

# MMWR™

MORBIDITY AND MORTALITY WEEKLY REPORT

- 757 Firearm-Related Deaths and Hospitalizations — Wisconsin, 1994
- 760 School-Based HIV-Prevention Education — United States, 1994
- 765 Physical Violence and Injuries in Intimate Relationships — New York, Behavioral Risk Factor Surveillance System, 1994

## Firearm-Related Deaths and Hospitalizations — Wisconsin, 1994

Firearm-related injuries are a major cause of premature deaths in the United States (1). Although state-based vital records systems monitor fatal injuries, few surveillance systems exist to monitor nonfatal firearm-related injuries (2). Wisconsin is one of seven states funded by CDC cooperative agreements to establish firearm-related injury surveillance systems. Wisconsin's system, which links hospital discharge records and vital records, uses external cause of injury codes (E-codes) for case identification. This report describes the surveillance system and findings for 1994.

All Wisconsin hospitals are required to report E-codes for hospitalized patients to the state's hospital discharge database. E-codes, which are part of the *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM) injury classification scheme, were used to classify the intent of the perpetrator and the type of firearm discharged. E-codes used to classify intent include E922.0-9 (unintentional), E955.0-4 (suicide), E965.0-4 (assault), E985.0-4 (unknown intent), and E970 (legal intervention). Completeness of E-code reporting for all injury-related hospitalizations was >90% for 1994 (Wisconsin Office of Health Care Information, unpublished data, 1995).

To assess only incident events, all five elective admissions were omitted. Duplicate entries in the database from interhospital inpatient transfers and readmissions were identified using an encrypted patient identifier, date of birth, sex, race, zip code, and admission/discharge dates. Eighty-eight patient records matched on at least five of these six variables; the second admission for each of these records was excluded because it did not represent an incident event.

In this surveillance system, a case is defined as an injury to a Wisconsin resident resulting from discharge of a firearm that led to hospitalization and/or death in Wisconsin. Case-patients in the vital statistics database were identified through the underlying cause-of-death code on death certificates. To eliminate duplicate entries in the combined hospital discharge-vital records database, in-hospital death records were linked to death certificates using encrypted patient identifier, birth date, death date, sex, race, hospital identifier, and zip code. Of the 54 hospital discharge records that indicated the patient had died, 51 matched in the vital records database on at least five of the seven variables, including birth and death dates. The remaining three were retained in the analysis as nonfatal hospitalizations.

*Firearm-Related Deaths and Hospitalizations — Continued*

After elimination of elective, transfer, and readmissions, 567 persons were admitted to Wisconsin hospitals in 1994 for firearm-related injuries. Of these, 51 (9%) cases were fatal and 516 (91%) nonfatal. Of the 511 firearm-related deaths reported in 1994, 51 (10%) occurred in a hospital.

The overall rates of nonfatal hospitalizations and fatalities from firearm injuries were 10.2 and 10.1 per 100,000 population, respectively (Table 1). The overall assault rate with firearms was 8.8, representing 44% of all firearm-related injuries. The rate of firearm injuries with suicidal intent was 7.4, representing 36% of all firearm-related injuries. Suicides accounted for 64% of all firearm-related deaths, and nonfatal attempts accounted for 8% of hospitalizations. In comparison, assaults accounted for 28% of firearm-related deaths and 59% of nonfatal hospitalizations.

The type of firearm used was specified for a high proportion of suicide-related firearm injuries but a low proportion of assaults. For suicide-related firearm injuries, long guns (rifle or shotgun) were used in 52% and handguns in 36%; 12% were unspecified (Table 2). The type of firearm was reported in 39% of all assault injuries. An autopsy was performed on all 142 persons who died from assault; the type of firearm was reported for 23%.

**TABLE 1. Number, percentage, and rate\* of firearm-related injury hospitalizations and deaths, by intent of injury — Wisconsin, 1994**

Intent of injury	Nonfatal hospitalizations			Deaths			Total		
	No.	(%)	Rate	No.	(%)	Rate	No.	(%)	Rate
Unintentional	124	( 24)	2.4	31	( 6)	0.6	155	( 15)	3.0
Assault	303	( 59)	6.0	142	( 28)	2.8	445	( 44)	8.8
Suicide/attempted suicide	44	( 8)	0.9	329	( 64)	6.5	373	( 36)	7.4
Unknown intention	41	( 8)	0.9	3	(<1)	<0.1	44	( 4)	0.9
Legal intervention	4	(<1)	<0.1	6	( 1)	0.1	10	( 1)	0.2
<b>Total</b>	<b>516</b>	<b>(100)</b>	<b>10.2</b>	<b>511</b>	<b>(100)</b>	<b>10.1</b>	<b>1027</b>	<b>(100)</b>	<b>20.3</b>

\*Per 100,000 population.

**TABLE 2. Number and percentage of firearm-related injury hospitalizations and deaths, by weapon type and intent of injury — Wisconsin, 1994**

Intent of injury/Type of weapon	Nonfatal hospitalizations		Deaths		Total	
	No.	(%)	No.	(%)	No.	(%)
<b>Attempted suicide/suicide</b>						
Handgun	12	( 27)	123	( 37)	135	( 36)
Rifle or shotgun	20	( 46)	174	( 53)	194	( 52)
Unspecified	12	( 27)	32	( 10)	44	( 12)
<b>Total</b>	<b>44</b>	<b>(100)</b>	<b>329</b>	<b>(100)</b>	<b>373</b>	<b>(100)</b>
<b>Assault</b>						
Handgun	126	( 42)	18	( 13)	144	( 32)
Rifle or shotgun	16	( 5)	14	( 10)	30	( 7)
Unspecified	161	( 53)	110	( 77)	271	( 61)
<b>Total</b>	<b>303</b>	<b>(100)</b>	<b>142</b>	<b>(100)</b>	<b>445</b>	<b>(100)</b>

*Firearm-Related Deaths and Hospitalizations — Continued*

Reported by: S Hargarten, MD, Medical College of Wisconsin, Milwaukee; L Haskins, L Stahlsmith, MS, B Chatterjee, MS, J Morgan, P Remington, MD, Section of Emergency Medical Svcs, Bur of Public Health, Wisconsin Dept of Health and Family Svcs; R Nashold, P Peterson, Wisconsin Center for Health Statistics; T Karlson, PhD, Wisconsin Office of Health Care Information. Div of Violence Prevention, National Center for Injury Prevention and Control; Div of Applied Public Health Training (proposed), Epidemiology Program Office, CDC.

**Editorial Note:** Firearm-related injury data are important in identifying risk factors and in developing firearm- and violence-related injury-prevention programs. Linkage of hospital discharge and vital records databases in the Wisconsin Firearms Injury Surveillance System provides more complete data about firearm-related injuries in Wisconsin than does vital records data alone. The inclusion of nonfatal firearm-related injuries requiring hospitalization doubled the number of firearm-related injuries in the surveillance system (from 511 to 1027). In addition, approximately 9% of persons hospitalized for firearm-related injuries died during the hospitalization, a finding consistent with previous reports (3).

The surveillance system does not capture medical encounters that do not result in hospitalizations or death. However, an estimated 57% of all patients treated for a firearm-related injury are hospitalized. During 1994 in Wisconsin, based on 567 hospitalizations, an estimated 430 additional persons had firearm-related injuries that were treated without hospitalization (3).

Two factors have enabled Wisconsin to incorporate nonfatal firearm-related hospitalizations into the firearm-related injury surveillance system. First, mandatory E-code reporting in hospital discharge records with a high completeness of reporting provides previously unavailable data about injuries requiring hospitalization. Second, patient identifiers common to both hospital discharge and vital records databases allow linkage within and between the two databases. Elimination of duplicates enables more accurate estimates of firearm-related injury incidence.

The findings in this report are subject to at least three limitations. First, social, legal, and insurance concerns may prevent accurate reporting to medical providers and examiners. Second, missing or inadequate documentation by medical providers may preclude a specific E-code assignment (4). Complete E-code assignment may be impossible if the bullet caliber is known but not the type of firearm (e.g., 22 caliber). Third, coding instructions limit E-code utility. For example, when the intent of the injury is unknown, ICD-9 instructions are for deaths to be coded as unknown intention, whereas nonfatal injuries are to be coded as unintentional. This directive from the ICD-9-CM manual for coding nonfatal injuries is not uniformly followed; however, it probably overestimates the number of unintentional, nonfatal firearm-related injuries.

The use of E-codes and linkage of hospital discharge and vital records databases has enabled identification at the state level of firearm-related injuries resulting in hospitalization or death. This surveillance system is passive, flexible, inexpensive, and timely (5). Information from the system can aid in the accurate description of the at-risk population, improve cost estimates, and assist community leaders in evaluating firearm-injury trends and the impact of prevention programs.

*References*

1. CDC. Firearm-related years of potential life lost before age 65 years—United States, 1980–1991. *MMWR* 1994;43:609–11.
2. Kellermann AL, Lee RK, Mercy JA, Banton J. The epidemiologic basis for the prevention of firearm injuries. *Annu Rev Public Health* 1991;12:17–40.

*Firearm-Related Deaths and Hospitalizations — Continued*

3. Annest JL, Mercy JA, Gibson DR, Ryan GW. National estimates of nonfatal firearm-related injuries. *JAMA* 1995;273:1749-54.
4. Sniezek JE, Finklea JF, Graitcer PL. Injury coding and hospital discharge data: beyond the tip of the iceberg. *JAMA* 1989;262: 2270-2.
5. CDC. Guidelines for evaluating surveillance systems. *MMWR* 1988;37(no. S-5).

**School-Based HIV-Prevention Education — United States, 1994**

Many adolescents in the United States engage in behaviors that increase their risk for human immunodeficiency virus (HIV) infection and acquired immunodeficiency syndrome (AIDS) (1). Because 95% of all youth aged 5-17 years are enrolled in school (2), school health programs can be an efficient method to help prevent these behaviors (3). Previous studies have examined selected characteristics of HIV education in the United States (4-6); however, none provide a comprehensive assessment of HIV education policies and programs nationwide. In 1994, CDC conducted the School Health Policies and Programs Study (SHPPS), which assessed five components of the school health program: health education, physical education, health services, food service, and health policies. To provide a comprehensive assessment of HIV-prevention education programs nationwide in 1994, CDC analyzed data from the health education component of the study. This report summarizes the findings, which indicate that although HIV-prevention education has been widely implemented in U.S. schools, improvement in these programs is needed.\*

SHPPS assessed the school health education component at the state, district, school, and classroom levels. Questionnaires were mailed to the state education agency in all 50 states and the District of Columbia and to a nationally representative sample of 502 school districts. In addition, personal interviews were conducted with personnel from a nationally representative sample of 766 public and private middle/junior and senior high schools and with 1643 randomly selected health education teachers in those schools. Personnel from all 51 state education agencies and 406 (81%) of the 502 sampled districts completed the state and district questionnaires, respectively. Personnel from 607 (79%) of the 766 sampled schools completed the school-level interview and 1040 (63%) of the 1643 sampled classroom teachers completed the teacher interview.

Teachers were asked about the primary focus of the courses in which they taught health education. Of the 1027 teachers who responded to this question, nearly half (46.9%) taught courses that focused primarily on health education topics; in this analysis, these teachers are referred to as health education teachers in health education classes. The other teachers (53.1%) taught courses that included some health education content but focused primarily on another subject (e.g., biology); these teachers are referred to as health education teachers in other subjects. Data from school districts, schools, and classroom teachers were weighted to provide national estimates. SUDAAN was used to compute 95% confidence intervals (CIs).

In 1994, HIV-prevention education was required in 78.7% of states and 83.0% (95% CI=±5.3%) of school districts; the topic was taught in a required course in 85.6% (95%

---

\*Single copies of this report will be available until September 6, 1997, from the CDC National AIDS Clearinghouse, P.O. Box 6003, Rockville, MD 20849-6003; telephone (800) 458-5231 or (301) 217-0023.

*HIV-Prevention Education — Continued***TABLE 1. Percentage of states and school districts that required teaching of selected health education topics and percentage of middle/junior and senior high schools that included each topic in a required course, by topic — United States, School Health Policies and Programs Study, 1994\***

Topic	States requiring topic (n=51)	School districts requiring topic		Middle/junior and senior high schools that include topic in a required course	
	%	%	(95% CI†)	%	(95% CI)
Alcohol- and other drug-use prevention	75.0	86.0	(±5.3%)	90.4	(±3.1%)
Conflict resolution and violence prevention	38.5	61.0	(±8.4%)	58.3	(±5.8%)
Dietary behaviors and nutrition	68.9	80.1	(±6.6%)	84.3	(±4.4%)
HIV prevention	78.7	83.0	(±5.3%)	85.6	(±4.2%)
Injury prevention and safety	62.2	74.5	(±8.0%)	66.2	(±5.6%)
Physical activity and fitness	65.2	81.9	(±5.6%)	77.6	(±5.2%)
Pregnancy prevention	43.9	72.1	(±7.1%)	69.3	(±5.5%)
Sexually transmitted disease prevention	65.1	80.9	(±6.0%)	84.1	(±4.4%)
Suicide prevention	37.8	66.7	(±8.1%)	58.1	(±5.7%)
Tobacco-use prevention	71.7	83.2	(±6.2%)	85.6	(±4.0%)

\*The unweighted sample size for school districts was 398 and for middle/junior and senior high schools was 531. Data were missing for eight school districts and 76 schools.

†Confidence interval.

CI=±4.2%) of all middle/junior and senior high schools (Table 1). Similar percentages of middle/junior and senior high schools included the following topics in their curricula: HIV prevention, alcohol- and other drug (AOD)-use prevention, dietary behaviors and nutrition, physical activity and fitness, sexually transmitted disease prevention, and tobacco-use prevention. Topics included in curricula less often than HIV prevention were conflict resolution and violence prevention, injury prevention and safety, pregnancy prevention, and suicide prevention.

In all states that required HIV-prevention education in schools, in-service training for teachers was provided on this subject (Table 2). Of the school districts that required HIV-prevention education, 61.0% (95% CI=±8.1%) provided in-service training. For all health education topics except AOD-use prevention, the percentages of states and school districts that provided in-service training for those topics were significantly lower than for HIV-prevention education. Approximately one third (31.0% [95% CI=±3.6]) of all teachers reported receiving in-service training on HIV prevention during the 2 years preceding the survey (Table 2). The percentage of teachers who received in-service training on HIV prevention was significantly higher than that for teachers who received training on other health education topics. Health education teachers in health education classes were significantly more likely than health education teachers in other subjects to have received training on HIV prevention during the 2 years preceding the survey (38.6% [95% CI=±5.0%] versus 24.1% [95%

## HIV-Prevention Education — Continued

**TABLE 2. Percentage of states and school districts that provided training on required health education topics and percentage of teachers who received in-service training,\* by topic — United States, School Health Policies and Programs Study, 1994†**

Topic	States that provided training on required topic (n=51)	School districts that provided training on required topic		Teachers who received in-service training on required topic	
	%	%	(95% CI§)	%	(95% CI)
Alcohol- and other drug-use prevention	100.0	51.9	(± 9.2%)	22.9	(±3.3%)
Conflict resolution and violence prevention	93.3	41.3	(±10.2%)	13.9	(±3.1%)
Dietary behaviors and nutrition	90.3	19.7	(± 8.6%)	9.7	(±2.4%)
HIV prevention	100.0	61.0	(± 8.1%)	31.0	(±3.6%)
Injury prevention and safety	42.9	10.4	(± 4.7%)	7.8	(±2.7%)
Physical activity and fitness	73.3	16.0	(± 5.8%)	8.9	(±2.1%)
Pregnancy prevention	72.2	15.2	(± 6.1%)	5.7	(±1.6%)
Sexually transmitted disease prevention	85.7	32.5	(± 8.3%)	15.6	(±2.6%)
Suicide prevention	50.9	22.2	(± 7.8%)	9.5	(±2.9%)
Tobacco-use prevention	84.8	24.9	(± 6.8%)	9.3	(±2.2%)

\*During the 2 years preceding the survey.

†The unweighted sample size for school districts was 397 and for teachers was 1018. Data were missing for five school districts and 22 teachers.

§Confidence interval.

CI=±5.1%]). In addition, health education teachers in health education classes were significantly more likely than health education teachers in other subjects to have received preservice training† in health education (21.0% [95% CI=±3.8%] versus 4.5% [95% CI=±2.3%]) or health and physical education (33.9% [95% CI=±5.3%] versus 6.1% [95% CI=±2.5%]).

Of health education teachers in health education classes, at least 50% reported teaching 16 of 17 specific HIV-prevention topics (Table 3); 37.1% (95% CI=±4.7%) taught "correct use of condoms." Health education teachers in other subjects were significantly less likely than health education teachers in health education classes to teach each of the 17 topics; however, at least 54% taught "basic facts about HIV/AIDS," "how HIV is and is not transmitted," "how HIV affects the immune system," "sexual behaviors that transmit HIV," "needle-sharing behaviors that transmit HIV," and "reasons for choosing sexual abstinence."

Reported by: Div of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.

**Editorial Note:** Since 1988, CDC has provided fiscal and technical assistance to state and local education agencies and national health and education organizations to assist schools in implementing effective HIV-prevention education for youth. These agencies and organizations develop, implement, and evaluate HIV-prevention policies and programs and train teachers to initiate effective prevention efforts and implement curricula in classrooms. As a result of these and other efforts, school-based HIV

†An undergraduate or graduate degree, 30 graduate credits, or certification.

*HIV-Prevention Education — Continued***TABLE 3. Percentage of health education teachers in health education classes\* and health education teachers in other subjects† who teach specific HIV education topics, by topic — United States, School Health Policies and Programs Study, 1994§**

Topic	Health education teachers in health education classes		Health education teachers in other subjects	
	%	(95% CI¶)	%	(95% CI)
Basic facts about HIV/AIDS	86.6	(±3.6%)	72.2	(±5.3%)
How HIV is and is not transmitted	83.8	(±4.0%)	70.0	(±5.6%)
Needle-sharing behaviors that transmit HIV	79.6	(±4.4%)	57.3	(±5.9%)
How HIV affects the immune system	78.5	(±4.6%)	61.5	(±5.9%)
Sexual behaviors that transmit HIV	77.7	(±4.6%)	58.8	(±6.0%)
Reasons for choosing sexual abstinence	77.6	(±4.1%)	54.5	(±7.4%)
Disease progression of AIDS	71.1	(±4.5%)	46.4	(±6.7%)
Influence of alcohol and other drugs on HIV risk behaviors	69.9	(±4.7%)	40.3	(±6.8%)
Societal impact of HIV/AIDS	68.5	(±4.5%)	48.6	(±7.8%)
Perceptions of risk for HIV/AIDS	64.1	(±5.4%)	44.0	(±5.8%)
Social norms toward risk behaviors related to HIV	63.6	(±5.1%)	46.1	(±6.2%)
Compassion and support for persons living with HIV/AIDS	58.7	(±5.1%)	42.3	(±6.3%)
Statistics on adolescent death and disability related to HIV/AIDS	58.4	(±4.8%)	30.9	(±5.1%)
Condom efficacy/how well condoms work	56.4	(±5.0%)	33.3	(±5.8%)
Information on HIV testing and counseling	55.9	(±5.3%)	27.7	(±5.8%)
True prevalence of risk behavior related to HIV	50.8	(±5.6%)	28.1	(±5.1%)
Correct use of condoms	37.1	(±4.7%)	15.2	(±4.4%)

\* Teachers of courses that focus primarily on health education topics.

† Teachers of courses that include health education content but focus primarily on another subject.

§ The unweighted sample size for health education teachers in health education classes was 562 and for health education teachers in other subjects was 462. Data were missing for two health education teachers in health education classes and one health education teacher in other subjects.

¶ Confidence interval.

education is widely implemented in the United States. From 1987 to 1994, the number of states requiring HIV-prevention education in schools increased from 13 states (4) to 39 states plus the District of Columbia. This high level of policy support is consistent with public support; 95% of U.S. residents in a 1996 survey reported that information about AIDS should be provided in school (7).

The findings in this report indicate that, despite wide implementation of HIV-prevention education in U.S. schools, improvements in HIV-prevention programs are needed. In particular, efforts are needed to increase the percentage of teachers who teach HIV prevention in a health education setting and who receive in-service training

*HIV-Prevention Education — Continued*

on HIV prevention. A national health objective for the year 2000 is "to increase to at least 95% the proportion of schools that provide age-appropriate HIV and other sexually transmitted disease (STD) curricula for students in 4th through 12th grade, preferably as part of comprehensive school health education, based on scientific information that includes the way HIV and other STDs are prevented and transmitted" (objective 18.10/19.12) (8). Based on the findings from SHPPS, to meet this objective, an 11% increase is needed in the percentage of middle/junior and senior high schools that implement HIV- and STD-prevention education programs.

Although all states and most school districts that required HIV-prevention education also offered in-service training on this topic, only approximately one third of teachers had received this training during the 2 years preceding the survey. Current in-service training is especially important for HIV education because new methods are being identified to assist youth in developing the skills needed to prevent HIV infection.

The SHPPS data used in this analysis are subject to at least two limitations. First, the study was not designed to explore the link between school health programs and students' health-related knowledge, beliefs, and behaviors. Second, although the state and district levels of SHPPS measured policies and programs in grades K–12, the school and classroom levels of SHPPS focused only on middle/junior and senior high schools.

CDC's *Guidelines for Effective School Health Education to Prevent the Spread of AIDS* recommends that qualified health education teachers provide education about AIDS (9). The findings from SHPPS indicate that health education teachers in health education classes are more likely than health education teachers in other subjects to have appropriate preservice and in-service training. Furthermore, HIV-prevention education is more comprehensive when taught within the context of health education than when taught within other subjects. However, teaching HIV prevention in other subjects may be an important adjunct to a planned course of study in health education classes.

*References*

1. CDC. Youth risk behavior surveillance—United States, 1993. *MMWR* 1995;44(no. SS-1).
2. National Center for Education Statistics. Digest of education statistics, 1993. Washington, DC: US Department of Education, Office of Educational Research and Improvement, 1993.
3. Kirby D, Short L, Collins J, et al. School-based programs to reduce sexual risk behaviors: a review of effectiveness. *Public Health Rep* 1994;109:339–60.
4. Schumacher M, Fraser K. The National Association of State Boards of Education HIV/AIDS education survey: profiles of state policy actions. Alexandria, Virginia: National Association of State Boards of Education, 1989.
5. National Association of State Boards of Education and Council of Chief State School Officers. AIDS, HIV, and school health education: state policies and programs, 1990. Washington, DC: National Association of State Boards of Education and Council of Chief State School Officers, 1991.
6. Britton PO, DeMauro D, Gambrell AE. Future directions: HIV/AIDS education in the nation's schools. New York: Sex Information and Education Council of the United States, 1992.
7. Kaiser Family Foundation. The Kaiser survey on Americans and AIDS/HIV. Menlo Park, California: Kaiser Family Foundation, 1996.
8. Public Health Service. Healthy people 2000: national health promotion and disease prevention objectives—midcourse review and 1995 revisions. Washington, DC: US Department of Health and Human Services, Public Health Service, 1995.



*HIV-Prevention Education — Continued*

9. CDC. Guidelines for effective school health education to prevent the spread of AIDS. *MMWR* 1988;37(no. S-2).

### **Physical Violence and Injuries in Intimate Relationships — New York, Behavioral Risk Factor Surveillance System, 1994**

Women are more likely than men to sustain injuries and to require medical attention as a result of physical violence in an intimate relationship (1). To determine the prevalence of physically violent acts by intimate partners, injuries, and the use of medical services for injuries sustained from intimate partner physical violence, the New York State Department of Health (NYSDH) analyzed data from the 1994 Behavioral Risk Factor Surveillance System (BRFSS). This report summarizes the analysis of these findings, which indicate that women are more likely to be injured than men and that their injuries are underreported.

The BRFSS is a population-based, random-digit-dialed telephone survey of the noninstitutionalized U.S. population aged  $\geq 18$  years. In 1994, seven additional questions about intimate-partner violence (i.e., spouse, partner, or ex-partner) were added to New York's BRFSS survey. Data were weighted to reflect the 1994 New York population, and 95% confidence intervals (CIs) were calculated using SUDAAN.

Overall, 692 women and 546 men aged 18–44 years were interviewed. Among women, 43 (5.6% [95% CI=3.8%–7.4%]) reported being the victim of a physically violent act by an intimate partner during the preceding year. Of women reporting such violence, 26 (57.7% [95% CI=41.0%–74.4%]) reported being shoved, grabbed, or slapped; 17 (42.3% [95% CI=25.6%–59.0%]) reported being kicked, bitten, punched, or beaten or threatened/assaulted with a knife, gun, or other object. In comparison, 29 (6.9% [95% CI=4.0%–9.8%]) men reported physical violence by an intimate partner, of whom 13 (47.7% [95% CI=25.8%–69.6%]) reported more severe forms of violence.

Injuries as a result of the most recent violent act by an intimate partner were more prevalent among women than men. Among women reporting physical violence by an intimate partner, 23 (53.6% [95% CI=36.9%–70.3%]) reported injuries to their head or face or injuries causing pain on other parts of the body lasting longer than 1 hour; four (12.4% [95% CI=0–26.0%]) men who experienced physical violence reported being injured. During the 12 months preceding the survey, medical attention to treat injuries sustained from such violence was sought by seven (19.6% [95% CI=5.4%–33.8%]) women and two (7.6% [95% CI=0–19.1%]) men. Among women reporting less severe violent acts by an intimate partner, two (8.9% [95% CI=0–21.9%]) reported seeking medical care for violence-related injuries; among women reporting more severe violence, five (34.1% [95% CI=7.8%–60.4%]) reported seeking medical attention for injuries.

Among both sexes, the prevalence of reported physical violence was higher among younger persons. Among women aged 18–30 years, 6.7% (95% CI=3.7%–9.7%) reported being victims of physical violence by an intimate partner, compared with 4.6% (95% CI=2.4%–6.8%) of women aged 31–44 years. Among men aged 18–30 years, 10.2% (95% CI=5.0%–15.4%) reported physical violence by an intimate partner compared with 3.5% (95% CI=1.4%–5.6%) of men aged 31–44 years.

*Physical Violence and Injuries — Continued*

Violence by intimate partners was reported by persons of all income levels, educational backgrounds, and marital statuses. Among women, being a victim of physical violence was more common for those who reported annual household incomes <\$15,000 (9.6% [95% CI=4.5%–14.7%]) than among those with incomes \$15,000–\$35,000 (6.6% [95% CI=2.5%–10.7%]) and incomes ≥\$35,000 (4.4% [95% CI=1.8%–7.0%]). The association between income level and physical violence was similar for men.

Among women, 4.6% (95% CI=2.1%–7.1%) with a high school education or less reported physical violence, compared with 6.4% (95% CI=3.8%–9.0%) reporting at least some college or technical school education. Men with a high school education or less reported intimate partner physical violence more frequently (8.7% [95% CI=4.0%–13.4%]) than men with at least some college or technical school education (5.3% [95% CI=1.9%–8.7%]).

Married women were least likely to report violence by an intimate partner (2.7% [95% CI=0.7%–4.7%]), followed by single/widowed women (6.9% [95% CI=3.9%–9.9%]), divorced women (9.7% [95% CI=0.1%–19.3%]), and separated women (17.1% [95% CI=3.7%–30.5%]). The association between marital status and physical violence was similar for men.

*Reported by: G Hale-Carlsson, MPH, Office of Health Systems Management; B Hutton, MPH, J Fuhrman, Bur of Injury Prevention; D Morse, MD, State Epidemiologist, New York State Dept of Health; L McNutt, PhD, School of Public Health, State Univ of New York at Albany; A Clifford, New York State Office for the Prevention of Domestic Violence, Albany, New York. Family and Intimate Violence Prevention Team, Div of Violence Prevention, National Center for Injury Prevention and Control, CDC.*

**Editorial Note:** The findings in this report indicate that although reported violent acts appeared similar for women and men, women reported substantially more injuries than men as a result of intimate-partner physical violence. In addition, this report underscores that injuries to women from intimate-partner physical violence are underestimated when based on reports from emergency departments and physicians' offices. Estimates from a recent emergency department survey indicate that 23% of women who had been physically assaulted or emotionally abused by a boyfriend or husband sought medical care because of trauma, and only 13% had told staff or were asked by staff about domestic violence (2). Because women presenting for health care may be hesitant to admit they are victims of intimate-partner violence, broadening of inquiries about violence to all female patients has been advocated by professional organizations (3).

The findings in the report are subject to at least five limitations. First, questions about injuries were limited to the most recent violent incident, thus potentially underestimating the total number of injuries a person received. Second, injury questions focused on head and face injuries, which are the more common sites of injury (4). Third, assessment of the severity of injuries was not conducted. As a result, the survey could not determine whether multiple injuries were sustained during a single event, whether outpatient or inpatient care was needed, and whether medical care was needed but not sought. Fourth, the circumstances under which intimate physical violence occurred were not assessed. For example, the survey could not determine the extent to which 1) violence perpetrated against male partners by women was in self defense or in direct response to violence initiated by the male partner and 2) whether the violent incident reported was isolated or part of a repeated cycle of physical vio-

*Physical Violence and Injuries — Continued*

lence (5,6). Finally, data were based on self-report of physical violence occurring in the context of fights or arguments only and are not necessarily representative of ongoing patterns of control and abuse. To better characterize violence among intimate partners, additional studies should focus not only on the number and types of violent acts but also on violence-related injuries, symptoms of psychological stress, and other acute and chronic sequelae that may result from such violence (7).

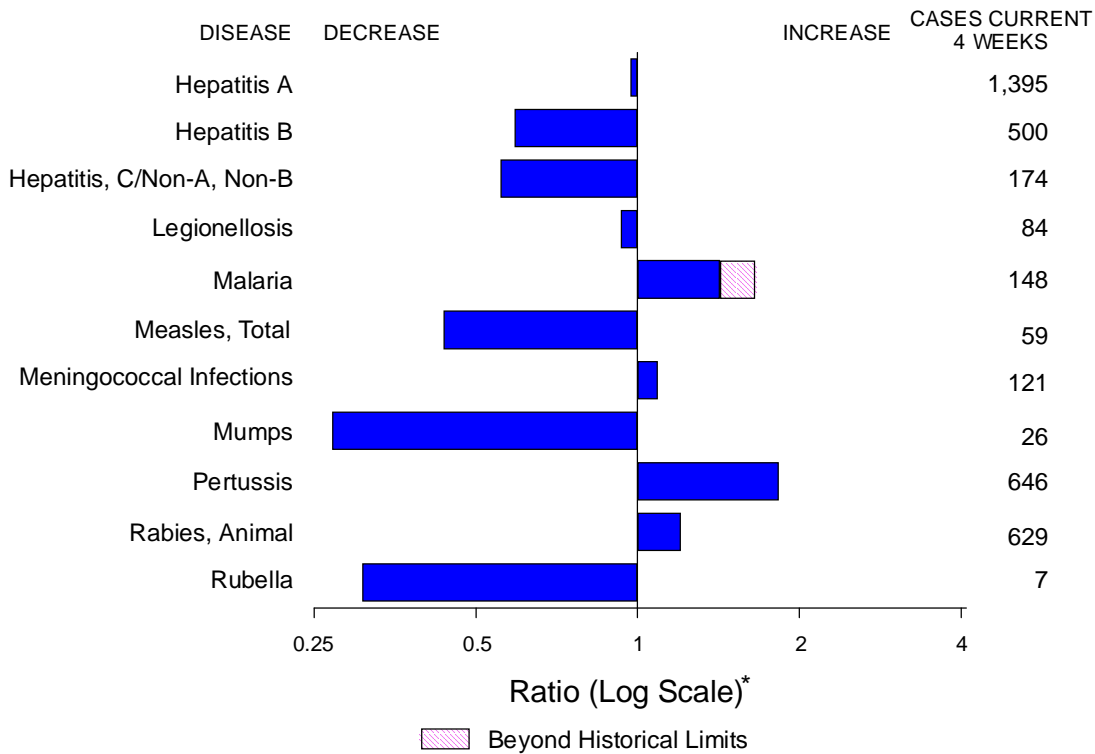
NYSDH is funding several programs to address intimate-partner violence, including four demonstration projects to model effective methods for reducing violence and training for physicians and clinicians in identifying and helping victims of abuse. In addition, because primary-care and emergency-department clinicians are likely to see victims of physical violence through visits related to the violence or for routine care (7,8), the New York State Department of Health, in collaboration with the New York State Office for the Prevention of Domestic Violence and the Medical Society of the State of New York, developed a physician's reference card (based on American Medical Association guidelines) to assist physicians in recognizing and treating victims of domestic violence. Copies of the physician's reference card are available from the Bureau of Injury Prevention, New York State Department of Health, telephone (518) 473-1143.

*References*

1. Cascardi M, Langhinrichsen J, Vivian D. Marital aggression: impact, injury, and health correlates for husbands and wives. *Arch Intern Med* 1992;152:1178-84.
2. Abbott J, Johnson R, Koziol-McLain J, Lowenstein SR. Domestic violence against women: incidence and prevalence in an emergency department population. *JAMA* 1995;273:1763-7.
3. Council on Scientific Affairs, American Medical Association. Violence against women: relevance for medical practitioners. *JAMA* 1992;267:3184-9.
4. Stark E, Flitcraft A, Zuckerman D, Grey A, Robison J, Frazier W. Wife abuse in the medical setting: an introduction for health personnel. Rockville, Maryland: National Clearinghouse on Domestic Violence, 1981. (Monograph no. 7).
5. Strauss MA, Gelles RJ. How violent are American families? In: Strauss MA, Gelles RJ, eds. *Physical violence in American families: risk factors and adaptations to violence in 8,145 families*. New Brunswick, New Jersey: Transaction Publishers, 1990:95-112.
6. Stark E, Flitcraft A. Violence among intimates: an epidemiologic review. In: Van Hasselt, ed. *Handbook of family violence*. New York: Plenum Press, 1988:293-317.
7. McCauley J, Kern DE, Kolodner K, et al. The "battering syndrome:" prevalence and clinical characteristics of domestic violence in primary care internal medicine practices. *Ann Intern Med* 1995;123:737-46.
8. Drossman DA, Leserman J, Nachman G, et al. Sexual and physical abuse in women with functional or organic gastrointestinal disorders. *Ann Intern Med* 1990;113:828-33.



**FIGURE I. Selected notifiable disease reports, comparison of 4-week totals ending August 31, 1996, 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 — cases of selected notifiable diseases, United States, cumulative, week ending August 31, 1996 (35th Week)**

	Cum. 1996		Cum. 1996
Anthrax	-	HIV infection, pediatric*§	195
Brucellosis	58	Plague	-
Cholera	2	Poliomyelitis, paralytic¶	-
Congenital rubella syndrome	1	Psittacosis	26
Cryptosporidiosis*	1,223	Rabies, human	1
Diphtheria	1	Rocky Mountain spotted fever (RMSF)	456
Encephalitis: California*	25	Streptococcal toxic-shock syndrome*	13
eastern equine*	2	Syphilis, congenital**	225
St. Louis*	-	Tetanus	18
western equine*	-	Toxic-shock syndrome	94
Hansen Disease	71	Trichinosis	15
Hantavirus pulmonary syndrome*†	10	Typhoid fever	224

-: no reported cases  
 \*Not notifiable in all states.  
 † Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).  
 § Updated monthly to the Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention (NCHSTP), last update August 27, 1996.  
 ¶ Three suspected case of polio with onset in 1996 has been reported to date.  
 \*\* Updated quarterly from reports to the Division of STD Prevention, NCHSTP.

**TABLE II. Cases of selected notifiable diseases, United States, weeks ending August 31, 1996, and September 2, 1995 (35th Week)**

Reporting Area	AIDS*		Chlamydia	Escherichia coli O157:H7		Gonorrhea		Hepatitis C/NA,NB		Legionellosis	
	Cum. 1996	Cum. 1995		Cum. 1996	NETSS†	PHLIS‡	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996
			Cum. 1996		Cum. 1996						
UNITED STATES	45,416	47,153	224,015	1,490	719	188,109	262,024	2,243	2,645	545	797
NEW ENGLAND	1,849	2,383	11,539	213	48	4,859	5,058	76	86	31	18
Maine	31	75	594	16	-	33	64	-	-	2	5
N.H.	58	70	397	27	24	80	75	6	12	1	1
Vt.	14	21	-	15	14	40	37	28	8	3	-
Mass.	873	999	4,530	102	10	1,480	1,806	36	62	16	10
R.I.	123	179	1,324	10	-	344	336	6	4	9	2
Conn.	750	1,039	4,694	43	-	2,882	2,740	-	-	N	N
MID. ATLANTIC	12,627	12,730	27,982	125	34	20,827	30,196	187	308	126	133
Upstate N.Y.	1,672	1,609	N	81	12	4,111	6,585	151	152	46	34
N.Y. City	7,052	6,551	12,837	8	-	6,455	11,857	1	1	5	4
N.J.	2,402	2,970	3,004	36	5	3,284	3,162	-	126	9	20
Pa.	1,501	1,600	12,141	N	17	6,977	8,592	35	29	66	75
E.N. CENTRAL	3,616	3,577	29,133	372	174	28,231	52,122	306	210	146	234
Ohio	810	725	13,155	95	52	9,587	16,493	24	7	62	110
Ind.	462	379	6,692	51	33	4,330	6,074	7	1	31	53
Ill.	1,579	1,513	3,481	163	16	11,520	13,088	47	63	9	22
Mich.	570	713	U	63	53	U	11,988	228	139	31	22
Wis.	195	247	5,805	N	20	2,794	4,479	-	-	13	27
W.N. CENTRAL	1,060	1,077	18,909	325	193	8,285	13,449	87	61	30	53
Minn.	189	242	2,702	124	115	U	1,890	1	2	3	2
Iowa	69	55	2,631	82	55	668	983	39	10	8	17
Mo.	541	474	8,326	45	-	5,567	7,714	28	17	6	13
N. Dak.	10	4	2	9	10	-	21	-	5	-	3
S. Dak.	9	11	704	12	-	101	140	-	1	2	-
Nebr.	74	80	1,779	27	3	668	801	5	14	9	11
Kans.	168	211	2,765	26	10	1,281	1,900	14	12	2	7
S. ATLANTIC	11,216	12,139	36,728	81	43	64,925	72,187	172	165	92	131
Del.	215	219	1,148	-	1	984	1,455	1	-	9	2
Md.	1,324	1,621	4,399	N	7	9,283	8,485	1	6	18	22
D.C.	799	739	N	-	-	3,043	2,982	-	-	8	4
Va.	795	961	7,462	N	21	6,173	7,253	10	10	13	16
W. Va.	83	75	1	N	2	335	470	8	40	1	3
N.C.	603	712	-	23	9	12,727	16,221	34	42	7	27
S.C.	586	673	-	6	3	7,288	8,190	21	15	4	28
Ga.	1,651	1,638	7,626	22	-	12,711	13,247	U	15	3	14
Fla.	5,160	5,501	16,092	20	-	12,381	13,884	97	37	29	15
E.S. CENTRAL	1,563	1,544	19,813	37	29	21,106	27,374	415	738	35	45
Ky.	272	196	4,330	7	4	2,686	3,166	20	23	3	8
Tenn.	580	636	8,861	18	22	7,678	9,344	319	713	18	21
Ala.	431	410	5,595	8	3	9,013	11,291	4	2	3	6
Miss.	280	302	U	4	-	1,729	3,573	72	U	11	10
W.S. CENTRAL	4,562	4,141	30,102	38	9	22,214	36,724	319	182	16	15
Ark.	186	186	-	11	3	2,401	3,513	6	5	-	5
La.	1,046	707	4,790	5	3	5,168	7,771	142	114	1	2
Okla.	189	194	5,198	8	1	3,270	3,692	69	32	5	3
Tex.	3,141	3,054	20,114	14	2	11,375	21,748	102	31	10	5
MOUNTAIN	1,325	1,466	10,562	112	55	4,774	6,023	394	311	28	87
Mont.	23	16	-	13	-	24	47	12	10	1	4
Idaho	29	37	1,040	25	6	75	103	91	42	-	2
Wyo.	3	10	394	-	2	24	38	131	121	3	8
Colo.	362	493	-	45	24	1,077	1,972	36	47	7	33
N. Mex.	118	123	2,633	6	-	564	705	46	37	1	4
Ariz.	370	390	4,404	N	15	2,478	2,106	48	29	12	7
Utah	127	98	993	13	-	199	156	21	10	2	12
Nev.	293	299	1,098	10	8	333	896	9	15	2	17
PACIFIC	7,597	8,096	39,247	187	134	12,888	18,891	287	584	41	81
Wash.	508	662	6,289	54	42	1,376	1,767	39	149	5	18
Oreg.	339	285	U	54	35	382	510	5	33	-	-
Calif.	6,594	6,914	27,738	76	49	10,593	15,743	106	375	32	58
Alaska	23	53	776	3	2	282	463	2	1	1	-
Hawaii	133	182	872	N	6	255	408	135	26	3	5
Guam	4	-	168	N	-	31	77	1	5	2	1
P.R.	1,524	1,828	N	13	U	210	389	77	166	-	-
V.I.	17	27	N	N	U	-	-	-	-	-	-
Amer. Samoa	-	-	-	N	U	-	18	-	-	-	-
C.N.M.I.	1	-	N	N	U	11	40	-	5	-	-

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

\*Updated monthly to the Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention, last update August 27, 1996.

†National Electronic Telecommunications System for Surveillance.

‡Public Health Laboratory Information System.

**TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending August 31, 1996, and September 2, 1995 (35th Week)**

Reporting Area	Lyme Disease		Malaria		Meningococcal Disease		Syphilis (Primary & Secondary)		Tuberculosis		Rabies, Animal	
	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995
UNITED STATES	7,287	7,264	920	813	2,275	2,162	7,235	11,136	12,495	13,620	4,046	5,321
NEW ENGLAND	2,458	1,463	37	35	96	101	114	254	276	331	485	1,073
Maine	21	16	6	4	12	7	-	2	4	11	67	21
N.H.	24	19	1	1	3	18	1	1	9	9	46	113
Vt.	13	8	2	1	3	6	-	-	1	2	113	131
Mass.	180	86	12	10	36	35	53	43	140	185	76	330
R.I.	333	238	6	4	10	4	1	2	24	29	32	222
Conn.	1,887	1,096	10	15	32	31	59	206	98	95	151	256
MID. ATLANTIC	4,099	4,716	226	220	201	278	284	578	2,246	2,934	509	1,391
Upstate N.Y.	2,368	2,317	54	43	62	74	49	63	278	315	271	820
N.Y. City	189	332	113	116	30	38	88	247	1,113	1,684	-	-
N.J.	516	1,285	46	46	53	70	77	120	478	499	94	250
Pa.	1,026	782	13	15	56	96	70	148	377	436	144	321
E.N. CENTRAL	50	319	95	114	311	311	895	1,939	1,375	1,301	66	73
Ohio	33	21	9	7	120	89	327	626	199	182	9	8
Ind.	15	12	12	14	48	46	146	227	120	117	5	12
Ill.	2	15	35	61	80	83	303	748	749	683	18	12
Mich.	-	5	28	13	32	55	U	193	234	264	22	30
Wis.	U	266	11	19	31	38	119	145	73	55	12	11
W.N. CENTRAL	109	72	35	18	191	133	261	542	321	415	374	260
Minn.	39	5	16	3	25	22	51	29	77	101	19	13
Iowa	18	9	2	2	39	24	13	34	44	47	178	94
Mo.	22	37	8	6	80	50	168	459	134	160	16	25
N. Dak.	-	-	1	1	3	1	-	-	6	3	48	22
S. Dak.	-	-	-	1	9	5	-	-	15	15	91	72
Nebr.	2	4	3	3	16	12	12	11	13	17	3	5
Kans.	28	17	5	2	19	19	17	9	32	72	19	29
S. ATLANTIC	369	480	198	159	465	353	2,568	2,802	2,383	2,420	1,865	1,425
Del.	38	37	3	1	2	5	26	10	20	40	45	72
Md.	206	319	52	43	48	31	434	306	204	274	428	291
D.C.	3	2	7	14	10	4	104	75	92	68	8	11
Va.	30	37	31	35	41	47	296	438	178	167	391	277
W. Va.	10	20	3	2	11	8	1	8	41	54	70	83
N.C.	58	43	19	13	60	58	715	776	329	284	482	334
S.C.	3	10	9	1	45	47	276	410	234	217	65	99
Ga.	1	9	16	20	115	69	450	525	449	448	211	188
Fla.	20	3	58	30	133	84	266	254	836	868	165	70
E.S. CENTRAL	49	46	22	17	130	141	1,588	2,251	906	948	146	196
Ky.	10	11	3	1	20	36	90	126	163	199	33	21
Tenn.	17	19	10	7	16	51	573	590	297	306	51	67
Ala.	6	6	3	6	54	29	375	443	286	275	59	102
Miss.	16	10	6	3	40	25	550	1,092	160	168	3	6
W.S. CENTRAL	82	81	22	17	261	258	1,100	2,186	1,508	1,729	263	526
Ark.	21	6	-	2	29	26	118	336	126	146	14	33
La.	1	4	4	2	47	39	371	692	59	178	13	24
Okla.	13	34	-	1	24	27	134	138	127	146	19	28
Tex.	47	37	18	12	161	166	477	1,020	1,196	1,259	U	441
MOUNTAIN	6	7	39	43	129	158	100	152	390	424	99	103
Mont.	-	-	6	3	4	2	-	4	14	10	15	34
Idaho	-	-	-	1	19	7	4	-	6	8	-	1
Wyo.	2	3	3	-	3	6	2	-	5	1	22	21
Colo.	-	-	17	18	27	40	23	87	53	38	30	-
N. Mex.	1	1	2	4	21	29	1	5	54	56	4	3
Ariz.	-	-	5	7	33	47	64	24	159	209	22	30
Utah	2	1	4	5	12	13	2	4	39	19	3	10
Nev.	1	2	2	5	10	14	4	28	60	83	3	4
PACIFIC	65	80	246	190	491	429	325	432	3,090	3,118	239	274
Wash.	11	7	16	15	75	72	5	11	163	181	4	7
Oreg.	11	13	15	11	86	76	10	18	65	81	-	1
Calif.	42	60	205	153	321	271	309	402	2,705	2,685	227	259
Alaska	-	-	3	1	6	6	-	1	43	48	8	7
Hawaii	1	-	7	10	3	4	1	-	114	123	-	-
Guam	-	-	-	1	1	2	3	8	35	83	-	-
P.R.	-	-	-	1	5	18	97	185	63	120	32	35
V.I.	-	-	-	2	-	-	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	-	-	-	-	3	-	-
C.N.M.I.	-	-	-	1	-	-	1	5	-	29	-	-

N: Not notifiable

U: Unavailable

-: no reported cases

**TABLE III. Cases of selected notifiable diseases preventable by vaccination, United States, weeks ending August 31, 1996, and September 2, 1995 (35th Week)**

Reporting Area	<i>H. influenzae</i> , invasive		Hepatitis (viral), by type				Measles (Rubeola)			
	Cum. 1996*	Cum. 1995	A		B		Indigenous		Imported†	
			Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	1996	Cum. 1996	1996	Cum. 1996
UNITED STATES	793	795	17,688	19,030	6,254	6,653	2	379	-	36
NEW ENGLAND	20	32	229	182	116	162	-	8	-	6
Maine	-	3	13	20	2	7	-	-	-	-
N.H.	8	8	11	8	9	16	-	-	-	-
Vt.	1	2	5	4	10	3	-	1	-	1
Mass.	10	10	123	73	39	60	-	6	-	5
R.I.	1	3	9	23	9	8	-	-	-	-
Conn.	-	6	68	54	47	68	-	1	-	-
MID. ATLANTIC	127	113	1,062	1,176	930	947	-	20	-	5
Upstate N.Y.	39	31	280	275	235	257	-	-	-	-
N.Y. City	25	26	399	581	425	302	-	9	-	3
N.J.	38	13	231	164	171	242	-	-	-	-
Pa.	25	43	152	156	99	146	-	11	-	2
E.N. CENTRAL	121	139	1,501	2,237	667	762	-	5	-	4
Ohio	74	73	570	1,263	89	81	-	2	-	-
Ind.	7	17	228	118	114	146	-	-	-	-
Ill.	28	31	307	457	159	199	-	2	-	1
Mich.	7	16	287	254	259	283	-	-	-	3
Wis.	5	2	109	145	46	53	-	1	-	-
W.N. CENTRAL	37	55	1,464	1,327	294	448	-	17	-	2
Minn.	23	28	90	126	39	36	-	14	-	2
Iowa	5	3	253	61	64	33	-	-	-	-
Mo.	5	17	714	957	142	320	-	2	-	-
N. Dak.	-	-	35	22	1	4	-	-	-	-
S. Dak.	1	1	40	37	3	2	-	-	-	-
Nebr.	1	3	151	33	21	21	-	-	-	-
Kans.	2	3	181	91	24	32	-	1	-	-
S. ATLANTIC	184	154	849	760	1,005	871	-	6	-	8
Del.	2	-	11	8	6	6	-	1	-	-
Md.	47	54	138	148	211	173	-	2	-	2
D.C.	5	-	22	18	28	15	-	-	-	-
Va.	6	21	111	134	97	79	-	-	-	2
W. Va.	6	6	12	17	18	39	-	-	-	-
N.C.	22	24	101	79	253	203	-	3	-	1
S.C.	4	1	42	34	57	34	-	-	-	-
Ga.	73	43	87	51	8	62	-	-	-	2
Fla.	19	5	325	271	327	260	-	-	-	1
E.S. CENTRAL	21	8	977	1,212	532	605	-	-	-	-
Ky.	4	2	20	33	36	51	-	-	-	-
Tenn.	8	-	661	1,008	303	477	-	-	-	-
Ala.	8	5	137	61	42	77	-	-	-	-
Miss.	1	1	159	110	151	-	-	-	-	-
W.S. CENTRAL	33	49	3,676	2,382	824	808	-	25	-	2
Ark.	-	5	345	341	51	41	-	-	-	-
La.	3	1	109	80	84	140	-	-	-	-
Okla.	27	20	1,561	637	59	113	-	-	-	-
Tex.	3	23	1,661	1,324	630	514	U	25	U	2
MOUNTAIN	78	89	2,819	2,806	719	572	2	152	-	5
Mont.	-	-	82	73	7	19	-	-	-	-
Idaho	1	2	152	237	69	69	-	1	-	-
Wyo.	35	5	26	83	31	17	-	1	-	-
Colo.	11	13	306	352	91	83	-	4	-	3
N. Mex.	9	12	279	582	243	213	2	16	-	-
Ariz.	9	22	1,168	807	178	87	-	8	-	-
Utah	7	9	640	518	69	48	U	117	U	2
Nev.	6	26	166	154	31	36	-	5	-	-
PACIFIC	172	156	5,111	6,948	1,167	1,478	-	146	-	4
Wash.	2	8	330	573	64	127	-	45	-	-
Oreg.	22	21	593	1,799	48	90	-	4	-	-
Calif.	144	122	4,104	4,428	1,037	1,239	-	33	-	2
Alaska	2	1	32	28	10	10	-	63	-	-
Hawaii	2	4	52	120	8	12	-	1	-	2
Guam	-	-	2	6	-	4	U	-	U	-
P.R.	1	3	80	73	261	439	-	6	-	-
V.I.	-	-	-	6	-	13	-	-	-	-
Amer. Samoa	-	-	-	5	-	-	U	-	U	-
C.N.M.I.	10	11	1	22	5	13	U	-	U	-

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

\*Of 185 cases among children aged <5 years, serotype was reported for 40 and of those, 10 were type b.

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



**TABLE III. (Cont'd.) Cases of selected notifiable diseases preventable by vaccination, United States, weeks ending August 31, 1996, and September 2, 1995 (35th Week)**

Reporting Area	Measles (Rubeola), cont'd.		Mumps			Pertussis			Rubella		
	Total		1996	Cum. 1996	Cum. 1995	1996	Cum. 1996	Cum. 1995	1996	Cum. 1996	Cum. 1995
	Cum. 1996	Cum. 1995									
UNITED STATES	415	266	8	428	593	169	2,849	2,608	1	191	104
NEW ENGLAND	14	8	-	-	11	47	601	368	-	25	44
Maine	-	-	-	-	4	-	18	19	-	-	-
N.H.	-	-	-	-	1	13	64	25	-	-	1
Vt.	2	-	-	-	-	7	37	52	-	2	-
Mass.	11	2	-	-	2	22	450	258	-	20	7
R.I.	-	5	-	-	1	5	13	1	-	-	-
Conn.	1	1	-	-	3	-	19	13	-	3	36
MID. ATLANTIC	25	12	1	58	90	21	218	214	-	8	12
Upstate N.Y.	-	1	1	19	22	2	110	96	-	4	3
N.Y. City	12	5	-	13	13	-	22	35	-	2	7
N.J.	-	6	-	2	14	-	5	15	-	2	2
Pa.	13	-	-	24	41	19	81	68	-	-	-
E.N. CENTRAL	9	14	4	81	101	39	311	300	-	3	3
Ohio	2	1	2	35	31	26	159	90	-	-	-
Ind.	-	-	-	6	7	5	31	18	-	-	-
Ill.	3	2	1	19	29	8	89	56	-	1	-
Mich.	3	5	1	20	34	-	27	53	-	2	3
Wis.	1	6	-	1	-	-	5	83	-	-	-
W.N. CENTRAL	19	2	-	9	36	3	170	135	-	1	-
Minn.	16	-	-	3	2	-	128	42	-	-	-
Iowa	-	-	-	1	9	3	8	6	-	1	-
Mo.	2	1	-	2	20	-	20	42	-	-	-
N. Dak.	-	-	-	2	1	-	1	8	-	-	-
S. Dak.	-	-	-	-	-	-	3	10	-	-	-
Nebr.	-	-	-	-	4	-	6	8	-	-	-
Kans.	1	1	-	1	-	-	4	19	-	-	-
S. ATLANTIC	14	11	1	74	88	33	365	222	-	91	9
Del.	1	-	-	-	-	-	11	9	-	-	-
Md.	4	1	1	21	27	2	127	27	-	-	1
D.C.	-	-	-	-	-	-	-	4	-	1	-
Va.	2	-	-	10	17	9	38	15	-	2	-
W. Va.	-	-	-	-	-	-	2	-	-	-	-
N.C.	4	-	-	17	16	18	75	84	-	77	1
S.C.	-	-	-	5	9	1	25	18	-	1	-
Ga.	2	2	-	2	6	-	17	14	-	-	-
Fla.	1	8	-	19	13	3	70	51	-	10	7
E.S. CENTRAL	-	-	-	19	7	-	63	254	-	2	1
Ky.	-	-	-	-	-	-	26	17	-	-	-
Tenn.	-	-	-	1	-	-	17	202	-	-	1
Ala.	-	-	-	3	4	-	12	34	-	2	-
Miss.	-	-	-	15	3	-	8	1	N	N	N
W.S. CENTRAL	27	23	1	19	39	1	70	198	-	2	7
Ark.	-	2	-	-	6	-	4	29	-	-	-
La.	-	18	1	12	8	1	7	12	-	1	-
Okla.	-	-	-	-	-	-	8	19	-	-	-
Tex.	27	3	U	7	25	U	51	138	U	1	7
MOUNTAIN	157	68	-	22	26	7	270	441	-	6	4
Mont.	-	-	-	-	1	2	17	3	-	-	-
Idaho	1	-	-	-	2	3	94	85	-	2	-
Wyo.	1	-	-	-	-	1	4	1	-	-	-
Colo.	7	26	-	2	1	1	68	66	-	2	-
N. Mex.	16	31	N	N	N	-	39	72	-	-	-
Ariz.	8	10	-	1	2	-	15	149	-	1	3
Utah	119	-	U	2	11	U	11	18	U	-	1
Nev.	5	1	-	17	9	-	22	47	-	1	-
PACIFIC	150	128	1	146	195	18	781	476	1	53	24
Wash.	45	19	-	18	10	17	303	116	-	2	1
Oreg.	4	1	-	-	-	-	29	33	-	1	-
Calif.	35	106	1	106	167	-	428	286	1	47	18
Alaska	63	-	-	2	12	-	2	-	-	-	-
Hawaii	3	2	-	20	6	1	19	41	-	3	5
Guam	-	-	U	5	3	U	1	2	U	-	1
P.R.	6	3	-	1	2	-	1	1	-	-	-
V.I.	-	-	-	-	3	-	-	-	-	-	-
Amer. Samoa	-	-	U	-	-	U	-	-	U	-	-
C.N.M.I.	-	-	U	-	-	U	-	-	U	-	-

N: Not notifiable

U: Unavailable

-: no reported cases

TABLE IV. Deaths in 121 U.S. cities,\* week ending August 31, 1996 (35th Week)

Reporting Area	All Causes, By Age (Years)						P&J <sup>†</sup> Total	Reporting Area	All Causes, By Age (Years)						P&J <sup>†</sup> Total
	All Ages	>65	45-64	25-44	1-24	<1			All Ages	>65	45-64	25-44	1-24	<1	
NEW ENGLAND	493	361	68	46	7	11	34	S. ATLANTIC	1,240	757	252	142	43	46	51
Boston, Mass.	125	85	19	15	4	2	3	Atlanta, Ga.	146	87	26	23	7	3	2
Bridgeport, Conn.	34	20	8	4	-	2	4	Baltimore, Md.	229	126	56	34	6	7	21
Cambridge, Mass.	14	12	-	2	-	-	-	Charlotte, N.C.	104	68	20	5	4	7	6
Fall River, Mass.	13	12	1	-	-	-	-	Jacksonville, Fla.	129	85	25	8	10	1	2
Hartford, Conn.	U	U	U	U	U	U	U	Miami, Fla.	107	65	24	12	3	3	-
Lowell, Mass.	25	23	1	-	-	1	3	Norfolk, Va.	70	41	15	9	3	2	1
Lynn, Mass.	19	14	1	3	1	-	5	Richmond, Va.	72	48	13	8	-	3	2
New Bedford, Mass.	25	19	3	3	-	-	1	Savannah, Ga.	43	27	7	4	-	5	3
New Haven, Conn.	42	27	8	6	-	1	-	St. Petersburg, Fla.	50	32	5	6	2	5	4
Providence, R.I.	56	42	9	2	1	2	4	Tampa, Fla.	134	88	31	8	3	4	7
Somerville, Mass.	12	10	1	1	-	-	-	Washington, D.C.	156	90	30	25	5	6	3
Springfield, Mass.	55	39	8	6	1	1	6	Wilmington, Del.	U	U	U	U	U	U	U
Waterbury, Conn.	19	17	2	-	-	-	1	E.S. CENTRAL	821	533	174	66	31	17	42
Worcester, Mass.	54	41	7	4	-	2	7	Birmingham, Ala.	141	89	27	13	7	5	1
MID. ATLANTIC	2,359	1,581	472	209	57	40	98	Chattanooga, Tenn.	63	45	14	2	-	2	7
Albany, N.Y.	45	31	7	4	2	1	3	Knoxville, Tenn.	85	53	24	3	2	3	8
Allentown, Pa.	13	12	1	-	-	-	-	Lexington, Ky.	71	49	14	7	1	-	5
Buffalo, N.Y.	89	59	17	8	3	2	2	Memphis, Tenn.	176	119	36	14	5	2	10
Camden, N.J.	21	11	7	2	-	1	-	Mobile, Ala.	87	53	17	9	5	3	1
Elizabeth, N.J.	14	12	-	2	-	-	-	Montgomery, Ala.	58	34	14	5	4	1	3
Erie, Pa.‡	43	35	6	2	-	-	4	Nashville, Tenn.	140	91	28	13	7	1	7
Jersey City, N.J.	41	26	8	3	2	2	-	W.S. CENTRAL	1,376	840	309	148	45	34	78
New York City, N.Y.	1,187	768	258	119	23	19	43	Austin, Tex.	70	44	13	8	3	2	3
Newark, N.J.	62	29	17	12	2	2	3	Baton Rouge, La.	32	20	6	4	2	-	3
Paterson, N.J.	26	16	5	2	3	-	-	Corpus Christi, Tex.	59	38	7	7	3	4	2
Philadelphia, Pa.	400	262	81	39	11	7	14	Dallas, Tex.	173	99	48	15	4	7	5
Pittsburgh, Pa.‡	53	39	13	-	1	-	6	El Paso, Tex.	81	58	9	8	4	2	9
Reading, Pa.	9	6	2	1	-	-	2	Ft. Worth, Tex.	83	56	18	7	1	1	3
Rochester, N.Y.	119	87	14	8	8	2	7	Houston, Tex.	327	187	78	43	9	10	27
Schenectady, N.Y.	18	11	6	1	1	-	-	Little Rock, Ark.	68	43	14	5	4	2	6
Scranton, Pa.‡	33	24	6	1	1	1	-	New Orleans, La.	94	46	28	15	5	-	-
Syracuse, N.Y.	102	85	12	1	1	3	9	San Antonio, Tex.	207	119	52	27	6	3	7
Trenton, N.J.	43	35	6	2	-	-	3	Shreveport, La.	83	61	17	1	2	2	7
Utica, N.Y.	11	9	1	1	-	-	1	Tulsa, Okla.	99	69	19	8	2	1	6
Yonkers, N.Y.	30	24	5	1	-	-	1	MOUNTAIN	752	493	145	70	23	21	43
E.N. CENTRAL	1,892	1,237	352	187	53	61	99	Albuquerque, N.M.	72	44	11	12	2	3	-
Akron, Ohio	50	35	7	5	-	3	-	Colo. Springs, Colo.	49	34	8	5	1	1	5
Canton, Ohio	27	23	4	-	-	-	4	Denver, Colo.	102	62	25	9	2	4	11
Chicago, Ill.	458	250	94	80	23	10	28	Las Vegas, Nev.	151	100	34	13	3	1	7
Cincinnati, Ohio	155	104	34	8	2	7	11	Ogden, Utah	24	18	6	-	-	-	4
Cleveland, Ohio	142	96	31	12	1	2	7	Phoenix, Ariz.	142	90	20	18	8	6	6
Columbus, Ohio	150	105	25	10	3	7	1	Pueblo, Colo.	10	7	3	-	-	-	1
Dayton, Ohio	109	80	20	7	1	1	11	Salt Lake City, Utah	90	58	16	8	5	3	6
Detroit, Mich.	195	116	36	26	8	9	5	Tucson, Ariz.	112	80	22	5	2	3	3
Evansville, Ind.	41	34	5	1	-	1	3	PACIFIC	1,441	991	262	110	44	34	96
Fort Wayne, Ind.	60	46	9	2	2	1	4	Berkeley, Calif.	27	19	6	2	-	-	-
Gary, Ind.	U	U	U	U	U	U	U	Fresno, Calif.	76	47	12	8	4	5	5
Grand Rapids, Mich.	54	37	5	4	4	3	2	Glendale, Calif.	31	27	4	-	-	-	2
Indianapolis, Ind.	133	83	31	10	4	5	9	Honolulu, Hawaii	89	69	10	5	3	2	9
Madison, Wis.	U	U	U	U	U	U	U	Long Beach, Calif.	63	41	11	6	4	1	11
Milwaukee, Wis.	112	76	22	8	1	5	-	Los Angeles, Calif.	534	361	97	46	18	12	20
Peoria, Ill.	34	28	3	1	1	1	4	Pasadena, Calif.	U	U	U	U	U	U	U
Rockford, Ill.	41	25	7	5	1	3	-	Portland, Ore.	105	74	15	10	4	2	2
South Bend, Ind.	62	42	13	4	-	3	4	Sacramento, Calif.	U	U	U	U	U	U	U
Toledo, Ohio	69	57	6	4	2	-	6	San Diego, Calif.	108	68	24	11	3	2	15
Youngstown, Ohio	U	U	U	U	U	U	U	San Francisco, Calif.	U	U	U	U	U	U	U
W.N. CENTRAL	751	539	121	55	15	13	36	San Jose, Calif.	199	130	50	11	4	4	19
Des Moines, Iowa	87	67	13	6	-	1	5	Santa Cruz, Calif.	22	18	2	1	1	-	2
Duluth, Minn.	24	20	2	1	1	-	4	Seattle, Wash.	137	102	21	6	2	6	6
Kansas City, Kans.	20	13	4	1	2	-	-	Spokane, Wash.	50	35	10	4	1	-	5
Kansas City, Mo.	95	60	17	7	2	1	6	Tacoma, Wash.	U	U	U	U	U	U	U
Lincoln, Nebr.	28	20	7	-	-	1	1	TOTAL	11,125 <sup>§</sup>	7,332	2,155	1,033	318	277	577
Minneapolis, Minn.	180	134	28	13	3	2	9								
Omaha, Nebr.	79	60	11	5	2	1	4								
St. Louis, Mo.	114	79	16	9	3	7	-								
St. Paul, Minn.	66	49	8	9	-	-	4								
Wichita, Kans.	58	37	15	4	2	-	3								

U: Unavailable - : no reported cases

\*Mortality data in this table are voluntarily reported from 121 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.

<sup>†</sup>Pneumonia and influenza.

<sup>§</sup>Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

<sup>¶</sup>Total includes unknown ages.

**Contributors to the Production of the *MMWR* (Weekly)**

**Weekly Notifiable Disease Morbidity Data and 121 Cities Mortality Data**

Denise Koo, M.D., M.P.H.

Deborah A. Adams

Timothy M. Copeland

Patsy A. Hall

Carol M. Knowles

Sarah H. Landis

Myra A. Montalbano

**Desktop Publishing and Graphics Support**

Jolene W. Altman

Morie M. Higgins

Peter M. Jenkins

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 [lists@list.cdc.gov](mailto:lists@list.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 (404) 332-4555.

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 David Satcher, M.D., Ph.D.	Acting Editor, <i>MMWR</i> (weekly) John M. Horan, M.D., M.P.H.
Deputy Director, Centers for Disease Control and Prevention Claire V. Broome, M.D.	Managing Editor, <i>MMWR</i> (weekly) Karen L. Foster, M.A.
Director, Epidemiology Program Office Stephen B. Thacker, M.D., M.Sc.	Writers-Editors, <i>MMWR</i> (weekly) David C. Johnson Darlene D. Rumph Person Caran R. Wilbanks
Editor, <i>MMWR</i> Series Richard A. Goodman, M.D., M.P.H.	Editorial Assistant, <i>MMWR</i> (weekly) Teresa F. Rutledge

☆ U.S. Government Printing Office: 1996-733-175/47024 Region IV