

Injury: A disease that affects all of society

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The economics of health care is a significant challenge for all of society. On an individual level, nothing is more valued than good health. Yet how much can a society spend on health care, and where does the funding come from? Disease prevention offers the hope of reducing the cost of health care by leading to a healthier society, with decreased need for expensive disease therapy. This issue of the *Wisconsin Medical Journal* focuses on the “disease” of injury and presents evidence-based information on how injury is affecting the lives of people in Wisconsin and the nation, while offering approaches of how to decrease the burden of

injury through prevention measures. Many still view “injuries” as “accidents,” things that “just happen,” or random “bad luck,” but injury, like other disease entities, is preventable and open to scientific methods of study.

The health and economic burden of injury is significant. In 2002, injury was the leading cause of death for people age 1-43 years in the United States and in Wisconsin.¹ A total of 3135 Wisconsin residents died in 2002 from injuries, with a death rate of 57.4 per 100,000 population.² Motor vehicle crashes were the leading cause of injury-related deaths. Also in 2002, injuries in Wisconsin resulted in almost 60,000 hospital admissions and 500,000 visits to emergency departments, with charges totaling over \$1 billion.^{3,4} Government payers paid \$452,743,054 accounting for over 50 percent of injury-generated hospital admission charges in 2002.³ Given the number of young people affected by the disease of injury, it is not surprising that injury is the leading cause of years of potential life lost before age 65.⁵ Older adults are also significantly affected by injury, with falls as the leading cause as illustrated by articles in this issue of the *Journal*.

Considering the human and

monetary costs the disease of injury places on our society, efforts aimed at reducing this burden are justified and should have a high priority. The science of injury prevention focuses on “passive” and “active” elements to safeguard individuals. “Passive” prevention approaches are engineered into our daily lives, requiring little to no change in an individual’s behavior to be effective. Examples of passive injury prevention strategies include separating cyclists from traffic with bike paths, airbags in automobiles, and having functioning smoke detectors. “Active” approaches rely on individuals making healthier lifestyle choices, such as wearing seat belts or appropriately restraining children while in a motor vehicle, using bicycle helmets, and not driving while intoxicated.

Several of the articles in this issue highlight the burden of falls for both elderly and children. A passive prevention approach to preventing falls would be to change elements of the environment that predispose these individuals to fall injuries. Home assessments for the elderly can identify hazards such as loose carpets, baths without handles, poor lighting, and unsafe stairways. Falls can also be prevented among toddlers and young children by gating exposed

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stairs, installing window safety guards, as well as making changes to playground equipment and surfaces. These few environmental changes will prevent or reduce the impact of elderly and youth fall injuries. Many of these passive approaches to injury prevention require one-time enactment to put them in place.

Unfortunately, unlike “passive” approaches, “active” measures to prevent injuries must be used each time for prevention to be effective. These strategies are only effective if people are willing to make the appropriate behavioral change. A number of public policies have been shown to be effective at increasing the adoption of active injury prevention behaviors.

With regard to the use of seat belts, Wisconsin law currently requires all drivers and passengers 4 years old and over to wear a seat belt. Despite this law, police officers in the state are not allowed to stop a motorist and issue a citation solely for being unbelted. Injury prevention advocates support the adoption of “standard” or “primary” enforcement of the seat belt law, thus allowing police officers to issue citations solely for not wearing a seat belt. States that have implemented primary seat belt laws have a much higher prevalence of seat belt use than those states without these laws.⁶

The article by McIntosh illustrates the success of the graduated drivers licensing policy, leading to a reduction in teen crashes and deaths. On a policy level, we can do more to help reduce the burden of injury. The article by Corden demonstrates the number of lives that could be saved and hospitalizations avoided if

more young children were placed in belt-positioning booster (BPB) seats and if a greater number of our older children used seat belts. The importance of BPB seat use is reinforced in articles by Pierce and Uherick.

Legislation calling for the use of BPB seats and primary enforcement of our current seat belt laws would save hundreds of lives and prevent thousands of hospital visits on an annual basis, and all of society would benefit from the health care dollars saved. Legislative policy can be viewed as the foundation for many injury prevention programs, supported by individual and community education, environmental and engineering changes, and other community efforts. Multi-component intervention programs aimed at positively changing individual health-related behavior have proven to be the most successful;⁷ legislative efforts are an important factor for positive “active” injury prevention change. North Carolina recently enacted BPB seat legislation. After enactment, department stores quickly sold out of the life-saving devices as parents positively reacted to the guidance provided by the state’s evidence-based legislation, and moved to protect their children—truly a public health action that supports parents and their children.⁸

Our state should be proud of its “Wisconsin Idea” history; the process of taking the best research from our outstanding academic institutions and improving the lives of all Wisconsin citizens. Injury in Wisconsin impacts the health and wellbeing of all residents. With health care costs rising and the burden of injury a substantial contributor to these costs, injury

prevention efforts are an important way to reduce the fiscal and other impact of injuries.

The articles in this issue of the *Journal* highlight injury as a public health priority. Fortunately, injury researchers across Wisconsin and the United States have identified strategies that work: seat belts, child booster seats, graduated drivers licensing, bicycle helmets, etc. For the “Wisconsin Idea” to be realized, policy makers need to partner with injury prevention researchers and advocates to help translate medical evidence into practical prevention measures that will support the people of our state.

Rising health care costs do present tough decisions for all of society; however, beyond the significant economic issues remains a human face to the injury disease. The authors, as well as many of the readers, regularly interact with the direct human aspects of caring for children and adults who fall victim to the disease of injury; there is nothing families want more than to turn back the clock and have an opportunity to prevent the event from ever happening. Physicians can lead injury prevention efforts both by educating patients about injury prevention measures, and by actively partnering with Wisconsin’s lawmakers to implement life-saving injury prevention policies. The families of Wisconsin deserve this support.

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