

**North Carolina Institute of Medicine
Task Force on Prevention
February 20, 2009
Meeting Minutes
Injury**



Chairs: Leah Devlin, DDS, MPH; Bob Seligson, MBA

Task Force Members/Steering Committee Members: Calvin Ellison, Rep. Verla Insko, Polly Johnson, Peter Lehmmuller, Meg Molloy, Peg O’Connell, Robert Parker, Kelly Ransdell, George Reed, Florence Siman, Bill Smith, Lisa Ward, Charles Willson, Alice Ammerman, Steve Cline, Ruth Petersen, Carol Runyan

Interested Persons and Speakers: DeeDee Downie, Marsha Ford, Rob Lamme, Patti Forest, Jim Hedlund, Peter Leone, Courtney Lyndrup, Rebecca Macy, Jim Martin, Don Nail, Sharon Neufville, Scott Proescholdbell, Sharon Rhyne, Valerie Russell, Ellen Schneider, Jessica Schorr-Saxe, Sara Smith, Maria Spaulding, Janice White, Jennifer Woody

NCIOM Staff and Interns: Pam Silberman, Jennifer Hastings, Berkeley Yorkery, David Jones

Review of Recommendations from January 14th Meeting on Environmental Risks:

Recommendations were reviewed. A subcommittee of experts will be convened to further refine the recommendations developed in January.

State of the State, Violence and Injury Overview: *Scott Proescholdbell, MPH, Epidemiologist, Injury and Violence Prevention Branch, Division of Public Health, North Carolina Department of Health and Human Services.*

Injuries are not random acts of nature or accidental, but have risk factors and are predictable and preventable. Injuries can be divided into two broad categories: unintentional and intentional injuries. Unintentional injuries occur when a harmful outcome was not sought. These account for two-thirds of all injury deaths. Intentional injuries occur as a result of active and deliberate force. North Carolina’s overall, unintentional, and intentional injury death rates are above national rates and have been for many years. Injury accounted for 6,250 deaths, 148,000 hospitalizations, and 820,000 hospitalizations in 2007.

Injury (unintentional and motor vehicle injury) is the leading causes of death for ages 1 to 34. Motor vehicle traffic injuries are the leading cause of all injury deaths in the state. Unintentional poisoning deaths increased 180% from 1999 to 2007 (due to increase in use of narcotics) and unintentional falls deaths have increased by 30.4%. Alcohol plays a significant role in fatal injuries including homicides (38%), motor vehicle crashes (36%), and falls (14%).

The leading causes of North Carolina’s injury death rates are due to unintentional motor vehicle, unintentional poisoning, and unintentional falls. Leading causes of injury-related hospitalizations included adverse effects of medical care, unintentional falls, and unintentional motor vehicles.

A Public Health Priority: Preventing Falls Among Older Adults (age 65+): *Sharon Rhyne, MHA, MBA, Health Promotion Manager, Chronic Disease and Injury Section, Division of Public Health, North Carolina Department of Health and Human Services*

Falls are the leading cause of fatal injuries and the second leading cause of nonfatal injury hospitalizations for people over age 65 in North Carolina. Of people 65 and older, 35% percent fall each year. More than 16% of the population in 75 North Carolina counties will be over age 65 in 20 years. The “silver tsunami” refers to this increase in the segment of the population over 65.

In 2006-2007, there were 480 deaths due to falls. This number is projected to increase to 947 by the year 2030. Hospitalization costs are projected to increase from approximately \$3.8 billion in 2005 to \$7.6 billion in 2030. (The average lifetime cost for a hip fracture is \$80,000.) The death rate from falls in people over age 65 is 23 times greater than the rate for those younger than 65 and is 16 times greater than the death rate from motor vehicle injuries. Females are more likely to die from falls than men are.

Modifiable risk factors for falls include muscle weakness, gait and balance, problems, vision impairment, use of four or more medications or use of psychoactive medications, and environmental factors/home risks. Effective interventions lead to a 30%-50% decrease in falls. Interventions include comprehensive clinical assessments, exercises for balance and strength, medication management, vision correction, and reducing home hazards. The NC Falls Prevention Coalition's goal is to reduce the number of falls, fall-related injuries, and seriousness of injuries resulting from falls. (Lead partners in coalition include Division of Public Health, Division of Aging, Institute of Aging, and Caroline Geriatric Center.)

Challenges include assuming that falls are inevitable, stigmatization, providers not assessing for fall risk, and lack of provider time and/or knowledge of evidence-based interventions. Risk assessment tool kits exist, but are not in place.

Specific recommendations for North Carolina:

- 1) Routine assessment and increase availability of evidence-based interventions/programs (e.g. Matter of Balance, Tai Chi)
- 2) Raise awareness
- 3) Educate medical and community service providers
- 4) Support NC Falls Prevention Coalition

Unintentional Poisonings

Marsha Ford, MD, Director, Carolinas Poison Center, Carolinas Medical Center

A poison is anything that can be used in the wrong way, by the wrong person, or in the wrong amount. Unintentional poisoning is the leading cause of poisoning deaths in the state and is primarily a non-Hispanic, white issue. The incidence of unintentional poisoning as a leading cause of injury death has risen substantially since 1999. The epidemic of unintentional drug overdose deaths is due to the increase in prescription drugs, which accounts for two in three unintentional drug overdose deaths. Medical mixtures are particularly to blame. The Food and Drug Administration is taking action on this issue by telling companies to develop better dispensing of drugs. In 2007 in North Carolina, there were over 400,000 emergency department admissions for substance abuse/dependence and alcohol intoxication/withdrawal as primary or comorbid diagnosis and 11,600 for poisoning by various substances.

Current and recent activities in North Carolina to address unintentional poisoning include the Task Force to Prevent Deaths from Unintentional Drug Overdoses in North Carolina. In 2003, the task force released a report with various recommendations. In addition, there is the North Carolina Department of Justice and the Department of Health and Human Services Drug Overdose Prevention Leadership Team, which was formed in 2005.

Dr. Ford's primary recommendations to prevent and reduce unintentional poisonings in North Carolina include:

1. Revitalizing, renaming and broadening the scope/charge of the Drug Overdose Prevention Leadership Team
2. Expanding/improving/funding poisoning-related surveillance, including improved data collection, coding, sharing and reporting.
3. Developing and supporting appropriate triage and medical management of patients who are known or suspected to be poisoned
4. Developing state medical and community-based plans for optimizing medical treatment of pain and offering strategies for improving survival in the event of a drug overdose

Motor Vehicle Injury

Jim Hedlund, Highway Safety North

Motor vehicle injury is the leading cause of death for ages 5 to 30. In 2007, there were 1,675 traffic fatalities in the state. Preliminary numbers for 2008 show traffic fatalities are down to 1,383 from what they were in 2007. North Carolina has 4% of all traffic deaths in the US, but 19% more deaths per vehicle mile traveled and 36% more deaths per person compared to national averages. In general, the country is making progress, but North Carolina is not.

Multiple interventions are necessary and extensive research informs motor vehicle injury-reduction strategies. Three main strategies are 1) better roads, 2) better vehicles, and 3) better behavior. Behavior can be changed through persuasion, coercion, and the physical and social environment. Coercion refers to laws and enforcement and relies on the Deterrence Theory, which says that “consequences should be certain, swift, and appropriately severe.” The four major culprits of traffic fatalities in North Carolina are lack of seat belt use, alcohol, speeding, and motorcycles. Every traffic fatality has at least one of these as a factor.

Recommendations from Dr. Hedlund include those addressing seat belt use, alcohol-impaired driving, speeding, and motorcycles.

Seat Belts – North Carolina’s seat belt use has declined. In 1996, the state was the 3rd best, but is currently ranked 15th.

- 1) Re-invigorate the Click It or Ticket campaign. This includes targeting high-risk areas and occupants, nighttime enforcement, increased police presence on roads and checkpoints, and more publicity.
- 2) Strengthen seat belt laws. North Carolina needs to have a primary law for rear seat occupants and to increase seat belt law fines to at least \$50.

Alcohol-impaired Driving – A factor in 29% of total traffic fatalities in North Carolina.

- 1) Increase high-visibility enforcement through checkpoints that are well-publicized.
- 2) Increase resources for DWI enforcement, prosecution, adjudication, treatment, and monitoring.
- 3) Require alcohol interlocks for all DWI offenders.

Speeding – A factor in 37% of all fatalities

- 1) Adopt speeding and red-light running as a major traffic safety priority.

Motorcycles – A factor in 12% of all fatalities.

- 1) Assure that all motorcyclists are properly licensed.
- 2) Encourage all motorcyclists to be trained.
- 3) Include motorcyclists in law enforcement activities.

Other recommendations from Dr. Hedlund include the following:

- 1) The Governor’s Office of Highway Safety (GOHS) should review all traffic violation fines and penalties and recommend changes to the NCGA. The North Carolina General Assembly should enact legislation reflecting recommendations from the GOHS.
- 2) The GOHS should work with National Highway Traffic and Safety Administration to implement CODES (Crash Outcome Data Evaluation System).

Preventing Family Violence

Rebecca J. Macy, PhD, ACSW, LCSW, Associate Professor, School of Social Work, University of North Carolina at Chapel Hill

Dr. Macy’s presentation focused on child maltreatment and intimate partner violence (domestic violence). Evidence regarding statistics, risk consequences, and prevention is incomplete due to many factors including under-reporting and lack of representative samples among many others. According to North Carolina Behavioral Risk Factor Surveillance

System results, 25% of women in NC have experienced physical/sexual violence since turning 18. In 2005, 21% of homicides in North Carolina were related to partner violence. In 2008, there were 84 domestic violence (DV) homicides. In 2007, 61 child deaths were due to homicide. Partner violence and child maltreatment do co-occur.

Survivors are likely to have more serious health problems when violence is chronic and when re-victimization occurs at different points in life (child abuse, partner violence). In addition, there are serious mental health consequences from abuse; survivors are more likely to experience re-victimization. In the context of the socioecological framework, risk factors include societal acceptance of violence, economic disadvantage, family conflict, economic insecurity, and prior victimization, and substance abuse (perpetration). Substance abuse correlates with family violence—both child and partner.

Child maltreatment prevention strategies include use of soft baby carriers (to promote emotional bonding), educational videos/print materials, parent education and support groups, early home visitation (e.g. Nurse Family Partnership), sexual abuse prevention, media campaigns, and community partnerships. The only primary prevention strategy for partner violence is dating violence prevention programs, which can be delivered in school setting. There are several secondary prevention strategies; however, including, but not limited to, DV victim advocacy, DV shelters/transitional housing, couples counseling, alcohol abuse counseling, media campaigns, and no-drop arrest policy (women cannot drop charges originally pressed).

Prevention interventions are often delivered by community-based, non-profit, human service agencies. Collaboration is needed among schools, health care providers, mental health services, substance abuse services, legal services, and others to implement prevention strategies. There are multiple child abuse prevention delivery mechanisms. Coordination and collaboration among service sectors is limited to prevent family violence.

North Carolina has many innovative programs in place to prevent child maltreatment, partner violence, and co-occurrence. The state is situated to become a leader in family violence prevention.

Dr. Macy provided several recommendations.

- 1) Hold caucus meeting with key organizations, decision-makers, and stakeholders to determine North Carolina's family violence prevention priorities. This effort should build on efforts of existing/prior task forces such as the NCIOM Child Abuse Prevention Task Force.
- 2) Develop and enhance population-based surveillance of family violence by building on existing data collection systems such as North Carolina Families Accessing Services Through Technology (NC FAST), Behavioral Risk Factor Surveillance System (BRFSS), Pregnancy Risk Assessment Monitoring System (PRAMS), North Carolina Violence Death Reporting System (NCVDRS), and Child Health Assessment Monitoring Program (CHAMPS)
- 3) Develop capacity within the North Carolina Division of Public Health, UNC System and other state universities, and research centers such as the UNC Injury Prevention Research Center and the UNC Center for Women's Health Research to evaluate and research prevention strategies with promise and/or limited evidence.
- 4) Build North Carolina's prevention service capacities by promoting the development of promising preventions when evidence-based preventions are not available, implement primary/secondary preventions with demonstrated/promising effectiveness, implementing policies that promote interagency collaboration at state & community levels. This should be paired with rigorous evaluation.
- 5) Strengthen stability and sustainability of community-based agencies that provide family violence prevention and pair organizational accountability with use of best and evidence-based practices and evaluation of services.

Statewide Five-Year Strategic Plan for Injury and Violence Prevention

Valerie Collins Russell, MEd, DHSc, Head, Injury and Violence Prevention Branch, North Carolina Division of Public Health

At this time, North Carolina does not receive core funding from the Centers for Disease Control and Prevention because five years ago the state did not have an injury prevention plan. At this time, most branch programs are federally funded, and there is very little state money. The North Carolina Injury Prevention Plan will be completed March/April 2009.

Preventing Injury and Violence in North Carolina

Carol Runyan, PhD, Professor, UNC Gillings School of Global Public Health and Director, UNC Injury Prevention Research Center

Multiple sectors address injury issues, including transportation, labor, agriculture, education, health care, and others. The Centers for the Disease Control and Prevention is the country's lead injury agency. The Institute of Medicine of the National Academies has labeled injury as the "next greatest plague."

Support for injury prevention is disproportionate compared to the extent of the problem and in comparison to other public health issues and their impact. There is a lack of evidence-based strategies for injury prevention, which is in part due to poor funding. Currently, the state funds \$0.005 per capita for injury, which amounts to ~\$47,000, versus \$0.58 per capita for cancer, which amounts to ~\$5 million.

Injury prevention relies on understanding the various causes of injuries. There are multiple surveillance systems for injury. One of the issues is that e-coding is not part of claims data so the underlying cause of a particular injury case is not known, e.g. diagnosis of a concussion, which could be due to football injury or a fall.

Most injury staff throughout the county are relatively new to the field. Only 12 states have mandated injury prevention programs; however, North Carolina is not one of them.

Dr. Runyan provided the Task Force with consolidated recommendations provided by all of the speakers. Her recommendations include addressing the following issues:

- 1) Increasing the excise tax on alcohol, which is a significant contributor to injury
- 2) Increasing state funding dedicated to evidence-based surveillance, intervention and evaluation efforts directed at preventing unintentional injury and violence, with immediate priority directed at preventing motor vehicle crash injury, falls, poisoning, and violence.
- 3) Training of state and local personnel in public health and related organizations responsible for injury and violence prevention
- 4) Organizing a task force to examine, in depth, and provide ongoing oversight for planning, monitoring, and advocacy efforts aimed at addressing the full range of injury problems in NC, with subcommittees addressing the topics for initial focus (e.g., falls, poisoning, motor vehicle crashes, and family violence).
- 5) Expanding NC's primary seat belt law to require usage in all seating positions, coupled with promotional campaigns and increased fines for noncompliance.
- 6) Actively enforcing traffic safety laws dealing with speeding, red-light running, aggressive driving, DWI, and seat belt usage
- 7) Improving injury surveillance through mandating the inclusion of cause of injury codes in the hospital discharge records for all patients treated for injuries in NC hospitals, creating a data system to monitor the various forms of family violence, and monitoring of poisonings, including improved data collection, coding, sharing, and reporting.
- 8) Convening a task force to develop medical and community-based plans for optimizing medical treatment of pain and offer strategies for improving survival in the event of a drug overdose.

Injury Recommendations Discussion—Key Points

1. Carbon monoxide detectors are a potential cross-cutting issue (environmental risks, injury)
2. Linkages should be established between information/surveillance systems early to make sure systems can link and are interoperable.
3. Money for injury prevention should be tied to alcohol taxes or cell telephones
4. Training of health care providers and other professionals such as social workers (injury prevention, poisoning, appropriate use of pain medication, falls, family violence, and prevention in general) is important
5. The CODE system, linking motor vehicle data with health, should be implemented in North Carolina.
6. Funding should be increased for forensic tests, media campaigns, and equipment
7. Surveillance needs to be enhanced so that death certificates are matched with law enforcement, medical examiners and are expanded to include poisoning (need to take steps to safeguard data)
8. The Public Health Act should be amended to mandate violence and prevention at the state and resources should be provided to conduct work
9. Financial incentives should be provided to integrate actions around different types of family violence
10. Substance abuse reporting should be shared among providers.
11. The Injury Prevention Plan should be expanded to include evidence-based strategies that fit into the broader goals and objectives.

It was also noted that the Public Health Study Commission should review the recommendations of the Task Force.