Preface: The Role of the Epidemiologist in Injury Prevention and Control—An Unmet Challenge

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More young people in the United States aged 1–34 years die from injuries than from all other causes of death combined. Injuries, the fourth leading cause of death, kill nearly 150,000 US residents each year (1). They account for approximately 25 percent of all premature deaths before age 65 years in this country, 10 times the number of premature deaths from the human immunodeficiency virus. As outlined by Segui-Gomez and MacKenzie (2) in this volume of Epidemiologic Reviews, injuries are responsible for an even greater burden when morbidity and disability are measured. For example, 30 million US citizens are treated in emergency departments annually for injuries, and injuries account for nearly 8 percent of hospital discharges. The World Health Organization projects that by the year 2020, traffic injuries alone will become the sixth leading contributor to disability-adjusted life-years worldwide (3).

Yet, injury prevention and control are not considered the public health problem that these statistics demonstrate. In the average morning newspaper, national public health coverage focuses on emerging issues such as severe acute respiratory syndrome and acquired immunodeficiency syndrome and, more recently, on cancer, obesity, and other chronic conditions. Local news coverage, on the other hand, features intimate partner violence, murder, suicide, teen car crashes, and fires in the home; injuries remain a local issue and are not seen in a broader public health context. Similarly, epidemiologists do not regard injury prevention as a field that offers career opportunities such as those for cancer, heart disease, or infectious diseases. Our research interests may be driven by the availability of dollars, not by data. Epidemiologists have a critical role in describing these problems, conducting studies to determine what prevention interventions work, and helping the media, policy makers, and ultimately the public appreciate the impact of injuries. An important public health goal is for society to understand that we cannot afford the human and monetary costs of injuries; we must invest in their prevention.

In this special volume of Epidemiologic Reviews, we have invited both academic researchers and public health practitioners to examine some of the major methodological and prevention problems in the field of injury and to highlight the contributions that epidemiologists might make. Rivara’s (4) introduction to the section on methods outlines challenges to injury researchers. Cummings et al. (5) address one of these challenges, application of matched cohort methods to injury research. Public health surveillance—the ongoing collection, analysis, and dissemination of data to public health practitioners—has long been regarded as the cornerstone of public health practice. Horan and Mallonee (6) describe the state of the art of injury surveillance from both the state and federal perspectives. The role of the epidemiologist in program evaluation is undervalued, and Doll et al. (7) demonstrate the essential role that epidemiology plays in the field.

Runyon (8) introduces the section on prevention by bringing the landmark contributions of Haddon into the current day and shows how epidemiology contributes to a multifaceted approach to preventing injuries. The basic strategies for preventing both unintentional injuries and those secondary to interpersonal violence remain behavioral and environmental. The efforts taken regarding behavioral interventions, including activities ranging from encouraging helmet use to changing social norms about drinking and driving, are summarized by Gielen and Sleet (9), who clearly report important, but limited success. Historically, environmental interventions have proven very successful in preventing injuries from motor vehicle crashes, consumer products, home fires, and many other areas; however, as documented by Peek-Asa and Zwerling (10), many challenges remain. Finally, Vernick et al. (11) demonstrate that the law, at all levels of government, has proven to be a powerful tool for reducing the risk of injury.

People around the world continue to accept injury as a necessary evil, an unavoidable fact of life. We, as epidemiol-
economists, need to make the message on public health clearer—that injury is no more a necessary part of life than polio, measles, and other vaccine-preventable diseases. Just as diarrhea, tuberculosis, and other infections were eliminated as leading causes of death in the last century, injury, “the last major plague of the young” (12, p. 1), can be reduced as a health burden on society. Epidemiologists have a critical role in meeting this challenge. This special volume provides a glimpse of the avenues open to epidemiologists to do their part to make this a safer world.

REFERENCES