

INJURYFREE
Oklahoma
2010-2015
Strategic Plan for Injury and Violence Prevention

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Strategic Plan for Injury and Violence Prevention

Pam Archer, M.P.H.
Chief

Emily Samuel, M.P.H.
Special Projects Coordinator

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Injury Prevention Service
Oklahoma State Department of Health
1000 N.E. 10th Street
Oklahoma City, Oklahoma 73117-1299
Phone: (405) 271-3430 or 1-800-522-0204 (in Oklahoma)
Fax: (405) 271-2799
<http://ips.health.ok.gov>

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Mark Brandenburg, M.D.
Oklahoma Injury Prevention Advisory
Committee Chair

Roxie Albrecht, M.D.
University of Oklahoma
Medical Center

Cherokee Ballard
Office of the Chief Medical Examiner

Cyndi Basch, R.N.
University of Oklahoma
Medical Center

David A. Bates, B.S.
U.S. Department of Labor

J. Kevin Behrens
Oklahoma Highway Safety Office

Anne Bliss, M.P.H.
Oklahoma State Department
of Health

Christy Cornforth
Safe Kids Oklahoma

James Cox
Oklahoma Association of Chiefs
of Police

Jim T. Criswell, Ph.D.
Department of Entomology and Plant
Pathology

Harold Cully
Indian Health Service

Michael Echelle, M.P.H.
Pittsburg County Health Department

Martha Ferretti, M.P.H., P.T.
University of Oklahoma
Health Sciences Center

Laura Gamino, M.P.H., R.N.
University of Oklahoma
Medical Center

Tabitha Garwe, M.P.H.
Oklahoma State Department
of Health

Patrice Greenwalt, M.S., R.N.
Oklahoma State Department
of Health

Alan S. Grubb, Ph.D.
Cleveland County Board of Health

Jeff Hamilton, M.Div.
Interfaith Alliance Foundation
of Oklahoma

Andrea Hamor Edmondson
Oklahoma Coalition Against Domestic
Violence & Sexual Assault

Jessica Hawkins
Oklahoma Dept of Mental Health &
Substance Abuse Services

Tina Johnson, M.P.H., R.N.
Pottawatomie County Health
Department

Diana Jones
Oklahoma Department of Labor

Gayle Jones, B.A.
Oklahoma State Department
of Education

Fahad Khan, M.P.H.
Oklahoma State Department
of Health

Renae Kirkhart
University of Oklahoma
Medical Center

Dave Koeneke
Oklahoma Safety Council

Chief Jerry Lojka
Midwest City Fire Department

Lee McGoodwin, Pharm.D.
Oklahoma Poison Control Center

Margaret Phillips, Ph.D., CIH
Department of Occupational and
Environmental Health

Stacey Puckett
Oklahoma Association of Chiefs
of Police

Teresa Ryan, B.S.N., M.L.S.
Oklahoma State Department
of Health

Marcia Smith
Oklahoma Coalition Against Domestic
Violence & Sexual Assault

Mendy Spohn, M.P.H.
Carter County Health Department

Scott Sproat, M.S., FACHE
Oklahoma State Department
of Health

David C. Teague, M.D.
University of Oklahoma
Health Sciences Center

Captain Chris West
Dept of Public Safety

John Wilguess
Safe Kids Oklahoma

Inas Yacoub, M.D., M.P.H.
Office of the Chief Medical Examiner

Foreword

The Oklahoma State Department of Health, Injury Prevention Service (IPS) was created in 1987 with a grant from the Centers for Disease Control and Prevention. Since that time, the IPS has used surveillance data to identify risk factors and to develop, implement, and evaluate prevention programs in Oklahoma communities.

Oklahoma's injury fatality rates due to motor vehicle crashes, drowning, fire/burns, suicide and homicide are higher than the national average. Unintentional injuries are the leading cause of death among Oklahoma children and adults 1 to 44 years of age. Approximately 2,800 Oklahomans die every year from an injury, including nearly 2,000 unintentional injury-related deaths. Injuries account for more premature deaths before 65 years of age than cancer, heart disease, stroke, and diabetes combined. For every injury death in Oklahoma there were nearly nine hospitalizations. For every nine dollars of inpatient healthcare charges, one dollar was for injuries.

The IPS has partnered with several agencies and community organizations statewide to strengthen efforts to reduce injuries and injury deaths among Oklahomans. Educational materials, such as data reports and fact sheets, multiple distribution programs, and various studies and publications have helped Oklahoma move forward in reaching this goal. For example, statewide traffic safety programs have increased seat belt use from 68% in 2001 to 84% in 2009, and child safety seat use has increased from 66% in 2001 to 86% in 2009. Since 2001, over 27,000 child safety seats have been distributed through county health departments across Oklahoma. In an effort to reduce fire-related injury and death, approximately 30,000 smoke alarms have been distributed in high-risk rural communities through the IPS smoke alarm program since 2001.

Many of the injuries affecting our state are preventable. It is the collaboration among community coalitions, health departments, health care professionals, first responders, community leaders, and community members that continues to strengthen and expand injury prevention and safety promotion efforts in the state of Oklahoma.

This document serves as compendium to *Injury-Free Oklahoma* published in 2004. *Injury-Free Oklahoma 2010-2015* contains new chapters on public health preparedness and policy, updated goals, objectives, and strategies to serve as an additional resource to continue prevention efforts toward an injury-free Oklahoma.

Residential Fires

BACKGROUND

National

According to the Centers for Disease Control and Prevention (CDC), fatalities from fires and burns are the fifth most common cause of unintentional injury deaths in the United States. Fire and burn deaths are also the third leading cause of fatal home injury.¹

The National Fire Protection Association (NFPA) estimates that in the United States, a fire department responds to a fire every 20 seconds. In 2007, fire departments responded to approximately 1.6 million fires in the United States. Of the 530,500 structural fires, 78% were in a place of residence.² Eighty-four percent of deaths and 77% of fire-related injuries occurred in the home. Residential fires caused nearly 3,000 civilian deaths and 13,600 injuries resulting in \$7.4 billion in direct damage.³ On average, eight people die due to home fire-related incidents every day.⁴

Kitchens were the leading area of origin for residential fires. Kitchen fires accounted for nearly half of home fires and 36% of home fire injuries among civilians. From 2003 to 2006, the leading cause of residential fires and fire injuries originated from cooking equipment, and smoking was the leading cause of home fire deaths.⁴ Smoking accounts for approximately one-quarter of the 3,000 civilian deaths resulting from house fires each year.⁵

Most home fires and home fire deaths occur in the months of January, February, and December. Home fires primarily occur between 5:00 p.m. and 8:00 p.m.; however, home fires occurring between 11:00 p.m. and 7:00 a.m. caused 52% of all home fire deaths.⁴

Risk of fire injury and death is affected by age, race, location, and community size. Children under the age of 5 and older adults 65 years of age and older are at higher risk for death due to fires than other age groups.⁶ However, young adults are at a greater risk of home fire injury.¹ African American and Native American populations, low-income individuals, persons living in rural areas, and those living in manufactured homes or substandard housing are also more likely to be involved in a fire-related injury or death.²

Oklahoma

From 2000 to 2006, Oklahoma had a higher fire fatality rate (1.9 per 100,000 population) than the national fire fatality rate (1.2 per 100,000).⁷ Unintentional fire-related injuries are the third leading cause of injury death in Oklahoma among children one to nine years of age and the ninth leading cause among all ages combined.⁸

According to burn injury surveillance data from the Injury Prevention Service, the number of fire-related deaths peaked in 2005 with 88 fatalities; there were 69 and 62 deaths in 2004 and 2006, respectively. Two-thirds of all fire-related fatalities were among males. Males had the highest mortality rates among all age groups, except among one to four year olds, where females had a 50% higher rate. Age-adjusted rates for males were over two times higher than those of females. Between 35 and 84 years of age, the risk of fire-related death increased with age. There were no deaths among infants less than one year of age.⁸

For every unintentional fire-related death, there were just over two hospitalizations in a burn center for a fire-related injury. Males also dominated the number and rate of unintentional fire-related hospitalizations. Nearly three-quarters

of hospitalizations were among males (375 out of 521). Rates were particularly discrepant among males and females aged 15 to 34 years, with rates for males being five to six times higher. Unintentional fire-related hospitalizations in burn centers have increased since 2004. The overall age-adjusted rate in 2006 was 59% higher than the 2004 rate; males alone jumped 68%. The highest age-specific hospitalization rates were among individuals 65 years of age and older.⁸

PROGRESS

Funding

Funding for the smoke alarm program has been provided to the Injury Prevention Service (IPS) from the CDC since its implementation in 1989. Current funding for the program will end in September 2011. The CDC is not expected to provide funding to states for this program beyond 2011; however, the IPS will continue to work with fire marshals, fire departments, Oklahoma ABLE Tech, and Oklahoma State University to promote fire prevention and safety throughout the state.

Publications

Peer-Reviewed Publications

- Cost effectiveness analysis of a smoke alarm giveaway program in Oklahoma City, Oklahoma. *Injury Prevention* 2001;7(4):276-281.
- Evaluating injury prevention programs: the Oklahoma City smoke alarm project. *The Future of Children* 2000;10(1):164-174.
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- Smoke alarms and prevention of house-fire—related deaths and injuries. *Western Journal of Medicine* 2000;173:92-93.

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- Burn Injuries Due to Cigarette-Related Residential Fires, Oklahoma, 1988-2002
- Burn Injuries Due to Smoking While Using Oxygen Therapy, Oklahoma, 2001-2005
- Burn Injuries Resulting from Working on a Motorized Vehicle, Oklahoma, 1988-2002
- Fire Prevention Week, 2003
- Fireworks-Related Burn Injuries Admitted to a Burn Center, Oklahoma, 1988-2000
- Fireworks-Related Burn Injuries Admitted to a Burn Center, Oklahoma, 1988-2001
- Intentional Fire-Related Injuries in Oklahoma, 1988-2001
- Lawnmower-Related Burn Injuries in Oklahoma, 1988-2000
- Methamphetamine Laboratory-Related Fire and Burn Injuries in Oklahoma, 1988-2002
- Unintentional Campfire-Related Burn Injuries in Oklahoma, 1996-2005
- Work-related Burns Among Restaurant and Food Service Workers, Oklahoma, 1988-2006
- Work-Related Burns Among Roofers, Oklahoma, 1988-2006

Fact Sheets

- Burn Injuries Among Roofers
- Burn Injuries in Teen Restaurant Workers
- Burn Prevention Among Persons with Diabetic Neuropathy

- Chemical Burns
- Fire-Safe Cigarettes Can Save Lives
- Fireworks-Related Burn Injuries
- Gasoline-Related Burns
- Hot Facts About House Fires
- Scald Prevention for Young Children

Pamphlets (also available in Spanish)

- House Fires: Causes and Prevention (Fuegos de Casa: Causas y Prevención)
- LifeSavers: How to Survive a House Fire (Salvavidas: Cómo Sobrevivir en un Incendio de Casa)

Education and Planning Materials

- Injury Prevention Works: Strategies for Building Safe Communities
- LifeSavers: Guide to Smoke Alarm Projects
- LifeSavers II: A Guide to Smoke Detector Projects

Collaboration

The Injury Prevention Service (IPS) collaborates with Oklahoma ABLE Tech and the Oklahoma State University by referring persons who are mobility impaired, deaf, hard of hearing, blind, or have poor vision to the Fire Safety Solutions for People with Disabilities program.⁹ Smoke alarms are installed for these persons at no charge and they receive appropriate safety messages.

Fire marshals and local fire departments provide injury, death, and smoke alarm information on house fires. They work with the IPS to promote smoke alarm use, fire prevention, and fire safety when residential fires occur in their communities. Oklahoma Turning Point coalitions promote the availability of smoke alarms and refer families to their local fire departments.

Smoke Alarm Program

The IPS has had extensive experience in implementing and evaluating residential fire injury prevention programs funded by the National Center for Injury Prevention and Control. The

smoke alarm program includes smoke alarm giveaways/installations, educational efforts on escape plans and common causes of residential fires, as well as information on proper placement and testing of smoke alarms. From 1998 to 2001, a smoke alarm-canvassing project was implemented in five communities in Oklahoma.

Since 2001, approximately 30,000 smoke alarms have been distributed in high-risk rural communities. Smoke alarms were distributed to various community agencies and organizations including fire departments, county health departments, community action groups, and tribal agencies for installation in homes. All community agencies are required to work with their local fire departments to install the alarms in the home, discuss fire escape plans with residents, and provide fire safety education materials to each family who receives an alarm.

Legislation

The IPS developed a legislative fact sheet to support fire-safe cigarette legislation in Oklahoma. The fact sheet used IPS burn injury surveillance data to present the number of serious injuries and deaths due to cigarette-related residential fires. The bill had strong support and was passed in the 2008 Oklahoma legislative session. This piece of legislation will be an important additional prevention strategy for cigarette-related fires. A bill prohibiting the sale of novelty lighters was introduced in the 2009 legislative session; however, it failed to pass.

GOALS/OBJECTIVES

Goals

- Increase the number of functioning smoke alarms in single and multi-family dwellings.
- Implement smoke alarm installation programs in at least five Oklahoma communities.

Objective

- Reduce residential fire-related deaths by 15% by 2012.
Baseline: 2006 IPS data for Oklahoma: residential fires=1.43 per 100,000 population; 2006 CDC WISQARS data for Oklahoma: residential fires=1.62 per 100,000 population.

ACTION PLAN

- Choose two to three Oklahoma communities annually to commit to a year-long smoke alarm installation project through 2011.
- Smoke alarms will be installed in homes by a firefighter.
- Smoke alarms will be installed on each level of the home, outside sleeping areas, and in the bedrooms of smokers.
- Smoke alarm applications will be completed for each home that receives an alarm. All applications will be sent to the IPS.
- At the time of installation, educational information will be given to residents on fire prevention, safety, and developing and practicing a fire escape plan. Educational brochures will be provided by the IPS.
- IPS staff will conduct follow-up evaluations six to twelve months after the smoke alarm is installed to inquire if smoke alarms are still present and functional.

- Collaborate and partner with community organizations to further educate high risk groups, and distribute and install smoke alarms to persons in need through 2011.
- Health department organizations and programs including: Children First, Oklahoma Child Abuse Prevention, Sooner Start, Oklahoma Lead Poisoning Prevention Program, Turning Point Coalitions, and other programs that involve home visits to high risk populations.
- Community organizations and programs including: Meals on Wheels, Mobile Meals, American Association of Retired Persons (AARP), senior citizen centers, community centers, faith-based organizations, churches, schools, and cultural and ethnic groups.
- Encourage county health department staff to provide fire safety and prevention education to clients and the community through 2015.
 - Promote smoke alarm use among health department clinic patients.
 - Promote/conduct smoke alarm canvassing events in communities.
- Prepare and disseminate fact sheets related to fire safety and prevention through 2015.
- Continue to support fire safety legislation by providing partners and legislators with relevant data, reports, fact sheets, and educational information through 2015.
- Research local smoke alarm ordinances and determine if they include all new, existing, or sold homes.

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²National Fire Protection Association. An Overview of the U.S. Fire Problem. Retrieved 13 January 2009, from: http://www.nfpa.org/assets/files//PDF/Research/Fire_overview_2009.pdf.

³National Fire Protection Association. Fires in the United States During 2007. Retrieved 13 January 2009, from: <http://www.nfpa.org/assets/files//PDF/firelossfacts2.pdf>.

⁴National Fire Protection Association. U.S. Home Structure Fires. Retrieved 13 January 2009, from: <http://www.nfpa.org/assets/files//PDF/Homesfactsheet.pdf>.

⁵Centers for Disease Control and Prevention. Press Release: Reductions in Smoking Show Promise for Reducing Home Fire Deaths. 8 August 2008.

⁶National Fire Protection Association. Socioeconomic Factors and Fire: December 2008. Retrieved 13 January 2009, from: <http://www.nfpa.org/assets/files//PDF/OS.SocFactors.pdf>.

⁷Centers for Disease Control and Prevention. WISQARS. Retrieved 19 August 2009, from: <http://www.cdc.gov/injury/wisqars/index.html>.

⁸Injury Prevention Service, Oklahoma State Department of Health. Injuries in Oklahoma, 2004-2006.

⁹Oklahoma ABLE Tech. Fire Safety Solutions FAQ. Retrieved 5 August 2009, from: http://www.ok.gov/abletech/Fire_Safety/index.html.

Traffic-Related Injuries

BACKGROUND

National

According to the National Highway Traffic Safety Administration (NHTSA), the number of traffic fatalities decreased nearly 10% from 2007 to 2008 in the United States. However, over 37,000 lives were still lost in traffic-related fatalities in 2008. More than half of persons killed while traveling in passenger cars were unrestrained (55%). Motorcycle fatalities increased in the same year accounting for 14% of traffic fatalities (5,290 deaths).¹

Approximately 13,250 lives were saved in 2008 by the use of seat belts in passenger cars, and 244 lives of children younger than 5 years of age were saved by the use of child restraints. An additional 4,152 lives would have been saved if all unrestrained passenger vehicle occupants 5 years of age and older had been using a restraint device. Frontal air bags saved the lives of 2,546 occupants 13 years of age and older and motorcycle helmets saved 1,829 lives. If all motorcyclists who were involved in a crash had been wearing helmets, 823 more lives could have been saved. In addition, more than 700 young adults 18 to 20 years of age were saved by minimum drinking age laws (21 years old).²

From 2000 to 2006, motor vehicle crashes were the leading cause of unintentional injury death overall in the United States, resulting in over 300,000 fatalities.³ In 2008, nearly 970 children birth to 14 years of age were involved in fatal motor vehicle crashes and approximately 168,000 were injured.⁴ More than one in three deaths are a result of motor vehicle crashes among teens, and drivers 16 to 19 years of age are more likely to be involved in traffic-related incidents than any other age group. On average,

approximately 12 teens 16 to 19 years of age die every day from motor vehicle-related injuries. Teenagers and young adults 15 to 24 years of age account for 14% of the nation's population. However, males in this age group account for 30% (\$19 billion) of motor vehicle-related medical costs and females 15 to 24 years of age account for 28% (\$7 billion). According to the Centers for Disease Control and Prevention (CDC), teen drivers who are at high risk of being involved in crashes include males, teens driving with other teen passengers, and those who are newly licensed.⁵

In 2006, over 175,200 adults 65 years of age and older were injured as result of motor vehicle crashes. Older drivers are more likely to suffer from fatal motor vehicle injuries than are younger drivers. Older adults may have a higher risk of being involved in a motor vehicle crash due to poor vision, cognitive functions, and physical impairments. Seventy-six percent of older drivers and passengers involved in fatal crashes were wearing seat belts at the time of the crash compared to 62% of adult occupants younger than 65 years old.⁶

Oklahoma

Motor vehicle crashes were the leading cause of unintentional injury death among children and adults 1 to 64 years of age from 2000 to 2006 in Oklahoma. Each year, approximately 770 persons lose their lives in traffic-related fatalities. Overall fatality rates were highest among novice drivers 15 to 24 years of age and drivers 65 years of age and older.^{3,7}

Teen Drivers

In 2006, over 20,200 teens 16 to 19 years of age were involved in motor vehicle crashes in

Oklahoma. Sixty-eight teens in this age group died at a traffic crash scene or in a hospital emergency room. Of these, 36 were drivers, 26 were passengers and 6 had unknown occupant position. Unsafe speed (44%) and failure to stop or yield (14%) were the most common noted causes of the fatal motor vehicle crashes. Alcohol was a contributing factor in 8% of teen drivers. Seat belt use was known for 55 persons involved in these fatal crashes; of these, 67% were not restrained. Among the 218 teen drivers who were hospitalized, over half were male (61%). Fifty-seven percent of teen motorcyclists were not wearing a helmet; 80% of teens who died in a hospital were not wearing a seat belt.⁸

Older Drivers

In 2006, there were approximately 288,000 licensed drivers 70 years of age and older in Oklahoma, and motor vehicle crashes were the second leading cause of injury death in this age group. Older drivers were involved in 7,562 out of 75,408 motor vehicle crashes. The highest rate of injuries occurred among males, 80 to 84 years of age. Older drivers had lower fatality rates than younger drivers age 16 to 24 years of age. Failure to stop or yield (34%), improper turning (17%), and improper backing and/or changing lanes unsafely (16%) were the most common causes of motor vehicle crashes involving older drivers. There were 2,005 injuries (nearly 8 injuries per person) sustained by older adults who were hospitalized (257 hospitalizations).⁹

PROGRESS

Funding

The Injury Prevention Service (IPS) receives funding from the Oklahoma Highway Safety Office (OHSO) to conduct the Oklahoma Traffic Data Linkage Project (TDLP). The goal of the TDLP is to obtain comprehensive information on traffic crashes by linking data from multiple sources. The IPS links data from traffic crashes, hospitals, and

death certificates (traffic record data, Oklahoma Hospital Inpatient Discharge data, and vital statistics data). Linking traffic crash reports and data from the medical care system provides a more complete array of information to better understand motor vehicle crashes and their effects. The data can be used to develop, inform, and evaluate traffic injury prevention programs in Oklahoma. Crash data findings on teen drivers have been presented on national and local levels. A website has been developed for the TDLP, and the TDLP Board of Directors is assisting with additional promotion efforts.

From 2001 to 2009, the IPS received funding from the OHSO to implement an occupant protection program which was offered through county health departments statewide. In October 2009, the OHSO funded Safe Kids to coordinate the occupant protection program statewide, with a focus on rural areas. IPS staff will continue to provide support and assistance as needed.

Publications

Peer-Reviewed Publications

- All-terrain vehicle crash factors and associated injuries in patients presenting to a regional trauma center. *Journal of Trauma*, Nov 2007;63(5):994-9
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- Blood alcohol content (BAC)-negative victims on alcohol-involved injury incidents. *Addiction*, 2002;97(7):909-914.
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- Fatal Injuries Among Children Left Unattended In or Around a Motor Vehicle in Oklahoma, 2000-2004
- Pedestrian-Related Traumatic Brain Injuries in Oklahoma, 1992-2002
- Work Zone-Related Deaths, Oklahoma, July 1997-December 2006

Fact Sheets

- Adolescent Injury in Oklahoma
- Alcohol-Related Crash Injuries and Deaths, Oklahoma, 2006
- Child Passenger Safety Common Errors
- Child Passenger Safety FAQ
- Impaired Driving
- Motorcycle Crash Injury
- Motor Vehicle Crash Injury Laws Q&A
- Motor Vehicle Crash Injuries
- Motor Vehicle Crash Injuries Among Children and Car Seat Use
- Older Driver-Related Crash Injuries and Deaths, Oklahoma, 2006
- Pedestrian-Related Injuries
- Teenage Traffic Injuries
- Tips For Keeping Your Child Happy in a Car Seat

- Traffic Crash Data Linkage Results Among Oklahoma Teens 16-19 Years of Age, 2006

Education and Planning Materials

- Breaking Away--Teaching Injury Prevention to Young Bicycle Riders
- PTA Guide to Bicycle Helmet Projects

Collaboration

From 2001 to 2009, the IPS partnered with the OHSO to implement an occupant protection program. This program offered eligible families the opportunity to receive child safety seats at no cost. Child passenger safety staff educated and instructed each family on how to properly secure a car or booster seat in their vehicle. Every family receiving a child safety seat was required to watch a child passenger safety video and was given additional information about child safety seat use. Family members were encouraged to participate in the installation process.

In October 2009, Safe Kids assumed management of the occupant protection program statewide. The IPS will continue to support the program by providing technical assistance, instructing one-day and four-day training classes, and conducting safety seat installations and checks.

A symposium on underage drinking was conducted in Oklahoma in 2006. Using the Spectrum of Prevention, a template of recommendations was prepared and distributed to various stakeholders following the symposium.

Legislation

Occupant Protection

In 2004, Oklahoma legislators passed a child safety seat law which requires children birth to five years of age to be properly restrained in a car seat or booster seat when traveling in a motor vehicle. Children ages six to twelve years old must be properly restrained in a child safety seat or seat belt. Prior to 2004, children birth to three years of

age were required to be in a car seat, and children four to five years old could be restrained in a seat belt, regardless of their seating position in the vehicle. Oklahoma's primary seat belt law covers all persons 13 years of age and older seated in front vehicle seating positions.

The *Forget-Me-Not Vehicle Safety Act* was passed in 2008, making it illegal for caregivers to leave children six years of age or younger unattended in a motor vehicle, unless accompanied by a person at least 12 years of age or older.

In 2009, child endangerment offenses were expanded to include any parent or guardian who knowingly permits a child to be present in a vehicle when the driver is impaired or under the influence of alcohol or other intoxicating substance, or when the parent or guardian is the impaired driver or under the influence of alcohol or other intoxicating substance.

Cell Phone Use and Text Messaging

Currently, Oklahoma has no laws relating to cell phone use or text messaging while driving. In 2009, nine legislative bills relating to cell phone use were introduced; however, none of them passed.

Helmet Use

Oklahoma has a partial helmet law that requires all motorcyclists younger than 18 years of age to

wear a motorcycle helmet. The state does not have any helmet laws pertaining to bicyclists.

All-terrain Vehicles

All-terrain vehicles (ATVs) purchased on or after July 1, 2005 must be registered and titled in Oklahoma. Use of ATVs are prohibited on streets and highways except to cross these roads, for no more than 300 feet to cross a railroad track during daylight hours, or on unpaved roads on United States Forest Service property.⁵

Oklahoma state law requires riders younger than 18 years old to wear a helmet when operating an ATV on public lands, and prohibits operators of ATVs on public lands from carrying passengers unless the vehicle was designed by the manufacturer for passengers. A bill to make ATVs street legal was introduced in the 2009 session, but did not pass.

Graduated Driver Licensing

Oklahoma established a Graduated Driver Licensing (GDL) law in 1999. GDL consists of four levels of licensing; no license, learner permit, intermediate license, and unrestricted license. This system allows full driving privileges to novice drivers gradually, and requirements vary with each level. GDL restricts the number of passengers and the amount of driving time allowed for young, novice drivers. Table 1 from the Oklahoma Department of Public Safety shows GDL as it affects Oklahoma drivers 15 to 18 years of age.

Table 1. Oklahoma Graduated Driver Licensing Law

License Type	Driving Privileges	Requirements	
		With Driver Education	No Driver Education
No License	<u>When:</u> While receiving instruction from and accompanied by a certified driver education instructor	-At least 15 years old -While receiving instruction from a certified instructor	(Not eligible)
Learner Permit	<u>When:</u> While accompanied by a licensed driver at least 21 years old	-At least 15 1/2 years old -Must be currently receiving instruction in or have	-At least 16 years old -Must have passed written driving exam

		completed driver education -Must have passed written driving exam -Must have passed vision exam	-Must have passed vision exam
Intermediate License	<u>When:</u> 5am to 11pm, unless for activities related to school, church, or work <i>or</i> any time if accompanied by licensed driver at least 21years old <u>Passengers:</u> 1 passenger <i>or</i> only people who live in the driver's home <i>or</i> any passenger if accompanied by licensed driver at least 21years old	-Must have had a Learner Permit for at least 6 months -Must have had at least 40 hours (10 hours at night) of behind-the-wheel training from licensed driver at least 21 years old and licensed for at least 2 years -Must have no traffic convictions on driving record -Must have passed driving skills exam	-Must have had a Learner Permit at least 6 months -Must have had at least 40 hours (10 hours at night) of behind-the-wheel training from licensed driver at least 21 years old and licensed for at least 2 years -Must have no traffic convictions on driving record -Must have passed driving skills exam
Unrestricted License	<u>When:</u> unrestricted <u>Passengers:</u> unrestricted	-Must have had an Intermediate License for at least 6 months -Must have no traffic convictions on driving record	-Must have had an Intermediate License for at least 1 year -Must have no traffic convictions on driving record
		-OR-	
		-Must be at least 18 years old -Must have passed all driving and vision exams	

Underage Drinking

According to Oklahoma's zero tolerance law, if drivers younger than 21 years of age are found to have a blood alcohol level over 0.02 percent before or while operating a motor vehicle, they may be charged with impaired driving offenses.

Oklahoma passed a law in 2006 making it illegal for a person to knowingly and willfully give alcohol or controlled dangerous substances to a minor (person under 21 years of age) who is invited by that person to a residence, building, or property owned or procured by that person. If this act results in the death of a person, violators will be fined and/or convicted of a felony. Fifty-five Oklahoma communities have taken this law a step further by adopting social host ordinances which prohibit persons from knowingly hosting gatherings where alcoholic beverages are available to minors.

Ignition Interlock Devices

A measure related to the installation of an alcohol ignition interlock device as a condition of modifying license revocation or driving privileges becomes effective November 1, 2009. Another bill requiring persons to use ignition interlock devices when convicted of first-time driving under the influence offenses became dormant after failing to be heard in committee.

GOALS/OBJECTIVES

Goal

- Collect relevant data and provide educational information to reduce traffic-related injuries and deaths.

Objectives

- Increase seat belt use to 92% by 2015.
Baseline: 2009 Oklahoma Highway Safety Office data for Oklahoma: seat belt use=84.2%.
- Increase child safety seat use among children birth to six years of age to 90% by 2015.
Baseline: 2009 Oklahoma Highway Safety Office data for Oklahoma: proper restraint use=86.3%.
- Decrease the proportion of high school age students who have driven a vehicle when drinking alcohol within a given month to 10% by 2015.
Baseline: 2007 Youth Risk Behavior Survey data for Oklahoma: students who have driven a vehicle when drinking alcohol during the past 30 days=13.3%.

ACTION PLAN

- Continue to support statewide programs to reduce traffic-related deaths through 2015.
- Maintain the TDLP through 2015.
- Continue to support and participate in the TDLP Board of Directors through 2015.
- Continue to support and participate in the Statewide Buckle Up Committee through 2015.

- Continue to conduct child safety seat checks and provide technical assistance to parents and caregivers through 2015.
- Continue to provide technical assistance to county health department program contacts and participate in child safety seat check events and instruct child passenger safety trainings through 2015.
- Continue to collect surveillance data on traumatic brain injuries, ATV and traffic injuries and fatalities using Oklahoma Medical Examiner data, Vital Records data, and Oklahoma Highway Safety Office data through 2015.
- Work with the Oklahoma Highway Safety Office and the Department of Public Safety to increase awareness of Graduated Driver Licensing laws among parents and caregivers of novice drivers through 2015.
- Prepare and disseminate traffic-related news releases, fact sheets, and reports through 2015.
- Fulfill traffic-related data requests as need through 2015.
- Support traffic safety legislation by providing partners and legislators with relevant data, reports, fact sheets, and educational information through the 2015 as appropriate.
- Support legislation restricting cell phone use and texting while driving by providing relevant data, reports, fact sheets, and educational information through the 2015 legislative session.

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Occupational Injuries

BACKGROUND

National

In 2007, there were over 146,000 persons 16 years of age and older in the work force.¹ Management and professional occupations; sales and office occupations; and service occupations were the leading industries, and employed 77% of all workers in the United States. There were slightly more male workers (54%) employed in the workforce than female workers (47%); however, males accounted for 92% of the 5,657 occupational fatalities.²

Each year, almost 6,000 persons die from occupational injuries in the United States.³ In 2007, occupational fatalities decreased 3% from the previous year (5,657 in 2007 and 5,840 in 2006), and the rate for work-related deaths was 3.8 per 100,000 workers. Persons 45 years of age and older had a higher work-related injury death rate than the overall national rate. Fatal occupational injury rates were the highest for the agriculture, forestry, fishing, and hunting (27.9 per 100,000 workers); transportation and warehousing (16.9 per 100,000); and construction (10.5 per 100,000) industry sectors. However, the construction industry had the highest number of fatal injuries during this time. Highway incidents (1,414 deaths), homicides (847 deaths), and falls (628 deaths) were the most frequent incidents associated with work-related fatalities.²

Nearly 1.8 million workers were employed full-time in the agriculture industry in 2007. Agriculture-related activities have consistently had one of the highest work-related fatality rates. This industry is one of the few occupations that also pose a risk of fatal and nonfatal injury to families of farmers, since the agricultural work is

often shared among family members and takes place at the family's residence.⁴

Oklahoma

In Oklahoma, approximately 100 occupational injury deaths are reported each year to the Injury Prevention Service. Transportation incidents account for the highest number of deaths, followed by agriculture-related deaths.³ From January 1, 1998 to December 31, 2007, 1,122 workers in Oklahoma lost their lives to work-related deaths – an average of 112 deaths per year. Historically, Oklahoma's annual death rate has been higher than the national average.²

Twenty-four percent of deaths occurred among workers between 35 and 44 years of age, and 20% of deaths were among those 45 to 54 years of age. Ninety-three percent of all work-related deaths were among males. Sixty-nine percent of work-related incidents occurred between 8:00 a.m. and 8:00 p.m., with the highest occurrences between noon and 4:00 p.m.⁵

The leading causes of work-related deaths included motor vehicle crashes (37%), machinery (16%), and falls from elevation (12%). Truck driving/delivery was the occupation resulting in the greatest number of fatalities (24%), followed by farming/ranching (17%), and construction (10%).⁵

Workers who were involved in fatal injuries most frequently suffered multiple traumatic injuries (35%). Traumatic head injuries accounted for 21% of fatalities and traumatic chest injuries accounted for 7%.⁵

Occupational health indicator data revealed that Oklahoma rates were higher than national rates for the following work-related conditions: hospitalizations, amputations, and pesticide-

associated illnesses/injuries reported to poison control centers. Work-related rates were lower in Oklahoma than the United States for hospitalized burn injuries, pneumoconiosis and malignant mesothelioma as well as for elevated blood lead levels.

PROGRESS

Funding

The Injury Prevention Service (IPS) receives funding for activities associated with occupational injuries and fatalities through two program grants from the National Institute for Occupational Safety and Health: the Oklahoma Fatality Assessment and Control Evaluation (OKFACE) and the Occupational Safety and Health Surveillance programs. The grant funding for OKFACE ended on August 31, 2007. The Occupational Safety and Health Surveillance Program is currently funded through June 30, 2010.

Publications

For the OKFACE grant, comprehensive data were collected on all occupational fatalities, and on-site investigations were conducted for a subset of the deaths. For the Occupational Safety and Health Surveillance Program, the Injury Prevention Service established a fundamental surveillance system to collect data on occupational hazards, diseases, injuries, and deaths in Oklahoma. These data were collected and analyzed to determine the magnitude and trends of occupational indicators. In addition, detailed information continued to be collected on all occupational deaths from multiple sources including death certificates, Medical Examiner reports, and Occupational Safety and Health Administration reports. Data were used to prepare summary data reports, *Injury Updates*, fact sheets, and occupational death investigation reports (listed below). These materials were distributed and posted on the Injury Prevention Service website (<http://ips.health.gov>) to be

utilized in safety trainings by employers and safety managers. A news release on nail gun-related injuries was also prepared and distributed to statewide media outlets.

Summary Data Reports

- Occupational Fatalities in Oklahoma, 1998-2001
- Occupational Fatalities in Oklahoma, 1998-2002
- Occupational Fatalities in Oklahoma, 1998-2005
- Occupational Fatalities in Oklahoma, 1998-2006
- Oklahoma Occupational Health Indicators, 2003
- Oklahoma Occupational Health Indicators, 2003-2005

Injury Update Reports

- Construction-Related Fatalities, Oklahoma, 1998-2001
- Hospitalizations Paid by Workers' Compensation, Oklahoma, 2005
- Jump-Start/Bypass-Start-Related Fatalities in Oklahoma, July 1997-February 2005
- Work-Related Burns Among Restaurant and Food Service Workers, Oklahoma, 1988-2006
- Work-Related Burns Among Roofers, Oklahoma, 1988-2006
- Work-Related Deaths Among Young Workers Under 25 Years of Age, Oklahoma, 1998-2004
- Work-Related Deaths in Oklahoma, 1998-1999
- Work-Related Deaths in Oklahoma, 1998-2007
- Work-Related Homicides, Oklahoma, 1998-2004
- Work Zone-Related Deaths, Oklahoma, July 1997-December 2006

OKFACE News Reports

- Construction Safety
- Life and Death in the Oil Field
- Tractor Safety

Fact Sheets

- Burn Injuries Among Roofers
- Burn Injuries in Teen Restaurant Workers
- Chemical Burns
- Electric Current Safety
- Safety in Eating and Drinking Establishments
- Work-Related Falls

OKFACE Death Investigation Reports

A total of 53 death investigation reports were completed on the following fatal injuries:

- Machine-related deaths
- Highway work zone fatalities
- Immigrant deaths
- Work-related fatalities among youth younger than 18 years of age

Reports are available on the National Institute for Occupational Safety and Health (<http://www.cdc.gov/niosh/>).

Data and investigation reports were distributed to the National Institute of Occupational Safety and Health, Council of State and Territorial Epidemiologists, partners in other states involved in occupational injury prevention, Oklahoma Department of Labor, Occupational Safety and Health Administration, Oklahoma Workers' Compensation Court, Office of the Chief Medical Examiner, Future Farmers of America groups, farm co-ops, county extension offices, career and technology education centers, Oklahoma Safety Council members, Oklahoma Occupational Safety and Health Surveillance Advisory Committee members, and special target groups specific to each publication.

Collaboration

A scientific advisory committee was established to provide input on the Oklahoma Occupational Safety and Health Surveillance program and to promote collaborations. Members of the committee include representatives from Vital Statistics, hospital discharge database, Oklahoma Workers' Compensation Court, Oklahoma Central Cancer Registry, Adult Blood

Lead Epidemiology and Surveillance Program, Department of Labor, Occupational Safety and Health Administration, Oklahoma Poison Control Center, and university and career and technology instructors with various occupational specialties.

Partnerships have also been created with rural farm co-ops and specific industry groups who are at high risk for work-related injuries to provide safety information through educational campaigns and *Injury Updates*. In addition, the Injury Prevention Service has collaborated with county health departments, the Worker Policy Safety Council, and a co-op council. Farm safety information was distributed through county health department services (i.e., flu clinics). The Worker Policy Safety Council was created by legislation and meets four times per year to study and formulate reforms to reduce work-related injuries. The co-op council, that includes all co-ops in the state, works to decrease risk factors associated with occupational injuries.

GOALS/OBJECTIVES

Goal

- Collect relevant data and provide educational information to reduce work-related injuries and deaths.

Objective

- Reduce deaths from work-related injuries to 7.0 deaths per 100,000 workers by 2015.
Baseline: 2007 America's Health Rankings data for Oklahoma: occupational fatalities=8.3 deaths per 100,000 workers.

ACTION PLAN

- Continue to collect occupational indicator data through 2010.
- Continue to collect occupational fatality data through 2010.

- Continue to provide partners with relevant data, reports, and fact sheets to be utilized in safety trainings by employers and safety managers through 2015.
 - Prepare and disseminate occupational safety information to construction and restaurant groups.
 - Prepare and disseminate transportation-related injury reports and fact sheets.
 - Prepare and disseminate fact sheets on work-zone safety.
- Prepare and disseminate fact sheets on young workers.
- Prepare and disseminate fact sheets on workers 45 years of age and older.
- Partner with occupational safety groups to promote farm safety education through their quarterly publications.
- Prepare and disseminate fact sheets in Spanish.
- Prepare and disseminate news releases related to occupational injuries (at least one on work-zone safety) through 2015.

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Unintentional Poisonings

BACKGROUND

National

Unintentional poisoning occurs when a certain amount of a chemical agent is ingested, inhaled, injected or absorbed and unexpectedly causes illness or death. In 2006, unintentional poisonings claimed the lives of 27,531 Americans, and were the second leading cause of unintentional injury deaths following motor vehicle crashes.

However, poisoning deaths exceeded deaths caused by motor vehicle crashes among adults 35 to 54 years of age. Poisoning deaths in this age group increased approximately 113% between 1999 and 2006.¹ Ninety-five percent of unintentional and undetermined poisoning deaths were drug-related. Opioid pain medications were the most common cause, followed by cocaine and heroin. Men were 2.1 times more likely to die from unintentional poisoning than women, and the highest death rates were among Native Americans. The economic cost of poisoning injuries reached \$26 billion in the year 2000.²

Poison control centers across the nation reported approximately two million unintentional poisonings or poison exposure cases in 2006. The National Poison Data System (NPDS) of the American Association of Poison Control Centers logged more than four million poison-related incidents from 61 participating poison control centers in the United States. Approximately 2.4 million cases were concerning human exposure to a chemical substance (8.0 exposures per 1,000 population). The most frequent cause of poison exposure in all individuals was analgesics (pain medications), and in children less than six years of age, poisoning was most commonly caused by cosmetics and personal care products. The NPDS also reported 1,229 fatalities.³

On average, 6,937 human exposure cases were handled by all poison centers in the United States per day. More calls were received during warmer months (7,246 in June) than in the winter months (6,524 in January). Higher volumes of calls were also received between 4:00 p.m. and 11:00 p.m. with 93% of poisonings occurring at a place of residence.³

Oklahoma

Between 2000 and 2006, unintentional poisoning deaths increased by 144% in the State of Oklahoma. Unintentional poisoning has become the second leading cause of unintentional injury death among all ages resulting in over 54,000 years of potential life lost before the age of 65. Seventy percent of unintentional poison-related deaths occurred among persons 30 to 54 years of age with the greatest mortality occurring among persons 40 to 49 years of age. Children birth to 14 years of age had the lowest number of deaths associated with unintentional poisonings.¹

Over two thousand persons in Oklahoma died from unintentional poisoning during this time. More men (62%) died from unintentional poisonings than women (38%), and racial groups which were most affected by unintentional poisoning deaths were whites (9.7 per 100,000 population), Native Americans (9.1 per 100,000), and African Americans/blacks (5.8 per 100,000).^{1,4}

Oklahoma hospitals reported over 6,000 hospital discharges associated with poison exposure from 2002 to 2006. The majority of discharges were among children one to four years of age and adults 40 to 49 years of age.⁵

The Oklahoma Medical Examiner's Office reported 487 unintentional drug-related poison deaths in Oklahoma in 2006. More men (300 persons) died

from unintentional drug poisonings than women (187 persons) and the highest rate of deaths occurred among whites (12.3 per 100,000), Native Americans (0.8 per 100,000) and African Americans/blacks (0.8 per 100,000). Approximately 60% of persons were 40 to 59 years of age, and 34% were between the ages of 20 and 39. Fifty percent of deaths were unintentional poisonings associated with a single drug (methadone, cocaine, and fentanyl resulted in the most deaths), and 241 were multiple drugs deaths.⁶

Carbon Monoxide Poisoning

During the winter storm in January 2007, 66 persons were treated at a hospital for carbon monoxide (CO) poisoning, and 96% of these injuries occurred in a home. CO poisonings had the second highest hospitalization rate of all winter storm-related injuries.⁷ CO poisoning occurs when carbon monoxide, an odorless, colorless, poisonous gas, is inhaled in significant concentrations causing illness and/or death. It is commonly reported after major power outages resulting from natural or man-made disasters. When alternative sources of fuel or electricity are used for heating, cooling, or cooking during these events, CO can build up quickly in enclosed or partially enclosed areas.⁸ During a subsequent winter storm in December 2007, two persons died from CO poisoning caused by a generator.

Oklahoma Poison Control Center

The Oklahoma Poison Control Center was founded in the 1960's. In 1962, the center answered about 500 poison calls; today, the center answers over 50,000 phone calls a year and includes a 24-hour, toll-free telephone service. The poison center staffs specially trained licensed pharmacists and nurses who provide emergency poisoning management advice to Oklahoma residents and health care professionals. The center provides information concerning the prevention and management of potentially toxic exposures to the people of Oklahoma. The center's goal is to save lives as

well as to provide a cost-effective service to patients and residents by promoting the appropriate use of health care resources. The Oklahoma Poison Control Center is a certified poison center as independently evaluated by the American Association of Poison Control Centers. Maintaining funding of poison centers enables more poisoning cases to be safely managed at home, decreasing the need for emergency department treatment.⁹

The Oklahoma Poison Control Center received 54,178 calls in 2007. Of the 37,381 human exposure cases, 14,276 were drug-related poisonings. Children under five years of age accounted for 56% of all poisoning cases. Analgesics (pain medications), cosmetics/personal care products, and household cleaning substances were the leading causes of poison exposure among all Oklahomans. Substances most commonly involved in adult exposures include analgesics, sedatives/hypnotics/antipsychotics, and household cleaning products. Among Oklahoma's children, cosmetics/personal care products, household cleaning products, and analgesics were the most frequent cause.⁹

PROGRESS

Prescription Drug Use

The Injury Prevention Service (IPS) is preparing a manuscript on unintentional prescription drug poisoning deaths in Oklahoma, *Unintentional Medication Overdose Deaths – Oklahoma, 1994-2006*. Preliminary results show that Oklahoma is one of the states leading the nation in the rate of prescription drug overdose deaths (11.8 per 100,000 population), and this rate continues to increase. Inappropriate use of legal prescription opioid painkillers, particularly methadone, is a primary contributor to these deaths. An increasing proportion of deaths are from oxycodone and hydrocodone. Most persons who die from unintentional prescription drug

overdoses are middle-aged adults, and tend to be white males. However, deaths among females are rising at a faster rate than among males.

Persons 35 to 44 years of age have the highest medication overdose death rates (11.4 per 100,000) followed by persons 45 to 54 years of age (10.7 per 100,000). Methadone, hydrocodone, alprazolam, oxycodone, and morphine were the most common substances involved in unintentional medication overdose deaths and accounted for half of all deaths. Alcohol, narcotics, and anti-anxiety medications accounted for three-fourths of all overdose deaths.

Many prescription drug deaths can be attributed to poly-substance ingestion – the ingestion of multiple medications at the same time. With poly-substance ingestion, levels of any one of the substances may not be fatal; however, consuming multiple medications concurrently or combining them with alcohol or illicit drugs can be lethal.

The IPS initiated a surveillance system for unintentional poisoning deaths among Oklahoma residents in December 2008. The system utilizes medical examiner data and crosschecks Vital Statistics data, gathering as much detailed information on deaths as possible. Data will be used in developing reports, collaborating with other interested groups, and potential data linking to other sources such as the Oklahoma Prescription Monitoring Program (PMP).

Funding

Currently, the IPS does not have specific funding to address unintentional poisoning deaths.

Publications

Peer-Reviewed Publications

- The association of pseudoephedrine sales restrictions on emergency department urine drug screen results in Oklahoma. *J Okla State Med Assoc*, Nov 2007;100(11):436-439.

- Unintentional medication overdose deaths – Oklahoma, 1994-2006 (Pending)

Summary Data Reports

- Injuries in Oklahoma, 2004
- Injuries in Oklahoma, 2005
- Injuries in Oklahoma, 2004-2006

Injury Update Reports

- Undetermined Manner Drug Poisoning Deaths, Oklahoma, 2004-2006

Fact Sheets

- Carbon Monoxide Poisoning Deaths
- Unintentional Carbon Monoxide Poisoning Deaths

Education and Planning Materials

- Injury Prevention Works: Strategies for Building Safe Communities

Collaboration

In March 2009, the Oklahoma State Department of Health and the Oklahoma Poison Control Center hosted an Unintentional Poisoning Deaths Symposium. The purpose of the symposium was to initiate a collaborative effort among agencies and organizations statewide to assess unintentional poisoning deaths in Oklahoma due to prescription drug use, identify probable solutions, and develop a plan of action and a timeline.

Presentations and discussions related to unintentional poisoning deaths, specifically pertaining to prescription drug use among 35 to 54 years of age in Oklahoma, were conducted.

The symposium served as an avenue in bringing different agencies and organizations together to discuss current local and statewide injury trends and existing injury projects. It provided a forum for community partners to discuss prevention strategies and strengthen efforts by fostering opportunities to collaborate on effective strategies and link resources among agencies

and organizations statewide. These agencies and organizations provided pertinent information and valuable insight on unintentional poisoning death trends which will support future injury prevention efforts in the state.

GOALS/OBJECTIVES

Goals

- Increase awareness of unintentional poisonings.
- Enhance data and knowledge about poison exposures and circumstances of the events.
- Capitalize on partnerships formed in the unintentional poisoning symposium to strengthen prevention efforts associated with unintentional drug poisoning deaths.
- Increase the use of evidence-based injury and violence prevention interventions statewide.

Objectives

- Identify characteristics and demographics of target/at-risk populations by 2010.
- Educate prescribers, pharmacists, physicians and other medical professionals on the proper use of prescription drugs, the Prescription Monitoring Program, and the use and availability of community resources for patient referrals through 2015.

- Educate parents and persons in at-risk populations through 2015.
- Reduce deaths caused by unintentional poisonings to 12.1 deaths per 100,000 population by 2015.
Baseline: 2006 CDC WISQARS data for Oklahoma: unintentional poisoning=13.4 per 100,000 population.

ACTION PLAN

- Work with medical licensing entities to distribute Prescription Monitoring Program information with licensure renewal letters to increase awareness of program availability through 2015.
- Promote linking Medical Examiner data with Prescription Monitoring Program data through 2015.
- Work with Medicaid to encourage or require physicians to check the Prescription Monitoring Program every 3 months on every patient through 2015.
- Communicate progress and share information among unintentional poisoning taskforce members through 2015.
- Assist with preparing educational information to present to graduate schools (medicine, pharmacy, nursing, dentistry, etc) through 2015.

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Violence

BACKGROUND

National

Violent Deaths

In the United States, approximately 50,000 violent deaths occur each year and cost over \$52 billion in medical care and lost productivity. According to the Centers for Disease Control and Prevention (CDC), violence results from intentional use of threatened or actual physical force (including the use of poisons/drugs) or power, against oneself, another person, group, or community.¹

In 2006, more than 33,000 suicides occurred in the United States and 18,000 persons were victims of homicide. Suicide rates for males were highest among persons age 75 and older (35.7 per 100,000), and among females ages 45 to 54 (8.4 per 100,000).³ Fifty-one percent of suicides and 69% of homicides involve firearms. Firearm-related incidents are the second leading cause of injury death in the United States.¹

The National Violent Death Reporting System (NVDRS) is a federally funded surveillance system created in 2003 to track violent deaths. Eighteen states currently participate, including Oklahoma. The NVDRS was created as a tool for criminal justice, public health, and injury prevention communities and their partners to assist in understanding and ultimately reducing violent death events through planning, policy, and prevention programs at local, state, and national levels.² Violent deaths tracked in the system include suicides, homicides, deaths from legal intervention, unintentional firearm deaths, deaths of undetermined manner, and deaths resulting from acts of terrorism.

Sexual Violence

Approximately 11% of women and 2% of men report being raped at sometime in their lives. For 60% of female victims and 69% of male victims the first rape occurred before the age of 18. Among female victims, the perpetrators of the rape were most often intimate partners (30%), family members (24%), or acquaintances (20%). Among male victims, perpetrators were reported to be acquaintances (32%), family members (18%), friends (18%), or intimate partners (16%).³

Intimate Partner Violence

From 2001 to 2005 in the United States, 22% of females and 4% of males 12 years of age or older had experienced nonfatal intimate partner violence (IPV) in their lifetime. Both males and females who were separated or divorced had the greatest risk of victimization, and those who were married or widowed had the lowest risk of experiencing IPV. In most cases, victims reported that the offender's age was close to their own age. Forty-two percent of all nonfatal IPV victims reported that alcohol or drugs were involved. Nonfatal IPV most often occurred between the hours of 6:00 p.m. and 6:00 a.m. The majority of victimizations among males (60%) and females (63%) occurred at the victim's home.⁴

In general, IPV-related homicides declined among both males and females between 2001 and 2005. Females accounted for 30% of IPV-related homicides and males accounted for 5% of IPV-related homicides. Between 1976 and 2005, approximately 11% of homicide victims were suspected to have been killed by an intimate partner. In recent years, approximately 3% of all male homicide victims and one-third of all female homicide victims were killed by an intimate partner.⁴

Bullying

In a 2001 study, approximately 30% of students in the United States reported being involved in moderate or frequent bullying, either as a bully (13%), a victim (11%), or as both (6%). In a study of 8 to 11 year olds and 12 to 15 year olds, students identified bullying and teasing as the most serious problem for their age groups – more than drugs or alcohol, sex, violence, discrimination or other problems. Sixty percent of pre-teens characterized as bullies in middle school had at least one criminal conviction by the age of 24. Twenty percent of student perpetrators in school-related homicide incidents were known to have been victims of bullying.^{5,6}

Oklahoma

An annual average of 891 violent deaths of Oklahoma residents occurred in Oklahoma from 2004 to 2006. More than half (58%) of the deaths were suicides, 24% were homicides, 16% were undetermined manner deaths, 1% were legal intervention deaths, and 1% were unintentional firearm deaths. There were no terrorism deaths in Oklahoma during this period. Seventy-three percent of the victims were male and 27% were female. The majority of the injuries (74%) occurred on a home premise. Four percent of violent deaths occurred while the person was in custody or in the process of being arrested, 22 victims were homeless, and 18% of violent death victims had served in the United States Armed Forces. Forty-one percent of all violent deaths in Oklahoma were among Oklahoma and Tulsa County residents. The rate of violent death per 100,000 population was generally higher in eastern Oklahoma, and lower in the Panhandle and western regions of the state.²

Suicides

In Oklahoma, suicide is the fourth leading cause of death among persons 1 to 44 years of age. Suicide was the most prevalent type of violent death, accounting for 1,544 deaths (14.5 suicides

annually per 100,000 population) from 2004 to 2006. During this time period, the rate of suicide increased by 5%. Seventy-eight percent of suicide victims were male and 22% were female. In 42 suicide deaths, victims killed at least one other person before taking their own life, resulting in 51 homicide deaths. Males 75 to 84 years of age had the highest suicide rate among all ages. Females at greatest risk for suicide were women 35 to 54 years of age. White males had the highest suicide rate (23.9), followed by Native American males (23.2), black males (10.6), and Asian males (3.0). Firearms were used in 59% of the suicide deaths, hanging/strangulation was used in 18%, poisoning in 17%, and other methods were used in 5% of suicides. A substantial number of suicides were associated with a current depressed mood, intimate partner problem, mental health problem, or crisis in the past two weeks. Physical health problems were more often associated with suicide among persons 65 years of age and older. Intimate partner problems were more often associated with suicides of persons less than 65 years of age. Almost one in five suicide victims had a history of suicide attempts, and 29% had stated their intent or expressed suicidal feelings to another person.²

Homicides

In Oklahoma, homicide is the fifth leading cause of death for persons 1 to 44 years of age. From 2004 to 2006, there were approximately 210 homicide deaths annually. Seventy-three percent of homicide victims were male and 27% were female. Males ages 15 to 34 had the highest rate of homicide. Females 25 to 34 years of age had the highest rate of homicide among females (4.9 per 100,000 population).²

Victims were often the acquaintances, intimate partners, family members, friends or roommates, or other known person of the suspect. Females were more often killed by an intimate partner or family member, and males were more often killed by an acquaintance or rival gang member. The suspect was a stranger in 15% of homicides. An

argument or interpersonal conflict was a precipitating factor in 40% of homicides, and 23% of homicides were precipitated by a crime. Suspected drug dealing or illegal drug use was involved in 17%, and 10% were gang-related incidents. Firearms were used in 60% of homicides, sharp or blunt instruments were used in 23%, hanging/strangulation in 5%, and other weapons were used in 12%.²

Unintentional Firearm-Related Deaths

An average of 10 deaths per year were associated with unintentional firearm injuries. The majority (83%) of victims were male and nearly half of all unintentional firearm-related deaths were among males less than 25 years of age. Circumstances surrounding the deaths included playing around with a gun (47%), showing a gun (20%), hunting (10%), loading the gun (7%), and target shooting (7%). In 37% of firearm-related incidents, the shooter thought the gun was unloaded and in 13% of incidents, the gun discharged when it was dropped.²

Sexual Violence

In 2007, there were over 1,500 rapes and attempted rapes (85.1 per 100,000 females) reported to the Uniform Crime Reporting System by Oklahoma law enforcement officers. However, it is well known that the prevalence of rape is higher than crime statistics indicate. Survey data consistently supports this fact. According to the Oklahoma Women's Health Survey, from 2001 to 2003, 12% of women 18 to 44 years of age reported that they had been threatened, coerced, or physically forced to engage in sexual acts since their 18th birthday. Approximately two percent had been forced to engage in sex in the past 12 months.⁷

The 2008 Behavioral Risk Factor Surveillance System data estimated that 7% of Oklahomans 18 years of age and older (12% of women and 1% of men) had been sexually assaulted in their lifetime. The 2007 Youth Risk Behavior Survey

estimated that 8% of high school students (12% of girls and 4% of boys) had been physically forced to have sexual intercourse they did not want.⁷

In a statewide sexual assault survey conducted by the Oklahoma University Public Opinion Learning Laboratory in 2006, nearly one-third of women 18 to 35 years of age reported they had been sexually assaulted in their lifetime, and 1% had been sexually assaulted in the past 12 months. Among women who were sexually assaulted, three out of four women were younger than 18 years of age when the first sexual assault occurred. Most incidents occurred in a home and the perpetrators were most often current or former intimate partners.⁷

Intimate Partner Violence

A special study conducted in 2002 found an estimated 2,457 persons 15 years of age and older were treated and released from Oklahoma hospital emergency departments for nonfatal IPV injuries; 91% were females and 9% were males. An additional 81 females 15 years of age and older were hospitalized as a result of IPV injuries. Over half of persons treated and released in emergency departments were single (54%), 29% were married, 14% were divorced or separated, and less than 1% were widowed. The marital status was unknown for 4% of persons treated. The IPV injury rate among females (157.8) was more than 10 times higher than for males (15.6). For females, the IPV injury rate was highest among 25 to 34 year olds (309.9) and for males, the IPV injury rate was highest among 35 to 44 year olds (29.9). The highest rate of IPV injury was among African Americans (327.1), followed by Native Americans (107.9), and whites (63.6). The perpetrator of the IPV assault was a current partner for 90% of females and 98% of males.

From 1999 to 2007, 325 homicide deaths occurred as a result of IPV accounting for an average of 36 deaths annually (1.0 per 100,000 population). Thirty-one percent of victims were

among males and 69% among females. IPV-related deaths included 296 intimate partner victims and 29 bystanders killed in the incidents. Intimate partner victims ranged in age from 16 to 19 years of age and bystander victims ranged from infants to persons 59 years of age. Excluding bystanders, the rate of intimate partner homicide among females (1.3 per 100,000) was 2.6 times higher than the rate among males (0.5 per 100,000). Oklahoma and Tulsa county residents accounted for 42% of IPV-related homicide victims. However, the highest rates of IPV-related homicides were generally in the southeastern region of the state. Five counties (McCurtain, Delaware, Pittsburg, Craig, and LeFlore) were two or more times the overall state rate (1.0 per 100,000). African Americans had the highest rate of IPV-related homicide compared to other races. The IPV-related homicide rate among African American females (3.6 per 100,000) was three times higher than the rate among white females (1.2) and 3.6 times higher than the rate among Native American females (1.0). Among African American males (2.2), the rate was 7.3 times higher than the rate among Native American males (0.3) and 4.4 times higher than the rate among white males (0.5).

In 2002, the death to injury ratio among women 18 to 44 years of age for IPV was estimated at one death for every 2,010 emergency department visits for IPV injuries.

Bullying

In 2005, the Oklahoma State Department of Health conducted a study to determine bullying perceptions of Oklahoma students. Of the 7,848 students in third, fifth, and seventh grades who completed a survey, 33% reported occasional, often, or daily involvement in bullying. Twelve percent of students were involved as a bully, 14% as a victim, and 7% as both a bully and a victim. Students were physically bullied by being pushed, hit, or having things taken away from them often or daily (14%) or socially bullied by

name-calling, put downs, hurtful teasing, or being purposely left out of a group often or daily (23%). Eight percent of fifth and seventh graders were sexually bullied frequently or daily by words, touches, or gestures of a sexual nature. Sixty-nine percent of seventh graders, 54% of fifth graders, and 40% of third graders reported that bullying was a weekly or daily occurrence at their schools. Nearly two-thirds of students who were frequently bullied and half of students who had not been bullied indicated they would feel safer at school if there was better adult supervision.⁵

PROGRESS

Funding

The Injury Prevention Service (IPS) receives annual funding from the CDC to participate in NVDRS. NVDRS funding may only be used for surveillance activities. NVDRS funding is used to maintain the Oklahoma Violent Death Reporting System (OK-VDRS) and supports IPS administrative and professional personnel working on OK-VDRS. Funding is also used to support a contract with the OSBI to provide law enforcement data.

The IPS receives funding from the CDC through the Rape Prevention Education (RPE) grant. RPE grant funds are primarily used for prevention activities. RPE funds are used to support IPS administrative and professional personnel working in rape prevention, four local prevention programs, and training. Two percent of RPE funds may be used for sexual assault surveillance. These surveillance funds are used to support sexual assault questions on the annual Behavioral Risk Factor Surveillance System survey.

Additionally, the IPS receives a portion of the Preventive Health and Health Services Block Grant (PHHSBG) for rape prevention. These funds are statutorily allocated for rape services and prevention. PHHSBG funds are used to

support a statewide prevention coordinator contracted through the Oklahoma Coalition Against Domestic Violence and Sexual Assault (OCADVSA) and to fund additional rape prevention activities.

From 1999 to 2004, the IPS received funding from CDC to conduct intimate partner violence surveillance. Currently, the IPS has no funding for activities related to intimate partner violence or for school violence/bullying prevention.

Publications

Peer-Reviewed Publications

- A comparison of two surveillance systems for deaths related to violent injury. *Injury Prevention* 2005;11:58-63.
- Epidemiology of homicide-suicide events—Oklahoma, 1994-2001. *Am J of Forensic Medicine and Pathology* September 2005;26(3):229-235.
- Evaluation of sensitivity and predictive value positive of manner-of-death classifications by using the Oklahoma Violent Death Reporting System. (Submitted to *Injury Prevention*—not released for distribution)
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- Students' perceptions of bullying in Oklahoma public schools. *Journal of School Violence* 2009;8:3,216-232.
- Suicide among persons 65 years and older, Oklahoma, 2004. *J Okla State Med Assoc* 2008;101(11):267-270.

Other Publications

- Intimate partner violence injury—Oklahoma, 2002. *MMWR* 2005;54(41):1041-1045.
- *Oklahoma Injury Facts*. September 2003.
- *Violence against women: an assessment of Oklahoma's response*. January 2003.
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Oklahoma Intimate Partner Violence Newsletters

- *Oklahoma Intimate Partner Violence*, A Newsletter for Emergency Department Surveillance, September 2000.
- *Oklahoma Intimate Partner Violence*, A Newsletter for Emergency Department Surveillance, October 2000.
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Summary Data Reports

- Fatal and Nonfatal Self-Inflicted Injuries in Oklahoma, 2002-2004
- Injuries in Oklahoma, 2004
- Injuries in Oklahoma, 2005
- Injuries in Oklahoma, 2004-2006
- Intimate Partner Violence Injuries in Oklahoma
- Oklahoma Violent Death Reporting System, 2004-2005
- Oklahoma Violent Death Reporting System, 2004-2006
- Suicide and Suicide Attempts in Oklahoma, 2002
- Summary of Reportable Injuries in Oklahoma, 2002
- Summary of Reportable Injuries in Oklahoma, 2005
- Summary of Violent Deaths in Oklahoma: Oklahoma Violent Death Reporting System, 2004-2006

Injury Update Reports

- Assault in the Oklahoma City Metropolitan Statistical Area
- Attempted and Completed Suicides, Oklahoma, 2002
- Bullying Perceptions of Third, Fifth and Seventh Grade Students in Oklahoma Public Schools, 2005
- Firearms and Homicide
- Firearm-Related Spinal Cord Injuries in Oklahoma, 1988-2002
- Gang-Related Homicides, Oklahoma, 2004-2006

- Methamphetamine Laboratory-Related Fire and Burn Injuries in Oklahoma, 1988-2002
- Oklahoma Violent Death Reporting System
- Suicide Among Persons 65 Years and Older, Oklahoma, 2004
- Undetermined Manner Drug Poisoning Deaths, Oklahoma, 2004-2006
- Violence-Related Deaths Among Youth 10-24 Years, Oklahoma, 2004
- Violence-Related Deaths, Oklahoma, 1987-2001
- Violence-Related Spinal Cord Injury, Oklahoma, 1988-2000
- Violent Deaths in Custody, Oklahoma, 2004-2006
- Work-Related Homicides, Oklahoma, 1998-2004

Fact Sheets

- Adolescent Injury in Oklahoma
- Facts About Sexual Violence
- Firearm Injuries in Oklahoma
- Safety Around Firearms
- Suicide Warning Signs
- Youth Suicide

Pamphlets

- Are You Tired of Hiding in the Shadow of Abuse?

Education and Planning

- Rape and Sexual Violence Prevention: Strategic Planning Convening Summary
- Injury Prevention Works: Strategies for Building Safe Communities
- State Assessment and Comprehensive Plan for Sexual Violence Prevention

Collaboration

The IPS contracts with the OCADVSA to provide a statewide prevention coordinator to facilitate the Oklahoma Sexual Violence Prevention Planning Committee (OSVPPC) and provide ongoing training and technical assistance for sexual violence prevention. The planning committee meets on a quarterly basis.

Additionally, the IPS contracts with four local domestic violence and sexual assault programs to conduct local prevention programs.

The IPS partners with the Oklahoma State Department of Health Vital Records, the Office of the Chief Medical Examiner, the Oklahoma State Bureau of Investigation, and the Oklahoma Child Death Review Board to collect data for the OK-VDRS. The Oklahoma Association of Chiefs of Police assisted in the implementation of OK-VDRS and continues to play a role by serving as liaison to law enforcement and providing leadership for the OK-VDRS advisory committee. The OK-VDRS advisory committee was established in 2003 to provide guidance on surveillance and uses of the data. The advisory committee meets on a semi-annual basis.

IPS personnel serve on the Oklahoma Child Death Review Board and the Oklahoma Domestic Violence Fatality Review Board. Activities on these boards have included multi-organizational collaborative projects aimed at preventing child maltreatment and domestic violence.

Currently, the IPS is collaborating with the University of Oklahoma Health Sciences Center, College of Nursing, Arizona State University, and John Hopkins University School of Nursing on the Oklahoma Lethality Assessment Study. This research study will evaluate a police intervention to prevent domestic violence injuries and deaths.

Programs

Rape Prevention Education

Currently, four domestic violence and sexual assault programs (Tahlequah, Miami, Oklahoma City, and Stillwater) have been funded to develop, implement, and evaluate comprehensive sexual violence prevention programs in their communities. These local programs are funded through the RPE grant. Funding supports a full-time prevention specialist

to conduct activities in one or more of the following areas: Pre-K through 12 schools, colleges and universities, faith communities, and/or media. Each program conducts activities suited to their community and works with community partners and stakeholders.

The state level RPE program focuses on providing training and technical assistance for primary prevention programming and building capacity throughout the state. Several statewide competency-based trainings and workshops on primary prevention have been conducted, including the University of North Carolina Injury Prevention Research Center PREVENT team training and workshops on specific evidence-based or promising programs. Additionally, the state-level RPE program, the statewide prevention coordinator, and the OSVPPC worked together to prepare a statewide assessment and draft comprehensive plan to prevent sexual violence in Oklahoma.

National Violent Death Reporting System

Oklahoma is one of 18 states participating in the NVDRS. The OK-VDRS is a state-based surveillance system. Data is collected from death certificates, medical examiner reports, police reports, and supplemental homicide reports and compiled in a unique database maintained by IPS. The data is de-identified and transmitted to NVDRS on a regular basis. The NVDRS database is maintained by CDC and is accessible to the public through the Web-based Injury Statistics Query and Reporting System (WISQARS). The Oklahoma data is analyzed and disseminated through an annual summary data report, periodic *Injury Update* reports, presentations, and special data requests.

Legislation

In 2006, the Task Force to Stop Sexual Violence was created by House Resolution 1010 and charged with studying funding for victim services, development of prevention education programs,

and improving sexual assault investigations. As a direct result of this task force, a bill was passed requiring six hours of evidence-based sexual assault training for police officers.

The definition relating to assault/battery, and domestic abuse was modified in the 2009 legislative session. Another bill passed in 2009 modified reporting requirements for sexual assault by health care professionals. Also passed in 2009 was a bill requiring individuals found guilty of domestic violence to submit to a DNA test for law enforcement identification purposes.

A bill to develop a model dating violence policy to assist school districts in developing policies for dating violence reporting and response was introduced in 2009. A bill requiring certain agencies to produce informational materials related to emergency contraception was also introduced in 2009. Both of these measures became dormant.

GOALS/OBJECTIVES

Goals

- Improve surveillance of all forms of violence to support violence prevention programs in Oklahoma.
- Increase the number of organizations that are involved in preventing intimate partner and dating violence, sexual violence, youth violence and bullying.
- Improve cultural influences and interactions that promote healthy non-violent relationships through training, technical assistance, and information dissemination.

Objectives

- Maintain the OK-VDRS through 2013.
- Disseminate data and reports on violent deaths in Oklahoma through 2013.
- Maintain partnerships, data use agreements, and contracts with state and local-level

organizations involved in violence surveillance and violence prevention programming through 2015.

- Conduct local sexual assault and intimate partner violence surveys by 2015.
- Implement, review and revise, as needed, the Comprehensive Sexual Violence Prevention Plan for Oklahoma by 2011.
- Provide training for RPE-funded programs, community organizations, providers and other stakeholders on evidence-based practice and research-based curricula for sexual violence prevention through 2013.
- Provide training and build capacity for Pre-K through 12 schools, colleges and universities, and faith communities to provide education on healthy relationships and dating and sexual violence prevention through 2012.
- Partner with organizations to address bullying prevention in schools by 2015.
- Provide data and technical assistance to communities on intimate partner and sexual violence through 2015.
- Participate on the Child Death Review Board and Domestic Violence Fatality Review Board through 2015.

ACTION PLAN

- Collect violent death data from death certificates, medical examiner reports, police/law enforcement and crime laboratory reports, supplementary homicide reports, and child fatality review records through 2013.
- Determine feasibility of electronically importing data from other agencies by 2010.
- Maintain the OK-VDRS Advisory Committee through 2013.
- Monitor the incidence and characteristics of violent deaths in Oklahoma through 2013.
- Maintain data quality assurance for the OK-VDRS including systematic review of data accuracy, completeness, consistency between reporting sources, and timeliness through 2013.
- Evaluate the OK-VDRS surveillance system according to CDC standard guidelines for evaluating public health surveillance systems through 2013.
- Prepare reports on violent death data and widely disseminate to stakeholders through 2013.
- Maintain working relationships with the OK-VDRS data contributors including the Office of the Chief Medical Examiner, Oklahoma State Department of Health Vital Records, Oklahoma State Bureau of Investigation, Oklahoma Child Death Review Board, and the Oklahoma Association of Chiefs of Police through 2013.
- Collect quality data on rape and sexual assaults from multiple data sources to monitor prevalence and incidence and support evaluation efforts by 2013.
- Collect data on intimate partner violence homicides through the OK-VDRS by 2013.
- Provide copies of Medical Examiner reports and death certificate data to the Oklahoma Domestic Violence Fatality Review Board and the Jail Death Reporting System through 2015.
- Work with the Oklahoma State Department of Health School Health and Adolescent Health Programs to support agency efforts to address bullying prevention in Oklahoma schools through 2015.
- Maintain the Oklahoma Sexual Violence Prevention Planning Committee and conduct quarterly meetings through 2010.
- Maintain working relationships with the Oklahoma Coalition against Domestic Violence and Sexual Assault, local RPE-funded programs, and Oklahoma Attorney General's Office through 2015.
- Maintain affiliation with the University of Oklahoma Health Sciences Center College of Public Health and College of Nursing and participate in educational and research activities to increase the knowledge base regarding violence through 2015.

- Attend quarterly meetings between the IPS and Maternal and Child Health to collaborate on adolescent health programs related to healthy relationships, teen dating and sexual violence prevention, school violence, and bullying through 2015.
- Attend Child Death Review Board and Domestic Violence Fatality Review Board meetings monthly through 2015.
- Conduct training and distribute educational materials on intimate partner violence and sexual violence to health care providers and other organizations through 2015.

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Unintentional Falls

BACKGROUND

National

Unintentional fall-related death rates among older adults have risen significantly over the past few decades in the United States. In 2004, over 80% of fall-related fatalities were among persons 75 years of age and older. The following year, approximately 16,000 persons 65 years of age and older died from fall-related injuries, and nearly two million were treated in emergency departments. Men have a higher fatality rate than women as a result of a fall, while women are more likely than men to have a nonfatal injury. In the United States, one in three adults 65 years of age and older fall each year. Twenty percent to 30% of older adults who fall suffer moderate to severe injuries, including bruising, hip fractures, head injuries.¹

Among children birth to 19 years of age, falls are the leading cause of non-fatal injury. Nearly 2.8 million children are treated in hospital emergency rooms for fall-related injuries in the United States each year – approximately 8,000 every day.²

Oklahoma

Oklahoma has had increasingly high rates of fall-related injuries. The risk of injury increases with age, particularly for persons 65 years of age and older. Falls are the leading cause of injury death for persons 65 years of age and older in Oklahoma. From 2004 to 2006, 223 Oklahomans died each year as the result of an unintentional fall. The majority of deaths were among males (54%). Seventy-five percent of unintentional fall-related deaths occurred among persons 65 years of age and older. Fall-related fatalities among children and adolescents were less common, accounting for 2% of the total deaths.

There were approximately 8,900 fall-related hospitalizations each year, and hospitalizations increased 11% between 2004 and 2006. Seventy-two percent of hospitalizations were among those 65 years of age and older. Females 55 years of age and older had higher hospitalization rates associated with fall injuries than males (two times higher than males).³

PROGRESS

Funding

Currently, the Injury Prevention Service (IPS) does not receive specific funding for fall prevention activities.

Publications

Peer-Reviewed Publications

- Epidemiology of severe traumatic brain injury among persons 65 years of age and older in Oklahoma, 1992-2003. *Brain Injury* June 2007;21(7):691-9.
- Spinal cord injuries due to falls from hunting tree stands in Oklahoma, 1988-1999. *Journal of the Oklahoma State Medical Association* 2004;97(4):154-157.

Other Publications

- *Profile of Fall-Related Injuries in Oklahoma, 2006*

Summary Data Reports

- Epidemiology of Falls and Falls-Related Injuries Among Persons 65 Years and Older, Oklahoma, 2006
- Injuries in Oklahoma, 2004
- Injuries in Oklahoma, 2005
- Injuries in Oklahoma, 2004-2006

- Profile of Fall-Related Injuries in Oklahoma, 2003

Injury Update Reports

- Fall-Related Traumatic Brain Injuries among Oklahomans 65 Years and Older, 2005
- Traumatic Brain Injuries Resulting from Falls on Stairs/Steps in Oklahoma, 1992-2003
- Fall-related Traumatic Brain Injuries among Adults 65 Years of Age and Older, Oklahoma, 1992-2003

Fact Sheets

- Children's Safety Sheets
- Fall Prevention for Older Adults
- Fall Prevention for Young Children

Education and Planning Materials

- Injury Prevention Works: Strategies for Building Safe Communities

Collaboration

Using data from the epidemiologic profiles, a review of literature, and publications from the Centers for Disease Control and Prevention (CDC) and the State and Territorial Injury Prevention Directors Association (STIPDA), the Injury Prevention Service (IPS) is assessing and promoting projects to reduce falls among persons 65 years of age and older. The IPS will continue to collaborate with agencies to disseminate information on the risks and prevention of falls among older adults.

In 2009, the IPS worked with the Pottawatomie County Health Department to identify elderly falls as one of the leading causes of injury in the City of Shawnee, Oklahoma. The IPS will continue to work with this community to identify, implement, and/or evaluate fall prevention programs in the community as a component of the Safe Communities America project. Detailed data are being collected on fall-related hospitalizations for Shawnee residents 65 years of age and older. Nationally, a number of strategies are in place to help reduce falls, such as risk assessments and both focused and multifactor interventions. The

IPS has provided assistance to the Pottawatomie County Health Department and other community partners to review these strategies and determine which interventions will best meet the needs of the older adult population in Shawnee. The IPS will continue to collaborate with community agencies/organizations to develop and/or evaluate fall prevention programs for older adults. Similar fall prevention projects will be expanded to include other communities.

The IPS plans to sponsor a symposium on fall prevention among older adults, 65 years of age and older in the Spring of 2010. The anticipated target audience for the symposium includes county health departments, senior centers, community centers, faith-based organizations, Turning Point partners, Mobile Meals/Meals on Wheels, physicians, American Association of Retired Persons (AARP), Areawide Aging and district Area Agencies on Aging, additional community organizations that work closely with persons 65 years of age and older, and other interested audiences.

GOALS/OBJECTIVES

Goal

- Collect relevant data and provide educational information to reduce fall-related injuries and deaths.

Objective

- Reduce unintentional fall-related injury deaths among persons 65 years of age and older by 10% by 2015.
Baseline: 2006 CDC WISQARS data for Oklahoma: falls among persons 65 years of age and older=39.23 per 100,000 population.

ACTION PLAN

- Prepare and disseminate fact sheets, data reports, and news releases as appropriate through 2015.
- Disseminate fall-related information to county health departments, senior centers, faith-based organizations, Turning Point partners, community programs such as Mobile Meals, physicians, and other identified interested and appropriate audiences through 2015.
- Collect fall-related injury and death data through 2015.
- Sponsor a symposium on fall prevention among older adults, 65 years of age and older by 2010.
- Continue to support the City of Shawnee, Oklahoma with fall prevention efforts and expand efforts to other communities through 2015.

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²Centers for Disease Control and Prevention. Protect the Ones You Love: Falls. Retrieved 1 October 2009, from: <http://www.cdc.gov/SafeChild/Falls/default.htm>.

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Public Health Preparedness and Response

BACKGROUND

National

The Centers for Disease Control and Prevention's (CDC) efforts in infectious disease have evolved in the last several years from addressing malaria control to global smallpox eradication to containing the West Nile virus. The agency's focus has recently expanded to include emerging infections and bioterrorism. The CDC's mission in public health preparedness and response is to lead the effort in enhancing readiness to detect and respond to bioterrorism attacks and other public health emergencies, including man-made and natural disasters.¹

In order to protect communities in the United States from infectious, occupational, environmental, and terrorist threats, the agency has included preparation for emerging health threats under its Health Protection Goals. In preparation for public health disasters, the CDC will contribute to preparation and prevention efforts of national, state, and local entities, and will support partners at these three levels to improve public health outcomes when a disaster occurs. The CDC will also assist national, state, and local efforts to recover and restore public health functions after a disaster has occurred.²

The CDC developed a coordinated plan to improve preparedness and response at the local, state, and federal levels. The initiative includes enhancing the capacity for detection, diagnosis, and management of disease outbreaks; improving the characterization and identification of causative pathogens, toxins, or selected chemical exposures; strengthening the public health response capacities to control and contain such emergencies; and improving the information technology infrastructure to rapidly transfer data

and information necessary to prepare and respond to such events. The goal is to ensure that the United States has the appropriate capacities for bioterrorism preparedness and response for public and private health care systems. These strategies will enable public health and health care professionals to detect and respond to incidents quickly, strengthening the ability to identify and control emerging infectious diseases, injuries, and other emergencies as needed.¹

Oklahoma

Oklahoma has faced several injury-related disasters that have tested its capacity for public health preparedness and response at state and local levels. Events such as the 1995 bombing of the Oklahoma City Alfred P. Murrah Federal Building, the 1999 and 2003 Oklahoma tornado outbreaks, the 2002 Interstate 40 bridge collapse, and the 2007 ice storms have made the need for a coordinated response to terrorism and other public health emergencies a priority.

The State of Oklahoma is divided into eight public health or homeland security regions so that public health and medical system planning efforts are carried out efficiently. Each region is made up of a Regional Homeland Security Advisory Council, a Regional Medical Planning Group, and a Regional Trauma Advisory Board. Each of these entities are comprised of local, regional, and state public health personnel, and authorized to develop regional medical system response plans as well as protocols to establish coordinated public health and medical system responses at each response level (Tier I, II, III, IV, and V).³

The purpose of Oklahoma's public health preparedness program is to develop emergency

ready public health departments by upgrading, integrating, and evaluating state and local public health jurisdictions' preparedness for and response to terrorism, pandemic influenza, and other public health emergencies with federal, state, local, and tribal governments, the private sector and non-governmental organizations. The emergency preparedness and response efforts are designed to support the National Response Plan and the National Incident Management System.⁴

The program is based on the CDC's preparedness goals to prevent, detect and report, investigate, control, and recover from public health disasters and improve strategies:

- Increase the use and development of interventions known to prevent human illness from chemical, biological, and radiological agents as well as naturally occurring health threats.
- Decrease the time needed to classify health events as terrorism or naturally occurring health threats in partnership with other agencies.
- Decrease the time needed to detect and report chemical, biological, or radiological agents in tissue, food, or environmental samples that cause threats to the public's health.
- Improve the time and accuracy of communications regarding threats to the public's health.
- Decrease the time needed to identify causes, risk factors, and appropriate interventions for those affected by threats to the public's health.
- Decrease the time needed to provide countermeasures and health guidance to those affected by threats to the public's health.
- Decrease the time needed to restore health services and environmental safety to pre-event levels.

- Improve the long-term follow up provided to those affected by threats to the public's health.
- Decrease the time needed to implement recommendations from after action reports following threats to the public's health.

Oklahoma also implements the National Incident Management System (NIMS). NIMS provides consistent methodology for federal, state, tribal, and local governments to collaborate effectively and efficiently to prepare for, prevent, respond to, and recover from domestic incidents, regardless of cause, size, or complexity.⁴

Under the Emergency Operations Plan (EOP), the State of Oklahoma is required to establish procedures in response to the health, medical, and environmental needs of the State in the event of a man-made or natural public health emergency. The Commissioner of Health is responsible for coordination of all state health and medical services in response to public health emergencies. The Commissioner may mandate injuries due to any condition as reportable for special study, allowing access to hospital medical records and Medical Examiner reports. The extent of medical and health services will depend on the size and type of disaster. The Oklahoma State Department of Health collaborates with various support agencies and medical system partners in order to respond to the health and medical needs of Oklahomans. Injury Prevention Service personnel will assist in the event of a public health emergency as needed. The Commissioner of Health will also inform the Governor, Director of Emergency Management, and Director of the Oklahoma Office of Homeland Security of medical and health services during emergency operations.

Emergent health-related information is distributed to healthcare providers and public health partners through an emergency communications system known as the Oklahoma Health Alert Network (OK-HAN) system. Message distribution is via facsimile, telephone, and/or email. OK-HAN is a secure website which enables registered

medical and public health personnel the ability to view and share information, and update their own professional and personal information in a secure format to ensure delivery of notifications.

Tornadoes

Oklahoma has the highest concentration of the most severe tornadoes per square kilometer in the United States, and ranks second in the total number of tornadoes. Nearly 55% of all tornadoes in the United States occur between April and June; approximately 80% occur between noon and midnight, with the majority occurring between 3:00 p.m. and 9:00 p.m.

According to the National Severe Storms Laboratory in Norman, Oklahoma, 59 tornadoes touched down on the evening of May 3, 1999. Twelve Oklahoma communities suffered damage, injuries, and/or deaths as a result. Forty-five persons were killed and nearly 600 survivors were directly or indirectly injured in the tornadoes. Approximately half of the injured population was female, and one-third of injured persons were 35 to 54 years of age. The most common types of injuries were soft tissue injuries, such as cuts, scrapes, bruises (81%); fractures and dislocations (25%); and brain injuries (20%). Thirty persons, including nine children, suffered serious traumatic brain injuries with a potential for long-term disabilities. Common causes of injury among survivors included flying or falling debris; being picked up or blown by a tornado; collapsing walls, ceilings, or roofs; and flying or falling wood or boards.⁵

Five tornadoes occurred between May 8 and May 9, 2003 in Oklahoma. The May 2003 tornadoes resulted in \$405 million in property damage. There was one death and 91 persons were treated for injuries. Sixty-nine percent of Oklahomans with tornado-related injuries were injured directly in the tornado, 8% while preparing for the tornado, 4% were injured during tornado cleanup or search and rescue, and the mechanism of injury was unknown for 19% of

persons. Eighty-four percent of injured persons were 25 years of age and older. The most common types of injuries were soft tissue injuries (87%); followed by fractures and dislocations (21%); strains and sprains (21%); brain injuries (9%); and foreign bodies (8%).⁶

During both the tornado disasters of 1999 and 2003, the Oklahoma Commissioner of Health declared tornado-related deaths and injuries reportable conditions, and investigations of tornado-related injuries were conducted by the Oklahoma State Department of Health, Injury Prevention Service. Information from medical records was collected, Medical Examiner reports were reviewed, and community field surveys were conducted.

Preparation is the most important measure that could potentially decrease the incidence and severity of tornado-related injuries. Other prevention measures include:

- Develop an effective tornado preparedness plan before a tornado alert.
- Activate a tornado preparedness plan as soon as possible when a tornado warning is issued.
- Keep an emergency kit on hand with weather band radio, flashlight, first aid supplies, medications, important documents, keys, and a whistle to blow for help.
- Check on the elderly, children, and pets when a tornado watch has been issued.
- Evacuate mobile homes and motor vehicles immediately when a tornado warning is issued and find appropriate shelter.
- Be aware of the nearest accessible storm shelter, safe room, or know the safest place to take shelter in a home/building in the event of a tornado.
- Protect the head with a helmet, if available, and protect the body from debris with blankets, heavy clothing, mattress, pillows, and/or sturdy shoes.
- After a tornado, exit damaged areas with caution and do not enter an evacuated area. Stay clear of downed power lines, sparks,

fires, gas leaks, loose debris, and other harmful materials.^{5,6}

Winter Storm

In mid-January 2007, a severe winter storm moved through Oklahoma over the course of four to five days. Ice formed on trees, power lines, and roadways causing downed trees, extensive power outages, and hazardous travel conditions. Approximately 122,000 Oklahomans were without electricity and 10,000 were still without electricity two weeks after the storm began. The Oklahoma Highway Patrol responded to nearly 400 highway traffic collisions in the first three days of the winter storm. All 77 Oklahoma counties were under federal emergency declaration and 44 counties became eligible for disaster public assistance funds. Over 900 persons were housed in shelters and more than 63,000 meals were served to persons during this time. The winter storm of 2007 cost Oklahoma more than \$39 million.

In the chaos and confusion of disasters, unintentional injuries are more likely to occur. Prevention of injuries in disaster victims and evacuees is a primary function of the state and local public health departments during times of disaster. Some of the types of injuries that will occur in disasters are unique while many mechanisms are more commonplace.

The Oklahoma Commissioner of Health declared winter storm-related injuries a reportable condition, and emergency departments and the Medical Examiner were asked to track injuries associated with the storm between January 12 and January 30, 2007. The Oklahoma State Department of Health, Injury Prevention Service collected information on more than 6,000 storm-related injury cases from 143 Oklahoma hospitals.

Falls, motor vehicle crashes, and sledding accounted for 95% of injuries to persons injured during the winter storm. The majority of persons injured were between the ages of 20 and 29, and

the highest rate of injuries occurred among persons 30 to 39 years of age. Approximately half of the injured population was male and half was female. Fifty-two percent were injured at a home or on a farm, and 34% were injured on a roadway. The most common types of winter storm-related injuries were superficial (32%), sprains and strains (29%), and fractures and dislocations (21%). There were 44 injury deaths associated with the winter storm. Males had a higher risk of deaths than females (2.7 times higher), and there were no significant differences in deaths among racial/ethnic groups or age groups.⁷

During the winter storm in January 2007, 66 Oklahomans were treated for carbon monoxide (CO) poisoning, and 96% of these injuries occurred in the home. CO poisoning had the second highest hospitalization rate of all injuries.⁷ CO poisoning occurs when carbon monoxide, an odorless, colorless, poisonous gas, is inhaled in significant concentrations causing illness and/or death. It is commonly reported after major power outages resulting from natural or man-made disasters. When alternative sources of fuel or electricity are used for heating, cooling, or cooking during these events, CO can build up quickly in enclosed or partially enclosed areas.⁸ During a subsequent winter storm in December 2007, two persons died from CO poisoning caused by a generator.

It is important to provide carbon monoxide poisoning prevention information to the public before a power outage occurs. To prevent CO poisoning:

- Install battery-powered CO detectors in the home.
- Properly install, maintain, and operate all fuel-burning appliances.
- Check and clean fireplace chimneys and flues at least once a year.
- Keep generator outdoors and pressure washers an appropriate distance away from windows, doors, and vents while in use.

- Do not use generators, pressure washers, charcoal grills, camp stoves, or other gasoline/charcoal-burning devices inside the home, basement, or garage; and do not use gas ovens or stoves to heat the home.
- Do not leave motor vehicles running inside a garage attached to the home, even if the garage door is open.
- Seek immediate medical attention if CO poisoning is suspected.^{9,10}

Evacuation Centers

At particular risk of injury during and after disasters are vulnerable populations, including children, elderly, mentally ill, hospitalized, drug addicted, etc. At no time in our nation's history was this more evident than the weeks after August 29, 2005 when Hurricane Katrina made landfall along the coastal regions of Louisiana and Mississippi. Not only were the vulnerable populations of New Orleans exposed to a dangerous and highly injurious environment in and around the floodwaters, but they were often moved to shelters without injury prevention programs in place to deal with their unique needs.

In the aftermath of Hurricane Katrina, the Oklahoma State Department of Health directed the operations of Oklahoma's primary evacuee center at Camp Gruber. Several ad hoc injury prevention programs were staged during this time for the pediatric population. One such program identified and reunited children who had been separated from their family members. This program partnered with the National Center for Missing and Exploited Children and successfully reunited 36 children with their legal guardians.^{11,12} Another injury prevention program focused on childhood injuries most likely to occur to child-evacuees in a military base setting. This program dubbed, "Operation Child-Safe," teamed with the local Safe Kids chapter to identify and remove pediatric injury hazards from the camp. Hazards such as dangerous chemicals, choking hazards, electrical outlets, missing smoke detectors, auto pedestrian dangers, inadequate car seats and

many others were identified and corrected.¹³ No major injuries occurred to the nearly 300 Camp Gruber child-evacuees during camp operations.

PROGRESS

Publications

The Injury Prevention Service (IPS) and Oklahoma State Department personnel have authored or contributed to many journal articles relating to injuries and fatalities resulting from the bombing of the Oklahoma City federal building and other disasters in Oklahoma. Summary data reports, *Injury Updates*, fact sheets and other emergency preparedness articles were also prepared (listed below).

Peer-Reviewed Publications

- Comparing reactions to two severe tornadoes in one Oklahoma community. *Disasters* 2005;29(3):277-287, Overseas Development Institute, 2005.
- Factors associated with injury severity in Oklahoma City bombing survivors. *Journal of Trauma* 2009;66:508-515.
- Fatal and non-fatal injuries among U.S. Air Force personnel resulting from the terrorist bombing of the Khobar Towers. *Journal of Trauma* 2004;57(2):208-215.
- Get off the bus: sound strategy for injury prevention during a tornado? *Prehospital and Disaster Medicine* 2005;20(3).
- Glass-related injuries in Oklahoma City bombing. *Journal of Performance of Constructed Facilities* 1999;13(2):50-56.
- Injury perceptions of bombing survivors: interviews from the Oklahoma City bombing. *Prehosp Disaster Med* 2009;23(6):500-506.
- Non-fatal bombing injuries: trends in severity among Oklahoma City bombing survivors. *J Trauma* 2009;66:508-515.
- Non-fire carbon monoxide-related deaths, Oklahoma 1994-2003. *Journal of the Oklahoma State Medical Association* 2007;100(10):376-9.

- Ocular injuries sustained by survivors of the Oklahoma City bombing. *Ophthalmology* 2000;107(5):837-843.
- Planning + Practice = Preparedness: a case study in injury prevention. *Work* 2004;23(3):199-204.
- Preventing fatalities in building bombings: What can we learn from the Oklahoma City bombing? *Disaster Medicine and Public Health Preparedness* July 2007(1);27-31.
- Risk for tornado-related death and injury in Oklahoma, May 3, 1999. *American Journal of Epidemiology* 2005;161(12):1144-1150.
- Tornado-related deaths and injuries in Oklahoma due to the May 3, 1999 tornadoes. *Weather and Forecasting*, 2002;17(3):343-353.
- Winter storm-related injuries in Oklahoma – January 2007 (Pending publication)

Other Publications

- Epidemiology of blast injuries. Protecting people in buildings from terrorism: technology transfer for blast-effects mitigation. Committee for Oversight and Assessment of Blast-effects and Related Research. National Research Council. National Academy Press. 2001.
- Funnel vision: practice and preparation save 1,200 GM employees from a tornado. *Safety+Health* 168(3):44-50 (September 2003).

Summary Data Reports

- Summary of Reportable Injuries: Oklahoma City Bombing Injuries

Injury Update Reports

- Carbon Monoxide-Related Deaths, Oklahoma, 1994-2003
- Flood-Related Deaths in Oklahoma, 1998-2000
- Injuries Treated in Hospitals Following the May 8 and 9, 2003 Tornadoes in Oklahoma City
- Investigation of Deaths and Injuries Resulting from the May, 3, 1999 Tornadoes

Fact Sheets

- Unintentional Carbon Monoxide Poisoning Deaths

Education and Planning Materials

- Floods

Collaboration

The IPS met with Public Health and Medical Systems Preparedness and Response personnel to develop a plan to collect information from hospitals on persons treated for an injury during a disaster situation. The IPS will communicate with hospitals and emergency departments through the Emergency Medical Services notification system and/or the Oklahoma Health Alert Network to provide information on reporting mandates when serious disasters occur.

GOALS/OBJECTIVES

Goal

- Assist the Emergency Preparedness and Response Service in responding to emergency situations that could potentially involve injuries and/or deaths as needed.

Objectives

- Communicate with hospitals and emergency departments through the Emergency Medical Services notification system and/or the Oklahoma Health Alert Network to collect information and provide hospitals with notification of reporting mandates when a serious disaster occurs through 2015.
- Establish a surveillance system to investigate injuries and deaths associated with public health disasters when appropriate through 2015.
- Participate in preparedness meetings during disaster situations to provide injury

investigation/ prevention perspectives through 2015.

- Prepare recommendations and provide public education on prevention measures to reduce injury and deaths due to natural and man-made disasters through 2015.

ACTION PLAN

- Maintain copies of reporting forms for use when disasters such as tornadoes and winter storms occur through 2015.
- Collect data in disaster situations as needed through 2015.
- Ensure that all IPS personnel are compliant with National Incident Management System/

Incident Command System training by 2010 and ongoing for new personnel.

- Prepare fact sheets on disaster-related safety issues for the agency website and widely disseminate when disasters occur.
- Prepare fact sheet on tornado-related safety measures by 2010.
- Prepare fact sheet on flood readiness by 2010.
- Prepare fact sheet on winter storm safety measures by 2010.
- Prepare fact sheet on carbon monoxide poisonings by 2010.
- Prepare fact sheet on proper use of generators by 2010.
- Prepare fact sheet on chain saw safety measures by 2010.

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Policy and Legislation

BACKGROUND

National

Developing public policies and legislation is an important component of injury and violence prevention. Implementing and enforcing regulations and laws can help reduce injuries, reduce state health care costs, and create funding sources for sustaining injury and violence prevention programs. Partnerships and collaboration among state health agencies, injury prevention organizations, and legislative bodies can foster policy change in local governments.¹ Most safety laws and regulations directed toward encouraging behavior modification are at the state level,² and injury prevention policies and legislation vary from state to state.

Occupant Protection

Thirty states, the District of Columbia, American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the Virgin Islands have primary seat belt laws which allow law enforcement officers to ticket unbelted drivers when they are not in violation of another traffic offense. Nineteen states have secondary seat belt laws that only allow law enforcement officers to ticket unbelted drivers if they are in violation of another citable traffic offense. One state has neither a primary nor secondary seat belt law for adults; however, this state enforces a primary child passenger safety law that covers all child passengers under the age of 18.³

Child passenger safety laws and offenses also vary by state. All states, the District of Columbia, Guam, the Northern Mariana Islands, and the Virgin Islands require child safety seats for infants and children meeting specific criteria. Booster seat laws have been passed in 47 states

and the District of Columbia, requiring booster seats for children who have outgrown their infant/toddler safety seat, but are too small for adult seat belts. Five states have seat belt requirements for school buses; one state will require seat belts on buses purchased after September 2010.³

Cell Phone Use and Text Messaging

A total of 32 states have passed some type of legislation regarding cell phone use or texting while driving. Six states, the District of Columbia, and the Virgin Islands prohibit all drivers from using handheld cellular phones while driving. Five of these six states have primary handheld cell phone laws – drivers may be ticketed for using a handheld cell phone while driving even if other traffic violations were not committed. Twenty-one states and the District of Columbia ban all cell phone use by novice drivers (these laws vary by state), and 16 states and the District of Columbia prohibit all cell phone use by school bus drivers when passengers are present.³

Seventeen states and the District of Columbia prohibit all drivers from text messaging. Nine states prohibit texting among novice drivers, and one state legally restricts school bus drivers from texting while driving.³

Helmet Use

In the late 1960's, the United States federal government required states to endorse helmet use laws to qualify for particular federal safety programs and highway construction funds. Nearly all states had established motorcycle helmet use laws by the early 1970's. However, by the 1980's some states repealed the law and some states modified it to cover only young riders. Presently, 20 states, the District of

Columbia, the Northern Mariana Islands, Puerto Rico, and the Virgin Islands have universal helmet laws that require all motorcyclists to wear helmets. Twenty-seven states and Guam require only some motorcyclists to wear helmets and three states do not have any helmet laws in place. Twenty-one states, the District of Columbia, the Northern Mariana Islands, and the Virgin Islands require some bicyclists to wear helmets when they ride; however, there are no bicycle helmet use laws in 29 states and Guam.⁴

All-terrain Vehicles

As of May 2009, 37 states had passed some type of all-terrain vehicle (ATV) safety law or requirement. Many states require riders to hold a safety training certificate, meet minimum age requirements, use certain safety equipment, or adhere to restrictions when riding ATVs on public lands and roads.⁵

Underage Drinking

The minimum drinking age in the United States was raised to persons who are 21 years of age or older to address motor vehicle crashes involving alcohol. "Zero tolerance" laws state that persons under 21 years of age are not legally permitted to consume alcohol and operate a motor vehicle. In states that have adopted zero tolerance laws, fatal crashes at night have decreased 16% among drivers younger than 21 years old. Underage drinking offenses vary by state.⁶

Ignition Interlock Devices

Some states require first-time driving under the influence and driving while intoxicated offenders to install ignition interlock devices in their vehicles.⁷ The ignition interlock device is a breathalyzer device which attaches to the ignition system of the vehicle, and the driver must blow into the device before the vehicle starts. If the device measures the driver's blood alcohol level above the legal limit, the vehicle will not start. Mothers Against Drunk Driving (MADD) support

state legislation that mandates the use of these devices for convicted drunk drivers for all states; currently, 10 states mandate ignition interlock devices for all drunk driving offenders.⁸

Fire Safe Cigarettes

Fire safe cigarettes are less likely to burn when left unattended compared to traditional cigarettes. These cigarettes are wrapped with two to three thin bands of less-porous paper within the cigarette causing it to burn slower and eventually self-extinguish when left unattended. At this time, there are no federal regulations relating to fire safe cigarettes, but legislation for fire safe cigarettes has become effective in 26 states, 23 have passed legislation, and one state filed for legislation in 2009.⁹

Oklahoma

Injury Prevention Month

In 2002, Oklahoma passed legislation designating each May as Injury Prevention Month in Oklahoma. Since 2003, the Oklahoma State Department of Health, Injury Prevention Service has partnered with the Oklahoma Highway Safety Office, Safe Kids Oklahoma, and the Indian Health Service to promote joint events and provide injury prevention messages during the month of May, including invitation-only breakfasts for advocates and law enforcement, news conferences, educational and media materials, and safety promotion events.

Occupant Protection

In 2004, Oklahoma legislators passed a child safety seat law which requires children birth to five years of age to be properly restrained in a car seat or booster seat when traveling in a motor vehicle. Children ages six to twelve years old must be properly restrained in a child safety seat or seat belt. Prior to 2004, children birth to three years of age were required to be in a car seat, and children four to five years old could be

restrained in a seat belt, regardless of their seating position in the vehicle. Oklahoma's primary seat belt law covers all persons 13 years of age and older seated in front vehicle seating positions.

The *Forget-Me-Not Vehicle Safety Act* was passed in 2008, making it illegal for caregivers to leave children six years of age or younger unattended in a motor vehicle, unless accompanied by a person at least 12 years of age or older.

In 2009, child endangerment offenses were expanded to include any parent or guardian who knowingly permits a child to be present in a vehicle when the driver is impaired or under the influence of alcohol or other intoxicating substance, or when the parent or guardian is the impaired driver or under the influence of alcohol or other intoxicating substance.

Cell Phone Use and Text Messaging

Currently, Oklahoma has no laws relating to cell phone use or text messaging while driving. In 2009, nine legislative bills relating to cell phone use were introduced; however, none of them passed.

Helmet Use

Oklahoma has a partial helmet law that requires all motorcyclists younger than 18 years of age to

wear a motorcycle helmet. The state does not have any helmet laws pertaining to bicyclists.²

All-terrain Vehicles

All-terrain vehicles (ATVs) purchased on or after July 1, 2005 must be registered and titled in Oklahoma. Use of ATVs are prohibited on streets and highways except to cross these roads, for no more than 300 feet to cross a railroad track during daylight hours, or on unpaved roads on United States Forest Service property.⁵

Oklahoma state law requires riders younger than 18 years old to wear a helmet when operating an ATV on public lands, and prohibits operators of ATVs on public lands from carrying passengers unless the vehicle was designed by the manufacturer for passengers. A bill to make ATVs street legal was introduced in the 2009 session, but did not pass.

Graduated Driver Licensing

Oklahoma established the Graduated Driver Licensing (GDL) law in 1999. GDL consists of four levels of licensing; no license, learner permit, intermediate license, and unrestricted license. This system allows full driving privileges to novice drivers gradually, and requirements vary with each level. GDL restricts the number of passengers and the amount of driving time allowed for young, novice drivers. Table 1 from the Oklahoma Department of Public Safety shows GDL as it affects Oklahoma drivers 15 to 18 years of age.¹⁰

Table 1. Oklahoma Graduated Driver Licensing Law

License Type	Driving Privileges	Requirements	
		With Driver Education	No Driver Education
No License	<u>When:</u> While receiving instruction from and accompanied by a certified driver education instructor	-At least 15 years old -While receiving instruction from a certified instructor	(Not eligible)
Learner Permit	<u>When:</u> While accompanied by a licensed driver at least 21 years old	-At least 15 1/2 years old -Must be currently receiving instruction in or have completed driver education -Must have passed written driving exam -Must have passed vision exam	-At least 16 years old -Must have passed written driving exam -Must have passed vision exam
Intermediate License	<u>When:</u> 5am to 11pm, unless for activities related to school, church, or work <i>or</i> any time if accompanied by licensed driver at least 21years old <u>Passengers:</u> 1 passenger <i>or</i> only people who live in the driver's home <i>or</i> any passenger if accompanied by licensed driver at least 21years old	-Must have had a Learner Permit for at least 6 months -Must have had at least 40 hours (10 hours at night) of behind-the-wheel training from licensed driver at least 21 years old and licensed for at least 2 years -Must have no traffic convictions on driving record -Must have passed driving skills exam	-Must have had a Learner Permit at least 6 months -Must have had at least 40 hours (10 hours at night) of behind-the-wheel training from licensed driver at least 21 years old and licensed for at least 2 years -Must have no traffic convictions on driving record -Must have passed driving skills exam
Unrestricted License	<u>When:</u> unrestricted <u>Passengers:</u> unrestricted	-Must have had an Intermediate License for at least 6 months -Must have no traffic convictions on driving record	-Must have had an Intermediate License for at least 1 year -Must have no traffic convictions on driving record
		-OR-	
		-Must be at least 18 years old -Must have passed all driving and vision exams	

Underage Drinking

According to Oklahoma's zero tolerance law, if drivers younger than 21 are found to have a blood alcohol level over 0.02 percent before or while operating a motor vehicle, they may be charged with impaired driving offenses.¹¹

Oklahoma passed a law in 2006 making it illegal for a person to knowingly and willfully give alcohol or controlled dangerous substances to a minor (person under 21 years of age) who is invited by that person to a residence, building, or property owned or procured by that person. If this act results in the death of a person, violators will be fined and/or convicted of a felony. Fifty-five Oklahoma communities have taken this law a step further by adopting social host ordinances which prohibit persons from knowingly hosting gatherings where alcoholic beverages are available to minors.

Ignition Interlock Devices

A measure related to the installation of an alcohol ignition interlock device as a condition of modifying license revocation or driving privileges becomes effective November 1, 2009. Another bill requiring persons to use ignition interlock devices when convicted of first-time driving under the influence offenses became dormant after failing to be heard in committee.

Fire Safe Cigarettes and Novelty Lighters

Oklahoma legislators passed the Cigarette Fire Safety Standard and Firefighter Protection Act in 2008 which requires that only fire safe cigarettes be sold in Oklahoma. There was no opposition from tobacco companies and the bill passed the House and Senate unanimously. In the 2009 legislative session, a bill prohibiting the sale of novelty lighters was introduced, but failed to pass.

Violence

In 2006, the Task Force to Stop Sexual Violence was created by House Resolution 1010 and charged with studying funding for victim services, development of prevention education programs, and improving sexual assault investigations. As a direct result of this task force, a bill was passed requiring six hours of evidence-based sexual assault training for police officers. Another bill to establish a State Plan for Coordinating Sexual Violence Prevention Efforts was introduced, but did not pass.

The definition relating to assault/battery, and domestic abuse was modified in the 2009 legislative session and another bill modified reporting requirements for sexual assault. Also passed in 2009 was a bill requiring individuals found guilty of domestic violence to submit to a DNA test.

Water Vessel Operators

In 2009, a measure was passed requiring any operator of a water vessel involved in a collision, accident, or casualty resulting in the immediate death or severe injury of any person to submit to a drug/alcohol blood test.

GOALS/OBJECTIVES

Goals

- Reduce injuries and deaths from injury-related incidents through legislation.
- Reduce alcohol consumption-related deaths among minors and reduce alcohol-related crashes, injuries, and deaths.
- Continue to support injury prevention legislation by providing partners and legislators with relevant data, reports, fact sheets, and educational information.
- Continue to collect relevant injury and fatality data to support legislation.

Objectives

- Develop and introduce statewide legislation addressing cellular phone use while driving by 2010.
- Develop and introduce statewide social host legislation by 2013.
- Develop and introduce legislation to establish a policy for responding to incidents of dating violence and provide dating violence education to students, parents, staff, teachers, and administrators by 2015.

ACTION PLAN

- Prepare data reports and fact sheets, and provide data and other educational materials

to support injury-related legislation through 2015.

- Work with legislative liaisons to secure bill authors through 2015.
- Conduct fiscal analyses of bills as requested through 2015.
- Collaborate with Turning Point, other community organizations, survivors, survivors' families, and treating physicians to provide education for injury-related legislation through 2015.
- Identify supporting organizations for injury-related legislation through 2015.
- Research opposing arguments and organizations for injury-related legislation through 2015.
- Assist with organizing news conferences and providing education through the media through 2015.

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