



KIPRC

*Kentucky Injury Prevention
and
Research Center
2011*

Greetings from the Director

Welcome to the Kentucky Injury Prevention and Research Center's (KIPRC) 2011 Annual Report on activities and impact. Great strides have been made in the area of injury prevention in the last decade-- Kentucky primary seat belt and booster seat laws, trauma system implementation, the Kentucky All Schedule Prescription Electronic Reporting System (KASPER), occupational injury reporting regulations, and others— and Kentucky needs to continue this momentum to further reduce injuries and their societal costs to our citizens. 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 third leading cause of death (National Safety Council's Injury Facts, 2010).

This work would not be possible without the help of our partners, who are integral to our programs. We would like to thank all our partners in this endeavor- agencies, organizations, dedicated citizens, companies, and colleagues upon who we rely on and could not function without in addressing violence and injury prevention. In addition, the Kentucky Department for Public Health, and the University of Kentucky have been essential partners in the function, leadership, and collaborations of KIPRC.

We would like everyone to know that KIPRC is an injury prevention resource for Kentuckians available to all Kentuckians.

A safer Kentucky—it's no accident!

Terry Bunn, Director



Fatality Assessment and Control Evaluation Program (FACE)



The Challenge

In 2009, 93 workers died while performing job activities; that's 1 worker death every 3.9 days.

The Solution

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. Twenty-nine drivers died due to motor vehicle collisions in 2009 and 10 were NOT wearing their seat belts when the fatal injury occurred.

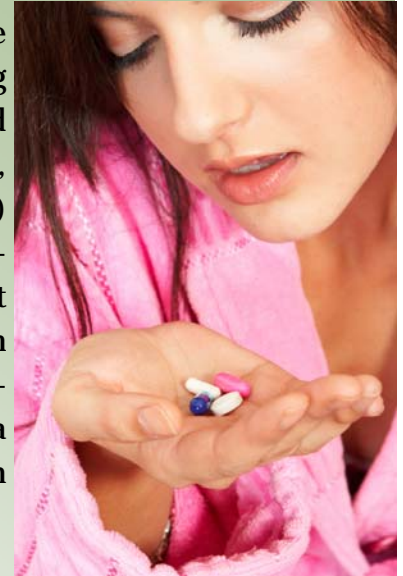
The Results

Fourteen semi truck fatality investigations have been completed since 2005 and a Haddon matrix analysis was performed assessing the pre-event, event, and post-event phases of the fatal incidents. Administrative, engineering, and behavioral controls were compiled and recommended to prevent future occurrences; the results of the study were accepted as a poster presentation at the National Occupational Research Agenda meeting in July 2011. Falling asleep at the wheel was considered a primary contributing factor for six of the fatal crashes but falling asleep at the wheel is often difficult to prove. In a recently released fatality case report (#11KY009), a long-haul company driver who was awake and cognizant, stated to witnesses that he fell asleep at the wheel before crashing. The driver died twenty minutes later of internal injuries. FACE investigations, like this one described, are useful to examine engineering and administrative controls, such as the incorporation of driver alert systems technology in semi trucks and the provision of semi truck drivers with drowsy-type driver alert systems by employers, and can be used to inform federal and state transportation policy making. This FACE investigation was published in the May 2011 NIOSH e-news.

Injury and Violence Prevention- Staying Safe

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 third leading cause of death (NSC Injury Facts, 2010). The Kentucky Core Violence and Injury Prevention (KVIPP) program team (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) has just received funding to continue the KVIPP program through 2016.



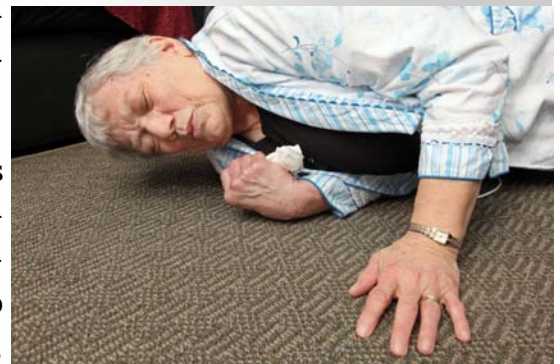
The Solution

The KVIPP program is focused on injury prevention in four areas with the highest injury rates: falls among older adults, prescription drug poisonings, teen motor vehicle injuries, and child maltreatment.

The Results

A KVIPP workgroup was formed in the last year to explore the creation of a statewide system for the safe collection and disposal of prescription medications.

In the area of older adult fall prevention, a website was created this past year by the Division of Physical Therapy at the University of Kentucky that provides prevention strategies and resources for older adults. The No Falls Kentucky website will be available in Fall 2011, and is geared toward two target audiences: the older adult, and the healthcare provider.



The KVIPP program was a partner in establishing the Kentucky Safe Aging Coalition (KSAC) to address the reduction of fall risk in older adults, and membership includes more than 75 organizations. KSAC was instrumental in obtaining the Governor's Proclamation for a Falls Prevention Awareness Day in 2009 and 2010. The Department for Public Health's Chronic Disease Branch provides financial support for the coordination of KSAC activities. Through partnerships, KSAC is currently developing a series of video conferences on fall prevention that will be made available across the state to health departments and medical providers in Summer 2011.

Injury and Violence Prevention- Safe Communities

KVIPP also 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. Our goal is to provide injury data, training, technical assistance, and other forms of support to communities that are interested in achieving or have already

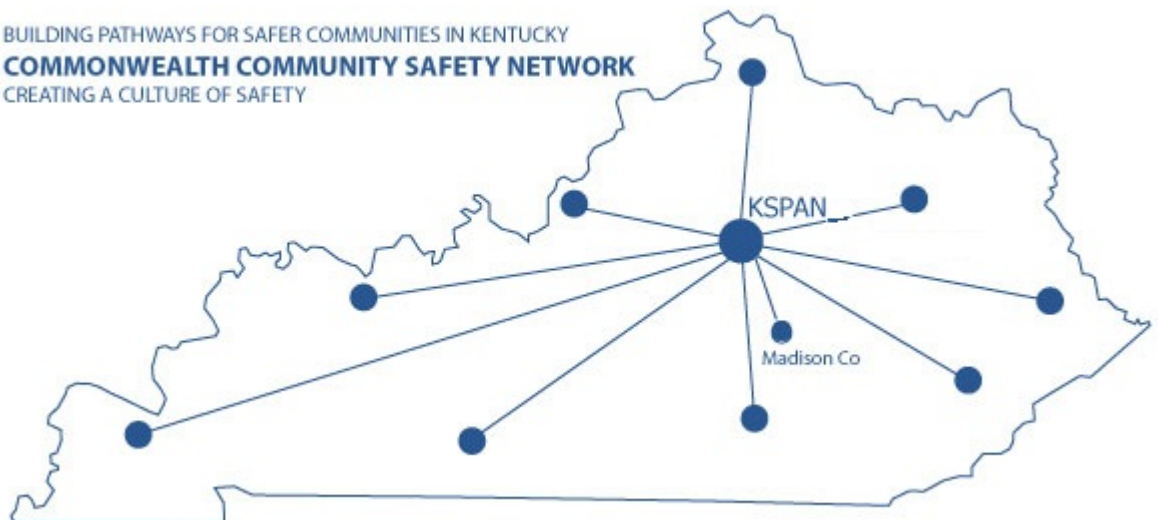


achieved Safe Community designation. KVIPP supported the application of Madison County, which became a designated Safe Community in 2010. Building on Madison County's hard work and success, KSPAN wishes to work with other communities across Kentucky to build a Commonwealth Community Safety Network (CCSN). To further support this effort, KVIPP has established a task force within KSPAN to explore becoming a Safe Communities support center for Kentucky communities. Other communities currently supported by KVIPP in their applications for Safe Community status are Jessamine County and communities in Northern Kentucky.

BUILDING PATHWAYS FOR SAFER COMMUNITIES IN KENTUCKY

COMMONWEALTH COMMUNITY SAFETY NETWORK

CREATING A CULTURE OF SAFETY



Injury and Violence Prevention- Safe Communities

On March 23rd, 2010, Madison County officially became the 7th designated Safe Community in the United States and the first in Kentucky. For a community to be designated as a Safe Community they must successfully demonstrate they meet six indicators outlined here. The Madison County Safety Coalition (MCSC) also received the 2010 Kentucky Public Health Association Group Award on March 30,



2010 for their accomplishments in injury prevention and for contributing to the development of a public health program with other organizations. The MCSC has made an exceptional contribution to Kentucky's public health system by providing leadership, education and collaboration with partners as an independent voice for the health of the public, acquiring resources to support infrastructure, providing educational opportunities, and developing and strengthening strategic community alliances. KSPAN plans to use the successful Madison County model for other communities interested in developing a framework for organizing a local response to their injury and violence problems. Kentucky plans to create a culture of safety by creating a network of caring communities to address the burden of injuries and violence. KSPAN will support other communities in their quest to be designated as Safe Communities and work with other communities that are interested in doing the hard work necessary to earn this recognition.



Kentucky Occupational Safety and Health Surveillance Program (KOSHS)



The Challenge

There were approximately 30,000 first reports of injuries and workers' claims filed in the year 2010, according to the Kentucky Department of Workers' Claims.

The Solution

Many of these worker injuries could have been prevented through engineering, behavioral, and/or administrative control strategies. Associate Professor Terry Bunn, Ph.D., has been funded by NIOSH for the last six years to perform surveillance of occupational injuries and illnesses in the Commonwealth of Kentucky's Occupational Safety and Health Surveillance (KOSHS) program. An integral part of the KOSHS program is the analysis and interpretation of occupational injury and illness data from a variety of statewide data sources performed in collaboration with the co-investigator on the project, Assistant Professor Svetla Slavova, Ph.D., at KIPRC.

The focus of the KOSHS program for the past year has been on the identification of risk factors for, and the outcomes of, occupational motor vehicle collisions. 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. The results suggest that large trucks have significantly higher odds for catching on fire than passenger cars and light trucks. The results from the study will be presented at the APHA Meeting in November 2011 and a manuscript is in progress.

KOSHS, cont.

The Results

A study was completed on injuries among solid waste collectors, an occupation at high risk for injuries. The probability that a workers' compensation first report of injury or claim would result in an awarded benefit was higher if the worker was employed as a solid waste collector in the private sector compared to the public sector, while controlling for age, nature of injury, cause of injury and injured body part. A better understanding of the differences in the contributing factors for an injury that results in a first report of injury or claim (e.g. activities, automation) between the public and private sectors is necessary to target injury prevention strategies in this high- risk occupation. The manuscript has been accepted for publication in the Journal of Waste Management and Research.

A spatial analysis was conducted to identify where commercial large-truck drivers (CLTD) are at higher risk for at-fault night collisions in Kentucky. The CLTD were at higher risk mainly in two geographical areas - around two truck stops off interstate I-75 in northern Kentucky with inattention and misjudged clearance most often cited as factors for the night collisions, and on I-65 and the Western Kentucky Parkway, mostly single vehicle collisions or sideswipes in the same direction. The identification of geographic locations was used to inform agencies and organizations involved with transportation. The results from the study will be presented at the APHA Annual Meeting in November 2011.

An article on our worker safety presentation, developed for individuals who are establishing a new business, was published in the Lexington Herald Leader on July 18, 2010. Collaborative panel presentations by our KOSHS program, the KY Department of Workers' Claims, and KY OSHA on the establishment of worker safety programs were delivered in Pikeville, Louisville, and in Bowling Green. In collaboration with the NIOSH Small Business Program in Cincinnati, the worker safety presentation was delivered to the Chamber of Commerce in Piqua, Ohio in March, 2011.

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, and all terrain vehicle (ATV) safety.

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.

Smoke Alarm Installation and Fire Education (SAIFE) project

The Challenge

Kentucky's fire related fatality rate has exceeded the national average for more than three decades. The rate of fire related deaths in Kentucky has been cut nearly in half since 1981, but national rates have fallen even more. Kentuckians are still significantly more likely to die in fires than Americans as a whole. Most fire related fatalities occur in residential fires and are most likely to occur at night when residents are asleep, and during the fall and winter months.

The high rate of fire related deaths in Kentucky is due to several factors. Cooking is the most common source of residential fires. Seniors are at particularly high risk from cooking related fires.



Space heaters and older heating systems that are in poor repair cause many residential fires. Kentucky has relatively mild winters but usually has a few weeks of very cold weather each year. This leads many people to depend upon space heaters for supplemental heat during unusually cold periods. The housing stock in much of the Commonwealth includes many older homes that are poorly insulated and that have aging heating systems.

Smoking related fires are the most deadly type of residential fires. Kentucky has the highest rate of smoking in the nation. Many of Kentucky's fatal residential fires are related to smoking. Many homes in Kentucky lack working smoke alarms. Smoke alarms are highly effective in reducing deaths caused by residential fires, but in some parts of Kentucky barely one third of homes have working smoke alarms.

Finally, too many Kentuckians do not understand or practice basic fire safety procedures. In addition to the misuse of space heaters and careless smoking, factors such as overloaded electrical outlets, uncleaned chimneys and the widespread use of wood and coal for heating all contribute to the residential fire problem in the Commonwealth. These causes of fires are all preventable.

SAIFE (cont)

The Solution

Older homes with inadequate insulation and aging heating systems create an increased risk of fire, but social and economic realities make any large scale effort to replace older homes impractical. Any effective fire safety solution must be simple to implement, cost effective, and long lasting.

Fire safety education is important. Many people can and will make simple changes to their habits in order to reduce their risk, if they understand the importance of those changes. Simple things like keeping space heaters well away from flammable materials and avoiding smoking when drowsy can dramatically reduce a person's risk from fire – and the risk level of everyone else in their household.

Behavior change alone is not the answer. Home fires can occur in spite of safe behavior by the residents, and some people will not change unsafe behaviors. The installation of long life residential smoke alarms is a practical and cost effective way to decrease fire related fatalities. Working smoke alarms can provide warning to residents, permitting them to escape from a fire. Those powered by long life lithium batteries can provide protection for up to ten years. Smoke alarms even reduce property damage, since the early notification provided by smoke alarms often permits a fire department to respond quickly enough to save the structure.

The Results

The Smoke Alarm Installation and Fire Education (SAIFE) program (led by injury prevention specialists Robert McCool, Tom Haynes and Ron Clatos) has installed more than 21,000 long life, lithium battery powered, smoke alarms in 8,270 homes in Kentucky in the last decade. This has doubled the percentage of homes with working smoke alarms in some communities. At least 82 people have been warned of fires in their home by alarms installed through the project.

The program has also provided fire safety education to more than 100,000 Kentuckians through school based fire safety education programs, community fire safety events, and in home fire safety education provided to those who receive smoke alarms. Media partners have helped us reach hundreds of thousands with basic fire safety messages. Surveys conducted as part of the project indicate that these messages are being heeded by many people.

Funding for this program is provided by the Centers for Disease Control and Prevention (CDC), and will end in 2012. The Federal Emergency Management Agency (FEMA) provided funding to purchase more smoke alarms and to develop online training for firefighters and public health workers who provide fire safety education. The online training course was completed in March, 2011.

Instructional System Design

The Challenge

The Kentucky Injury Prevention and Research Center has been active in distance learning for nearly a decade, and the Instructional System Design program is led by Mark Schneider. Offerings have included online courses in bioterrorism preparedness, agroterrorism preparedness, chemical terrorism preparedness, pediatric terrorism awareness, drug endangered child courses, and chemical stockroom storage and disposal. KIPRC is currently using this experience to assist College of Public Health faculty in the development of online course offerings using existing and new classroom courses and transitioning them to an interactive and engaging online format.



Should you take an existing traditional classroom course and plug it into a content management system like Blackboard? Should video lectures or other presentations be used and, if so, for what duration? How much time should be allotted for course development? Should the courses be delivered synchronously, asynchronously or both? How do you foster a community of practice in an online environment? What is the best way to communicate with online students?

The Solution

Existing traditional classroom courses are not suitable for plugging into an online course. The courses should be engaging, interactive, and based on educational practices and models (e.g. Dick and Carey systems approach). Course development time may range from six months to one year and video presentations should not exceed 12 minutes. After 12 minutes, attention will begin to drift and the effectiveness of instruction will diminish. The needs of the target audience must be taken into account. Adult learners may have time constraints, making asynchronous offerings more desirable. Online communities already exist in many forums, such as Facebook. Online students can develop their own sense of community when the instructor provides an educational online forum. Students have the potential to learn more about one another than in a traditional class. Communication with students may take place using email, instant messaging, video conferencing, phone, and virtual office hours.

The Results

The first course utilizing these online development and delivery methods was offer on May 2011. Students created their online community, viewed short videos, and completed their online assignments. Based upon early evidence, the students have performed very well.

Kentucky Violent Death Reporting System

The Challenge

The Kentucky Violent Death Reporting System (KVDRS) is charged with collecting multi-agency data pertaining to all violent deaths occurring in Kentucky. The most important key to discerning patterns in these deaths, and to prevent them, is circumstantial coroner data. To obtain uniform circumstance data without adding to the workload of Kentucky's civil servants, the KVDRS (led by Sabrina Walsh, DrPH) has developed a web-based coroner system that meets the needs of the coroners in a symbiotic manner.



The KVDRS created a web-based coroner reporting system, using the Coroner Investigation Report (CIR) form previously developed by the project as a template. Collaborating with the Kentucky Coroners' Association each step of the way is necessary to yield a system that meets the varying needs of 120 separate coroner's offices and providing secure storage of their information. KVDRS receives immediate access to entered coroner reports that match the violent death case definition.

The Solution

The benefit of the web-based CIR to Kentucky Coroners is the ability to securely store all of their death records. The web-based CIR can be accessed via the KVDRS website from any location and all data are stored on a secure server with the highest security available. Also of benefit to Kentucky death investigators is the process of defining a uniform and complete catalog of variables to provide an accurate record of each death.

The KVDRS has benefitted greatly from the web-based CIRS and is now able to retrieve coroner reports in real time as they are entered into the system, often the same date that a death occurs. As much of the KVDRS analysis is based on multi-agency data, this timely coroner information is quickly disseminated in response to community and media requests.

The process of developing the web-based CIR has strengthened the relationship between the KVDRS and coroners across the state of Kentucky and opened up genuine and constant lines of communication. Kentucky Interactive, the agency responsible for building many of the state databases and websites, developed the system for the KVDRS and has promoted collaboration and enhanced timely reporting from other state data providers.

The Results

The KVDRS web-based CIR has evolved into a database that supplies valuable and timely coroner data, and is available to each county in Kentucky and can accommodate any coroner case.

KVDRS, cont.

Since the start of 2009, a total of 70 counties have registered for the web system. This means that the web-based CIR can house 70% of the state's coroner investigation information, by population. Having a central uniform database opens up limitless possibilities for data analysis, dissemination and collaboration in the future. Over half of the 70 registered counties are actively using the system.

One great benefit of the system is the ability for fields to autofill information that has already been entered, reducing the amount of time needed by coroners to fill out forms. Along with this, the KVDRS has been able to attach a separate Child Fatality Review (CFR) form, required by the state, which also populates directly from entered coroner information, further reducing the burden of reporting by coroners across the state and providing the KVDRS with valuable supplemental information on child-specific violent deaths.

From the KVDRS web site, a logged-in coroner can print out PDF versions of both the CIR and the CFR. This is a useful tool when coroners are asked to provide reports to other agencies or simply desire to have a tangible record of their cases.

Every effort taken to make the system more user-friendly and more efficient with the goal of a progression toward a constantly improving system able to accommodate new challenges and as yet unforeseen needs in Kentucky.

Crash Outcome Data Evaluation

The Challenge

Kentucky's Crash Outcome Data Evaluation System (CODES) is funded by the National Highway Safety Administration (NHTSA) and is led by injury prevention specialist Michael Singleton. 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 us 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 to 2007, and the crash, hospital inpatient, and hospital outpatient databases for 2008 and 2009.

The Results

In 2010 we completed the first 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

At the 2010 CODES Technical Assistance meeting in June we presented some preliminary findings based on our indicator reports. As a result we were invited to present further results in a CODES Grand Rounds webinar on November 10, 2010, which included more than eighty participants from across the U.S.

CODES...

Kentucky, like the U.S. as a whole, experienced a substantial decrease in nonfatal MVC injury rates from 2000 to 2009. In 2010 we investigated several possible contributors to this decline. At least three factors played a significant role: the increase in restraint use (due in large part to passage of a primary enforcement law in 2006), improvements in vehicle safety, and population migration from rural to more urban areas. An abstract summarizing these findings was accepted for presentation in the CODES session at the International Forum on Traffic Records and Highway Information Systems in June 2011. Fatalities and fatality rates have also declined in Kentucky between 2006 and 2009, after increasing from 2000 to 2005.

Current projects include:

- Creation of a second year of CODES nonfatal injury indicator reports
- Research for a report on chronic pain and disability associated with MVC—related whiplash injuries
- Participation in the creation of a CODES General Use Model database, which will enable multi-state CODES studies to be carried out much more efficiently than in the past.

Central Nervous System Injury Surveillance Project

The Challenge

Central nervous system injuries have been tracked in Kentucky since 1998.

The Solution

The Central Nervous System Injury (CNSI) 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) and the National Center for Health Statistics' annual Multiple Cause of Death (MCOB) files. These sources are linked to resolve double-counting of cases. A report is generated annually using these data.

Currently, central nervous system injuries are defined as traumatic brain injury (TBI), acquired brain injury (ABI) and spinal cord injuries (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

Motor vehicle traffic crashes in persons aged 15-24, and falls in persons aged 65 and older, again emerged as the leading causes of TBI in 2007. Anoxia/hypoxia was most common among persons aged 65 and older, whereas exposure to toxic substances was greatest among those aged 25-44.



CNSI, cont.

The tenth annual CNSI report, which summarizes injuries that occurred within the calendar year 2007, was completed in July 2010. In 2007, over 24 Kentuckians per day were either hospitalized or died of a central nervous system injury in licensed, acute-care hospitals. TBI was a factor in the deaths of 1,007 Kentuckians, and in the hospital discharges of 3,454 across the state. TBI played a role in the death or hospitalization of over 12 state residents per day. Acquired brain injury (ABI) was diagnosed in 1,686 deaths and 2,584 live discharges (almost 11 ABI per day), and spinal cord injury (SCI) was reported in 58 deaths and 210 live discharges, or just over 5 SCI per week. These numbers do not include Kentucky residents seen in hospitals in surrounding states. Consequently, we feel confident that a county showing a high rate of brain injuries is a county in need of prevention, education and resources but 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.

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 25-44

Motor vehicle traffic crashes in persons aged 15-24, and falls in persons aged 65 and older, again emerged as the leading causes of TBI. Anoxia/hypoxia was most common among persons aged 65 and older, whereas exposure to toxic substances was greatest among those aged 25-44.

In the past year, efforts to establish a true central nervous system injury registry have been underway as well as a redesign of data analysis and reporting to enable us to report on non-fatal brain injuries in a more timely manner. Outpatient data has become available and will also be included in upcoming reports. 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 complications from and repeat injuries among brain injured patients.

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

Pediatric and Adolescent Injury Prevention Program

The Challenge

For the past decade, the Pediatric and Adolescent Injury Prevention Program (led by Susan Pollack, M.D., and injury prevention specialist Melanie Tyner-Wilson) has worked with university and community partners to lessen the burden of motor vehicle crash deaths and injuries in Kentucky. Today, we continue in our efforts to keep motor vehicle crash deaths from being the leading cause of death for Kentuckians ages 1-44.

The Solution

With the Kentucky Transportation Center, KIPRC evaluated the effects of our Graduated Drivers Licensing program, and utilized the results of that evaluation as the basis for new legislation that better protects our inexperienced young drivers in a state with bad weather and roads unforgiving of speed. In our role as leaders of the Kentucky State Safe Kids Coalition, KIPRC has worked with partners in local health departments, other Safe Kids Coalitions and the Kentucky State Police to maintain a cadre of nationally-certified and trained child passenger safety technicians and has also worked with local counties to provide booster seats to children ages 4-8.



In 2008, legislation was enacted in Kentucky regarding the use of booster seats, which better protects those children ages 4-7 who do not yet fit properly in an adult seat belt.

KIPRC coordinates the distribution of car seats and boosters to local health department child passenger safety staff across the state, and assists them with materials in English and Spanish for the education of home visiting and child care staff about child passenger safety. We are heavily involved in the education of families of children with special health care needs and children in foster care about the new national recommendations for best practice in child passenger safety.

The Results

During fall 2009, stimulus funding was designated by the state for booster seats to help improve the safety of the child care transportation fleet. KIPRC designed a 2-hour training course for child care vans using booster seats, and has coordinated a statewide process of providing that training (for child care credits) along with distribution of the booster seats to vans belonging to smaller child care centers. KIPRC continues to advocate for the continued improvement of safety for our child passengers and teen drivers on the road.

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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