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REPRESENTATIVE CON BUNDE
CO-CHAIR HEALTH, EDUCATION
& SOCIAL SERVICES

Alaska State Legislature



DURING SESSION:
STATE CAPITOL
JUNEAU, ALASKA 99801-1182
CAPITOL ROOM 112
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House of Representatives

SPONSOR STATEMENT

HOUSE CONCURRENT RESOLUTION NO. 27

Relating to support for the National Rifle Association's gun safety program for children.

The National Rifle Association's gun safety program for children, also called the Eddie Eagle program, is a simple addition to a school's curriculum. The program leaves children with an easy to understand message: "If you see a gun, leave it alone, don't touch it, tell an adult."

Many fatal accidents can be avoided by instituting an educational program such as the Eddie Eagle program. According to the Center for Disease Control's National Center for Health Statistics 1990 information, 560 children ages 10-14 died from firearm injury, accounting for one out of every eight deaths. Further, facts from the National Safety Council confirm that for each firearm death, it is estimated there are at least five nonfatal injuries. Reports show the number of medically treated firearm injuries to children and adolescents is increasing nationwide every year.

Firearm accidents are preventable if we provide the tools. Children, at an early age, should be educated towards safety in their surroundings. The National Rifle Association gun safety program is a way of directing children out of harms path. I urge your support for this resolution. It is a tool that will help our children.

Firearms



Firearm-related deaths from accidents, suicides, homicides, and undetermined causes totaled 36,866 in 1990 (see table below). Another 318 deaths occurred during legal intervention. Suicides accounted for 51 per cent of firearm deaths, 44 per cent were homicides, and 4 per cent were accidents. The all ages category shows that over 80 per cent of deaths were males. By age, totals for accidents and the death rate per 100,000 population (not shown below) are highest for the 15 to 24 year age group. For suicides, totals are highest for the 25 to 44 year age group, although the rate is highest for those 75 and over. For homicides, deaths are highest for those aged 25 to 44, but rates are highest for those aged 15 to 24.

Type and Sex	1990 Firearm Deaths by Age							
	All Ages ¹	Under 5	5-14	15-24	25-44	45-64	65-74	75 & Over
Total Firearm Deaths²	36,866	103	581	9,463	15,340	5,255	2,596	2,428
Male	31,458	53	516	9,382	12,880	5,175	2,232	2,210
Female	5,408	40	165	1,081	2,460	1,080	364	218
Accidents	1,416	34	202	500	442	149	50	39
Male	1,255	24	180	457	385	131	42	26
Female	161	10	22	43	57	18	8	13
Suicide	18,885	0	144	1,155	6,818	4,356	2,245	2,157
Male	16,285	0	106	2,778	5,721	3,571	1,376	2,033
Female	2,500	0	38	387	1,097	785	269	124
Homicide	16,218³	69	321	5,679	7,951	1,703	282	213
Male	13,629	39	218	5,046	6,672	1,334	197	123
Female	2,589	30	103	633	1,279	369	85	90
Undetermined⁴	347	0	14	119	129	47	19	19
Male	289	0	12	101	102	39	17	18
Female	58	0	2	18	27	8	2	1

Source: National Safety Council tabulations of National Center for Health Statistics data.

¹Excludes firearm deaths by legal intervention. These deaths totaled 313 in 1990.

²Undetermined means the intentionality of the death (accident, suicide, homicide) cannot be determined.

Handguns. Handguns are involved in the majority of firearm deaths and injuries in the United States. According to the Center to Prevent Handgun Violence, there are an estimated 24,000 handgun-related deaths in America every year. Handguns account for about one third of all firearms, but account for two thirds of all firearm-related deaths. In 1989, about 75 per cent of firearm homicides were by handguns, according to the Federal Bureau of Investigation. Comparable police data are not available for suicides, but local studies suggest that about two thirds of firearm suicides are due to handguns.⁵ For children 10-14 years of age, handguns account for 73 per cent of firearm homicide and 70 per cent of firearm suicide. Of all children ages 16 and under, half of those injured in a handgun accident were shot in their own home.⁶

Nontatal injuries. Nontatal firearm injuries are presumed to greatly outnumber fatal injuries. In 1985, 31,324 firearm deaths were recorded, and there were an estimated 236,000 nontatal firearm injuries of which 65,000 resulted in hospitalization.⁷ For each firearm death, it is estimated there are at least five nontatal injuries.⁸ Current data on nontatal firearm injuries are not available, but some reports show that the number of medically treated firearm injuries to children and adolescents is increasing nationwide every year.

Race. The total firearm death rate per 100,000 population for blacks is over twice the rate for whites. Blacks account for 27 per cent of all firearm deaths, but only 12 per cent of the United States population. Rates for homicide by firearms are about eight times higher for blacks, but the firearm suicide rate is half that for whites.

⁵Stone, I.C., Jr. (1987). Observations and statistics relating to suicide weapons. *Journal of Forensic Sciences*, 32, 711-716.

⁶Wintemute, G.J. (1988). Handgun availability and firearm mortality. *Lancet*, 1:136-1137.

⁷Hirsch, J. (1990, Summer). Handguns at home. *Family Safety & Health*, 16-19.

⁸Rice, D.P., Mackenzie, E.J., et al. (1989). *Cost of Injury in the United States*. San Francisco: University of California.

⁹Wintemute, G.J. (1987). Firearms as a cause of death in the United States, 1920-1982. *American Academy of Pediatrics*, 27, 532-536.

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(Continued from p 448.)

CDC Editorial Note: The findings in this report are consistent with results from other recent national surveys that measured tobacco-use behaviors and dietary patterns among youth.¹⁷ The YRBS data can be used by public health and education agencies, as well as by voluntary organizations, to assist in targeting priorities and in program management. For example, CDC's National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) has provided the findings in this report to the American Cancer Society (ACS), which will use these data to monitor progress toward achieving primary goals for their comprehensive school health education initiative. These goals are consistent with national health objectives for the year 2000 that address tobacco-use behaviors and dietary patterns associated with risk for cancer and other chronic diseases (objectives 2.5, 2.6, 3.5, and 3.9).¹⁸

The comprehensive school health education initiative is one of four core program initiatives (including patient resources, information, and guidance; tobacco control; and breast cancer detection) identified by ACS to reduce risk for and impact of cancer throughout the 1990s. The primary goals for the comprehensive school health education initiative are 1) reducing the proportion of ninth- and 12th-grade students who have tried cigarette smoking from 65% and 75% to 42% and 48%, respectively; 2) reducing the proportion of ninth- and 12th-grade students who smoked cigarettes on 20 or more of the last 30 days from 8% and 16%, to 4% and 8%, respectively; 3) reducing the proportion of

male high school students who use chewing tobacco or snuff from 19% to 12%; 4) increasing the proportion of high school students who daily consume five or more servings of fruits and vegetables from 13% to 35%; and 5) increasing the proportion of high school students who daily eat no more than two servings of selected foods typically high in fat content from 65% to 80%.

To attain these primary goals, ACS has established the following three enabling goals: 1) to increase the proportion of states that require schools to implement comprehensive school health education; 2) increase the average proportion of the nation's school districts that require comprehensive school health education to be implemented across each grade range (i.e., kindergarten-6, 7-9, and 10-12); and 3) increase the average proportion of U.S. schools that implement comprehensive school health education across each grade range. These goals are consistent with the national health objectives for the year 2000 to increase the proportion of schools providing nutrition education (objective 2.19), tobacco-use prevention education (objective 3.10), and quality school health education (objective 8.4).¹⁹

Specific strategies ACS will implement to attain the primary and enabling goals include developing and promoting cancer prevention and control curricula for comprehensive school health education; promoting state and school district policies to require planned, sequential, comprehensive school health education that includes the cancer prevention and control curricula; increasing awareness of the need for comprehensive school

health education and the status of school health education; and promoting the adoption of comprehensive school health education among schools nationwide.

The use of YRBS data by ACS illustrates how the YRBS can be used to help plan and implement national, state, and local health promotion programs. Additional information about the YRBS is available from the Division of Adolescent and School Health, NCCDPHP, CDC, Mailstop K-33, 1600 Clifton Road, NE, Atlanta, GA 30333.

References

1. CDC. Reducing the health consequences of smoking: 25 years of progress—a report of the Surgeon General. Rockville, Maryland: US Department of Health and Human Services, Public Health Service, 1989; DHHS publication no. (CDC)89-8411.
2. National Research Council. Diet and health: implications for reducing chronic disease risk. Washington, DC: National Academy Press, 1989.
3. Public Health Service. Healthy people 2000: national health promotion and disease prevention objectives—final report, with commentary. Washington, DC: US Department of Health and Human Services, Public Health Service, 1991; DHHS publication no. (PHS)91-50212.
4. Kolbe LJ. An epidemiological surveillance system to monitor the prevalence of youth behaviors that must affect health. Health Education 1990;21:14-8.
5. CDC. Tobacco use among high school students—United States, 1990. MMWR 1991;40:617-9.
6. CDC. Cigarette smoking among youth—United States, 1989. MMWR 1991;40:712-5.
7. American School Health Association, Association for the Advancement of Health Education, Society for Public Health Education. The National Adolescent Student Health Survey. Oakland, California: Third Party Publishing, 1989.
8. American Cancer Society. Report of the Planning Advisory Council. Atlanta: American Cancer Society, 1988.

Students who replied that they did not consume a particular type of food were assigned a frequency of 0. Students who replied that they consumed a particular type of food, once only, were assigned a frequency of 1, and students who replied that they consumed a particular type of food, twice or more, were assigned a frequency of 2.

Unintentional Firearm-Related Fatalities Among Children, Teenagers—United States, 1982-1988

MMWR. 1992;41:442-445 (2 tables omitted)

IN 1988, gunshot wounds were the eighth leading cause of unintentional injury deaths among persons in all age groups in the United States and the third leading cause of such deaths among children and teenagers aged 10-19 years.¹ From 1982 through 1988, 3607 children and teenagers aged 0-19 years died from unintentional firearm-related injuries, constituting 32% of all unintentional firearm-related deaths. Of those, 81% occurred among 10-19-year-olds. This article describes a case report of an unintentional firearm-related death of a teenager and summarizes an analysis of demographic and regional differences in unintentional

firearm-related mortality among children and teenagers from 1982 through 1988.

Case Report

In a large metropolitan area in the southern United States, two brothers were playing in their home with two friends while the boys' parents were at work. Initially, they played in the boys' bedroom using the bunk beds and bedspreads to build "forts"; they also engaged in gun play using plastic toy guns. Later, they divided into two teams to play hide-and-seek. One of the boys, a 13-year-old, hid in his parents' bedroom where he found his father's 12-gauge shotgun stored under the bed. The shotgun was kept in the house for protec-

tion; the boy did not know it was loaded. When his friend, also aged 13 years, entered the room looking for him, the boy who was hiding inadvertently discharged the gun, killing his friend.

Analysis of National Mortality Data

Demographic and regional differences in firearm-related mortality were examined using mortality data compiled by CDC's National Center for Health Statistics. Unintentional firearm-related deaths were identified by the International Classification of Diseases, Ninth Revision, code E922. Classification of counties as metropolitan and nonmetropolitan is based on metropolitan statistical areas designated by the U.S. Of-

fice of Management and Budget in 1982.

For males aged 10-19 years, the unintentional firearm-related death rate was 10 times that for females (2.0 per 100 000 versus 0.2 per 100 000 children). Males aged 15-19 years were at higher risk (2.4 per 100 000) than were males in any other age group. The risk for dying from an unintentional gunshot wound was similar for black and white children and teenagers aged 10-19 years.

Children and teenagers living in the South* were at greatest risk for dying from an unintentional gunshot wound; those living in the Northeast** were at lowest risk. Within regions, white males aged 15-19 years were at greatest risk in the South; in all other regions, death rates were highest for black male teenagers. Overall, children and teenagers living in nonmetropolitan regions were more than twice as likely to die from an unintentional gunshot wound as those living in metropolitan areas; however, the rate ratio in nonmetropolitan and metropolitan areas was 1.4 for black males aged 10-14 years and 1.1 for black males aged 15-19 years.

Reported by: Unintentional Injuries Section, Epidemiology, Inj, and Biometrics Div, Division of Injury Control, National Center for Environmental Health and Injury Control, CDC.

CDC Editorial Note: Despite recent declines in unintentional firearm-related mortality,^{1,2} such injuries continue to disproportionately affect youth nationwide. Unintentional firearm-related injuries are also a major cause of morbidity. For example, a recent report by the General Accounting Office (GAO) estimated that, in 10 U.S. cities during 1989 and 1990, the ratio of nonfatal to fatal unintentional gunshot wounds was 105 to 1 for all age groups combined.³ Although the findings of the GAO report cannot be generalized to the entire United States, they underscore the public health impact of unintentional firearm-related injuries.

The high rates of unintentional fire-

arm-related mortality for children and teenagers living in southern and western regions of the country are consistent with the findings of previous reports.¹ Although most reports have demonstrated a higher death rate for those living in rural areas,^{1,4} one study in Cleveland, Ohio, found rates were higher in urban areas than in the suburbs.⁵

The findings in this report indicate that, although death rates of unintentional firearm-related injuries were generally higher for children and teenagers living in nonmetropolitan areas, death rates for black males in metropolitan areas approached those in nonmetropolitan areas. Risk factors, such as access to firearms and per capita income, may have a differential impact on unintentional firearm-related mortality. For example, the availability of firearms has been directly associated with unintentional gunshot wounds,⁶ and the relation between per capita income of the area of residence and unintentional firearm-related mortality varies inversely.¹

Reduction of morbidity and mortality from unintentional firearm-related injuries among children and teenagers must emphasize limiting access to loaded weapons. Specific behavioral characteristics associated with adolescence, such as impulsivity, feelings of invincibility, and curiosity about firearms, place adolescents at particularly high risk for firearm-related injuries.⁷

One of the national health objectives for the year 2000 is to reduce by 20% the proportion of households with inappropriately stored weapons (objective 7.11).⁸ This objective is consistent with the findings of several studies indicating that most unintentional firearm-related deaths involving children occur at a residence^{9,10} and involve inappropriately stored weapons.⁷

Appropriate storage should include locked and separate storage of weapons and ammunition. In Florida and Cali-

fornia, legislation has been enacted to make adults legally responsible for inappropriate storage.

Modifying firearms and ammunition to render them less lethal has also been advocated as a prevention strategy.^{11,12} The addition of child-proof safety devices would prevent children aged <6 years from discharging a firearm, and the use of loading indicators could prevent an estimated 23% of all unintentional firearm-related deaths.¹ Regulation to control the amount of gunpowder and the shape and jacketing of ammunition may reduce the severity of non-fatal firearm-related injuries.¹³

References

1. Baker SP, O'Neill B, Ginsburg MJ, Li G. The injury fact book. 2nd ed. New York: Oxford University Press; 1992.
2. Wood NP Jr, Mercy JA. Unintentional firearm-related fatalities, 1970-1981. In: CDC surveillance summaries. February 1988. MMWR 1988;36(6):85-117.
3. US General Accounting Office. Accidental shootings: many deaths and injuries caused by firearms could be prevented—report to the Chairman, Subcommittee on Antitrust, Monopolies, and Business Rights, Committee on the Judiciary, House of Representatives. Washington, DC: US General Accounting Office; 1991; report no. GAO/PEMD-91-9.
4. Keck NL, Istre GR, Conry DL, Jordan F, Eaton AP. Characteristics of fatal gunshot wounds in the home in Oklahoma, 1982-1986. Am J Dis Child 1988;142:624-6.
5. Rushforth NF, Hirsch CS, Ford AB, Adelson L. Accidental firearm fatalities in a metropolitan county. JAMA 1976;235:100-103.
6. Committee on Adolescence, American Academy of Pediatrics. Firearms and adolescents. AAP News 1992; January:20-1.
7. Public Health Service. Healthy people 2000: national health promotion and disease prevention objectives—full report, with commentary. Washington, DC: US Department of Health and Human Services, Public Health Service, 1991; DHHS publication no. (PHS)91-50212.
8. Wittenbrite GJ, Kraus JF, Teret SP, Wright MA. Unintentional firearm deaths in California. J Trauma 1989;29:157-61.
9. Weaver DL, Moore VL, Peckel M, Haller JA Jr, Smialek J, Hill JL. Characteristics of pediatric firearm fatalities. J Pediatr Surg 1990;25:97-100.
10. Christoffel KK. Toward reducing pediatric injuries from firearms: charting a legislative and regulatory course. Pediatrics 1991;88:204-06.

*South Atlantic, East South Central, and West South Central regions.

**New England and Middle Atlantic regions.

Public Health Focus: Mammography

MMWR. 1992;41:454-459 (4 tables, 1 figure omitted)

AMONG U.S. women, breast cancer is the most commonly diagnosed cancer and the second leading cause of death from cancer. From 1980 through 1987, the incidence of breast cancer increased from 94.6 to 124.3 per 100 000 women (age-adjusted to the 1990 U.S. population).¹ In contrast, death rates remained stable; during 1988, 31.1 per 100 000 U.S. women died from the disease.² Although the prognosis for breast cancer is more

favorable than for many other types of cancers, breast cancer continues to be an important source of years of potential life lost before age 65 (YPLL). White women account for 82% of all YPLL from breast cancer; however, the estimated rate of YPLL during 1988 was approximately 25% higher for black women than white women. For breast cancer, certain primary risk factors (e.g., family history, age at menarche, and age at menopause) cannot be altered and others (e.g., parity and age at first preg-

nancy) are not practical targets for intervention. Therefore, as a secondary method for prevention of breast cancer, mammography screening is the most commonly recommended intervention. During 1990, 58% of U.S. women aged ≥ 40 years reported having had a screening mammogram within the preceding 2 years. This report summarizes information regarding the efficacy, effectiveness, and cost-effectiveness of mammography screening.

Results from large randomized clini-

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No. 134. Death Rates From Accidents and Violence: 1970 to 1990

[Rates are per 100,000 population. Excludes deaths of nonresidents of the United States. Beginning 1990, deaths classified according to the ninth revision of the *International Classification of Diseases*. For earlier years, classified according to the revisions in use at the time; see text, section 2. See Appendix III.]

CAUSE OF DEATH AND AGE	WHITE						BLACK					
	Male			Female			Male			Female		
	1970	1980	1990	1970	1980	1990	1970	1980	1990	1970	1980	1990
Total ¹	101.9	97.1	81.2	42.4	36.3	32.1	183.2	154.0	142.0	51.7	42.8	38.8
Motor vehicle accidents	39.1	35.9	28.7	14.0	12.8	11.6	44.3	31.1	28.1	13.4	8.3	9.4
All other accidents	38.2	30.4	23.8	18.3	14.4	12.4	63.3	46.0	32.7	22.5	18.0	13.4
Suicide	18.0	19.9	22.0	7.1	5.9	5.3	8.0	10.3	12.0	2.8	2.2	2.3
Homicide	6.8	10.9	9.0	2.1	3.2	2.8	67.8	68.6	69.2	13.3	13.5	13.5
15 to 24 years old	130.7	138.6	107.3	34.0	37.3	30.5	234.3	182.0	206.0	45.5	35.0	34.9
25 to 34 years old	96.0	118.4	97.4	23.0	29.0	26.0	384.4	258.9	218.1	78.0	49.4	46.1
35 to 44 years old	85.7	94.1	82.3	25.9	29.2	24.4	345.2	218.1	176.8	77.2	43.2	38.5
45 to 54 years old	87.5	90.8	73.5	30.4	31.8	25.3	303.3	207.3	138.5	65.5	40.2	30.7
55 to 64 years old	101.5	92.3	79.5	30.3	33.8	29.4	242.4	188.5	129.9	58.0	47.3	36.1
65 years old and over	218.9	163.9	150.7	122.4	87.2	80.1	220.0	215.8	175.5	107.9	102.9	81.6
65 to 74 years old	128.0	118.7	99.7	57.7	46.4	40.5	217.4	182.2	141.8	81.5	68.7	50.4
75 to 84 years old	229.3	209.2	195.7	149.3	101.5	89.4	236.0	261.4	206.1	140.1	137.5	75.8
85 years old and over	466.7	438.5	428.3	268.1	232.4	212.8	379.2	359.1	214.3	235.7	213.0	213.0

¹ Includes persons under 15 years old, not shown separately.

No. 135. Deaths and Death Rates From Accidents, by Type: 1970 to 1990

[See heading, table 134; and Appendix III. See also *Historical Statistics, Colonial Times to 1970*, series B 163-165]

TYPE OF ACCIDENT	DEATHS (number)					RATE PER 100,000 POPULATION				
	1970	1980	1985	1989	1990	1970	1980	1985	1989	1990
Accidents and adverse effects	114,638	105,718	93,457	95,028	91,893	56.4	46.7	39.3	38.5	37.0
Motor vehicle accidents	54,633	53,172	45,901	47,575	46,814	26.9	23.5	19.3	19.3	18.8
Traffic	53,493	51,930	44,822	46,588	45,827	26.3	22.9	18.8	18.9	18.4
Nontraffic	1,140	1,242	1,079	988	987	0.6	0.5	0.5	0.4	0.4
Water transport accidents	1,651	1,429	1,111	866	923	0.8	0.6	0.5	0.4	0.4
Air and space transport accidents	1,612	1,494	1,428	1,123	941	0.8	0.7	0.6	0.5	0.4
Railway accidents	852	532	551	606	663	0.4	0.3	0.2	0.2	0.3
Accidental falls	16,928	13,294	12,001	12,151	12,313	8.3	5.9	5.0	4.9	5.0
Fall from one level to another	4,798	3,743	3,385	3,062	3,194	2.4	1.7	1.4	1.2	1.3
Fall on the same level	828	415	411	478	499	0.4	0.2	0.2	0.2	0.2
Fracture, cause unspecified, and other unspecified falls	11,300	9,136	8,225	8,613	8,620	5.6	4.0	3.5	3.5	3.5
Accidental drowning	6,391	6,043	4,407	4,015	3,979	3.1	2.7	1.9	1.6	1.6
Accidents caused by—										
Fires and flames	6,718	5,822	4,938	4,716	4,175	3.3	2.8	2.1	1.9	1.7
Firearms	2,406	1,955	1,649	1,489	1,418	1.2	0.6	0.7	0.6	0.6
Electric current	1,140	1,095	802	702	670	0.6	0.5	0.3	0.3	0.3
Accidental poisoning by—										
Drugs and medicines	2,505	2,492	3,612	5,035	4,506	1.2	1.1	1.5	2.0	1.8
Other solid and liquid substances	1,174	597	479	568	549	0.6	0.3	0.2	0.2	0.2
Gases and vapors	1,620	1,242	1,079	921	748	0.8	0.5	0.5	0.4	0.3
Complications due to medical procedures	3,581	2,437	2,674	2,992	2,669	1.8	1.1	1.1	1.2	1.1
Inhalation and ingestion of objects	2,753	3,249	3,551	3,578	3,303	1.4	1.5	1.5	1.4	1.3

No. 136. Suicides, by Sex and Method Used: 1970 to 1990

[Excludes deaths of nonresidents of the United States. Beginning 1979, deaths classified according to the ninth revision of the *International Classification of Diseases*. For earlier years, classified according to the revision in use at the time; see text, section 2. See also *Historical Statistics, Colonial Times to 1970*, series H 979-986]

METHOD	MALE							FEMALE						
	1970	1980	1985	1987	1988	1989	1990	1970	1980	1985	1987	1988	1989	1990
Total	16,629	20,505	23,145	24,272	24,078	24,102	24,724	6,851	8,364	8,308	8,524	8,328	8,130	8,182
Firearms ¹	9,704	12,937	14,809	15,539	15,656	15,660	16,285	2,068	2,459	2,554	2,597	2,513	2,498	2,600
Percent of total	58	63	64	64	65	65	66	30.2	38.6	40.5	39.8	39.7	40.8	42.1
Poisoning ²	3,299	2,997	3,319	3,790	3,403	3,211	3,221	3,285	2,456	2,385	2,531	2,422	2,232	2,203
Hanging and strangulation ³	2,422	2,997	3,532	3,478	3,588	3,708	3,688	831	694	732	757	787	776	756
Other ⁴	1,204	1,574	1,485	1,465	1,431	1,503	1,530	667	755	637	639	607	624	623

¹ Includes explosives in 1970. ² Includes solids, liquids, and gases. ³ Includes suffocation. ⁴ Beginning 1980, includes explosives.

Source of tables 134-136: U.S. National Center for Health Statistics, *Vital Statistics of the United States*, annual; and unpublished data.

No. 137. Suicide Rates, by Sex, Race, and Age Group: 1970 to 1990

[See headnote, tables 129 and 134]

AGE	TOTAL ¹			MALE						FEMALE					
	1970	1980	1990	White			Black			White			Black		
				1970	1980	1990	1970	1980	1990	1970	1980	1990	1970	1980	1990
All ages ²	11.6	11.9	12.4	18.0	19.9	22.0	8.0	10.3	12.0	7.1	5.9	5.3	2.6	2.2	2.3
10 to 14 years old	0.6	0.8	1.5	1.1	1.4	2.3	0.3	0.5	1.6	0.3	0.3	0.9	0.4	0.1	(B)
15 to 19 years old	5.9	8.5	11.1	9.4	15.0	19.3	4.7	5.6	11.5	2.9	3.3	4.0	2.9	1.6	1.9
20 to 24 years old	12.2	16.1	15.1	18.3	27.8	26.8	18.7	20.0	10.0	5.7	5.9	4.4	4.9	3.1	2.6
25 to 34 years old	14.1	16.0	15.2	19.9	25.6	25.6	19.2	21.8	21.9	9.0	7.5	6.0	5.7	4.1	3.7
35 to 44 years old	16.9	15.4	15.3	23.3	23.5	25.3	12.6	15.6	16.9	13.0	9.1	7.4	3.7	4.6	4.0
45 to 54 years old	20.0	15.9	14.8	29.5	24.2	24.8	13.8	12.0	14.8	13.5	10.2	7.5	3.7	2.8	3.2
55 to 64 years old	21.4	15.9	16.0	35.0	25.8	27.5	10.6	11.7	10.8	12.3	9.1	8.0	2.0	2.3	2.6
65 to 74 years over	20.8	16.9	17.9	38.7	32.5	34.2	8.7	11.1	14.7	9.6	7.0	7.2	2.9	1.7	2.6
75 to 84 years over	21.2	19.1	24.9	45.5	45.5	60.2	8.9	10.5	14.4	7.2	5.7	6.7	1.7	1.4	(B)
85 years and over	19.0	19.2	22.2	45.8	52.8	70.3	8.7	18.9	(B)	5.8	5.8	5.4	2.8	-	(B)

- Represents zero. B Base figure too small to meet statistical standards for reliability of a derived figure. ¹ Includes other races not shown separately. ² Includes other age groups not shown separately.

Source: U.S. National Center for Health Statistics, *Monthly Vital Statistics Report* and unpublished data.

No. 138. Firearm Mortality Among Children, Youth, and Young Adults, 1 to 34 Years Old: 1990

(Death rate per 100,000 population. Deaths classified according to the ninth revision of the *International Classification of Diseases*)

ITEM	Under 5 years old	5 to 9 years old	10 to 14 years old	15 to 19 years old	20 to 24 years old	25 to 34 years old
MALE						
Total: White	0.6	0.6	4.2	26.5	32.5	27.8
Black	1.2	1.5	10.2	119.9	157.6	108.5
Homicide: White	0.4	0.2	1.3	9.7	12.9	10.8
Black	0.8	1.0	6.9	105.3	140.7	94.4
Suicide: White	(X)	(X)	1.2	13.5	17.5	15.6
Black	(X)	(X)	1.1	8.8	13.2	12.2
Accidents: White	0.3	0.5	2.9	1.5	1.6	1.1
Black	0.4	0.5	4.9	1.9	2.7	1.4
FEMALE						
Total: White	0.3	0.4	1.0	4.6	4.9	5.5
Black	1.1	1.2	3.7	12.2	14.4	14.6
Homicide: White	0.2	0.3	0.4	2.0	2.3	2.4
Black	0.9	0.9	3.1	10.4	12.4	12.7
Suicide: White	(X)	(X)	0.5	2.3	2.4	2.9
Black	(X)	(X)	0.4	1.3	1.3	1.4
Accidents: White	0.1	0.1	0.1	0.2	0.2	0.2
Black	0.3	0.3	0.2	0.4	0.6	0.3

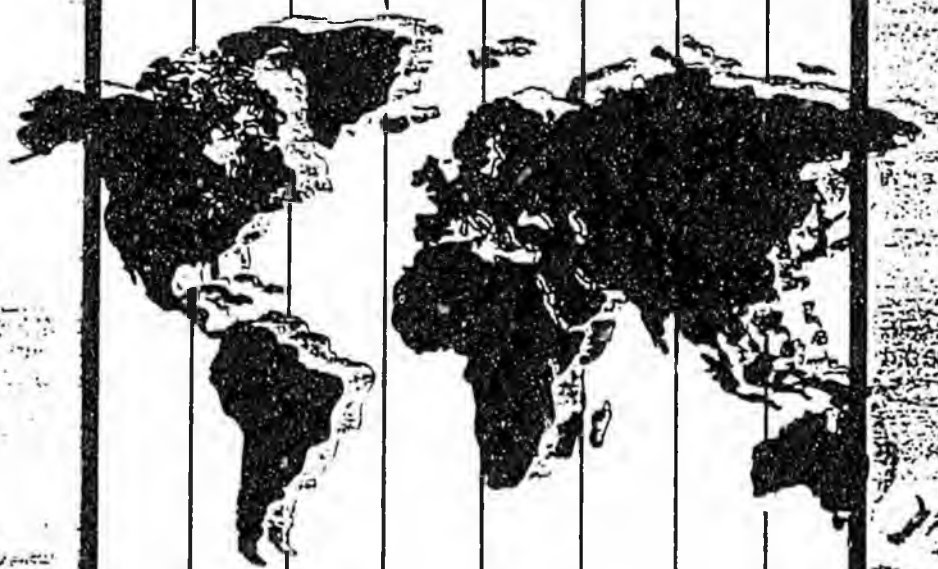
X Not applicable.

Source: U.S. National Center for Health Statistics, *Advance Data from Vital and Health Statistics*, No. 231.

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 **National Safety Council**

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Children and youths



Deaths. For children and youths aged 1 to 24 years, accidents are the leading cause of death, accounting for almost half of the 53,041 total deaths of these persons in 1989 (the latest detailed data available). Overall, motor-vehicle accidents were the leading cause of accidental death for this age group, followed by drowning and fires and burns.

While accidental deaths decrease fairly steadily for those aged 1 to 12, they increase markedly for teenagers—from under 500 for those age 13 to over 2,000 for those age 19. Motor-vehicle accidents account for most of this increase.

For infants under 1 year of age, accidents are the fourth leading cause of death, following certain conditions originating in the perinatal period, congenital anomalies, and sudden infant death syndrome (see page 6). Although accidents account for less than 3 per cent of deaths for those under age 1, the number of accidental deaths for this age is greater than that for any other age less than 16.

Total Deaths and Accidental Deaths, Ages 0-24, 1989

Age	Population (000)	All Deaths	Accidental Deaths	Motor-Vehicle	Drowning ¹	Fires, Burns	Fires (solid, liquid)	Poison (solid, liquid)	Falls	Mechanical Suffocation	Other Accident
Under 1 year	3,858	39,655	396	216	34	108	3	70	22	248	284
1 to 24 years	86,754	53,041	23,602	16,212	2,009	1,384	785	541	357	275	2,039
1 year	3,685	2,940	392	291	233	146	3	22	29	42	126
2 years	3,650	1,792	740	553	167	169	12	4	21	14	30
3 years	3,646	1,426	507	326	106	165	9	4	7	10	36
4 years	3,669	1,168	535	325	33	128	4	3	7	13	60
5 years	3,559	957	451	236	59	76	7	4	4	5	59
6 years	3,625	378	124	237	60	51	3	1	3	5	45
7 years	3,628	349	415	242	37	54	11	3	1	12	46
8 years	3,457	321	372	293	57	49	3	1	1	11	49
9 years	3,647	335	402	215	60	48	24	3	3	9	40
10 years	3,539	747	326	163	16	53	23	3	5	11	35
11 years	3,377	782	353	191	46	37	27	1	6	10	35
12 years	3,350	381	407	223	49	37	43	2	5	11	37
13 years	3,230	589	412	227	56	17	44	3	5	10	46
14 years	3,301	1,245	528	330	55	25	35	5	9	9	51
15 years	3,259	1,741	790	523	30	18	49	18	3	12	71
16 years	3,356	2,555	1,309	712	31	26	51	13	3	3	35
17 years	3,620	3,229	1,649	1,139	29	23	53	21	6	3	100
18 years	3,880	4,024	2,052	1,382	103	25	37	10	16	4	123
19 years	4,018	4,111	2,089	1,336	103	34	64	17	14	12	119
20 years	3,897	3,967	1,811	1,118	36	22	63	12	41	3	121
21 years	3,754	4,049	1,788	1,098	103	35	47	20	20	1	114
22 years	3,731	4,059	1,725	1,017	38	31	35	67	12	5	149
23 years	3,755	4,324	1,738	1,078	36	51	37	37	16	10	153
24 years	4,081	4,678	1,777	1,098	16	14	40	31	25	12	195

Source: National Safety Council (tabulation of National Center for Health Statistics mortality data).

¹Includes both transport and nontransport drownings.

Head Injuries. According to the U.S. Consumer Product Safety Commission (CPSC), an estimated 2.9 million head injuries were treated in hospital emergency rooms in the U.S. in 1988. Of those treated, approximately 77 per cent were children and youths under 25 years of age. About 40 per cent of all concussions, fractures and internal head injuries were suffered by children under 5, two thirds of which were related to falls in and around the home. A total of 1,355,000 head injuries in 1988 involved household structures and contents.¹

In 1991, an estimated 492,000 bicycle-related injuries treated in hospital emergency rooms involved children and youths 0 to 24 years of age. Over 61,000 of these injuries were head injuries. Of these head injuries, 17.0 per cent were victims between 0 and 4 years of age, 70.1 per cent between 5 and 14, and 12.9 per cent between 15 and 24.²

¹Consumer Product Safety Commission. (1990). *NEISS Data Highlights*. Washington, DC: Author.

²Consumer Product Safety Commission. (1991). *National Electronic Injury Surveillance System*. Washington, DC: Author.

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Advance Data

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From Vital and Health Statistics of the CENTERS FOR DISEASE CONTROL AND PREVENTION/National Center for Health Statistics

Firearm Mortality Among Children, Youth, and Young Adults 1-34 Years of Age, Trends and Current Status: United States, 1985-90

by Lois A. Fingerhut, M.A., Division of Analysis

Introduction

A previous report released by the National Center for Health Statistics (NCHS) documented the level of firearm mortality among children, youth, and young adults 1-34 years of age from 1979 through 1988 (1). The purpose of this report is to revise the 1985-88 data using newly available intercensal population estimates and to update the report with data through 1990. Emphases are on race and sex differences in homicide and suicide associated with firearms among males 15-34 years of age. This report will be limited to data for the period 1985 through 1990 because it was during the second half of the decade that firearm mortality increased for the younger population (1).

Methods

Firearm death rates for 1985-89 are based upon intercensal rather than the postcensal population estimates used in the previous report. Both sets of estimates were provided by the Bureau of the Census. Intercensal population estimates are preferred to postcensal estimates

because they are consistent with the 1980 and 1990 decennial Census enumerations, and thus, form a continuous series over the decade (2). The relative difference between the two estimates, the error of closure, is equivalent to the relative difference in death rates based on the two estimates. The error of closure was larger for persons 18-24 years of age than for any other age group. However, the error of closure was not so large that death rates for either the black or the white populations ages 1-34 were significantly affected. Death rates for 1990 are based on postcensal estimates of the July 1, 1990, population.

In previous reports on firearm mortality (1,3), the definitions of firearm homicide excluded legal intervention by firearm. In this report, as in others (4,5), the definition has been amended to include those deaths. The inclusion of these deaths results in an increase in the overall firearm death rate and the firearm homicide rate with a concomitant decrease in the nonfirearm homicide rate—all by relatively small amounts (see appendix table 1). For example, adding in deaths coded to legal

intervention by a firearm to other firearm homicides among black and white males 20-24 years of age increased their respective firearm homicide rates by 1 percent and 3 percent.

Current status

In 1990, 19,722 persons 1-34 years of age died as a result of a firearm injury. This represented 17.6 percent of all deaths at those ages. Among young children 10-14 years of age, 560 died from a firearm injury, accounting for 1 out of every 8 deaths. Among teenagers 15-19 years and young adults 20-24 years, 1 of every 4 deaths were by firearm, and for adults 25-34 years, 1 of 6 deaths were by firearm (figure 1).

Within these age groups, variation by race and sex in the percentage of all deaths due to firearms is large. For example, 60 percent of deaths among black teenage males 15-19 years old resulted from a firearm injury compared with 23 percent of deaths among white teenage males. Among females 15-19 years old, 22 percent of deaths among black females



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

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National Center for Health Statistics



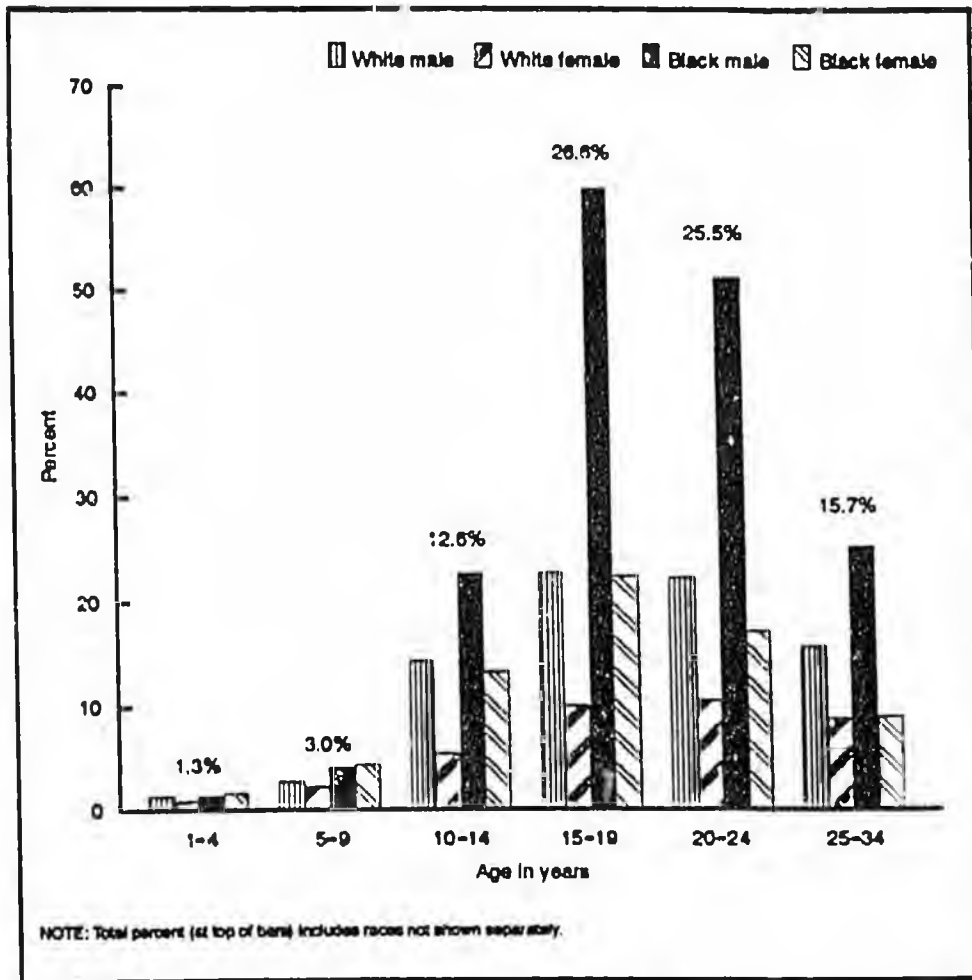


Figure 1. Percent of deaths due to firearms for persons 1-34 years of age, by age, race, and sex: United States, 1990

resulted from firearms compared with 10 percent of deaths among white females. By ages 25-34, the proportion of deaths due to firearms decreased for each race-sex group. Firearms were the cause of death for 25 percent of deaths among black males, 16 percent among white males, and 9 percent among black and white females in this age group (figure 1).

Another way to look at the differential impact of firearm mortality on the population is to focus on violent deaths (homicides and suicides) that result from firearms. The majority of homicides among teenagers and young adults 15-34 years of age resulted from the use of firearms. In 1990, 82 percent of homicides among teenagers 15-19 years of age were associated with firearms (91 and 77 percent among black and white males, respectively); at 20-24 years of age, 76 percent of homicides were from firearms (87 and 71 percent among black and white

males, respectively); and at 25-34 years of age, 69 percent of homicides (75 and 72 percent among black and white males, respectively) were caused by firearms. Proportions of homicides due to firearms among females were lower than among males for both races and in each age group (table 1).

The age-specific proportions of suicides resulting from firearms were lower than the proportions of homicides, averaging 58-67 percent of suicides at 15-19 years of age through 25-34 years of age. Differences by race were smaller than for homicide, and proportions for females were also lower than for males (table 1).

Analysis of firearm death rates by age, race, and sex, as well as by manner of death facilitates the assessment of relative levels of risk associated with firearm fatalities across demographic categories as well as over time. Firearm death rates rise until the young adult years and then

decline. In 1990, the firearm death rate per 100,000 increased from 0.6-0.7 per 100,000 population at ages 1-4 and 5-9 years, to 3.3 at ages 10-14, to 23.5 at ages 15-19, peaking at 28.1 at 20-24 years and declining to 21.8 at ages 25-34 years (figure 2). Firearm death rates for 1990 are shown in table 2 and numbers of firearm deaths are shown in table 3.

Firearm death rates vary by race and sex within age groups. For the younger children, those 1-9 years of age, rates for black children were higher than for white children. Because the firearm death rates at those ages are based on small numbers of deaths (fewer than 50 for each race-sex group), relative differences by sex are often not significant. At ages 10-14 years, firearm death rates are highest for black males; 10.2 per 100,000, which is more than twice the rates for white males and black females and 10 times the rate for white females. At ages 15-19 and 20-24 years, firearm death rates were also highest for black males, 119.9 and 157.6 per 100,000, respectively. The age-specific rates for these black males were 5 times the respective rates by age for white males and 10 to 11 times the age-specific rates for black females. At ages 25-34 years the firearm death rate for black males, 108.5 per 100,000, was 4 times the rate for white males and 7 times the rate for black females. The firearm death rates for white females 15-19 through 25-34 years were lower (about 5 per 100,000) than for any other race-sex group.

Race and sex differences in firearm mortality vary by manner of death as well. For young children ages 1-4 and 5-9 years firearm homicide rates among black children were higher than rates for white children, while there were no significant race differences in unintentional firearm mortality. For these young children, race and sex specific death rates for both firearm homicide and unintentional firearm mortality were generally less than 1 per 100,000.

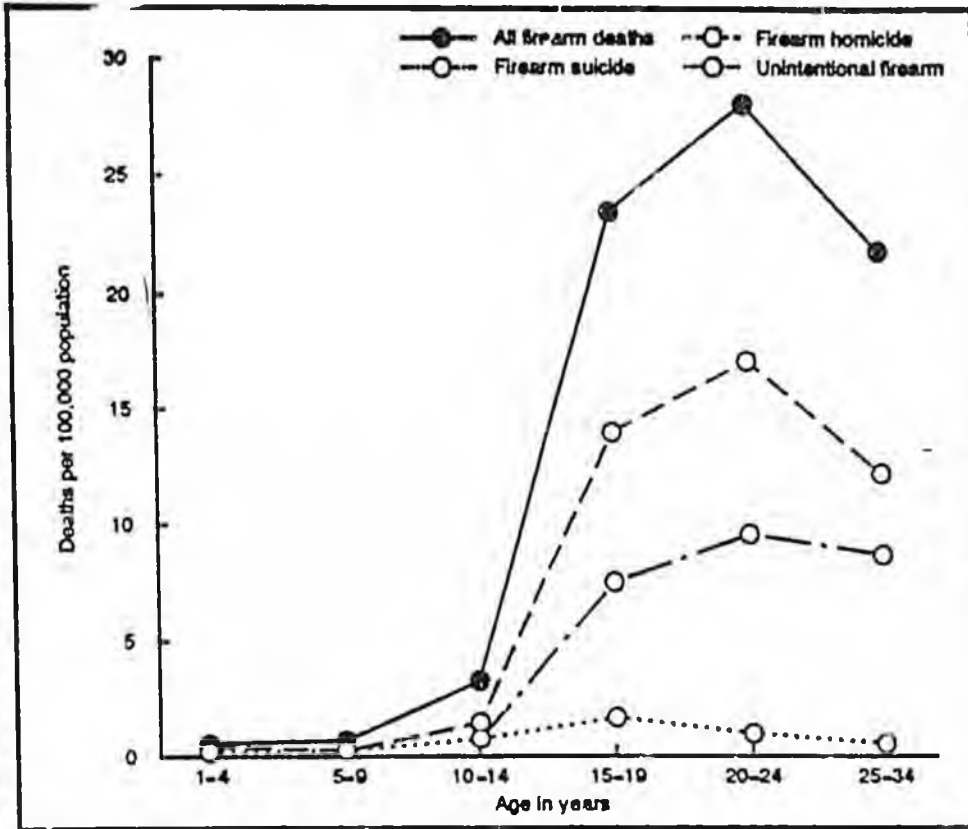


Figure 2. Firearm death rates by manner of death and age, for persons aged 1-34 years: United States, 1990

At ages 10-14 years, there were significant differences in the firearm homicide rates by race as well as by sex. The firearm homicide rate for black males 10-14 years of age was more than 5 times the rate for white males (6.9 compared with 1.3 deaths per 100,000) and the rate for black females was close to 8 times the rate for white females (3.1 compared with 0.4 per 100,000). Differences in firearm homicide by sex were smaller, with rates for white and black males 2 to 3 times those for females. While there were no differences by race in firearm suicide or unintentional firearm mortality at 10-14 years, those rates were higher for males than for females (table 4).

Firearm homicide for black males 15-19 years of age was 11 times the rate among white males, 105.3 compared with 9.7 per 100,000 population. The rate for black females was five times the rate for white females, 10.4 compared with 2.0 per 100,000. Thus, the firearm homicide rate for white males was about 5 times that for white females and the rate for black males about 10

times that for black females. Firearm homicide rates for both white and black males and females ages 20-24 years were about 1.2 to 1.3 times the respective rates at ages 15-19 years. Mortality race and sex ratios at 20-24 years were generally similar to those at ages 15-19 years (table 4).

Among males ages 25-34 years, race differences in firearm homicide rates were smaller than for persons 20-24 years of age. The rate for black males was 9 times the rate for white males (94.4 compared with 10.8 per 100,000). Firearm homicide rates for males were 5 to 7 times those for females (table 4).

Firearm suicide, unlike homicide, was higher for white males than for black males at ages 15-19 through 25-34 years, although race differences were considerably smaller than for firearm homicide. For example, the firearm suicide rate for white males 15-19 years was 1.5 times the rate for black males, 13.5 compared with 8.8 per 100,000 population. With increasing age, the race ratio decreased. Sex differences for both white and black persons in firearm

suicide rates were much larger than race differences, with rates for white and black males 5 to 10 times the rates for females at ages 15-19 through 25-34 years (table 4).

Trends (tables 2 and 3)

Consistent with earlier patterns (1), there was virtually no change from 1985 to 1990 in the overall firearm death rate among young children 1-4 or 5-9 years of age. For children ages 10-14 years, however, the firearm death rate increased 18 percent from 1985 to 1990, reaching a rate of 3.3 deaths per 100,000. Among black males 10-14 years, the firearm death rate more than doubled from 1985 to 1990. Increases were largest for firearm homicide; the rate rose from 3.0 to 6.9 per 100,000. There was also an increase in the rate for black females in this age group; the firearm death rate in 1990 was more than twice what it was in 1986 and 1987 (3.7 compared with 1.4 to 1.7 per 100,000). Again, increases were largest for firearm homicide.

The total firearm death rate among teenagers 15-19 years of age increased 77 percent from 1985 through 1990, to 23.5 deaths per 100,000, its highest level to date. Firearm death rates increased for all four race-sex groups, with the largest increases noted for black males. The firearm death rate for black males 15-19 years of age more than doubled, rising from 46.5 per 100,000 in 1985 to 119.9 per 100,000 in 1990 (figure 3). From 1985 through 1990, the black teenage male firearm homicide rate nearly tripled, rising to 105.3 per 100,000 (figure 4). At the same time, the firearm homicide rate for white males and black females doubled, rising to 9.7 and 10.4 per 100,000, respectively. While the firearm suicide rate among black teenage males was less than a tenth the magnitude of the firearm homicide rate, it increased 63 percent from 1985 to 1990 to 8.8 per 100,000. A far smaller increase (25 percent) was noted for the firearm suicide rate for white teenage males (figure 4). Among black females 15-19 years old, the firearm homicide rate doubled

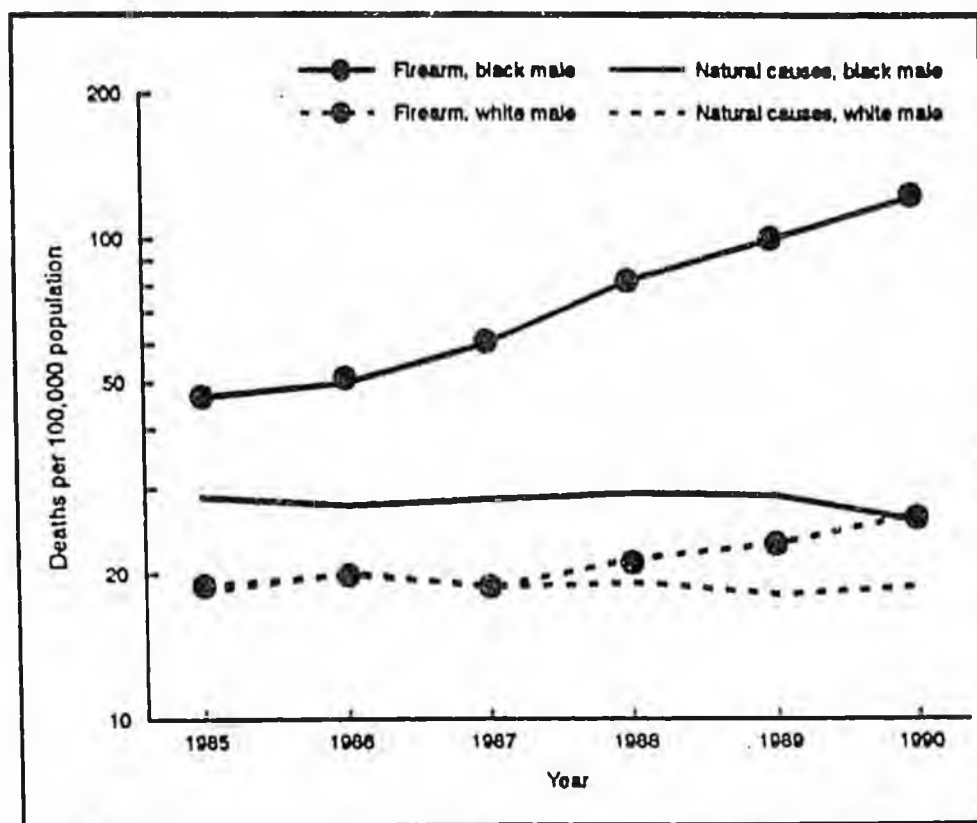


Figure 3. Deaths rates for natural causes and firearm injuries, for males aged 15-19 years: United States, 1985-90

from 1985 to 1990, reaching 10.4 per 100,000.

Among males 15-19 years of age, the nonfirearm homicide rate averaged 9 to 11 per 100,000 for black teenagers and 2 to 3 per 100,000 for white teenagers during the period 1985-90. It is interesting that although the nonfirearm homicide rate increased from 1989 to 1990 for both white and black males, the firearm homicide rates for white and black males were still 3 and 10 times the respective nonfirearm homicide rates. Nonfirearm suicide rates likewise showed little change during 1985-90 with rates averaging 6 per 100,000 for white male teenagers and 3 per 100,000 for black male teenagers (figure 4). Rates for females were also unchanged.

It was previously reported (1) that 1988 was the first year in which the firearm death rate for teenagers (15-19 years) exceeded the death rate associated with natural causes of death. That trend has continued; in 1990, among all teenagers 15-19 years, there were 39 percent more

natural causes of death. Driving that trend has been the rising rate for firearm mortality among white teenage males 15-19 years. For white teenage males 15-19 years, the natural cause death rate remained relatively unchanged at 18 to 19 per 100,000 and the firearm death rate increased from 21.4 per 100,000 in 1988 to 26.5 per 100,000 in 1990 (figure 3). Thus, the ratio of firearm to natural causes mortality among white teenage males 15-19 years increased from 1.1:1 in 1988 to 1.3:1 in 1989 to 1.4:1 in 1990. Among black males, that trend has also continued. From 1988 to 1990, the natural cause death rate declined 12 percent while the firearm death rate increased 48 percent. Whereas in 1988, the firearm death rate among black teenage males was 2.8 times the natural cause death rate, by 1990 the firearm death rate was 4.7 times the rate for natural causes.

The firearm death rate among persons 20-24 years of age was 36 percent higher in 1990 than in 1985; virtually all of the increase was a result of increases in firearm

5). The firearm homicide rate more than doubled in this group reaching 140.7 per 100,000, its highest level ever. (The previous high was in 1972.) Among white males ages 20-24 years, increases in firearm mortality were far more modest, with the firearm homicide rate in 1990 32 percent higher than what it was in 1985. Increases in firearm suicide were also minimal (figure 5). Among white females ages 20-24 years, the firearm death rate hovered around 5 per 100,000 for 1985 through 1990. For black females, the firearm death rate increased from 1985 to 1990 (although it was unchanged from 1989 to 1990) as a result of an increase in the firearm homicide rate.

The firearm homicide rate for white males 20-24 years remained about twice the nonfirearm homicide rate. Similar to the recent trend among those 15-19 years, the nonfirearm rate for those 20-24 years increased from 1989 to 1990. The nonfirearm homicide rate for black males was unchanged from 1985 to 1990 at about 22-23 per 100,000. The firearm suicide rate for white males remained close to twice the nonfirearm suicide rate (figure 5).

By ages 25-34 years, the upward trend in age-specific firearm mortality slowed considerably. The firearm death rate in 1990 was only 13 percent higher than in 1985, with the largest increase again noted in firearm homicide among black males (a 40 percent increase from 1985 to 1990). There was relatively little change in the nonfirearm homicide and nonfirearm suicide rates (figure 6).

Discussion

Sixty percent of all deaths among persons 1-34 years of age resulted from unintentional and intentional injuries in 1990, and about 30 percent of those external deaths were from firearms. To compile the standard cause-of-death rankings for persons 1 year of age and older, NCHS uses the "List of 72 Selected Causes of Death and HIV Infection" (6). However, this ranking system is not particularly

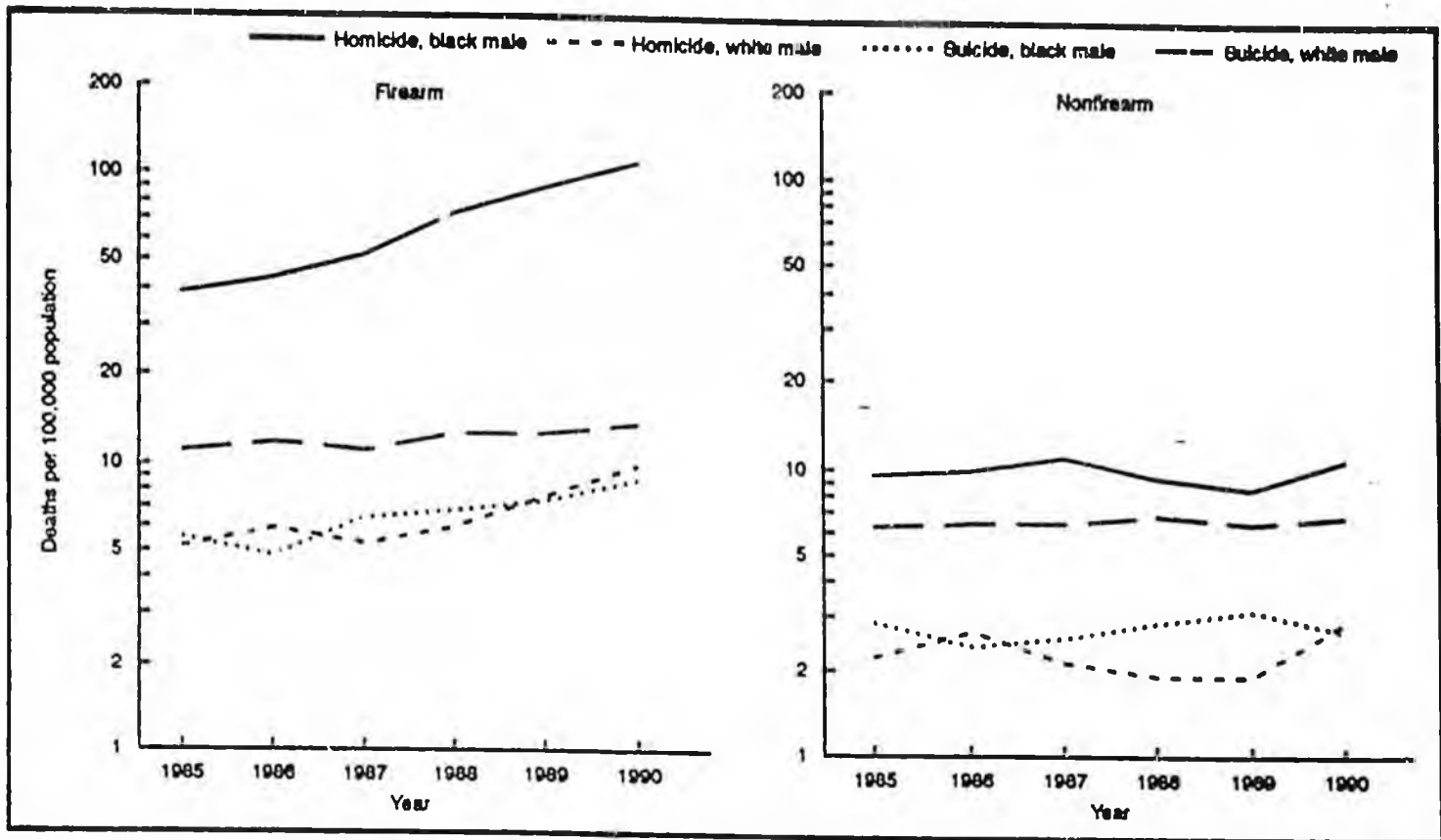


Figure 4. Homicide and suicide rates by firearm status for white and black males, aged 15-19 years: United States, 1985-90

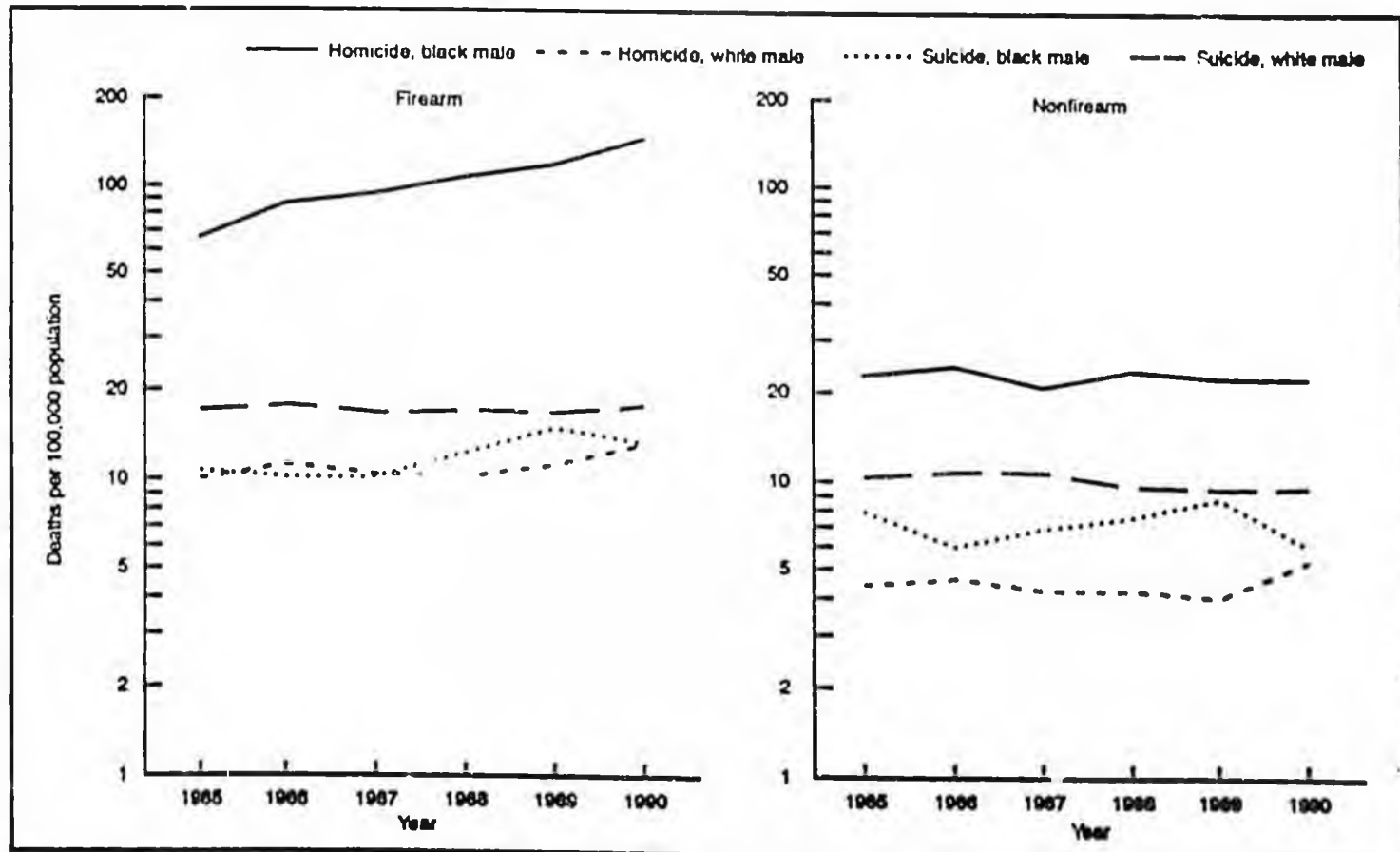


Figure 5. Homicide and suicide rates by firearm status for white and black males, aged 20-24 years: United States, 1985-90

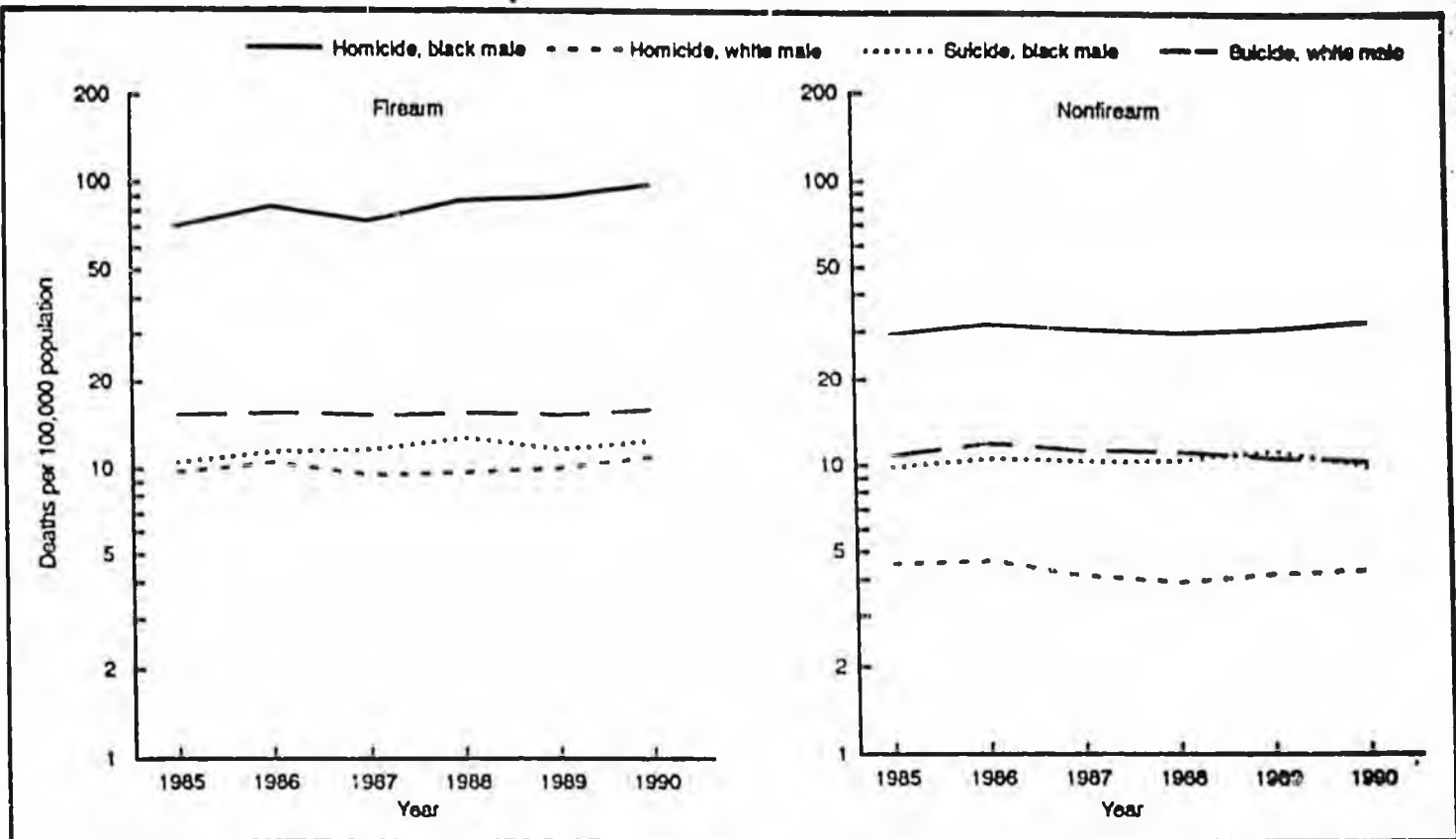


Figure 6. Homicide and suicide rates by firearm status for white and black males, aged 25-34 years: United States, 1985-90

appropriate for persons 1-34 years of age because it does not itemize specific causes of unintentional injuries, such as firearm injuries, motor vehicle injuries, fires and burns, and drowning. (They are counted in the "List of 72..." within the category "accidents and adverse effects".) Neither does the "List of 72" ranking specify intentional injury firearm deaths (which are counted in the categories homicide and suicide). In order to put firearms as a cause of death into perspective, causes of death for children, teenagers, and young adults have been reordered in an alternative ranking scheme that includes detailed causes of injury.

Based on this new ranking, firearms are the second leading cause of death (after motor vehicle injury fatalities) for children 10-14 years of age, teenagers 15-19 years of age, and young adults 20-24 years and 25-34 years of age. For persons 15-19 and 20-24 years of age, firearm homicide as an individual category of death was second only to motor vehicle deaths. For persons 25-34

years of age, there were 11 percent more deaths from firearms than from HIV infection (table 5).

Among black males, firearm injuries were the leading cause of death among children 10-14 through adults 25-34 years of age. For children 10-14 years, firearms were responsible for 30 percent more deaths than motor vehicle injuries. For black males 15-19 through 20-24 years, firearm homicide was the single leading cause of death, with more than 3 times the number of motor vehicle deaths. Firearm homicide was also the leading cause of death at ages 25-34 years, with 12 percent more deaths than from HIV infection. (Data available upon request.)

The firearm homicide rates among young persons 15-19 and 20-24 years continue to increase and the rates of increase have recently worsened for white males. For young black males 15-19 and 20-24 years of age, the average annual increases in firearm homicide of 20 percent and 15 percent, respectively, observed from 1985 to 1988 remained

unchanged through 1988 to 1990. For white males 15-19 years, the firearm homicide rate increased an average of 4 percent per year from 1985 through 1988 and remained unchanged for those 20-24 years, whereas the firearm homicide rate increased at average annual rates of 24 percent and 12 percent for white males 15-19 and 20-24 years, respectively, from 1988 through 1990. Not only is progress not being made in reducing the rate of increase in firearm homicide for these young black males, but attention must also be paid to increasing firearm homicide rates among young white males.

References

1. Fingerhut LA, Kleinman JC, Godfrey E, and Rosenberg H. Firearm mortality among children, youth, and young adults 1-34 years of age, trends and current status: United States, 1979-88. Monthly Vital Statistics Report; vol 39 no 11 suppl. Hyattsville, Maryland: National Center for Health Statistics, 1991.

2. U.S. Bureau of Census. U.S. population estimates, by age, sex, race, and Hispanic origin: 1980-91. Series P-25, No. 1095 Advance Report. 1993.
3. Fingerhut LA and Kleinman JC. Firearm mortality among children and youth. Advance data from vital and health statistics; no 178. Hyattsville, Maryland: National Center for Health Statistics. 1989.
4. Fingerhut LA, Ingram DD, Feldman JJ. Firearm and nonfirearm homicide among persons 15-19 years of age: Differences by level of urbanization, United States, 1979-1989. JAMA 267:3048-53 1992.
5. Fingerhut LA, Ingram DD, Feldman JJ. Firearm homicide among black teenage males in metropolitan counties, United States 1983-85 to 1987-89. JAMA 267:3054-58, 1992.
6. National Center for Health Statistics. Advance report of final mortality statistics, 1990. Monthly vital statistics report; vol 41 no 7 suppl. Hyattsville, Maryland: Public Health Service. 1993.
7. World Health Organization. Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death, based on the recommendations of the Ninth Revision Conference, 1975. Geneva: World Health Organization. 1977.

Table 1. Percent of homicides and suicides resulting from firearms by age, race, and sex for persons 10-34 years of age: United States, 1990

Age	Total	White		Black		
		Male	Female	Male	Female	
Percent of all homicides due to firearms						
10-14 years	72.5	80.3	45.2	85.2	66.1	
15-19 years	81.7	78.7	54.8	90.9	67.0	
20-24 years	75.9	70.8	50.6	88.7	56.0	
25-34 years	69.1	71.8	54.5	75.4	50.1	
Percent of all suicides due to firearms						
10-14 years	55.0	53.7	58.1	71.4	62.5	
15-19 years	67.3	69.4	57.3	76.4	65.4	
20-24 years	63.4	65.2	54.2	69.2	51.4	
25-34 years	57.6	61.1	48.9	55.9	38.0	

Note: Total includes races not shown separately.

Table 2. Death rates due to firearms and nonfirearms by manner of death (homicide, suicide, and unintentional injury), by age, race, and sex for persons 1-34 years of age: United States, 1985-90

Age, race, and sex	1985	1986	1987	1988	1989	1990
1-4 years of age						
Firearm deaths per 100,000 population						
Total	0.7	0.6	0.5	0.6	0.7	0.6
White male	0.6	0.5	0.5	0.6	0.7	0.6
White female	0.5	0.4	0.3	0.4	0.4	0.3
Black male	2.2	1.9	1.6	1.8	1.7	1.2
Black female	0.9	0.9	0.8	0.9	1.2	1.1
5-9 years of age						
Total	0.7	0.6	0.7	0.7	0.8	0.7
White male	0.9	0.7	0.9	0.7	0.8	0.6
White female	0.4	0.3	0.4	0.4	0.4	0.4
Black male	0.9	1.2	1.6	2.0	1.6	1.5
Black female	1.3	1.3	0.6	0.9	0.9	1.2
10-14 years of age						
Total	2.8	2.7	3.0	3.2	3.3	3.3
White male	4.5	4.4	4.3	4.2	4.6	4.2
White female	1.0	1.0	1.1	1.1	1.0	1.0
Black male	4.8	4.9	7.1	6.1	9.4	10.2
Black female	0.7	1.7	1.4	3.7	2.4	3.7
15-19 years of age						
Total	13.3	14.4	14.5	17.5	19.8	23.5
White male	18.4	20.1	18.7	21.4	23.1	26.5
White female	1.5	3.7	3.3	3.7	4.1	4.8
Black male	46.5	49.7	59.8	80.9	98.2	119.9
Black female	6.1	7.9	9.1	8.5	9.7	12.2
20-24 years of age						
Total	20.6	22.9	22.6	23.5	25.1	28.1
White male	29.1	30.6	28.7	29.0	29.7	32.5
White female	5.2	5.7	5.2	4.5	4.6	4.9
Black male	76.1	94.7	103.4	117.8	133.2	157.6
Black female	19.2	12.0	13.9	13.8	15.4	14.4
25-34 years of age						
Total	19.3	20.4	19.4	20.4	20.4	21.8
White male	26.3	27.0	25.8	26.0	26.2	27.8
White female	5.7	5.5	5.6	5.5	5.2	5.5
Black male	19.8	21.1	24.8	27.1	28.8	30.5
Black female	12.8	13.8	14.0	14.7	13.2	14.6
1-4 years of age						
Firearm homicides per 100,000 population						
Total	0.4	0.4	0.3	0.3	0.5	0.4
White male	0.3	0.2	0.2	0.3	0.4	0.4
White female	0.2	0.2	0.2	0.2	0.5	0.2
Black male	1.1	1.4	0.8	1.1	1.0	0.8
Black female	0.7	0.6	0.7	0.6	0.8	0.9
5-9 years of age						
Total	0.3	0.3	0.3	0.4	0.4	0.3
White male	0.4	0.3	0.4	0.3	0.3	0.2
White female	0.2	0.1	0.2	0.3	0.4	0.3
Black male	0.5	0.6	0.7	1.2	1.0	1.0
Black female	1.0	0.8	0.4	0.7	0.7	0.9

Table 2. Death rates due to firearms and nonfirearms by manner of death (homicide, suicide, and unintentional injury), by age, race, and sex for persons 1-34 years of age: United States, 1985-90—Coh.

Age, race, and sex	1985	1986	1987	1988	1989	1990
10-14 years of age						
Firearm homicides per 100,000 population						
Total	0.8	0.9	1.1	1.1	1.4	1.5
White male	0.9	1.0	0.8	0.9	1.2	1.3
White female	0.4	0.4	0.4	0.4	0.4	0.4
Black male	3.0	3.4	5.3	4.7	6.6	6.9
Black female	0.6	1.0	1.1	2.6	1.8	3.1
15-19 years of age						
Total	5.8	6.8	7.0	9.0	11.1	14.0
White male	5.0	5.8	5.2	6.0	7.5	9.7
White female	1.2	1.5	1.2	1.3	1.7	2.0
Black male	37.4	42.2	50.1	69.2	85.5	105.3
Black female	5.0	6.6	7.3	7.2	8.7	10.4
20-24 years of age						
Total	9.9	12.1	12.4	13.2	14.5	17.1
White male	9.8	11.0	10.2	10.1	11.1	12.9
White female	2.2	2.4	2.3	2.3	2.2	2.3
Black male	63.1	82.5	90.4	102.5	113.7	140.7
Black female	8.8	10.6	12.1	11.8	13.1	12.4
25-34 years of age						
Total	9.8	10.8	10.0	11.0	11.2	12.2
White male	9.5	10.2	9.3	9.5	9.8	10.8
White female	2.5	2.3	2.4	2.4	2.3	2.4
Black male	67.3	79.4	71.2	82.4	85.3	94.4
Black female	10.7	11.6	11.8	12.7	11.7	12.7
10-14 years of age						
Firearm suicides per 100,000 population						
Total	0.8	0.9	0.9	0.8	0.8	0.8
White male	1.5	1.5	1.7	1.2	1.4	1.2
White female	0.4	0.4	0.4	0.4	0.3	0.5
Black male	0.5	0.8	0.5	0.7	0.8	1.1
Black female	0.0	0.2	0.1	0.4	0.2	0.4
15-19 years of age						
Total	6.0	6.1	6.0	6.9	6.8	7.5
White male	10.8	11.6	10.9	12.4	12.5	13.5
White female	2.0	1.8	1.9	2.2	2.1	2.3
Black male	5.4	4.7	6.4	6.8	7.3	8.8
Black female	0.7	1.0	1.3	0.9	0.7	1.3
20-24 years of age						
Total	9.2	9.4	8.9	9.9	9.2	9.6
White male	16.8	17.2	16.3	16.6	16.5	17.5
White female	2.7	2.9	2.5	1.9	2.2	2.4
Black male	10.5	9.9	10.0	12.0	14.6	13.2
Black female	1.4	1.0	1.1	1.5	1.8	1.3
25-34 years of age						
Total	8.4	9.6	8.5	8.6	8.4	8.7
White male	15.0	15.2	15.0	15.2	15.0	15.6
White female	2.9	2.9	2.8	2.8	2.7	2.9
Black male	10.2	11.3	11.5	12.4	11.5	12.2
Black female	1.5	1.7	1.7	1.5	1.3	1.4

Table 2. Death rates due to firearms and nonfirearms by manner of death (homicide, suicide, and unintentional injury), by age, race, and sex for persons 1-34 years of age: United States, 1985-90—Con.

Age, race, and sex	1985	1986	1987	1988	1989	1990
Unintentional firearm deaths per 100,000 population						
1-4 years of age						
Total	0.3	0.2	0.3	0.3	0.3	0.2
White male	0.3	0.2	0.3	0.3	0.2	0.3
White female	0.2	0.1	0.1	0.1	0.2	0.1
Black male	1.0	0.5	0.7	0.7	0.7	0.4
Black female	0.2	0.4	0.1	0.3	0.4	0.3
5-9 years of age						
Total	0.3	0.3	0.4	0.3	0.3	0.3
White male	0.5	0.4	0.5	0.4	0.5	0.5
White female	0.2	0.1	0.2	0.1	0.1	0.1
Black male	0.3	0.6	0.8	0.8	0.5	0.5
Black female	0.3	0.5	0.2	0.1	0.2	0.3
10-14 years of age						
Total	1.0	0.9	0.9	1.1	1.0	0.8
White male	2.0	1.7	1.6	1.8	1.8	1.5
White female	0.2	0.2	0.2	0.3	0.2	0.1
Black male	1.2	0.6	1.2	2.2	1.8	1.9
Black female	0.1	0.4	0.2	0.6	0.3	0.2
15-19 years of age						
Total	1.3	1.3	1.2	1.4	1.6	1.7
White male	2.1	2.2	2.1	2.5	2.8	2.9
White female	0.2	0.3	0.1	0.2	0.3	0.2
Black male	3.3	2.2	2.9	3.5	4.6	4.9
Black female	0.4	0.2	0.1	0.4	0.3	0.4
20-24 years of age						
Total	1.1	1.0	1.1	1.0	1.2	1.0
White male	1.9	1.7	1.7	1.8	1.7	1.6
White female	0.2	0.2	0.2	0.1	0.2	0.2
Black male	1.9	2.0	2.7	2.4	4.2	2.7
Black female	0.1	0.3	0.3	0.4	0.2	0.6
25-34 years of age						
Total	0.8	0.7	0.7	0.6	0.6	0.6
White male	1.3	1.2	1.1	1.0	1.0	1.1
White female	0.2	0.2	0.2	0.2	0.1	0.2
Black male	1.8	1.7	1.5	1.6	1.7	1.4
Black female	0.4	0.3	0.4	0.3	0.1	0.3
Nonfirearm homicides per 100,000 population						
1-4 years of age						
Total	2.1	2.3	2.0	2.3	2.2	2.2
White male	1.6	1.7	1.6	1.9	1.5	1.4
White female	1.4	1.2	1.3	1.4	1.3	1.2
Black male	5.4	6.1	4.1	6.5	7.0	6.7
Black female	5.6	6.3	6.6	5.7	6.5	6.3
5-9 years of age						
Total	0.7	0.5	0.5	0.6	0.6	0.5
White male	0.3	0.2	0.3	0.5	0.3	0.3
White female	0.5	0.3	0.4	0.5	0.4	0.4
Black male	1.9	1.4	1.3	1.6	1.6	1.1
Black female	1.4	1.9	1.2	1.2	1.6	1.6

Table 2. Death rates due to firearms and nonfirearms by manner of death (homicide, suicide, and unintentional injury), by age, race, and sex for persons 1-34 years of age: United States, 1985-90—Con.

Age, race, and sex	1985	1986	1987	1988	1989	1990
10-14 years of age						
Nontirearm homicides per 100,000 population						
Total	0.6	0.8	0.8	0.8	0.8	0.8
White male	0.5	0.2	0.2	0.4	0.3	0.3
White female	0.6	0.6	0.5	0.4	0.6	0.5
Black male	1.1	1.3	1.7	1.3	0.8	1.2
Black female	1.1	1.1	1.4	1.9	2.0	1.8
15-19 years of age						
Total	2.8	3.1	2.8	2.6	2.4	3.1
White male	2.2	2.7	2.1	1.9	1.9	2.9
White female	1.5	1.9	1.8	1.7	1.5	1.8
Black male	9.3	9.7	10.6	9.1	8.4	10.5
Black female	5.3	5.6	4.8	4.5	3.1	5.1
20-24 years of age						
Total	5.0	5.5	5.0	5.3	5.0	5.4
White male	4.4	4.6	4.2	4.2	4.0	5.3
White female	2.1	2.7	2.3	2.4	2.2	2.2
Black male	22.1	23.6	20.3	23.1	21.7	21.6
Black female	9.1	9.5	11.2	11.4	9.7	9.7
25-34 years of age						
Total	5.1	5.5	5.2	5.3	5.3	5.4
White male	4.5	4.6	4.1	3.9	4.2	4.2
White female	1.9	2.1	2.2	2.1	2.0	2.0
Black male	28.3	30.2	29.4	28.5	29.5	30.1
Black female	9.3	10.5	10.9	13.1	11.9	12.1
10-14 years of age						
Nontirearm suicides per 100,000 population						
Total	0.0	0.7	0.6	0.7	0.6	0.7
White male	1.1	0.9	0.9	0.9	0.8	1.1
White female	0.5	0.4	0.3	0.4	0.4	0.4
Black male	0.8	0.8	1.2	0.6	0.9	0.8
Black female	0.4	0.2	0.2	0.6	0.5	0.6
15-19 years of age						
Total	3.9	4.0	4.1	4.3	4.2	3.9
White male	6.2	6.4	6.4	6.8	6.4	5.9
White female	2.1	2.2	2.5	2.5	2.4	1.9
Black male	2.9	2.4	2.6	2.9	3.2	2.8
Black female	0.9	1.1	1.4	1.3	1.6	1.3
20-24 years of age						
Total	6.2	6.2	6.1	5.7	5.6	5.9
White male	10.1	10.5	10.4	9.4	9.2	9.9
White female	2.5	2.4	2.2	2.4	2.0	2.2
Black male	7.7	5.9	6.8	7.4	8.5	7.5
Black female	1.1	1.4	1.3	1.4	1.6	1.3
25-34 years of age						
Total	6.9	7.3	7.1	7.0	6.8	6.9
White male	10.6	11.6	11.0	10.9	10.4	10.0
White female	3.5	3.4	3.6	3.4	3.3	3.3
Black male	9.8	10.3	10.0	10.2	11.0	10.0
Black female	1.5	2.2	2.3	2.3	2.5	2.6

Notes: Some of these death rates are based on small numbers of deaths (less than 20). This is especially true for rates among children 1-4 and 5-9 years. See table 3 for numbers of deaths which all rates are based. Total includes races not shown separately.

Table 3. Deaths due to firearms and nonfirearms by manner of death (homicide, suicide, and unintentional injury), by age, race, and sex for persons 1-34 years of age: United States, 1985-90

Age, race, and sex	1985	1986	1987	1988	1989	1990
1-4 years of age						
	All firearm deaths					
Total	96	82	77	91	105	87
White male	35	27	29	37	41	38
White female	26	21	19	20	25	19
Black male	24	20	17	20	19	14
Black female	9	10	8	10	13	13
5-9 years of age						
Total	120	110	126	124	138	121
White male	61	52	64	53	62	48
White female	28	20	28	25	30	28
Black male	11	16	22	27	22	21
Black female	16	17	8	12	12	16
10-14 years of age						
Total	470	453	485	524	557	560
White male	319	297	290	287	321	298
White female	70	64	72	72	66	69
Black male	63	63	90	104	123	136
Black female	9	11	18	46	30	48
15-19 years of age						
Total	2,498	2,712	2,720	3,242	3,597	4,173
White male	1,445	1,581	1,458	1,642	1,732	1,936
White female	263	279	243	273	292	319
Black male	643	690	833	1,126	1,351	1,640
Black female	84	100	125	116	131	163
20-24 years of age						
Total	4,380	4,748	4,561	4,616	4,838	5,365
White male	2,615	2,675	2,430	2,387	2,396	2,604
White female	450	479	426	353	352	371
Black male	1,055	1,307	1,404	1,569	1,746	2,041
Black female	151	175	199	194	212	191
25-34 years of age						
Total	9,050	8,654	9,326	9,801	8,818	9,411
White male	4,654	4,851	4,665	4,728	4,752	5,021
White female	1,002	771	989	980	925	971
Black male	1,909	2,204	2,126	2,476	2,548	2,811
Black female	347	382	395	420	381	421
1-4 years of age						
	Firearm homicides					
Total	53	51	41	50	67	51
White male	19	13	12	17	27	21
White female	13	14	12	12	15	11
Black male	12	15	9	12	11	14
Black female	7	6	7	7	9	7
5-9 years of age						
Total	58	52	55	71	77	61
White male	25	21	26	20	22	14
White female	15	10	12	20	25	14
Black male	6	8	10	16	14	14
Black female	12	10	5	10	9	14
10-14 years of age						
Total	141	152	174	183	229	211
White male	63	67	58	59	60	61
White female	26	29	28	25	27	27
Black male	40	43	67	63	89	81
Black female	8	12	14	32	23	24

Table 3. Deaths due to firearms and nonfirearms by manner of death (homicide, suicide, and unintentional injury), by age, race, and sex for persons 1-34 years of age: United States, 1985-90—Con.

Age, race, and sex	1985	1986	1987	1988	1989	1990
15-19 years of age						
Firearm homicides						
Total	1,087	1,274	1,312	1,657	2,011	2,484
White male	393	458	402	481	581	707
White female	88	109	87	97	123	138
Black male	517	586	697	963	1,176	1,441
Black female	69	91	100	98	117	140
20-24 years of age						
Total	2,107	2,510	2,497	2,595	2,786	3,274
White male	884	962	863	829	891	1,029
White female	189	207	189	182	166	173
Black male	874	1,138	1,227	1,365	1,491	1,828
Black female	129	154	173	166	180	168
25-34 years of age						
Total	4,031	4,591	4,302	4,725	4,835	5,280
White male	1,609	1,829	1,685	1,733	1,702	1,956
White female	433	406	433	426	402	419
Black male	1,600	1,940	1,786	2,101	2,201	2,450
Black female	291	321	332	365	337	368
10-14 years of age						
Firearm suicides						
Total	139	141	151	125	138	142
White male	103	102	114	84	99	87
White female	29	23	27	23	22	32
Black male	6	10	6	9	11	15
Black female	0	3	1	5	3	5
15-19 years of age						
Total	1,117	1,151	1,129	1,261	1,241	1,332
White male	850	911	850	954	941	987
White female	150	138	141	163	147	160
Black male	74	65	89	95	100	120
Black female	9	14	18	13	10	17
20-24 years of age						
Total	1,964	1,946	1,793	1,754	1,775	1,833
White male	1,511	1,506	1,386	1,376	1,331	1,399
White female	234	244	206	154	171	181
Black male	146	136	136	160	192	171
Black female	20	14	16	21	25	18
25-34 years of age						
Total	3,539	3,627	3,629	3,706	3,632	3,773
White male	2,654	2,723	2,713	2,766	2,732	2,825
White female	511	514	507	497	481	517
Black male	245	276	288	315	298	317
Black female	40	46	49	44	38	41
1-4 years of age						
Unintentional firearm deaths						
Total	41	31	36	41	38	31
White male	15	14	17	20	14	18
White female	13	7	7	8	10	8
Black male	11	5	8	8	8	6
Black female	2	4	1	3	4	3

Table 3. Deaths due to firearms and nonfirearms by manner of death (homicide, suicide, and unintentional injury), by age, race, and sex for persons 1-34 years of age: United States, 1985-90 - Con.

Age, race, and sex	1985	1986	1987	1988	1989	1990
5-9 years of age						
Unintentional firearm deaths						
Total	58	57	66	51	58	66
White male	33	30	35	32	39	34
White female	13	10	16	4	5	7
Black male	4	8	11	11	7	7
Black female	4	7	2	2	3	4
10-14 years of age						
Total	177	143	144	185	172	148
White male	145	115	111	123	127	108
White female	12	12	12	22	14	7
Black male	16	8	15	28	23	28
Black female	1	5	3	8	4	2
15-19 years of age						
Total	241	238	220	266	294	306
White male	166	126	160	194	195	212
White female	17	25	11	11	20	14
Black male	45	30	41	48	63	67
Black female	3	3	5	5	4	6
20-24 years of age						
Total	238	205	213	200	222	196
White male	175	148	148	146	133	120
White female	21	17	16	8	14	15
Black male	27	27	37	32	55	35
Black female	2	4	5	5	3	6
25-34 years of age						
Total	339	299	291	264	274	279
White male	237	213	196	175	190	184
White female	39	28	36	29	28	27
Black male	44	47	28	41	43	37
Black female	15	2	10	8	3	10
1-4 years of age						
Nonfirearm homicides						
Total	295	331	293	331	326	322
White male	92	102	95	114	88	87
White female	39	65	76	78	72	68
Black male	58	87	44	72	80	79
Black female	59	66	70	61	72	72
5-9 years of age						
Total	109	82	86	108	104	93
White male	24	17	21	36	23	24
White female	31	20	27	32	27	31
Black male	24	18	18	22	22	16
Black female	18	24	16	16	21	21
10-14 years of age						
Total	109	93	92	97	100	98
White male	38	17	15	27	21	23
White female	37	42	35	28	40	34
Black male	15	17	22	16	11	18
Black female	14	14	17	24	25	21
15-19 years of age						
Total	515	588	528	478	431	558
White male	174	212	181	145	143	218
White female	113	140	131	121	108	112
Black male	128	135	147	128	118	144
Black female	73	77	68	61	42	68

Table 3. Deaths due to firearms and nonfirearms by manner of death (homicide, suicide, and unintentional injury), by age, race, and sex for persons 1-34 years of age: United States, 1985-90—Con.

Age, race, and sex	1985	1986	1987	1988	1989	1990
20-24 years of age						
Nonfirearm homicides						
Total	1 063	1 150	1 019	1 041	957	1 038
White male	399	402	360	349	326	424
White female	187	226	191	189	170	169
Black male	306	325	275	308	285	281
Black female	134	138	160	160	134	132
25-34 years of age						
Total	2 109	2 313	2 244	2 267	2 300	2 363
White male	789	835	744	713	761	768
White female	334	374	398	377	355	350
Black male	677	740	736	726	762	800
Black female	251	291	308	275	344	366
10-14 years of age						
Nonfirearm suicides						
Total	136	109	99	112	98	116
White male	77	64	59	62	52	75
White female	35	23	18	26	23	25
Black male	11	10	15	8	12	6
Black female	5	2	3	2	6	3
15-19 years of age						
Total	732	745	773	798	768	647
White male	489	503	502	519	483	435
White female	154	164	186	183	172	119
Black male	40	34	36	41	44	37
Black female	10	15	19	18	21	9
20-24 years of age						
Total	1 308	1 278	1 211	1 116	1 086	1 057
White male	303	321	379	375	343	348
White female	110	101	178	192	154	153
Black male	107	8	93	98	111	76
Black female	16	21	18	19	22	17
25-34 years of age						
Total	2 867	3 084	3 026	3 004	2 933	2 777
White male	1 881	2 084	1 957	1 980	1 890	1 800
White female	613	598	633	601	594	541
Black male	230	253	251	259	283	250
Black female	41	60	64	67	72	67

NOTE: Total includes races not shown separately. All firearm deaths include those for which the intent was unknown.

Table 4. Firearm mortality race and sex ratios, by manner of death for persons 1-34 years of age: United States, 1990

Manner of death	Race ratio (black/white)		Sex ratio (male/female)	
	Male	Female	White	Black
All firearm deaths:				
1-4 years	*1.9	*3.4	*1.9	*1.1
5-9 years	2.4	*3.0	1.6	*1.3
10-14 years	2.4	3.6	4.1	2.8
15-19 years	4.5	2.6	5.7	8.9
20-24 years	4.9	2.9	6.6	10.9
25-34 years	3.9	2.6	5.1	7.5
Firearm homicide:				
1-4 years	*2.1	*3.9	*1.6	*0.9
5-9 years	*5.8	*3.2	*0.8	*1.1
10-14 years	5.2	7.5	3.2	2.2
15-19 years	10.9	5.3	4.9	10.1
20-24 years	10.9	5.5	5.7	11.3
25-34 years	8.7	5.4	4.6	7.5
Firearm suicide:				
10-14 years	*0.9	*0.8	2.6	*2.9
15-19 years	0.7	*0.5	5.8	*6.9
20-24 years	0.8	*0.6	7.4	*9.9
25-34 years	0.8	0.5	5.4	8.7
Unintentional firearm:				
1-4 years	*1.6	*2.5	*2.5	*1.6
5-9 years	*1.1	*3.0	*4.6	*1.7
10-14 years	1.3	*1.5	*14.6	*12.7
15-19 years	1.7	*2.2	*14.3	*10.9
20-24 years	1.7	*3.0	*8.2	*4.6
25-34 years	1.3	*2.3	7.1	*4.1

NOTE: Ratios are asterisked (*) if either the numerator or the denominator of the ratio is based on 20 or fewer deaths. See table 2 for rates and table 3 for numbers of deaths.

Table 5. Selected causes of death among persons 1-34 years of age, by age: United States, 1990

Cause of death	Age					
	1-4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-34 years
	Deaths per 100,000 population					
All external causes	20.0	10.8	14.7	71.6	84.0	71.4
Motor vehicle injuries	6.2	5.4	6.3	33.3	35.0	23.8
Drowning	3.8	1.4	5	2.7	2.2	2.0
Fires and burns	3.7	1.3	0.5	0.6	1.0	1.1
Firearms	0.6	0.7	3.3	23.5	28.1	21.8
Homicide	0.4	0.3	1.5	14.0	17.1	12.2
Suicide			0.8	7.5	9.6	8.7
Unintentional	0.2	0.3	0.8	1.7	1.0	0.6
Nonfirearm homicide	2.2	0.5	0.6	3.1	5.4	5.8
Nonfirearm suicide			2.7	3.5	5.5	6.4
All natural causes	26.6	11.3	11.1	16.9	25.9	67.9
Congenital anomalies	6.0	1.6	1.1	1.3	1.4	1.1
Malignant neoplasms	3.5	3.1	3.1	4.3	5.5	12.6
HIV infection	0.8	0.4	0.1	0.3	2.6	19.7
	Deaths					
All external causes	2,975	1,951	2,528	12,707	16,067	30,790
Motor vehicle injuries	928	970	1,089	5,918	6,659	10,170
Drowning	564	248	260	478	430	667
Fires and burns	554	226	91	114	183	470
Firearms	87	121	560	4,173	5,369	9,412
Homicide	58	63	258	2,484	3,274	5,280
Suicide			142	1,332	1,833	3,773
Unintentional	31	58	146	305	195	279
Nonfirearm homicide	322	93	90	558	1,030	2,363
Nonfirearm suicide			118	647	1,057	2,777
All natural causes	3,956	2,044	1,913	3,004	4,958	29,301
Congenital anomalies	896	288	182	224	287	473
Malignant neoplasms	513	569	525	759	1,080	8,427
HIV infection	123	84	20	48	483	8,423

Technical notes

Nature and sources of data

Data shown in this report are based on information from all death certificates filed in the 50 States and the District of Columbia.

Mortality statistics are based on information coded by the National Center for Health Statistics (NCHS) from copies of the original death certificates received from the State registration offices and on State-coded data provided to NCHS through the Vital Statistics Cooperative Program.

Data for the United States refer to events occurring within the United States.

Cause-of-death classification

The mortality statistics presented in this report were compiled in accordance with the World Health Organization regulations, which specify that member nations classify causes of death by the current *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death* (7). In this report, causes of death for 1985-90 were classified according to the Ninth Revision of the ICD (ICD-9).

Homicides are classified according to ICD-9 Nos. E960-E969 (Homicide and injury purposely inflicted by other persons) and Nos. E970-E978 (Legal intervention). Homicides caused by firearm are classified under ICD-9, Nos. E965.0-E965.4 (Assault by firearms) and E970 (Legal intervention by firearm). Suicides are classified according to ICD-9 Nos. E950-E959 (Suicide and self-inflicted injury). Suicides caused by firearms are classified under ICD-9 Nos. E955.0-E955.4. Unintentional firearm deaths are classified under ICD-9, No. E922 (Unintentional injury caused by firearm missile). Injury deaths by firearms, undetermined whether unintentionally or purposely inflicted are classified under ICD-9, Nos. E985.0-E985.4.

Table 1. Deaths due to legal intervention by a firearm among persons 15-34 years of age, by sex and race: United States, 1985 and 1990

Age	Total	Male		Female	
		White	Black	White	Black
1985					
Deaths					
15-19 years	23	11	11	0	1
20-24 years	54	32	19	0	0
25-34 years	87	52	32	0	0
1990					
15-19 years	22	12	10	0	0
20-24 years	57	28	22	1	0
25-34 years	114	68	39	4	2

Note: Total includes races not shown separately.

Random variation

Although the mortality data in this report are not subject to sampling error, they may be affected by random variation in the number of deaths involved. When the number of events is small (perhaps less than 100) and the probability of such an event is small, considerable caution must be observed in interpreting the data. Such infrequent events may be assumed to follow a Poisson probability distribution. For this distribution, a simple approximation may be used to estimate the confidence interval, as follows:

If N is the number of registered deaths in the population and R is the corresponding rate, the chances are 19 in 20 (approximate 95-percent confidence interval) that

$$1. N - 2\sqrt{N} \text{ and } N + 2\sqrt{N}$$

covers the "true" number of events.

$$2. R - 2 \frac{R}{\sqrt{N}} \text{ and } R + 2 \frac{R}{\sqrt{N}}$$

covers the "true" rate.

If the rate R_1 corresponding to N_1 events is compared with the rate R_2 corresponding to N_2 events, the difference between the two rates may

be regarded as statistically significant if it exceeds

$$2 \sqrt{\frac{R_1^2}{N_1} + \frac{R_2^2}{N_2}}$$

Additional information on random variation may be found in the Technical Appendix of *Vital Statistics of the United States, 1987, Volume II, Mortality, Part A*.

Rates of change

Annual rates of change are represented by the slope of a least squares regression line through the logarithm of the annual rates.

Symbols

- - - Data not available
 - - - - Category not applicable
 - Quantity zero
 - 0.0 Quantity more than zero but less than 0.05
 - Z Quantity more than zero but less than 500 where numbers are rounded to thousands
 - Figure does not meet standard of reliability or precision
-

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