

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

- 1 All-Terrain Vehicle-Related Deaths — West Virginia, 1985–1997
- 4 False-Positive Laboratory Tests for *Cryptosporidium* Involving an Enzyme-Linked Immunosorbent Assay — United States, November 1997–March 1998
- 8 Self-Reported Prevalence of Diabetes Among Hispanics — United States, 1994–1997
- 12 Recommended Childhood Immunization Schedule — United States, 1999

**All-Terrain Vehicle-Related Deaths — West Virginia, 1985–1997**

From 1985 through 1997, the U.S. Consumer Product Safety Commission (CPSC) identified 113 deaths associated with all-terrain vehicles (ATVs)\* in West Virginia. This report summarizes data from the CPSC ATV-related death database and on-site and/or follow-up telephone investigations; findings indicate that approximately two thirds of deaths were caused by injury to the head or neck. Consistent use of helmets by riders can substantially reduce ATV-related deaths.

CPSC compiles information on ATV-related deaths from its main injury and death database files; data sources for these files include medical examiner and coroner reports, death certificates, newspaper clippings, referrals, and consumer reports of ATV crashes (1). An ATV-related death was defined as a death caused by injury of a driver or passenger of an ATV that was operated for nonoccupational purposes. To meet the case definition, the cause of death had to be attributed to the ATV incident rather than to a preceding event (e.g., myocardial infarction while riding an ATV).

Of the 113 ATV-related deaths in West Virginia during 1985–1997, 100 (88%) occurred among males (Table 1). Age at death ranged from 18 months to 75 years (mean age: 29 years for males; 17 years for females); 18 (16%) persons were aged ≤12 years, and 11 (10%) were aged ≥55 years.

The immediate cause of two thirds of deaths was trauma to the head or neck. Of the 74 persons who died from head or neck injuries, at least 55 (74%) were not wearing helmets at the time of the crash. Information on helmet use was not available for 17 (23%) deaths. In the remaining two (3%) deaths, one driver's helmet cracked when he hit a tree, and in the other case, the driver collided with a truck, and the impact forced the helmet off of his head. Other factors that may have contributed to ATV-related deaths included alcohol or drug use (20% of cases), carrying passengers (25%), and excessive speed (10%).

Collisions accounted for the largest proportion (42%) of deaths; the most common collisions were with fixed objects (e.g., trees, cable wires, guardrails, and rocks) (32%) and with other vehicles (10%) (Table 1). ATVs that overturned and landed on riders accounted for 38% of deaths; overturns occurred in ditches, ravines, embankments, and on other rough terrain.

\*ATVs are motorized, gasoline-powered vehicles generally weighing 300–600 lbs, with oversized, low-pressure tires, a seat designed to be straddled by the user, and handlebars for steering. They are intended for use by riders on off-road, nonpaved terrain.

## ATV-Related Deaths — Continued

**TABLE 1. Number and percentage of deaths associated with all-terrain vehicles, by selected characteristics and age at death — West Virginia, 1985–1997**

Characteristic	Age at death (yrs)									
	0–12 (n=18)		13–19 (n=28)		20–34 (n=36)		≥35 (n=31)		Total (n=113)	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
<b>Sex</b>										
Males	12	( 67)	24	(86)	34	(94)	30	(97)	100	(88)
Females	6	( 33)	4	(14)	2	( 6)	1	( 3)	13	(12)
<b>Trauma site</b>										
Head/Neck	14	( 78)	18	(64)	24	(67)	18	(58)	74	(65)
Thorax	2	( 11)	1	( 4)	3	( 8)	6	(20)	12	(11)
Abdomen/Pelvis	2	( 11)	2	( 7)	0		1	( 3)	5	( 4)
Extremities	0		0		1	( 3)	1	( 3)	2	( 2)
Other/Unknown	0		7	(25)	8	(22)	5	(16)	20	(18)
<b>Helmet use</b>										
Yes	0		1	( 4)	0		1	( 3)	2	( 2)
No	11	( 61)	17	(60)	24	(67)	16	(52)	68	(60)
Unknown/ Not reported	7	( 39)	10	(36)	12	(33)	14	(45)	43	(38)
<b>Alcohol or drug use</b>										
Yes	0		3	(11)	11	(31)	9	(29)	23	(20)
No/Not reported	18	(100)	25	(89)	25	(69)	22	(71)	90	(80)
<b>Incident event</b>										
Overturn/Rollover	9	( 50)	8	(29)	10	(28)	16	(52)	43	(38)
Other vehicle collision	1	( 6)	5	(18)	4	(11)	1	( 3)	11	(10)
Fixed object collision	7	( 38)	11	(39)	12	(33)	6	(19)	36	(32)
Other	1	( 6)	4	(14)	10	(28)	8	(26)	23	(20)
<b>Location of incident</b>										
Public paved road	2	( 11)	10	(36)	16	(44)	9	(29)	37	(33)
Private property	9	( 50)	5	(18)	6	(17)	14	(45)	34	(30)
Unpaved road/Trail	7	( 38)	8	(29)	9	(25)	5	(16)	29	(26)
Other	0		5	(18)	5	(14)	3	(10)	13	(11)
<b>Position of victim</b>										
Driver	10	( 56)	26	(93)	34	(94)	30	(97)	100	(88)
Passenger	8	( 44)	2	( 7)	2	( 6)	1	( 3)	13	(12)
<b>Vehicle type</b>										
Three-wheel	0		5	(18)	11	(31)	3	(10)	19	(17)
Four-wheel	18	(100)	23	(82)	25	(69)	25	(80)	91	(81)
Unknown	0		0		0		3	(10)	3	( 2)

Thirty-eight of 55 West Virginia counties reported fatal ATV incidents, with 40% of deaths occurring in four of the most populated counties: Kanawha (17 deaths), Cabell (12), Monongalia (nine), and Wood (seven). Thirty-seven deaths (33%) occurred while ATVs were being operated on paved roadways, and 100 (89%) deaths occurred among drivers. Sixty percent of fatal incidents occurred during May–September.

During 1985–1997, West Virginia averaged nine ATV-related deaths annually. From 1996 to 1997, the number of deaths increased from 15 to 19. Because patterns of ATV use in West Virginia during the study period were not assessed, no conclusions about the risk for death to ATV riders were determined.

*Reported by: JC Helmkamp, PhD, Center for Rural Emergency Medicine, West Virginia Univ, Morgantown; FJ O'Hara, MS, Mineral County West Virginia Child Injury Advisory Council, Keyser, West Virginia. J David, Directorate for Epidemiology and Health Sciences, Div of Hazard Analysis, Consumer Product Safety Commission. Div of Unintentional Injury Prevention, National Center for Injury Prevention and Control, CDC.*

*ATV-Related Deaths — Continued*

**Editorial Note:** During 1985–1997, CPSC reported 2976 three- and four-wheel ATV-related deaths in the United States and Puerto Rico (CPSC, unpublished data, 1998). Although nationally the number of deaths has declined since 1985, the yearly death toll has remained fairly stable since 1992 (1). West Virginia, however, experienced more ATV-related deaths during 1996–1997 than during any other year of the study period.

Data about the number of ATV riders in the state are needed to determine whether the recent increase in the number of deaths reflects a change in risk for death among ATV riders in West Virginia. In addition, some ATV-related deaths may not have been identified, and information about contributing factors (e.g., alcohol or drug use) was incomplete for some cases.

In 1988, the U.S. Department of Justice and ATV distributors signed a 10-year consent decree that prohibited the sale of any new three-wheel ATVs and prohibited the sale of adult-sized four-wheel ATVs for use by children aged <16 years (2). However, >90% of deaths among ATV drivers aged <16 years have involved adult-sized ATVs (1). The decree also required that distributors include specific safety warnings with ATVs and offer a free training course to purchasers and their families. Since then, the proportion of all ATV-related deaths involving three-wheel ATVs has declined from 45% to approximately 20% (1).

In the United States, approximately 36% of ATV-related deaths occur among children aged <16 years (1). Because young children often lack the physical size and strength, cognitive abilities, and fine motor skills to operate ATVs properly, their risk for injury is greater. In 1997, CPSC estimated that ATV drivers aged ≤15 years were 2.5 times more likely than drivers aged 16–34 years and 4.5 times more likely than drivers aged 35–54 years to be injured (1).

The presence of a passenger impairs safe operation and maneuverability of the ATV. To steer and control an ATV, the driver must be “rider active,” making quick body weight shifts combined with acceleration and braking. Therefore, neither children nor adults should ever ride as passengers.

The American Academy of Pediatrics and researchers have recommended age requirements for ATV riders (e.g., aged 14 or 16 years), licensing of ATV riders, and mandatory helmet use (3–7). Consistent use of helmets by all riders can reduce substantially ATV-related deaths (8). The low rates of helmet use reported in the CPSC ATV rider survey (35% of riders reported always wearing a helmet) and in studies of injured riders (3%–30%) suggest that efforts to encourage helmet use have been inadequate (1,4,5).

As in many states, West Virginia does not require ATV riders to wear helmets or to have licenses to drive ATVs. The state is considering legislation that will address ATV-related safety issues, including helmet and eye protection, age restrictions, a safety education certificate, and prohibiting certain acts by operators (e.g., use of alcohol, carrying of passengers, or driving on paved surfaces). As of September 1998, 21 of 31 states with ATV-specific safety requirements covered safety issues being considered in West Virginia (9).

CPSC recommends that ATV users never operate ATVs without proper training or instruction, never carry passengers, never ride on paved roads, never use alcohol or drugs, and always wear an approved helmet and other protective equipment (10).

*ATV-Related Deaths — Continued*

CPSC will continue surveillance of ATV-related deaths and injuries. ATV-related injury or death should be reported to the CPSC hotline, telephone (800) 638-2772.

*References*

1. US Consumer Product Safety Commission. All-terrain vehicle exposure, injury, death, and risk studies. Bethesda, Maryland: US Consumer Product Safety Commission, 1998.
2. US District Court for the District of Columbia. 1988. United States of America v. American Honda Motor Co, Inc., et al. Washington, DC: U.S. District Court for the District of Columbia, 1992; civil action no. 87-3525.
3. Committee on Accident and Poison Prevention. All-terrain vehicles: two-, three-, and four-wheeled unlicensed motorized vehicles. *Pediatr* 1987;79:306-8.
4. Russell A, Boop FA, Cherny WB, Ligon BL. Neurologic injuries associated with all-terrain vehicles and recommendations for protective measures for the pediatric population. *Pediatr Emerg Care* 1998;14:31-5.
5. Lynch JM, Gardner MJ, Worsley J. The continuing problem of all-terrain vehicle injuries in children. *J Pediatr Surg* 1998;33:329-32.
6. Warda L, Klassen TP, Buchan N, Zierler A. All terrain vehicle ownership, use, and self reported safety behaviors in rural children. *Inj Prev* 1998;4:44-9.
7. Lister DG, Carl J III, Morgan JH III, et al. Pediatric all-terrain vehicle trauma: a 5-year statewide experience. *J Pediatr Surg* 1998;33:1081-3.
8. Rodgers GB. The effectiveness of helmets in reducing all-terrain vehicle injuries and deaths. *Accid Anal Prev* 1990;22:47-58.
9. Specialty Vehicle Institute of America. State all-terrain vehicle requirements—September 1998. Arlington, Virginia: Government Relations Office, 1998.
10. US Consumer Product Safety Commission. News for CPSC: CPSC announces all-terrain vehicle safety programs. CPSC Release #99-034, Consumer Product Safety Commission, Washington, DC, 1998. Available at <http://www.cpsc.gov/cpsc/pub/prerel/prhtml99/99034.html>. Accessed December 10, 1998.

**False-Positive Laboratory Tests for *Cryptosporidium*  
Involving an Enzyme-Linked Immunosorbent Assay —  
United States, November 1997–March 1998**

From November 1997 through March 1998, the number of positive tests for *Cryptosporidium* increased in several locations in the United States. Several laboratories (e.g., the New York state laboratory and the Medical Science Laboratories in Wisconsin) retested original stool specimens and could not confirm the original positive test result. Following reports to the manufacturer by the Massachusetts, New York, and Wisconsin state health departments about possibly inaccurate test results, Alexon-Trend\* (Ramsey, Minnesota) notified its laboratory customers in a March 25, 1998, letter that three lots of its enzyme-linked immunosorbent assay (ELISA) 24 well (catalog number 540-24) ProSpecT<sup>®</sup> *Cryptosporidium* Microplate Assay (lot numbers 970717, 975011, and 980401) and seven lots of its ELISA 96 well (catalog number 540-96) ProSpecT<sup>®</sup> *Cryptosporidium* Microplate Assay (lot numbers 970696, 970775, 970883, 975006, 980402, 980808, and 980809) were subject to a “non-specific reaction between some stool specimens and the microplate assay” (i.e., a false-positive test result) (K. Hood, Alexon-Trend, personal communication, March 25, 1998). Alexon-Trend directed laboratories to discontinue using kits with implicated lot numbers. This report summarizes an analysis of reports of false-positive tests and describes identification of apparent clusters in three states.

\*Use of trade names and commercial sources is for identification only and does not imply endorsement by CDC or the U.S. Department of Health and Human Services.

*Cryptosporidium* — Continued

### National Investigation

On April 2, 1998, CDC requested state epidemiologists and state laboratory directors to report suspected cases and clusters of false-positive tests. Six states (California, Idaho, Maine, Massachusetts, New York, and Wisconsin) reported apparent clusters and/or an increase in the overall number of positive test results. A working group of state and local public health laboratorians and epidemiologists from these six states participated in a conference call on May 18, 1998, to review their experiences. The findings from five states were reviewed; an apparent false-positive cluster in Idaho was omitted because it involved an ELISA kit not referenced in the manufacturer's letter.

The working group established three case definitions. A confirmed false-positive (CFP) case was one in which a stool specimen that originally tested positive by an implicated lot of the Alexon-Trend kit before March 25, 1998, was available for retesting, subsequently tested negative by an alternate ELISA kit, and if additional testing was performed (e.g., acid-fast and/or fluorescent antibody staining), tested negative by the additional method(s). A possible false-positive (PFP) case was one in which a stool specimen that originally tested positive by an implicated lot of the Alexon-Trend kit before March 25, 1998, was not available for retesting by an alternate ELISA kit but tested negative by an additional method(s) (e.g., acid-fast and/or fluorescent antibody staining). An indeterminate case was one in which a stool specimen tested positive by an implicated lot of the Alexon-Trend kit before March 25, 1998, but for which no original stool specimen was available for retesting, and the original stool specimen was not tested by any other method. Participating laboratories were given a letter designation (e.g., New York has reports from five laboratories, which are designated NY-A, NY-B, NY-C, NY-D, and NY-E).

A total of 62 CFP, eight PFP, and 155 indeterminate cases, including four clusters, were reported in the five states (Table 1). Five laboratories provided information regarding their rate of positivity (i.e., the number of positive tests for *Cryptosporidium* expressed as a percentage of the total number of tests for *Cryptosporidium*) for January 1997–April 1998. For each laboratory, CFP, PFP, and indeterminate cases occurred at the same time as the highest rates of positivity. Information was not available regarding how false-positive test results may have affected patients (e.g., additional diagnostic testing or experimental therapy). Maine, Massachusetts, and Wisconsin provided details regarding their investigations to determine the cause of their suspected disease cluster.

### State Investigations

**Massachusetts.** During November–December 1997, laboratory MA-A reported four stool specimens positive by ProSpecT<sup>®</sup> *Cryptosporidium* Microplate Assay from residents of one town in Massachusetts. The local health department found no link between cases, and testing of the town's water supply was negative for *Cryptosporidium*. During January–March 1998, 27 additional positive test results were reported from this laboratory, compared with one to two positive tests per month during the same 3-month period in 1997. No stool specimens were available for retesting. The physicians who ordered the stool tests were notified that positive test results should be considered indeterminate.

*Cryptosporidium* — Continued

**TABLE 1. Number of confirmed false-positive (CFP), possible false-positive (PFP), and indeterminate *Cryptosporidium* cases and clusters, by state laboratory — five states, November 1997–March 1998**

State laboratory	No. CFP	No. PFP	No. indeterminate	No. clusters
<b>California</b>				
CA-A	0	0	34	0
CA-B*	0	0	24	0
<b>Maine</b>				
ME-A	36	0		1
<b>Massachusetts</b>				
MA-A	0	0	35	1
<b>New York</b>				
NY-A	0	0	6	0
NY-B	0	2	0	0
NY-C*	0	0	1	0
NY-D	11	0	7	1
NY-E	0	0	28	0
<b>Wisconsin</b>				
WI-A	15	6	20	1
<b>Total</b>	<b>62</b>	<b>8</b>	<b>155</b>	<b>4</b>

\*CA-B is the same laboratory as NY-C.

**Wisconsin.** During November–December 1997, laboratory WI-A noted that 10 stool specimens that were positive by ProSpecT<sup>®</sup> *Cryptosporidium* Microplate Assay were all negative when retested by direct fluorescent antibody (DFA); four also were negative when retested by repeat ELISA. This increase could not be explained by an increase in effluent turbidity at the water treatment plant or by an increase in morbidity measured by other surveillance systems in place in Milwaukee County since the 1993 *Cryptosporidium* outbreak (1,2). WI-A had noted a gradual increase in the rate of positive ELISAs for *Cryptosporidium* from a background of  $\leq 2\%$  in the fall of 1997 to 5% in March 1998, with peaks of  $\geq 25\%$  positive on March 6 and 19. The other 11 laboratories involved in statewide *Cryptosporidium* surveillance, all of which use DFA routinely, reported no increases in absolute number of tests or increases in the rate of positive tests. The physicians who ordered the stool tests were notified of CFP or indeterminate results.

**Maine.** From late January to early February 1998, 41 of 50 elderly male residents on one ward and one of 50 residents on a second ward at a 100-bed extended-care facility experienced gastrointestinal illness. The first cases of illness began approximately 10 days after a severe ice storm caused a power failure lasting several days at the facility and in surrounding communities. Stool samples were negative for bacterial pathogens. Additional persons with diarrhea were reported in mid-February; two of four initial stool specimens from these persons tested positive by ProSpecT<sup>®</sup> *Cryptosporidium* Microplate Assay. Stool specimens from 35 of 79 facility patients in both wards and from one outpatient tested positive for *Cryptosporidium* by this method. A public health investigation and water testing were performed at the facility. Because clinical and epidemiologic characteristics of this outbreak were inconsistent with

Cryptosporidium — *Continued*

cryptosporidiosis, the 36 antigen-positive specimens were re-evaluated at ME-A, a reference laboratory, and all were negative by ELISA. Water tests were negative for coliform bacteria.

*Reported by: JR Miller, MD, B Mojica, MD, City Epidemiologist, New York City Dept of Health. J Nadle, MPH, California Emerging Infections Program; DJ Vugia, MD, SH Waterman, MD, State Epidemiologist, California Dept of Health Svcs. B Mamer, PhD, C Hahn, MD, State Epidemiologist, Idaho Dept of Health and Welfare. KM Doing, PhD, Affiliated Laboratories, Inc, Bangor; JL Hamm, N Buker, Togus Veterans Administration Hospital, Togus; GA Beckett, MPH, KF Gensheimer, MD, State Epidemiologist, Maine Dept of Human Svcs. P Kludt, MPH, A DeMaria, MD, State Epidemiologist, Massachusetts Dept of Public Health. J Ennis, MS, J Keithly, PhD, S Kondracki, D Ackman, MD, P Smith, MD, State Epidemiologist, New York State Dept of Health. D Warshauer, PhD, Medical Science Laboratories, Milwaukee; M Proctor, PhD, J Davis, MD, State Epidemiologist, Wisconsin Dept of Health and Social Svcs. Div of Parasitic Diseases, National Center for Infectious Diseases, CDC.*

**Editorial Note:** ELISA and other immunoassays offer advantages over diagnostic tests based on microscopic methods, especially for laboratories that perform large numbers of tests. ELISA can be used to test multiple stool specimens simultaneously, and ELISA does not require the same high level of technical skill needed to identify parasites based on the morphologic and staining characteristics observed during microscopic examination. However, when a laboratory depends solely on ELISA for detection of *Cryptosporidium*, false-positive test results may go unrecognized for long periods of time because of problems associated with the kit reagents or technician error.

Retaining stool specimens, or preparing a permanent microscopic slide whenever an ELISA result is positive has implications for cost, staffing, and storage. In laboratories that rely solely on antigen tests of stool specimens for parasites and that do not routinely retain stool specimens or make permanent slides, management should consider monitoring the rate of positive test results and, when this rate noticeably increases above a certain level (e.g., two or more times the laboratory's mean positivity rate for an organism), implement confirmatory testing by microscopic methods and/or begin archiving stool specimens. Alternatively, all stool specimens could be split before testing so that an aliquot of a specimen positive by ELISA could be sent to a reference diagnostic laboratory for confirmation. This method is analogous to using ELISA as a screening test for human immunodeficiency virus, with Western blot testing used to confirm specimens positive by ELISA (3). Another advantage of retaining stool specimens is its availability for polymerase chain reaction-based genotyping, as might be warranted in an outbreak. In New York, laboratories using ELISA must either prepare a permanent microscopic slide or retain a portion of the original stool specimen, and laboratories are required to hold slides or stool specimens for 1 year. As a result of the investigation described in this report, New York state has reminded laboratories of this existing requirement and has used this incident in a statewide educational workshop for laboratorians.

In many communities, a cluster of laboratory-reported cases of cryptosporidiosis elicits a multidisciplinary investigation to find the cause. Every community should develop a plan for responding quickly and efficiently to increases in the number of reported cases of cryptosporidiosis (4). Essential components of an effective response plan include confirming the diagnosis, comparing current disease data with baseline data, and developing a strategy for critically and systematically determining whether there is a community outbreak. Having access to good laboratory records

*Cryptosporidium — Continued*

and stored specimens facilitates confirmation of the diagnosis and reduces the likelihood that limited health department resources will be redirected to an unnecessary community-wide epidemiologic investigation on the basis of false-positive laboratory results.

When evidence suggests a commercial laboratory diagnostic kit is yielding inaccurate test results, this information should be forwarded to the kit manufacturer and the appropriate local and state health department. These departments will inform the state certifying authority for laboratory practice, the Food and Drug Administration, and CDC.

*References*

1. Mac Kenzie WR, Hoxie NJ, Proctor ME, et al. A massive outbreak in Milwaukee of *Cryptosporidium* infection transmitted through the public water system. *N Engl J Med* 1994;331:161–7.
2. Proctor ME, Blair KA, Davis JP. Surveillance data for waterborne illness detection: an assessment following a massive waterborne outbreak of *Cryptosporidium* infection. *Epidemiol Infect* 1998;120:43–54.
3. CDC. Public Health Service guidelines for counseling and antibody testing to prevent HIV infection and AIDS. *MMWR* 1987;36:509–15.
4. Working Group on Waterborne Cryptosporidiosis. *Cryptosporidium* and water: a public health handbook. Atlanta, Georgia: US Department of Health and Human Services, CDC, 1997.

### **Self-Reported Prevalence of Diabetes Among Hispanics — United States, 1994–1997**

Diabetes disproportionately affects the Hispanic population in the United States (1). Most diabetes studies that focused on Hispanics have been conducted among Mexican Americans (1) and have found that approximately one out of every 10 persons aged  $\geq 20$  years has diabetes (2). However, the U.S. Hispanic population comprises many ethnically distinct groups that tend to be regionally concentrated (3). CDC analyzed data from the Behavioral Risk Factor Surveillance System (BRFSS) to assess the prevalence of diabetes among Hispanic adults in the United States and Puerto Rico. This report presents the findings of this analysis, which indicate that the prevalence of diabetes among U.S. Hispanics is approximately twice the prevalence among non-Hispanic whites and varies by geographic location and education.

The BRFSS is a state-based, random-digit-dialed telephone survey of the civilian, noninstitutionalized adult (aged  $\geq 18$  years) population conducted in the 50 states, the District of Columbia, Puerto Rico, and other U.S. territories. Respondents were considered to have diabetes if they answered “yes” to the question, “Has a doctor ever told you that you have diabetes?” Women who were told that they had diabetes only during pregnancy were classified as not having diabetes. All respondents who reported being of Hispanic origin were considered to be Hispanic and all respondents who reported being white and not of Hispanic origin were considered to be non-Hispanic white. Because of the small number of Hispanics in the annual BRFSS surveys, data were aggregated for 1994–1997 for the 50 states and the District of Columbia and were combined into three U.S. census regions (Table 1). For Puerto Rico, data from the 1996 and 1997 BRFSS were used. Data were weighted to reflect the age, sex, and racial/ethnic distribution of the noninstitutionalized population of the United States and



*Diabetes — Continued*

Puerto Rico. The prevalence of diabetes and 95% confidence intervals (CIs) were estimated for the total population and for each sex/ethnic group by age, education, and geographic location. To allow comparisons between groups, data were age-adjusted by the direct method using the 1980 U.S. population. The Mantel-Haenszel chi-square test was used to assess whether differences in diabetes prevalence were statistically significant. Logistic regression analyses were used to assess the association of diabetes prevalence with Hispanic origin and with geographic location after controlling for age, sex, and education.

Overall, 6.0% (95% CI=5.5%–6.4%) of Hispanic adults in the United States and Puerto Rico had been told by a doctor that they had diabetes (Table 1). Among Hispanic and non-Hispanic white adults, the prevalence of diabetes increased with age ( $p<0.05$ ) and was higher among Hispanic adults than among non-Hispanic white adults in each age group ( $p<0.05$ ). Overall, the age-adjusted prevalence of diabetes among Hispanic adults was twice that of non-Hispanic white adults (8.0% versus 4.0%;  $p<0.001$ ).

The age-adjusted prevalence of diabetes among Hispanic men and women was not significantly different (8.4% versus 7.7%;  $p=0.18$ ), but was higher among non-Hispanic white men than among women (4.1% versus 3.8%;  $p<0.05$ ). Regardless of ethnicity, the age-adjusted prevalence of diabetes was higher among persons without a high school education than among persons with at least a high school education (9.8% versus 6.5% among Hispanic adults and 5.9% versus 3.6% among non-Hispanic white adults;  $p<0.001$ ). Among persons with at least a high school education, men had a higher age-adjusted prevalence of diabetes than women (7.6% versus 5.6% among Hispanic adults and 3.9% versus 3.4% among non-Hispanic white adults;  $p<0.05$ ).

The prevalence of diabetes among Hispanic adults varied by geographic location: 10.7% (95% CI=9.6%–11.7%) in Puerto Rico, 5.8% (95% CI=5.1%–6.6%) in the West/Southwest, 4.9% (95% CI=4.0%–5.7%) in the South/Southeast, and 4.1% (95% CI=3.4%–4.7%) in the Northeast/Midwest.\* Compared with non-Hispanic white adults in the United States, Hispanic adults in Puerto Rico were 2.9 times (95% CI=2.6–3.2) and Hispanic adults in the West/Southwest were two times (95% CI=1.7–2.3) more likely to have diabetes. Hispanic adults in the Northeast/Midwest and the South/Southeast were 1.4 times (95% CI=1.2–1.6) more likely to have diabetes than non-Hispanic white adults in the United States. After controlling for age, sex, education, and geographic location, Hispanic adults remained 1.8 times (95% CI=1.6–1.9) more likely to have diabetes than non-Hispanic white adults.

*Reported by: Epidemiology and Statistics Br, Div of Diabetes Translation, National Center for Chronic Disease Prevention and Health Promotion, CDC.*

**Editorial Note:** Diabetes is a serious disease associated with severe morbidity and premature death that disproportionately affects Hispanic adults in the United States and Puerto Rico. Hispanic ethnicity may be a marker for access to health care, social and cultural factors, or genetic factors that may explain differences in diabetes prevalence. The findings in this report are similar to previous findings indicating that the

---

\**West/Southwest*=Alaska, Arizona, Arkansas, California, Colorado, Hawaii, Idaho, Louisiana, Montana, Nevada, New Mexico, Oklahoma, Oregon, Texas, Utah, Washington, and Wyoming; *Northeast/Midwest*=Connecticut, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, and Wisconsin; *South/Southeast*=Alabama, Delaware, District of Columbia, Florida, Georgia, Kentucky, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia.

**TABLE 1. Percentage of self-reported diabetes among persons aged ≥18 years, by sex, ethnicity, age, education, and geographic location\* — United States, Behavioral Risk Factor Surveillance System, 1994–1997†**

Characteristic	Men				Women				Total			
	Hispanic		Non-Hispanic white		Hispanic		Non-Hispanic white		Hispanic		Non-Hispanic white	
	%	(95% CI) <sup>§</sup>	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
<b>Age group (yrs)</b>												
18–44	1.9	( 1.5– 2.3)	1.2	( 1.1– 1.3)	2.7	( 1.9– 3.6)	1.3	(1.2– 1.4)	<b>2.3</b>	( <b>1.8– 2.8</b> )	<b>1.2</b>	( <b>1.1– 1.3</b> )
45–64	12.6	(10.7–14.6)	6.2	( 5.9– 6.6)	11.5	(10.1–13.0)	5.7	(5.5– 6.0)	<b>12.0</b>	( <b>10.8–13.3</b> )	<b>6.0</b>	( <b>5.7– 6.2</b> )
≥65	24.9	(21.0–28.8)	11.3	(10.7–11.8)	19.0	(16.4–21.5)	9.8	(9.4–10.2)	<b>21.4</b>	( <b>19.2–23.6</b> )	<b>10.4</b>	( <b>10.1–10.7</b> )
≥18	5.7	( 5.1– 6.3)	4.3	( 4.1– 4.4)	6.2	( 5.5– 6.9)	4.4	(4.3– 4.6)	<b>6.0</b>	( <b>5.5– 6.4</b> )	<b>4.4</b>	( <b>4.3– 4.5</b> )
Age-adjusted <sup>¶</sup>	8.4	( 7.6– 9.3)	4.1	( 4.0– 4.3)	7.7	( 6.9– 8.4)	3.8	(3.7– 4.0)	<b>8.0</b>	( <b>7.4– 8.5</b> )	<b>4.0</b>	( <b>3.9– 4.1</b> )
<b>Education<sup>¶</sup></b>												
<High school	9.5	( 8.1–10.9)	5.3	( 4.8– 5.8)	10.1	( 9.0–11.3)	6.5	(6.1– 7.0)	<b>9.8</b>	( <b>8.9–10.7</b> )	<b>5.9</b>	( <b>5.6– 6.2</b> )
≥High school	7.6	( 6.6– 8.7)	3.9	( 3.8– 4.1)	5.6	( 4.7– 6.5)	3.4	(3.3– 3.5)	<b>6.5</b>	( <b>5.8– 7.2</b> )	<b>3.6</b>	( <b>3.5– 3.7</b> )
<b>Geographic location<sup>¶</sup></b>												
West/Southwest	9.1	( 7.6–10.5)	3.8	( 3.5– 4.1)	8.2	( 6.9– 9.5)	3.6	(3.4– 3.9)	<b>8.5</b>	( <b>7.6– 9.4</b> )	<b>3.7</b>	( <b>3.5– 3.9</b> )
Northeast/ Midwest	6.5	( 4.9– 8.1)	4.3	( 4.1– 4.5)	5.6	( 4.4– 6.8)	4.0	(3.8– 4.1)	<b>5.9</b>	( <b>5.0– 6.8</b> )	<b>4.1</b>	( <b>4.0– 4.3</b> )
South/Southeast	6.3	( 4.5– 8.0)	4.1	( 3.9– 4.4)	5.1	( 4.0– 6.1)	3.9	(3.7– 4.1)	<b>5.6</b>	( <b>4.6– 6.5</b> )	<b>4.0</b>	( <b>3.9– 4.1</b> )
Puerto Rico	11.4	( 9.8–13.1)	NA**	—	10.4	( 9.1–11.6)	NA	—	<b>10.9</b>	( <b>9.8–11.9</b> )	<b>NA</b>	—

\* West/Southwest=Alaska, Arizona, Arkansas, California, Colorado, Hawaii, Idaho, Louisiana, Montana, Nevada, New Mexico, Oklahoma, Oregon, Texas, Utah, Washington, and Wyoming; Northeast/Midwest=Connecticut, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, and Wisconsin; and South/Southeast=Alabama, Delaware, District of Columbia, Florida, Georgia, Kentucky, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia.

† Data from the Behavioral Risk Factor Surveillance System for the United States (1994–1997) and for Puerto Rico (1996–1997).

§ Confidence interval.

¶ Age-adjusted to the 1980 U.S. population.

\*\* No data available.

*Diabetes — Continued*

age-adjusted prevalence of diabetes among Mexican Americans was twice that among non-Hispanic white adults (2) and that the prevalence of diabetes was higher among persons with less than a high school education (1). Therefore, effective intervention strategies are needed to reduce the burden of diabetes and its complications in this population. In persons with diabetes, secondary prevention measures such as improved glycemic and blood pressure control reduced the risk for developing diabetes-related complications (e.g., retinopathy, nephropathy, or neuropathy) (4,5). In addition, screening for diabetic eye disease and diabetic foot disease reduced the incidence of blindness and amputation (6,7).

The findings in this report are subject to at least three limitations. First, prevalence estimates obtained from telephone surveys may be underestimated in populations with low telephone coverage (8). Second, total prevalence is underestimated because some persons have undiagnosed diabetes. For example, the National Health and Nutrition Examination Survey III found that for every two Mexican Americans with diagnosed diabetes, one person had undiagnosed diabetes (2). In addition, populations with less than a high school education may have undiagnosed diabetes because they have poor access to health care. Finally, small sample sizes may have restricted the ability to detect true differences.

In collaboration with Hispanic organizations, CDC and the National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health are developing a diabetes education campaign targeting persons of Hispanic origin. This campaign, which is part of the National Diabetes Education Program (NDEP), aims to increase public awareness of diabetes and promote self-management among persons with diabetes. CDC also is supporting two national Hispanic organizations to implement the NDEP at the local level and to develop partnerships for community interventions. In addition, CDC supports the National Hispanic/Latino Diabetes Initiative for Action to promote and evaluate interdisciplinary and culturally appropriate procedures to prevent diabetes and its complications in the U.S. Hispanic community. Under this initiative, for example, CDC published the patient-care guide, *Take Charge of Your Diabetes*, in Spanish after testing the publication among Hispanic persons. A copy of this guide is available from CDC in Spanish and English, telephone toll-free (877) 232-3422. Finally, CDC is working with diabetes-control programs in Arizona, California, New Mexico, and Texas to develop a community-based and culturally appropriate diabetes education program for the Hispanic population along the United States-Mexico border.

*References*

1. Stern MP, Mitchell BD. Diabetes in Hispanic Americans. In: Harris MI, Cowie CC, Stern MP, Boyko EJ, Reiber GE, Bennett PH, eds. *Diabetes in America*. 2nd ed. Washington, DC: US Department of Health and Human Services, National Institutes of Health, 1995; DHHS publication no. (NIH)95-1468.
2. Harris MI, Flegal KM, Cowie CC, et al. Prevalence of diabetes, impaired fasting glucose, and impaired glucose tolerance in U.S. adults: the Third National Health and Nutrition Examination Survey, 1988–1994. *Diabetes Care* 1998;21:518–24.
3. del Pinal JH. Hispanic Americans in the United States: young, dynamic, and diverse. *Statistical Bulletin—Metropolitan Insurance Companies* 1996;77:2–13.
4. DCCT Research Group. The effect of intensive treatment of diabetes on the development and progression of long-term complications in insulin-dependent diabetes mellitus: the Diabetes Control and Complications Trial Research Group. *N Engl J Med* 1993;329:977–86.

*Diabetes — Continued*

5. U.K. Prospective Diabetes Study Group. Intensive blood-glucose control with sulphonylureas or insulin compared with conventional treatment and risk of complications in patients with type 2 diabetes (UKPDS 33). *Lancet* 1998;352:839–55.
6. Ferris FL III. How effective are treatments for diabetic retinopathy? *JAMA* 1993;269:1290–1.
7. Litzelman DK, Slemenda CW, Langefeld CD, et al. Reduction of lower extremity clinical abnormalities in patients with non-insulin-dependent diabetes mellitus: a randomized, controlled trial. *Ann Intern Med* 1993;119:36–41.
8. Ford ES. Characteristics of survey participants with and without a telephone: findings from the Third National Health and Nutrition Examination Survey. *J Clin Epidemiol* 1998;51:55–60.

*Notice to Readers***Recommended Childhood Immunization Schedule —  
United States, 1999**

Each year, CDC's Advisory Committee on Immunization Practices (ACIP) reviews the recommended childhood immunization schedule to ensure it remains current with changes in manufacturers' vaccine formulations, revised recommendations for the use of licensed vaccines, and recommendations for newly licensed vaccines. This report presents the recommended childhood immunization schedule for 1999 (Figure 1) and explains the changes that have occurred since January 1998.

Since the publication of the recommended childhood immunization schedule in January 1998 (1), the ACIP, the American Academy of Family Physicians (AAFP), and the American Academy of Pediatrics (AAP) have narrowed the recommended options for the use of poliovirus vaccine and have endorsed the use of the newly licensed oral, tetravalent rotavirus vaccine. In addition, recommendations were revised or clarified for the use of hepatitis B vaccine in infants born to hepatitis B surface antigen (HBsAg)-negative mothers, the use of diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP), and the use of *Haemophilus influenzae* type b (Hib) conjugate and DTaP combination vaccines for infants aged 2, 4, and 6 months. Detailed recommendations for the use of vaccines are available from the manufacturers' package inserts, ACIP statements on specific vaccines, and the 1997 Red Book (2). ACIP statements for each recommended childhood vaccine may be viewed, downloaded, and printed at CDC's National Immunization Program World-Wide Web site, <http://www.cdc.gov/nip>.

**Inactivated Poliovirus Vaccine for First Two Doses**

As a result of progress in the global eradication of poliomyelitis, the need for further reductions in the risk for acquiring vaccine-associated paralytic polio, and the acceptance of inactivated poliovirus vaccine (IPV) by parents and physicians, the ACIP, AAFP, and AAP recommend IPV for the first two doses of poliovirus vaccine for routine childhood vaccination. The ACIP continues to recommend a sequential schedule of two doses of IPV administered at ages 2 and 4 months, followed by two doses of oral poliovirus vaccine (OPV) at ages 12–18 months and 4–6 years. The administration of IPV for all four poliovirus vaccine doses also is acceptable and is recommended for immunocompromised persons and their household contacts. OPV is no longer recommended for the first two doses of the schedule and is acceptable only for special

*Notice to Readers — Continued*

circumstances (e.g., vaccination of children whose parents do not accept the recommended sequential schedule, late initiation of vaccination that would require an unacceptable number of injections, and imminent travel to countries where polio is endemic). OPV remains the vaccine of choice for mass vaccination campaigns to control outbreaks of wild poliovirus.

**Introduction of Rotavirus Vaccine**

On August 31, an oral, tetravalent vaccine for rotavirus (RotaShield<sup>®</sup>, Wyeth-Lederle Pediatrics and Vaccines, Inc., Philadelphia, Pennsylvania)\* was licensed by the Food and Drug Administration (FDA) to prevent rotavirus gastroenteritis among infants and children. Rotavirus vaccine is administered as an oral formulation to infants at ages 2, 4, and 6 months, and the three-dose series should be completed by the first birthday. The vaccine also is approved by the ACIP for inclusion in the Vaccines for Children Program (VFC), and it will be available for distribution through VFC after a supply contract is arranged. Rotavirus vaccine has been shaded and italicized on the schedule chart to indicate that the ACIP, AAFP, and AAP recognize that the incorporation of this vaccine into clinical practice may require additional time and resources from health-care providers.

**Recombivax HB<sup>®</sup> Hepatitis B Vaccine for Persons Aged 0–19 Years**

On August 27, the Merck Vaccine Division (Merck and Co., Inc., West Point, Pennsylvania) discontinued production and distribution of the 2.5 µg/0.5 mL pediatric dose of Recombivax HB<sup>®</sup> hepatitis B vaccine, which was licensed by FDA for infants of HBsAg-negative mothers and children aged <11 years. The 5 µg/0.5 mL dose of Recombivax HB<sup>®</sup> is now indicated for all vaccinees aged 0–19 years regardless of the mother's HBsAg status. The change was made to simplify the dosing of Recombivax HB<sup>®</sup> and eliminate potential confusion when determining the correct dose of hepatitis B vaccine. In addition to receiving the hepatitis B vaccine series, infants born to HBsAg-positive mothers also should receive 0.5 mL of hepatitis B immune globulin within 12 hours of birth at separate injection sites. Infants born to HBsAg-negative mothers or children who received one or two doses of the 2.5 µg/0.5 mL dose of Recombivax HB<sup>®</sup> may complete the hepatitis B vaccination series with either the 2.5 µg/0.5 mL or the 5.0 µg/0.5 mL dose. Children who have completed the hepatitis B vaccination series with the 2.5 µg/0.5 mL dose do not require revaccination. The standard adult dose for Recombivax HB<sup>®</sup> remains 10 µg/1.0 mL. The standard doses for the other licensed hepatitis B vaccine (Engerix B<sup>®</sup>, SmithKline Beecham, Pittsburgh, Pennsylvania) remain unchanged. For the purposes of completing the hepatitis B vaccine series and achieving complete vaccination for hepatitis B, the two licensed hepatitis B vaccines are interchangeable when administered in doses recommended by the manufacturers.

**Diphtheria and Tetanus Toxoids and Acellular Pertussis Vaccines Preferred**




DTaP is the recommended vaccine for primary vaccination against diphtheria, tetanus, and pertussis. This change makes DTaP the preferred vaccine formulation for all doses in the vaccination series. Whole-cell diphtheria and tetanus toxoids and pertussis vaccine remains an acceptable alternative when DTaP is not available.

---

\*Use of trade names and commercial sources is for identification only and does not imply endorsement by CDC or the U.S. Department of Health and Human Services.

**FIGURE 1. Recommended childhood immunization schedule\* — United States, January–December 1999**

Vaccine	Age										
	Birth	1 mo	2 mos	4 mos	6 mos	12 mos	15 mos	18 mos	4–6 yrs	11–12 yrs	14–16 yrs
Hepatitis B <sup>†</sup>	Hep B										
Diphtheria and tetanus toxoids and pertussis		Hep B			Hep B					Hep B	
<i>H. influenzae</i> type b <sup>†</sup>			DTaP	DTaP	DTaP		DTaP		DTaP	Td	
Poliovirus**			Hib	Hib	Hib	Hib					
Rotavirus <sup>††</sup>			IPV	IPV	Polio				Polio		
Measles-mumps-rubella <sup>§§</sup>			Rv	Rv	Rv				MMR	MMR	
Varicella <sup>¶¶</sup>						MMR					
						Var				Var	

-  Range of Acceptable Ages for vaccination
-  Vaccines to be Assessed and Administered if Necessary
-  Incorporation of this new vaccine into clinical practice may require additional time and resources from health-care providers.

\* This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines. Any dose not given at the recommended age should be given as a “catch-up” vaccination at any subsequent visit when indicated and feasible. Combination vaccines may be used whenever any components of the combination are indicated and its other components are not contraindicated. Providers should consult the manufacturers’ package inserts for detailed recommendations.

† **Infants born to hepatitis B surface antigen (HBsAg)-negative mothers** should receive the second dose of hepatitis B (Hep B) vaccine at least 1 month after the first dose. The third dose should be administered at least 4 months after the first dose and at least 2 months after the second dose, but not before age 6 months. **Infants born to HBsAg-positive mothers** should receive Hep B vaccine and 0.5 mL hepatitis B immune globulin (HBIG) within 12 hours of birth at separate injection sites. The second dose is recommended at age 1–2 months and the third dose at age 6 months. **Infants born to mothers whose HBsAg status is unknown** should receive Hep B vaccine within 12 hours of birth. Maternal blood should be drawn at the time of delivery to determine the mother’s HBsAg status; if the HBsAg test is positive, the infant should receive HBIG as soon as possible (no later than age 1 week). All children and adolescents (through age 18 years) who have not been vaccinated against hepatitis B may begin the series during any visit. Special efforts should be made to vaccinate children who were born in or whose parents were born in areas of the world where hepatitis B virus infection is moderately or highly endemic.

§ Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP) is the preferred vaccine for all doses in the vaccination series, including completion of the series in children who have received one or more doses of whole-cell diphtheria and tetanus toxoids and pertussis vaccine (DTP). Whole-cell DTP is an acceptable alternative to DTaP. The fourth dose (DTP or DTaP) may be administered as early as age 12 months, provided 6 months have elapsed since the third dose and if the child is unlikely to return at age 15–18 months. Tetanus and diphtheria toxoids (Td) is recommended at age 11–12 years if at least 5 years have elapsed since the last dose of DTP, DTaP, or DT. Subsequent routine Td boosters are recommended every 10 years.

¶ Three *Haemophilus influenzae* type b (Hib) conjugate vaccines are licensed for infant use. If Hib conjugate vaccine (PRP-OMP) (PedvaxHIB® or ComVax® [Merck]) is administered at ages 2 and 4 months, a dose at age 6 months is not required. Because clinical studies in infants have demonstrated that using some combination products may induce a lower immune response to the Hib vaccine component, DTaP/Hib combination products should not be used for primary vaccination in infants at ages 2, 4, or 6 months unless approved by the Food and Drug Administration for these ages.

\*\* Two poliovirus vaccines are licensed in the United States: inactivated poliovirus vaccine (IPV) and oral poliovirus vaccine (OPV). The ACIP, AAFP and AAP recommend that the first two doses of poliovirus vaccine should be IPV. The ACIP continues to recommend a sequential schedule of two doses of IPV administered at ages 2 and 4 months followed by two doses of OPV at age 12–18 months and age 4–6 years. Use of IPV for all doses also is acceptable and is recommended for immunocompromised persons and their household contacts. OPV is no longer recommended for the first two doses of the schedule and is acceptable only for special circumstances (e.g., children of parents who do not accept the recommended number of injections, late initiation of vaccination that would require an unacceptable number of injections, and imminent travel to areas where poliomyelitis is endemic. OPV remains the vaccine of choice for mass vaccination campaigns to control outbreaks of wild poliovirus.

†† The first dose of Rv vaccine should not be administered before age 6 weeks, and the minimum interval between doses is 3 weeks. The Rv vaccine series should not be initiated at age 7 months, and all doses should be completed by the first birthday. The AAFP opinion is that the decision to use rotavirus (Rv) vaccine should be made by the parent or guardian in consultation with the physician or other health-care provider.

§§ The second dose of measles, mumps, and rubella vaccine (MMR) is recommended routinely at age 4–6 years but may be administered during any visit provided at least 4 weeks have elapsed since receipt of the first dose and that both doses are administered beginning at or after age 12 months. Those who have not previously received the second dose should complete the schedule no later than the routine visit to a health-care provider at age 11–12 years.

¶¶ Varicella (Var) vaccine is recommended at any visit on or after the first birthday for susceptible children (i.e., those who lack a reliable history of chickenpox [as judged by a health-care provider] and who have not been vaccinated). Susceptible persons aged ≥13 years should receive two doses given at least 4 weeks apart.

Use of trade names and commercial sources is for identification only and does not imply endorsement by CDC or the U.S. Department of Health and Human Services.

Source: Advisory Committee on Immunization Practices (ACIP), American Academy of Family Physicians (AAFP), and American Academy of Pediatrics (AAP).

*Notice to Readers — Continued*

### **Hib Conjugate and DTaP Combination Vaccines Not for Infants**

Combination vaccines containing Hib conjugate vaccine and DTaP are licensed only for use in children aged 15–18 months. Because studies in infants have demonstrated that using one of these combination products may induce a lower immune response to the Hib component (3), DTaP/Hib combination products should not be used for primary vaccination in infants aged 2, 4, or 6 months (4).

#### *References*

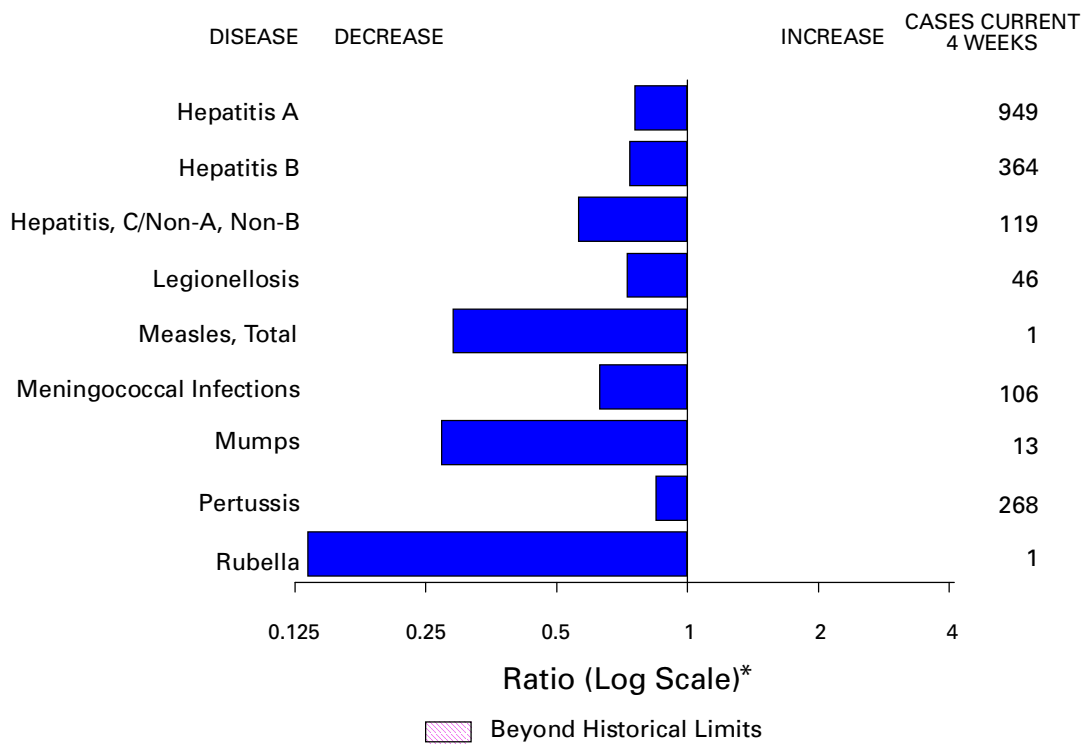
1. CDC. Recommended childhood immunization schedule—United States, 1998. *MMWR* 1998; 47:8–12.
2. American Academy of Pediatrics. Active and passive immunization. In: Peter G, ed. 1997 Red book: report of the Committee on Infectious Diseases. 24th ed. Elk Grove Village, Illinois: American Academy of Pediatrics 1997:1–71.
3. Edwards K, Decker MD. Combination vaccines consisting of acellular pertussis vaccines. *Pediatr Infect Dis J* 1997;16:S97–S102.
4. CDC. Unlicensed use of combination of *Haemophilus influenzae* type b conjugate vaccine and diphtheria and tetanus toxoid and acellular pertussis vaccine for infants. *MMWR* 1998;47:787.

### **Erratum: Vol. 48, No. RR-1**

In the *MMWR Recommendations and Reports*, “Human Rabies Prevention—United States, 1999,” on page 1, the fifth sentence of the first paragraph stated erroneously that the number of human cases reported was the average number reported each year rather than the number reported for the entire 1980–1997 period. The sentence should read: “Between 1980 and 1997, 95–247 cases were reported each year among dogs, and only two human cases were reported in which rabies was attributable to variants of the virus associated with indigenous dogs (2).”



**FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending January 9, 1999, with historical data — United States**



\*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 January 9, 1999 (1st Week)**

	Cum. 1999		Cum. 1999
Anthrax	-	Plague	-
Brucellosis	-	Poliomyelitis, paralytic	-
Cholera	-	Psittacosis	-
Congenital rubella syndrome	-	Rabies, human	-
Cryptosporidiosis*	7	Rocky Mountain spotted fever (RMSF)	3
Diphtheria	-	Streptococcal disease, invasive Group A	7
Encephalitis: California*	-	Streptococcal toxic-shock syndrome*	-
eastern equine*	-	Syphilis, congenital <sup>¶</sup>	-
St. Louis*	-	Tetanus	-
western equine*	-	Toxic-shock syndrome	1
Hansen Disease	-	Trichinosis	-
Hantavirus pulmonary syndrome* <sup>†</sup>	-	Typhoid fever	2
Hemolytic uremic syndrome, post-diarrheal*	1	Yellow fever	-
HIV infection, pediatric* <sup>§</sup>	-		

-:no reported cases

\*Not notifiable in all states.

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

<sup>§</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 December 27, 1998.

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

**TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending January 9, 1999, and January 10, 1998 (1st Week)**

Reporting Area	AIDS		Chlamydia		<i>Escherichia coli</i> O157:H7		Gonorrhea		Hepatitis C/NA,NB	
	Cum. 1999*	Cum. 1998	Cum. 1999	Cum. 1998	NETSS <sup>†</sup>	PHLIS <sup>‡</sup>	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
					Cum. 1999	Cum. 1998				
UNITED STATES	-	-	4,024	9,577	16	1	2,733	5,677	18	51
NEW ENGLAND	-	-	16	459	1	-	4	203	-	3
Maine	-	-	-	U	-	-	-	-	-	-
N.H.	-	-	9	12	-	-	-	4	-	-
Vt.	-	-	6	7	-	-	3	-	-	-
Mass.	-	-	-	233	-	-	-	75	-	3
R.I.	-	-	-	19	-	-	-	3	-	-
Conn.	-	-	1	188	1	-	1	121	-	-
MID. ATLANTIC	-	-	184	1,372	1	-	99	840	-	1
Upstate N.Y.	-	-	N	N	1	-	-	-	-	1
N.Y. City	-	-	-	643	-	-	-	309	-	-
N.J.	-	-	38	178	-	-	42	187	-	-
Pa.	-	-	146	551	N	-	57	344	-	-
E.N. CENTRAL	-	-	412	1,543	10	-	283	917	-	18
Ohio	-	-	55	571	10	-	57	228	-	1
Ind.	-	-	-	145	-	-	-	80	-	1
Ill.	-	-	357	U	-	-	215	U	-	2
Mich.	-	-	-	266	-	-	-	99	-	14
Wis.	-	-	-	242	N	-	11	104	-	-
W.N. CENTRAL	-	-	44	602	-	-	18	204	-	6
Minn.	-	-	-	123	-	-	-	63	-	-
Iowa	-	-	-	9	-	-	-	-	-	-
Mo.	-	-	-	228	-	-	-	45	-	6
N. Dak.	-	-	-	9	-	-	-	1	-	-
S. Dak.	-	-	23	22	-	-	2	5	-	-
Nebr.	-	-	-	53	-	-	-	37	-	-
Kans.	-	-	21	158	-	-	16	53	-	-
S. ATLANTIC	-	-	1,649	1,501	3	-	1,363	1,294	3	2
Del.	-	-	55	20	-	-	37	30	-	-
Md.	-	-	148	179	1	-	166	53	2	1
D.C.	-	-	N	N	-	-	85	109	-	-
Va.	-	-	128	28	N	-	360	-	-	-
W. Va.	-	-	-	68	-	-	-	15	-	-
N.C.	-	-	356	305	2	-	347	296	-	1
S.C.	-	-	962	247	-	-	368	227	-	-
Ga.	-	-	-	330	-	-	-	273	-	-
Fla.	-	-	-	324	-	-	-	291	1	-
E.S. CENTRAL	-	-	282	591	-	-	266	723	-	1
Ky.	-	-	-	44	-	-	-	41	-	-
Tenn.	-	-	25	106	-	-	12	173	-	1
Ala.	-	-	257	282	-	-	254	386	-	-
Miss.	-	-	-	159	-	-	-	123	-	-
W.S. CENTRAL	-	-	574	1,262	-	-	475	852	-	-
Ark.	-	-	53	32	-	-	40	56	-	-
La.	-	-	381	231	-	-	350	250	-	-
Okla.	-	-	140	177	-	-	85	105	-	-
Tex.	-	-	-	822	-	-	-	441	-	-
MOUNTAIN	-	-	388	457	1	1	169	202	2	2
Mont.	-	-	-	6	-	-	-	-	-	-
Idaho	-	-	-	35	-	-	-	5	1	1
Wyo.	-	-	-	9	-	-	-	1	-	1
Colo.	-	-	85	87	1	1	46	90	-	-
N. Mex.	-	-	-	87	-	-	-	22	1	-
Ariz.	-	-	303	131	-	-	123	70	-	-
Utah	-	-	-	45	-	-	-	5	-	-
Nev.	-	-	-	57	-	-	-	9	-	-
PACIFIC	-	-	475	1,790	-	-	56	442	13	18
Wash.	-	-	-	212	-	-	-	35	-	-
Oreg.	-	-	-	280	-	-	-	48	-	-
Calif.	-	-	467	1,236	-	-	56	347	13	18
Alaska	-	-	7	21	-	-	-	6	-	-
Hawaii	-	-	1	41	N	-	-	6	-	-
Guam	-	-	-	5	N	-	-	-	-	-
P.R.	-	-	U	U	-	U	-	28	U	-
V.I.	-	-	N	N	N	U	U	U	U	U
Amer. Samoa	-	-	U	U	N	U	U	U	U	U
C.N.M.I.	-	-	N	N	N	U	-	3	-	-

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

\*Updated monthly from reports to the Division of HIV/AIDS Prevention-Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, last update December 27, 1998.

†National Electronic Telecommunications System for Surveillance.

‡Public Health Laboratory Information System.

**TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending January 9, 1999, and January 10, 1998 (1st Week)**

Reporting Area	Legionellosis		Lyme Disease		Malaria		Syphilis (Primary & Secondary)		Tuberculosis		Rabies, Animal
	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999*	Cum. 1998	Cum. 1999
UNITED STATES	2	23	7	58	13	15	53	149	17	117	37
NEW ENGLAND	-	-	-	2	-	-	-	1	-	2	10
Maine	-	-	-	-	-	-	-	-	-	-	1
N.H.	-	-	-	-	-	-	-	-	-	-	-
Vt.	-	-	-	-	-	-	-	-	-	-	2
Mass.	-	-	-	2	-	-	-	1	-	-	-
R.I.	-	-	-	-	-	-	-	-	-	-	4
Conn.	-	-	-	-	-	-	-	-	-	2	3
MID. ATLANTIC	-	-	1	39	1	4	-	4	-	2	8
Upstate N.Y.	-	-	-	-	1	1	-	-	-	-	-
N.Y. City	-	-	-	1	-	2	-	-	-	2	U
N.J.	-	-	-	3	-	-	-	3	-	-	6
Pa.	-	-	1	35	-	1	-	1	-	-	2
E.N. CENTRAL	2	16	3	2	-	3	12	27	6	10	-
Ohio	2	7	3	2	-	1	3	4	-	2	-
Ind.	-	3	-	-	-	-	2	7	-	5	-
Ill.	-	3	-	-	-	1	7	U	6	3	-
Mich.	-	3	-	-	-	1	-	-	-	-	-
Wis.	-	-	U	U	-	-	-	2	-	-	-
W.N. CENTRAL	-	1	-	-	-	3	-	3	-	1	2
Minn.	-	-	-	-	-	-	-	-	-	1	1
Iowa	-	-	-	-	-	-	-	-	-	-	-
Mo.	-	-	-	-	-	3	-	1	-	-	-
N. Dak.	-	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	-	-	-	-	-	-	-	-	-
Nebr.	-	1	-	-	-	-	-	-	-	-	-
Kans.	-	-	-	-	-	-	-	2	-	-	1
S. ATLANTIC	-	3	3	9	5	1	15	76	-	14	17
Del.	-	-	-	-	-	-	-	-	-	-	-
Md.	-	3	3	9	2	1	-	17	-	-	6
D.C.	-	-	-	-	2	-	-	-	-	4	-
Va.	-	-	-	-	-	-	2	4	-	-	1
W. Va.	N	N	-	-	-	-	-	-	-	1	-
N.C.	-	-	-	-	-	-	13	15	-	-	5
S.C.	-	-	-	-	-	-	-	16	-	9	-
Ga.	-	-	-	-	-	-	-	15	-	-	-
Fla.	-	-	-	-	1	-	-	9	-	-	5
E.S. CENTRAL	-	2	-	3	-	-	18	15	-	11	-
Ky.	-	2	-	-	-	-	-	-	-	3	-
Tenn.	-	-	-	3	-	-	11	8	-	2	-
Ala.	-	-	-	-	-	-	7	6	-	4	-
Miss.	-	-	-	-	-	-	-	1	-	2	-
W.S. CENTRAL	-	-	-	-	-	-	8	14	-	22	-
Ark.	-	-	-	-	-	-	1	2	-	-	-
La.	-	-	-	-	-	-	3	7	-	-	-
Okla.	-	-	-	-	-	-	4	-	-	2	-
Tex.	-	-	-	-	-	-	-	5	-	20	-
MOUNTAIN	-	1	-	-	1	2	-	2	-	12	-
Mont.	-	-	-	-	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	-	-	-	-	-	-
Wyo.	-	-	-	-	-	-	-	-	-	-	-
Colo.	-	1	-	-	-	1	-	-	-	1	-
N. Mex.	-	-	-	-	-	1	-	-	-	-	-
Ariz.	-	-	-	-	1	-	-	-	-	-	-
Utah	-	-	-	-	-	-	-	1	-	-	-
Nev.	-	-	-	-	-	-	-	1	-	11	-
PACIFIC	-	-	-	3	6	2	-	7	11	43	-
Wash.	-	-	-	-	-	-	-	-	-	1	-
Oreg.	-	-	-	-	-	1	-	1	-	-	-
Calif.	-	-	-	3	6	1	-	6	11	41	-
Alaska	-	-	-	-	-	-	-	-	-	1	-
Hawaii	-	-	-	-	-	-	-	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	1	-
P.R.	-	-	-	-	-	-	3	5	-	-	1
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.	-	-	-	-	-	-	-	-	-	1	-

N: Not notifiable

U: Unavailable

-: no reported cases

**TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending January 9, 1999, and January 10, 1998 (1st 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	10	17	106	280	43	139	-	-	-	-	-	-
NEW ENGLAND	-	-	1	8	-	-	-	-	-	-	-	-
Maine	-	-	1	3	-	-	-	-	-	-	-	-
N.H.	-	-	-	-	-	-	-	-	-	-	-	-
Vt.	-	-	-	-	-	-	-	-	-	-	-	-
Mass.	-	-	-	1	-	-	U	-	U	-	-	-
R.I.	-	-	-	-	-	-	-	-	-	-	-	-
Conn.	-	-	-	4	-	-	-	-	-	-	-	-
MID. ATLANTIC	-	2	1	13	2	20	-	-	-	-	-	-
Upstate N.Y.	-	-	1	2	-	4	-	-	-	-	-	-
N.Y. City	-	1	-	6	-	2	U	-	U	-	-	-
N.J.	-	1	-	4	-	10	-	-	-	-	-	-
Pa.	-	-	-	1	2	4	-	-	-	-	-	-
E.N. CENTRAL	2	1	10	93	4	65	-	-	-	-	-	-
Ohio	2	1	10	15	4	3	-	-	-	-	-	-
Ind.	-	-	-	8	-	42	-	-	-	-	-	-
Ill.	-	-	-	27	-	6	-	-	-	-	-	-
Mich.	-	-	-	38	-	11	U	-	U	-	-	-
Wis.	-	-	-	5	-	3	-	-	-	-	-	-
W.N. CENTRAL	-	-	-	14	1	3	-	-	-	-	-	-
Minn.	-	-	-	-	-	-	-	-	-	-	-	-
Iowa	-	-	-	5	-	-	-	-	-	-	-	-
Mo.	-	-	-	6	-	3	U	-	U	-	-	-
N. Dak.	-	-	-	-	-	-	U	-	U	-	-	-
S. Dak.	-	-	-	-	-	-	-	-	-	-	-	-
Nebr.	-	-	-	1	1	-	-	-	-	-	-	-
Kans.	-	-	-	2	-	-	-	-	-	-	-	-
S. ATLANTIC	7	5	14	7	18	5	-	-	-	-	-	-
Del.	-	-	-	-	-	-	-	-	-	-	-	-
Md.	6	5	4	5	2	5	-	-	-	-	-	-
D.C.	1	-	2	-	-	-	-	-	-	-	-	-
Va.	-	-	-	-	-	-	-	-	-	-	-	-
W. Va.	-	-	-	-	-	-	U	-	U	-	-	-
N.C.	-	-	-	1	16	-	-	-	-	-	-	-
S.C.	-	-	-	-	-	-	-	-	-	-	-	-
Ga.	-	-	7	1	-	-	-	-	-	-	-	-
Fla.	-	-	1	-	-	-	-	-	-	-	-	-
E.S. CENTRAL	-	-	1	9	1	4	-	-	-	-	-	-
Ky.	-	-	-	1	-	-	U	-	U	-	-	-
Tenn.	-	-	-	5	-	3	-	-	-	-	-	-
Ala.	-	-	1	-	1	1	-	-	-	-	-	-
Miss.	-	-	-	3	-	-	U	-	U	-	-	-
W.S. CENTRAL	1	-	2	6	1	3	-	-	-	-	-	-
Ark.	-	-	-	-	1	1	-	-	-	-	-	-
La.	-	-	-	-	-	-	-	-	-	-	-	-
Okla.	1	-	2	-	-	-	-	-	-	-	-	-
Tex.	-	-	-	6	-	2	U	-	U	-	-	-
MOUNTAIN	-	6	17	55	4	17	-	-	-	-	-	-
Mont.	-	-	-	2	-	-	-	-	-	-	-	-
Idaho	-	-	-	2	3	1	-	-	-	-	-	-
Wyo.	-	-	-	-	-	-	U	-	U	-	-	-
Colo.	-	1	7	6	-	-	-	-	-	-	-	-
N. Mex.	-	-	2	6	1	8	-	-	-	-	-	-
Ariz.	-	3	8	26	-	4	-	-	-	-	-	-
Utah	-	-	-	-	-	-	U	-	U	-	-	-
Nev.	-	2	-	13	-	4	U	-	U	-	-	-
PACIFIC	-	3	60	75	12	22	-	-	-	-	-	-
Wash.	-	-	-	-	-	-	U	-	U	-	-	-
Oreg.	-	2	-	3	-	1	U	-	U	-	-	-
Calif.	-	1	60	71	11	21	-	-	-	-	-	-
Alaska	-	-	-	-	1	-	-	-	-	-	-	-
Hawaii	-	-	-	1	-	-	-	-	-	-	-	-
Guam	-	-	-	-	-	-	U	-	U	-	-	-
P.R.	-	-	-	-	-	2	-	-	-	-	-	-
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.	-	-	-	-	-	-	U	-	U	-	-	-

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

\*Of 1 case among children aged <5 years, serotype was reported for 0.

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

**TABLE III. (Cont'd.) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending January 9, 1999, and January 10, 1998 (1st 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	17	52	-	-	1	19	19	66	-	-	-
NEW ENGLAND	2	4	-	-	-	-	-	14	-	-	-
Maine	2	1	-	-	-	-	-	-	-	-	-
N.H.	-	-	-	-	-	-	-	-	-	-	-
Vt.	-	-	-	-	-	-	-	5	-	-	-
Mass.	-	1	U	-	-	U	-	9	U	-	-
R.I.	-	-	-	-	-	-	-	-	-	-	-
Conn.	-	2	-	-	-	-	-	-	-	-	-
MID. ATLANTIC	1	2	-	-	-	2	2	4	-	-	-
Upstate N.Y.	-	-	-	-	-	2	2	2	-	-	-
N.Y. City	-	-	U	-	-	U	-	-	U	-	-
N.J.	-	2	-	-	-	-	-	2	-	-	-
Pa.	1	-	-	-	-	-	-	-	-	-	-
E.N. CENTRAL	4	6	-	-	-	-	-	9	-	-	-
Ohio	4	3	-	-	-	-	-	5	-	-	-
Ind.	-	1	-	-	-	-	-	-	-	-	-
Ill.	-	1	-	-	-	-	-	-	-	-	-
Mich.	-	-	U	-	-	U	-	3	U	-	-
Wis.	-	1	-	-	-	-	-	1	-	-	-
W.N. CENTRAL	-	3	-	-	-	-	-	2	-	-	-
Minn.	-	-	-	-	-	-	-	-	-	-	-
Iowa	-	-	-	-	-	-	-	-	-	-	-
Mo.	-	2	U	-	-	U	-	-	U	-	-
N. Dak.	-	-	U	-	-	U	-	-	U	-	-
S. Dak.	-	-	-	-	-	-	-	-	-	-	-
Nebr.	-	-	-	-	-	-	-	2	-	-	-
Kans.	-	1	-	-	-	-	-	-	-	-	-
S. ATLANTIC	6	10	-	-	-	2	2	2	-	-	-
Del.	-	-	-	-	-	-	-	-	-	-	-
Md.	2	4	-	-	-	2	2	2	-	-	-
D.C.	-	-	-	-	-	-	-	-	-	-	-
Va.	-	-	-	-	-	-	-	-	-	-	-
W. Va.	-	-	U	-	-	U	-	-	U	-	-
N.C.	1	2	-	-	-	-	-	-	-	-	-
S.C.	-	1	-	-	-	-	-	-	-	-	-
Ga.	-	3	-	-	-	-	-	-	-	-	-
Fla.	3	-	-	-	-	-	-	-	-	-	-
E.S. CENTRAL	-	9	-	-	-	3	3	-	-	-	-
Ky.	-	3	U	-	-	U	-	-	U	-	-
Tenn.	-	2	-	-	-	-	-	-	-	-	-
Ala.	-	4	-	-	-	3	3	-	-	-	-
Miss.	-	-	U	-	-	U	-	-	U	-	-
W.S. CENTRAL	-	3	-	-	-	-	-	-	-	-	-
Ark.	-	-	-	-	-	-	-	-	-	-	-
La.	-	-	-	-	-	-	-	-	-	-	-
Okla.	-	3	-	-	-	-	-	-	-	-	-
Tex.	-	-	U	-	-	U	-	-	U	-	-
MOUNTAIN	3	5	-	-	1	12	12	26	-	-	-
Mont.	-	-	-	-	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	9	9	14	-	-	-
Wyo.	-	-	U	-	-	U	-	-	U	-	-
Colo.	1	3	-	-	-	-	-	3	-	-	-
N. Mex.	1	1	N	N	N	2	2	8	-	-	-
Ariz.	1	1	-	-	1	1	1	-	-	-	-
Utah	-	-	U	-	-	U	-	-	U	-	-
Nev.	-	-	U	-	-	U	-	1	U	-	-
PACIFIC	1	10	-	-	-	-	-	9	-	-	-
Wash.	-	-	U	-	-	U	-	-	U	-	-
Oreg.	-	4	N	N	N	U	-	-	U	-	-
Calif.	1	6	-	-	-	-	-	9	-	-	-
Alaska	-	-	-	-	-	-	-	-	-	-	-
Hawaii	-	-	-	-	-	-	-	-	-	-	-
Guam	-	-	U	-	-	U	-	-	U	-	-
P.R.	-	-	-	-	-	-	-	-	-	-	-
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	-	-	U	-	-	U	-	-

N: Not notifiable

U: Unavailable

-: no reported cases

**TABLE IV. Deaths in 122 U.S. cities,\* week ending  
January 9, 1999 (1st 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	715	529	131	39	11	5	76	S. ATLANTIC	1,154	771	232	91	39	20	65
Boston, Mass.	163	111	41	8	1	2	22	Atlanta, Ga.	U	U	U	U	U	U	U
Bridgeport, Conn.	51	40	6	2	3	-	3	Baltimore, Md.	164	93	43	20	6	2	16
Cambridge, Mass.	35	27	7	1	-	-	4	Charlotte, N.C.	158	115	28	8	5	2	17
Fall River, Mass.	40	31	6	2	-	1	4	Jacksonville, Fla.	176	129	31	6	6	3	5
Hartford, Conn.	75	49	13	6	5	2	4	Miami, Fla.	105	52	32	15	6	-	1
Lowell, Mass.	26	19	5	2	-	-	6	Norfolk, Va.	59	36	13	4	3	3	4
Lynn, Mass.	15	8	3	4	-	-	-	Richmond, Va.	82	52	21	5	2	2	5
New Bedford, Mass.	32	26	5	1	-	-	1	Savannah, Ga.	40	25	11	2	2	-	-
New Haven, Conn.	43	38	3	2	-	-	1	St. Petersburg, Fla.	82	61	11	5	2	3	6
Providence, R.I.	57	44	13	-	-	-	5	Tampa, Fla.	177	139	18	14	3	3	8
Somerville, Mass.	5	5	-	-	-	-	-	Washington, D.C.	101	60	23	12	4	2	2
Springfield, Mass.	70	55	10	5	-	-	8	Wilmington, Del.	10	9	1	-	-	-	1
Waterbury, Conn.	32	29	3	-	-	-	7	E.S. CENTRAL	764	514	162	59	15	14	41
Worcester, Mass.	71	47	16	6	2	-	11	Birmingham, Ala.	96	66	20	7	1	2	7
MID. ATLANTIC	1,486	1,054	261	109	31	30	97	Chattanooga, Tenn.	68	54	11	1	2	-	4
Albany, N.Y.	67	50	10	3	3	1	4	Knoxville, Tenn.	76	51	17	5	2	1	8
Allentown, Pa.	23	19	3	1	-	-	2	Lexington, Ky.	87	61	19	5	1	1	7
Buffalo, N.Y.	75	54	18	1	1	1	6	Memphis, Tenn.	132	87	28	10	3	4	10
Camden, N.J.	40	30	5	3	1	1	1	Mobile, Ala.	94	63	21	10	-	-	1
Elizabeth, N.J.	10	8	2	-	-	-	-	Montgomery, Ala.	57	37	12	6	1	1	4
Erie, Pa.	55	47	5	2	-	1	3	Nashville, Tenn.	154	95	34	15	5	5	-
Jersey City, N.J.	49	39	7	3	-	-	-	W.S. CENTRAL	1,387	922	267	123	45	29	89
New York City, N.Y.	U	U	U	U	U	U	U	Austin, Tex.	82	60	12	5	2	3	5
Newark, N.J.	72	34	22	9	4	3	7	Baton Rouge, La.	58	39	11	4	-	4	4
Paterson, N.J.	63	38	13	9	2	1	2	Corpus Christi, Tex.	75	58	12	2	2	1	7
Philadelphia, Pa.	499	328	97	53	11	9	31	Dallas, Tex.	268	160	65	29	9	5	6
Pittsburgh, Pa.‡	107	74	21	5	2	5	6	El Paso, Tex.	97	64	17	8	5	3	6
Reading, Pa.	37	28	7	1	1	-	6	Ft. Worth, Tex.	145	90	26	16	9	4	14
Rochester, N.Y.	155	120	25	7	-	3	13	Houston, Tex.	U	U	U	U	U	U	U
Schenectady, N.Y.	34	28	2	3	1	-	2	Little Rock, Ark.	97	57	28	7	2	3	9
Scranton, Pa.	40	34	3	1	1	1	4	New Orleans, La.	163	86	44	23	9	1	-
Syracuse, N.Y.	107	81	16	4	3	3	6	San Antonio, Tex.	249	194	28	20	5	2	21
Trenton, N.J.	32	25	2	4	-	1	3	Shreveport, La.	58	37	9	9	1	2	7
Utica, N.Y.	21	17	3	-	1	-	1	Tulsa, Okla.	95	77	15	-	1	1	10
Yonkers, N.Y.	U	U	U	U	U	U	U	MOUNTAIN	1,014	721	178	70	27	18	90
E.N. CENTRAL	2,357	1,601	461	175	67	50	169	Albuquerque, N.M.	143	111	18	11	3	-	14
Akron, Ohio	19	12	5	1	-	1	2	Boise, Idaho	43	34	6	2	1	-	6
Canton, Ohio	55	43	11	1	-	-	7	Colo. Springs, Colo.	58	33	14	6	2	3	2
Chicago, Ill.	464	269	95	64	15	18	43	Denver, Colo.	89	50	25	10	3	1	9
Cincinnati, Ohio	101	74	14	4	4	5	9	Las Vegas, Nev.	248	181	49	14	3	1	16
Cleveland, Ohio	190	128	47	11	3	1	9	Ogden, Utah	42	36	3	1	-	2	5
Columbus, Ohio	202	142	40	17	1	2	14	Phoenix, Ariz.	55	38	10	3	3	1	7
Dayton, Ohio	117	82	19	9	3	4	8	Pueblo, Colo.	36	29	3	3	1	-	3
Detroit, Mich.	297	175	71	27	18	6	5	Salt Lake City, Utah	100	72	15	5	4	4	15
Evansville, Ind.	76	60	12	1	2	1	5	Tucson, Ariz.	200	137	35	15	7	6	13
Fort Wayne, Ind.	63	46	9	1	4	3	4	PACIFIC	1,820	1,353	299	112	30	24	155
Gary, Ind.	18	10	4	4	-	-	2	Berkeley, Calif.	23	18	3	1	-	1	3
Grand Rapids, Mich.	82	57	12	6	4	3	5	Fresno, Calif.	131	101	17	11	1	1	10
Indianapolis, Ind.	188	120	42	15	9	2	15	Glendale, Calif.	29	23	3	3	-	-	-
Lansing, Mich.	64	50	11	1	1	1	7	Honolulu, Hawaii	71	51	13	2	4	1	4
Milwaukee, Wis.	138	108	21	6	1	2	8	Long Beach, Calif.	61	45	15	-	1	-	7
Peoria, Ill.	62	51	10	1	-	-	10	Los Angeles, Calif.	540	405	85	33	11	6	27
Rockford, Ill.	73	53	15	4	-	1	8	Pasadena, Calif.	45	37	5	3	-	-	5
South Bend, Ind.	57	42	12	2	1	-	3	Portland, Oreg.	98	71	13	9	4	1	6
Toledo, Ohio	U	U	U	U	U	U	U	Sacramento, Calif.	110	76	23	7	2	2	21
Youngstown, Ohio	91	79	11	-	1	-	5	San Diego, Calif.	182	127	35	16	2	1	25
W.N. CENTRAL	564	422	91	24	10	9	36	San Francisco, Calif.	152	107	29	9	1	6	20
Des Moines, Iowa	U	U	U	U	U	U	U	San Jose, Calif.	U	U	U	U	U	U	U
Duluth, Minn.	36	29	5	1	1	-	6	Santa Cruz, Calif.	42	34	5	2	1	-	6
Kansas City, Kans.	U	U	U	U	U	U	U	Seattle, Wash.	137	99	25	8	2	3	7
Kansas City, Mo.	93	62	15	3	4	1	2	Spokane, Wash.	63	47	10	4	-	2	5
Lincoln, Nebr.	45	36	4	1	1	3	2	Tacoma, Wash.	136	112	18	4	1	-	9
Minneapolis, Minn.	162	131	24	4	2	1	12	TOTAL	11,261†	7,887	2,082	802	275	199	818
Omaha, Nebr.	90	61	18	7	1	3	6								
St. Louis, Mo.	25	17	4	3	-	1	-								
St. Paul, Minn.	113	86	21	5	1	-	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.

**Contributors to the Production of the *MMWR* (Weekly)  
Weekly Notifiable Disease Morbidity Data and 122 Cities Mortality Data**

Samuel L. Groseclose, D.V.M., M.P.H.

***State Support Team***

Robert Fagan  
Scott Connolly  
Gerald Jones  
David Nitschke  
Carol A. Worsham

***CDC Operations Team***

Carol M. Knowles  
Deborah A. Adams  
Willie J. Anderson  
Patsy A. Hall  
Amy K. Henion

The *Morbidity and Mortality Weekly Report (MMWR)* Series is prepared by the Centers for Disease Control and Prevention (CDC) and is available free of charge in electronic format and on a paid subscription basis for paper copy. To receive an electronic copy on Friday of each week, send an e-mail message to [listserv@listserv.cdc.gov](mailto:listserv@listserv.cdc.gov). The body content should read *SUBscribe mmwr-toc*. Electronic copy also is available from CDC's World-Wide Web server at <http://www.cdc.gov/> or from CDC's file transfer protocol server at <ftp.cdc.gov>. To subscribe for paper copy, contact Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone (202) 512-1800.

Data in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the following Friday. Address inquiries about the *MMWR* Series, including material to be considered for publication, to: Editor, *MMWR* Series, Mailstop C-08, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333; telephone (888) 232-3228.

All material in the *MMWR* Series is in the public domain and may be used and reprinted without permission; citation as to source, however, is appreciated.

Director, Centers for Disease Control  
and Prevention  
Jeffrey P. Koplan, M.D., M.P.H.  
Deputy Director, Centers for Disease  
Control and Prevention  
Claire V. Broome, M.D.

Director, Epidemiology Program Office  
Stephen B. Thacker, M.D., M.Sc.  
Editor, *MMWR* Series  
John W. Ward, M.D.  
Managing Editor,  
*MMWR* (weekly)  
Karen L. Foster, M.A.

Writers-Editors,  
*MMWR* (weekly)  
David C. Johnson  
Teresa F. Rutledge  
Caran R. Wilbanks  
Desktop Publishing and  
Graphics Support  
Morie M. Higgins  
Peter M. Jenkins