

KIPRC



*Kentucky Injury Prevention and Research Center
2012 Annual Report*

Greetings from the Director

Welcome to the Kentucky Injury Prevention and Research Center's (KIPRC) 2012 Annual Report on activities and impact. Big steps have been taken in the enactment of injury prevention legislation in the last year -- sports concussion training of coaches and return to play guidelines, mandated enrollment of physicians and pharmacists who prescribe or dispense Schedule II and Schedule III drugs in the Kentucky all Schedule Prescription Electronic Reporting (KASPER) system, ownership of pain management clinics by at least one licensed physician, and the requirement of seat belts in 15-passenger vans.

While legislation is certainly important, education and interventions are also essential for the primary, secondary, and tertiary prevention of injuries and violence. Kentucky had the 7th highest unintentional injury fatality rate, the 5th highest motor vehicle fatality rate, the 6th highest drug overdose fatality rate, and the 16th highest nonfatal occupational injury and illness rate in the US in 2008, and 2009, respectively (National Safety Council's Injury Facts, 2012, and the Centers for Disease Control and Prevention).

We would like to acknowledge our partners, who are integral to injury prevention efforts in the state. Injury Prevention partners share a common mission with KIPRC to reduce the burden of injuries and illnesses in the Commonwealth of Kentucky. The current climate of limited resources has promoted the establishment of partnerships that have had a positive impact on breaking down traditional silos and encouraged true collaborations to comprehensively target those populations with the greatest need for injury prevention interventions that are more efficient and effective. KIPRC would also like to acknowledge the Kentucky Department for Public Health, and the University of Kentucky in the sustainability of KIPRC as a statewide resource for Kentuckians' safety.

Yours in safety and health,

Terry Bunn, Director

Kentucky Injury Prevention and Research Center

Fatality Assessment and Control Evaluation Program (FACE)



The Challenge

In 2010, 64 occupational fatalities occurred in Kentucky. Twenty-nine fewer workers died in 2010, compared to 93 workers who died in 2009.

The Solution

With an awareness on safety, almost all of the worker deaths could have been prevented. The Kentucky Fatality Assessment and Control Evaluation (FACE) program has been investigating worker deaths since 1994. The FACE team (led by Associate Professor Terry Bunn, Ph.D., Assistant Professor Svetla Slavova, Ph.D., Field Investigator Medearis Robertson, and Database Coordinator Genia McKee) has focused on the investigation of transportation industry deaths since 2005. Nineteen (30% of the total) work-related deaths were due to motor vehicle collisions. Twelve of the victims were from the transportation occupation. Eight collisions involved semi-tractor trailers.

The Results

Areas with Elevated Relative Risk for Commercial Vehicle Nighttime At-Fault Collisions

A spatial analysis was conducted to identify where commercial large-truck drivers (CLTD) are at higher risk for at-fault collisions in the state of Kentucky. The data came from the Kentucky State Police CRASH dataset for years 2002-2006. Geographical areas with elevated relative risk were identified using the k-th nearest neighbor method for relative risk. The CLTD were at higher risk mainly in two geographical areas - in western Kentucky and in the northern end of the state. The cluster in the northern area was around two truck stops off interstate I-75 with inattention and misjudged clearance most often cited as factors for the night collisions. The second area of high relative risk had a different profile with more than 70% of the night collisions occurring on I-65 or the Western Kentucky Parkway, mostly single vehicle collisions or sideswipe in the same direction. The identification of specific geographic locations was used to inform agencies and organizations involved with transportation. The results from the study were presented at the APHA Annual Meeting in November 2011.

FACE, cont.

Surveillance of Drug Poisonings

A number of initiatives have been undertaken to study drug poisonings and their effects on both the working and general populations: 1) An abstract on the surveillance of general and work-related drug poisonings in Kentucky using multiple data sources was submitted and accepted for oral presentation at the Safe States meeting in Atlanta, GA, on May 2, 2012; 2) An abstract on the concordance of identified drugs in injured drivers using linked motor vehicle crash, emergency department, and inpatient datasets was accepted for oral presentation at the Safety 2012 World Conference in Wellington, New Zealand, October 1-4, 2012; and 3) An abstract on the identification of drugs (illicit and prescription) in drivers involved in motor vehicle injury collisions was accepted for a poster presentation at the APHA meeting on October 27-31, 2012.

Web-based Injury Prevention and Control Course

An online web-based injury prevention and control course has been developed and is targeted to public health professionals within local health departments. With decreased funding for in-person injury prevention training over the last several years, local health departments have requested this course from KIPRC to train new health department personnel in injury prevention. The title of the course is “Concepts of Injury Prevention” and examines the epidemiology of general and work-related injuries and costs, injury classifications, injury data sources, the Haddon Matrix, unintentional injury prevention (e.g., fall, motor vehicles), violence prevention (e.g., child maltreatment, youth violence), social disparities, and evidence-based interventions. Upon completion of this course, the learner will have a thorough understanding of the emotional and economic costs of injury, the types of injuries occurring at home, at work and at play, and the development and implementation of injury interventions. Data for this course is derived from many sources, including the Centers for Disease Control and Prevention, the Bureau of Labor Statistics, the American Association of Poison Control Centers, the National Fire Protection Association, and the Kentucky Injury Prevention and Research Center. The online course will be available 24 hours a day, 365 days a year.

Motor Vehicle Collision Injuries in Semi Truck Drivers vs. Passengers in the Sleeper Berth

Fatality Assessment and Control Evaluation (FACE) program fatality investigations were conducted on two semi truck drivers who were fatally injured in motor vehicle collisions while resting in their sleeper berths. Both team drivers were not wearing their safety belts and were ejected from the vehicle upon impact. Based on these two cases, the objectives of the study were to determine if passengers in the sleeper berth were more likely to be injured in semi truck collisions compared to semi truck drivers in the driver seat. A retrospective matched-pair cohort study was performed on KY CRASH data from years 2000-2009. The relative risk of injury in semi truck drivers (non-exposed group) and passengers in the sleep berth (exposed group) from the same vehicle was determined. Drivers and passengers in the same vehicle were matched to reduce potential bias and confounding effects due to variables specific to the vehicle and crash. Only drivers and passengers 16 years of age and older, and only nonparked vehicles were included in the study. The results of this study were presented at the National Occupational Injury Research Symposium in October 2011 and a manuscript was submitted to the Journal of Safety Research.

FACE, cont.

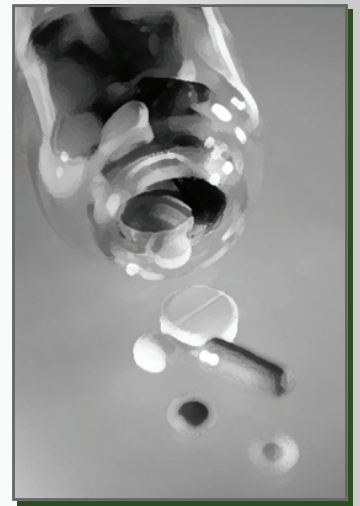
Surveillance of Work-Related Concussions

National and Kentucky rates of concussion injuries treated in hospital emergency departments (ED) were calculated and compared to identify population groups at risk for concussion injuries. The estimated number of persons with concussions treated in US hospital EDs in 2009 was 408,484, or an annual rate of 133.1 injured persons per 100,000 population; Kentucky age-specific rates of ED concussion visits mirrored the national age-specific rates. School-aged children were identified as the most vulnerable population for concussion-related injuries. The study was published in the May 2012 issue of the Journal of the Kentucky Medical Association.

Kentucky Core Violence and Injury Prevention Program (KVIPP)

The Challenge

Kentucky had the 6th highest unintentional injury fatality rate, the 5th highest motor vehicle death rate, and the 3rd highest poisoning fatality rate in the US in 2006, 2008, and 2006, respectively, and falls were the 3rd leading cause of death (NSC Injury Facts, 2010). The Kentucky Core Violence and Injury Prevention (KVIPP) program team received funding to continue support of the Kentucky Safety & Prevention Alignment Network (KSPAN) through 2016. KVIPP staff providing support to KSPAN includes: Associate Professor Terry Bunn, Assistant Professor Svetla Slavova, Program Manager Steve Sparrow, Assistant Professor Susan Pollack, Dr. Sarojini Kanotra, Legislative Liaison Charles Kendell, KIPRC Liaison Sara Robeson, and Injury Specialists Robert McCool, Michael Singleton, Gwen Cobb, and Genia McKee.



KSPAN's mission is to improve the state's capacity to conduct injury prevention and control activities across a wide range of injury causes, types and risk factors, and to increase the reach, efficiency and effectiveness of existing prevention efforts through greater coordination and alignment of resources.

The Solution

KSPAN activities supported by the KVIPP program were focused on injury prevention in five areas with the highest injury rates: falls among older adults, prescription drug poisonings, motor vehicle injuries (especially teen drivers and child passenger safety), residential fire prevention and child maltreatment. KSPAN served to:



- Promote greater alignment of injury and violence prevention efforts across state departments and organizations throughout Kentucky.
- Provide access to quality injury data and analysis for planning.
- Promote and support use of best practices for Injury and Violence Prevention.
- Develop and increase community capacity for Injury and Violence Prevention.
- Engage stakeholders across all categories of injury to work together.

KVIPP, cont.

The Results

KSPAN has enjoyed representation from over 42 federal, state and local organizations and currently has an e-mail listing of over 280 stakeholders who regularly receive KSPAN Newsletters and updates. During this last year, KSPAN began the process to formalize its infrastructure by electing officers and passing by-laws for the network.

Highlights:

- KSPAN established standing committees for each injury focus area identified. Committees worked to produce SMART (specific, measurable, achievable, reasonable, timely) objectives that will affect policy to reduce injuries within their focus area. Each objective included a strategy description, health impact measure (proximal and distal), and a proximal baseline for the objective.
- In the area of fall prevention among older adults, www.nofalls.org was created by the Division of Physical Therapy at the University of Kentucky and other KSPAN members for release in the fall of 2011. Work for 2012 has been to enhance this website to include fall prevention information for medical providers. A mockup of this website enhancement was released for comment and modifications have been made. Website enhancements will become available by July 2012.
- A Falls Prevention Summit was held June 26, 2012 with nine Healthy Communities attending.
- KSPAN was a sponsor of the 2012 Non-Profit Day at the Capitol, that provided an opportunity for KSPAN members to meet with legislators and provided general information about injuries in Kentucky.
- KVIPP staff published a State Injury Data Report, August 2011, using 2008 data. Plans are to produce an August 2012 State Injury Data Report using 2010 data.
- KVIPP staff continue efforts to make county-level injury data available to the general public. On the KSPAN website, county-level data on falls is available using 2010 inpatient hospitalization data. KVIPP Staff is also currently in the process of setting up an Indicator-Based Information System for Public Health (IBIS-PH), to be released in July 2012, that will allow custom queries of injury data at the county level.
- KSPAN Task force on Safe Communities recommended and, with approval from the membership, provided support for KIPRC's designation as an Affiliate Safe Communities Support Center.
- KVIPP staff have provided a number of county level injury reports using hospitalization and Emergency Department data for communities interested in the Safe Communities Program.

Injury and Violence Prevention- Safe Communities

KSPAN supports the establishment of Safe Communities in local communities in Kentucky. Safe Communities America is a program of the National Safety Council established by the World Health Organization (WHO). The Kentucky Injury Prevention and Research Center received designation as an Affiliate Safe Communities Support Center by the WHO Collaborating Centre on Community Safety Promotion in May 2012. As one of four Affiliate



Centres in the United States, KIPRC supports the WHO Collaborating Centre in the development of the Safe Communities Program. KIPRC's goal as a support center is to provide advice, injury data, training, technical assistance, and other forms of support in the field of injury prevention and safety prevention to communities that are interested in achieving or have already achieved Safe Community designation.

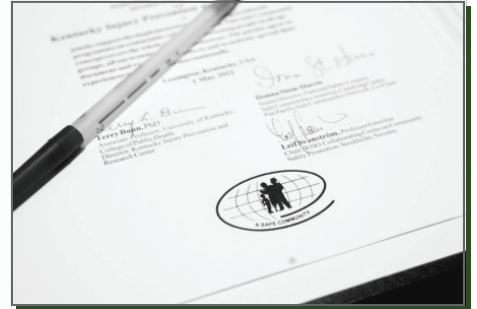
"The Kentucky Injury Prevention and Research Center is excited for the opportunity to support Safe Communities model approaches for the establishment and sustainability of injury prevention at the community level, encompassing both general and working populations," said Terry Bunn, Director of the KIPRC.

Photo (lower left) of Terry Bunn signing agreement. Group photo (lower right) taken at the Safe States Conference in Atlanta, GA, where the designation ceremony was held on May 4, 2012.



Injury and Violence Prevention- Safe Communities, cont.

Through the Safe Community designation process, a coalition made up of businesses, fire protection districts, park districts, law enforcement, public health organizations and schools is formed to create and improve the programs to cover identified risk areas that address community-specific injury data.



“Safety and injury prevention are important at all stages of life and in all areas of the community,” said acting Department for Public Health Commissioner, Dr. Steve Davis. “The Kentucky Injury Prevention and Research Center will be a great resource as our cities and rural communities take the necessary steps to build Safe Communities across Kentucky.”

On March 23rd, 2010, Madison County officially became the 7th designated Safe Community in the United States and the first in Kentucky. To be designated as a Safe Community, applicants must successfully demonstrate having met seven essential indicators necessary to successfully address injuries within their community. Since Madison County’s achievement in 2010, several communities have established safety coalitions and are working toward designation.

During May of 2012, Murray State University in Calloway County submitted their application to be designated a Safe Community. KIPRC plans to use these successful models for other communities interested in developing a framework for organizing a local response to their injury and violence problems.

Photos from the 2010 Safe Communities designation ceremony for Madison County.



Kentucky Occupational Safety and Health Surveillance Program (KOSHS)

The Challenge

In 2010, there were 51,200 non-fatal work-related injuries and illnesses in Kentucky, with an incidence rate of 4,200/100,000 employees, 20% above the national incidence rate of 3,500/100,000 employees.

The Solution

The specific aims of the Kentucky Occupational Safety and Health Surveillance (KOSHS) program are to: 1) establish and maintain partnerships and collaborations with state partners, agencies, organizations, and other stakeholders; 2) maintain the KOSHS program advisory committee; 3) maintain comprehensive multi-source population-based surveillance of occupational injuries and illnesses occurring in Kentucky using 26 occupational health indicators; 4) enhance the KOSHS program through response to emerging issues and in-depth analyses; 5) provide annual reports, newsletters, web-based information, presentations, trade journals, magazines and peer-reviewed publications; and 6) evaluate the KOSHS program.

The Results

Identification of Risk Factors for and Outcomes of Motor Vehicle Collision Fires

Based on the large number of fires in semi-truck fatalities, a case-control study was conducted to assess the relationship between the type of the vehicle and outcome of “catching on fire” in a collision while controlling for other risk factors like manner of collision, pre-collision action, age of the vehicle and first area of contact in a collision. Data was provided from the CRASH electronic database for years 2000-2009. The study was restricted to large trucks, passenger cars, and light trucks in collisions on Kentucky roadways with a posted speed limit of 55 or above. The cases (n=2,096) were identified as vehicles catching on fire; controls were vehicles (n= 2,096) that didn’t catch on fire under similar circumstances. The results suggested that large trucks have significantly higher odds for catching on fire than passenger cars and light trucks. The results from the study were presented at the APHA Meeting in November 2011 and a manuscript was published in *Accident Analysis and Prevention* in 2012.

Agricultural Machinery Injuries

Multiple sources of statewide population-based injury data sets [inpatient hospital discharge data (HDD), emergency department (ED) data, and death certificate (DC) data] were used to describe the burden of agricultural machinery (AgM) injuries in Kentucky for years 2008-2010. Facility-based Kentucky trauma registry (TR) data were used to supplement the capture of AgM injury hospitalizations. The Kentucky Fatality Assessment and Control Evaluation (FACE) database supplemented the capture of fatal AgM deaths. Deterministic data linkage was used to assess completeness of surveillance records from the different surveillance data sources. The abstract was presented at the International Society for Agricultural Health in Burlington, VT, in June 2012.

KOSHS, cont.

Multiple Jobholder Fatality Study

A descriptive study of Kentucky multiple jobholder fatalities was performed and the results were published in an MPH capstone at the University of Kentucky in May 2012. A manuscript is under development and will be submitted in summer 2012 to a peer-reviewed journal.

Green Tobacco Sickness

A Hispanic farm worker was found dead on a Kentucky tobacco farm on September 4, 2011, and Green Tobacco Poisoning was suspected as a causal factor for the fatality. As a result, KOSHS project staff and bi-lingual volunteers addressed participants at the Garrard County, Kentucky, 30th Annual World Tobacco Contest held September 8, 2011. Approximately 500 attendees, of which an estimated 150 were Hispanic, were addressed and received English and Spanish language flyers describing the symptoms and prevention of Green Tobacco Poisoning.

Investigation of Transportation and Construction Industry Fatalities

From 2000-2011, there were 110 semi truck transportation fatalities in Kentucky. The Kentucky Fatality Assessment and Control Evaluation (FACE) program began investigating semi-truck fatalities in 2005. Reports produced in fiscal year 2012 include:

- a. Report number 08KY065- “Out-of-State Electrician electrocuted While Restoring Service at a Personal Residence” was released September 8, 2011.
- b. Report #10KY043- “Steel worker falls from highway bridge and dies”- released November 29, 2011.
- c. Report #10KY008- “Semi tractor-trailer driver dies in median crossover crash: 10 others die. Released March 30, 2012.
- d. Report #11KY006- “Roadside Responder is Struck by a Box Truck and Dies”, was sent to NIOSH for review in March 2012.

The following three reports will be completed by June 30, 2012:

Report #11KY001 – “Ladder Causes Median Cross-Over Crash; Semi Driver Dies”

Report #11KY031 – “Two Semis Collide, Catch Fire, Both Drivers Die”

Report #11KY072 – “Semi Tractor-Trailer Rolls Down Embankment Killing the Driver”



KOSHS, cont.

Digital worker fatality stories

Two digital FACE stories based on KY FACE reports are being developed for the YouTube format. These videos tell of motor vehicle crashes (MVCs) involving semis where the driver died due to the crash. MVCs are the subject matter of the videos as they are the number one cause of occupational fatalities in Kentucky and the United States. Each year, approximately one-third of Kentucky's occupational fatalities involve semi-truck drivers. Fatigue and distraction are two of the main causes of MVC's.

The first video addresses driver fatigue and is based on KY FACE report, #11KY009, "Semi Truck Driver Falls Asleep, Crashes and Dies". This video takes the audience through the semi driver's work time from when he entered the semi, began hauling a load of canned tomatoes down an interstate, fell asleep, then crashed. The video explains the circumstances prior to, during, and after the crash. The data for this video is unique in that the semi driver spoke to emergency responders at the crash scene. Emergency responders asked the semi driver what caused the crash and he responded that he had fallen asleep and went off the side of the interstate. He died while rescuers were extricating him from the semi. Recommendations on how this fatality could have been prevented are presented at the end of the video. This digital story was completed in June 2012.

A second digital story is in the initial stage of development. KY FACE report #08KY029, "Driver of Semi-Tractor Pulling Twin Trailers Fatally Injured in Single Vehicle Crash", addresses the fatal consequences of fatigue and driver distraction. Like the previous digital story, this video takes the viewer through the driver's work day and the specifics of the crash. This particular crash also has the component of catching fire. Recommendations on how drivers can recognize driver fatigue and distracted driving and how they can be prevented are addressed at the end of the video.



State Injury Prevention Program (SIPP)

The Challenge

Unintentional injury is the leading cause of death for Kentuckians aged 1 through 44 – and the fourth overall leading cause of death among all Kentuckians. Many victims of injury are children and young, otherwise healthy adults in the prime of life. This creates a major impact not only on the lives of injury victims and their families, but upon the workforce and economy of the Commonwealth. The cost of injury in Kentucky is staggering. In 2006, Kentucky hospitals billed patients and insurers for more than one billion dollars in hospitalization, emergency department and outpatient charges directly related to injuries. Kentucky spent more than one million dollars of Medicaid funds per week in 2006 to pay for costs related to acute and long term care for injuries.

Injuries occur to many different types of people in many settings. Children and adults may be injured at home, at work, at school or at play. Injuries in the home may be caused by falls, fires and burns, unintentional poisoning, electrical shock, or cuts. Workplace injuries may occur in an office, a factory, a mine, or on a farm. Recreational and transportation injuries may range from bruises and broken bones to drowning, traumatic brain injury, or full body trauma. In addition to unintentional injury, other injuries occur due to violence.

State agencies are responsible for enacting and enforcing occupational safety and health and mine safety programs to reduce work-related injuries in most occupations. Other programs focus on reducing farm-related injuries, falls among the elderly, residential fires and burns, and injuries caused by motor vehicle collisions. Each of these programs is specific and focuses on either a particular environment (such as the workplace), a particular source of injury (such as fires), or on a particular target audience (for example, senior citizens). There is a need for a flexible program that deals with injury hazards not already covered by other programs and which supplements the efforts of the more specific injury prevention programs.

The Solution

The State Injury Prevention Program (SIPP) works to fill this need. In addition to providing support for public health injury prevention programs that focus on major injury risks, SIPP addresses other sources of injury that are not covered by specific programs. In addition to child passenger safety (CPS), traffic safety and fire prevention, SIPP addresses topics such as drowning prevention, fall prevention, terrain vehicle (ATV) safety and carbon monoxide poisoning prevention.

SIPP also provides technical support to local health departments and public safety agencies to support injury prevention efforts. SIPP personnel provide information and advice to local agency personnel and help them acquire resources to support their programs. In addition to providing technical information about injury prevention, SIPP personnel also provide coaching and assistance with grant writing and development activities.

The Results

KIPRC helps build and expand injury prevention programs at the local level by increasing the expertise and confidence of local personnel.

Carbon Monoxide Detector Program (Part of SIPP)

The Challenge

Kentucky saw an unusual amount of severe winter weather in 2009 and 2010. In addition to creating numerous other safety problems, the severe weather caused widespread power outages. Some of these outages lasted for weeks. Many citizens and institutions turned to generators powered by gasoline, diesel or natural gas for electricity. Eleven fatalities occurred due to carbon-monoxide poisoning. In addition to the fatalities, there were 19 hospitalizations and 214 emergency department visits in Kentucky during the 30 day period covered by the storm and its aftermath, involving carbon monoxide exposure. These cases included injuries that alerted us to the danger faced by the residents and staff of long term health care facilities due to carbon-monoxide poisoning.



Several long term health facilities operated on generator power for multiple days during the aftermath of the ice storm. The residents of a long term care facility are uniquely vulnerable. Most are elderly and all are, by definition, unable to care for themselves adequately. Many have disabilities and all have special health care needs. Respiratory conditions and poor oxygen perfusion are common among long term care residents. They are very vulnerable to exposure to environmental respiratory hazards such as carbon-monoxide poisoning. They require and deserve a high level of protection from such hazards. Facility staff members are also at risk from carbon-monoxide poisoning.

While carbon-monoxide toxicity is often associated with the improper use of portable generators, unsafe levels of carbon-monoxide can easily be produced by other sources such as malfunctioning heating systems, indoor maintenance equipment (such as floor buffers) powered by combustible fuels, and gasoline powered outdoor equipment operated near a ventilation intake or open window. Carbon-monoxide monitoring is important in any residential environment, but it is critical in an environment where residents have chronic medical conditions and limited or no ability to provide for their own safety.

Kentucky regulations do not currently require carbon-monoxide detectors in long term care facilities. Our difficult economic situation, coupled with high operating costs and low margins that threaten the financial viability of many long term care facilities, has limited the state's ability to impose additional regulatory requirements.

The Solution

With funds provided by the Federal Emergency Management Agency (FEMA) which is part of the US Department of Homeland Security, and in partnership with the Kentucky Cabinet for Health and Family Services' Office of the Inspector General (OIG), the Kentucky Health Care Association (KHCA) and Kentucky Association for Homes and Services for the Aged (KAHSA), we purchase carbon-monoxide detectors for installation in long term health care facilities, including both certified long term care facilities (nursing homes) and personal care homes. KIPRC staff are contacting all eligible facilities to make them aware of the program. Facility directors are provided with instructions for requesting carbon-monoxide detectors.

Carbon Monoxide Detector Program (Part of SIPP)

When detectors are requested, they are shipped to the facility, along with detailed installation instructions, for installation by the facility maintenance staff.

The Results

It is tempting to look at the risk of CO exposure in long term health care facilities as an issue that should be addressed by each facility, entirely at its own expense. With one in five Kentuckians dependent upon Medicare, and Medicare reimbursement rates declining, many facilities are already coping with significant declines in revenue and reduced operating budgets. Some of Kentucky's long term health care facilities are struggling and many are feeling the pinch of our tight economy. The health and safety of residents and staff of long term care facilities will be improved over the long term if the cost of initial compliance with the regulation does not have to be borne by the facilities.

The life span of carbon-monoxide detectors is up to seven years. Detectors installed through this project will provide a substantial period of protection to a vulnerable population, even without further efforts. Due to the regular practice of facilities to replace non-functional equipment, we expect that once carbon-monoxide detectors become a part of the safety equipment of a facility, the facility operator will maintain and/or replace the detectors as necessary.

Motor Vehicle (Part of KVIPP)

The Challenge

Motor vehicle crash-related injuries are a leading cause of death and disability for Kentuckians. Kentucky State Police data show that 721 people died in motor vehicle crashes in the Commonwealth during 2011. US Centers for Disease Control and Prevention (CDC) data for 2000-2009 show that motor vehicle related injuries are the most common cause of death for Kentuckians aged 1 through 34.

Many motor vehicle related injuries are preventable. Careful driving, following modern engineering practices for designing vehicles and roadways, and the use of seat belts, child safety restraints, and motorcycle helmets will all reduce injuries associated with motor vehicles. Sadly, many Kentuckians and visitors fail to take advantage of these preventive measures. Distracted driving remains a common cause of traffic crashes. The usage rate for seat belts is approximately 88 percent on major roadways such as Interstate highways and parkways, it remains as low as 65 percent in some counties. Ninety seven percent of children aged four and under are restrained in some way when traveling in motor vehicles in Kentucky, but hands on examination of thousands of child restraints at child passenger safety (CPS) checkup events have shown us that many restraints are used incorrectly.

The Solution

Traditionally, highway safety processes have been summed up as “the Three Es” – engineering, education, and enforcement. Each of these factors can contribute significantly to reducing motor vehicle related injuries.

Engineering solutions are one of the most effective ways to reduce motor vehicle related injuries, because they do not depend upon human choice. Making roadways and vehicles intrinsically safer has led to significant reductions in traffic crash injuries over the past several decades. This process is not complete, however; despite the best efforts of the Transportation Cabinet and local governments, many miles of Kentucky’s roadways lack various modern safety features. Modern vehicles include many safety features, but the trend toward reduced vehicle mass as a way to reduce fuel use has made it increasingly difficult to build vehicles that can effectively protect occupants in a high speed crash. Safety engineering works, but it does have limits.

Driver and occupant safety education is also effective, especially for new drivers and those who do not understand the impact of various choices related to motor vehicle safety. Learning about how seat belts work and why they are important has been found to increase the likelihood that a person will use seat belts. Unfortunately, knowing about proper safety practices does not always translate into making the choice to utilize them. Competing factors, such as cost, convenience, social popularity, and a desire to express personal style and independence often win out over safety when individuals make transportation-related decisions.

The final factor, enforcement, has traditionally been viewed as a way to increase the chance that people will choose safe behaviors by imposing penalties for unsafe behavior. This view is

Motor Vehicle, cont.

accurate in one sense, but it is also simplistic. Enforcement, when viewed in the broader sense of motivating individuals to comply not only with laws but with organizational policies and social norms, is actually a part of the socialization process common in human society. Society defines desirable and undesirable behaviors through a combination of laws, public and private policies, and social norms. Individuals are encouraged to select desirable behaviors through a complex system of formal and informal rewards and costs. Formal enforcement of laws is only one part of this system, and in fact may be the least used and least effective part of the system. Informal systems of social control – the desire of individuals to adapt their behaviors to society’s expectations in order to avoid informal penalties such as social disapproval – is generally the most effective means of socialization.

The goal of this CDC-funded project is to support the development and adoption of effective motor vehicle injury prevention policies at all levels. KIPRC does not lobby for the passage of specific legislation, but we are able to provide data and information to state and local legislators and policy makers to help them understand the issue of motor vehicle related injuries and the likely impact of various policy choices. We also work with a variety of public and private organizations, including school systems, businesses, and community groups, to support the adoption of organizational policies and promote social norms that reduce the risk of motor vehicle related injuries.

This project also supports limited intervention services, especially with regard to CPS. KIPRC personnel provide training for CPS practitioners, assist with community based CPS education activities, and serve as technical consultants for local public health departments, public safety agencies, and other organizations that provide CPS services. KIPRC staff members also work to promote the use of proper child restraints by child care centers and other organizations that transport young children.

The Results

The MVP project has only been in operation for a single year, so results are necessarily limited, but we have already achieved significant success. Project personnel provided data and technical information to organizations that successfully supported extension of Kentucky’s seat belt requirement to 12- and 15-passenger vans. This initiative closed a loophole in Kentucky’s occupant protection law that left many young children, youth, workers, and others who are transported in vans outside the protection of the law.

The project staff also organized the creation of the Kentucky Child Passenger Safety Coordinating Committee, a group composed of CPS practitioners and representatives from KIPRC and other public health organizations, the Transportation Cabinet, Safe Kids, and other agencies. The committee plans to meet bi-monthly and work to develop a coordinated CPS event calendar and training program, as well as creating a statewide support system for local organizations providing CPS services.

The MVP project is tightly integrated with the Core project, and supports the effort to coordinate injury prevention and safety activities statewide through the Kentucky Safety and Prevention Alignment Network (KSPAN). The MVP project manager serves as the facilitator for the Motor Vehicle Injury Prevention working group within KSPAN.

Smoke Alarm Installation and Fire Education (SAIFE) project (Part of SIPP)

The Challenge



Fires are one of the leading causes of injury-related death in Kentucky. According to data from the Centers for Disease Control and Prevention (CDC), fires and burns are among the top five causes of injury-related death for children 14 and under in Kentucky, and one of the top ten causes of death for adults aged 35 and older. Most fatal fires in Kentucky occur in homes. Nationwide, fires are the third leading cause of fatal injuries in the home.

The rate of deaths due to home fires is declining over time in the Commonwealth, but only very slowly. Data from the US Fire Administration show that Kentucky's residential fire fatality rate was 20.7 per million in 1991, declining only slightly to 19.2 per million in 2009. In comparison, the overall national residential fire fatality rate was 14.5 per million in 1991 but down to 11.0 per million in 2009. State data from more recent years indicate a further but still modest decline in Kentucky's residential fire fatality rate.

A variety of factors contribute to Kentucky's high residential fire fatality rate. A substantial percentage of the homes in Kentucky are not sufficiently heated and insulated for the coldest periods of our winter weather. This is particularly true of older homes. Residents often supplement their home's primary heating system with space heaters during particularly cold weather. Space heaters placed too close to flammable materials, or tipped over accidentally, often result in fires.

Aging and poorly maintained heating systems, as well as inadequate electrical wiring, are also significant risk factors for home fires. Many Kentuckians heat with wood or coal. Wood and coal fired heating systems require annual maintenance, including chimney cleaning. Residents often neglect or postpone such maintenance, especially during difficult economic times. This leads to an increase in preventable residential fires during the fall and winter.

Individual behavior is a major factor in fire risk. Cooking fires are the most common type of residential fire, though not the most deadly. Cooking safely requires careful attention. Unexpected distractions, an effort to accomplish other tasks while cooking, and memory or cognitive impairment can all contribute to cooking fires.

The most deadly residential fires are those caused by smoking. Given our status as the state with the highest percentage of smokers, it is hardly surprising that smoking is a leading cause of fatal residential fires in Kentucky.

Finally, the lack of working smoke alarms is a key factor in many fatal residential fires. Smoke alarms do not prevent fires, but they dramatically reduce the likelihood of a fatality when a fire occurs. Residential fires are particularly dangerous because they often occur when those in the home are asleep. The warning provided by smoke alarms allows residents to escape from a burning home before conditions inside the structure become lethal. Sadly, many Kentuckians either do not have smoke alarms in their home or have alarms that are not working.

SAIFE, cont.

The Solution

Education is an important component of a fire safety program. Many people are not aware of fundamental fire safety practices such as keeping space heaters at least three feet from potentially flammable material, never smoking in bed or while sleepy, and the importance of avoiding distractions while cooking. Other techniques, such as the use of kitchen timers to insure that food is checked regularly during the cooking process, can also be taught successfully.

Education alone, however, is not the answer. Home fires can occur even when residents practice fire safety, and some individuals are simply unwilling to adopt safer behaviors due to concerns about cost, inconvenience, or a sense of personal freedom. An engineering solution that creates a safer environment without the need for major behavior changes is easier to implement and achieves a higher level of effectiveness.

The installation of long life residential smoke alarms is a practical, cost effective intervention that has been shown in multiple studies to reduce residential fire-related fatalities. Protection for up to ten years can be achieved by installing alarms powered by long life lithium batteries. Smoke alarms do not eliminate the need for fire safety education – preventing a fire is better than merely escaping once a fire occurs, and smoke alarms do not prevent fires. Residents also need to learn to test the alarms periodically and to practice proper escape procedures if the alarm sounds. The combination of smoke alarm installation with fire safety education is the most effective intervention for reducing residential fire fatalities in the Commonwealth. This concept forms the basis of the SAIFE project.

The Results

During more than a dozen years of operation, the SAIFE project has installed over 23,000 long life, lithium battery powered smoke alarms in more than 9,250 Kentucky homes in 41 counties. In some communities this project has more than doubled the percentage of homes with working smoke alarms. At least 84 people have been warned of fires in their homes by alarms installed through the project.

The project has also provided fire safety education to more than 100,000 Kentuckians through a variety of community based activities. Media messages promoting fire safety reached an even larger audience. Surveys conducted to evaluate the project indicate that over 40 percent of the individuals surveyed who were exposed to fire safety messages took action based upon these messages.

SAIFE is funded by CDC's National Center for Injury Prevention and Control (NCIPC) through September, 2012, and by the Federal Emergency Management Agency (FEMA) through December, 2012. Additional FEMA funding will be sought in 2013 to continue the program.



Kentucky Violent Death Reporting System (KVDRS)

The Challenge

The Kentucky Violent Death Reporting System (KVDRS), with funding from the Centers for Disease Control and Prevention, began collecting statewide violent death information in 2005 with the intent to discern patterns and further prevent violent deaths in Kentucky.

The Solution

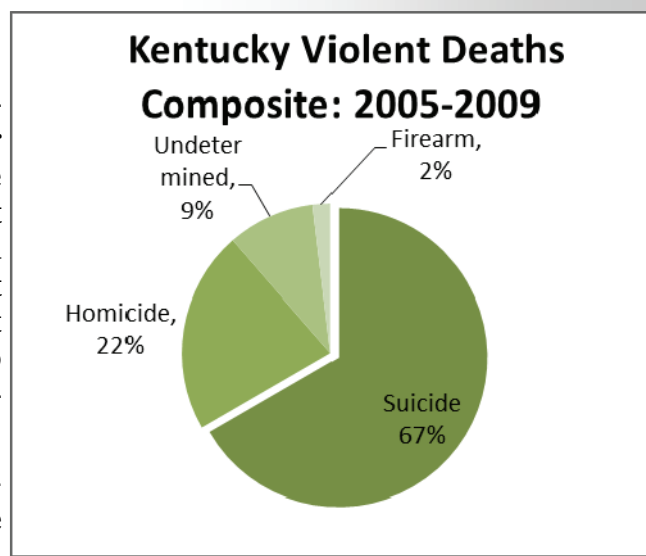
The KVDRS integrates investigative information from the Kentucky State Police, coroners, medical examiners, forensic crime laboratories and toxicology laboratories from deaths that occur within Kentucky. Vital Statistics defines cases as deaths among Kentucky residents, so KVDRS numbers will vary from Vital Statistics numbers.

To improve coroner reporting, The Coroner Investigation Reporting System (CIRS) form, developed in 2005, is now used by nearly all county coroners. This system is the first step in centralizing coroner investigation reports in the Commonwealth and benefits not only the KVDRS, but many other research activities as well. Of Kentucky's 120 counties, 80 currently participate in a web-based version of the CIRS. Additionally, a smart phone application will be available this summer. This will further the effort to improve not only quality of reporting, but timeliness.

The Results

Nearly all (89%) violent deaths occurring in Kentucky in 2005-2009 were classified as suicide or homicide (figure on the right). Suicide was the most common manner (N=2,893, 67%) of violent death in Kentucky. Homicide* ranked second (N=951, 22%) as cause for violent death, but comprised less than a quarter of the total violent death. The remaining deaths were attributable to undetermined causes (N=413, 10%) and unintentional firearm death (N=83, 2%).

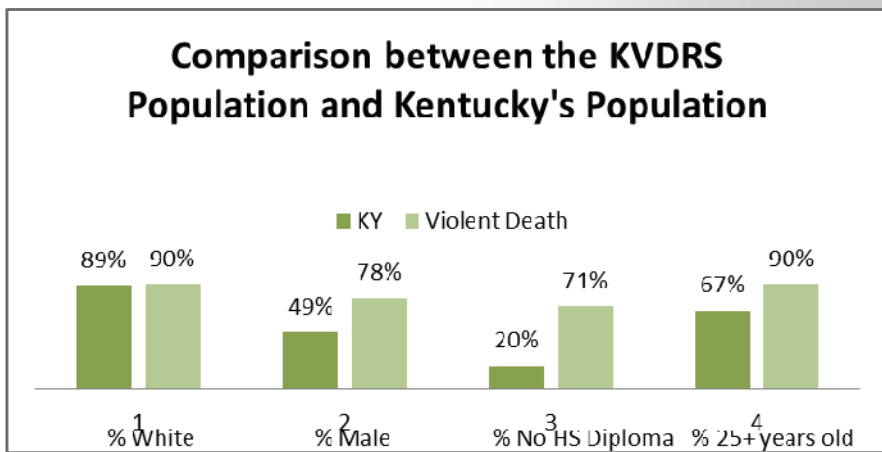
The composition of the 2005-2008 KVDRS population was predominantly white (90%), male (78%) and older than 25 years of age (90%). Almost a third of the individuals in the 2005-2008 KVDRS population did not obtain a high school diploma. The figure on the next page provides a comparison of the KVDRS population with the results from the 2000 Census. The racial compositions of the KVDRS population and the Kentucky population were fairly similar. Gender, on the other hand, had a different distribution in Kentucky versus the KVDRS population. There was a much larger percentage of male fatalities in the KVDRS population than in Kentucky, indicating that there were more male deaths in the KVDRS population than would be expected from the number of male persons residing in Kentucky. Likewise, there was a much higher percentage of individuals who did not obtain a high school diploma in the violent death population, compared to what would be expected from individuals residing in Kentucky. The overall violent death population was also older than the state population.



*Homicide includes Legal Intervention where the decedent was killed by a police officer or other peace officer (persons with specified legal authority to use deadly force), including military police, acting in the line of duty.

KVDRS, cont.

Of the 2,893 suicide incidents in 2005-2008, a case history was recorded and collected in 1,848 (64%) cases: 81%, 1,506 male and 19%, 342 female (table below). Intimate partner problem was documented as a contributing factor on the coroners' investigation report in 455 (24%) of all suicide cases where the circumstances were known in 2005-2008.



It's important to examine intimate partner problems in all cases of violent death, not only in cases of homicide. Prevention efforts in suicide would look entirely different than protecting populations against domestic homicidal threat. Additionally, differences in circumstances surrounding suicide between men and women highlight the necessity for differences in prevention approaches.

From 2005-2008, women were almost two and a half times more likely to have attempted suicide prior to the completed suicide than men. Men were 2.5 times more likely to experience a recent criminal/legal problem than women. Women were 1.4 times more likely to leave a suicide note than men, but men more often disclosed their intent to commit suicide to a friend or family member prior to taking their lives. Men more often suffered from a crisis within the two weeks prior to the suicide and they more often suffered from job problems; women were 1.5 times more often in treatment for a mental health problem at the time of the suicide than men. Summaries of the circumstances related to suicide in 2005-2008 are provided in the table below.

2005-2008 Circumstances for Suicide

Circumstances	All		Male		Female	
	Count	%	Count	%	Count	%
	1,848		1,506		342	
Current depressed mood	864	47.8%	678	44.9%	188	55.0%
Current mental health problem	695	37.7%	519	34.5%	176	51.5%
Current treatment for mental illness	653	35.5%	485	32.2%	168	49.1%
Intimate partner problem	455	24.6%	399	26.5%	56	16.4%
Crisis in the past two weeks	318	20.5%	216	14.3%	42	12.3%
Physical health problem	375	20.3%	301	20.0%	74	21.6%
History of suicide attempts	202	10.9%	132	8.8%	70	20.5%
Alcohol problem	224	12.1%	185	12.3%	39	11.4%
Other substance abuse problem	222	12.0%	175	11.6%	47	13.7%
Recent criminal/legal problem	153	8.2%	140	9.3%	13	3.8%
Person left a suicide note	333	18.0%	254	16.9%	79	23.1%
Person disclosed intent to commit suicide	358	19.2%	299	19.9%	59	17.3%

Crash Outcome Data Evaluation System (CODES)

The Challenge

Kentucky's Crash Outcome Data Evaluation System (CODES) is funded by the National Highway Safety Administration (NHTSA). The purpose of the project is to link state motor vehicle traffic crash report databases to administratively unrelated databases that contain medical and economic information pertaining to persons involved in crashes.

The Solution

This linked database enables KIPRC to discover relationships between crash characteristics and injury outcomes for persons hospitalized as a result of motor vehicle crashes (MVC), and to assess the acute care hospital charges associated with their treatment. To date, we have linked the crash and hospital inpatient databases for 2000 through 2010, and the crash, hospital inpatient, and hospital outpatient databases for 2008 through 2010.

The Results

In 2011, we completed the second series of CODES nonfatal injury indicator reports for the following topic areas, which correspond to emphasis areas of the Governor's Executive Committee for Highway Safety:

- Young drivers (ages 16-21)
- Lane departure crashes
- Impaired driving
- Aggressive driving
- Occupant protection
- Motorcycle safety
- Distracted drivers
- Commercial vehicles

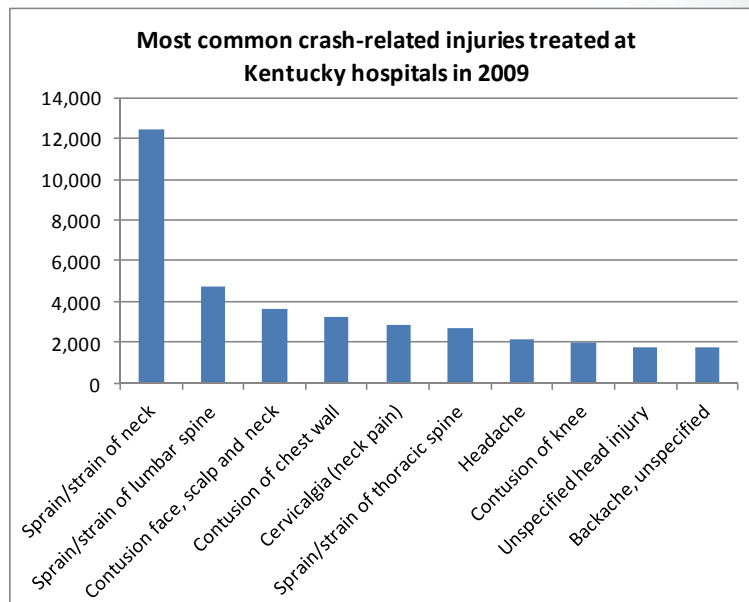
We produced a report using CODES data titled, "Estimating the burden of neck sprain and strain injuries resulting from motor vehicle crashes in Kentucky in 2008 and 2009."

The primary findings were as follows:

- In 2008 and 2009, a total of 23,029 Kentuckians were diagnosed at hospitals throughout the state with neck sprains and strains, or "acute whiplash associated disorder (WAD)," resulting from motor vehicle crashes that occurred in Kentucky.
- We estimate that 26% of those treated and released from emergency departments (ED) in Kentucky for MVC-related neck sprain experienced significant, long-term impairment of leisure and/or work activities as a result of their injuries ("activity-limiting chronic WAD", or ALCW).
- At the estimated proportion of 26%, there would be approximately 3,000 new cases of ALCW annually among Kentuckians.
- The number of Kentuckians currently living with activity limitations due to a traffic-related neck injury is not known. However, at a rate of 3,000 new cases per year, together with a likely low recovery rate, the burden is clearly substantial.

CODES, cont.

- Finally, we submitted data to the CODES General Use Model (GUM) system for 2005 through 2007. The purpose of the GUM database is to enable multi-state CODES studies to be carried out more efficiently by having states map their linked data into a standardized format.



Central Nervous System Injury (CNSI) Surveillance Project

The Challenge

Central nervous system injuries have been tracked in Kentucky since 1998 in accordance with the Traumatic Brain Injury Trust Fund. This information is used to estimate the incidence and causes of brain injuries in Kentucky and the demographic characteristics of injured persons. The annual Central Nervous System Injury (CNSI) report illustrates the impact of acquired brain injury as well as spinal cord injuries on the citizens of Kentucky.

The Solution

The Central Nervous System Injury Surveillance Project (led by injury prevention specialist Shannon Beaven) is funded by the Kentucky Traumatic Brain Injury Trust Fund Board which is housed in the Department of Aging and Independent Living (DAIL). Its purpose is to track cases of traumatic brain injury, spinal cord injury, and acquired brain injury as defined by the Centers for Disease Control and Prevention (CDC) and the Kentucky Revised Statutes (KRS 211.470). Cases are taken from the Kentucky Hospital Discharge Database (HDD) which includes both emergency department (ED) visits as well as inpatient admissions. A report is generated annually using these data with 2010 being the first year to include ED cases.

Currently, central nervous system injuries are defined as traumatic brain injury (TBI), acquired brain injury (ABI) and spinal cord injury (SCI). TBI includes injuries such as fractures, lacerations, and crushing injuries of the head and/or skull along with concussions and hemorrhages. ABI is any injury to the brain with a non-traumatic etiology, and is broken down into four categories – anoxia, allergy/anaphylaxis, acute medical incidents, and toxic substances. Fractures of bones or injury of nerves in the spinal cord fall into SCI. TBI and SCI often have codes that allow us to track the cause of the injury while ABI does not.

The Results

Once again, analysis of inpatient and ED data suggests that motor vehicle traffic crashes in persons aged 15-24, and falls in both those in the 0-14 age range as well as persons aged 65 and older, were the leading causes of TBI in Kentucky in 2010. Anoxia (an absence of oxygen to the brain) was most common among persons aged 45 and older, whereas exposure to toxic substances was greatest among those aged 0-4.

The eleventh annual CNSI report, which summarizes injuries that occurred within the calendar year 2010, was completed in July 2011. In 2010, over 95 Kentuckians per day received either inpatient or ED care for a CNSI, many of which will result in some long term disability. Non-fatal TBI was a factor in over 27,000 visits to the ED as well as over 3,400 hospital admissions across the state. Non-fatal acquired brain injury (ABI) was diagnosed in almost 1,500 ED cases and over 2,600 inpatient admissions (over 11 ABI per day), while non-fatal spinal cord injury (SCI) was reported in 81 ED cases and 179 inpatient admissions (5 SCI per week). These numbers do not include Kentucky residents seen in hospitals in surrounding states. We feel confident that a county showing a high rate of brain injuries is a county in need of prevention, education and resources, however, we cannot conclude that there is not a significant problem in a county with a low rate. This is particularly true on or near the state border.

CNSI, cont.

Number of Traumatic Brain Injury-Related Emergency Department Visits, Hospitalizations, and Estimated Deaths*, Kentucky, 2010.



*Estimated from 5 years of most recent available mortality data

Our results indicate a need to focus prevention efforts on the following causes and target populations:

- Motor vehicle traffic crashes (TBI and SCI), especially among ages 15-24
- Falls (TBI and SCI), especially among ages 0-4 and 65 and older
- Anoxia/hypoxia (ABI), especially among ages 45 and older
- Exposure to toxic substances (ABI), especially among ages 0-4

Incidences of motor vehicle accidents seem to be gradually decreasing, while incidences of falls appear to be increasing.

Efforts to establish a true central nervous system injury registry have been underway over the past two years. In the future, we hope to be able to track brain injuries and strokes through both inpatient admissions as well as emergency department visits for repeat injuries among brain injured patients, and for complications resulting from prior brain injuries.

Additional information and full reports can be found at <http://www.kiprc.uky.edu/projects/tbi/index.html>.

Expanded Kentucky Trauma Registry Data Collection and Analysis

The Challenge

Statewide data collection from hospitals that have been verified by the American College of Surgeons (ACS) as trauma centers is critical to the completeness of the Kentucky traumatic injury data. This is particularly true for Kentucky motor vehicle injuries, which are the state's leading cause of major traumatic injury. In response to a legislative initiative, Kentucky began expanding the number of trauma registry reporting facilities from 4 to a projected 12 facilities by the year 2012. All these facilities are required to report in compliance with the National Trauma Data Bank (NTDB) standards as a condition of their new status. Trauma hospitals are required to submit specific data elements to the Kentucky Trauma Registry (KTR) system, and these elements are periodically reported to the NTDB system. The trauma registry contributes to trauma system planning and will augment the existing statewide hospital discharge dataset because it includes detailed information about the nature and severity of traumatic injuries, intensity of treatment, outcomes and follow-up.

The Solution

Kentucky administrative regulations (902 KAR 28:040) established a single statewide Kentucky Trauma Registry (KTR) with the Kentucky Injury Prevention and Research Center (KIPRC) designated as the statewide repository for trauma data. KIPRC has an important role in synthesizing and analyzing statewide trauma registry data and producing statewide trauma registry reports.

The Results

KIPRC received funding from the Kentucky Transportation Cabinet and the Foundation for a Healthy Kentucky to analyze statewide trauma registry data and provide a more detailed profile of the traumatic injuries treated in Kentucky trauma facilities. Several Trauma Registry reports were published to provide a baseline for assessment of the input from newly verified facilities in subsequent years. In addition, Kentucky Inpatient and Emergency Department Trauma Data Reports provided a broad overview of hospital care given to Kentucky residents whose primary diagnosis was some form of physical trauma. All reports are available <http://www.kiprc.uky.edu/projects/trauma/index.html>. The Kentucky Injury Prevention and Research Center developed productive relationships with key partners in state highway safety and will build on shared successes to assure that findings are available and useful for safety improvement initiatives and identification of areas in which additional activity is necessary.

South X Southwest Regional Injury Control Network

The Challenge

Injury prevention and control has been a part of public health practice for decades. Over the last quarter of the 20th Century, injury was increasingly recognized as a public health issue. According to the National Committee for Injury Prevention and Control, from 1981 and 1987, injury prevention programming and data collection systems at the state level tripled and the total number of injury staff increased. In addition, it was recognized that to best ensure effective program development and outcomes, injury prevention personnel needed increased opportunities for training and support.

The Solution

The National Highway Traffic Safety Administration (NHTSA) Region IV hosted a meeting in Atlanta in 1990 that brought together 73 injury prevention professionals from seven of the eight southeastern states. At this meeting, participants from both highway safety and public health perspectives first discussed forming a network to cooperate in efforts to reduce injuries as well as to support new injury prevention programs beginning in the region. At this meeting, discussions resulted in the creation of the Southeastern Regional Injury Control Network (SERICN). This voluntary network primarily included representatives from the Region IV states (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee), the regional Injury Prevention and Research Centers at University of North Carolina Chapel Hill and the University of Alabama at Birmingham, NHTSA, the National Center for Injury Prevention and Control at the Centers for Disease Control and Prevention (CDC), the Children's Safety Network, and Safe States.

Finalized in 1991, the mission statement of SERICN states: "...the Network is dedicated to developing a coordinated approach to unintentional and intentional injury control in the Southeastern states." The network does this by supporting each state's initiatives to establish statewide injury control plans that work toward reducing injury, providing training and information exchange among members, examining state and regional data on injuries and facilitating the development of self-sufficient statewide and regional programs and projects.

Over the years, the Network has facilitated many projects including: an inventory of injury control laws; member-led workshops and training sessions on injury issues; skill building; program administration, and injury trends; multi-state events to increase awareness of child passenger safety and bike safety through the distribution of free child safety seats and bike helmets; and distribution of 63,000 smoke detectors provided by Radio Shack and federal funders. KIPRC has been an active member of the network since its creation. Carl Spurlock, a Kentucky Department for Public Health epidemiologist who later became KIPRC's first director, was a key figure in the organization of the network. Current KIPRC staff Robert McCool served as the state representative to the Network from 1995 to 2004. Genia McKee has filled this role from 2004 to the present and, since 2007, has served the network in a leadership capacity.

South X Southwest, cont.

The Results

In 2011, CDC's National Center for Injury Prevention and Control added a new component to their ongoing Core Violence and Injury Prevention Program (CORE). CORE aids state health departments to strengthen their injury prevention capacity. The new component encourages the creation or strengthening of regional networks covering all 50 states by funding regional network leaders to provide structure and coordination for the networks. Network member, North Carolina Division of Public Health, applied for and was awarded the Regional Network Leader component of the CORE program. SERICN voted to expand the Network to encompass Health and Human Services Region VI, which includes Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. The Network changed its name to South X Southwest and has begun expansion activities. The Network continues to have monthly conference calls to explore injury issues, monthly leadership calls to coordinate Network activities, and has met twice in its first year in face-to-face organizational meetings.

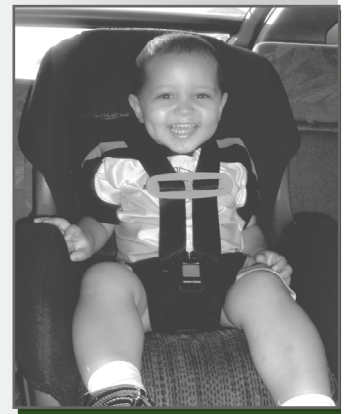


Pediatric and Adolescent Injury Prevention Program (PAIPP)

The Challenge

While continuing to decline, injuries remain the leading cause of death for children ages 1-18, as the CDC has documented in May 2012. The Pediatric and Adolescent Injury Prevention Program (PAIPP) at KIPRC has continued to address this challenge in the past year, responding directly to issues of child passenger safety, prevention of hyperthermia deaths from children in hot cars, prevention of fire deaths (especially among children with special needs), and promotion of safe sleep for all infants including those affected by the severe tornado outbreak on Friday, March 2, 2012. Our greater challenge in these economic times has been how best to support the existing programs and growth of local injury prevention capacity for our state agency and local health department partners.

During the course of 2011-12, PAIPP reached more than 2000 Kentucky professionals, parents and other guardians of children through conference presentations given at 3 state conferences (HANDS, Medically Fragile, Foster/Adoptive) and pediatric injury prevention information booths staffed at those and an additional 8 state conferences (FRYSC, Infant Toddler, PCAKY, Kentucky School Nurses, Grandparents Raising Grandchildren, Kentucky Lifesavers, Early Childhood Trainers Summit and Down Syndrome of Central Kentucky). Melanie Tyner-Wilson, MS, continues to teach regularly in new Promotoras classes (Hispanic lay health advisors) and also taught First Steps provider agencies and parents. Susan Pollack, MD, was invited to provide an injury prevention training for 200 West Virginia foster parents, and served on the national re-evaluation team for the Agriculture, Forestry and Fishing Program of the National Institute for Occupational Safety and Health (which includes safety for children working in agriculture). Both Susan Pollack and Melanie Tyner-Wilson served on national Committees (Injury and Special Needs) for the revision of "Caring for Our Children- National Health and Safety Performance Standards – Guidelines for Early Care and Education Programs", Third Edition, that was published this year. The third edition of the AAP Green book on Pediatric Environmental Health, also published this year, included a chapter written/revised for this edition by Susan Pollack on occupational exposures to working teens.



Solutions, successes and challenges remaining:

In 2011, Kentucky was selected by National Safe Kids as a special emphasis state for hyperthermia prevention, based on the fact that three such deaths occurred the summer before. Although one child died just before the campaign was scheduled to begin, no child died during 2011 in Kentucky after the extensive education and public information campaign. Incomprehensibly, every child who was known to have been left in a hot car last summer was left there intentionally by a caregiver, yet each child was saved by bystanders who cared enough to be aware, to notice, and to call for help. Because public awareness clearly made a difference in protecting children, those efforts continue this year, along with efforts to implement a simple

PAIPP, cont.

voluntary program to institute a call from daycare to parents if a child does not arrive at normal time and they have not been notified (for example, the program entitled “RayRay’s Pledge”). At the time of this report in June 2012, three children have been saved by bystanders, one forgotten child has died, and our efforts continue.

During the winter of 2012, safe transportation of children in the 15 passenger vans that constitute much of Kentucky’s private child care fleet got a boost when the legislature passed a bill that eliminates the previous exemption of vehicles with more than 10 seats from the seatbelt/car seat/booster seat law. Our child care van booster seat project had, as of December 31, 2011, provided training with child care credits for 289 day care providers from 81 centers about the safe transportation of children in 15 passenger vans using booster seats, and had distributed 409 seats to vans from 60 centers. As implementation of the new law looms in the next month and the recent crash of a day care van calls even greater attention to this issue; we continue to provide training and to distribute the remaining seats to centers transporting children with vans. Our work in this arena was recognized by the competitive acceptance of a presentation at the 2011 National Conference of the Injury Free Coalition for Kids, where it was received with interest by injury prevention people from other states.



Other child passenger safety accomplishments of note this year included a partnership with Meharry Medical School to bring the “See Me Safe” program to the pediatric residents and a low-income school in Lexington, including a booster seat poster contest and a booster seat give-away (with remaining booster seats available for use throughout the state.) Melanie Tyner-Wilson

qualified as one of fewer than 20 CPS instructors for Kentucky, permitting us to better support and sustain the cadre of rural health department-based CPS technicians and programs. She oversaw the distribution of Safe Ride News passenger safety information to more than 45 counties. Seats for low-income families were distributed to health department and Kentucky State Police CPS technicians in more than 30 counties.

On March 2, 2012 Kentucky was hit by several tornadoes. PAIPP was contacted by the State Fire Marshall two days later, and asked to help with some pediatric shelter needs. Thanks to the coordinated response from the state health department emergency response center, we were able to be coordinated into the daily briefings, to express concern about potential need for safe infant sleep conditions in emergency shelters and to provide car seats for any counties in which they were needed for post-tornado response. We participated in the CDC-led door-to-door community needs assessment in both Laurel and Magoffin counties, and were able to incorporate hyperthermia prevention materials into the education provided, due to the concern that people living out of cars would lead to children at risk of hyperthermia, once the post-tornado snow melted. This experience showed us that there is work left to do to incorporate pediatric needs into disaster planning and response, and that the door is open to having that included.

PAIPP, cont.

Fire claimed the lives of several Kentucky children this year, two of whom had special needs. We were able to successfully apply for a National Safe Kids rapid response Fire Grant for Jackson County, which provided them with fire safety educational materials and permitted us to work with the members of the autism community to improve fire safety materials useful to them. Jackson County mobilized a group interested in the safety and well-being of the citizens even beyond the response to this fire, and we are continuing to work actively with them to support their fire prevention and child passenger safety efforts, reaching more than 2000 professionals, parents and other guardians of children.

In fiscal year 2012, we responded to injury consults from at least seven health departments and 15 non-health department sources, including county coroners, a legislator, Head Start, fire officials, First Steps, BIAK, EMS, managed care companies, churches that transport, and at least seven foster parents. We also worked with Healthy Homes and Lead Poisoning projects on exposure risk questions and incorporation of injury into their working plan.

As part of the CDC Injury Planning Grant and Pediatric Motor Vehicle Injury Policy Grant that have been awarded to KIPRC, we participate in the work of the fire, child maltreatment and child passenger safety workgroups.



The Kentucky Injury Prevention and Research Center (KIPRC) is a partnership between the Kentucky Department for Public Health and the University of Kentucky's College of Public Health that combines academic investigation with practical public health initiatives.

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