15 through 34 years from a 1987 baseline of 20 per 100 000 to 16 per 100 000.[23] Yet homicide to Black women in this age group averaged 22.9 per 100 000 between 1990 and 1992.[24] If we are to reach the objective, a much more coordinated national program of injury and violence surveillance, prevention, evaluation, and education will be necessary. □

Leslie L. Davidson
Kings College
School of Medicine and Dentistry
London

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Annotation: The High Cost of Injuries in the United States

Injuries continue to impose a multibillion-dollar burden on the economy, as reported by Miller and Lestina in this issue of the Journal.[1] In their analysis of data from the 1987 National Medical Expenditure Survey (NMES), they found that 1987 medical expenditures on injuries amounted to $64.7 billion (in 1993 dollars) or 8.3% of 1993's total personal health care spending in the United States.[2]

Miller and Lestina compare their findings with those from our cost of injury study conducted in 1987 and 1988.[3] Their estimates show that we overestimated spending for males aged 44 years and younger and for females over 64 years of age. Miller and Lestina correctly point out that we "unavoidably" assumed that treatment costs did not vary by age and sex. We had estimated lifetime costs and used multiple data sets to estimate prevalence, utilization, and expenditures, which resulted in the best estimates from the data available at that time. Miller and Lestina's advantage in using data from the NMES is that expenditures are linked with illness episodes; thus, their results undoubtedly have improved the estimates we made 5 years earlier. However, the disadvantage of the NMES is the relatively small sample and the lack of coding by external cause of injury. From a public health perspective, it is important to disaggregate injuries by cause so that prevention strategies can be designed.

Miller and Lestina's new estimates of injury spending once again highlight injuries' enormous drain on the US medical care system. In addition to the high medical costs, injuries result in losses in productivity for people who are ill and disabled and die prematurely. A national total of 62.1 million injuries with 412.1 million restricted-activity days—or 6.6 days per injury—were reported in 1993.[4] Accidents and their adverse effects were the fifth leading cause of death in the US total population in 1992.[5] However, among children and adults aged 1 through 44 years, accidents were ranked as the first cause of death. When children or adults in the prime of life die, their future productivity losses to the economy are enormous.

Injury is a major public health problem that needs to be addressed by multiple strategies. Prevention, control, treatment, and rehabilitation are required to reduce the number of deaths and nonfatal injuries as well as the associated high costs. *Healthy People 2000* has identified the reduction of unintentional injuries as one of its priority areas. The 22 objectives in this area focus on a wide range of educational, legislative, and mechanical means to reduce injury occurrence. Progress toward the Year 2000 targets has been made in 12 of the 22 objectives; in five cases, the Year 2000 target has been equaled or surpassed. Much of the progress is in areas related to motor vehicle fatalities, injuries, and the

Editor's Note. See related article by Miller and Lestina (p 89) in this issue.

use of vehicle occupant restraints and motorcycle helmets.[6] But much remains to be done to attain all of the Year 2000 goals and to reduce the burden of injury on individuals, families, and society.

In order to achieve these national goals, better data are needed. More complete and accurate measurement of the incidence of injury and related costs are required to target injury prevention and control programs. As highlighted by Miller and Lestina, age- and sex-specific incidence and cost data are necessary for designing appropriate interventions. Timely injury data are needed to identify important shifts in rates and patterns of injury, to identify newly emerging problems, and to form the basis for the planning, analysis, and evaluation of injury control efforts. For example, all hospital discharge systems should be required to use both cause- and nature-of-injury codes ([*International Classification of Diseases,* Clinical Modification] ICD-E and ICD-N codes). Longitudinal studies, especially of severely injured persons, are needed to fully understand the long-term consequences of injury and to subsequently establish policy in the areas of prevention, treatment, rehabilitation, and research. Finally, to provide current expenditure data for the nation, medical spending should be measured periodically and the data made available to the research community on a timely basis. □

Dorothy P. Rice
Wendy Max
Institute for Health and Aging
University of California
San Francisco

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Topics for Our Times: Rape Is a Major Public Health Issue

Violence is a major public health issue for all Americans. [It has] a clear and measurable impact on the physical and mental health of all our citizens. And every day, it also has a major impact upon our clinics, our hospital emergency rooms, and all of our health care facilities.

C. Everett Koop, MD
Former Surgeon General
US Public Health Service

For most readers, the word "violence" in Dr Koop's statement calls to mind images of muggings, murders, and drive-by shootings. But how many people also think of rape and sexual assault and realize that the profound consequences of these crimes make them a major public health issue as well? Sexual violence is a major category of violence affecting women and, to a much lesser (but no less serious) extent, men. Because adult males are rarely the victims of sexual assault, it is not often included in men's categorizations of violence. Because men have traditionally controlled the positions of power from which issues and problems are defined, it is men's definitions, based on their experiences, that shape the issues to which the world attends. Defining the world from a male perspective is a form of discrimination that has major implications for public health, as the well-documented exclusion of women from drug trials has shown.[1,2]

In August 1995 the Bureau of Justice Statistics reported on its redesigned National Crime Victimization Survey, an annual survey of 100 000 people that is intended to uncover crimes *not* reported to the police. For the first time, the survey asked directly about rape. Previously the survey had asked only whether interviewees had been attacked or threatened during the prior year, leaving it to them to mention sexual assault. Using this improved (albeit still imperfect) methodology, the Bureau "discovered" twice as much sexual violence in women's lives as had been reported in earlier surveys.[3]

The best study of sexual assault among adult women is *Rape in America,* conducted by the Crime Victim Research and Treatment Center of the Medical University of South Carolina.[4] The methods of this study are superior to the redesigned National Crime Victimization Survey. *Rape in America* examined incidence and prevalence. Extrapolating from its sample, researchers found that during a 1-year period (1989 to 1990), US women over the age of 18 experienced 618 000 acts of forced vaginal, anal, or oral, or digital/foreign object penetration. As to prevalence, the study asked about age at first experience of forced penetration. The researchers concluded that at least 12.1 million adult women have been victims of at least one forcible rape (as distinguished from statutory rape) during their lifetimes, and that "rape is a crime of youth." Sixty-one percent of rapes occurred before the victim was 18; 29% before the victim was 11.

According to a recent review of numerous studies of adults in the general population, "at least 20% of American women and 5–10% of American men experienced some form of abuse as children."[5] Child sexual abuse is associated with numerous short- and long-term psychological problems, ranging from post-traumatic stress disorder and destroyed self-esteem to interpersonal difficulties such as aggression, withdrawal, lack of trust, and excessive sexual activity. Sexually abused girls are at high risk for teenage pregnancy. Furthermore, despite the fact that girls are most often the victims of child sexual abuse, medical training has been so skewed in its use of the male body as an anatomical model that many physicians cannot identify the different parts of the female genitalia or what "normal" looks like in a prepubescent girl.[6]

Rape in America was funded by the National Institute of Drug Abuse (NIDA). Why did NIDA fund a study of rape? Because rape victims often use drugs and alcohol to self-medicate their psychological trauma, *Rape in America* asked about the consequences to the victim. Was she physically injured apart from the rape itself? What were her psychological injuries? Did she abuse alcohol or drugs as a result? Had she been suicidal?

Rape in America concluded that 3.8 million women have had Rape-Related Post Traumatic Stress Disorder; an estimated 1.3 million currently have the disorder; and, each year, 211 000 will develop it. There was "substantial evidence that rape victims [developed] higher