Texas

INJURY PREVENTION PLAN

Prepared by

The Governor's EMS and Trauma Advisory Council
Injury Prevention Committee
2003

TO PROVIDE LEADERSHIP
AND COORDINATION
FOR INJURY PREVENTION TO
IMPROVE THE LIVES OF ALL TEXANS

Texas
Injury Prevention Plan

To provide leadership and coordination in the implementation of effective injury prevention initiatives that reduces mortality and morbidity and improves the lives of all Texans

TABLE OF CONTENTS

Preface

With a harmonious statewide scope utilizing a systematic approach to educating the public about prevention of injuries, the State Plan will facilitate the education of citizens in understanding that their choices and personal behavior can directly impact their lives and the lives of their loved ones.

Injury prevention is not something else to do, but the way every day things are done.

Prevention begins with the individual and continues throughout all levels of health care. Committing to this plan will provide public and governmental agencies and organizations better use of system resources to ultimately improve the outcome of the injured.

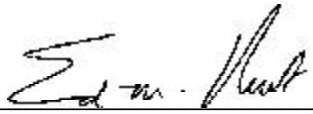
Approval and Implementation

Injury is the third leading cause of death in the state; the leading cause of death for Texans 1 - 44 years of age; the leading cause of early death; and the biggest killer of our children.

Preventive strategies have the potential to preclude or reduce life-altering and life-ending injuries.

The purpose of the Texas Injury Prevention Plan is to identify implementable actions, which serve to preclude and/or reduce the severity of the effects of injuries. This plan was developed in a joint and cooperative effort by healthcare professionals, governmental officials, agencies and organizations dedicated to improving the health of all Texans

This Plan is accepted for implementation upon approval:



Chair, Governor's EMS
and Trauma Advisory Council

November 23, 2003
Date

PART ONE – INTRODUCTION

Injury (unintentional and intentional) is the one of the most under-recognized threat to the health of all people. Reducing morbidities and preventing mortalities represents an unparalleled opportunity for Texans to realize significant savings not only financially, but also in improving the quality of life for injury victims and their significant others.

Injuries are not accidents – they do not just happen.

Injuries can be studied and the "who, what, when, where, how and why" of their occurrence can be identified. Injuries are heterogeneous and affect all segments of the population, regardless of age, gender, social or economical status. It is only through a multidisciplinary and collaborative approach that prevention and intervention efforts will be able to respond to the magnitude of the challenge.

With the implementation of this plan, Texans declare that injury prevention is a priority. The Texas Injury Prevention Plan is a process by which effective injury prevention efforts are most likely to be identified. The foundation of any preventive effort begins with systematic collection, analysis and interpretation of injury data. Injury prevention programs should design interventions that apply the best information available regarding established prevention countermeasures (education, engineering, enforcement, economic, legislation and optimal care). Historically, prevention initiatives have been episodic and provided by dedicated groups at the local level. However, an essential component to injury prevention is the implementation of a systematic approach in a comprehensive and coordinated manner. Without a plan, injury prevention efforts by assorted groups and individuals may be unfocused and duplicative. A statewide program can serve as a focal point for information, education, and resources to carry out injury prevention strategies.

A. STATE AUTHORTY

Texas Department of State Health Services, Office of EMS and Trauma Systems Coordination and Epidemiology and Disease Surveillance Division

Statutory Authority:

Chapter 92 of the Health and Safety Code
www.capitol.state.tx.us/statutes/hs.toc.htm

Chapter 103 of the Texas Administrative Code
www.sos.state.tx.us/tac

Chapter 773.113 of the Health and Safety Code
www.capitol.state.tx.us/statutes/hs.toc.htm

Chapter 157 of the Texas Administrative Code
www.sos.state.tx.us/tac

B. FEDERAL AUTHORY

TITLE 42—THE PUBLIC HEALTH AND WELFARE, CHAPTER 6A—PUBLIC HEALTH SERVICE, SUBCHAPTER X—TRAUMA CARE

C. EXECUTIVE SUMMARY

The primary goals of the Texas Injury Prevention Plan are to reduce the rate of unintentional and intentional injuries in Texas by 2010 and to move toward the Healthy People 2010 objectives. This plan addresses specific problem areas covering both **unintentional** and **intentional** injuries. There are also sub-objectives under each objective which targets specific ages, race/ethnicities and genders.

To accomplish these objectives, a scientifically based and strategically implemented plan will be integrated into the Governor's EMS and Trauma Advisory Council's Injury Prevention Committee's core component. The plan will be overseen by the Injury Prevention Committee members and facilitated by the Epidemiology and Disease Surveillance Unit in the Texas Department of State Health Services.

The Office of EMS and Trauma System Coordination will provide materials, contact resources and technical assistance to injury prevention programs in local, regional and statewide initiatives.

The plan is a dynamic document that will be driven by data and grounded in the scientific method. The plan will be reviewed and revised on a timely basis when specific objectives have been met and success has been sustained. The plan is intended to be functional and to be sensitive to the fiscal and political realties of day-to-day operations.

The plan endorses and supports the core principles of:

Improving coordination and collaboration – supporting the diverse efforts of all stakeholders.

Integrating the science of injury prevention - supporting methods and understandings that promote and infuse the field with a shared purpose.

Nurturing public understanding and support – broadening the public's understanding of the value of injury prevention and the amelioration of injuries.

Promoting informed policy making – improving the system of sharing information, and identifying and setting priorities in the field.

Strengthen the capacity for research and practice – supporting an infrastructure for the development and dissemination of knowledge and the translation of that knowledge into practice.

PART TWO - INJURY PREVENTION PRACTICE

A. CLASSIFICATIONS

Injuries can be divided into two general categories, unintentional and intentional injuries. Unintentional injuries are those historically referred to as "accidents" and where the injurious event was not sought out by the person injured. Some examples of unintentional injuries include motor vehicle crashes, falls, burns, drowning and ingestion of poisonous substances. Intentional injuries are related to some type of purposeful act. Intentional injuries include violence directed at someone and self-inflicted injuries, such as a suicide.

Thus injuries involve a broad group of causes, arising from numerous activities and risk factors that can affect diverse populations.

B. CATEGORIES

The overall goals of injury prevention programs are to preclude the occurrence of injuries and to reduce mortality and morbidity once an injury occurs. Any single approach to injury prevention may be ineffective. A more successful approach must address one or more categories of injury prevention. Increased knowledge and actively addressing various risk factors including primary, secondary and tertiary prevention will decrease injuries.

Primary Prevention

Primary prevention activities raise the awareness of the general public, providers and decision makers about the scope and problems associated with injuries and trauma. For example primary prevention activities may include:

- Public service announcements on the radio or television encouraging parents to use child passenger safety seats.
- Parent education programs teaching injury prevention activities.
- Public awareness campaigns informing citizens how and where to report suspected child abuse and neglect.

Primary prevention programs are particularly popular during months which are designated by specific topics, e.g., DUI, passenger safety, domestic violence, etc.

Secondary Prevention

Secondary prevention activities focus efforts and resources on populations at higher risk for injuries, such as teenagers or the elderly. Several factors such as substance abuse, driving experience, and peer pressure are associated with increased risk of motor vehicle crashes in the adolescent population. Services may be aimed to communities or neighborhoods with higher risk factors. Examples of secondary prevention programs include:

- Parent education programs located in high schools for teen drivers.
- Substance abuse information programs for young adults.

Secondary prevention efforts in-

clude early identification and intervention after an injury has occurred. Examples of secondary prevention programs include:

- ATLS and PALS programs.
- Clinical practice guidelines and protocols for injured patients.

Tertiary Prevention

Tertiary prevention activities focus efforts to reduce the negative consequences associated with injuries (e.g., decreased physical and/or cognitive functioning related to TBI and SCI). These prevention programs may include services such as:

- Research in the area of trauma system outcome studies.
- Integration of rehabilitation initiatives early in the care of the injured patient.
- Use of electronic and telemedical links from prehospital to hospital service delivery.

C. MODELS

Successful reduction of injuries have addressed many different approaches and used knowledge in an applied method. The identification of an injury prevention "model" is an essential component of a prevention program because it sets up the framework to determine the direction and actions of the program. Viewed in this way, injury prevention is a collaborative effort. In general the framework should:

- Summarize and organize the essential elements of the injury prevention program.
- Provide a standardized frame of reference for identifying program components.
- Document the steps in program implementation.
- Review the outcome of the program.
- Establish methods of program evaluation.

As a general reference source, one model from the Centers of Disease Control's Evaluation Working Group is:

Engage stake holders – Those involved, those affected, primary intended users

Describe the program – Need, expected effects, activities, resources, stage, context, logic model

Focus the evaluation design – Purpose, users, uses, questions, methods, agreements

Gather credible evidence – Indicators, sources, quality, quantity, logistics

Justify conclusions – Standards, analysis/synthesis, interpretation, judgment, recommendations

Ensure use and share lessons learned – Design, preparation, feedback, follow-up, dissemination

PART THREE – STRATEGIC COUNTERMEASURES

Effective injury prevention and control programs need to be comprehensive enough to encompass the many factors that affect injury risk and severity of outcome. Most injury prevention strategies are either "active" or "passive."

Active strategies require a specific action, such as buckling the seat belt, placing a child in a car seat, or using a motorcycle or bicycle helmet.

Passive strategies require no or very little action on the part of the individual. Some examples of passive strategies include breakaway highway signage, automated seat belts and air bags. No single strategy may provide the best approach to overall injury prevention.

A. UNIVERSIAL STRATEGIES

Prevention strategies may be arranged according to their effect on the injury event. The universal injury prevention countermeasures include:

1. Educational strategies – one of the most common countermeasures of primary prevention, which is intended to change behavior. This strategy may be divided into the following levels: *awareness campaigns*, such as billboards, brochures, public service announcements; *informational*, such as brief presentations for community groups; *educational*, such as specific programs on a defined topic with goals and objectives; *certification/ degree*, such as technical training (ATLS, PALS) or academic courses leading to a specific degree (paramedic, nursing).

2. Engineering strategies – historically have made major contribution to reducing mortalities related to motor vehicle crashes. This strategy addresses the biomechanical aspects of injury prevention. Technological advances, products used and passive measures incorporated into environment reduce or preclude injury events.

3. Enforcement strategies – include laws and regulations established to protect individuals. Active strategies heighten community policing related to DUI, seat belt and child passenger safety compliance.

4. Economic strategies - include fiscal incentives and disincentives reputed to following or not engaging in a particular behavior. Increased insurance premiums for a history of motor vehicle crashes are an example of an economic disincentive. Economic incentives include discounts for safe driving over a prolonged period of time

5. Legislative strategies – enactment of new laws is the responsibility of elected legislative representatives. Having accurate and timely information and expert resources may facilitate the drafting, passing and enactment of laws that support effective injury prevention issues.

6. Optimal Care of the Injured – strategies encompass all phases of care, from the pre-hospital through acute care and rehabilitative services. This concept addresses the inclusive process of injury prevention, including systems of communication, disaster preparedness, and informational systems

B. SELECTIVE STRATEGIES

Numerous initiatives in injury prevention have not proven an effective way of communicating either the program process or outcomes. Selective identification of programs will use current evidence and professional opinion suggesting that programmatic resources are directed in an organized manner. Two selective categories of strategies include:

1. Proven strategies – when there is outcome evidence that a strategy works. The focus of action should be on implementation when the mechanism of injury is present in the target population and specific geographic area. Whenever possible proven strategies should be used widespread to maximize their effects.

2. Promising strategies – when there is initial data and the outcome effects are promising, the strategy should be reviewed and possibly implemented for a same/similar target population and geographic area. Promising strategies may become proven strategies.

PART FOUR – MEASURES

A. Surveillance Data

Injury surveillance is the ongoing and systematic collection, analysis and interpretation of injury data in the process of describing and monitoring injurious events. Injury data should be used for planning, implementing, and evaluation preventative interventions. Optimally injury surveillance should include morbidity as well as the typical mortality data.

B. Evaluation

Injury prevention program evaluation is one step in the cycle of continuous improvement in the health of the public. It establishes the foundation to comprehend the needs and determinants establishes benchmarks for achievement and builds constituencies for new programs. Evaluation is a vehicle for collaboration; it can mobilize new scholarship in the quest for injury control.

PART FIVE – GOALS AND OBJECTIVES

Below is a list of the 65 injury related objectives in the new National Healthy People 2010 Objectives.

For detailed information, check the Healthy People 2010 web site: *www.health.gov/healthypeople/Document/tableofcontents.htm*

Trauma Service Areas may use data from the Texas Trauma Registry and the Healthy People objectives to identify regional opportunities for prevention program interventions.

Injury and Violence Prevention

15-1. Reduce hospitalization for nonfatal head injuries to 54 hospitalizations per 100,000 population.

15-2. Reduce hospitalization for nonfatal spinal cord injuries to 2.6 hospitalizations per 100,000 population.

15-3. Reduce firearm-related deaths to 4.9 per 100,000 population.

15-4. Reduce the proportion of persons living in homes with firearms that are loaded and unlocked to 16 percent.

15-5. Reduce nonfatal firearm-related injuries to 10.9 injuries per 100,000 population.

15-6. (Developmental) Extend state-level child fatality review of deaths due to external causes for children aged 14 years and under.

15-7. Reduce nonfatal poisonings to 292 nonfatal poisonings per 100,000 population.

15-8. Reduce deaths caused by poisonings to 1.8 deaths per 100,000 population.

15-9. Reduce deaths caused by suffocation to 2.9 deaths per 100,000 population.

15-10. Increase the number of states and the District of Columbia with statewide emergency department surveillance systems that collect data on external causes of injury to all states and D.C.

15-11. Increase the number of states and the District of Columbia that collect data on external causes of injury through hospital discharge data systems.

15-12. Reduce hospital emergency department visits caused by injuries to 112 hospital emergency department visits per 1,000 population.

15-13. Reduce deaths caused by unintentional injuries to 20.8 deaths per 100,000 population.

15-14. (Developmental) Reduce nonfatal unintentional injuries.

15-15. Reduce deaths caused by motor vehicle crashes to 9.0 deaths per 100,000 population and 1 death per 100 million vehicle miles traveled (VMT).

15-16. Reduce pedestrian deaths on public roads to 1 pedestrian death per 100,000 population.

15-17. Reduce nonfatal injuries caused by motor vehicle crashes to 1,000 nonfatal injuries per 100,000 population.

15-18. Reduce nonfatal pedestrian injuries on public roads to 21 nonfatal injuries per 100,000 population.

15-19. Increase use of safety belts to 92 percent of the total population.

15-20. Increase use of child restraints to 100 percent motor vehicle occupants aged 4 years and under.

15-21. Increase the proportion of motorcyclists using helmets to 79 percent of motorcycle operators and passengers.

15-22. Increase the number of states and the District of Columbia that have adopted a graduated driver licens-

ing model law to all states and D.C.

15-23. (Developmental) Increase use of helmets by bicyclists.

15-24. Increase the number of states and the District of Columbia with laws requiring bicycle helmets for bicycle riders to all states and D.C.

15-25. Reduce residential fire deaths to 0.6 deaths per 100,000 population.

15-26. Increase functioning residential smoke alarms to 100 percent of residences with a functioning smoke alarm on every floor.

15-27. Reduce deaths from falls to 2.3 deaths per 100,000 population.

15-28. Reduce hip fractures among older adults to 491.0 fractures per 100,000 females aged 65 years and older and to 450.5 fractures per 100,000 males aged 65 years and older.

15-29. Reduce drownings to 0.9 drownings per 100,000 population.

15-30. Reduce hospital emergency department visits for nonfatal dog bite injuries to 114 hospital ER visits per 100,000 population.

15-31. (Developmental) Increase the proportion of public and private schools that require use of appropriate head, face, eye, and mouth protection for students participating in school-sponsored physical activities.

15-32. Reduce homicides to 3.2 homicides per 100,000 population.

15-33. Reduce maltreatment fatalities of children to 1.5 per 100,000 children under age 18 years.

15-34. Reduce the rate of physical assault by current or former intimate partners to 3.6 physical assaults per 1,000 persons aged 12 years and older.

15-35. Reduce the annual rate of rape or attempted rape to 0.7 rapes or attempted rapes per 1,000 persons.

15-36. Reduce sexual assault other than rape to 0.2 sexual assaults other than rape per 1,000 persons aged 12 years and older.

15-37. Reduce physical assaults to 25.5 physical assaults per 1,000 persons aged 12 years and older.

15-38. Reduce physical fighting among adolescents to 33 percent of adolescents in grades 9 through 12 who engaged in physical fighting in the previous 12 months.

15-39. Reduce weapon carrying by adolescents on school property to 6 percent of students in grades 9 through 12 who carried weapons on school property during the past 30 days.

Related Injury Objectives from Other Focus Areas

Access to Quality Health Services

1-3. (Developmental) Increase the proportion of persons appropriately counseled about health behaviors.

1-10. (Developmental) Reduce the proportion of persons who delay or have difficulty in getting emergency medical care.

1-11. (Developmental) Increase the proportion of persons who have access to rapidly responding prehospital emergency medical services.

1-12. Establish a single toll-free telephone number for access to poison control centers on a 24-hour basis throughout the United States.

1-13. Increase the number of tribes, states, and the District of Columbia with trauma care systems that maximize survival and functional outcomes of trauma patients and help prevent injuries from occurring to all states.

1-14. Increase the number of states and the District of Columbia that have implemented guidelines for prehospital and hospital pediatric care to all states.

Educational and Community-Based Programs

7-2. Increase the proportion of middle, junior high, and senior high schools that provide comprehensive school health education to prevent health problems in the following areas: unintentional injury to 90 percent, violence to 80 percent, and suicide to 80 percent.

7-3. Increase the proportion of college and university students who receive information from their institution on each of the six priority health-risk behavior areas to 25 percent; one being injuries (intentional and unintentional).

Environmental Health

8-13. Reduce pesticide exposures that result in visits to a health care facility to 13,500 visits per year.

8-24. Reduce exposure to pesticides as measured by blood and urine concentrations of metabolites.

8-25. (Developmental) Reduce exposure of the population to pesticides, heavy metals, and other toxic chemicals, as measured by blood and urine concentrations of the substances or their metabolites.

Mental Health and Mental Disorders

18-1. Reduce the suicide rate to 6.0 suicide deaths per 100,000 population.

18-2. Reduce the rate of suicide attempts by adolescents to a 12-month average of 1 percent.

Occupational Safety and Health

20-1. Reduce deaths from work-related injuries to 3.2 deaths per 100,000 workers aged 16 years and older.

20-2. Reduce work-related injuries resulting in medical treatment, lost time from work, or restricted work activity to 4.6 injuries per 100 full-time workers aged 16 years and older.

20-5. Reduce deaths from work-related homicides to 0.4 deaths per 100,000 workers.

20-6. Reduce work-related assaults to 0.6 assaults per 100 workers.

20-10. Reduce occupational needle-stick injuries among health care workers to 420,000 annual needle-stick exposures.

Substance Abuse

26-1. Reduce deaths and injuries caused by alcohol and drug-related (developmental) motor vehicle crashes to 4.0 alcohol-related deaths and 65 alcohol-related injuries per 100,000 population.

26-3. Reduce drug-induced deaths to 1 death per 100,000 population.

26-4. Reduce drug-related hospital emergency department visits to 350,000 visits per year.

26-5. (Developmental) Reduce alcohol-related hospital emergency department visits.

26-6. Reduce the proportion of adolescents who report that they rode, during the previous 30 days, with a driver who had been drinking alcohol to 30 percent of students in grades 9 through 12.

26-7. (Developmental) Reduce intentional injuries resulting from alcohol- and illicit drug-related violence.

26-24. Extend administrative license revocation laws, or programs of equal effectiveness, for persons who drive under the influence of intoxicants to all states and D.C.

26-25. Extend legal requirements for maximum blood alcohol concentration levels of 0.08 percent for motor vehicle drivers aged 21 years and older to all states.

PREPARED WITH
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