CREATING CONDITIONS IN ARKANSAS WHERE INJURY IS LESS LIKELY TO HAPPEN....

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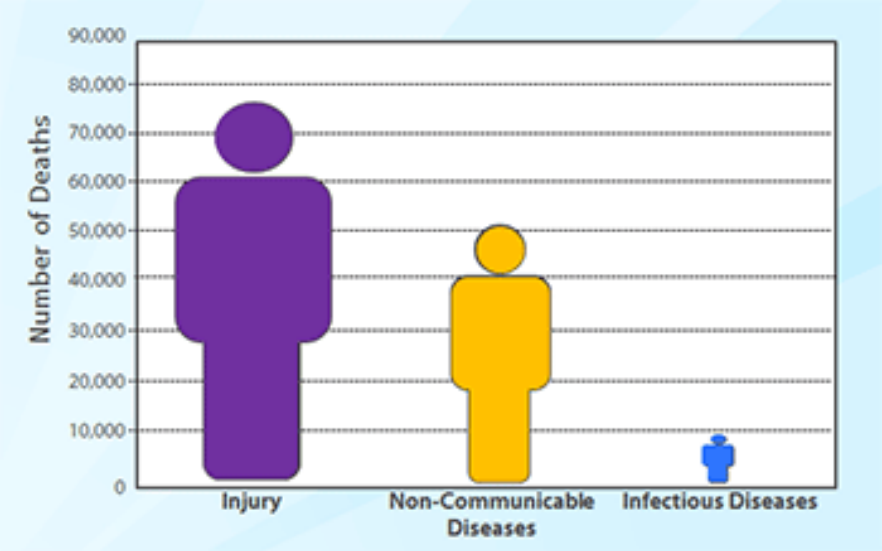
Arkansas Department of Health Injury and Violence Prevention Five Year Planning Document, Goals, Strategies, and Objectives

Why Should Arkansans Care About Injury?

All of us know someone who has been affected by injury – maybe your Grandmother fell, maybe a fellow student was in a motor vehicle accident, or maybe someone you know has attempted suicide. Injury is the leading cause of death for Arkansans age 1-44. Injury costs Arkansans over 1.3 billion dollars per year in medical and lost work costs. In Arkansas, injury claims about 1,500 lives each year from the top five causes of injury alone. Approximately **1 in 3** Arkansans now living will eventually suffer a serious injury causing hospitalization. If you are between the ages of 1-44, you are more likely to die from an injury than from other disease. The graph below describes the number of deaths in the U.S. by cause:



Injury Deaths Compared to Other Leading Causes of Death for Persons Age 1-44, United States, 2010"

Unfortunately, many Arkansans simply accept injury as a way of life. "Accidents happen" some say. The good news is that injury has root causes that can be changed. It is estimated that through increased seat belt use, safer roads, and enforcement of the graduated drivers' license law, over 30 lives were saved in 2011. Also, proper implementation of the Arkansas Trauma System and other policies that support good choices have saved lives. A Prescription Drug Monitoring Program has been developed to reduce drug diversion and death from overdose. The Drug Takeback Program has removed tons of unwanted medicine from the reach of youth and others who might abuse it. These are just a few of the coordinated efforts that are being conducted to reduce injury in Arkansas. We know that it is possible to create conditions where injury is less likely to happen if we work together. Prevention works!

Arkansas Working Together to Prevent Injury

The Arkansas Department of Health's (ADH) Injury and Violence Prevention Section and its funded partners are comprised of some of Arkansas' leading experts on injury. The Injury and

Violence Prevention Section, along with the Governor's Trauma Advisory Council and seven Trauma Regional Advisory Councils, work to develop and implement a state plan designed to reduce injury at the community level.

How is Injury Reduced in Arkansas?

Any effort is only as strong as the grassroots citizens and key stakeholders that support it. The ADH uses data to support programs and efforts that follow a strategic process to impact the root causes of injury. Below is an example of how the process can work in your community:

1. Determine the most common cause of injury that causes hospitalization and/or death in your area (e.g. motor vehicle crashes);
2. Identify the local, specific, root causes of the injury mechanism (e.g. lack of seatbelt use enforcement, unsafe roads, distracted driving, etc.);
3. Develop and enforce local policy, interventions, and norm changes to address the root causes. (e.g. programs to support enforcement of safety policies);
4. Mobilize local resources to begin and sustain interventions (e.g. partner with local hospitals, coalitions, EMTs, doctors, etc., to change policy and enforce it);
5. Conduct ongoing education (not single events) about the new policy using local resources where people gather (faith based groups, schools, workplaces, daycares, etc.); and,
6. Evaluate the impact of the local intervention (e.g. conduct pre- and post-seatbelt observance surveys).

With the use of the statewide and regional leadership structure, as well as local coalitions and community leaders, Arkansas will have a measurable impact on local behavior change with regard to root causes for injury. These local, grassroots changes will contribute to a statewide reduction in injury and death.

This approach provides a basic roadmap for the prevention of injuries at the community level. This plan builds upon the work of the ADH throughout the years to reduce injury. The incidence and mortality data used in this plan are derived from the Arkansas Trauma Registry.

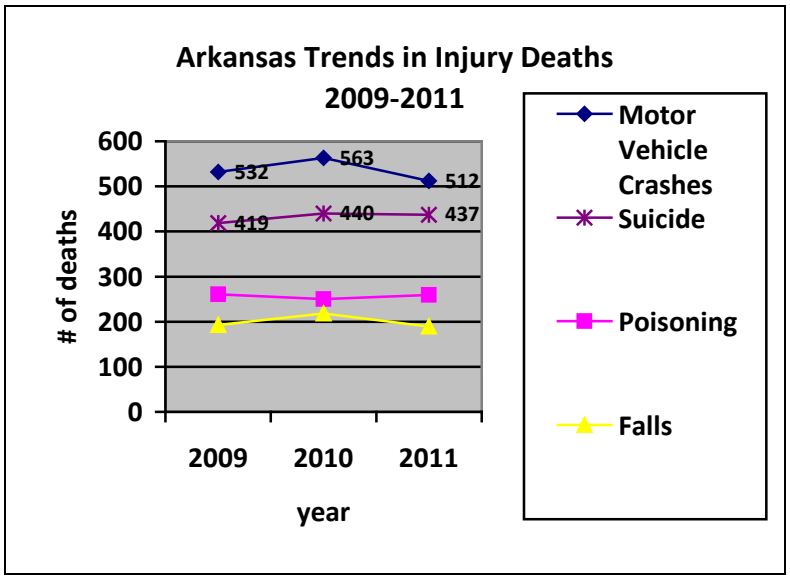
This document is meant to be read and used by local community members to see how they can get involved personally with injury prevention efforts. This plan is provided to Arkansans as a comprehensive strategy to reduce the burden of injury in Arkansas.

Injury Burden in Arkansas

The ADH collects very specific data on injury. Since the establishment of the Arkansas Trauma System in 2009, the Injury and Violence Prevention Section has used hospital data to create reports on what types of injuries Arkansans were most likely to suffer. Both hospitalization and death data have been collected and analyzed.

The good news is that in at least one category, injury death rates have declined over the past two years. Partially as a result of the primary seat belt and graduated drivers' license laws, fewer

Arkansans have been hospitalized or killed due to motor vehicle accidents. The bad news is that about 10 Arkansans still die each week on Arkansas roads because of motor vehicle accidents, most of which are preventable. Also, death from suicide in Arkansas is increasing. The chart below shows trends in Arkansas injury deaths from 2009-2011:



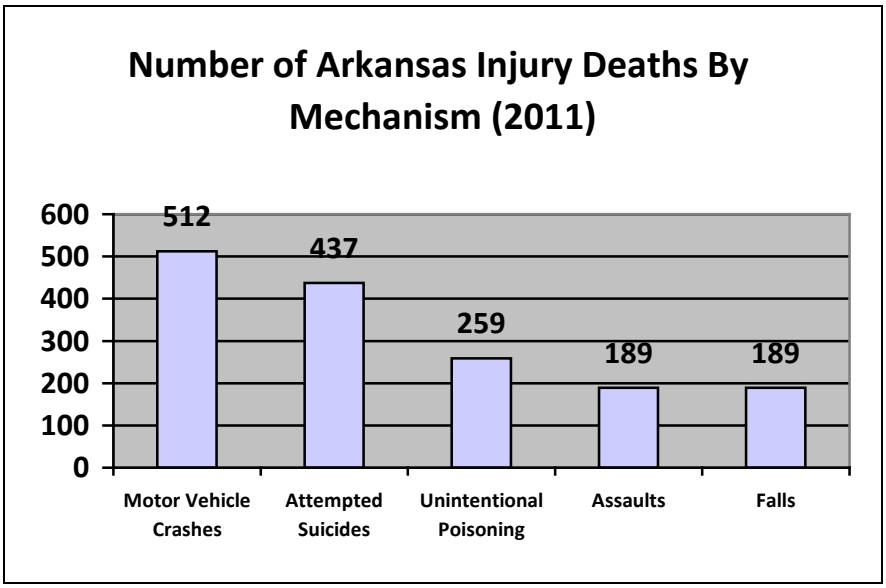
Source: Arkansas Vital Statistics, ADH

Listed in the table below are the top five leading causes of death and hospitalization in Arkansas:

Causes of Death (Ranked)	Causes of Hospitalization (Ranked)
1. Motor Vehicle Crashes 20.84 per 100,000	1. Falls 251.77 per 100,000
2. Self-Harm/Attempted Suicides 14.43 per 100,000	2. Motor Vehicle Crashes 78.51 per 100,000
3. Unintentional Poisonings 9.49 per 100,000	3. Self-Harm/Attempted Suicides 61.14 per 100,000
4. Assaults 7.79 per 100,000	4. Unintentional Poisonings 37.13 per 100,000
5. Falls 5.92 per 100,000	5. Assaults 18.42 per 100,000

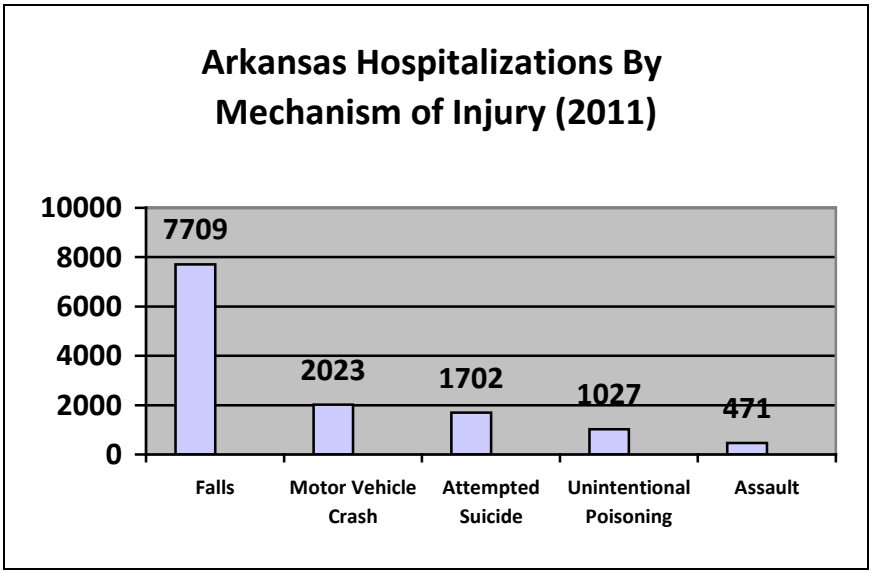
Source: Arkansas Vital Statistics, ADH – 2011 Data

The top five injury mechanisms that lead to the death of Arkansans (in 2011) are shown graphically below:



Source: Arkansas Vital Statistics, ADH

The top five injury mechanisms that lead to the hospitalization of Arkansans (in 2011) are shown graphically below:

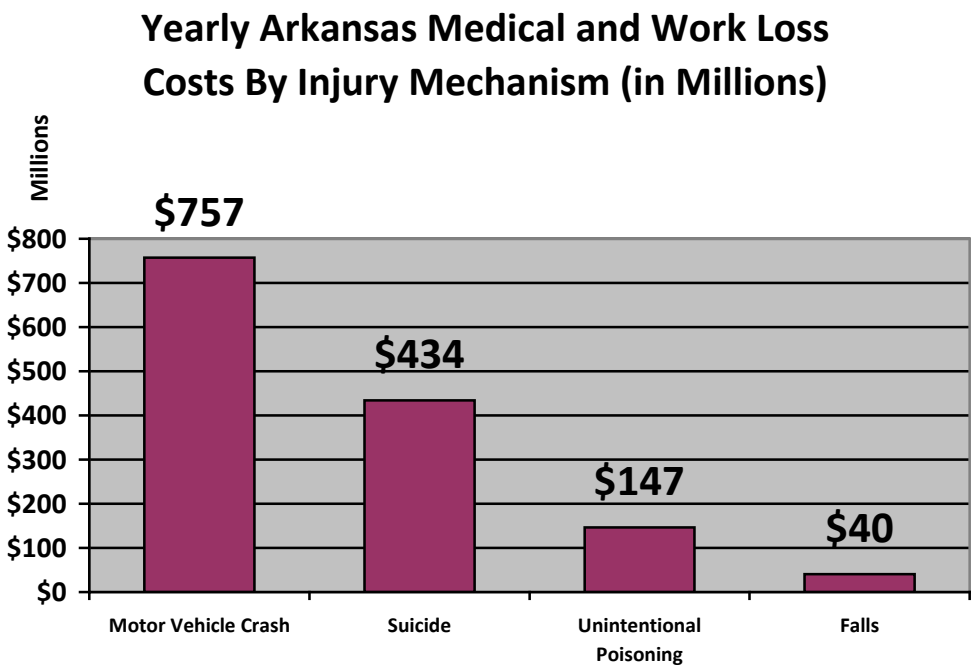


Source: Arkansas Hospital Discharge Data System, ADH Health Statistics Branch

People most likely to die from injury in Arkansas vary by age, race, and region. When working with local Trauma Regional Advisory Council Injury and Violence Prevention Committees, ADH staff and others stress looking at local data to determine priorities and effective interventions. Also, there are many other types of injuries that cause hospitalization and trauma, including sexual assault, fires, drowning, traumatic brain injury (including sports concussion), occupational hazards (including agricultural), abuse (children, teens, spousal, elderly), and others. Finally, there are subtypes of motor vehicle crash injuries, including all-terrain vehicle, motorcycle/scooter, and pedestrian.

In all regions of Arkansas, motor vehicle crashes are the leading cause of death and falls are the leading cause of hospitalization. Emerging injury issues, such as traumatic brain injury (concussion), have become priorities as we learn more about the extent and damage these injuries can cause.

The key for prevention efforts is that we use data to determine the leading cause of hospitalization and death and rally local resources to change the local norms to affect individual health behavior.



Source: Office of Statistics and Programming, National Center of Injury Prevention and Control

In the time it takes you to read this page of this report, Arkansans will lose about $1,400 in medical and work loss costs due to motor vehicle crashes alone. Another $1,000 will be lost due to the other three leading causes of death. A loss of $2,400 per minute (year after year) for just these top four causes of death creates a significant economic burden for Arkansas.

What is the Goal?

The goal is to measurably reduce the burden of injury on Arkansans by implementing a statewide plan driven by data, prevention science, and interventions. Part of this goal is that Arkansans work together to make sure that interventions go beyond simple awareness to include community level change. We must create conditions in our communities where "bad" things are less likely to happen.

Put simply, our goal is to use the best science to change local policy and norms so that individuals feel supported when they make good choices to reduce injury.

> *A good example would be a workplace policy that encourages employees to drive safely (not text and drive while driving for work). Education alone, while important, may not be enough to change behavior.*

Where to Start?

Injury prevention can seem overwhelming. There are so many ways that Arkansans can be injured. Communities react to tragedy and sometime vast resources are garnered to address a type of injury "after the fact." While these efforts are valiant and sometime lead to a community regaining a sense of control, the best efforts are ongoing. Like gardening, prevention is about creating conditions in communities where "bad things" are less likely to happen.

The ADH has chosen to focus our efforts for the next five years on the mechanisms of death that hospitalize and kill the highest number of Arkansans. For example, suicide rates in Arkansas have been stubbornly high or rising over the past few years. The social and economic costs of suicide are staggering, and we have a responsibility to respond to the data. Also, falls hospitalize thousands of very young and elderly Arkansans every year, and many times, a fall can lead to other serious health issues for elderly patients.

We plan to encourage communities to identify and change the "root causes" of injury in their hometowns. Using Arkansas Children's Hospital Statewide Injury Prevention Program staff and the ADH Hometown Health staff (funded by trauma system funding) as partners, we hope to help communities develop the capacity to do what is needed to change the culture to reduce injury.

Motor Vehicle Crashes – Motor vehicle crashes are the leading cause of death of Arkansans ages 1-44. For Americans age 5-34, motor vehicle crashes are the leading cause of death (CDC http://www.cdc.gov/injury/overview/data.html). Factors that increase the chance of a crash include alcohol impaired driving, distracted driving, inexperienced driving, speeding, poor road conditions, etc. According to the CDC, motor vehicle crashes cost Arkansans approximately 618 million dollars *every year* due to medical and work loss costs.

Falls – Falls tend to impact the very young and elderly. Falls are usually related to hazards in the home, poor vision and/or poor lighting, medications (or combinations of medications), and lack of exercise among the elderly.

Unintentional Poisoning – 91% of unintentional poisonings are a result of drug overdoses. Painkillers like hydrocodone, oxycodone, and methadone are commonly involved (CDC). While this issue usually affects adults, over 60,000 children are seen each year in emergency departments for unintentional poisoning, usually because they got into medicines while parents were not aware. Unintentional poisoning was second only to motor vehicle crashes as a cause of unintentional injury death for all ages in 2009. Among people 25 to 64 years old, unintentional poisoning caused more deaths than motor vehicle crashes.

Suicide – Risk factors for suicide include: a history of previous suicide attempts; a family history of suicide; a history of depression or other mental illness; a history of alcohol and drug abuse; easy access to lethal methods; and, a stressful event or loss. Certain age groups are more at risk.

Assault/Violence – In Arkansas, assault is a leading cause of hospitalization and death. Too many Arkansans are admitted to the hospital each year due to some type of assault. Child maltreatment (such as shaken baby syndrome), sexual violence, youth violence, and other violent behaviors are preventable. Many violent behaviors begin in youth. Some individual risk factors for youth include a history of violent victimization, a history of early aggressive behavior, involvement with drugs and alcohol, antisocial beliefs, and exposure to violence and conflict in the family.

Disparities by Region and County – Arkansans are a diverse people with diverse skills, opportunities, and resources. Data suggests that in certain Arkansas counties, life expectancy can be as much as ten years less than the counties with the highest life expectancy. This is likely true with regard to injury as well and is usually due to lack of knowledge, skills, and resources. Any injury and violence prevention plan must recognize this disparity and seek to remedy it.

Lifestyle and Environmental Risks – Arkansans, like many Americans, engage in personal behaviors that put them at risk for injury. However, environments can be changed to support individual behavior change. One good example is the passage of the Arkansas Clean Indoor Act of 2003 and how that policy made it abnormal to smoke indoors (whether it was prohibited or not). Many Arkansas children cannot remember a time when secondhand smoke was an issue for them. This is just one example when a policy change created a culture change for a more healthy behavior.

There are ways that policy can support personal behaviors to reduce injury. Below are just a few examples:

1. primary seat belt law to reduce injury from motor vehicle crashes;
2. funding to create roadside barriers to reduce vehicles leaving the roadway;
3. graduated driver license to ensure that young drivers are prepared for driving privileges;
4. sobriety checkpoints to reduce drunk driving;

5. social host law to reduce hosting underage drinking parties;
6. drug take back days and medicine drop boxes to reduce access to prescription drugs;
7. prescription drug monitoring programs to reduce the overprescribing of medication and doctor shopping; and,
8. policies that require sports teams to reduce concussion and to prevent repeated concussions of players.

Arkansas's Big Health Problems and How We Plan to Solve Them

Informing the Arkansas Plan:

Goal 1
Reduce motor vehicle crashes.
Strategies

1. Support the engineering of safe road environments.
2. Support impaired driving enforcement, education, and underage drinking prevention programs.
3. Increase new driver safety.
4. Promote public awareness, policy, and implementation of passenger safety interventions.

Goal 2
Reduce suicides.
Strategies

1. Increase effective clinical care for mental, physical, and substance abuse disorders.
2. Increase family and community support.
3. Increase support from ongoing medical and mental health care relationships.
4. Support cultural and religious beliefs that discourage suicide and support instincts for self-preservation.

Goal 3
Reduce unintentional poisoning.
Strategies

1. Support appropriate use of prescription medication.
2. Support appropriate storage and disposal of prescription medication.
3. Support poisoning emergency resolution.
4. Support implementation of electronic prescription monitoring tools.

Goal 4
Reduce falls.
Strategies

1. Increase community programs to educate at-risk groups about falls prevention.
2. Increase community programs to educate at-risk groups about home safety to prevent falls.
3. Increase programs to reduce falls in health care settings.

Objectives and Actions to Prevent Injury Death in Arkansas:

Motor Vehicle Crash Prevention

SMART Objective: By July 1, 2018, the overall injury death rate for all Arkansans from **motor vehicle crashes** will be reduced from **573** per year (baseline in 2010) to **515** per year (as measured by 2016 data).[1]

SMART Objective: By July 1, 2018, the overall injury death rate for Arkansans ages 15-34 from **motor vehicle crashes** will be reduced from **146** per year (baseline in 2010) to **130** per year (as measured by 2016 data). [1]

Recommended Actions:

- Implement policies, practices, and/or increased enforcement of policies that create a safe road environment (i.e. signage, rumble strips, speed enforcement, etc.)
- Implement policies, practices, and/or increased enforcement of policies to prevent alcohol-impaired crash related deaths.
- Implement policies, practices, and/or increased enforcement of policies to increase new driver safety (Graduated Driver's License, Distracted Driving, etc.)
- Implement policies, practices, and/or increased enforcement of policies to ensure that every person buckles up on every trip.
- Implement policies, practices, and/or increased enforcement of policies to ensure children are placed in age and size appropriate car and/or booster seats.
- Implement policies, practices, and/or increased enforcement of policies to ensure that motorcycle riders utilize a DOT approved helmet every time they ride.

Suicide Prevention

SMART Objective: By July 1, 2018, the overall injury death rate for all Arkansans from **suicide (firearm, suffocation, & poisoning)** will be reduced from **431** per year (baseline in 2010) to **385** per year (as measured by 2016 data). [1]

Recommended Actions:

- Implement policies, practices, and/or support for efforts that increase effective clinical care for mental, physical, and substance abuse disorders.
- Implement policies, practices, and/or support for efforts that provide easy access to a variety of clinical interventions and support for health seeking.
- Implement policies, practices, and/or support for efforts that increase family and community support.
- Implement policies, practices, and/or support for efforts that increase support from ongoing medical and mental health care relationships.
- Implement policies, practices, and/or support for efforts that increase skills in problem solving, conflict resolution, and nonviolent ways of handling disputes.
- Implement policies, practices, and/or support for cultural and religious beliefs that discourage suicide and supports instincts for self-preservation.

Unintentional Poisoning/Overdose Prevention

SMART Objective: By July 1, 2018, the overall injury death rate for all Arkansans from **unintentional poisoning (overdose)** will be reduced from **257** per year (baseline in 2010) to **230** per year (as measured by 2016 data). [1]

Recommended Actions:

- Implement policies, practices, and/or support for appropriate use of prescription medication.
- Implement policies, practices, and/or support for appropriate storage and disposal of prescription medication.
- Implement policies, practices, and/or support for poisoning emergency resolution.

Falls Prevention

SMART Objective: By July 1, 2018, the overall injury death rate for all Arkansans from **unintentional falls** will be reduced from **227** per year (baseline in 2010) to **200** per year (as measured by 2016 data). [1]

SMART Objective: By July 1, 2018, the overall injury death rate for Arkansans ages 65+ from **unintentional falls** will be reduced from **192** per year (baseline in 2010) to **170** per year (as measured by 2016 data). [1]

Recommended Actions:

- Implement policies, practices, and/or support for evidence-based community programs to educate at risk populations about falls prevention.
- Implement policies, practices, and/or support for evidence-based community programs to educate at risk populations about home safety to prevent falls.
- Implement policies, practices, and/or support for evidence-based programs to reduce falls in health care settings.

1. Centers for Disease Control, National Center for Injury Prevention and Control WISQARS "10 Leading Causes of Injury Deaths, Arkansas 2010"

What Can You Do?

The ADH and other stakeholders can only do so much. Like all other community problems, the solution lies mainly with community members. To accomplish any of the goals listed in this document, local citizens must be involved. The ADH and its constituent groups will work hard to achieve the goals identified here, and there are things that each of us can do right now to help reduce injury.

Below are a few examples of what you can do to help work toward the goals presented here. Use these examples, but don't limit yourself to them. Fill in the blank spaces with your own ideas.

If you are a hospital:

- Ensure that your injury data is reported in an accurate and timely way
- Provide meeting space and support to local coalitions
- Collaborate to sponsor injury prevention programs in your hospital and in the community
- Play an active role in the Arkansas Trauma System
- Utilize hospital prevention staff to conduct evidence-based injury prevention outreach

Other: _____

If you are a Local Health Unit:

- Provide injury prevention awareness information to citizens
- Collaborate and support local coalitions
- Work with physicians to promote personal injury prevention behaviors
- Provide space and support to local injury prevention groups

Other: _____

If you are a community-based organization

- Provide injury prevention awareness information to constituents
- Promote injury prevention policy development, implementation, and enforcement
- Advocate for local laws, policies, and norms to reduce injury
- Encourage staff to lead coalitions to reduce injury

Other: _____

If you are a professional organization

- Provide injury prevention information to constituents
- Advocate for state laws to reduce injury
- Create goals for professional education about injury prevention methods
- Collaborate with other organizations to increase injury prevention resources

Other: _____

If you are an employer

- Provide injury prevention awareness information to employees
- Provide an injury free environment for your workers and customers
- Collaborate with insurance vendors, employee representatives, and management to institute workplace policies to reduce injury
- Provide time for employees to participate in local coalition injury prevention efforts

Other: _____

If you are a school/university

- Include injury and violence prevention messages in health classes
- Enforce seatbelt laws for on campus drivers
- Educate parents and students about graduated drivers' license laws
- Create policies and practices to reduce concussions and other injuries
- Promote suicide hotlines and educate counselors about crisis intervention

Other: _____

If you are a faith-based organization

- Provide injury and violence prevention information to members
- Encourage members to avoid injury due to falls
- Promote suicide hotlines and educate members about signs of suicide

Other: _____

If you are a physician

- Utilize the Arkansas Prescription Drug Monitoring Program to reduce drug overdoses
- Screen patients for suicidal ideation and refer appropriately
- Screen older patients for drug interactions that may cause falls
- Support local coalition prevention efforts
- Educate patients about injury risks

Other: _____

If you are a legislator

- Appropriate funding for evidence-based injury and violence prevention
- Raise constituent's awareness about injury prevention programs in your district or help establish new programs where needed
- Sponsor or support legislation that promotes injury and violence prevention
- Ensure that all Arkansans have access to health care and other preventive programs
- Ensure that Trauma System funds are used for trauma and injury prevention purposes

Other: _____

If you are an Arkansan

- Wear your seatbelt, drive without distraction, and slow down
- Drive sober and encourage friends to do so
- Monitor, secure, and dispose of your prescription drugs properly
- Reduce your fall risk and that of your elderly friends and relatives
- Seek help for depression and refer friends who need help
- Show your support and care for those who struggle with depression
- Advocate for policies in your workplace, schools, and community to reduce injury
- Volunteer with a local coalition, health unit, hospital, local faith-based or community group to educate fellow citizens how to prevent injury

Other: _____

Again, the overall goal is to measurably reduce the burden of injury on Arkansans by implementing a collaborative statewide plan driven by data, prevention science, and interventions that go beyond simple awareness to community level change.

We strive to coordinate our efforts, prioritize needs, share resources, and promote effective approaches to injury prevention through education, advocacy, data collection, and evaluation. Representing many disciplines and diverse groups working together to address all injuries, we strive to save lives, reduce costs, and improve the quality of life for Arkansas residents and visitors.

There are several things that we must accomplish together as a state to support the overall goal to reduce the burden of injury in Arkansas.

1. We must establish a sustainable state framework of professionals, volunteers, local champions, and others to provide the leadership to coordinate, monitor, and evaluate this plan.
2. We must continue to strive to increase public and private funding for injury prevention, and use those resources wisely.
3. We must make sure that local communities have the skills and resources to identify injury priorities and make changes to prevent them.
4. We must make sure that those who are involved with prevention in Arkansas have the latest knowledge and skills.
5. We must increase the use of evidence-based (proven effective) programs.
6. We must make sure that local communities have access to the latest data to plan and evaluate their injury prevention programs and policies.
7. We must help communities learn how best to evaluate their injury prevention policies and programs so the hard work will result in positive change.
8. We must teach community leaders how best to advocate for and change local policies to reduce injury.