11,853	16	37	39	21	8	17
Ind.	169	292	4,515	4,706	8	20	15	26	10	21
Ill.	594	598	12,400	11,361	7	26	27	40	12	22
Mich.	252	251	9,868	9,739	17	13	20	21	11	17
Wis.	65	82	U	5,891	-	-	N	N	6	18
W.N. CENTRAL	389	345	13,601	15,112	39	79	103	63	38	52
Minn.	69	55	2,836	3,090	14	28	30	23	21	22
Iowa	44	20	1,213	1,881	8	16	14	13	4	8
Mo.	154	175	5,099	5,277	6	7	13	10	9	18
N. Dak.	4	4	325	443	4	7	3	1	-	1
S. Dak.	11	9	733	721	2	9	3	1	4	1
Nebr.	34	34	1,234	1,303	4	11	32	7	-	-
Kans.	73	48	2,161	2,397	1	1	8	8	-	2
S. ATLANTIC	5,239	4,979	56,362	48,107	138	75	74	32	37	46
Del.	72	57	1,242	1,126	-	-	2	-	-	1
Md.	560	572	4,511	3,663	6	7	5	11	-	6
D.C.	208	412	N	N	4	3	-	-	-	-
Va.	266	368	6,526	4,401	6	1	21	-	14	22
W. Va.	26	44	922	1,065	-	1	4	1	1	2
N.C.	356	333	9,961	10,076	3	N	15	9	10	8
S.C.	485	313	8,251	8,307	-	-	8	1	3	-
Ga.	826	610	12,211	10,583	75	21	6	4	-	-
Fla.	2,440	2,270	12,738	8,886	44	42	13	6	9	7
E.S. CENTRAL	844	784	16,890	17,330	8	15	47	43	19	22
Ky.	128	101	2,918	2,715	2	5	13	11	-	-
Tenn.	339	268	6,253	5,589	4	6	21	20	12	14
Ala.	214	232	3,811	4,412	1	N	10	9	6	7
Miss.	163	183	3,908	4,614	1	4	3	3	1	1
W.S. CENTRAL	2,091	2,463	32,451	37,974	31	14	19	23	11	7
Ark.	70	81	2,534	1,520	-	3	5	1	3	2
La.	410	412	7,425	5,719	21	5	3	-	3	1
Okla.	54	134	3,388	4,483	1	3	6	3	5	4
Tex.	1,557	1,836	19,104	26,252	9	3	5	19	-	-
MOUNTAIN	723	706	14,339	14,113	33	60	45	62	24	45
Mont.	4	13	654	556	4	3	3	3	-	-
Idaho	11	14	527	846	2	14	1	6	2	1
Wyo.	3	1	333	292	-	-	3	1	4	2
Colo.	144	126	3,405	3,676	4	2	17	14	9	11
N. Mex.	37	111	1,731	1,684	14	25	2	9	1	6
Ariz.	355	283	5,546	4,737	7	10	9	10	4	9
Utah	70	57	821	976	-	-	8	13	2	10
Nev.	99	101	1,322	1,346	2	6	2	6	2	6
PACIFIC	2,658	2,764	36,064	41,157	178	180	72	105	42	91
Wash.	153	196	5,302	4,720	-	-	23	22	16	30
Oreg.	63	87	2,583	2,221	73	17	18	26	12	24
Calif.	2,394	2,428	26,334	32,331	105	162	31	56	13	34
Alaska	6	12	847	867	-	-	-	1	-	-
Hawaii	42	41	998	1,018	-	1	-	-	1	3
Guam	1	-	-	163	-	-	N	N	-	-
P.R.	625	830	U	U	-	-	6	4	U	U
V.I.	13	17	N	N	-	-	N	N	U	U
Amer. Samoa	-	-	U	U	-	-	N	N	U	U
C.N.M.I.	-	-	N	N	-	-	N	N	U	U

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

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

<sup>†</sup>Updated monthly from reports to the Division of HIV/AIDS Prevention—Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, last update May 23, 1999.



**TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending June 12, 1999, and June 13, 1998 (23rd Week)**

Reporting Area	Gonorrhea		Hepatitis C/NA,NB		Legionellosis		Lyme Disease	
	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
UNITED STATES	131,814	145,434	1,131	1,960	402	487	2,072	2,388
NEW ENGLAND	2,636	2,531	74	37	26	24	360	672
Maine	15	19	1	-	3	1	-	11
N.H.	33	43	-	-	3	2	-	11
Vt.	26	13	2	2	3	1	-	3
Mass.	1,142	882	68	34	9	10	200	179
R.I.	257	166	3	1	2	4	22	30
Conn.	1,163	1,408	-	-	6	6	138	438
MID. ATLANTIC	16,838	15,663	76	185	88	106	1,273	1,307
Upstate N.Y.	2,569	2,885	47	138	25	28	568	579
N.Y. City	6,977	5,354	-	-	7	23	6	57
N.J.	2,315	3,117	-	-	5	4	118	193
Pa.	4,977	4,307	29	47	51	51	581	478
E.N. CENTRAL	23,925	28,790	332	234	107	174	45	117
Ohio	5,710	7,215	-	6	29	62	27	18
Ind.	2,640	2,751	-	4	35	31	15	5
Ill.	8,674	9,240	9	26	10	22	2	4
Mich.	6,901	7,185	323	198	30	28	1	6
Wis.	U	2,399	-	-	3	31	U	84
W.N. CENTRAL	5,528	7,079	57	17	20	27	30	25
Minn.	1,083	1,066	2	5	1	3	13	9
Iowa	280	571	-	5	11	5	9	10
Mo.	2,625	3,797	51	5	7	8	-	3
N. Dak.	31	37	-	-	-	-	1	-
S. Dak.	70	119	-	-	1	-	-	-
Nebr.	552	493	-	2	-	9	-	1
Kans.	887	996	4	-	-	2	7	2
S. ATLANTIC	40,404	38,958	115	51	44	53	240	196
Del.	731	605	-	-	4	7	9	10
Md.	4,049	4,116	25	5	4	11	162	153
D.C.	1,042	1,539	-	-	-	3	1	4
Va.	4,317	2,721	9	4	11	5	17	13
W. Va.	243	372	12	3	N	N	7	4
N.C.	8,542	8,430	23	12	8	6	28	5
S.C.	4,484	5,407	12	1	6	5	3	1
Ga.	7,967	8,672	1	9	-	-	-	2
Fla.	9,029	7,096	33	17	11	15	13	4
E.S. CENTRAL	13,442	16,405	117	69	55	23	43	23
Ky.	1,332	1,526	6	12	44	12	18	8
Tenn.	4,819	4,720	43	54	9	4	13	7
Ala.	3,648	5,715	1	3	2	3	6	8
Miss.	3,643	4,444	67	-	-	4	6	-
W.S. CENTRAL	18,321	22,526	119	383	1	15	2	9
Ark.	1,216	1,741	2	10	-	1	-	5
La.	5,919	4,760	96	9	1	1	-	-
Okla.	1,717	2,429	2	2	-	6	2	-
Tex.	9,469	13,596	19	362	-	7	-	4
MOUNTAIN	3,933	3,746	69	226	23	27	5	2
Mont.	21	23	4	4	-	1	-	-
Idaho	28	74	4	79	-	-	1	-
Wyo.	11	15	24	57	-	1	1	1
Colo.	926	1,000	12	12	4	5	-	-
N. Mex.	311	329	4	40	1	2	1	-
Ariz.	2,055	1,710	16	3	3	3	-	-
Utah	76	95	2	15	9	13	1	-
Nev.	505	500	3	16	6	2	1	1
PACIFIC	6,787	9,736	172	758	38	38	74	37
Wash.	941	796	7	10	8	4	1	1
Oreg.	358	299	7	10	1	-	2	7
Calif.	5,217	8,285	158	683	28	33	71	29
Alaska	143	149	-	1	1	-	-	-
Hawaii	128	207	-	54	-	1	-	-
Guam	-	19	-	-	-	1	-	-
P.R.	133	178	-	-	-	-	-	-
V.I.	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	-	16	-	-	-	-	-	-

N: Not notifiable

U: Unavailable

-: no reported cases

**TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending June 12, 1999, and June 13, 1998 (23rd Week)**

Reporting Area	Malaria		Rabies, Animal		Salmonellosis*			
	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	NETSS		PHLIS	
					Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
UNITED STATES	466	506	2,348	3,256	11,033	12,655	5,053	7,412
NEW ENGLAND	17	19	373	615	700	846	134	190
Maine	1	1	71	111	48	63	2	4
N.H.	-	3	26	33	38	57	7	6
Vt.	1	-	56	30	25	32	4	4
Mass.	7	13	76	194	400	449	80	120
R.I.	-	2	45	35	38	53	14	15
Conn.	8	-	99	212	151	192	27	41
MID. ATLANTIC	115	152	430	667	1,490	2,181	355	1,160
Upstate N.Y.	33	32	286	465	378	477	93	208
N.Y. City	38	86	U	U	373	714	95	384
N.J.	27	19	85	86	307	469	103	381
Pa.	17	15	59	116	432	521	64	187
E.N. CENTRAL	47	49	34	49	1,432	2,239	767	1,141
Ohio	8	2	10	33	326	516	239	269
Ind.	8	2	-	4	159	206	38	73
Ill.	17	22	-	4	529	696	297	604
Mich.	12	20	22	6	380	450	145	109
Wis.	2	3	2	2	38	371	48	86
W.N. CENTRAL	21	29	278	340	658	745	379	378
Minn.	5	13	47	60	185	204	43	73
Iowa	6	3	55	70	83	131	6	25
Mo.	9	10	8	18	217	202	288	44
N. Dak.	-	1	76	58	15	18	2	4
S. Dak.	-	-	44	79	37	26	8	19
Nebr.	-	-	2	2	40	58	14	200
Kans.	1	2	46	53	81	106	18	13
S. ATLANTIC	133	107	898	1,108	2,318	2,151	965	1,330
Del.	1	1	27	17	41	24	6	7
Md.	39	40	189	241	285	300	54	88
D.C.	9	7	-	-	35	43	25	9
Va.	21	18	225	295	299	340	32	66
W. Va.	1	-	52	40	39	56	4	7
N.C.	10	8	184	291	366	321	84	115
S.C.	1	3	70	68	137	133	43	69
Ga.	12	13	71	68	385	325	95	339
Fla.	39	17	80	88	731	609	622	630
E.S. CENTRAL	9	13	124	133	605	582	542	381
Ky.	2	1	19	17	136	130	83	75
Tenn.	4	7	44	75	161	182	370	59
Ala.	2	3	61	39	184	151	50	219
Miss.	1	2	-	2	124	119	39	28
W.S. CENTRAL	8	12	46	98	801	900	727	1,391
Ark.	-	1	-	19	128	90	44	67
La.	6	4	-	-	153	47	70	77
Okla.	1	1	46	79	111	119	208	89
Tex.	1	6	-	-	409	644	405	1,158
MOUNTAIN	22	28	81	84	1,070	790	309	481
Mont.	3	-	31	25	21	33	6	2
Idaho	1	3	-	-	38	45	6	11
Wyo.	1	-	27	39	11	31	2	1
Colo.	8	7	1	2	339	197	48	62
N. Mex.	2	8	2	-	125	75	38	109
Ariz.	5	4	20	18	315	223	167	264
Utah	1	1	-	-	151	125	22	14
Nev.	1	5	-	-	70	61	20	18
PACIFIC	94	97	84	162	1,959	2,221	875	960
Wash.	5	7	-	-	174	153	43	50
Oreg.	11	9	1	-	148	128	31	52
Calif.	73	80	77	145	1,479	1,838	780	838
Alaska	-	-	6	17	17	14	-	3
Hawaii	5	1	-	-	141	88	21	17
Guam	-	1	-	-	-	10	-	19
P.R.	-	-	35	26	164	252	18	25
V.I.	U	U	U	U	-	-	-	-
Amer. Samoa	U	U	U	U	-	-	-	-
C.N.M.I.	-	-	-	-	-	9	-	11

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

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

**TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending June 12, 1999, and June 13, 1998 (23rd Week)**

Reporting Area	Shigellosis*				Syphilis (Primary & Secondary)		Tuberculosis	
	NETSS		PHLIS		Cum. 1999	Cum. 1998	Cum. 1999†	Cum. 1998†
	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998				
UNITED STATES	7,404	11,190	1,760	3,480	2,720	3,057	2,367	3,531
NEW ENGLAND	606	770	113	177	27	34	165	194
Maine	27	25	-	-	-	1	8	3
N.H.	21	77	5	7	-	1	3	2
Vt.	23	25	3	-	1	2	-	1
Mass.	351	441	70	118	17	21	89	111
R.I.	45	36	9	12	1	-	18	22
Conn.	139	166	26	40	8	9	47	55
MID. ATLANTIC	821	2,024	161	974	111	129	858	951
Upstate N.Y.	305	434	25	62	15	16	129	130
N.Y. City	304	617	80	398	49	22	557	580
N.J.	212	390	56	356	13	50	172	241
Pa.	-	583	-	158	34	41	U	U
E.N. CENTRAL	1,106	1,475	317	585	546	477	152	194
Ohio	117	412	14	65	39	71	U	U
Ind.	92	238	8	20	148	82	U	U
Ill.	399	285	218	481	264	199	U	U
Mich.	339	339	60	4	95	89	117	149
Wis.	159	201	17	15	U	36	35	45
W.N. CENTRAL	605	851	245	172	51	73	201	168
Minn.	206	249	45	76	5	5	83	58
Iowa	58	112	8	25	4	-	19	2
Mo.	252	292	175	35	34	55	77	73
N. Dak.	-	39	-	2	-	-	2	3
S. Dak.	26	42	4	15	-	1	3	9
Nebr.	-	13	-	11	4	4	7	5
Kans.	63	104	13	8	4	8	10	18
S. ATLANTIC	1,532	1,674	178	463	894	1,171	447	510
Del.	50	41	2	1	4	15	12	9
Md.	255	314	12	25	183	331	U	U
D.C.	-	-	-	-	14	36	19	49
Va.	208	313	7	24	69	76	104	118
W. Va.	37	57	2	4	2	2	19	24
N.C.	300	340	39	77	232	331	173	179
S.C.	118	118	16	28	119	139	120	131
Ga.	419	336	27	112	128	129	U	U
Fla.	145	155	73	192	143	112	U	U
E.S. CENTRAL	263	517	217	229	500	518	189	267
Ky.	-	67	-	38	45	53	U	U
Tenn.	139	283	197	81	280	254	U	U
Ala.	107	136	19	108	115	117	133	160
Miss.	17	31	1	2	60	94	56	107
W.S. CENTRAL	622	896	299	490	390	386	131	937
Ark.	75	74	21	16	27	53	71	53
La.	66	235	29	134	111	117	U	U
Okla.	65	58	60	30	95	24	60	52
Tex.	416	529	189	310	157	192	-	832
MOUNTAIN	719	745	143	264	87	104	62	102
Mont.	1	17	-	3	-	-	5	12
Idaho	34	36	3	6	-	-	-	4
Wyo.	17	26	1	-	-	1	1	2
Colo.	315	191	37	46	1	6	U	U
N. Mex.	79	68	13	36	-	12	23	27
Ariz.	220	219	83	155	80	73	U	U
Utah	-	119	-	11	2	3	18	28
Nev.	53	69	6	7	4	9	15	29
PACIFIC	1,130	2,238	87	126	114	165	162	208
Wash.	193	256	40	52	28	9	66	110
Oreg.	178	160	28	53	1	1	U	U
Calif.	653	1,715	-	-	82	155	U	U
Alaska	5	11	-	2	1	-	29	22
Hawaii	101	96	19	19	2	-	67	76
Guam	-	-	-	-	-	-	-	37
P.R.	-	-	-	-	81	108	41	65
V.I.	-	-	-	-	U	U	U	U
Amer. Samoa	-	-	-	-	U	U	U	U
C.N.M.I.	-	-	-	-	-	120	-	55

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

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

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

**TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending June 12, 1999, and June 13, 1998 (23rd Week)**

Reporting Area	<i>H. influenzae</i> , invasive		Hepatitis (Viral), by type				Measles (Rubeola)					
	Cum. 1999†	Cum. 1998	A		B		Indigenous		Imported*		Total	
			Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	1999	Cum. 1999	1999	Cum. 1999	Cum. 1999	Cum. 1998
UNITED STATES	535	544	7,008	10,143	2,802	3,593	-	27	-	13	40	34
NEW ENGLAND	38	34	83	138	46	75	-	5	-	4	9	1
Maine	5	2	2	13	-	-	-	-	-	-	-	-
N.H.	7	1	7	7	6	7	-	-	-	1	1	-
Vt.	4	2	3	10	1	3	-	-	-	-	-	-
Mass.	15	27	24	45	24	31	-	4	-	2	6	1
R.I.	-	2	9	9	15	20	-	-	-	-	-	-
Conn.	7	-	38	54	-	14	-	1	-	1	2	-
MID. ATLANTIC	67	82	465	757	360	592	-	-	-	2	2	11
Upstate N.Y.	36	27	109	151	90	139	-	-	-	2	2	2
N.Y. City	10	24	75	287	85	194	-	-	-	-	-	-
N.J.	21	27	57	136	40	98	U	-	U	-	-	8
Pa.	-	4	224	183	145	161	-	-	-	-	-	1
E.N. CENTRAL	73	89	1,409	1,365	256	427	-	1	-	-	1	11
Ohio	28	33	333	151	42	31	-	-	-	-	-	-
Ind.	12	20	93	80	23	45	-	1	-	-	1	3
Ill.	26	32	211	352	-	116	-	-	-	-	-	-
Mich.	7	-	746	671	190	193	-	-	-	-	-	8
Wis.	-	4	26	111	1	42	U	-	U	-	-	-
W.N. CENTRAL	45	31	332	798	235	182	-	-	-	-	-	-
Minn.	12	17	33	60	19	16	-	-	-	-	-	-
Iowa	15	1	76	341	109	26	-	-	-	-	-	-
Mo.	12	8	180	325	84	115	-	-	-	-	-	-
N. Dak.	-	-	1	2	-	4	-	-	-	-	-	-
S. Dak.	1	-	8	8	1	1	-	-	-	-	-	-
Nebr.	3	-	16	12	7	8	-	-	-	-	-	-
Kans.	2	5	18	50	15	12	-	-	-	-	-	-
S. ATLANTIC	127	101	833	682	494	366	-	1	-	3	4	6
Del.	-	-	1	3	-	-	-	-	-	-	-	1
Md.	31	33	145	157	70	80	-	-	-	-	-	1
D.C.	3	-	32	28	11	6	U	-	U	-	-	-
Va.	10	12	63	121	41	48	-	1	-	2	3	2
W. Va.	4	4	14	1	11	3	-	-	-	-	-	-
N.C.	21	12	58	41	100	81	-	-	-	-	-	-
S.C.	2	3	17	16	38	1	-	-	-	-	-	-
Ga.	29	20	217	161	60	64	-	-	-	-	-	1
Fla.	27	17	286	154	163	83	-	-	-	1	1	1
E.S. CENTRAL	44	35	218	198	206	183	-	-	-	-	-	-
Ky.	6	5	32	11	24	22	-	-	-	-	-	-
Tenn.	24	22	112	113	91	130	-	-	-	-	-	-
Ala.	12	7	35	44	46	31	-	-	-	-	-	-
Miss.	2	1	39	30	45	-	U	-	U	-	-	-
W.S. CENTRAL	30	28	1,273	1,918	263	594	-	1	-	2	3	-
Ark.	1	-	25	37	21	34	-	-	-	-	-	-
La.	7	12	58	37	72	47	-	-	-	-	-	-
Okla.	20	14	219	260	55	31	-	-	-	-	-	-
Tex.	2	2	971	1,584	115	482	-	1	-	2	3	-
MOUNTAIN	56	74	685	1,537	292	360	-	1	-	-	1	-
Mont.	1	-	12	50	15	3	-	-	-	-	-	-
Idaho	1	-	26	118	15	15	-	-	-	-	-	-
Wyo.	1	-	4	22	5	2	U	-	U	-	-	-
Colo.	6	14	116	116	41	44	-	-	-	-	-	-
N. Mex.	11	3	22	80	104	137	-	-	-	-	-	-
Ariz.	30	37	427	943	72	91	-	1	-	-	1	-
Utah	4	3	25	98	15	31	-	-	-	-	-	-
Nev.	2	17	53	110	25	37	-	-	-	-	-	-
PACIFIC	55	70	1,710	2,750	650	814	-	18	-	2	20	5
Wash.	1	3	129	535	30	50	-	-	-	-	-	1
Oreg.	21	29	128	218	41	82	-	8	-	-	8	-
Calif.	27	32	1,443	1,957	565	668	-	10	-	2	12	4
Alaska	4	1	3	12	8	7	-	-	-	-	-	-
Hawaii	2	5	7	28	6	7	-	-	-	-	-	-
Guam	-	-	-	-	-	1	U	-	U	-	-	-
P.R.	1	2	77	25	69	255	-	-	-	-	-	-
V.I.	U	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	-	-	1	-	31	U	-	U	-	-	-

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

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

†Of 113 cases among children aged <5 years, serotype was reported for 51 and of those, 12 were type b.

**TABLE III. (Cont'd.) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending June 12, 1999, and June 13, 1998 (23rd Week)**

Reporting Area	Meningococcal Disease		Mumps			Pertussis			Rubella		
	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998
UNITED STATES	1,213	1,416	8	165	386	30	2,253	2,039	22	71	275
NEW ENGLAND	61	64	-	3	1	3	189	373	-	5	36
Maine	4	4	-	-	-	-	-	5	-	-	-
N.H.	9	4	-	1	-	-	53	26	-	-	-
Vt.	4	1	-	-	-	-	10	31	-	-	-
Mass.	35	29	-	2	1	3	115	295	-	5	8
R.I.	2	3	-	-	-	-	3	3	-	-	-
Conn.	7	23	-	-	-	-	8	13	-	-	28
MID. ATLANTIC	107	140	1	20	166	1	546	258	1	13	125
Upstate N.Y.	30	34	1	5	3	1	487	117	1	10	103
N.Y. City	26	17	-	3	153	-	10	13	-	-	9
N.J.	23	36	U	-	3	U	-	8	U	-	12
Pa.	28	53	-	12	7	-	49	120	-	3	1
E.N. CENTRAL	186	235	1	21	45	2	162	201	-	-	-
Ohio	79	78	-	6	19	1	99	66	-	-	-
Ind.	33	41	-	2	4	-	10	49	-	-	-
Ill.	50	67	-	6	6	-	33	17	-	-	-
Mich.	23	25	1	7	16	1	20	31	-	-	-
Wis.	1	24	U	-	-	U	-	38	U	-	-
W.N. CENTRAL	136	112	-	5	20	2	58	149	6	13	27
Minn.	28	16	-	1	10	1	25	79	-	-	-
Iowa	26	16	-	3	6	-	17	40	6	13	-
Mo.	56	48	-	1	3	1	13	12	-	-	2
N. Dak.	3	-	-	-	1	-	-	-	-	-	-
S. Dak.	6	6	-	-	-	-	2	4	-	-	-
Nebr.	5	4	-	-	-	-	1	6	-	-	-
Kans.	12	22	-	-	-	-	-	8	-	-	25
S. ATLANTIC	211	217	2	32	24	8	127	112	15	17	4
Del.	3	1	-	-	-	-	-	1	-	-	-
Md.	32	22	-	3	-	1	36	25	-	1	-
D.C.	1	-	U	2	-	U	-	1	U	-	-
Va.	25	21	-	8	4	-	13	6	-	-	-
W. Va.	4	7	-	-	-	-	1	1	-	-	-
N.C.	25	31	-	5	7	1	28	42	15	16	3
S.C.	24	34	-	3	4	-	8	13	-	-	-
Ga.	36	48	-	1	1	1	16	3	-	-	-
Fla.	61	53	2	10	8	5	25	20	-	-	1
E.S. CENTRAL	100	111	-	1	7	-	42	50	-	1	-
Ky.	27	16	-	-	-	-	3	18	-	-	-
Tenn.	33	39	-	-	-	-	25	16	-	-	-
Ala.	23	37	-	1	4	-	10	14	-	1	-
Miss.	17	19	U	-	3	U	4	2	U	-	-
W.S. CENTRAL	91	163	1	21	31	-	58	133	-	5	65
Ark.	19	22	-	-	-	-	4	14	-	-	-
La.	34	35	1	3	2	-	3	1	-	-	-
Okla.	15	26	-	1	-	-	7	15	-	-	-
Tex.	23	80	-	17	29	-	44	103	-	5	65
MOUNTAIN	85	78	-	12	23	7	237	404	-	14	5
Mont.	2	2	-	-	-	-	2	1	-	-	-
Idaho	8	3	-	1	3	-	92	134	-	-	-
Wyo.	3	3	U	-	1	U	2	7	U	-	-
Colo.	22	17	-	3	3	4	58	99	-	-	-
N. Mex.	10	13	N	N	N	1	20	62	-	-	1
Ariz.	28	28	-	-	4	-	29	64	-	13	1
Utah	7	8	-	5	3	2	32	20	-	-	2
Nev.	5	4	-	3	9	-	2	17	-	1	1
PACIFIC	236	296	3	50	69	7	834	359	-	3	13
Wash.	35	35	1	2	5	5	479	131	-	-	9
Oreg.	40	50	N	N	N	2	17	26	-	-	-
Calif.	153	206	2	42	48	-	328	195	-	3	2
Alaska	4	1	-	1	2	-	3	2	-	-	-
Hawaii	4	4	-	5	14	-	7	5	-	-	2
Guam	-	2	U	-	2	U	-	-	U	-	-
P.R.	4	5	-	-	1	1	8	2	-	-	-
V.I.	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	-	U	-	2	U	-	1	U	-	-

N: Not notifiable

U: Unavailable

-: no reported cases

**TABLE IV. Deaths in 122 U.S. cities,\* week ending  
June 12, 1999 (23rd Week)**

Reporting Area	All Causes, By Age (Years)						P&J†	Total	Reporting Area	All Causes, By Age (Years)						P&J†	Total
	All Ages	>65	45-64	25-44	1-24	<1				All Ages	>65	45-64	25-44	1-24	<1		
NEW ENGLAND	513	356	96	28	10	23	29	S. ATLANTIC	1,028	656	226	98	22	24	65		
Boston, Mass.	166	110	35	5	4	12	12	Atlanta, Ga.	U	U	U	U	U	U	U		
Bridgeport, Conn.	36	27	5	2	2	-	2	Baltimore, Md.	215	133	45	31	1	5	18		
Cambridge, Mass.	22	17	2	3	-	-	-	Charlotte, N.C.	116	78	21	7	6	4	19		
Fall River, Mass.	33	24	6	2	-	1	3	Jacksonville, Fla.	115	73	26	9	1	6	5		
Hartford, Conn.	57	37	12	4	-	4	3	Miami, Fla.	99	53	25	16	2	3	-		
Lowell, Mass.	24	22	2	-	-	-	-	Norfolk, Va.	30	22	4	2	1	1	1		
Lynn, Mass.	12	9	2	1	-	-	-	Richmond, Va.	66	41	22	2	1	-	4		
New Bedford, Mass.	21	14	2	5	-	-	1	Savannah, Ga.	30	14	11	2	2	1	7		
New Haven, Conn.	32	22	6	2	1	1	-	St. Petersburg, Fla.	49	35	5	6	-	3	5		
Providence, R.I.	U	U	U	U	U	U	U	Tampa, Fla.	199	142	41	11	2	1	4		
Somerville, Mass.	8	4	3	1	-	-	-	Washington, D.C.	96	60	26	4	6	-	2		
Springfield, Mass.	35	21	10	1	2	1	1	Wilmington, Del.	13	5	-	8	-	-	-		
Waterbury, Conn.	28	23	3	1	1	-	4	E.S. CENTRAL	917	619	169	85	30	14	49		
Worcester, Mass.	39	26	8	1	-	4	3	Birmingham, Ala.	191	126	35	18	9	3	8		
MID. ATLANTIC	2,293	1,602	420	164	57	50	99	Chattanooga, Tenn.	74	51	9	7	5	2	4		
Albany, N.Y.	42	34	5	2	1	-	5	Knoxville, Tenn.	115	84	19	10	2	-	2		
Allentown, Pa.	U	U	U	U	U	U	U	Lexington, Ky.	82	56	17	9	-	-	5		
Buffalo, N.Y.	84	61	14	6	2	1	3	Memphis, Tenn.	153	95	32	16	7	3	10		
Camden, N.J.	43	24	12	3	2	2	3	Mobile, Ala.	75	53	16	5	1	-	1		
Elizabeth, N.J.	13	5	5	3	-	-	-	Montgomery, Ala.	64	50	7	5	2	-	15		
Erie, Pa.	48	34	13	1	-	-	-	Nashville, Tenn.	163	104	34	15	4	6	4		
Jersey City, N.J.	32	24	6	1	-	1	-	W.S. CENTRAL	1,677	1,113	320	145	50	49	97		
New York City, N.Y.	1,140	772	235	82	37	14	34	Austin, Tex.	85	59	15	8	1	2	3		
Newark, N.J.	53	23	18	9	2	1	2	Baton Rouge, La.	69	45	15	4	3	2	5		
Paterson, N.J.	29	17	6	5	-	1	-	Corpus Christi, Tex.	57	40	14	2	1	-	5		
Philadelphia, Pa.	464	342	54	35	5	28	31	Dallas, Tex.	250	138	60	25	11	16	2		
Pittsburgh, Pa.‡	54	43	8	1	-	2	2	El Paso, Tex.	46	34	6	5	1	-	2		
Reading, Pa.	39	30	6	3	-	-	1	Ft. Worth, Tex.	120	74	20	13	3	10	11		
Rochester, N.Y.	116	89	15	7	5	-	5	Houston, Tex.	461	317	75	44	15	10	29		
Schenectady, N.Y.	U	U	U	U	U	U	U	Little Rock, Ark.	80	56	13	8	1	2	5		
Scranton, Pa.	29	24	5	-	-	-	2	New Orleans, La.	156	106	30	13	4	3	13		
Syracuse, N.Y.	79	60	15	1	3	-	10	San Antonio, Tex.	236	167	43	15	9	2	13		
Trenton, N.J.	12	8	1	3	-	-	1	Shreveport, La.	U	U	U	U	U	U	U		
Utica, N.Y.	16	12	2	2	-	-	-	Tulsa, Okla.	117	77	29	8	1	2	9		
Yonkers, N.Y.	U	U	U	U	U	U	U	MOUNTAIN	838	564	160	74	24	16	58		
E.N. CENTRAL	2,060	1,334	437	161	63	65	125	Albuquerque, N.M.	128	81	29	9	8	1	6		
Akron, Ohio	49	36	6	4	3	-	-	Boise, Idaho	38	26	7	3	1	1	4		
Canton, Ohio	41	24	14	3	-	-	7	Colo. Springs, Colo.	61	43	14	3	-	1	2		
Chicago, Ill.	445	250	114	35	18	28	35	Denver, Colo.	94	62	17	7	5	3	13		
Cincinnati, Ohio	89	64	13	10	1	1	8	Las Vegas, Nev.	171	114	37	16	1	3	7		
Cleveland, Ohio	145	91	38	13	2	1	5	Ogden, Utah	23	15	4	3	1	-	-		
Columbus, Ohio	192	126	39	18	3	6	14	Phoenix, Ariz.	45	30	6	6	1	2	6		
Dayton, Ohio	117	82	23	8	2	2	10	Pueblo, Colo.	19	16	1	2	-	-	4		
Detroit, Mich.	249	127	61	33	16	12	5	Salt Lake City, Utah	121	82	18	13	4	4	10		
Evansville, Ind.	60	44	10	3	-	3	2	Tucson, Ariz.	138	95	27	12	3	1	6		
Fort Wayne, Ind.	90	66	15	4	4	1	3	PACIFIC	1,758	1,283	288	103	56	24	137		
Gary, Ind.	14	6	7	1	-	-	-	Berkeley, Calif.	20	16	1	-	-	3	2		
Grand Rapids, Mich.	38	32	4	-	-	2	5	Fresno, Calif.	99	76	15	7	1	-	6		
Indianapolis, Ind.	118	73	23	11	6	5	6	Glendale, Calif.	20	19	1	-	-	-	1		
Lansing, Mich.	35	28	5	2	-	-	3	Honolulu, Hawaii	55	42	7	4	1	1	7		
Milwaukee, Wis.	130	91	27	9	1	2	10	Long Beach, Calif.	73	50	13	7	3	-	10		
Peoria, Ill.	39	29	7	1	1	1	4	Los Angeles, Calif.	421	306	73	24	14	4	21		
Rockford, Ill.	58	38	13	2	5	-	3	Pasadena, Calif.	28	18	7	3	-	-	4		
South Bend, Ind.	42	35	7	-	-	-	2	Portland, Oreg.	108	82	15	5	5	1	3		
Toledo, Ohio	109	92	11	4	1	1	3	Sacramento, Calif.	205	147	36	11	6	5	25		
Youngstown, Ohio	U	U	U	U	U	U	U	San Diego, Calif.	161	119	24	11	3	4	15		
W.N. CENTRAL	595	419	114	33	15	14	38	San Francisco, Calif.	U	U	U	U	U	U	U		
Des Moines, Iowa	25	18	3	2	1	1	3	San Jose, Calif.	219	153	41	14	8	3	18		
Duluth, Minn.	52	40	9	1	2	-	-	Santa Cruz, Calif.	38	30	4	1	3	-	5		
Kansas City, Kans.	U	U	U	U	U	U	U	Seattle, Wash.	138	107	23	2	6	-	9		
Kansas City, Mo.	94	69	16	7	2	-	5	Spokane, Wash.	52	37	7	2	3	3	5		
Lincoln, Nebr.	31	19	8	2	-	2	3	Tacoma, Wash.	121	81	21	12	3	-	6		
Minneapolis, Minn.	116	83	22	6	3	2	9	TOTAL	11,679‡	7,946	2,230	891	327	279	697		
Omaha, Nebr.	79	59	16	2	2	-	9										
St. Louis, Mo.	111	66	27	9	4	5	1										
St. Paul, Minn.	87	65	13	4	1	4	8										
Wichita, Kans.	U	U	U	U	U	U	U										

U: Unavailable - : no reported cases

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

†Pneumonia and influenza.

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

§Total includes unknown ages.

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