

*ARKANSAS INJURY SURVEILLANCE  
AND PREVENTION PLAN*

**Winter 2005**

*Arkansas Department of Health*

# TABLE OF CONTENTS

ACKNOWLEDGEMENTS .....  
EXECUTIVE SUMMARY .....

SECTION I: INTRODUCTION TO THE PLAN .....  
SECTION II: GENERAL CONSIDERATIONS.....

    Chapter 1: Data and Surveillance.....

UNINTENTIONAL INJURY

    Chapter 2: Motor Vehicle Injuries.....

    Chapter 3: Recreational.....  
        Drowning  
        All-Terrain Vehicles

    Chapter 4: Home Injury.....  
        Falls  
        Fire/Burn  
        Poisoning

    Chapter 5: Occupational.....

INTENTIONAL

    Chapter 6: Suicide .....

    Chapter 7: Violence Against Women.....

SPECIAL POPULATIONS

    Chapter 8: Traumatic Brain Injury and Spinal Cord Injury .....

APPENDICES .....

    APPENDIX A – EXECUTIVE STEERING COMMITTEE  
    APPENDIX B – ARKANSAS INJURY PREVENTION COALITION MEMBERS

Acknowledgements .....

## TABLE OF CHARTS AND GRAPHS

Figure I-1	Arkansas Compared to the United States
Figure I-2	10 Leading Causes of Death by Age Group
Figure I-3	Arkansas Injury Fatality Rates by Race
Figure I-4	Arkansas Comparisons to US by Injury Type
Figure MV-1	Arkansas and US Motor Vehicle Fatalities
Figure MV-2	Motor Vehicle Fatalities by Age and Gender
Figure MV-3	Motor Vehicle Fatalities by Race
Figure MV-4	Motor Vehicle Hospital Discharges
Figure MV-5	Alcohol Related Vehicle Crashes
Figure MV-6	Motorcycle Fatality Rates
Figure MV-7	Pedestrian Injury Rates
Figure R-1	Drowning Fatality Rates
Figure R-2	ATV Injury Trauma Center Admissions
Figure H-1	Fall Related Deaths
Figure H-2	Fall Related Hospital Discharges
Figure H-3	Fire Fatality Rates
Figure H-4	Poisoning Fatality Rates
Figure H-5	Poisoning Hospital Discharges

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## **EXECUTIVE SUMMARY**

### **ARKANSAS INJURY SURVEILLANCE AND PREVENTION PLAN**

#### **Purpose**

The purpose of the Injury Prevention Coalition is to work collaboratively to develop a data-based plan to lower the extremely high rate of injury across the State of Arkansas.

#### **Background and Development**

The Arkansas Core Injury Prevention Program, funded by CDC, began in 1999 with the overarching goal of data collection and analysis to develop and support injury prevention activities. The program functions administratively through the Arkansas Department of Health, Statewide Services Business Unit. Guided by a multi-organizational Steering Committee, it works collaboratively with numerous partners with an interest in injury prevention.

The Arkansas Injury Coalition meets semiannually and maintains regular contact with its members. These members work in teams around their specific areas of concerns to develop strategies for prevention.

To support priority implementation, the program identifies and analyzes existing data sources and has published the document *Injury In Arkansas: A State Profile* detailing the various injury categories of Motor Vehicle, Recreational, Residential, Occupational, and Intentional. Special populations of Spinal Cord Injury and Traumatic Brain Injury are also explored.

#### **Implementation**

Leadership for the State Injury Plan is located in Appendix A. Background information on each area of injury, programs and strategies for reducing death and morbidity from injury are found throughout the document. In addition, specific Risk Factors and Solutions are found in the document.

Within this Plan, data-based surveillance has driven the process for selection of priorities to be addressed. For these priorities, action and strategies to reduce injury have been developed. Specific injuries and risk behaviors addressed reflect the injuries and risk factors for injury surveillance identified by CDC the State and Territorial Injury Prevention Directors Association (STIPDA).

The program's primary roles are the identification of existing data sources and assessment of their strengths and limitations. This serves as the basis for the development of the Plan, as priority goals must be data-based and include specific Arkansas at-risk populations.

Assessment and coordination of agency injury-related programs and resources, policies, and an enhanced prioritization of injury prevention efforts are a focus. In addition, the identification of resources and provision of technical assistance on the development of the Arkansas Strategic Plan for Injury Prevention have remained areas of emphasis.

With the electronic publication of the Plan, it is anticipated that additional Public Comment will be obtained to assist with the identification of additional resources and/or public needs.

Related to each strategy are listings of potential partners and supporting legislation where applicable. For priority goals specific entities responsible to oversee the implementation of goals and strategies have been identified. Priority strategies also include a timeframe for meeting objectives. These timelines will assist with evaluation of the Plan during the next five years, as the Plan is anticipated to be implemented and assessed on an ongoing basis.

For some of the strategies, the Injury Prevention program has offered to members of the Coalition mini-awards as supplemental funding for strategically identified projects. These awards, determined by the peer review process, are to serve as injury prevention pilot projects. An assessment of their efficacy will be conducted and a determination made regarding further strategic inclusion.

# ARKANSAS INJURY SURVEILLANCE AND PREVENTION PLAN

## SECTION I: INTRODUCTION TO THE PLAN

### **Vision Statement**

The Arkansas Injury Prevention Coalition is committed to the reduction of the incidence of Arkansas injury through support of collaborative injury prevention activities.

### **Purpose**

Thus, over the next 3 to 5 years, this Plan will guide efforts to improve coordination and expand communication and cooperation among the state's various injury prevention programs, both public and private.

### **Values**

Underlying the goals and strategies of this Plan are basic values including:

- Participation of organizations and agencies at the federal, state, county and local levels, including academia
- Diversity and cultural sensitivity to the needs of targeted at-risk individuals and a recognition of the issues relative to disparate populations and their ability to access strategies
- Benefits of healthy behaviors and the relationship between personal choices and the role of society to create a safe environment in which to live

### **Definition of Injury**

In this Plan the term "injury" is defined broadly and is used in a variety of ways. For example, injuries may be designated by body part (e.g., traumatic brain injury), cause (e.g., motor vehicle crash), nature of the injury (e.g., burn), or intent (e.g., intentional vs. unintentional). Other aspects of an injury include its risk factors (e.g., alcohol), location (e.g., playground), setting (home or work), affected group (children), or activity (diving or boating).

## **Emphasis of the Plan**

This Plan emphasizes the building of Arkansas' core capacity in two areas, data and infrastructure, and has used a five step, Public Health, approach:

- Identify partners as infrastructure who can assist with data and intervention strategies;
- Define and document the problem;
- Identify prevention strategies;
- Implement the interventions; and
- Evaluate progress and outcomes.

The Plan is designed to provide a strategy for injury prevention to be enacted over a five-year period. In most cases, injury prevention strategies are provided in order of areas with the highest rate of incidence. Priority goals have specific responsible entities and timeframes for accomplishment identified.

The Arkansas Surveillance and Injury Prevention Strategic Plan includes eight injury topics identified by STIPDA. Narrative includes data on helmet use, firearms and substance abuse. In several areas of the Plan, there are identified strategic overlaps. These overlap areas are viewed as providing additional priority and support for specific objectives.

## **Arkansas' Injury Problem**

Injuries may be broadly categorized as *intentional* and *unintentional*. Intentional injuries include such crimes as murder, assault, domestic violence and child abuse. Unintentional injuries are those traditionally thought of as "accidents," and include such things as motor vehicle injuries, sports injuries, and work place injuries.

Intentional and Unintentional injuries have significant social, economic and personal costs. For example, according to CDC's WISQARS database, in 1994, the total direct cost of all fall injuries for Americans age 65 and older was \$20.2 billion, and that is just one type of injury in one age group. Not included are the additional financial costs of lost productivity (short-term and long-term), increased insurance premiums, worker's compensation claims and litigation costs. The financial cost of injury is estimated at more than \$244 billion in medical care, rehabilitation, lost wages and lost productivity.

The federal government pays about \$12.6 billion each year in injury-related medical costs and about \$18.4 billion dollars in death and disability benefits. Also, according to WISQARS data, insurance companies and other private sources pay about \$161 billion in costs related to injury.

All of these costs affect Arkansas disproportionately, as rates of injury in Arkansas have been consistently higher than those for the United States for over the past decade (Figure I-1). In Arkansas, unintentional injuries are among the top five causes of death for all but persons 65 and older, and are the leading cause of death for Arkansans between one and 34 years. Between 1999 and 2001, 3,831 Arkansans died of unintentional injuries (Figure I-2). Sixty-seven percent of those were due to motor vehicle traffic-related injuries.

**Figure I-1**

**Injury Death in AR vs. US 1990-2001**

<b>All Injury Deaths: 1999 -2001</b>		
<b>Intentionality</b>	<b>Deaths</b>	<b>Percent</b>
Unintentional	3,831	67%
MV Traffic	1,915	33.5%
Intentional	1,655	28.9%
Suicide	1,067	18.7%
Homicide	566	9.9%
Legal Intervention	22	0.4%
Undetermined Intent	232	4.1%
	<b>5,718</b>	<b>100%</b>

**Figure I-2**

**Arkansas  
10 Leading Causes of Deaths by Age Group: 1996-1998**

<b>Arkansas Total Number of Injury Deaths</b>		
<b>Cause</b>	<b>Deaths</b>	<b>Percent</b>
Unintentional Injury	3,831	67%
Intentional Injury	1,655	28.9%
<b>Total (1999-2001)</b>	<b>5,486</b>	
Average Number of Injury Deaths per Year in Arkansas: 1,828.6		

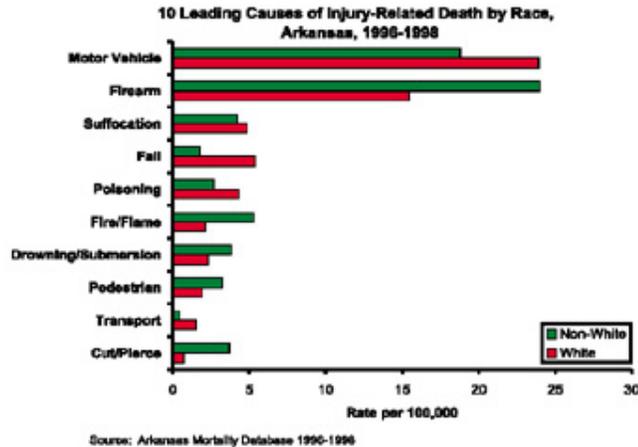
A total of 5,718 Arkansans died from injuries between 1999-2001. Motor vehicle injuries, Falls, Suffocation, Fire/Burn/ and Drowning were the top causes of injury death for the overall population.

For all age groups except those older than 65 years, motor vehicle crashes were the most common injury type. Injury patterns differ by age categories of children (0-18 years), adults (19-64 years), and older adults (65 years or older). While motor vehicle deaths predominate for all age categories, firearm deaths are more common in young adults,

drowning more common in children, and fire and flame-related events are common in both children and older adults.

Rates for some injury types are higher for non-white Arkansans than for whites (Figure I-3). Firearms killed more non-white residents than any other injury cause, including motor vehicles, with rates of 23.9/100,000 for non-whites and 15.4/100,000 for whites. Non-whites were more likely to die in fires, with rates more than twice as high as for whites (5.3 vs. 2.1/100,000, respectively). Drowning, pedestrian injuries, and cutting/piercing type injuries also demonstrated higher rates in non-whites, while poisoning and falls were more common among white residents.

**Figure I-3, 10 Leading Causes of Injury-Related Death by Race, Arkansas, 1996-1998**



Intentional injuries are also a major problem in Arkansas. Arkansas reported 1,067 suicides and 566 homicide deaths during the period 1999-2001. The crude rate of violence-related deaths in Arkansas during the period 1989-1998 was 24.4/100 compared to a national rate of 20.9/100,000 – 17% higher than the national rate.

The state injury plan focuses on ten injury topics, nine of which are mechanisms, or causes of injury. TBI and SCI statistics are noted herein, although no specific strategy aside from data collection has been recommended for these populations. Strategies to reduce the incidence of these neurological injuries with resultant functional limitations are proposed throughout the Plan, as it is recognized that TBI and SCI are outcomes of injury.

***Disparities Among Groups***

The most challenging aspect of variations in injury rates within Arkansas is that the burden is not shared equally across demographic groups:

- Young persons are injured at greater rates than older persons
- Males are at greater risk than females
- Motor vehicles account for the majority of injury deaths

- For most injuries, non-white races are generally at higher risk than Whites

These and other facts suggest that intervention programs can be developed for persons and groups at greatest risk. However, not taken into account is the burgeoning Hispanic population in the state, for which culturally appropriate interventions will be developed.

More specific information is included in the chapters on each injury. Within each chapter we have attempted to include representation of target populations to assure that interventions are appropriate. We have also attempted to assure planning from a wide range of partners, at the federal, state, non-profit and local level.

### **Development of the Plan**

The Arkansas Department of Health, in 1999, entered into a Cooperative Agreement with the Centers for Disease Control and Prevention (CDC) to collect and analyze data relative to selected causes of injury. The overarching goal of the agreement is to reduce the number of persons injured and dying from intentional and unintentional injuries in the State of Arkansas. This is to be facilitated by the development of this statewide plan for the surveillance and prevention of injury in Arkansas.

The Director the Core Injury Prevention Program assigned responsibility for the development of the Plan to injury officials willing to lead the planning process. These planning activities were conducted in collaboration with partners listed in the Acknowledgements section under Appendices of this document.

The Injury Prevention director appointed an Executive Committee, composed of leaders in the field of injury control, both public and non-profit, to oversee and make recommendations for the actions of the Arkansas Injury Prevention Coalition. The Coalition is made up of numerous agencies, both non-profit and governmental, with a stake in the prevention of injuries. Committees specific to each area of injury were formed to facilitate development of the Plan. The Executive Committee has an ongoing dialogue with the director, to review progress, assist in problem solving, and participate in revisions and evaluation of the Plan. Members of the Injury Coalition will provide guidance in designing and implementing the steps necessary to carry out the Plan.

### **Injuries Covered by the Plan**

The Arkansas Injury Prevention Plan addresses the core injuries identified by the State and Territorial Injury Prevention Directors Association (STIPDA) as well a chapter on Violence Against Women. The state injury plan focuses on eight injury sections. Within the narrative of various sections is information and data on helmet use, substance abuse and firearms.

Helmet use is recommended within the Motor Vehicle Injury and Recreational Injury under All Terrain Vehicles. This inclusion with differing plans is considered appropriate as different types of helmets are recommended for bicycles, motorcycles and all-terrain vehicles.

In addition information is provided on Traumatic Brain Injury and Spinal Cord Injury, furnishing information on the outcomes of numerous occurrences, across mechanisms of injury.

Further, data related to firearm injury and death is provided within several sections of the Plan, although there is no specific goal addressing firearm injury. Within the intentional injury section, specifically on Suicide, current interventions are included such as instruction regarding locked, secured gun storage and hunter education. These pro-active strategies are incorporated systemically, although over the five-year Plan period, more direct methodology and action steps may be developed.

The strategies presented in the Plan are supported by CDC, *Healthy People 2010* objectives, and are at various levels of implementation in the state, by differing organizations and agencies throughout. In setting priorities and choosing interventions,

the various planning committees considered issues relating to confidentiality, availability and reliability of databases, population disparities, feasibility of interventions, the maximization of existing resources for implementation, costs and number of persons who would benefit.

### **Leadership**

ADH serves as a focal point in the state to address injury and coordinate agencies and organizations conducting injury surveillance and control programs in Arkansas. The University of Arkansas Medical Center for Health Promotion, the Arkansas College of Public Health, the Arkansas Department of Education, Arkansas Children's Hospital, the Arkansas Spinal Cord Commission, the Arkansas Chapter of Mothers Against Drunk Driving, the Arkansas Commission on Child Abuse, Rape and Domestic Violence, the National Highway Transportation and Safety Administration, Arkansas Emergency Medical Services, Arkansas SAFE KIDS Coalition, the Division of Aging and Adult Services and the Division of Mental Health Services of the Arkansas Department of Human Services are but a few of the active Injury Coalition members. The Plan is a set of recommendations to guide coordinated injury prevention activities utilizing local communities and coalitions, schools, behavioral health agencies, and various community-based educational and intervention programs. It is through this collaboration and cooperation that local communities and state efforts will effectively develop new strategies and interventions that will significantly reduce the inordinately high rate of injury in the State of Arkansas.

## SECTION II: GENERAL CONSIDERATIONS

### Common Issues

Because the following issues apply to each of the injury topics and to the injury problem as a whole, they have not been addressed separately in each chapter except where specifically necessary. They represent concerns in general on many fronts:

- availability of resources;
- role of an advisory council and the function of partnerships;
- leadership;
- data;
- costs;
- culturally appropriate strategies;
- feasibility of interventions;
- reasonable implementation time.

### Substance Use and Injury

Alcohol is society's legal, oldest and most popular drug. According to a 2003 Gallup Poll, of the general driving age public, 97 percent feel that drinking and driving as a threat to their personal safety; and 66 percent feel it is extremely important to do something to reduce the problem in terms of where tax dollars should be spent.

According to data from the National Highway Traffic Administration (NHTSA), in 2003, 17,013 persons were killed nationally in alcohol-related crashes with an average of one almost every half hour. These deaths made up approximately 40 percent of the total of 42,642 traffic fatalities.

While the Plan does not have a specific section devoted to substance use and injury, almost all of the injury mechanisms have an increased occurrence rate when coupled with substance use. NHTSA offers documentation of the problem with figures stating that incidence of alcohol involvement in fatal crashes in 2003 was highest for motorcycle operators at 29 percent, and lowest for drivers of large trucks. The incidence of intoxication for drivers of light trucks and passenger cars drivers was 22 percent for both.

Further, in 2001, more than half a million people were injured in crashes where police reported that alcohol was present, for an average of one person injured approximately every two minutes.

Although not defined statistically in the Plan, alcohol and substance use/abuse is known also to be a factor in the occurrence of falls, fires, drownings, and intentional injury. In addition, about 40% of all crimes, violent and non-violent, are committed under the influence of alcohol.

The Drug Alcohol Safety Educational Program (DASEP) sponsors fourteen programs statewide to provide screening, assessment, referral and education for persons arrested for Driving While Intoxicated (DWI) or Driving Under the Influence (DUI). Classes are provided at different levels, dependent on the offense. Level I, Level II and Underage classes are provided and focus on Arkansas law and sanctions.

## **Traumatic Brain and Spinal Cord Injury**

### **Background**

Injury to the central nervous system is most likely to result in death or lifelong disability. Nationally it is estimated that approximately 1.5 million individuals survive a traumatic brain injury (TBI) each year and another 50,000 die. According to the Brain Injury Association, a TBI occurs every fifteen seconds in the U.S. and an estimated 5.3 million people live with disabilities resulting from TBI. In addition, more than 200,000 live with spinal cord injury (SCI) disability in the US, and approximately 11,000 more people are hospitalized for traumatic spinal cord injury (SCI) each year. These figures are non-fatal injuries and do not include those who die from the trauma.

In Arkansas, data from Arkansas' Traumatic Brain Injury Surveillance Program (1997-2000) show that TBI is extremely common and has a high rate of mortality. A total of 1,910 cases of TBI were included in this database. Most of the TBI cases were males (1,231, 64.5%) and the median age of 37.5 years. TBI was most common in adolescents and young adults ages 15-24 and in adults age 65 and older.

The vast majority of unintentional TBI in the state were due to motor vehicle crashes (57%) and to falls (25%).

Outcomes of Arkansas TBI for the same time period are also recorded in the registry. Nearly half of the unintentional TBI patients (529, 48.2%) were discharged home, 35% died, and 14% were transferred to other facilities after initial hospitalization. The functional status of surviving patients is also included, using the Glasgow Outcomes Scale, and reveals that 42 patients (5% of survivors) demonstrated severe disability, 108 (13%) had moderate disability, and 5288 (63%) were expected to have good outcome

In most instances, implementation of various strategies to reduce injuries has potential to impact TBI and SCI prevalence.

### **Program Goals**

The Injury Plan covers five broad goals to promote the reduction of injury and to improve the quality of life of all Arkansans. These goals apply broadly to the entire Plan.

#### **Goal 1. Improve coordination and collaboration within the Arkansas Health Department and among outside agencies and organizations, including academia, relative to injury prevention.**

- a. Since ADH injury prevention programs as well as other organizational activities exist in multiple locations, create a coalition to promote and enhance these activities, with the Core Injury Prevention Program serving as a focal point.
- b. Create an Executive Injury Prevention Committee, consisting of leadership
- c. Establish a working inter-agency injury prevention coalition.
- d. Implementing collaborative projects for injury prevention.

#### **Goal 2. Delineate the magnitude of the injury problem in the state.**

- a. Identify existing data sources and assess their strengths and limitations.

- b. Conduct analysis of existing selected data sources.
- c. Publish a comprehensive profile of injuries in the state using existing data sources
- d. Disseminate profile to appropriate entities for legislation, program and intervention.

**Goal 3. Assess the state's capacity to prevent injuries.**

- a. Perform survey of state and local public health entities.
- b. Assess capacity of other state agencies and organizations involved in injury prevention.
- c. Produce a report detailing all available resources.

**Goal 4. Establish a State Injury Prevention Plan.**

- a. Produce a detailed, priority-driven plan for reducing injuries in Arkansas.
- b. Disseminate the state injury plan to appropriate individuals.

**Goal 5. Maintain the Plan as a working document.**

- a. Publish electronically and provide method for feedback via e-mail.
- b. Continually review and assess the Plan for effectiveness and revise as necessary

# Chapter 1: Data/Surveillance Systems

## Priority Goal:

**Objective:** Support development of an improved and coordinated process of general injury surveillance.

**Timeframe:** August 1, 2005 through July 30, 2010

**Responsible Entities:** Arkansas Department of Health  
University of Arkansas for Medical Sciences

## DATA AND SURVEILLANCE SYSTEMS

The State of Arkansas has numerous databases from which injury statistics can be derived. The Arkansas Center for Health Statistics (ACHS) of the Arkansas Department of Health (ADH) collects data and annually publishes an analysis in the documents *Arkansas Mortality Report*, and *Hospital Discharge Data Report*.

In addition, figures are maintained by the ADH Division of Emergency Medical Services providing documentation of emergency medical services vehicle run, trauma and other data from throughout the state.

With the overarching goals of accessing and analyzing data for the purpose of strategic planning, we intend to provide data-based consultation for injury prevention program services staff who implements injury prevention programs. Through the publication of ongoing analysis and reporting, it is hoped that this information will assist in data-based decision-making.

We anticipate that through analysis of injury data we will be able to investigate and understand clusters of injuries, determine the feasibility of linking data sources, and to assist other state agencies in understanding and disseminating their data for injury prevention purposes.

From enhanced data collection, we can identify high-risk and priority populations for educational interventions. Data can suggest hypotheses for research, and can provide the “human face” that the public and policy-makers need to increase their awareness and understanding of the problem. Adequate data can support funding applications and legislative initiatives. Trends in long-term care, risk factors, cost effectiveness of prevention programs; services design and fiscal impact can be derived.

As with all of our planning efforts, the Injury Coalition has developed a five-year prevention plan. Priority goals and strategies have been delineated as to responsible entity and timeframes have also been outlined. It is anticipated that involvement level of partner organizations will be guided through Public Comment opportunities. We also expect that through this population-based process local identification of resources will ensue to further strengthen and support our evolving planning process.

### **Existing Data Resources**

- 1) Arkansas Burn Center and the Pediatric Trauma Service of Arkansas Children’s Hospital
- 2) Arkansas Crime Information Center
- 3) ADH ACHS Behavioral Risk Factor Surveillance System
- 4) Arkansas Commission on Child Abuse, Rape and Domestic Violence
- 5) Arkansas Department of Education Youth Risk Behavior Surveillance System (BRFS)
- 6) Arkansas Department of Labor
- 7) Arkansas Fire Academy
- 8) Arkansas Medical Examiners Office
- 9) Arkansas Poison Control Center
- 10) Arkansas Spinal Cord Commission
- 11) Arkansas State Highway and Transportation Department
- 12) Arkansas State Police, Highway Safety Office
- 13) University of Arkansas Division of Agriculture Cooperative Extension Services
- 14) UAMS Trauma Database

## Major Gaps in Data Collection

1. No organized Child Fatality Data or Child Fatality Review Process.
2. General surveillance system for Traumatic Brain Injury.
3. No organized school/sports-related injury data collection.
4. No systematic method to collect and analyze injury not resulting in mortality in academic settings.

<b>Data/Surveillance Systems</b>		
<b>Goal: Enhance Surveillance Systems of Injury Mortality and Morbidity</b>		
<b>Objective #1: Support and Coordinate the Development of General Injury Surveillance Systems</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Establish appropriate teams to determine additional data and surveillance needs	State Government Agencies Universities Hospitals Coroners EMS Service Providers Law Enforcement Social Services	1) Convene appropriate entities throughout the state
2) Provide protocols for regional reviews	State Government Agencies Universities Hospitals Coroners EMS Service Providers Law Enforcement Social Services	1) Study protocols of other state's surveillance systems 2) Obtain local input into improvements of local policies and practices, and prevention initiatives 3) Provide technical assistance, funding and training for surveillance activities
3) Submission of de-identified case review data	State Government Agencies Universities Hospitals Coroners EMS Service Providers Law Enforcement Social Services	1) Team members de-identify cases reviewed 2) Submit a report to the appropriate entity
4) Appointment of Advisory Committees	State Government Agencies Universities Hospitals Coroners EMS Service Providers Law Enforcement Social Services	1) Review Regional Team findings 2) Make recommendations for improvements 3) Disseminate recommendations via multiple avenues
5) Produce annual reports with mortality data	State Government Agencies Universities Hospitals Coroners EMS Service Providers Law Enforcement Social Services	1) Obtain mortality and/or morbidity data, including age, injury/cause of death, state trends and comparisons with national data 2) Summarize findings and recommendations typically including data collection

		components and community, education professional training and coordination of services 3) Produce report, including mortality and/or morbidity data with age, injury/cause of death, state trends and comparisons with national data, and recommendations for data collection, community education, professional training & service coordination
6) Appoint appropriate agency Clearinghouse for information pertinent to data collected	State Government Agencies Universities Hospitals Coroners EMS Service Providers Law Enforcement Social Services	1) Disseminate report to Governor's office, AR Legislature, Dept. of Human Services, Dept. of Health, Children's Hospital 2) Make availability of report known to the public through press releases, conferences and major event development
7) Facilitate Regional/State response to findings	State Government Agencies Universities Hospitals Coroners EMS Service Providers Law Enforcement Social Services	1) Analyze responses 2) Propose legislation supporting recommendations

<b>Data/Surveillance Systems</b>		
<b>Goal: Enhance Surveillance Systems of Injury Mortality and Morbidity</b>		
<b>Objective #2 : Support Establishment of Child Fatality Review Surveillance System</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Establish regional fatality review teams for data collection	AR Commission on Child Abuse, Rape & Domestic Violence State Government Agencies Universities Hospitals Coroners EMS Service Providers Law Enforcement Social Services	1) Convene appropriate entities in five regions
2) Provide protocols for regional reviews	AR Commission on Child Abuse, Rape & Domestic Violence State Government Agencies Universities Hospitals	1) Study protocols of other state's Child Fatality Review Teams 2) Obtain local input into improvements of local policies and practices, and prevention

	Coroners EMS Service Providers Law Enforcement Social Services	initiatives 3) Provide technical assistance, funding and training
3) Submission of de-identified case review data and report	AR Commission on Child Abuse, Rape & Domestic Violence State Government Agencies Universities Hospitals Coroners EMS Service Providers Law Enforcement Social Services	1) Team members de-identify cases reviewed 2) Submit a report to the Commission
4) Appointment of Advisory Committee	AR Commission on Child Abuse, Rape & Domestic Violence State Government Agencies Universities Hospitals Coroners EMS Service Providers Law Enforcement Social Services	1) Review Regional Team findings 2) Make recommendations for improvements 3) Disseminate recommendations via multiple avenues
5) Produce annual report with mortality data	AR Commission on Child Abuse, Rape & Domestic Violence State Government Agencies Universities Hospitals	1) Obtain mortality data collection, generally including age, cause of death, state trends and comparisons with national data 2) Summarize findings and recommendations including data collection components and community, education professional training and coordination of services 3) Produce report, typically including Mortality data with age, cause of death, state trends and comparisons with national data, and Recommendations for data collection, community education, professional training & service coordination
6) AR Commission on Abuse serve as Clearinghouse for information related to Child Fatality Review	AR Commission on Child Abuse, Rape & Domestic Violence	1) Disseminate report to Governor's office, AR Legislature, Dept. of Human Services, Dept. of Health, Children's Hospital 2) Make availability of report known to the public through press releases, conferences and major events
7) Facilitate Regional/State response to findings	AR Commission on Child Abuse, Rape & Domestic Violence	1) Analyze responses 2) Propose legislation supporting

	State Government Agencies Hospitals Coroners EMS Service Providers Law Enforcement Social Services	recommendations
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Baseline: No organized data maintained on child fatalities in Arkansas.

Target: Relevant state agencies, policy makers, pertinent practitioners in child death reporting, programming and implementation

Evaluation Method: Child Fatality Review legislation enacted during 2005 AR Legislative Session

<b>Injury Name: Data/Surveillance Systems</b>		
<b>Goal: Enhance Surveillance Systems of Injury Mortality and Morbidity</b>		
<b>Objective #3: Develop/Implement a Traumatic Brain Injury Database</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Conduct centralized statewide surveillance of TBI, consistent with standard definitions and methods for TBI surveillance described in the most recent CDC Annual Data Submission Standards for Central Nervous System Injury Surveillance	Lead Agency: Arkansas Department of Health State Agencies Universities Hospitals Non-Profit Organizations	1) Convene key partners and interested parties 2) Obtain agreement on methodology for data use and transmittal 3) Access centralized statewide electronic hospital discharge and vital statistics databases for case identification 4) Link unduplicated data obtained from databases, including data elements of diagnosis, demographics, external cause and discharge disposition.
2) Annual Review of representative case records	State Agencies Universities Hospitals Non-Profit Organizations	1) Obtain listing of representative case sample 2) Review medical records to verify consistent compliance with prescribed data standards 3) Report to CDC within prescribed timeframes
3) Continue to collect additional information on 10-15 TBI data elements related to a topic of emerging public health importance	State Agencies Universities Hospitals Non-Profit Organizations	1) Participate with CDC and extended surveillance grantees to determine topic for analysis
4) Prepare and disseminate report	TBI Surveillance Program consisting of the AR Center for Health Statistics of the Arkansas Department of Health in conjunction with the University of Arkansas for Medical Sciences	1) Collect Data 2) Analyze & Interpret Data 3) Compile Report with documentation of (a) programmatic lessons learned, (b) strengths and limitations of the

		data (c) usefulness of the data for planning. 4) Submit to CDC within established timeframes (5) Send copy of report to interested state agencies, universities, hospitals and non-profit organizations
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Baseline: Arkansas Center for Health Statistics, TBI Registry database, 1997-2000.

Target: Relative state agencies, Hospitals, Non-Profit Organizations, policy makers, pertinent practitioners in child death reporting

Evaluation Method: Compliance with CDC standards for data collection mutually agreed Upon by CDC and the program

### **Injury Data in the Academic Setting**

Although the Behavioral Risk Surveillance System (BRFSS) provides school-based risk assessment, there are few programs in the state building upon this data to address local injury problems. Having a school-based injury database could potentially derive information on Unintentional and Intentional Injury, as well.

Initially, one long-term data goal is to enhance recognition of the need for Athletic Training Coaches in the high school and middle school setting. From this goal and publication of the data surrounding school-based injuries, it is hoped that parents, administrators, and the general public are educated on the issue. We hope to be able, in the near future, to be able to determine an average cost per injury.

In addition, data collection of injury occurrence in the school-based setting will facilitate the identification of potential problem areas related to violence. Ultimately, prevention activities in the school-based setting could be a prominent factor in the reduction of health care costs.

<b>Injury Name: Data/Surveillance Systems</b>		
<b>Goal: Enhance Surveillance Systems of Injury Mortality and Morbidity</b>		
<b>Objective #4: Develop a database of elementary, middle, and high school injuries received during sports-related activities</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Adopt an accepted criteria for the collection of school-based injury	Athletic Trainer (ATC) School Administrators/Principals School Nurses Local and State Government Agencies Hospitals Safety Organizations State and Local Safety Coalitions Parents Team physician Physical Therapist (PT) who works with teams	1) Convene key partners and interested parties 2) Review other states' policies/databases 3) Determine appropriate actions 4) Draft recommendation report 5) Devise format for structured input

2) Disseminate to appropriate entities	School Administrators School Nurses Local and State Government Agencies Hospitals Safety Organizations Arkansas State Legislature State and Local Safety Coalitions Parents Team physician ATC or PT	1) Obtain listing of appropriate school officials and policymakers 2) Mail recommendations and input form 3) Follow-up
3) Pilot data collection projects at small, medium and large schools	ATC School Administrators/Principals School Nurses State Government Agencies Hospitals Safety Organizations State and Local Safety Coalitions Parents Team physician PT	1) Convene key partners and interested parties to select pilot sites 2) Provide technical assistance and potential resources to selected schools 3) Media reinforcement
4) Produce final report	School Administrators/Principals School Nurses Local and State Government Agencies Hospitals Safety Organizations State and Local Safety Coalitions Parents Team physician ATC or PT	1) Convene key parties 2) Develop final report on recommendations 3) Disseminate to school and health officials, local policy makers 4) Determine appropriate next steps to implementation

Baseline: No organized reporting system of school-based injury.

Target: Health and School Officials, School Nurses, Parents, Local and State Government, Hospitals, Safety Organizations and Coalitions.

Evaluation: Report and database developed and disseminated by end of 2005. Successful implementation of pilot projects by 2007. Final recommendations by 2008.

<b>Injury Name: Data/Surveillance Systems</b>		
<b>Goal: Delineate the Magnitude of Injury in Academic Settings</b>		
<b>Objective #5: Develop a database of elementary, middle, and high school injuries received during school activities</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Adopt an accepted criteria for the collection of school-based injury	School Administrators/Principals School Nurses Local and State Government Agencies Hospitals Safety Organizations State and Local Safety Coalitions Parents	1) Convene key partners and interested parties 2) Review other states' policies/databases 3) Determine appropriate actions 4) Draft recommendation report 5) Devise format for structured input
2) Disseminate to appropriate entities	School Administrators School Nurses Local and State Government Agencies Hospitals Safety Organizations Arkansas State Legislature State and Local Safety Coalitions Parents	1) Obtain listing of appropriate school officials and policymakers 2) Mail recommendations and input form 3) Follow-up
3) Pilot data collection projects at small, medium and large schools	School Administrators/Principals School Nurses State Government Agencies Hospitals Safety Organizations State and Local Safety Coalitions Parents	1) Convene key partners and interested parties to select pilot sites 2) Provide technical assistance and potential resources to selected schools 3) Media reinforcement
4) Produce final report	School Administrators/Principals School Nurses Local and State Government Agencies Hospitals Safety Organizations State and Local Safety Coalitions Parents	1) Convene key parties 2) Develop final report on recommendations 3) Disseminate to school and health officials, local policy makers 4) Determine appropriate next steps to implementation

Baseline: No organized reporting system of school-based injury.

Target: Health and School Officials, School Nurses, Parents, Local and State Government, Hospitals, Safety Organizations and Coalitions.

Evaluation: Report and database developed and disseminated by end of 2005. Successful implementation of pilot projects by 2007. Final report by 2008.

# Unintentional Injuries

## Chapter 2: Motor Vehicle Injuries

### Priority Goals:

**Objective 1:** Educate and raise awareness of the prevention of motor vehicle injuries and death through the use of safety belts, child safety seats, and the elimination of impaired driving.

**Timeframe:** August 1, 2005 through July 31, 2010

**Responsible Entity:** Arkansas Department of Health  
University of Arkansas for Medical Sciences

**Objective 2:** Strengthen laws that would reduce the incidence of motor vehicle injuries and death with the focus establishing a primary seat belt law.

**Timeframe:** August 1, 2005 through July 31, 2007

**Responsible Entity:** Arkansas Department of Health  
University of Arkansas for Medical Sciences

## MOTOR VEHICLE TRAFFIC

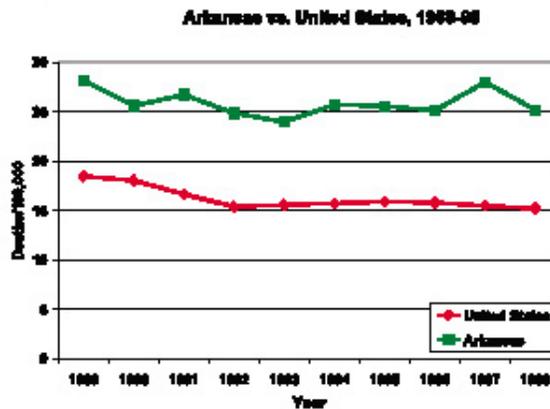
### Background

Motor vehicle crashes result in devastating levels of injury death and disability in the United States. In recent years, motor vehicle crashes have led to more than 42,000 deaths and nearly 3.4 injuries a year nationwide. A disproportionate number of injuries occurred in the South and Northwest regions of the country. Motor vehicles cause more deaths in children than any other source of injury. Adolescents ages 15-19 are especially at risk, with 5,073 killed in car crashes alone. Death rates for adolescents and for older adults, the fastest growing segment of the population, are especially high. In 1998, more than 7,000 Americans age 65 and older died and another 246,000 suffered nonfatal injuries in motor vehicle crashes.

The State of Arkansas has a higher rate of motor vehicle injury than most states. In 1998, Arkansas ranked sixth in unintentional motor vehicle traffic-related mortality with an overall age-adjusted rate of 26.07/100,000. A total of 1,915 Arkansans were killed between 1999 and 2001 due to motor vehicle-related injuries, including traffic injuries, pedestrian injuries, and injuries related to other types of transport. Unintentional Arkansas have remained fairly consistent over the past decade and have been at least 50% above national rates (Figure MV-1).

Figure MV-1 –

AR vs. US motor vehicle fatalities (1989-1998)

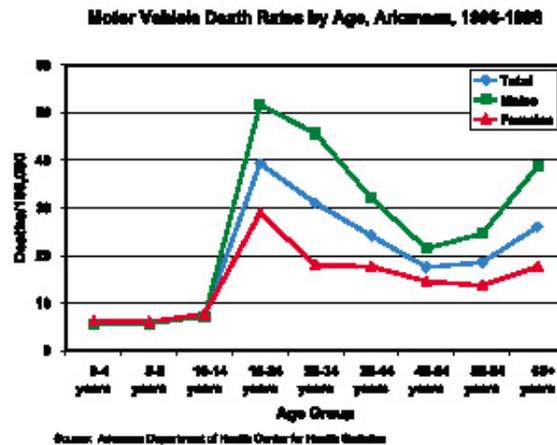


Source: National Center for Injury Prevention and Control, CDC

Motor vehicle traffic-related injuries are the leading cause of injury death for Arkansas overall and for most demographic subgroups. These rates vary considerably by age and sex (Figure MV-2). Motor vehicle injuries are the leading cause of death for younger children. Overall death rates are similar for young children regardless of sex. After age 15 years, motor vehicle death rates dramatically increase. Rates are particularly high for males for all subsequent age groupings. Adolescent and young adult males ages 15-24 have death rates that are 78% higher than those for comparably aged females (51.7/100,000 for males vs. 28.9/100,000 for females). For individuals ages 25-34 years, the rates are even more dramatically different between the sexes, with male rates 2 ½ times higher than for females. Similar to national figures, rates in older adults are higher than for middle-aged adults, increasing fairly abruptly after age 65 years, especially for males.

Figure MV-2

AR male/female/total Death rates by age (1996-1998)



Overall, there are not large differences in motor vehicle traffic deaths by race: the rate for whites is 26.4/100,000 compared to 25.2/100,000 for African Americans. Some differences are revealed over the age spectrum, however, and in particular the rate for African American children ages 5-9 years is more than twice as high as that for white children (Figure MV-3). For children under five years old, the rate is 65% higher. For most adult age categories, rates for African Americans are comparable to those for the white population.

Figure MV-3 - Line graph depicting AR Motor Vehicle Traffic Deaths by Race, (1996-1998) (Profile – page 14, figure M-4)

In Arkansas, injury deaths from motor vehicle crashes are concentrated in rural counties, with some counties having rates at least twice as high as the state overall.

Motor vehicle crashes led to 5,447 hospital discharges in Arkansas between 1997 and 2000 for an overall rate of 50.9 discharges/100,000. Males made up 56.6% of these discharges, and higher rates than females (60.5 vs. 44.4/100,000). Hospital discharges were most common among young people ages 15-24 years and were particularly elevated for males in this age group, where the rate of hospital discharges was an alarming 114.3/100,000 – more than twice as high as the general population (Figure MV-4).

Figure MV-4 - Line graph depicting AR MV Injury Hospital Discharges (1997-2000) (Profile – page 14, figure M-6)

Motor vehicle crashes were also the most common injury reason for emergency transport in Arkansas during the past five years. A total of 86,721 ambulance runs for motor vehicle-related injuries were recorded during 1996-2000. Rates for EMS runs, like those for death and hospital discharges, peak in young persons ages 15-24 years. EMS rates for this group are more than twice as high as the general population. In contrast to deaths and hospitalization, however, more EMS runs for motor vehicle injury are for female patients (N = 46,756; 54%).

More detailed information on crash conditions is available in Arkansas and provides insight into modifiable areas to guide interventions for prevention. Information about crash circumstances included in the EMS database includes vehicle speed estimates and condition after the crash.

About a third of EMS transport cases were from crashes of vehicles traveling at greater than 40 miles per hour. In 20% of crashes, vehicle deformity of greater than 20 inches was noted, and 11% demonstrated at least one foot of intrusion into the vehicle passenger spaces. In 23,985 (28%) of cases, the absence of use of safety devices such as safety belts was observed and recorded at the crash scene.

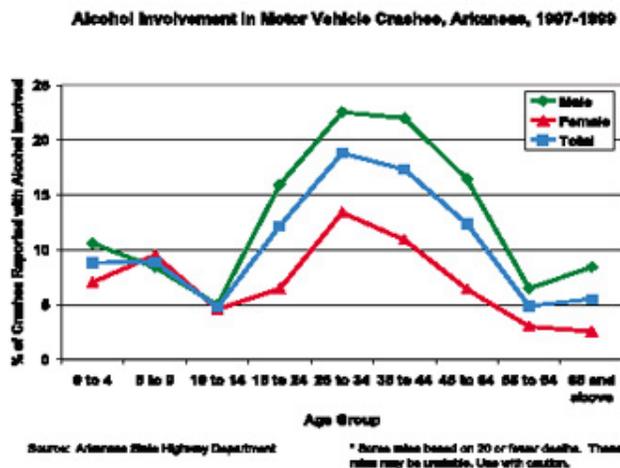
The Arkansas Highway Safety Office also catalogs information on motor vehicle crashes statewide. This database allows for detailed characterization of crash circumstances, including information on the vehicles involved, time of crash, road characteristics, environmental factors, and driver factors such as alcohol use. A total of 6,648 crashes are described in the database during 1997-1999. From information collected at the scene, 252 (3.8%) crashes were described as resulting in fatalities, 3,597 (54.1%) resulted in “incapacitating injury,” and 2,799 (42.1%) resulted in “non-incapacitating injury.” The majority of the reported crashes occurred in rural areas (4,867, 73.2%) rather than urban areas (1,781, 26.8%).

The Highway Safety Office data reveal patterns of behavior that increase risk for both crash and injury. Lap *and* shoulder belts were used in only 3,045 (45.8%) of the crashes, lap *or* shoulder belts in 256 (3.9%), and no restraint was found in 3,225 (48.5%) cases. Safety belt use was clearly associated with reported injury severity: no restraint was reported in 177 (70.2%) of fatal crashes, compared to 1,797 (50%) of crashes with incapacitating injury and 1,251 (44.7%) of crashes with less serious injuries.

Alcohol was involved in 853 (12.8%) of crashes and when alcohol was present restraint use was less likely: only 36.9% of alcohol related crashes were reported with any form of restraint use. Alcohol involvement was more common with male drivers (16.7%) than female drivers (7.2%), as was evidence of alcohol or drug impairment as observed at the scene (12.1% for males, 5.2% for females). Alcohol use was involved in 6-22% of crashes involving adults ages 20-54 (Figure MV-5). Children under 10 were present in the vehicles in about 8% of the cases. Alcohol use was also associated with severity of the crashes and was involved in nearly a third of fatal crashes (29.1%). Alcohol use in less severe crashes was about 8%.

**Figure MV-5 –**

**Alcohol involvement in motor vehicle crashes, Arkansas, 1997-1999**

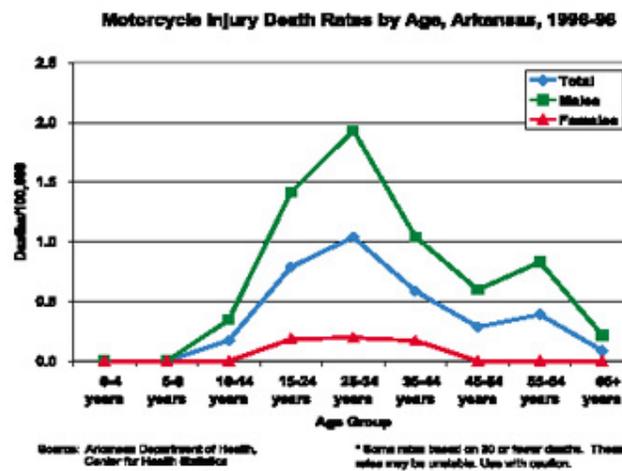


## MOTORCYCLES

Nationally, motorcyclists are especially at risk on the road. The death rate for those on motorcycles per mile traveled is more than 35 times that of passengers in cars. In the United States, 4,977 persons were killed on motorcycles between 1996 and 1998 (age-adjusted rate 0.66/100,000). Rates were highest among young adult ages 20-29 and twice as high among males compared to females.

In Arkansas, the overall age-adjusted rate for motorcycle related injury death was 0.54/100,000. Motorcycle injury deaths are overwhelmingly found in young men with peak rates in those 25-34 years of age but with elevated rates throughout the age range of 15-44 (Figure MV-6). Very few deaths occurred in women and none in young children.

**Figure MV-6 – Motorcycle injury death rates by age, Arkansas, 1996-1998**



Nearly 2,500 Arkansans were transported by EMS for motorcycle-related injuries during 1996-2000. Most of these were adults ages 19-64, making motorcycle injury the sixth most common cause of injury transported. An additional 504 (20%) cases were under the age of 18 years. Consistent with national and state mortality figures, the vast majority of these victims are male (2,100; 85%).

Highway Safety Office data indicate that motorcycle crashes are more likely than car or truck crashes to result in serious injury or death. Of 158 motorcycle crashes logged in the database, 67% resulted in “incapacitating injury,” compared to 49% for cars. Although adults drove most of the motorcycles involved, 10.1% had drivers under 18 years of age. Only 3% of the motorcycle drivers were over 65 years old.

## PEDESTRIANS

Pedestrian injuries killed 16,526 people during 1996-1998 in the United States (1.81/100,000). Males were again nearly three times more likely to be involved. Rates were highest in older adults ages 65 plus, where the overall rate of 3.7/100,000 was 78% higher than the general population. Since 1975 there has been a dramatic 39% decrease in pedestrian deaths nationally. This has been attributed not only to injury control interventions such as better sidewalks and pedestrian paths, but to a reduction in the amount of walking that people, especially children, do. Despite this, more than 700 U.S. children die each year when hit by cars. Very young children, males and those in poor, crowded households are most at risk.

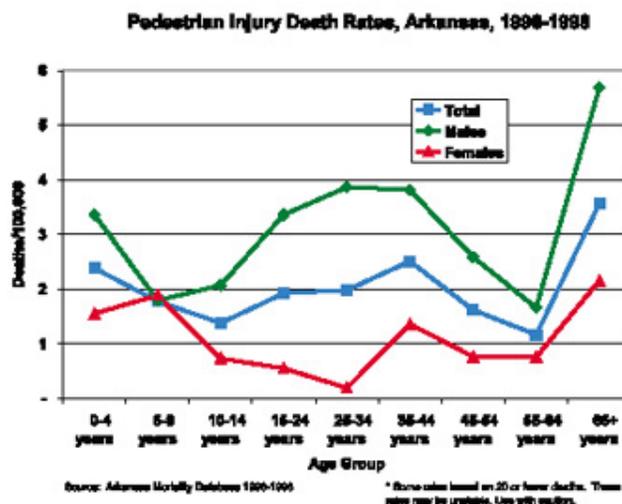
In Arkansas, pedestrian injuries were the eighth most common cause of injury death overall in Arkansas during 1996-1998. A total of 170 pedestrian deaths, with an age-adjusted rate of 1.72/100,000, were reported. Rates for males are higher for essentially all age groups (Figure MV-7). The highest pediatric rates were in preschool age children, where pedestrian injuries were among the top five causes of death. Highest overall rates were demonstrated in older adults, with rates as high as 5.7/100,000 among males over 65 years of age. Pedestrian injury death rates were higher among non-white Arkansans than among whites.

A third of the 483 hospital discharges for pedestrian injury in Arkansas over a five-year span were in children under 18 years. Rates were dramatically higher among children ages 10-14 years, where the rate of 10.1/100,000 was three times as high. Hospital discharge rates for older adults were not elevated compared to the general population.

Pedestrian injuries were the fifth most common cause of EMS transport for children under 18 in Arkansas during 1996-2000. More than 1,000 children - 5% of all pediatric injuries transported - were included, along with 1,764 adults.

Figure MV-7 –

### AR Pedestrian Injury Death Rates 1996-1998



### Existing Surveillance Systems

- 1) Arkansas Center for Health Statistics, Arkansas Department of Health, Hospital Discharge Reports
- 2) Arkansas Center for Health Statistics, Arkansas Department of Health, Mortality Reports
- 3) Arkansas Highway Safety Office, Traffic Analysis Reporting System (TARS)
- 4) Emergency Medical Services, Arkansas Department of Health, EMS Vehicle Run Data

### References

- 1) WISQARS. Center for Disease Control. 1998, Unintentional Motor Vehicle Rates per 100,000. All Races, Both Sexes, All Ages, E810-E825. Available at <http://www.cdc.gov/ncipc/wisqars/>
- 2) Injury Factbook 2001-2002. National Centers for Injury Prevention and Control, CDC. November 2001

- 3) Baker, SP, O’Neil B, Ginsburg MJ, Li G. The injury fact book. 2<sup>nd</sup> ed. New York: Oxford University Press, 1992.
- 4) Durking MS, Laraque D, Lubma I, Barlow B. Epidemiology and prevention of traffic injuries to urban children and adolescents. Pediatrics 1999; 103(6).
- 5) Baker. SP, Waler, A. Langlois J. Motor vehicle deaths in children: geographic variations. Accidents, Analysis and Prevention 1991;23(1)

<b>Injury Name: Motor Vehicle Injuries</b>		
<b>Goal: Reduce Motor Vehicle Injury Related Death and Disability</b>		
<b>Objective #1: Increase Use of Personal Protective Equipment</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Establish a primary seatbelt law	State Government Agencies Hospitals Safety Organizations Arkansas State Legislature State and Local Safety Coalitions Law Enforcement	1) Convene key partners and interested parties to determine actions 2) Propose legislation 3) Media reinforcement
2) Pursue enhanced child passenger protection law	State Government Agencies Hospitals Safety Organizations Arkansas State Legislature State and Local Safety Coalitions Law Enforcement	1) Convene key partners and interested parties to determine actions 2) Propose legislation to include children up to 16 years of age 3) Media reinforcement
3) Establish a law to ensure that no children are transported in the bed of a pickup truck	State Government Agencies Hospitals Safety Organizations Arkansas State Legislature State and Local Safety Coalitions Law Enforcement	1) Convene key partners and interested parties to determine actions 2) Propose legislation 3) Media reinforcement
4) Expand programs for education on safety belts and child restraint selection, installation and use	State Government Agencies Hospitals Safety Organizations State and Local Safety Coalitions Law Enforcement Fire Departments	1) Expand partnerships 2) Convene key partners and interested parties to determine actions 3) Develop education module 4) Use nationally recognized, effective materials 5) Create programs to use the module
5) Establish a statewide	State Government Agencies	1) Convene key partners

motorcycle helmet law	Hospitals Safety Organizations Arkansas State Legislature State and Local Safety Coalitions Law Enforcement	and interested parties to determine actions 2) Propose legislation 3) Media reinforcement
6) Establish a statewide bicycle helmet law for children	State Government Agencies Hospitals Safety Organizations Arkansas State Legislature State and Local Safety Coalitions Law Enforcement	1) Convene key partners and interested parties to determine actions 2) Propose legislation 3) Media reinforcement
6) Establish a statewide bicycle helmet law for children	State Government Agencies Hospitals Safety Organizations Arkansas State Legislature State and Local Safety Coalitions Law Enforcement	1) Convene key partners and interested parties to determine actions 2) Propose legislation 3) Media reinforcement

Baseline: No primary seatbelt law, no statewide motorcycle helmet law, no law ensuring children are not transported in the bed of a pick-up truck, no statewide bicycle helmet law for children, and no statewide bicycle helmet law for children

Target: Establishment of primary seatbelt law, statewide helmet law, law ensuring that no children are transported in the bed of a pick-up truck, establishment of a statewide bicycle helmet law for children, and establishment of a statewide bicycle helmet law for children

Evaluation Method: Observed passage of these laws by the AR State legislature.

<b>Injury Name: Motor Vehicle Injuries</b>		
<b>Goal: Reduce Motor Vehicle Injury Related Death and Disability</b>		
<b>Objective #2: Promote Systems to Increase Road Safety</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Pursue enhanced graduated driver's licensing law.	State Government Agencies Hospitals Safety Organizations Arkansas State Legislature State and Local Safety Coalitions Law Enforcement	1) Convene key partners and interested parties to determine actions 2) Propose legislation 3) Media reinforcement
2) Develop media spots to remind drivers of bicyclists and pedestrians	State Government Agencies Hospitals Safety Organizations State and Local Safety Coalitions	1) Convene key partners and interested parties to determine actions 2) Develop and fund media spots
3) Improve EMS response for Motor Vehicle Incidents	State Government Agencies Hospitals Safety Organizations State and Local Safety Coalitions	1) Convene key partners and interested parties to determine actions 2) Evaluate EMS response data 3) Coordinate on-going meetings with all providers to improve response

4) Develop programs to increase driver awareness of current laws and the dangers of driving impaired and distracted	State Government Agencies Hospitals Safety Organizations State and Local Safety Coalitions Law Enforcement	1) Expand partnerships, i.e., private sector, faith-based organizations, railroads, insurance companies, etc. 2) Convene key partners and interested parties to determine actions 3) Develop and fund media spots and educational programs on impaired driving, red lights, cell phones, railroad crossings
5) Establish a Child Passenger Safety Board	State Government Agencies Hospitals Safety Organizations State and Local Safety Coalitions Law Enforcement	1) Convene key partners and interested parties to determine actions 2) Develop standards and membership criteria
6) Pursue enhanced ATV regulations	State Government Agencies Hospitals Safety Organizations Arkansas State Legislature State and Local Safety Coalitions	1) Convene key partners and interested parties to determine actions 2) Propose legislation

Baseline: EMS motor vehicle accidents response data, limited or no media spots reminding drivers of bicyclists and pedestrians.

Target: Improved EMS motor vehicle accidents response times, passage of enhanced statewide graduated driver’s licensing state law, establishment of media spots reminding drivers about bicyclists and pedestrians.

Evaluation Method: Compare current and post intervention EMS statistical response times data, passage of enhanced statewide graduated driver’s licensing law by state Legislature, and creation of media spots reminding drivers of bicyclists and pedestrians.

<b>Injury Name: Motor Vehicle Injuries</b>		
<b>Goal: Reduce Motor Vehicle Injury Related Death and Disability</b>		
<b>Objective #3: Reduce Motor Vehicle Injuries Related to Driver Impairment and Distraction</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Zero tolerance of alcohol or drug (prescription and illicit) impairment for all age groups.	State Government Agencies Hospitals Safety Organizations State and Local Safety Coalitions Law enforcement	1) Convene key partners and interested parties to determine actions. 2) Data review 3) Program development 4) Implementation
2) Expand and assess programs for the identification and treatment of impaired drivers.	State Government Agencies Hospitals Safety Organizations Arkansas State Legislature State and Local Safety Coalitions	1) Expand partnerships, i.e., private sector, AR Pharmaceutical Assoc., AR Hospitality Assoc., AR for Drug Free Youth, Brain Injury

	Law enforcement	Assoc., insurance companies, etc. 2) Convene key partners and interested parties to determine actions. 3) Data review 4) Program development 5) Implementation
3) Ensure and increase on-going law enforcement efforts with respect to impaired drivers.	State Government Agencies Hospitals Safety Organizations Arkansas State Legislature State and Local Safety Coalitions Law enforcement	1) Convene key partners and interested parties to determine actions. 2) Data review 3) Program development 4) Implementation
4) Increase awareness of hazards of sleep deprivation and other distractions to driving.	State Government Agencies Hospitals Safety Organizations Arkansas State Legislature State and Local Safety Coalitions Law enforcement	1) Expand partnerships, i.e., private sector, AR Pharmaceutical Assoc., Brain Injury Assoc., insurance companies, etc. 2) Convene key partners and interested parties to determine actions. 3) Data review 4) Program development 5) Implementation

Baseline: Limited or no programs aimed at awareness of the hazards of sleep deprivation and other distractions to driving, identification and treatment of impaired drivers.

Target: Reduction of number of motor vehicle accidents caused by sleep deprivation, other driving distractions, and impaired drivers.

Evaluation Method: Motor vehicle injury statistical data.

<b>Injury Name: Motor Vehicle Injuries</b>		
<b>Goal: Reduce Motor Vehicle Injury Related Death and Disability</b>		
<b>Objective #4: Improve Driving Environment Through Intervention and Enforcement</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Identify locations within the state that are at high risk for motor vehicle injuries.	State Government Agencies Federal Govt. Agencies Insurance Companies	1) Convene key partners and interested parties to determine actions. 2) Review data for high-risk road areas.
2) Encourage improvement of high risk areas through identification of environmental	State Government Agencies State Railroad Contact	1) Convene key partners and interested parties to determine actions.

hazards		2) Review data for high-risk road areas. 3) Research problems with railroad crossings, problem intersections, roadway shoulders, one-way frontage roads, etc.
3) Encourage enforcement of established safety laws	State Government Agencies Law Enforcement	1) Expand partnerships, i.e., county prosecutors, insurance companies, private sector organizations, etc. 2) Convene key partners and interested parties to determine actions. 3) Capture and review data serially on tickets given for motor vehicle-related issues, i.e., child passenger restraint, seat belt and ATV violations. 4) Research possible incentives for enforcement.

Baseline: High-risk areas data kept by AHTD, Federal Highway Administration.

Target: Identification of all high-risk areas throughout Arkansas.

Evaluation Method: Documentation of implementation of centralized database for high-risk areas including. Use and sharing of collected information.

<b>Injury Name: Motor Vehicle Injuries</b>		
<b>Goal: Reduce Motor Vehicle Injury Related Death and Disability</b>		
<b>Objective #5: Ensure Adequate Data Surveillance of Motor Vehicle Injuries</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Adopt an accepted criteria for the collection of crash data	State Government Agencies Hospitals Safety Organizations Arkansas State Legislature State and Local Safety Coalitions	1) Convene key partners and interested parties to determine actions. 2) Use NHTSA criteria 3) Support Highway Safety Office's use of NHTSA criteria
2) Collect and analyze statewide EMS data (i.e. trauma and transportation), hospital discharge data, state mortality data	State Government Agencies Hospitals Ambulance Providers Hospitals	1) Convene key partners and interested parties to determine actions. 2) Establish on-going surveillance
3) Collect statewide Medical Examiner (ME) and Coroner's Office Data	Arkansas ME Coroner's Offices State Government Agencies	1) Convene key partners and interested parties to determine actions. 2) Develop a process for data collection

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Baseline: EMS, Medical Examiner data systems.

Target: Statewide collection of EMS, Medical Examiner data.

Evaluation Method: Statewide collection of EMS, Medical Examiner data.

## LEGISLATION AND PREVENTION

Prevention of motor vehicle injury and death has been a primary effort for many years. One of the methods used to prevent these injuries is enacting laws. The following is a summary of the Arkansas laws for the prevention of motor vehicle injury and death.

**1) SAFETY BELT USE, Act § 27-37-701.** Each driver and front seat passenger in any motor vehicle operated on a street or highway in this state shall wear a properly adjusted and fastened seat belt. It is a secondary enforcement law. Occupants are cited for non-use only if the vehicle is stopped for another motor vehicle violation. Any person who violates this law shall be subject to a fine not to exceed \$25.00.

This law shall not apply to children under 15 years of age who require protection under the Child Passenger Protection Act.

**Gaps:**

- Need Primary Enforcement Law. Law allowing police to stop and ticket a driver for non-use of safety belt without requiring that the driver commit or be cited for another offense.
- All passengers in all seating positions should be covered under the primary belt law.

**2) CHILD RESTRAINTS, Act § 27-34-101.** Arkansas' law is a primary enforcement law, covering children under the age of 15 years in any seating position. Until a child is six years, or until the child weighs sixty pounds, the child must ride restrained in an appropriate child safety seat. A child older than six years, or over 60 pounds, must ride in a seat belt until at least age 15. A child may ride in a belt positioning booster seat until they fit into the adult lap and shoulder belt.

The driver is responsible for complying with the law, regardless of whether or not he/she is the child's parent or guardian. The violator shall be fined not less than \$25.00 or more than \$100. This law applies to every driver who transports a child under fifteen years of age in a passenger

automobile, van, or pickup truck, other than one operated for hire, which is registered in this or any other state. The law does not specify the type of restraint system to be used.

**Gaps:**

- A state is considered not to have gaps in its child restraint laws if all occupants under the age of 16 are covered by either a child restraint law or a safety belt law.
- A belt positioning booster seat used with lap and shoulder belt for a child weighing 40 pounds until the child fits into the adult lap and shoulder belt – approximately 80 pounds and 4’8” to 4’10” tall is optimal.
- Unattended Children Law. A person responsible for a child who is 8 years of age or younger shall not leave that child in a motor vehicle without being supervised in the motor vehicle by a person who is at least 14 years of age.

**3) DRIVING UNDER THE INFLUENCE**, Act § 5-65-101. For any person over the age of 21, the threshold for legal intoxication is .08% blood alcohol content (BAC). At the time of arrest for operating or being in actual physical control of a motor vehicle while intoxicated or while there was an alcohol concentration of 0.08 or more in the person's breath or blood, the arrested person shall immediately surrender his or her license, permit, or other evidence of driving privilege. You can also be arrested for alcohol impairment at any level above 0.04% Breath Alcohol Content (BrAC).

If the person is found to have a BAC of .08%, but less than .15%, his/her license is suspended for 120 days (1<sup>st</sup> offense). If a driver refuses a blood alcohol test, his/her license is suspended for 180 days (1<sup>st</sup> offense) and subject to misdemeanor criminal charges.

Act §5-65-111. If a passenger under 16 years of age was in the vehicle at the time of the offense, the driver may be imprisoned for no fewer than seven days and no more than one year (1<sup>st</sup> offense), except that the court may order public service in lieu of jail, and in that instance, the court shall include the reasons in its written order or judgment.

**Arkansas Law of Interest: Dram Shop** - A term referring to liability of establishments arising out of the sale of alcohol to obviously intoxicated persons or minor who subsequently cause death or injury to third-parties as a result of alcohol-related crashes.

**Gaps:**

- Keg Registration. A requirement for beer kegs and other large beer containers to be tagged with identification tags and recording the purchaser’s name, address and location where the keg is to be used in order to track the source, if minors are served.
- Social Host. Social host liability: statute or case law that imposes potential liability on social hosts as a result of their serving alcohol to obviously intoxicated persons or minors who subsequently are involved in crashes causing death or injury to third-parties.
- Commercial Driver’s License. There’s no penalty to a commercial driver’s license for infractions incurred while driving a personal vehicle.

**4) UNDERAGE DRIVING UNDER THE INFLUENCE** Act § 5-65-301. Any person who is under the age of twenty-one (21) years old may not legally consume alcoholic beverages in Arkansas.

For any person under the age of 21, the threshold for legal intoxication is .02% blood alcohol content (BAC). At the time of arrest for operating or being in actual physical control of a motor vehicle while intoxicated or while there was an alcohol concentration of 0.02 or more in the person's breath or blood, the arrested person shall immediately surrender his or her license, permit, or other evidence of driving privilege.

At the time of arrest the arresting officer shall seize the motor vehicle operator's license of the underage person arrested and issue to such person a temporary driving permit not to exceed 30 days.

Any underage person who has his or her driving privileges suspended, revoked, or denied shall be required to complete an alcohol and driving education program for underage drivers as prescribed and approved by the Highway Safety Program or an alcoholism treatment program, or both, in addition to other penalties.

If the person is found to have a BAC of .02%, but less than .08%, his/her license is suspended for 90 days (1<sup>st</sup> offense). If a driver refuses a blood alcohol test, her/his license is suspended for 90 days (1<sup>st</sup> offense.)

**Arkansas Law of Interest: Fake ID** - A statute that creates an offense for an underage person to use a fraudulent ID and provides for a driver's license suspension for attempting to purchase alcohol using a false ID.

**Gap:** Youth Attempt at Purchase. A statute which makes it illegal for a person under age 21 years to attempt to purchase alcohol.

**5) PUBLIC CONSUMPTION OF ALCOHOL**, Act §5-71-212. Public intoxication - Drinking in public. A person commits the offense of public intoxication if he appears in a public place under the influence of alcohol or a controlled substance to the degree and under circumstances such that he is likely to endanger himself or other persons or property, or that he unreasonably annoys persons in his vicinity.

A person commits the offense of drinking in public if that person consumes any alcoholic beverages in any public place, on any highway, or street, or upon any passenger coach, streetcar, or in or upon any vehicle commonly used for the transportation of passengers, or in or about any depot, platform, waiting station or room, or other public place other than a place of business licensed to sell alcoholic beverages for consumption on the premises.

Both public intoxication and drinking in public are Class C misdemeanors.

**Gap:** Open Container Law that is Transportation Equity Act for the 21st Century (TEA-21) Compliant. Open container laws prohibit the possession of any open alcoholic beverage container and the consumption of any alcoholic beverage in the passenger area of a motor vehicle. Since every state has laws to prevent and punish impaired driving, open container laws can serve as an important tool in the fight against impaired driving.

**6) GRADUATED LICENSING FOR NEW DRIVERS**, Act § 27-16-804. Before an individual, who does not possess an Arkansas driver license, may begin to learn to drive; an instruction permit must first be obtained, even if it is to merely practice driving while with a parent, guardian or other authorized licensed driver.

*Instruction Permit:* This permit allows a driver to operate a motor vehicle when accompanied by a licensed driver, 21 years of age or older, who is occupying a seat beside the driver, except in the event the permit holder is operating a motorcycle. The applicant for an instruction permit must be at least 14 years of age. To obtain the instruction permit, an application must pass the knowledge test and vision test. If the applicant is under the age of 18, you must also have a consent form signed by the parent or legal guardian and possess the proper school forms. The permit is issued for six months and can be renewed for an additional six month period if the applicant has not been at fault in an accident or been convicted of a serious traffic violation within the last six months. All passengers riding in a motor vehicle being operated by a person with an Instruction Permit must wear seat belts at all times.

*Learner's Permit:* This license is a restricted license issued to persons between fourteen and sixteen years of age. The applicant must possess a valid Instruction Permit indicating successful completion of the required knowledge, vision and skills test. The applicant must not have been at fault in an accident or been convicted of a serious traffic violation within six months prior to application. A person operating a motor vehicle with a Learner's License must be accompanied by a licensed driver over 21 years of age. All passengers riding in a vehicle being operated by a person with a Learner's License must wear seat belts at all times.

*Intermediate License:* This license is a restricted license issued to persons between 16 and 18 years of age. The applicant must possess a valid Instruction Permit indicating successful completion of the required knowledge, vision and skills test. The applicant must not have been at fault in an accident or been convicted of a serious traffic violation within six months prior to application. All passengers riding in a vehicle being operated by a person with an Intermediate License must wear seat belts at all times.

**Gaps:**

- Nighttime restriction during intermediate stage - Because a majority of the crashes involving teens occur before midnight, the optimal period for supervised nighttime driving is from 9 or 10 p.m. to 5 a.m. Unsupervised driving during this period is prohibited.
- Passenger restriction during intermediate stage - Limits the number of teenage passengers that ride with a teen driver driving without adult supervision. The optimal limit is no more than one teenage passenger. Sometimes family members are excluded from being counted in the limit.
- 30-50 hours of supervised driving during learner stage - A novice driver must receive 30-50 hours of behind-the-wheel training with an adult licensed driver. In an optimal provision, there is not a reduction in this amount of time if the driver takes a driver's education course.

**7) ALL-TERRAIN VEHICLES**, Act § 27-21-101. A person 12 years of age or older shall be entitled to operate an all-terrain vehicle in this state if the use is in compliance with all other provisions of this chapter.

A person less than 12 years of age shall be entitled to operate an all-terrain vehicle in this state only if he or she is under the direct supervision of a person who is at least 18 years of age or if he or she is on land owned by, leased, rented, or under the direct control of his or her parent or legal guardian, or if he or she is on land with the permission of the owner.

**Gaps:**

- Legislation should address:
  - Helmet use
  - ATV registration
  - Operator licenses
  - Passengers
  - Rider education
  - Use on private/public land
- Need motorcycle helmet legislation for all age riders. Rescinding a state motorcycle helmet law has negative effect on ATV safety legislation.
- Acts prohibited by operator: No ATV may be operated:
  - On road, highway, or interstate
  - With no more than one passenger
  - Without use of helmet (under age 18)
  - Restrictions on driver with youth passenger (driver must have license)
- Safety awareness courses:
  - Need designated commission to offer free safety classes, may approve other ATV classes (to ensure safety of public), must offer free ATV course materials to dealers, and must issue certificates of class completion.
  - Under age 18 must have certificate of completion
- Local Government Authority to regulate:
  - Municipality may regulate ATV use within its area
  - Homeowner association may regulate ATV use within its area
  - County commission may lawfully regulate ATVs on county roads
- Exemptions:
  - Private property
  - Farm/commercial use
- Criminal Penalties:
  - Violation is misdemeanor and fine
  - Fine or community service for parent allowing child to operate without helmet
- American Academy of Pediatrics Recommendations:
  - Children under age 16 should not operate an ATV
  - No passengers
  - Protective helmets, clothing, etc., should be worn
  - No street use or night time use
  - Addition of flags, reflectors, lights to increase visibility
  - No driving after drinking

**NOTE:** These gaps are based on comparison to recently enacted West Virginia legislation, not any known “best practice” standard, and represent a combination of viewpoints including the American Academy of Pediatrics, the National SAFE KIDS Campaign, and the U.S. Consumer Product Safety Commission.

**8) HELMET USE FOR BICYCLISTS.** There is neither statewide law nor local ordinances.

**9) HELMET USE FOR MOTORCYCLISTS,** Act § 27-20-104. Operators and passengers younger than 21 years old must wear a helmet. Operators and passengers must wear protective goggles, glasses, or a face shield. The headlight and taillight must be on at all times, day or night, when the motorcycle is in operation. The operator will not carry a passenger unless there are footrests and handholds for the passenger. There can be only one passenger. No driver under the age of sixteen years is allowed to carry a passenger.

**Gap:** Riders over 21 years of age not required to wear a helmet.

**10) MOTORIZED BICYCLES AND MOTOR-DRIVEN CYCLES (“POCKET ROCKETS”).** Act § 27-20-101. A "Motor-driven cycle" means every motor vehicle having a seat or saddle for use of the rider and designed to travel on no more than three wheels in contact with the ground and having a motor which displaces 250 cc or less, but this definition shall not include a motorized bicycle; A "Motorized bicycle" means every bicycle with an automatic transmission and a motor which does not displace in excess of 50 cc.

All motor-driven cycles and all motorized bicycles used upon the public streets and highways of this state shall be equipped with the following standard equipment: At least one but not more than two headlights; A red reflector on the rear; a lamp emitting a red light visible from a distance of five hundred feet to the rear must be used in addition to the red reflector provided above; Good hand or foot brakes; A horn in good working order, but no bell, siren, or whistle shall be permitted; A standard muffler; and Handholds and support for the passenger's feet when designed to carry more than one person, unless it is equipped with a sidecar.

Standard equipment required: Protective headgear unless the person is twenty-one years of age or older; and Protective glasses, goggles, or transparent face shields.

Operator's license required - Special license: It shall be unlawful for any person to operate a motorcycle or motor-driven cycle in this state unless the person has a current valid motorcycle operator's license. However, any person fourteen years of age or older who is under the lawful age to obtain a motorcycle operator's license may operate a motor-driven cycle if that person has obtained a special license.

**Gap:** Riders over 21 years of age not required to wear a helmet.

**11) GOOD SAMARITAN LAW.** Act §17-95-101. Any person licensed as a physician or surgeon under the laws of the State of Arkansas or any other person, who, in good faith, lends emergency care or assistance without compensation at the place of an emergency or accident, and who was acting as a reasonable and prudent person would have acted under the circumstances present at the scene at the time the services were rendered, shall not be liable for any civil damages for acts or omissions performed in good faith.

**Gap:** Child passenger safety technicians, certified by the National Highway Traffic Safety Administration, are not covered under this law while educating families in the proper installation of child safety seats.

**12) RIDING IN CARGO AREAS OF TRUCKS.** There is no legislative prohibition.

**13) USE OF ELECTRONIC DEVICES WHILE DRIVING.** There is no legislative prohibition.

**14) LICENSE RENEWAL,** Act §27-16-901. Except for the intermediate driver's license and the learner's license, every driver's license shall expire at the end of the month in which it was issued four years from its date of initial issuance unless the Commissioner of Motor Vehicles shall provide, by regulation, for some other staggered basis of expiration.

A learner's license shall be issued for no more than a two-year period and shall expire upon the driver reaching 16 years of age. Any person 16 years of age may apply for an intermediate driver's license provided that his or her driving record is free of a serious accident and conviction of a serious traffic violation for the most recent six-month period.

Intermediate drivers' licenses shall be issued for no more than a two-year period and shall expire upon the driver reaching age eighteen 18 years of age and may be renewed at that time as a regular driver's license for four years, so long as the intermediate driver has been free of a serious accident and conviction of a serious traffic violation for at least 12 months prior to arriving at his or her eighteenth birthday.

Every driver's license shall be renewable on or before its expiration upon completion of an application, payment of the fees and passage of the eyesight test and shall be renewed without other examination, unless the commissioner has reason to believe that the licensee is no longer qualified to receive a license.

## **15) SPEEDING INFRACTIONS**

- Act § 27-50-302. Speeding in excess of 15 MPH over posted speed limit is a Class C misdemeanor.
- Act § 27-50-311. Penalties for large trucks exceeding limits. For operating a large truck at a speed in excess of five miles per hour over the posted or legal speed limit, the operator shall be fined \$50.00 for each mile per hour in excess of five miles per hour over the posted or legal speed limit. The term "truck" means any vehicle with a registered gross weight of at least twenty thousand pounds (20,000 lbs.).
- Act § 27-50-408. Fines for moving traffic violations in a highway work zone. In addition to all fines and penalties, after the conviction of any person for any moving traffic violation committed while the person is driving through a highway work zone in this state and if construction personnel were present in the highway work zone when the offense occurred, the trial judge shall assess an additional fine or penalty equivalent to all other fines and penalties for committing a moving traffic violation in the highway work zone.

**16) VIOLATIONS RESULTING IN SERIOUS INJURY, Act § 27-50-308.** Any person who drives any vehicle in such a manner as to indicate a wanton disregard for the safety of persons or property is guilty of reckless driving.

If physical injury to a person results, every person convicted of reckless driving shall be punished upon a first conviction by imprisonment for a period of not less than thirty (30) days nor more than ninety (90) days or by a fine of not less than one hundred dollars (\$100) nor more than one thousand dollars (\$1,000), or by both such fine and imprisonment.

**17) VIOLATIONS RESULTING IN DEATH, Act § 27-50-307.** When the death of any person ensues within one year as a result of injury received by the driving of any vehicle in reckless or wanton disregard of the safety of others, the person operating the vehicle shall be guilty of negligent homicide. The license of the driver shall be revoked. The offense of negligent homicide shall be included in and be a lesser degree of the offense of involuntary manslaughter.

**18) MOTOR VEHICLE INSURANCE SYSTEM, Act § 27-22-104.** Arkansas law requires that owners carry a minimum of \$25,000 for death or bodily injury to a single person in a single incident, and \$50,000 for death/bodily injury to two or more persons in one incident, and \$25,000 for property damage.

### **Restraint Usage Rates**

Reported shoulder belt use for front seat occupants was estimated at 62.8% in 2003 (Arkansas Highway Safety Office, 2003). Reported child safety seat use was estimated at 72.3% in 2003 (Arkansas Highway Safety Office, 2003). State surveys were conducted using NHTSA-issued guidelines. These guidelines require direct observation and do not allow for the use of secondary sources (e.g., telephone surveys or police crash reports) to gather information. They require that surveys use probability-based sampling procedures, and also that the areas of the state with the highest population concentrations be included in the sampling. Surveys also had to be conducted on all days of the week and during all daylight hours.

## Chapter 3: Recreational Injury

### Priority Goals:

***Objective 1:*** Enhance Media Awareness Via Education of Problems With Pools, Tubs and Bucket Drownings

***Timeframe:*** August 1, 2005 through July 31, 2010

***Responsible Entities:*** Arkansas Department of Health  
Consumer Product Safety Commission

***Objective 2:*** Coordinate With State and Federal Agencies in Promotion of Boating and Skiing Safety Procedures

***Timeframe:*** August 1, 2005 through July 31, 2010

***Responsible Entities:*** Arkansas Department of Health  
Consumer Product Safety Commission

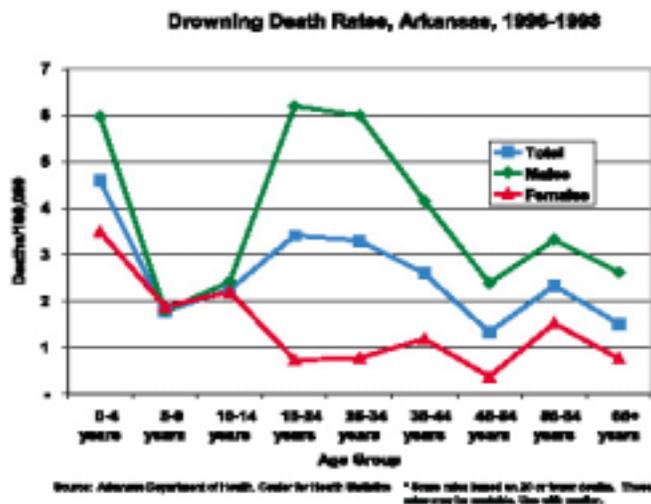
## DROWNING

### Background

Drowning is common throughout the United States. More drowning occur in warmer areas such as Florida and California, but some states with colder weather, including Alaska and South Dakota, have high rates of drowning deaths. In the United States, drowning is the second cause of accidental deaths in younger children (1-14 years). Circumstances of drowning vary by location and age of the victim. Infant drowning deaths most often occur in bathtubs. Most preschool age children drown in swimming pools, but children can drown in as little as one inch of water, including buckets. Drowning in natural bodies of water becomes more frequent in adolescence and adulthood.

In 1998, Arkansas had the seventh highest rate of unintentional drowning in the nation. During the period 1996-1998, drowning was the third cause of injury-related death for children and fifth for adults ages 19-64. A total of 202 people died of drowning, constituting about 3% of all injury deaths. Drowning was most common for males than females, overall (Figure R-1). Rates for children under four were twice those for the general population. During this period, the death rate for drowning among non-whites was higher than for whites, especially for children.

*Figure R-1: Drowning deaths by age group*



In contrast to the mortality data, drowning was a relatively uncommon reason for hospital discharge in Arkansas in recent years. Only 53 such discharges were included in the hospital discharge database. This may be due to the relatively lethality of submersion injuries or to underreporting. Of the 53 cases included in the hospital discharge database, 27 (51%) were in children 0-18 years, and 15 of these were in children under five years of age. Only three discharges for drowning were for older adult patients. Drowning related hospitalizations averaged 4.8 days in length, and eight (15.1%) of the patients died.

The EMS database records drowning and near-drowning-related EMS vehicle runs. For the period 1996-2000, 53 runs were recorded. However, the EMS runs have a different pattern than

the hospital data. Only 25% of these runs were noted to be for children 0-18 years of age, and 69% were for adults ages 19-64.

An additional water-related injury prevalent in Arkansas is injury sustained while riding on, or operating, personal watercraft (PWC). According to information published in *Injury Prevention*, in 1998, when these devices were first introduced in the 1970's, they were one-seat water vessels with a maximum of 40 horsepower engines. Today, many manufacturers are producing craft with three seats, horsepowers over 120-135, and able to reach speeds of 65-70 miles per hour.

Indications are that injuries, disabilities and fatalities are increasing as the popularity of these boats grows. Nationally, PWC injuries have more than doubled from 1990-1994. Injuries to operators less than 20 years of age have increased by 50% during the same time period. According to the Arkansas Game and Fish Commission, in 2003, there were six fatalities and thirty-four injuries due to boating mishaps.

### **Existing Surveillance Systems**

Drowning injuries are tracked by the Arkansas Department of Health (ADH) Center for Health Statistics Mortality Reports, the ADH Center for Health Statistics Hospital Discharge Database, and the ADH Emergency Medical Services vehicle run data.

### **Strengths and Weaknesses of the Data Systems**

Discharge data from Arkansas' two federal Veterans Administration hospitals are not part of the Arkansas hospital discharge database.

In addition, the difference in Arkansas Hospital Discharge Data and EMS vehicle run data make it difficult to decipher with existing data, since these databases are not linked by the individual patient. The data may reflect the same group of patients with different record keeping practices (e.g., no accurate age available at the scene but later available at the hospital), or may reflect two groups of patients entirely. It is possible that different age groups use different methods of transport to medical care, or that near drowning in children results in hospitalization more frequently than adults.

### **Summary/Highlights of Data**

- Among 0-4 year olds, rates of deaths by drowning have averaged twice the rates than for the general population.
- Arkansas had the seventh highest rate of intentional drowning in the nation in 1998.
- In Arkansas during 1996-1998, drowning was the third cause of injury-related death for children and fifth for adults ages 19-64.

### **Major Gaps in Data**

1. Poor documentation of circumstances of drowning among older children or adults.
2. Circumstances are unknown for drowning incidence.
3. Role of barriers in preventing child drowning has not been quantified in Arkansas.

### **Current Interventions**

Arkansas Act 623 of 1987 requires not only standards for water quality, depth, structure, and personal hygiene; it includes mandates for various safety provisions. Every Public Swimming Pool is required to have adequate and properly trained lifeguards whenever the pool is open to

the public. At semi-public pools and other water recreation attractions where lifeguard service is not required, a warning sign is to be placed in plain view stating “Warning-No Lifeguard on Duty” in clearly legible letters at least four inches high. The sign is also required to state that children should not use the pool without an adult in attendance.

Also required in this Act is complete fencing in a manner to exclude animals, non-bathers, and prevent accidents. The fence must be at least four feet in height and with openings no larger than four inches. The gates are to be self-closing and lockable.

Public pools are required to have available life saving equipment such as poles, life lines, life preservers, shepherd’s hooks or flutter boards. They are also required to have available first aid equipment to care for minor injuries.

Arkansas legislation requires the use of Personal Floatation Devices for children under the age of 14 years. The Arkansas Game and Fish Commission sponsors boating safety classes. There are also various local community programs that provide information on drowning prevention.

**References**

- 1) Arkansas Department of Health, Arkansas Center for Health Statistics, Mortality Reports, 1996-2001.
- 2) Arkansas Department of Health, Arkansas Center for Health Statistics, Hospital Discharge Data reports, 1996-2001.
- 3) Arkansas Department of Health, Emergency Management Services, EMS Vehicle Run data, 1996-2001.
- 4) Arkansas Game and Fish Commission, boating injury database, 2003.
- 5) WISQARS Database, National Center for Injury Prevention and Control, available at <http://www/cdc.gov/ncipc/wisqars/>

<b>Injury Name: Drowning</b>		
<b>Goal: Reduce Drownings to 0.9 Drownings per 100,000</b>		
<b>Objective #1: Enhance Media Awareness Via Education of Problems With Pools, Tubs and Bucket Drownings</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Determine and select consistent brochures and PSA’s for drowning prevention for children	State Government Agencies Hospitals Health and Fitness Centers <i>Emergency Medical Services Providers</i> Local First Responders	1) Involve key partners in information gathering to document the number and specific types of drowning events 2) Create public information programs
2) Gain Media Involvement	State Government Agencies Hospitals Health & Fitness Centers Childcare centers Schools	1) Refine media messages 2) Disseminate public information programs
3) Educate Media on findings	State Government Agencies Hospitals Health & Fitness Centers	1) Contact organizations to determine dates and times for training sessions

	Emergency Medical Services providers Local First Responders	2) Provide training 3) Implement media campaign locally in high-risk areas
4) Provide education to parents, schools, children's caregivers, children's day care centers, children's faith-based programs	State Government Agencies Schools Health & Fitness Centers Hospitals Emergency Services provider organizations Children's Faith-Based organizations	1) Involve key partners in media campaign sponsorship 2) Implement media campaign locally in high-risk areas

Baseline: Document incidence of drownings in children under age 10.

Target: Various media and publications such as CPSC Video News Release

Evaluation method: Track articles and publications on drowning prevention

<b>Injury Name: Drowning</b>		
<b>Goal: Reduce Drownings to 0.9 Drownings per 100,000</b>		
<b>Objective #2: Coordinate With State and Federal Agencies in Promotion of Boating and Skiing Safety Procedures</b>		
<b>Strategic intervention</b>		<b>Action steps</b>
1) Publicize mandate for boating safety education and Personal Flotation Device requirement	State Agencies Hospitals Non-Profit Advocacy Organizations Emergency Medical Services providers Local First Responders	1) Identify programs which have safety fall prevention strategies in place 2) Partner with private and public organizations currently in existence to design awareness campaigns
2) Educate public on findings	Key partners above Media	1) Create public information programs
3) Provide education to parents, children's caregivers, children's day care centers, children's faith-based programs	State Agencies Hospitals Non-Profit Advocacy Organizations Emergency Medical Services providers Local First Responders Faith-Based children's programs	1) Contact organizations to determine dates and times for training sessions 2) Conduct pre-test assessments 2) Provide training 3) Conduct post-test assessments
4) Gain Media Involvement	State Agencies Schools Non-Profit Organizations Hospitals Emergency Services provider organizations Children's Faith-Based organizations	1) Involve key partners in media campaign sponsorship 2) Refine media messages 3) Implement media campaign locally in high-risk areas

Baseline: Incidence of drowning in children.

Target: Reduce by 5% in 3 – 5 years.

Evaluation method: Using incidence data sources, including mortality rates and compare

## ALL TERRAIN VEHICLES

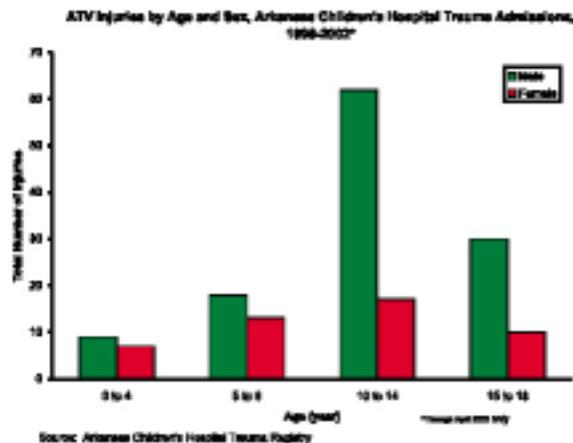
### Background

All terrain vehicles (ATV's) and other off-road vehicles are used widely for both work and recreation. The devices are also frequently used on farms and in rural communities for general transportation across fields and even on roads. Unfortunately, these devices are a frequent form of injury mortality and morbidity. In addition to adults, thousands of children, usually riding adult-sized vehicles, are injured yearly. About 200-300 people nationwide die yearly due to ATV injury.

The Arkansas age-adjusted rate of 1.5/100,000 for this category during 1996-1998 reflects 112 deaths during this period. This rate is twice as high as the national rate of 0.72/100,000. Males were much more frequently involved in these injuries (crude rate 2.4/100,000 vs. 0.4/100,000 for females). These injuries also demonstrated higher rates in whites than non-whites, in contrast to many other injury types (crude rate 1.6/100,000 for whites vs. 0.5 for non-whites).

Data from Arkansas Children's Hospital indicate that 249 children were admitted for treatment of ATV injuries between 1998 and 2003 five of these children died of their injuries. A further 15 children were admitted in the first quarter of 2002 alone. Males ages 10-14 years were the most common group injured, but the youngest passenger was only six months old and the youngest driver was three years old (Figure R-2).

**Figure R-2: ATV Injuries by Age and Sex, Arkansas Children's Hospital Trauma 1998-2002**

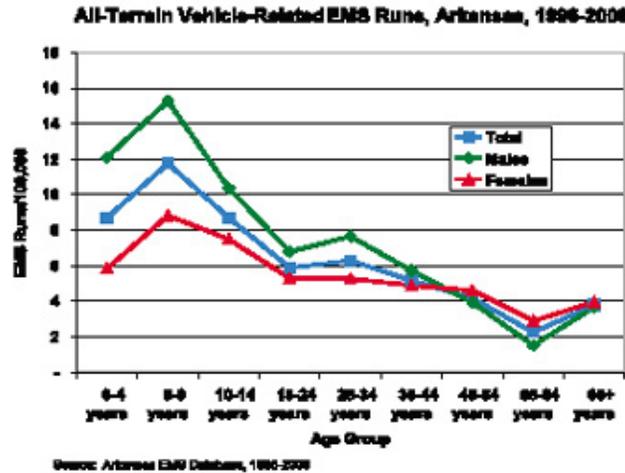


All terrain vehicle injuries are specifically logged as part of the Arkansas EMS run database, allowing for a more complete description of ATV-related injury. Arkansas EMS transported 2,425 ATV crash patients between 1996 and 2003. Nearly half of these (1042, 43%) were in patients under 18; the remainder were in adults under 65. EMS run rates were highest for young children and young adults, consistent with the pattern at Arkansas Children's Hospital, and fell off for older adults (Figure R-3). Rates for males were higher than females except in older adults. Nearly all the ATV injuries reported (94.4%) were in whites.

ATV injuries in the EMS database varied widely across the state with rural counties having much higher occurrence rates.

**Figure**

**R-3 Arkansas EMS run ATV Injuries by Age, 1996-2003**



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- 1) Committee on Injury and Poison Prevention. All-terrain vehicle injury prevention: two-three- and four-wheeled unlicensed motor vehicles. Pediatrics 2000; 105(6):1352-1354.
- 2) Consumer Product Safety Commission. All-terrain Vehicle Exposure, Injury, Death, and Risk Studies. Bethesda, MD. Consumer Product Safety Commission; 1998.
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- 4) Helmkamp, JC. A comparison of state-specific all terrain vehicle-related death rates, 1990-1999. American Journal of Public Health; November 2001 Volume 91: 1792-1795.
- 5) Kyle SB, Adler PW. Report on 1997 ATV Injury Survey. Bethesda, MD: Consumer Product Safety Commission; 1998.
- 6) Ross RT, Stuart, LK, Davis, FE. All terrain vehicle injuries in children: industry-regulated failure. American Surgeon 1999, 65:306-308.

<b>Injury Type: Recreational/All-Terrain Vehicles</b>		
<b>Goal: To reduce the number of ATV-related injuries and fatalities</b>		
<b>Objective 1: Increase awareness of ATV injury among health care providers</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Introduce the problem in undergraduate medical education	College of Medicine faculty and Center for Health Promotion at UAMS	Junior medical students from UAMS receive an overview of ATV injury during their pediatric rotation. Approximately 25 students are educated quarterly.

2) Educate key injury programming persons	AR Injury Coalition members and AR SAFE KIDS Coalition	1) ACH Trauma Service conducted a presentation during the June 04 meeting of the coalition. 2) College of Medicine faculty at UAMS will conduct presentation during December 04 meeting.
3) Educate ACH and UAMS medical staff	College of Medicine faculty and Center for Applied Research and Evaluation at UAMS; ACH Trauma Service	An ACH Trauma Grand Rounds session was conducted in August 04.
4) Educate community-based physicians	AR Children’s Hospital departments of Outreach and Public Relations; College of Medicine faculty and Center for Health Promotion at UAMS	1) A tailored brochure was mailed to 1,600 physicians around the state. 2) A speaker’s bureau has been established through ACH and UAMS to respond to requests and opportunities.
5) Educate community-based public health workers on helmet use, and the need for training requirement for children operators.	Injury Free Coalition for Kids; College of Medicine faculty, Center for Applied Research and Evaluation, and Center for Health Promotion at UAMS	1) College of Medicine faculty at UAMS included ATV injury in lecture at College of Public Health during November 04 2) College of Medicine faculty at UAMS will conduct presentation during March 05 SOPHE conference 3) A speaker’s bureau has been established through ACH and UAMS to respond to requests
6) Publish results of ATV studies	AR Department of Health; AR Children’s Hospital Trauma Service Injury Free Coalition for Kids; College of Medicine faculty, Center for Applied Research and Evaluation, and Center	1) <i>Injury Prevention</i> , June 04 2) <i>Pediatrics</i> , accepted for early 05 3) <i>Injury Free Coalition for Kids</i> annual conference, Dec. 04

Baseline: No organized data maintained on ATV injury/death in Arkansas.

Target: Relevant state agencies, policy makers, pertinent practitioners in injury reporting

Evaluation Method: Legislation enacted during upcoming AR legislative sessions, increased awareness of TV safety as demonstrated by program interventions and evaluations.

<b>Injury Type: Recreational/All-Terrain Vehicles</b>		
<b>Goal: To reduce the number of ATV-related injuries and fatalities</b>		
<b>Objective 2: Determine safety messages that would be acceptable to ATV users</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>

1) Conduct focus groups	AR Children’s Hospital departments of Outreach, Public Relations and Injury Free Coalition for Kids; College of Medicine faculty, Center for Applied Research and Evaluation, and Center for Health Promotion at UAMS; Arkansas Game and Fish Commission Farm Bureau Insurance	Multiple groups were conducted during August and September 04 with separate youth, parents, and retailers in three areas of the state. Three story boards were presented as the foundation for discussion.
2) Conduct exit interviews for PSAs	AR Children’s Hospital departments of Outreach, Trauma Service and Injury Free Coalition for Kids; College of Medicine faculty, Center for Applied Research and Evaluation, and Center for Health Promotion at UAMS	Exit interviews will be conducted at movie theaters to evaluate effectiveness of PSAs (Obj. 3, Strategy B) during December 04 and January 05.

Baseline: No organized data maintained on ATV injury/death in Arkansas.

Target: Relevant state agencies, policy makers, pertinent practitioners in injury reporting

Evaluation Method: Legislation enacted during upcoming AR legislative Sessions, increased awareness of ATV safety as demonstrated by program interventions and evaluations.

<b>Injury Type: Recreational/All-Terrain Vehicles</b>		
<b>Goal: To reduce the number of ATV-related injuries and fatalities</b>		
<b>Objective 3: Increase awareness of ATV injury among general public</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Produce standardized presentation	AR Children’s Hospital departments of Outreach, Trauma Service and Injury Free Coalition for Kids; College of Medicine faculty, Center for Applied Research and Evaluation, and Center for Health Promotion at UAMS; Arkansas Game and Fish Commission Farm Bureau Insurance Company	1) A power point presentation has been developed and distributed.
2) Produce public service announcement	AR Children’s Hospital departments of Outreach, Public Relations and Injury Free Coalition for Kids; College of Medicine faculty, Center for Applied Research and Evaluation, and Center for Health Promotion at UAMS	1) Two television PSAs have been produced. Airing will begin in December 05 to selected markets across the state. Channels of distribution include cable access channels and movie theaters. A radio PSA has also been produced.
3) Implement and evaluate effectiveness of tailored community campaign	AR Children’s Hospital departments of Outreach, Trauma Service and Injury Free Coalition for Kids;	Study funded by UAMS to conduct an intensive education campaign in area with highest

	College of Medicine faculty, Center for Applied Research and Evaluation, and Center for Health Promotion at UAMS; Arkansas Game and Fish Commission Farm Bureau Insurance Company	ATV injury rates. Planning began in September 04; community readiness will begin in January 05 with implementation anticipated during spring 05.
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Baseline: No organized data maintained on ATV injury/death in Arkansas.

Target: Relevant state agencies, policy makers, pertinent practitioners in injury reporting

Evaluation Method: Legislation enacted during upcoming AR legislative Sessions, increased awareness of ATV safety as demonstrated by program interventions and evaluations.

<b>Injury Type: Recreational/All-Terrain Vehicles</b>		
<b>Goal: To reduce the number of ATV-related injuries and fatalities</b>		
<b>Objective 4: Improve ATV Injury Surveillance</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Monitor morbidity	AR Children’s Hospital Trauma Service and Injury Free Coalition for Kids College of Medicine faculty, Center for Applied Research and Evaluation, and Center for Health Promotion at UAMS	1) EMS data by code, category, and county are compiled annually.
2) Monitor mortality	AR Department of Health AR Children’s Hospital Injury Free Coalition for Kids College of Medicine faculty, Center for Applied Research and Evaluation, and Center for Health Promotion at UAMS	1) Mortality data is compiled annually through the use of specific codes related to death by ATV injury.

Baseline: No organized data maintained on ATV injury/death in Arkansas.

Target: Relevant state agencies, policy makers, pertinent practitioners in injury reporting

Evaluation Method: Legislation enacted during upcoming AR legislative sessions, increased awareness of ATV safety as demonstrated by program interventions and evaluations.

## Chapter 4: Home Injury

### Priority Goals:

**Objective One:** Promote Fall Prevention Awareness for Older Adults

**Timeframe:** August 1, 2005 through July 31, 2007

**Responsible Entity:** Arkansas Department of Health  
Senior Organizations

**Objective Two:** Support Implementation of Junior Fire Marshal's Program

**Timeframe:** August 1, 2005 through July 31, 2007

**Responsible Entity:** Arkansas Firefighter Association/Local Departments, Arkansas State Fire Marshal's Office

**Objective Three:** Implement smoke alarm education and installation programs

**Timeframe:** August 1, 2005 through July 31, 2006

**Responsible Entity:** Arkansas Department of Health  
Local Fire Departments

## FALLS

### Background

The Arkansas death rate for falls is an age-adjusted 4.45 fatalities per 100,000 population between 1996-1998. Falls are the leading cause of unintentional injury death in older adults and are the fourth leading mechanism of injury death overall.

During the time period of 1999-2001, falls were the number one cause of injury-related hospitalization, and accounted for 54% of all injury-related admissions (Table H-1). During the 1996-1998 timeframe, nearly 80% of Emergency Services Vehicle runs were in response to falls, for a total of 28,580 vehicle runs. Falls account for 40% of injury-related EMS runs in Whites, and 17% among Blacks.

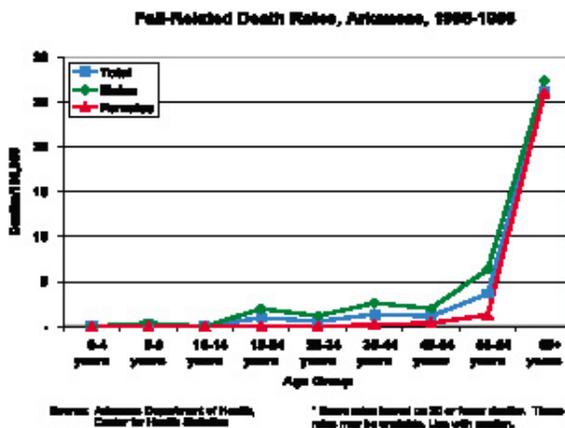
Table H-1

<b>Injury Related Hospitalizations by Mechanism, Arkansas: 1999-2001</b>		
<b>Mechanism</b>	<b>Hospitalizations</b>	<b>Percent</b>
<b>Total</b>	<b>38,968</b>	<b>100%</b>
Fall	21,027	54.0
MV Traffic	6,045	15.5
Poisoning	2,039	5.2
Natural/Environmental		
Transport	1,217	3.1
Other	7,098	18.2

Death rates are low for all age groups up to late adulthood, when rates climb considerably in the 55-64 year old age group, and then jump nearly ten-fold for those 65 and older (Figure H-1).

Figure H-1.

*Fall-Related Death Rates, Arkansas, 1996-1998*

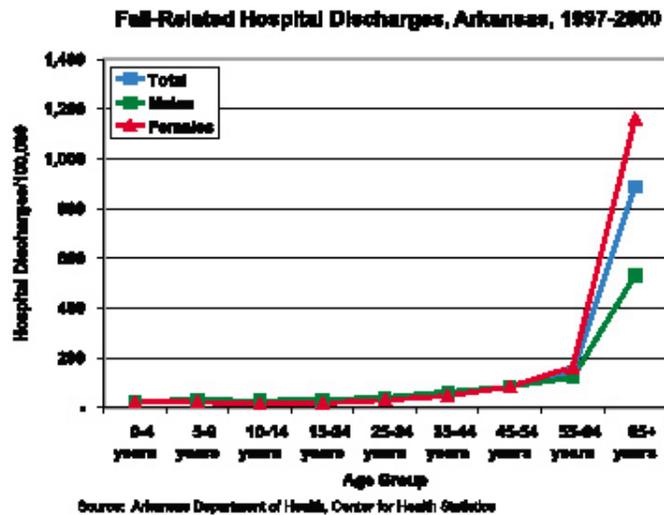


Fall-related hospitalizations for state the demonstrate similar patterns, but with overall rates showing the burden fall injury places not only on the victims but also on the health care system (Figure H-2). More than 18,000 people were discharged after fall injuries in Arkansas during

1997-2000. Nearly three quarters of these falls were among older adults (13,309, 74%). Rates rise with age; for those 65 or older, the rates were 889/100,000 overall. Females experienced extremely high rates of falls, as demonstrated by a rate of 1160/100,000. Only 39.8% of these patients were discharged home; 2.6% expired in the hospital, whereas most of the remainder received discharge to another facility, such as a rehabilitation or skilled nursing center. Fall patients averaged five days in the hospital for their care.

**Figure H-2:**

**Fall-Related Hospital Discharges, Arkansas, 1997-2000**



The Arkansas State Spinal Cord Commission maintains a registry of Arkansas residents with spinal cord injury (SCI) disability. Medical criteria are utilized, defining SCI by functional loss in three of the four areas of (1)paralysis, (2)sensation, (3)bladder control, and (4)bowel control. As a result of strict medical criteria application, persons with SCI placed on the registry generally have permanent injuries and are severely affected. However, there remains a significant number of individuals with SCI who do not meet these criteria, but have extensive medical and rehabilitative needs.

The Arkansas incidence rate is lower than other states due to the restrictive medical criteria. However, as of June 2004, there were 1,328 persons living with spinal cord injury on the Arkansas SCI registry. Etiology of SCI reveals that falls account for over 12% of this injury classification.

Traumatic Brain Injury (TBI) data are available for the timeframe of 1997-2000 from the Arkansas Department of Health, Arkansas Center for Health Statistics. A total of 1,910 cases of TBI were included in this database. Most of the TBI cases were in males (1,231, 64.5%) and the median age was 37.5 years. TBI was most common in adolescents and young adults ages 15-24 and older adults. Twenty-five percent of TBI's were attributable to falls.

**Existing Surveillance Systems**

Documentation of falls is gathered through several databases which are maintained through the Arkansas Center for Health Statistics. These datasets include state mortality data and Hospital

Discharge Data System statistics. The ADH Emergency Management Services vehicle run database serves as proxy for Emergency Department data. The Arkansas State Spinal Cord Commission also maintains information documenting the etiology of falls as a major contributor to spinal cord injury.

In addition, there is a Behavioral Risk Factor Surveillance System (BRFSS) module which addresses falls with the two questions, to be asked only of people 45 years or older. Falls are defined as “when a person unintentionally comes to rest on the ground or another lower level.” The first question queries the incidence of a fall within the last three months. The second question asks if the fall caused limitations in regular daily activities for at least a day, or required a visit to the doctor as a result of the fall. However, although providing documentation of the incidence of falls for older adults, there is insufficient data from this study to discover etiologies of falls.

### **Strengths and Weaknesses of the Data Systems**

As there is no surveillance system for Emergency Departments or Trauma Centers in the State of Arkansas, the EMS vehicle run data serves as a proxy for injury analyses. While useful, this data is generated through first responder reports from the entire state, and frequently contains incomplete information.

Whereas mortality data is considered quite accurate, the Hospital Discharge Data requiring E-Coding, has been only recently mandated, and Arkansas hospitals, at this time, are not 100% compliant. Thus, identification of unintentional falls may be reasonably accurate, but there are inconsistencies in coding which may affect the quality of data.

### **Summary/Highlights of Data**

- The age-adjusted rate for fall-related deaths in Arkansas was 4.45 per 100,000 during 1996-1998.
- Age-adjusted fall death rates are 26 per 100,000 population at age 65 years and older during 1996-1998.

### **Major Gaps in Data**

1. Arkansas Hospital Discharge Data System does not collect discharge data from its two federal Veterans Administration hospitals, therefore information on falls are missing from those agencies.
2. There is no Emergency Department or Trauma Center surveillance system in place. Therefore these data are not included when an individual is not hospitalized.
3. When generating data on older adult fatalities due to falls, frequently cause of death is given that is, in actuality, a secondary diagnosis such as sepsis.

### **Current Interventions**

Through initiatives such as Healthy Arkansas, the Governor’s Council on Physical Fitness recognizes the importance of physical activity and exercise in the prevention of falls. ADH offers curriculums, brochures and incentives to organizations located in high-risk counties for implementation. For more information, contact the Injury Prevention Program.

For childhood falls prevention the Arkansas SAFE KIDS Coalition provides fall prevention information and public education activities.

## References

- 1) Arkansas Department of Health, Arkansas Center for Health Statistics, Mortality Reports, 1996-2001.
- 2) Arkansas Department of Health, Arkansas Center for Health Statistics, Hospital Discharge Data reports, 1996-2001.
- 3) Arkansas Department of Health, Emergency Management Services, EMS Vehicle Run data, 1996-2001.
- 4) WISQARS Database, National Center for Injury Prevention and Control, available at <http://www/cdc.gov/ncipc/wisqars/>

<b>Injury Name: Fall Deaths and Injuries</b>		
<b>Goal: Reduce deaths from falls from 4.45 to 2.3 deaths per 100,000 population</b>		
<b>Objective #1: Promote Fall Prevention Awareness for Older Adults</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Identify and promote programs to increase public awareness of fall prevention activities for older adults	National and Federal organizations State Agencies Universities Senior Organizations Caregivers Non-Profit Organizations Hospitals/Pharmacies Emergency Services provider organizations Home Health and In-Home Services providers	1) Convene key partners and interested parties to 2) Identify evidence-based programs
2) Partner with the Healthy Aging Coalition and interested local organizations of older adults to promote fall prevention awareness	State Agencies Senior Organizations Non-Profit Organizations Hospitals Emergency Services provider organizations Older Adults Faith-Based organizations	1) Convene key partners and interested parties to develop lists of potential training sites in high-risk areas 2) Disseminate program and materials 3) Contact local organizations of older adults to emphasize the need for training
3) Provide technical assistance	State Agencies	1) Contact partners to plan dates

for implementing evidence-based programs in fall prevention	Universities Senior Organizations Non-Profit Organizations Hospitals Emergency Services provider organizations Older Adults Faith-Based Organizations Physical Therapists Occupational Therapists	and times for training sessions 2) Conduct pre- and post-intervention assessments
4) Evaluate impact or programs	State Agencies Universities Senior Organizations Non-Profit Organizations Hospitals Emergency Services provider organizations Older Adults Faith-Based organizations	1)Gather Hospital Discharge, Mortality and EMS run data 2)Analyze data 3)Determine impact

Baseline: Credible established programs for fall prevention.

Target: Older Adults’ increased awareness of fall prevention techniques

Evaluation Method: Hospital Discharge and Mortality Data, EMS Run Data

Outcome: Decrease in incidence of older adult fall fatalities/hospitalizations/injuries

<b>Injury Name: Fall Deaths and Injuries</b>		
<b>Goal: Reduce deaths from falls from 4.45 to 2.3 deaths per 100,000 population</b>		
<b>Objective #2: Promote Fall Prevention Awareness for Children</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Develop public awareness programs educating on the issue of childhood falls and prevention strategies	State Agencies Hospitals Universities Non-Profit Advocacy Organizations Emergency Medical Services providers Local First Responders	1) Identify programs which have safety fall prevention strategies in place 2) Partner with private and public organizations currently in existence to design awareness campaigns
2) Educate public on the issue or childhood falls	Key partners above Media	Create public information programs
3) Provide education to parents, children’s caregivers, children’s day care centers, children’s faith-based programs	State Agencies Hospitals Non-Profit Advocacy Organizations Emergency Medical Services providers Local First Responders Faith-Based children’s programs	1) Contact organizations to determine dates and times for training sessions 2) Conduct pre-test assessments 2) Provide training 3) Conduct post-test assessments

4) Gain Media Involvement	State Agencies Schools Non-Profit Organizations Hospitals Emergency Services provider organizations Children's Faith-Based organizations	1) Involve key partners in media campaign sponsorship 2) Refine media messages 3) Implement media campaign locally in high-risk areas
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Baseline: Incidence of falls in children.

Target: Reduce by 5% in 3 – 5 years

Evaluation method: Using incidence data sources, including mortality rates – compare

## FIRE AND BURNS

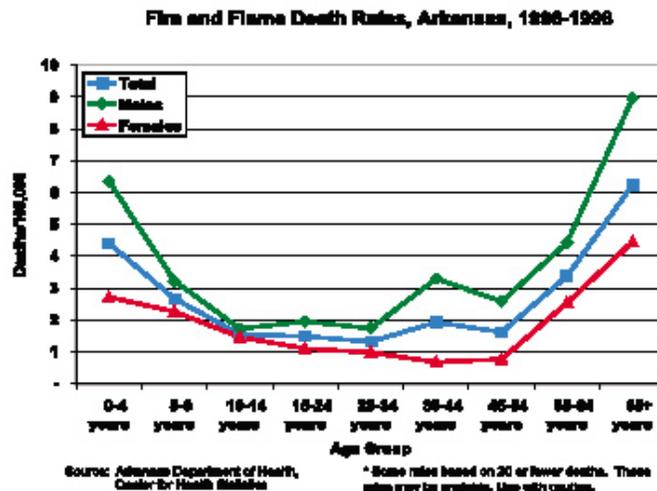
### Background

According to CDC , fire and flames rank sixth among causes of unintentional injury death for all ages, and are among the top five causes of death for children under five years of age and adults over 55 years. Only two other states, Alaska and Mississippi, have higher rates of deaths due to fire and flames than Arkansas. Over the past decade, the Arkansas rate of fire-related injury death of 2.9/100,000 was about twice the national rate of 1.6/100,000, accounting for 31 excess deaths according to the CDC.

Between 1996 and 1998, more than 70 Arkansans died each year due to fires (Figure H-3). Although overall numbers are small for some age and gender subgroups and should be interpreted with caution, death rates for children under five were twice the overall state rate, and fires were the fourth leading cause of death for children overall. Death rates for older adults were three times higher than the state rate.

Figure H-3:

Fire and Flame Death Rates, Arkansas, 1996-1998



County level data for fire-related mortality during 1989-1998 demonstrate that 12 of 75 Arkansas counties have fire-related mortality rates at or above the 90<sup>th</sup> percentile for the U.S., and an additional 17 counties are at or above the 75<sup>th</sup> percentile. Highest fire-related injury death rates are noted in rural counties, particularly in the Delta area.

Fire and flame-related injuries accounted for about 2% of injury-related hospital discharges between 1997 and 2000. In contrast to the mortality figures, higher hospitalization rates occurred in adults ages 19-64 (8.1/100,000), followed by older adults (6.5/100,000). Males continued to have rates much higher than females. Discharge records reveal that 3.6% of these fire/flame patients died, 80.7% of patients were discharged home, and 10% were transferred to another facility.

In contrast, 276 people were discharged from hospitals for scald burns during 1997-2000. The overall population rate was 2.6/100,000 with rates highest for children 0-4 years (7.6/100,000) and older adults (4.7/100,000). Most of these patients (72%) were discharged home and 1.5% expired.

The Arkansas Burn Center, located at Arkansas Children's Hospital, admits the most severely burned patients in the state. The burn center registry indicates that admissions have increased in recent years, with approximately 200 new admissions annually. Children 0-15 years of age have constituted about one-third of admissions, adults 16-65 more than half, and older adults the remainder of admissions.

Fire services at the national, state and local levels have taken a leadership role in fire and burn prevention, being actively involved in programs for children and older adults. Much of this prevention effort occurs at local levels, primarily local fire departments providing fire prevention

education in the classroom, and through local civic events such as Cityfests and National Fire Prevention Month observations. State level fire prevention activities include involvement of the Arkansas State Fire Marshal's Office, the Arkansas Fire Prevention Commission, and various age-specific programs funded by the CDC and implemented through the Arkansas Department of Health.

However, despite numerous prevention programs and efforts, the state consistently ranks among the top ten for fire deaths in the nation and has done so since 1985. This is why the state strategic injury prevention plan has incorporated fire and burn safety into its core focus. Particularly useful in developing a plan is codification found in the provisions of Act 254 of 1955, amended 1981, Statute 12-13-105, which outlines the responsibilities of the Arkansas State Fire Marshal's office. Fire and burn prevention strategies at the state level will focus on the tenants of this legislation. Other projects providing and monitoring the use of smoke alarms are considered instrumental in providing direction and resources for effective prevention tactics. To enhance implementation of our prevention strategies, we continue with the building partnerships with existing fire service entities such as the Arkansas Rural and Volunteer Firefighters Association, the Arkansas State Fire Marshal's Association, the Arkansas Fire Chiefs Association, and other locally driven efforts and initiatives.

### **Existing Surveillance Systems**

The primary systems in place in Arkansas to monitor fire and burn injuries consist of data from the Arkansas Center for Health Statistics' Arkansas Mortality Reporting and Hospital Discharge Data systems. As a proxy for Emergency Department data, Emergency Vehicle Run information is used. An ancillary databy which is incorporated into the National Fire Incidence Reporting System (NFIRS). However, it is recognized that not all fire departments or supportive organizations utilize this system. Approximately only 60% of Arkansas' local departments have been estimated to be compliant with reporting requirements, despite extensive efforts by the Department of Emergency Management, the Arkansas Fire Academy and the Arkansas Rural and Volunteer Firefighters Association to encourage reporting into this national database.

Arkansas Fire Academy NFIRS statistics identified 202 deaths and 554 injuries due to fires in the state between 1995 and 1998, the most recent year for which data from this source is available. Most of the injuries and deaths were related to burns and smoke inhalation; fewer than 20% of deaths were due to fractures, wounds and other causes. Most casualties (54%) were transported to hospitals, 24% died at the scene, and the remainder were treated and released or had other dispositions. Males accounted for 65% of reported casualties and adults 19-64 years of age also accounted for 65%. Fire-related deaths occurred in residential settings 76% of the time.

Estimated value of property loss from the Arkansas NFIRS data during the 1995-1998 period was more than \$330,000,000.

Sponsored collaboratively by the Core Injury Prevention Program, the Arkansas Rural and Volunteer Firefighters Association, and Arkansas Children's Hospital Burn Center, local fire departments were surveyed to determine their level of involvement in prevention education activities. Out nearly 1,000 surveys sent out, 253 fire departments responded:

- Of those who replied, 62.5% said that they offer fire prevention education/activities.

- Of these, 52.6% were funded locally, 4.3% received state funding, 1.6% received federal funding, and 17.8% received funding from other sources.
- Of respondents, 22.5% said their schools offered fire prevention education/activities. Over 30% said their own firefighters offered the education.
- Responses about what topic is taught focused overwhelmingly on fire survival (what to do in case of fire) not fire prevention (how to prevent a fire). For example, almost all of them taught about smoke alarms and fire escape plans but only 15% said they have programs for children who play with or set fires. Results from a follow-up survey (garnering a response from 71 of the 253 departments) described this.
- Almost half of those responding said they have programs specifically targeting pre-school and elementary age children. Many also had programs for older adults.
- Though 44% of the respondents said they have material to hand out to the public, 63.6% listed “lack of resources” as a barrier to providing prevention activities.
- 83.8% of respondents said they would consider expanding their activities. “Lack of funding” (76.7%) was the most popular barrier to providing more prevention activities. “Lack of resources” (63.6%), “lack of staff time” (61.3%), and “lack of training” (34.4%) were also common responses and most respondents listed more than one barrier. “Lack of interest within the fire department”(10.7% ) and “lack of interest in the community” (15.4%) were not as common.
- Though a response of 25.3% is positive, the lack of response to the survey is an important bit of data in itself. It is a baseline that a comprehensive, statewide prevention effort should hope to improve on.

### **Strengths and Weaknesses of the Data Systems**

Sources of burn injury data include death certificates and the hospital discharge databases. A major limitation of this information is that only nonfederal hospitals are included in the discharge databases. Arkansas’ two Veterans’ Administration Hospitals’ fire and burn data are not recorded.

The State of Arkansas does not currently have a trauma registry or an Emergency Department surveillance system. It is also known that minor burns are often treated effectively in the home. However, in many instances, treatment is insufficient and often requires medical follow up provided by visits to physicians’ offices. There is no system in Arkansas for documentation of these “minor” injuries.

It is anticipated that utilization of the new U.S. Consumer Product Safety Commission’s database of emergency room will establish another surveillance system for data linkage.

## Summary/Highlights of Data

- Although numbers may appear to be low, unintentional injuries by fire and flames ranked sixth among all injuries in the state and were particularly prevalent among children and older adults.
- Among all residents, deaths from fire and flames have remained fairly consistent and always above the national average for nearly two decades.
- Fire death rates for males were generally higher, often twice as high or more, than for females in each age group.
- The crude death rate for non-whites was more than two times higher than for whites (5.3/100,000 for non-whites vs. 2.3/100,000 for whites from 1996-1998).
- For scald burn injuries, 276 people were discharged from hospitals for such burns during 1997-2000.

## Major Gaps in Data

1. Data on incidence of burns from fire not resulting in mortality may not be reliable since data collection and reporting is incomplete, especially in rural areas.
2. Victims treated in facilities other than in hospitals would not be reported.
3. Data collected using the National Fire Incident Reporting System does not include total Arkansas reporting.
4. While during the past decade there have been many efforts to educate the public on fire prevention, documentation of these initiatives is incomplete.

## Current Interventions

### Smoke Alarm Installations

The NFIRS collects nationwide data on individual incidents of fire-related injuries, including smoke alarm status, based on reports from fire services across the states. Trends, outcomes and comparisons reports are made available back to the fire service agencies. Behavior Risk Factor Surveillance Systems data from 1997 have shown that 12% of households in Arkansas have no smoke alarm in place, and only 5% of homes with smoke alarms reported a smoke alarm on each floor of the home.

Research conducted in Arkansas from 1997-2000 indicate that in Jefferson County, a rural and urban county, demonstrated the effectiveness of smoke alarm installation coupled with fire escape planning campaigns. While less than a third of households reported having a written or verbal fire escape plan at baseline, 51% of Group A (receiving vouchers for installation) and 60% of Group B (receiving installed smoke alarms) reported such plans at follow-up.

A Smoke Alarm and Installation and Fire Education (SAIFE) program currently targets high risk counties with smoke alarm installations, fire safety education including fire escape planning information, and follow-up canvassing. This program is funded by CDC and implemented through county Departments of Emergency Management.

Aside from CDC sponsored smoke alarm installation programs in targeted high-risk counties of the state, there is currently no system in place to adequately monitor the use of smoke alarms. Therefore, planning for smoke alarm installation programming calls for follow-up to be

accomplished subsequent to installation to monitor functional status of alarm, as well as the particulars of causes of fires, and the presence and/or effectiveness of fire escape planning.

**VOLUNTEER IMMUNITY**, Act § 16-5-102 offers exemption of civil liability for firefighters for personal injury or property damage resulting from any act or omission in the installation of a smoke alarm provided free of charge if the act or omission did not constitute intentional wrongdoing. Neither shall board members or administrative personnel of any fire department be civilly liable for damage or injury as a result of smoke alarm installation activities.

A number of separate community-based fire alert and prevention efforts exist in Arkansas. Many of these programs are implemented by local fire departments, and include the distribution of printed materials regarding fire prevention.

**References**

- 1) Arkansas Act 254 of 1955, amended 1981, Statute 12-13-105, Fire Marshal Enforcement.
- 2) Arkansas Department of Health, Arkansas Center for Health Statistics, Hospital Discharge Data Reports, 1997-2000.
- 3) Arkansas Department of Health, Arkansas Center for Health Statistics. 1985-1999 Arkansas Mortality Reports.
- 4) Arkansas Department of Health, Arkansas Center for Health Statistics, Behavior Risk Factor Surveillance System (BRFSS). 1997.
- 5) Arkansas Fire Academy annual National Fire Incidence Reporting System (NFIRS). 1995-1998.
- 6) Arkansas Children’s Hospital Burn Center Survey Data, 2004.

<b>Injury Name: Fire and Burn Injury</b>		
<b>Goal: Reduce Deaths and Injuries due to Fires and Burns</b>		
<b>Objective #1: Support Implementation of Junior Fire Marshal Programs</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Support Local Fire Departments in the implementation of public fire education and prevention programs in schools	State and local agencies Arkansas Firefighters Associations Public schools and school districts Private schools	1) Convene an advisory council of fire service professionals and educators 2) Develop/revise programmatic guidelines to include age appropriate curriculums 3) Develop toolkits for implementation of educational programming 4) Develop recognition/incentives for program implementation
2) Implement smoke alarm installation programs	State and local agencies Local Fire Departments	1) Convene key partners to determine most appropriate message 2) Develop dissemination plans 3) Identify funding sources

Baseline: Arkansas Act 254 of 1955, amended 1981, Statute 12-13-105.

Baseline: Act 61 of 1959 – Junior Fire Marshals’ Programs Policies of the Arkansas State Board of Education. Current messages vary and emphasize fire survival not fire prevention. Arkansas Children's Hospital Burn Center’s Firefighter Follow-up Survey 2004

Target: Populations at highest risk for fire fatality, typically ages 55-plus and five years or under - may vary by county.

Evaluation Method: Nationally recognized materials will be used by all educational programs.

<b>Injury Name: Fire and Burn Injury</b>		
<b>Goal: Reduce Deaths and Injuries due to Fires and Burns</b>		
<b>Objective #2: Support Public Fire Education Programs in Community Settings</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Support local fire departments and State Fire Marshal’s office to implement public fire education programs	State and local agencies Sr. Services Network Grass Roots, Community-Based Organizations Faith Based Organizations Fire Service Associations Day Care/Aftercare programs	1) Convene key partners and interested parties to establish consensus. 2) Coordinate fire prevention efforts with other agencies and groups 3) Develop and present public awareness programs in fire prevention and protection based on county-level data of at-risk populations 4) Identify and disseminate fire prevention information and material/toolkits 5) Train Public Educators for the Volunteer Departments around the state. 6) Develop awards for fire safety education programs

Baseline: Educational efforts are independently applied, often not proven. Only 158 of over 1000 Arkansas Fire Departments responded that they offer fire prevention education/activities. That is 62.5% of respondents and 15.8% of all departments in the state. Arkansas Children's Hospital Burn Center, Firefighter Follow-Up Survey 2004.

Target: Establish recognition of effective strategies by at-risk populations receiving education.

Evaluation Method: Nationally recognized materials will be used by all educational programs documented by follow-up survey.

Baseline: 22.5% of fire departments reporting said that their schools offered fire prevention education/activities. Arkansas Children's Hospital Burn Center, Firefighter Survey 2004.

Target: Department of Education.

Evaluation: Follow up survey of state’s fire departments.

Contact for Junior Fire Marshal Program  
Bill Fulton, Science Specialist

Arkansas Dept. of Education  
 4 State Capitol Mall, Little Rock, AR 72201  
 Work: 501-682-4471  
 Work: <mailto:bfulton@arkedu.k12.ar.us>  
 Home: <mailto:wfulton@aristotle.net>  
 Sci. Framework: [http://arkedu.state.ar.us/Science\\_1999.PDF](http://arkedu.state.ar.us/Science_1999.PDF)  
 All Frameworks: <http://arkedu.state.ar.us/standard.htm>  
 My Web Site: <http://www.aristotle.net/~wfulton/>  
 ASTA Web Site: <http://www.aristotle.net/~asta/>  
 CSSS Web Site: <http://csss.enc.org/>

<b>Injury Name: Fire and Burn Injury</b>		
<b>Goal: Reduce Deaths and Injuries due to Fires and Burns</b>		
<b>Objective #3: Provide Grant writing training and assistance</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Select or develop educational material aimed at teaching effective grant-writing skills.	State and local agencies Fire Service Associations	1) Convene an advisory council of fire service professionals. 2) Identify qualified grant-writing experts in the state.
2) Provide free classes on grant-writing and program development	State and local agencies Fire Service Associations	1) Identify local contacts and initiate educational programs. 2) Develop and coordinate grant-writing trainer program. 3) Utilize internet and other communication to alert fire safety educators of grant information.
3) Provide continuous updates on available grants and deadlines	State and local agencies Fire Service Associations	1) Utilize internet and other communication to alert fire safety educators of grant information.

Baseline: Only 1.6% of fire departments responding said they receive funding from federal source. 76.7% of fire departments listed 'lack of funding' as the primary barrier to providing fire prevention education/activities. Arkansas Children's Hospital Burn Center, Firefighter Survey 2004.

Target: State firefighters.

## POISONING

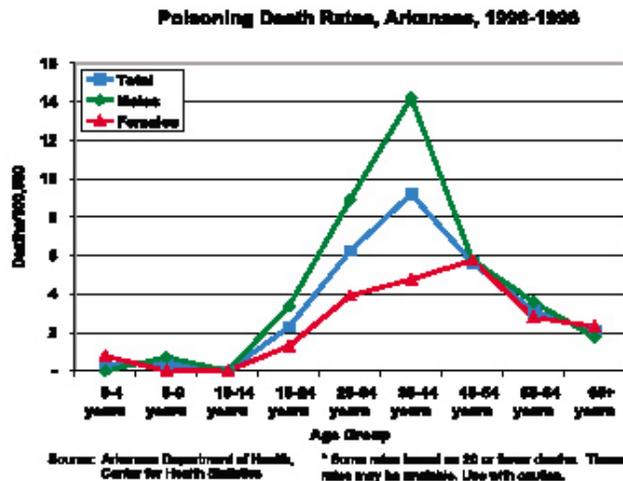
When child-resistant packaging was introduced in the 1970's, there was a significant reduction in the incidence of childhood poisonings by solids, liquids or medications. Similarly, poisonings from household gas and other sources of carbon monoxide have also decreased in the past few decades. Although the overall incidence of fatal poisonings began to decline after 1920, it increased again after 1950. This was due in large part to overdoses of narcotics.

In Arkansas, deaths due to ingestions of poisons tend to be below the national rates. CDC mortality data for 1996-1998 demonstrated an Arkansas rate of 4.1 deaths per 100,000 population compared to 6.1 deaths per 100,000 for the U.S. Rates have been lower over time for Arkansas than for the nation. Despite this, poisonings are the fifth most common cause of injury death overall for Arkansans, and the third most common cause for adults ages 25-54.

Mortality rates for poisoning peak in middle life, and are the highest for males (Figure H-4). Death rates are lowest in children ages 10-14. This age group is less likely to have unintentional poisonings, which is characteristic of very young children. These children are not yet at significant risk for suicidal behavior that is a problem in later adolescence.

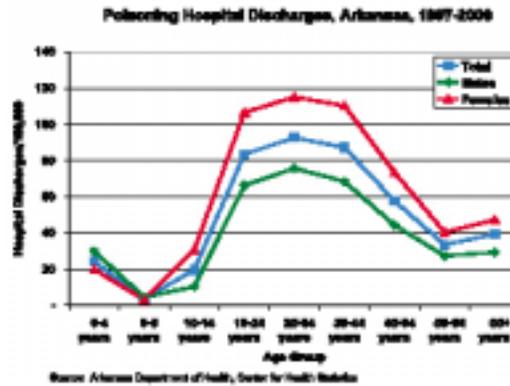
**Figure H-4:**

**Poisoning Death Rates, Arkansas, 1996-1998**



Poisoning-related hospital discharges demonstrate a different pattern than do deaths. Hospital discharge rates for poisoning are higher for females than for males at essentially every age, and the overall rates for females are 50% higher than for males (70.2/100,000 vs. 45.6/100,000) (Figure H-5). For children, hospital discharge rates are higher for males, consistent with patterns for other injury types. Most patients discharged after poisonings (71%) were sent directly home; 1% died, and the remainder were discharged to other facilities. Poisoning admissions tended to be shorter, at 2.5 days on average.

**Figure H-5 – Poisoning Hospital Discharges, Arkansas, 1997-2000**



**Existing Surveillance Systems**

- 1) Arkansas Center for Health Statistics, Arkansas Department of Health, Mortality Data
- 2) Arkansas Center for Health Statistics, Arkansas Department of Health, Hospital Discharge Data
- 3) Division of Emergency Medical Services, Arkansas Department of Health, EMS Vehicle Run data
- 4) Arkansas Poison Control Center data

**Strengths and Weaknesses of the Data Systems**

For reasons that are unclear from the data, poisoning EMS vehicle runs are comparatively infrequent and demonstrate a pattern different from both mortality and hospital discharge rate. Only 137 poisoning EMS runs are logged in the database during 1996-2000, with an overall rate of 1/100,000, substantially lower than the hospitalization rates, and even lower than mortality rates. These figures may reflect a different pattern of transport to hospitals than other injuries, where poisoning victims either are so severely affected that they die at home or have less acute poisonings allowing transport by personal vehicles rather than EMS. While serious poisonings resulting in deaths and hospitalizations are more frequent in adults, less serious poisonings occur most often in children.

**Summary/Highlights of Data**

- Poisonings are the fifth most common cause of injury death overall.
- Poisonings are the third most common cause of injury death for adults ages 25-54.
- Data from the Arkansas Poison Control Center indicate that 36,892 calls were made due to poisonings during 1999-2001. Of these calls, 26,392 (72%) were for children ages 1-18. Most of these (20,719, 78%) were regarding children ages 0-4.
- Most poisonings reported to the Arkansas Poison Control Center were oral ingestions (83%) while the remainder were inhalations, ocular exposures, dermal exposures, and other routes.

**Major Gaps in Data**

Data is not available from Arkansas’ two federal Veterans Administration Hospitals.

**Current Interventions**

- Statewide distribution of poison prevention materials via various state agencies
- Public Education presentations providing a general overview of the poison control center functions and providing on the dangers of poisons in and around the home
- Participation in community-based health fair events within and outside of Pulaski County

**References**

Walton WW. An evaluation of the Poison Prevention Packaging Act. Pediatrics. 1982;69:363-370.

<b>Injury Name: Poisoning</b>		
<b>Goal: Reduce Incidences of Poisoning Morbidity and Mortality</b>		
<b>Objective #1: Expand programs for education on the dangers of poisonings</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Develop a Train the Instructor program specific to the needs of Arkansans	Nurses, pharmacists, doctors, allied health professionals and teachers	1) Identify curriculums and resources regarding poison control and prevention education 2) Partner with individuals who have implemented successful Train the Instructor programs 3) Develop an education toolkit with materials that are specific to the needs of Arkansans

2) Increase public awareness of the Arkansas Poison Control Center	State and local agencies, schools and hospitals	1) Disseminate Poison Control newsletter 2) Inform schools and community groups through prevention education 3) Partner with local media for PSA's
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Baseline: Currently there is legislation in place through Act 796 that provides funding for the general operation of the Arkansas Poison Control Center. The 2000 Federal Poison Prevention and Awareness Act provided some additional money to the center.

Target: Increase public promotion of the Arkansas Poison Control Center through training qualified instructors to carry the message to hard to reach areas of the state

Evaluation Method: Pre and Post-Tests, Instructor Evaluation Forms, Review and monitoring of call penentance volumes in counties where Train the Instructor Forums has been held.

## **Chapter 5: Occupational Injury**

### ***Priority Goal:***

***Objective One:*** Adoption and support of “Healthy Arkansas” initiatives for Worksites

***Timeframe:*** August 31, 2005 through July 31, 2007

***Responsible Entity:*** Arkansas Department of Health

## OCCUPATIONAL INJURY

### **Background**

The Census of Fatal Occupational Injuries program is a federal/state cooperative venture developed by the Bureau of Labor Statistics (BLS) to compile a comprehensive, accurate, and timely measure of fatal work injuries that occur during the year. The census approach to compiling data on fatal work injuries was initially tested by the BLS in collaboration with the Texas Department of Health during 1988. The study, which collected fatality data retrospectively for 1986, showed that: (1) multiple data sources, including a follow-up questionnaire, are necessary to produce an accurate account; (2) matching individual fatalities across data sources is feasible; (3) for each incident, characteristics of the worker and circumstances are commonly available from administrative reports; and (4) timeliness is important in maximizing responses for verification purposes.

The Census approach was tested again during 1990-1991 to determine whether the same kind of data could be obtained from multiple data sources on a current basis. This study, which was conducted in cooperation with the Texas Workers' Compensation Commission and the Colorado Department of Health was successfully concluded in May, 1991.

The 1992 Census of Fatal Occupational Injuries provides a complete count of fatal work injuries. The annual Survey of Occupational Injuries and Illnesses, conducted since 1972, has been redesigned to generate worker and case characteristics of nonfatal workplace injuries and illnesses. It also creates frequency counts and incidence rates by industry.

The number of occupational fatalities has declined since 1997, with the exception of the year 2000. In 2003, there were a total of 87 occupational fatalities. In the classification of Employee status, composed of (1) Wage and Salary Workers, and (2) Self-employed, there were 80 and seven fatalities, respectively.

In 2003 there were 82 work-related fatalities of men and five work-related fatalities of women. Not surprisingly, the majority of fatalities occurred in the 25 to 54 year category, with 60 occupational fatalities reported for this age.

Racial distribution for occupational fatality in 2003 is 62 for whites, 15 for blacks, nine for Hispanics.

The 2003 data also indicate that Transportation experienced the most fatalities with 48 fatalities in this area.

### **Existing Surveillance Systems**

- The Census of fatal Occupational Injuries
- Survey of Occupational Injuries and Illnesses
- Arkansas Department of Health, Arkansas Center for Health Statistics, BRFSS

### **Strengths and Weaknesses of the Data Systems**

- Private industry well documented
- Agricultural injury is not documented

### Summary/Highlights of Data

- In 2003, there were a total of 87 occupational fatalities, 82 fatalities of men and five fatalities of women.
- In the classification of Employee status, composed of (1) Wage and Salary Workers, and (2) Self-employed, there were 80 and seven fatalities, respectively.
- In 2003, there were 82 work-related fatalities for men and five work-related fatalities for women.
- The majority of fatalities occurred in the 25-54 year old category.
- Racial distribution for occupational fatality in 2003 is 62 for whites, 15 for blacks, and nine for Hispanics.

### Major Gaps in Data

Injury data is extremely difficult to collect for the agricultural industry in Arkansas, despite the fact that Arkansas is considered to have primarily an agrarian economy.

### Current Interventions

Healthy Arkansas Initiative

### References

Bureau of Labor Statistics, Census of Fatal Occupational Injuries, 2003.

### Healthy Arkansas Initiative

The State of Arkansas has adopted the “Healthy Arkansas” initiative to increase physical activity in promotion of cardiovascular health, obesity and diabetes. According to 2002 Behavioral Risk Factor Surveillance Survey data, 37% of Arkansans were overweight; 24% were obese, and 27% engaged in no leisure time physical activity. In addition, from the years 1991 to 2002, there was a reported 80% increase in the number of individuals considered obese.

The role of physical activity in injury prevention is undisputed, as exercise strengthens, improves balance and coordination, and decreases the amount of time spent in recovering from an injury. Therefore, in an effort to enhance injury prevention efforts in the Occupational sector, the following strategy has been developed.

<b>Injury Type: Occupational</b>		
<b>Goal: Reduce the number of worksite injuries and fatalities</b>		
<b>Objective 1: Adoption and support of “Healthy Arkansas” initiatives for Worksites</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Collaborate with and support the “Healthy Arkansas” initiatives for worksite wellness, to include specific injury prevention techniques	Local Health Departments Workforce Development entities Local Chambers of Commerce Injury Prevention entities Non-Profit Organizations	1) Access local ADH leaders to assist with worksite wellness initiatives 2) Use community partnerships to disseminate information regarding injury prevention in worksite wellness initiatives 3) Encourage injury prevention behaviors during physical activity through

		existing community physical activity facilities
2) Support business in providing specific injury prevention information and techniques	Local Health Departments Workforce Development entities Local Chambers of Commerce Injury Prevention entities Non-Profit Organizations	1) Offer specific physical activity-related strategies for injury prevention 2) Offer specific industry-related strategies for injury prevention
3) Collaborate through injury-prevention technical assistance provision for worksite wellness pilots in small, medium and large business	Local Health Departments Workforce Development entities Local Chambers of Commerce Injury Prevention entities Non-Profit Organizations	1) Maintain relationships with Healthy Arkansas Worksite Wellness pilot programs 2) Provide injury prevention technical assistance

Baseline: No organized data maintained on physical activity and injury prevention.

Target: Local Communities, Local Chambers of Commerce, Small Business Technical Assistance Centers

Evaluation Method: Comparison of injury rates pre- and post- implementation of Worksite Wellness programs.

<b>Injury Type: Occupational</b>		
<b>Goal: Reduce the number of worksite injuries and fatalities</b>		
<b>Objective 2: Reduce the number of Transportation Injuries and Fatalities in privately-owned small businesses</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Develop printed material providing data on Occupational Injury, particularly within the Transportation classification for privately owned small businesses	State Government Agencies Federal Government Agencies Hospitals Safety Organizations Law Enforcement Small Business Technical Assistance centers	1) Convene key partners and interested parties to guide development
2) Enhance awareness of problem of small business transportation injury	State Government Agencies Federal Government Agencies Hospitals Safety Organizations Law Enforcement Small Business Technical Assistance centers	1) Distribute materials 2) Media Reinforcement 3) Businesses Newsletters

Baseline: Bureau of Labor Statistics, Census of Fatal Occupational Injuries.  
Bureau of Labor Statistics Survey of Occupational Injuries and Illnesses

Target: Relative state and federal government agencies, small business technical assistance centers

Evaluation Method: Comparison of pre- and post- implementation data

<b>Injury Type: Occupational</b>		
<b>Goal: Reduce the number of worksite injuries and fatalities</b>		
<b>Objective 3: Develop a Curriculum for Agricultural Injury</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Develop printed material providing data on agricultural Injury,	State Government Agencies Federal Government Agencies High Schools Vocational/Technical Training Centers Hospitals Safety Organizations Insurance Companies Farm Equipment distributors	1) Convene key partners and interested parties to guide development
2) Enhance awareness of problem agricultural injury	State Government Agencies Federal Government Agencies High Schools Vocational/Technical Training Centers Hospitals Safety Organizations Farm Equipment distributors	1) Distribute materials 2) Media Reinforcement 3) Industry Newsletters

Baseline: Bureau of Labor Statistics, Census of Fatal Occupational Injuries.  
Bureau of Labor Statistics Survey of Occupational Injuries and Illnesses

Target: Relative state and federal government agencies, schools, safety organizations, insurance companies, farm equipment distributors

Evaluation Method: Comparison of pre- and post- implementation data

# **Intentional Injury**

## **Chapter 6: Suicide and Suicide Attempts**

### ***Priority Goal:***

***Objective One:*** Reduce the incidence of suicide from 13.6/100,000 to 10.5/100,000

***Timeframe:*** August 1, 2005 through July 31, 2009

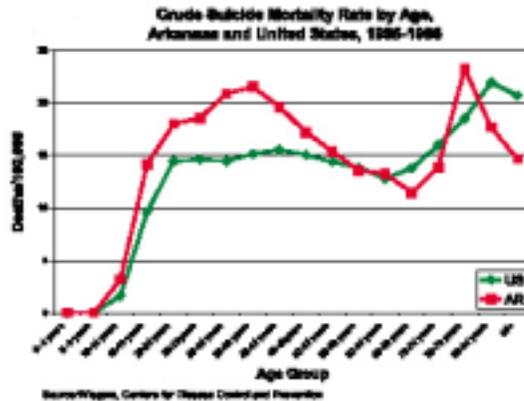
***Responsible Entity:*** Arkansas Commission on Child Abuse, Rape and Domestic Violence

## SUICIDE AND SUICIDE ATTEMPTS

### Background

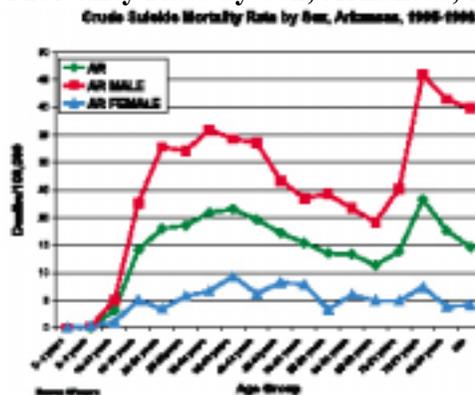
Suicide is defined in the intentional injury category of self-inflicted acts with the purpose of taking one's own life. Suicide is the eleventh leading cause of death in Arkansas. For ages 15-24, suicide was the 3<sup>rd</sup> and 2<sup>nd</sup> leading cause of death in 2000 and 2001, respectively. The incidence of suicide attempts reaches a peak during the mid-thirty years of age group and a mortality peak occurs in the 75-plus years of age group, as well. (Figure V-1)

**Figure V-1: Crude Suicide Mortality Rate by Age, Arkansas and United States, 2000-2001**



During 1999-2001, 1,633 intentional injury deaths were reported. Of this number, 1,067 were reported as suicide. The overall suicide death rate of 13.3 per 100,000 residents is nearly two times the 7.1 rate of homicide. The suicide death rate is five times higher for whites than blacks. Arkansas males are more likely to commit suicide than females, as rates are nearly four times higher among males (22.9) than females (4.8). (Figure V-2)

**Figure V-2: Crude Suicide Mortality Rate by Sex, Arkansas, 1999-2001**



The most common method of suicide is firearms as the mechanism in an overwhelming number of cases. Suffocation and poisoning were substantially lower with rankings of second and third. Hospital Discharge Data indicate that of 4,790 suicide attempt hospitalization admissions, 4,177 (87.2%) were the result of poisoning, 351 (7.3%) were from cutting and/or piercing, and 78

(1.6%) utilized firearms. Thus indicating that firearms are the most effective mechanism of self-inflicted fatality.

<b>Arkansas Mechanisms of Suicide</b>		
<b>Mechanism</b>	<b>Deaths</b>	<b>Percent</b>
Firearm	752	70.5%
Suffocation	144	13.5%
Poisoning	135	12.7%
Other Causes	36	3.4%
<b>Total</b>	<b>1,067</b>	<b>100.0%</b>

According to data from the Arkansas Youth Risk Behavioral Surveillance System (YRBS) conducted in Arkansas high schools during 2002, roughly 37% of females and 22% of males felt sad or hopeless within the last six months. Of students surveyed, approximately 22% of females and 15% of males seriously considered suicide, nearly 20% of females and over 10% of males made suicide plans, and over 11% of females and nearly 6% of males surveyed in Arkansas high school had actually attempted suicide. These figures are consistent with national trends.

### **Existing Surveillance Systems**

Data on suicide and attempted suicide are collected via Death Certificates, and Hospital Discharges Data (HDD), however, HDD is only reflective of non-federal hospitals, and does not include data from Arkansas' two Veterans Administration hospitals.

YRBS queries high school students to detect suicide ideology.

### **Strengths and Weaknesses of the Data Systems**

#### Strengths

YRBS in schools in local communities to proactively detect suicidality.

#### Weaknesses

Suicide deaths are under-reported or may be miscoded. In addition, there is no Child Fatality Review process in place to document incidents of childhood suicide. Complicating this reporting deficit, is lack of a standardized coroner's training course, as most Arkansas coroners are elected and require no medical background. Suicide attempts are only identified through hospital discharge, limiting the information to nonfederal facilities. At this time, emergency department information is not part of this reporting process.

### **Summary/Highlights of Data**

- For ages 15-24, suicide was the 3<sup>rd</sup> and 2<sup>nd</sup> leading cause of death in 2000 and 2001, respectively.
- Suicide rates peak at age 15-24 and are then significantly higher at age 75-plus years.

- Suicide rates in Arkansas were substantially higher among the Whites (14.9) than Blacks (4.7).
- Reports from both national and local statistics identified firearms as the leading method of successful suicide attempts in the United States. While in Arkansas, poisoning is the method utilized in 87.2% of unsuccessful suicide attempts.
- Suicide death rates are nearly four times higher among males (22.9) than females (4.8).

### **Major Gaps in Data**

1. Suicide deaths are under-reported or may be miscoded.
2. There is no Child Fatality Review process in place to document incidents of childhood suicide.
3. Suicide attempts are only identified through hospital discharge, limiting the information to nonfederal facilities. At this time, emergency department information is not part of this reporting process.
4. There are no standardized reporting protocols for mental health providers.

### **Current Interventions**

Arkansas has an active Suicide Prevention Team sponsored by the Injury Prevention Coalition that is representative of several agencies and organizations, as well as Survivors and Families. Although a broad based cadre of entities has been developed for information dissemination and resource purposes, the core team is composed of the Arkansas Attorney General's office, the Commission on Child Abuse, Rape and Domestic Violence, the Department of Human Services (DHS) Division of Mental Health Services, the DHS Division of Behavioral Health Services, Office of Alcohol and Drug Abuse Prevention, the Division of Aging and Adult Services, the Arkansas Department of Health, the Department of Education, the Jason Foundation, the Family Service Agency and the AIDS community. The Arkansas Department of Health works with the team and is also responsible for developing a statewide suicide prevention plan. In addition, many community-based programs and activities throughout the state work to prevent suicides and improve mental health of people in their communities.

### **Major Gaps in Services**

1. Treatment and care for persons who have attempted suicide or have suicidal ideation and their families are provided predominately through emergency rooms and the community mental health system in Arkansas. However, gaps in services to address suicide are a reality in Arkansas. Developing acute care (treatment bed) capacity and access for local inpatient care for adults has been a significant issue facing the mental health system. Although these services have increased through recent legislative actions, additional capacity is still needed.
2. The Arkansas State Hospital, a psychiatric inpatient treatment facility operated by the Division of Behavioral Health Services, is developing a program to track admissions based on suicide attempts and suicidal ideation.
3. Customs and beliefs of some ethnic populations relocating into the State prevent them from seeking treatment for mental health issues. Contact with these populations usually occurs only after law enforcement becomes involved.
4. Knowledge gap of available resources and services.
5. Adherence to existing protocols within Emergency Departments.
6. Homeless persons often do not seek mental health treatment. Lack of a contact address, lack of funding for outreach services, and the rural nature of the State prevents outreach to this population.

- The stigma associated with having a mental illness prevents many persons and their families from seeking treatment.

### References

- Arkansas Department of Health, Center for Health Statistics, Behavioral Risk Factor Surveillance System data, 2002
- Arkansas Department of Health, Center for Health Statistics, 1999-2001 Mortality Reports.
- Arkansas Department of Health, Center for Health Statistics, 1999-2001 Hospital Discharge Reports.
- Arkansas Department of Health, Division of Emergency Medical Services, EMS Vehicle Run data, 1999-2001.
- WISQARS Database, National Center for Injury Prevention and Control, Centers for Disease Control, Available at <http://www.cdc.gov/ncipc/wisqars/>

<b>Injury Name: Suicide</b>		
<b>Goal: Reduce Suicide and Attempted Suicide in Arkansas</b>		
<b>Objective 1: Reduce the incidence of suicide from 13.6/100,000 to 10.5/100,000</b>		
<b>Strategic intervention</b>	<b>Key partners</b>	<b>Action steps</b>
1) Develop a public education campaign	Media Aging Coalitions/long term care providers Crisis Hot Lines Hospitals/Emergency Departments Physicians Coroners/Funeral Directors First Responders City government agencies State government agencies Federal government agencies	1) Convene key partners 2) Identify target high-risk populations 3) Develop Public Service Announcements (PSA's) on pertinent topics such as the stigma associated with treatment for depression, substance abuse, various treatment options, and available community services 4) Involve television, radio, newspaper, organizations'/ coalitions' newsletters
2) Develop and/or enhance use of Protocols for Suicide Intervention	Regional Hospitals/Health Centers First Responders (EMS) Police Departments Fire Departments Crisis Centers	1) Identify gaps in existing protocols throughout the state 2) Develop standardized data collection for crisis intervention entities 3) Evaluate the standard of care for crisis intervention (timeframes for referral, evaluation and recommendation)
3) Increase the number of	Higher Education	1) Identify existing suicide

suicide prevention programs in schools, colleges and universities, work sites, correctional institutions, aging programs, family youth and community services programs.	Secondary Education Workforce Development entities Correctional Facilities Community Health Centers Behavioral Health Hospitals Private Foundations	prevention programs 2) Evaluate programs for effectiveness Identify resources and people to implement prevention programs
4) Incorporate suicide risk screening in primary care	Poison Control entities Hospitals' Emergency Departments School-Based Health resources College/University Based Health resources Local Health Centers Local Mental Health Centers Local Crisis Hot Lines	1) Identify various screening tools available 2) Incorporate risk-screening protocols in primary care and other entry areas 3) Develop standardized data collection for crisis intervention entities 4) Outreach and education on use of screening tools
5) Improve access to and community linkages with mental health and substance abuse services	Regional Hospitals/Health Centers Local Hospitals/Emergency Departments Local Mental Health Clinics Local Crisis Hot Lines Department of Education Department of Higher Education Workforce Development entities Psychiatric services providers Medical Examiners	1) Evaluate statewide system of accessing services 2) Identify community resources as to population served, type of services offered, and outreach activities 3) Identify/evaluate existing interagency referral system
6) Identify data sources and standardize data collection	Regional Hospitals/Health Centers Local Hospitals/Emergency Departments Local Mental Health Clinics Local Crisis Hot Lines Department of Education Department of Higher Education Workforce Development entities Psychiatric services providers Medical Examiners	1) Identified resources in 5(2) will provide for identification of data sources 2) Identify data elements collected from each source, data limitations and gaps, and population served 3) Develop standardized data collection methods 4) Provide training in data collection. 5) Develop method of centralizing collected data

Baseline: The age-adjusted rate of suicide in Arkansas for the period 1999-2001 was 13.3 per hundred thousand.

Target: By 2009, achieve an age-adjusted rate of suicide of 10.5 per 100,000

Evaluation Method: Utilize Arkansas Mortality rates and Arkansas Hospital Discharge Data for attempted suicides.

## CHAPTER 7: VIOLENCE AGAINST WOMEN PRIORITY GOALS

**Responsible Entity:** *Arkansas Commission on Child Abuse, Rape and Domestic Violence*

**Objective One:** *Provide accessible, appropriate, equitable and sensitive intervention to every victim of sexual and domestic violence.*

**Recommendation 1.3:** *Increase the educational capacity and strengthen approaches for those who assist women who experience sexual or domestic violence, with the intent of reducing violence against women overall*

**Timeframe:** *August 1, 2005 through July 31, 2006*

**Objective 3:** *Provide sexual and domestic violence offender management intervention programs statewide within all levels of the criminal system.*

**Recommendation 3.1:** *Implement proven effective sexual and domestic violence offender management intervention program models.*

**Timeframe:** *August 1, 2005 through July 31, 2006*

**Objective 4:** *Provide sexual and domestic violence prevention information that contributes to all Arkansas residents possessing the knowledge, attitudes and beliefs that contribute to a society free from sexual and domestic violence.*

***Recommendation 4.1:*** Incorporate sexual and domestic violence prevention activities in pre-k through 12 grade and college/ university settings.

***Timeframe:*** August 1, 2005 through July 31, 2006

***Recommendation 4.2:*** Increase sexual and domestic violence prevention activities at the community level.

***Timeframe:*** August 1, 2006 through July 31, 2010

***Recommendation 4.3:*** Increase community awareness about sexual and domestic violence issues.

***Timeframe:*** August 1, 2005 through July 31, 2010

## ***VIOLENCE AGAINST WOMEN***

***Purpose: To end sexual and domestic violence in Arkansas.***

***Goal 1: Provide accessible, appropriate, equitable and sensitive intervention to every victim of sexual and domestic violence.***

<b><i>Recommendations</i></b>	<b><i>Strategies</i></b>	<b><i>Tasks</i></b>	<b><i>Timeline</i></b>	<b><i>Person(s) Responsible</i></b>
<b><u>Recommendation 1.1.</u></b> <i>A cooperative plan exists that no survivor needs to travel more than 50 miles to access effective services.</i>	<i>a. Identify gaps in service availability.</i>	<i>-Document current services available.</i>	<i>Year 1</i>	<i>To be identified</i>
		<i>-Map out areas where services are available and determine radius between agencies.</i>	<i>Year 1</i>	<i>To be identified</i>
	<i>b. Develop a strategy to address gaps in service availability.</i>	<i>-Put together a task force to address the gaps in services in targeted areas.</i>	<i>Year 1</i>	<i>To be identified</i>
		<i>- Task force members meet with community leaders in the target areas to address needs for services.</i>	<i>Year 2</i>	<i>Task force (to be identified)</i>
		<i>-Task force members work with community leaders to provide information on how to search out avenues for funding and information on program development.</i>	<i>Year 2</i>	<i>Task force (to be identified)</i>
		<i>-Develop a comprehensive directory of services and resources available statewide utilizing information gathered from various sources.</i>		
<i>c. Provide agencies that assist women who experience sexual or domestic violence with information on resources and services available.</i>	<i>-Send printed information to service providers.</i>			
	<i>- Make material accessible to immigrants, people with limited English speaking capability, and people with disabilities.</i>	<i>Year 1</i>	<i>To be identified</i>	
		<i>- Develop website containing resource and service information.</i>		
		<i>-Maintain website and update regularly.</i>		

		Year 2	To be identified
	-Identify current sources of transportation and childcare.	Year 2	To be identified
	-Task force work with community leaders to identify churches, schools, and other volunteers in their area to recruit in helping with childcare issues.		
	-Each area maintain a list of volunteers to contact when needed.	Year 2	To be identified
	-Each area maintain a list of available transportation services for their area.		
	-Legislative mandate that local police departments provide transportation for victims of sexual and domestic violence to shelters and hospitals for services.	On-going	To be identified
d. Provide mechanism to address lack of transportation and childcare.		Year 1	To be identified
	-Identify individuals to participate in the support network.	Year 2	To be identified
	-Network members will develop a plan to market their services as well as determine the logistics of service.		
	-The network will provide training and support for survivors and potential victims. Training will focus on enhancing skills to obtain employment, financial guidance, accessing legal assistance and information on resources to obtain assistance.	On-going	To be identified
		On-going	To be identified
		Years 2 and 3	To be identified

e. Develop a network of support for survivors and potential

victims.

*Year 1*

*Year 1*

*Years 2,  
3, 4 and  
5*

**Recommendation 1.2**

Implement proven effective models of service delivery.

a.. Research and document effective service delivery models based on scientific evidence.

-Review research on models.

Year 1

To be identified

b. Implement effective program models in agencies as identified by the task force.

-Task force will identify programs that will benefit from implementation of effective models of service delivery.

Year 2

Task force (to be identified)

c. Evaluate the effectiveness of the program after implementing the model.

-Identify service delivery goals.

-Distinguish models that match the goals.

Year 1

To be identified

-Maintain fidelity to the model.

Year 1

To be identified

-Provide evaluation measures utilizing the logic model, goal

Year 1

To be identified

attainment scaling or the evaluation instrument from the model program.	On-going	To be identified
-Monitor progress regularly.		
-Make modifications as needed.		
-Provide initial training for staff and continual training on a regular basis for new staff and continuing education for existing staff.	On-going	To be identified To be identified
	On-going	To be identified
	On-going	

**Recommendation 1.3**

Increase the educational capacity and strengthen approaches for those who assist women who experience sexual or domestic violence, with the intent of reducing violence against women overall.

***a. Research, collect and develop appropriate curricula for training various frontline responders and others that interact with women who have experienced sexual or domestic violence.***

-Research local and national sources of curricula for use in training in relation to geography as well as professional discipline.	Year 1	ACCARDV
-Collect and develop curricula to address the needs of individuals with disabilities and limited English speaking ability.	Year 1	ACCARDV
-Discuss ideas with professionals in the field.		

-Determine logistics of trainings, set dates and confer with various professional organizations to inform their membership about training opportunities.	Year 1	ACCARDV
-Conduct necessary preparation work, including development of materials, arrangements for training and logistical considerations.	On-going	ACCARDV
-Update current		

***b. Provision of***

***appropriate, meaningful instruction regarding sexual assault and domestic violence to those who assist women who have experienced sexual or domestic violence.***

database, inform related organizations about training through email, mail, personal contact or other means.  
-Offer CD and web-based training for providers.

On-going

ACCARDV

-Maintain email listserv for those who are interested in violence against women activities.  
-Provide continual updates and information for those accessing the listserv.

On-going

ACCARDV

***-Develop instrument to assess the change in knowledge and approach to working with women who have experienced sexual or domestic violence.***

On-going

ACCARDV

-Implement any changes to the training program.

On-going

ACCARDV

-Research effective models of judicial watch groups.

-Identify areas in which to implement the judicial watch groups.

On-going

ACCARDV

***c. Provide technical assistance to groups as needed, including background information and referral to various agencies.***

-Implement more Sexual Assault Response Teams (SART).

-Build and support stronger collaborations between frontline responders and others that interact with women who have experienced sexual or domestic violence.

-Invite leaders from the faith-based community, educators, state and federal agencies, businesses, social

On-going

ACCARDV

To be identified

d. Evaluate the training program	<p>services, elected and appointed officials to participate in local collaborative efforts.</p> <p>-Develop coordinated community response teams to bring together various professionals who interact with women who have experienced sexual or domestic violence.</p> <p>-Expand funding for these teams.</p>	On-going	To be identified
		Year 2	To be identified
		Year 2	To be identified
e. Based on training and education, establish a judicial watch group.	<p>-Legislative mandate for certification of all rape crisis and domestic violence shelter workers.</p> <p>-Standardized training and continuing education requirements.</p> <p>-Require background checks and screening process for all employees.</p>	Years 2 and 3	
		On-going	To be identified
<b><i>f. Provide comprehensive/coordinated provision of care for victims and their families.</i></b>		On-going	
			To be identified
		Year 3	
			To be identified
			To be identified

Years 2 and 3 To be identified

Year 2 To be identified

Year 2

Year 2

***g. Increase expertise for all rape crisis and domestic violence shelter workers.***

**Recommendation 1.4**  
Enhance techniques of frontline responders and others assisting women who experience sexual

a. Improve service delivery by addressing gaps in agency policy and protocol.

-Research effective models of protocol/policy for each discipline.  
-Identify and review

Year 1 To be identified

or domestic violence by providing guidance and improving policy and protocol methods.

current policy and protocol being utilized by those assisting women who experience sexual or domestic violence.

Years 1 and 2

To be identified

-Establish culturally competent services delivery standards.  
-Implement effective models of policy and protocol.

Year 3

To be identified

-Develop a comprehensive directory of services and resources available statewide utilizing information gathered from various sources.

Years 3, 4, and 5

To be identified

b. Develop resource manual for frontline responders to utilize when working with victims. Include protocol, numbers to call, questions to ask, signs to look for, basic domestic and sexual violence information.

-Send printed information to service providers.

Year 1

To be identified

- Make material accessible to immigrants, people with limited English speaking capability, and people with disabilities.

- Develop website containing resource and service information.

Year 2

To be identified

-Maintain website and update regularly.

Year 2

To be identified

Year 2

To be identified

On-going

To be identified

**Recommendation 1.5**

Increase community awareness about sexual and domestic violence issues.

a. Build collaborations to promote awareness of sexual and domestic violence issues.

-Partner with community leaders.  
- Include faith-based community in anti-violence projects

Year 2

To be identified

On-going

To be identified

b. Seek out avenues to promote awareness.	-Contact the Associated Press.		
	-Recruit local television stations to adopt ending sexual and domestic violence as their cause.	Years 2 and 3	To be identified
	-Utilize billboards for advertisement.	Years 2 and 3	To be identified
	-Contact local radio stations and newspapers.		
	-Educate faculty at universities and suggest inclusion material in their lesson plans.	Years 2 & 3	To be identified
	-Promote culturally appropriate media	Years 2 and 3	To be identified
		Years 2 and 3	To be identified
		Years 2 and 3	To be identified

**Recommendation 1.6**

Increase the educational capacity and strengthen approaches for those who assist immigrants, individuals with disabilities, older adults and individuals with limited English speaking ability.

a. Provide agencies that assist immigrants, individuals with disabilities, older adults and individuals with limited English speaking ability with information on resources and services available.	-Develop a comprehensive directory of services and resources available statewide utilizing information gathered from various sources.	Year 1	To be identified
	-Contact agencies that adapt material for suggestions on translating and using materials.	Year 1	To be identified
	- Make material accessible to immigrants, people with limited English speaking capability, and people with disabilities.		
	- Develop website containing resource and service information to be accessible for immigrants, people with limited English speaking ability, and people with disabilities.	Year 1 and 2	To be identified
	-Maintain website and update regularly.	Year 2	To be identified
	-Train staff on cultural		

issues, working with people with disabilities and working with older adults.

-Provide incentives for employees participating in learning languages other than English (sign language, Spanish, etc.).

b. Increase the educational capacity and strengthen approaches for those who assist immigrants, people with disabilities, and people with limited English speaking ability.

On-going

To be identified

Year 1 and on-going

ACCARDV

Years 3, 4 and 5

To be identified

**Recommendation 1.7**

Funding streams are coordinated to meet the needs of victims statewide.

a. Identify gaps in current funding system and seek out avenues for improvement.

- Document current sources of funding

Year 1

To be identified

-Survey agencies regarding funding issues and recommendations for change.

Year 1

To be identified

-Develop evaluation process for agencies not already tracked through grants and/or the certification process to determine the effectiveness of funds spent on sexual and domestic violence.

Years 4 and 5

To be identified

-Review current code for 1)needed legislation 2)barrier legislation  
-Access funding through legislation, grants, partnering with larger agencies, and community resources.

Year 1

To be identified

On-going To be identified

**Goal 2:** Develop and maintain valid, current information on the extent of and response to sexual and domestic violence in Arkansas with an equal focus on survivors and assailants.

<b>Recommendations</b>	<b>Strategies</b>	<b>Tasks</b>	<b>Timeline</b>	<b>Person(s) Responsible</b>
<b><u>Recommendation 2.1.</u></b>				
Enhance collaboration between data collection/analysis professionals and service providers.	a. Establish an advisory committee composed of service providers and data collection/analysis professionals to discuss ideas, issues and offer feedback, as well as guide future data collection/analysis agendas.	-Identify individuals across the state to participate in the advisory committee.	Years 1 and 2	To be identified
		-Encourage active participation from service providers to assure that data collection reflects the needs of providers and survivors.	On-going	To be identified
		-Encourage active participation from data collection/analysis professionals to educate providers about specific data collection/analysis needs.	On-going	To be identified
<b><u>Recommendation 2.2</u></b>				
Data collection	a. Develop a centralized data collection system.	- Determine a centralized location to collect and compile data from non-criminal justice and criminal justice sources statewide.	Year 1	To be identified
		-Identify agencies that collect and compile statewide criminal justice data.	Years 1 and 2	To be identified
		-Identify agencies that collect and compile statewide non-criminal justice data.	Years 1 and 2	To be identified
		-Develop a mechanism to collect and combine criminal and non-criminal justice data.	Years 1 and 2	To be identified
		<b><i>- Provide training on a regular basis on how to identify and</i></b>	Years 2 and 3	To be identified

*report data.*

b. Provide support to staff collecting the data.

***-Provide technical assistance as needed.***

On-going To be identified

On-going To be identified

**Recommendation 2.3**

Data Analysis

a. Utilize data collected to identify trends related to sexual and domestic violence issues.

-Develop a system to analyze the data collected.

Years 3 and 4 To be identified

b. Disseminate data periodically in order to expand statewide understanding of the prevalence and dynamics of sexual and domestic violence.

-Develop and distribute fact sheets regarding information gathered from data analysis.  
-Include data analysis information on website.

Years 4 and 5 To be identified

Years 4 and 5 To be identified

**Goal 3:** Provide sexual and domestic violence offender management intervention programs statewide within all levels of the criminal system.

**Recommendations**

**Strategies**

**Tasks**

**Timeline**

**Person(s) Responsible**

**Recommendation 3.1**

Implement proven effective sexual and domestic violence offender management intervention program models.

a. Research and document effective sexual and domestic offender management intervention programs.

-Review research on models.

Year 1

To be identified

b. Implement effective program models in agencies identified by the task force.

-Task force will identify programs that will benefit from implementation of effective program models.  
-Identify program goals.  
-Distinguish models that match the goals.

Year 1

To be identified

-Include programs that provide

To be identified  
To be identified

	sexual and domestic violence education for offenders.	Year 1	To be identified
	-Implement more batterer's intervention programs.	Year 1	
	-Maintain fidelity to the model.	Year 1	
	-Provide evaluation measures utilizing the logic model, goal attainment scaling or the evaluation instrument from the model program.		To be identified
			To be identified
c. Evaluate the effectiveness of the program after implementing the model.	-Monitor progress regularly.	Years 2, 3, 4 and 5	To be identified
	-Make modifications as needed.		
	-Provide initial training for staff and continual training on a regular basis for new staff and continuing education for existing staff.	On-going	
		On-going	
	-Regularly provide training for staff on group facilitation.		To be identified
	-Access funding through legislation, grants, partnering with larger agencies, and community resources.		To be identified
			To be identified
		On-going	
		On-going	
		On-going	To be identified
d. Provide more offender management groups.			To be identified

On-going

On-going

**Recommendation 3.2**

Increase the educational capacity and strengthen approaches for those who assist sexual and domestic violence offenders.

a. Research, collect and develop appropriate curricula for training various frontline responders and others that interact with sexual and domestic

-Research local and national sources of curricula for use in training in relation to geography as well as professional discipline.  
-Collect and develop curricula

Year 1

ACCARDV

violence offenders.

to address the needs of individuals with disabilities and limited English speaking ability.

-Discuss ideas with professionals in the field.

Year 1

ACCARDV

***b. Provision of appropriate, meaningful instruction regarding sexual assault and domestic violence to those who interact with sexual and domestic violence offenders.***

-Determine logistics of trainings, set dates and confer with various professional organizations to inform their membership about training opportunities.

Year 1

ACCARDV

-Conduct necessary preparation work, including development of materials, arrangements for training and logistical considerations.

On-going

ACCARDV

-Update current database, inform related organizations about training through email, mail, personal contact or other means.

-Offer CD and web-based training for providers.

-Maintain email listserv for those who are interested in violence against women activities.

On-going

ACCARDV

-Provide continual updates and information for those accessing the listserv.

***-Develop an instrument to assess the change in knowledge and approach to working with sexual and domestic violence offenders.***

On-going

ACCARDV

-Implement any changes to the training program.

On-going

ACCARDV

On-going

ACCARDV

*c. Provide technical assistance to groups as needed, including background information and referral to various agencies.*

On-going ACCARDV

On-going ACCARDV

d. Evaluate the training program.

On-going ACCARDV

**Recommendation 3.3**

Expand the ability of the criminal justice system to prosecute sexual and domestic offenders.

a. Increase penalties for sexual and domestic violence offenders.

-Identify all legislation needed to increase penalties for sexual and domestic violence to be presented to the Arkansas legislature.  
 -Increase education of policy makers on the issues related to sexual and domestic violence offender treatment and accountability.  
 -Enhance judicial training.

Year 1 To be identified

On-going To be identified

To be identified

On-going

**Goal 4:** Provide sexual and domestic violence prevention information that contributes to all Arkansas residents possessing the knowledge, attitudes and beliefs that contribute to a society free from sexual and domestic violence.

<b>Recommendations</b>	<b>Strategies</b>	<b>Tasks</b>	<b>Timeline</b>	<b>Person(s) Responsible</b>
<b><u>Recommendation 4.1.</u></b> Incorporate sexual and domestic violence prevention activities in pre-k through 12 grade and college/ university settings.	a. Identify pre-k through 12 grade schools and colleges/universities in Arkansas.	-Contact the Arkansas Department of Education for a directory of private and public schools, colleges, and universities.  -Contact the Arkansas	Year 1	ACCARDV

b. Identify current prevention activities	<p>Department of Education to determine if schools are required to provide sexual and domestic violence prevention activities and the level of activities.</p> <p>-Survey schools to identify current violence prevention activities.</p>	Year 1	ACCARDV
c. Utilize proven effective sexual and domestic violence programs in the school settings.	<p>-Identify schools to participate in the model implementation.</p> <p>-Research and implement effective school domestic and sexual violence prevention programs based on scientific evidence.</p> <p>-Maintain fidelity to the model.</p> <p>-Regularly provide training and technical assistance for staff on model implementation.</p> <p>-Evaluate programs regularly.</p>	Year 1	To be identified
d. Encourage school systems to include violence prevention education in school curricula.	<p>-Educate school staff about sexual and domestic violence issues.</p> <p>-Research various sources of curricula.</p> <p>-Include learning materials that are age-specific, developmentally appropriate, and culturally sensitive. Include multiple language formats for individuals with limited English speaking ability and alternative formats for individuals with disabilities.</p>	Year 2	To be identified
e. Increase sexual and domestic violence	<p>-Identify schools to participate.</p> <p>-Educate school staff about sexual and domestic violence issues.</p> <p>-Encourage school staff to adopt sexual and domestic violence prevention as a cause.</p> <p>-Implement activities such as “sexual and domestic violence prevention week”. Encourage activities during the week that revolve around sexual and domestic violence prevention, the development of healthy relationships, and alternatives to violence.</p>	Year 2	To be identified
			To be identified To be identified
		On-going	To be identified
		On-going	To be identified
		On-going	To be identified
		On-going	To be identified To be identified
		Year 1	
		Year 1	
		Year 2, 3, 4 and 5	
			To be identified To be identified
			To be identified

prevention activities in pre-k through 12 <sup>th</sup> grade schools.	-Identify groups of peers to serve as leaders in the school. These peers promote sexual and domestic violence prevention through drama, music, art, puppets, etc.	Year 1	To be identified
		On-going	
	-Provide training and technical assistance for pre-k through 12 <sup>th</sup> grade schools interested in participating in violence prevention activities.	Year 1	
	-Educate college/university sororities, fraternities, religious organizations and others about sexual and domestic violence.	Years 2, 3, 4 and 5	
	-Encourage college/university organizations to adopt sexual and domestic violence prevention as a cause.		To be identified
	-Educate faculty at universities and suggest inclusion material in their lesson plans.		
f. Increase sexual and domestic violence prevention activities in college and university organizations.	-Provide training and technical assistance to colleges/universities interested in participating in violence prevention activities.	Years 3, 4 and 5	To be identified
	-Identify parent resource centers.		
	-Incorporate sexual and domestic violence prevention education in parenting classes.		To be identified
	- Include sexual and domestic violence brochures and fact sheets on information tables.		
	-Provide training and technical assistance to parent resource centers interested in participating in violence prevention activities.	On-going	To be identified
	-Access funding through legislation, grants, partnering with larger agencies, and community resources.	On-going	To be identified
			To be identified
		Year 1	

			To be identified
			To be identified
		Years 2 and 3	To be identified
		On-going	To be identified
	g. Encourage school parent resource centers to participate in violence prevention efforts.	Year 1	To be identified
		Years 2, 3, 4 and 5	
		Years 2, 3, 4 and 5	
		On-going	
	h. Increase funding for violence prevention efforts in pre-k through 12 grade and college/university settings.	On-going	

**Recommendation 4.2**

Increase sexual and domestic violence prevention activities at the community level.

a. Encourage after school programs to participate in sexual and domestic violence prevention activities.	-Include small group times to teach about sexual and domestic violence prevention, healthy relationship development skills and alternatives to violence.	Years 2, 3, 4 and 5	To be identified
b. Encourage programs serving at-risk children and families to participate in sexual and domestic violence prevention efforts.	-Identify programs that serve at risk children and families. -Utilize a survey to identify current sexual and domestic violence prevention efforts and interest in participation. -Provide sexual and domestic	Year 1	To be identified
		Year 1	To be identified

	<p>violence prevention brochures, pamphlets and fact sheets for agencies to display in their waiting rooms and break rooms.</p> <p>-Provide training and technical assistance for agencies interested in participating in sexual and domestic violence prevention activities.</p>	Years 2, 3, 4 and 5	To be identified
	<p>-Identify faith-based organizations.</p> <p>-Encourage churches and other faith-based organizations to include sexual and domestic violence prevention education in sermons, newsletters and children's ministry programs.</p> <p>-Provide sexual and domestic violence prevention brochures, pamphlets and fact sheets for faith-based organizations to display on tables and hand out to congregation members.</p>	On-going	To be identified
c. Encourage the faith-based community to participate in sexual and domestic violence prevention efforts.	<p>-Provide training and technical assistance for agencies interested in participating in sexual and domestic violence prevention activities.</p>	Year 1	To be identified
	<p>-Encourage business and other workplace organizations to advertise sexual and domestic violence prevention in their newsletters and on break room bulletin boards.</p> <p>-Provide sexual and domestic violence prevention brochures, pamphlets and fact sheets for employers to display in their waiting rooms and break rooms.</p>	Years 2, 3, 4 and 5	To be identified
	<p>-Provide training and technical assistance for agencies interested in participating in sexual and domestic violence prevention activities.</p>	On-going	To be identified
d. Encourage business and other workplace	<p>-Mandate all domestic violence shelters include curricula for children to teach healthy relationship development, healthy coping skills and alternatives to violence.</p> <p>-All shelters provide individual and group therapy</p>		To be identified

organizations to participate in sexual and domestic violence efforts.	services for children.	Years 2, 3, 4 and 5	To be identified
	-Identify individuals to participate in the support network.		
	-The network will provide training and support for survivors and potential victims. Training will focus on enhancing skills to obtain employment, financial guidance, accessing legal assistance and information on resources to obtain assistance.	Years 2, 3, 4 and 5	To be identified
	-Network members will develop a plan to market their services as well as determine the logistics of service.		
	-Access funding through legislation, grants, partnering with larger agencies, and community resources.	On-going	To be identified
e. Enhance services for children in domestic violence shelters.		Years 3 and 4	To be identified
			To be identified
		Year 3	To be identified
f. Develop a network of support for survivors and potential victims.		Year 3	
		Years 3, 4 and 5	To be identified

To be identified

Year 3

g. Increase funding for sexual and domestic violence prevention efforts at the community level.

On-going

**Recommendation 4.3**

Increase community awareness about sexual and domestic violence issues.

a. Build collaborations to promote awareness of sexual and domestic violence issues.

-Partner with community leaders.  
- Include faith-based community in anti-violence projects.

On-going

To be identified  
To be identified

On-going

b. Seek out avenues to promote awareness.

-Contact the Associated Press.  
-Recruit local television stations to adopt ending sexual and domestic violence as their cause.  
-Utilize billboards for advertisement.  
-Contact local radio stations and newspapers.  
-Promote culturally appropriate media.

Years 2 and 3  
Years 2 and 3

To be identified  
To be identified

To be identified  
To be identified

Years 2 and 3  
Years 2 and 3

To be identified

Years 2 and 3

ARKANSAS INJURY PREVENTION COALITION

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## **ARKANSAS INJURY PREVENTION COALITION**

Arkansas AARP

Aging & Adult Services, Adult Protective Services

Arkansas Advocates for Children & Families

Arkansas Athletic Trainers Association

Arkansas Children's Hospital

Arkansas Children's Hospital Burn Center

Arkansas Children's Hospital Community Outreach

Arkansas Children's Hospital Trauma Program

Arkansas Children's Hospital, TBI

Arkansas Commission on Child Abuse Rape and Domestic Violence

Arkansas Department of Education

Arkansas Department of Health Injury Prevention

Arkansas Department of Health Statewide Services

Arkansas Department of Health/EMS and Trauma

Arkansas Department of Health/Health Statistics

Arkansas Department of Health/Oral Health

Arkansas Department of Labor

Arkansas Game & Fish Commission

Arkansas MADD (Mothers Against Drunk Driving)

Arkansas Minority Health Commission

Arkansas Poison Control Center

Arkansas Rural & Volunteer Firefighters Association

Arkansas SAFE KIDS Coalition

Arkansas State Crime Lab

Arkansas State Fire Marshal

Arkansas State Police

Arkansas State Spinal Cord Commission

Behavioral Health Services, Drug and Alcohol Safety Education Program

Department of Human Services Division of Youth Services

Izard County Health Department

National Highway Traffic Safety Administration

**ARKANSAS INJURY PREVENTION COALITION**

Partners for Inclusive Communities

Pulaski County Housing Authority

Pulaski County Office/Emergency Management

UAMS Department of Pediatrics

UAMS Emergency Medical Sciences

University of Arkansas Cooperative Extension Service

University of Arkansas/Fayetteville