

# Injury & Violence Prevention are Essential to U.S. Health Reform



## INJURIES ARE A PUBLIC HEALTH PROBLEM

Preventable injuries exact a heavy burden on Americans through premature deaths and disabilities, pain and suffering, health care costs, rehabilitation costs, disruption of quality of life for families, and disruption of productivity for employers.

***Efforts to reform the United States health system must address injuries and violence to help ensure the public's health and safety, as well as reduce long-term health care costs.***

Injuries and violence are significant public health and safety problems. They are:

- The leading causes of death of Americans ages one through 44.<sup>1,2</sup>
- The most common cause of premature deaths before age 65, accounting for 30% of years of potential life lost;<sup>1</sup>
- The cause of nearly one-third of all emergency department visits (29 million visits);<sup>3</sup> and
- Major causes of hospitalization, disability, and medical care costs for all age groups.

Injuries cause unintentional or intentional damage to the body due to environmental and behavioral factors such as motor vehicle crashes, falls, sports injuries, occupational injuries, poisonings/drug overdoses, burns, drownings, gunshot wounds, suicides and suicide attempts, assaults, and homicides.<sup>4,5</sup>

## THE COST OF INJURIES

In 2000, Americans suffered injuries resulting in over \$117 billion in medical costs and an estimated \$289 billion in productivity losses.<sup>6</sup> Long-term disabilities from fall-related hip fractures and brain, spinal cord, and burn injuries frequently result in high costs for continued, long-term care.

For persons age 65 and older, injuries – especially fractures – make up a substantial proportion of Medicare expenditures. As the U.S.

population continues to age, this problem will create an even greater burden on the Medicare system. Unfortunately, however, investments in preventing injuries and violence are not nearly commensurate with the extent of the problem.

## INJURIES AND CHRONIC DISEASE ARE LINKED

There is great concern about the rising epidemic of childhood obesity. Interventions aimed at increasing physical activity and improving childhood nutrition are also an ideal opportunity to emphasize the importance of safety. The National Safe Routes to School program not only encourages families to walk or bike to school, but also assesses the safety of the environment surrounding the school to prevent pedestrian and bicyclist injuries. In addition, school policies requiring the use of bicycle helmets compliment the positive health effects of increased physical activity without creating undue risk for injury.

Research has highlighted the long-term effects of injuries, particularly child maltreatment, on overall health. Approximately one in seven children between the ages of two and 17 in the United States are victims of abuse and neglect. These children are at increased risk of chronic diseases due to the effects of extreme stress on the nervous and immune systems. This can lead to increased risk for heart, lung, and liver disease in adulthood, as well as unhealthy behaviors including risky sexual behavior, smoking, illicit drug use and alcohol abuse.

There are other linkages between injury and chronic disease later in life. Older adults with osteoporosis are more likely to break a bone after suffering even a minor fall. According to a 2004 report of the Surgeon General there are more than 1.5 million osteoporotic-related fractures each year, and this rate is expected to double or triple by the year 2020.<sup>7</sup> Nevertheless, community-based exercise programs have proven to be effective in reducing the risk of falls among adults over age 65.



## PREVENTION IS EFFECTIVE AND SAVES MONEY

Seventy percent of American voters rank investing in prevention higher than all other health care reform proposals, and 76% of voters believe funding for prevention should be increased.<sup>8</sup> In fact, when evidence-based prevention strategies are implemented, the estimated return on investment is substantial. For instance, home visitation programs have been demonstrated to be particularly effective in reducing child abuse and injury, and provide a cost savings of nearly \$2.88 to \$5.70 per dollar spent.<sup>9</sup> Other proven cost-effective injury prevention strategies include booster seats for children, bicycle and motorcycle helmets, smoke alarms, and the enforcement of laws associated with preventing drunk driving, maintaining curfews for teen drivers, and wearing seat belts (Figure 1).



Figure 1. Cost-Effective Injury Prevention Strategies

| Intervention                                             | Cost per Unit      | Return on Investment* |
|----------------------------------------------------------|--------------------|-----------------------|
| Child Car Seat                                           | \$46/seat          | \$1,900               |
| Booster Seat                                             | \$31/seat          | \$2,200               |
| Child Bicycle Helmet                                     | \$11/helmet        | \$570                 |
| Motorcycle Helmets                                       | \$240/helmet       | \$4,300               |
| Helmet Laws                                              | \$1,400            | \$4,300               |
| Sobriety Checkpoints                                     | \$9,600/checkpoint | \$73,000              |
| Midnight Curfew & Provisional Licensing for Teen Drivers | \$74/driver        | \$600                 |
| Zero Tolerance for Drivers < 21 years                    | \$34/driver        | \$850                 |
| Upgrade Secondary Belt Law to Primary                    | \$300/new user     | \$5,400               |
| Enhanced Belt Law Enforcement                            | \$280/new user     | \$5,400               |
| Smoke Alarm Purchases                                    | \$33/smoke alarm   | \$940                 |
| Smoke Alarm Laws                                         | \$36/user          | \$940                 |
| Fall Prevention for High-Risk Elderly                    | \$1,250/person     | \$10,800              |
| Youth Suicide Prevention, Native American                | \$175/youth        | \$6,700               |

\* Return on investment is defined as the amount injury prevention interventions saved by preventing injuries, including medical costs, other resource costs (police, fire services, property damages, etc.), work loss, and quality of life costs. These benefits are calculated in 2004 dollars.



## THE LEADERSHIP ROLE OF STATE PUBLIC HEALTH

State public health departments bring significant leadership to reduce injuries and injury-related health care costs by:

- **Informing the development of public policies through data and evaluation.** Examples of successful policy changes include graduated drivers licensing, institution of speed limits and seat belt laws, passage and enforcement of building codes to prevent burns from hot water, and smoke and carbon monoxide detector laws;
- **Designing, implementing, and evaluating injury and violence prevention programs in cooperation with other agencies and organizations.** One example is the successful relationship that has been developed between firefighters, churches, and other organizations in installing smoke alarms and providing fire safety education in high-risk communities;
- **Collaborating with partners in health care and the community.** State programs develop partnerships with a variety of organizations and individuals, including chronic disease prevention and acute care professionals, experts working in transportation and law enforcement, and home environment planners. These diverse and effective partnerships help to provide focus and direction, coordinate and find common ground in the development of programs, and make the best use of limited resources;
- **Collecting and analyzing injury and violence data from a variety of sources to identify high-risk groups and geographic locations.** These efforts ensure that resources are efficiently directed; and
- **Providing technical support and training to injury prevention partners.**



## INJURY PREVENTION AND HEALTH REFORM

Eight in ten Americans say that it is important for the United States to invest in new ways to prevent injuries.<sup>7</sup> By investing in prevention and public health, we can decrease premature deaths and disabilities in children and adults, significantly improve the health of all Americans, and substantially reduce costs.

**We encourage Congress and President Obama's Administration to adopt comprehensive health reform proposals that include the prevention of injuries and violence while controlling costs by:**

### 1. Accelerating the Diffusion of Proven, Cost-Effective Interventions

Many proven, cost-effective injury prevention programs and policies are already in use in various states. These interventions should be consistently implemented throughout the nation immediately.

### 2. Integrating Injury and Violence Prevention Efforts

- Work with primary care providers and acute care hospitals to improve the documentation of the causes and locations of injuries.
- Establish injury prevention tools for health care providers to work with patients at “teachable moments.”
- Promote collaborative relationships between clinicians, community groups, and public health professionals (e.g., professionals in injury prevention, behavioral health, etc).
- Foster program collaboration to prevent injuries in persons who have chronic diseases, including heightened falls prevention efforts to assist persons with osteoarthritis, visual impairment, and neurological problems; suicide prevention programs for individuals with mental health issues; and motor vehicle and burn injury prevention for those with dementia.
- Work with transportation planners to develop policies that promote wider diversity in available transportation options and encourage walking and bicycling to promote exercise and reduce obesity (e.g., Safe Routes to School).

### 3. Ensuring Investments in and the Standardization of Electronic Information Technology Systems

- Involve injury surveillance experts as partners in the development of standardized health and medical care information technology systems, including the electronic medical record (EMR).
- Establish a minimum set of standardized injury data elements for medical records.
- Include sufficient information for designating injury causes within electronic medical records.
- Train health care professionals to document key injury circumstance data.
- Require all health care providers to submit data on their services to local, state, and national health data repositories so that service demand can be better understood.

### 4. Ensuring Investments in Funding Streams for Existing Injury and Violence Prevention Programs and for Research and Development of New, Evidence-Based Injury Prevention Interventions

- Explore insurance coverage to subsidize the purchase of child car safety seats.
- Investigate opportunities to link safety products to the sale and distribution of sports equipment (e.g., helmets with bicycles and ski equipment, arm and knee pads with inline skates, etc).
- Fund after-school programs to give adolescents a safe place to socialize and interact with their peers.
- Support research institutions and community organizations that develop and pilot new prevention approaches when proven ones are not available.

Preventable injuries represent a serious burden in the United States. However, the causes of injuries are grounded in the places where we live, work, travel, and play – our homes, workplaces, schools, recreational venues, and transportation systems. As such, initiatives to prevent injuries must be designed by people and organizations within our communities. These parties must be continually involved in the health reform process to ensure the development of healthy environments that promote safety and prevent injuries.

Concerted efforts to reform the health care system in our nation must address injuries and violence in order to improve health, increase public safety, reduce health care costs, and allow all Americans to live to their full potential.

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