

Injury Prevention in Health Care Reform

Injury is one of the most serious, costly and preventable health problems in the United States.

- Each day, roughly 475 Americans die from injuries such as motor vehicle crashes, assaults, and fires. This amounts to more than 170,000 deaths per year,¹ more than twice as many as from diabetes and more than four times the number from breast cancer.^{2,3}
- For people younger than age 45, injury is the number one cause of death. Among people of all ages, injury (including violent injuries) is the third leading cause of death in the U.S.¹
- Nearly 30 million non-fatal injuries in the U.S. each year require at least emergency department (ED) care.¹
- The lifetime cost to society of injuries, \$406 billion, is greater than for any other health problem.⁴

Decades of research and practice have taught us how to prevent injuries and reduce costs: select examples.

- The proper and consistent use of safety products saves lives and reduces costs. Car safety seats reduce the risk of death by 71% for infants, and by 54% for toddlers ages 1-4 years.⁵ Booster seats reduce injuries by 59% for children 4 to 7 years.⁶ Bicycle helmets reduce the risk of brain injury by as much as 88%.⁷ Seat belts save over 15,000 lives annually.⁸ Working smoke alarms reduce the risk of residential fire mortality rates by at least 50%.⁹ Counseling by health care providers and distribution of safety products is the recommended best practice, and results in improved safety behaviors and reduced injury risk.¹⁰
- Approximately 16,000 older adults die from falls and about 1.8 million are treated in ED annually. Each year, fall injuries in older adults cost more than \$19 billion, and these costs are estimated to reach \$54.9 billion by 2020, at which time the cost to Medicare would be \$32.4 billion.¹ Comprehensive fall interventions, consisting of exercise and education programs in addition to medication review, referral for medical management and a home hazard assessment, have been shown to reduce falls in the elderly.¹¹
- Alcohol misuse is a leading risk factor for serious injury in the U.S. Of the more than 20 million adults requiring ED care for injuries each year, an estimated 27% would screen positive for alcohol use disorders or intoxication.¹² Hospital-based screening and brief intervention programs (SBI) reduce subsequent ED visits by up to 50% and lower healthcare costs.^{12,13}

Health care reform can and should include injury prevention: select examples.

- Establish safety centers in health care settings. Safety resource centers based in settings such as hospitals and health care centers allow families to test and purchase safety products at low cost, and receive personalized injury prevention counseling.^{14,15} If all children ages 0-4 received injury prevention counseling, an estimated \$230 million in medical spending would be saved annually.¹⁶ Research on the benefit of just child safety seat distribution and education programs shows that if fully implemented, the programs could save Medicaid over \$1 million per 100,000 children in direct costs while costing \$13 per child per year.¹⁷ Currently only a handful of U.S. hospitals offer safety centers. Incentives for health care settings to provide improved access to life saving safety products and injury prevention counseling should be included in health care reform.
- Support comprehensive fall prevention programs and research. Evidence for effective and cost saving interventions now exists and strategies for use in health care settings are available.¹¹ Health care reform efforts should include funding for replication of the most effective interventions in the community, additional research, public education and the education of healthcare professionals. Comprehensive fall prevention programs should be incorporated into the package of preventive services offered in primary care settings.
- Fund screening and brief intervention programs for alcohol in all trauma centers. While the American College of Surgeons Committee on Trauma requires SBI in all level I trauma centers, the vast majority of Level II-V trauma centers do not offer SBI programs.¹⁸ Funding to support SBI programs in all trauma centers and reform of current insurance regulations to allow reimbursement for treatment should be included in healthcare reform.

Injury prevention should be a priority topic in health care reform.

- By incorporating injury prevention strategies into healthcare reform, we can help ensure Americans remain healthy and live their lives to the fullest potential.
- This fact sheet provides three examples of the types of issues that need attention, and strategies for addressing them through healthcare reform. Many other opportunities for reducing the burden of injury through comprehensive healthcare reform exist, and the Johns Hopkins Center for Injury Research and Policy welcomes the opportunity to discuss how best to incorporate such options into healthcare reform legislation.

About the Center for Injury Research and Policy

The Johns Hopkins Center for Injury Research and Policy is comprised of a team of multi-disciplinary scientists, teachers and practitioners committed to reducing the burden of injuries through research, service and education. Throughout its history, the Center has helped to redefine injury as a pressing public health problem and to promote it as a scientific discipline. The Center's expertise in addressing the burden of injury has been demonstrated through its long history, having been among the first such centers funded by the Centers for Disease Control and Prevention in 1987. Since that time, the Center has successfully leveraged the initial support to grow into one of the largest injury research and educational programs in the country and currently receives funding from a number of different sources, including private donations. The diversity of disciplines needed to advance the science of injury control, from prevention to acute care to rehabilitation, are well represented among the research portfolios of the world-renowned faculty of the Center.

Recognized around the world as a leader in injury research, service and education, the Center for Injury Research and Policy is guided by a commitment to ensuring that quality research is translated into programs and policies that make a difference. Thus, the Center faculty and staff are dedicated to closing the gap between injury research and practice by reaching policymakers, practitioners and communities with the latest scientific information. Using a public health approach in which science informs practice, and practice questions science, the Center is able to save lives and prevent injuries. For more information on the Center, please visit www.jhsph.edu/InjuryCenter.

Recommended sources for additional examples of effective injury-related program and policy interventions

- **The Guide to Community Preventive Services:** <http://www.thecommunityguide.org/index.html>
- **Guide to Clinical Preventive Services:** <http://www.ahrq.gov/clinic/pocketgd.htm>
- **The Cochrane Collaboration:** http://www.cochrane.org/reviews/en/topics/74_reviews.htm
- **Institute of Medicine Injury Report:** http://www.nap.edu/openbook.php?record_id=6321&page=20

Citations

1. Centers for Disease Control and Prevention. National Center for Injury Prevention and Control.
2. Centers for Disease Control and Prevention. National Diabetes Fact Sheet.
3. American Cancer Society. Cancer Facts & Figures 2009.
4. Corso P, Finkelstein E, Miller T, Fiebelkorn I, Zaloshnja E. Incidence and lifetime costs of injuries in the United States. *Injury Prevention* 2006; 12(4):212-8.
5. Department of Transportation (US), National Highway Traffic Safety Administration (NHTSA), Traffic Safety Facts 2006: Children. Washington (DC).
6. Durbin DR, Elliott MR, Winston FK. Belt-positioning booster seats and reduction in risk of injury among children in vehicle crashes. *JAMA* 2003;289(14):2835-40.
7. National Safe Kids Campaign (NSKC). Fact sheet on bicycle injury. Washington (DC): NSKC, 1997.
8. Department of Transportation (US), National Highway Traffic Safety Administration (NHTSA), Traffic Safety Facts May 2009.
9. Centers for Disease Control and Prevention. Research Update: Lessons from CDC's smoke alarm installation and fire safety education program.
10. U.S. Preventive Task Force. Guide to Clinical Preventive Services, 2nd ed. 1996.
11. Gillespie LD, Gillespie WJ, Robertson MC, et al. Interventions for preventing falls in elderly people. *Cochrane Database of Systematic Reviews* 2009, Issue 2. Art. No: CD000340.
12. Gentilello LM, Ebel BE, Wickizer TM, Salkever DS, Rivara FP. Alcohol interventions for trauma patients treated in emergency departments and hospitals. *Annals of Surgery* 2005; 241(4): 541-550.
13. Gentilello LM, Rivara FP, Donovan DM, et al. Alcohol interventions in a trauma center as a means of reducing the risk of injury recurrence. *Ann Surg.* 1999; 230: 473-480.
14. Gielen AC, McDonald EM, Wilson MEH, et al. The effects of improved access to safety counseling, products and home visits on parents' safety practices. *Archives of Pediatrics and Adolescent Medicine* 2002; 156:33-40.
15. McDonald EM, Gielen AC, Trifiletti LB, et al. Evaluation activities to strengthen an injury prevention resource center for urban families. *Health Promotion Practice* 2003; 4(2):129-137.
16. Miller TR, Galbraith M. Injury prevention counseling by pediatricians: a benefit-cost comparison. *Pediatrics.* 1995; 6(1 Pt 1):1-4.
17. Goldstein, JA, Winston, FK, Kallan, MJ, et al. Medicaid-based child restraint system disbursement and education and the vaccines for children program: comparative cost-effectiveness. *Ambulatory Pediatrics* 2008; 8(1): 58-65.
18. Substance Abuse and Mental Health Services Administration (SAMHSA). Screening, Brief Intervention, and Referral to Treatment SBI Training for Trauma Care Providers



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