

Kentucky Injury Prevention and Research Center

ANNUAL
REPORT
2001-2002



Kentucky Injury Prevention and Research Center



KIPRC Staff

VISION:

To be a premier applied injury research center

MISSION:

To promote the reduction of injuries, injury-related disabilities and deaths



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Dear Reader:

In partnership with the Kentucky Department for Public Health and the Kentucky School of Public Health, the Kentucky Injury Prevention and Research Center (KIPRC) blends an academic environment with practical public health initiatives. Our purpose/mission is to mitigate the burden of injury in the Commonwealth. This partnership, grounded in a belief that injuries are preventable events, cultivates a collaborative approach to problem solving.

This annual report serves to highlight a few of the activities and projects conducted at the Center. Behind each project is a team dedicated to reducing injury through education, policy initiatives, public health programming, risk factor analysis, and/or intervention evaluation.

To reduce fire-related injuries and fatalities in Kentucky, nearly 20,000 smoke detectors have been installed in homes in rural areas since 1999. In an effort to decrease the number of children injured or killed in motor vehicle crashes, over 1100 child safety seats have been distributed to families in need; more importantly, persons receiving safety seats were trained how to install and use them properly. To educate and provide prevention information, injury fact sheets and other materials based on data at the Center have been disseminated widely across the state. Our requests for injury prevention consultation have increased over 18% in the past year. Through these projects, we are fostering a cultural shift toward adopting injury as a true public health issue in Kentucky.

Over the next year we intend to strengthen the partnership and build additional links with local health departments as well as other departments within the University of Kentucky. We will continue to make data available for planning and decision making at the local level and strengthen the use of the Web to make prevention materials available.

Sincerely,

A handwritten signature in black ink, appearing to read 'T Struttman'.

Tim Struttman
Acting Director
Kentucky Injury Prevention and Research Center

A handwritten signature in black ink, appearing to read 'Rice C. Leach, M.D.'.

Rice C. Leach, M.D.
Commissioner
Kentucky Department for Public Health

Kentucky Injury Prevention and Research Center

Community Partners for Healthy Farming

The Community Partners for Healthy Farming (CPHF) surveillance project collected data on agricultural injuries in six Kentucky counties during 1997–1999. Farm-related injuries were identified by hospital emergency departments. Nurses conducted follow-up interviews to gather additional information about the circumstances of the injuries. There were 564 reported injuries. The leading causes of injury were (respectively) animals, machinery, and falls. The average hospital charge was \$1131, and 25% of those people had no insurance. Barns were the leading location of injury. Over 15% of all farm-related injuries were to children under 18. CPHF data have been used extensively in development of community-based interventions.



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location of injury.**
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Helping to Prevent Farm-Related Deaths in Kentucky

Since 1994, at least 79 Kentucky farmers were killed in tractor overturns and 35 more died when they fell from moving tractors. Roll Over Protective Structures (ROPS) and seat belts could have saved nearly all of those lives. While newer tractors (those manufactured since 1986) come equipped with a ROPS, most older tractors did not. Most older model tractors can, however, be retrofitted with a ROPS. In 1997, in collaboration with the Southeast Center for Agricultural Health and Injury Prevention at UK, KIPRC initiated a community-based ROPS retrofit campaign in Fleming and Barren Counties. During the prior year, only two ROPS had been sold in these counties. At the conclusion of the three-year intervention, 74 ROPS had been sold and installed on tractors. This ROPS intervention is now a state-wide program.



Kentucky Graduated Drivers Licensing (GDL) Evaluation Project

KIPRC, in collaboration with the Kentucky Transportation Center, has evaluated the Kentucky Graduated Drivers Licensing program, a law designed to reduce teen driving injuries and fatalities. Analysis of crash data, fatalities, injuries and costs has found that the law only delayed the high incidence of teen crashes and injuries. The progressive licensing system whereby teens must initially obtain permits, including driving restrictions for a minimum of 6 months, has not fully addressed the problem of teen crashes. Additional analysis found that the death rate is more than twice as high for teens driving with passengers in the vehicle, five times higher for teens driving between 10 pm and midnight, and 16 times higher for teens driving after midnight with passengers. Emphasis this year has focused on how to extend the protective effect seen during the permit phase (83% decrease in crashes for teens age 16-16.5) to older teens, for whom the protective effect does not last.



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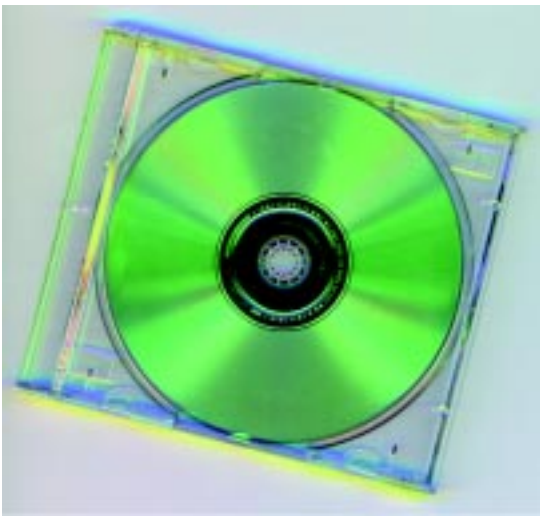


Photo courtesy of www.freeimages.co.uk



Motor vehicle crashes are a leading cause of death and injury to Kentuckians.

Crash Outcomes

Motor vehicle crashes (MVCs) are a leading cause of death and injury to Kentuckians. In addition to the pain and suffering caused by MVCs to victims and their families, there is a considerable burden placed on the medical system and, as a result, on the costs of medical care and health insurance. Information on the medical and financial outcomes of MVCs is scattered across multiple data sets owned by various government and private agencies. The Crash Outcome Data Evaluation System (CODES) is an effort to integrate these disparate data sets using computer software to link records that pertain to the same crash event. The ultimate goal of CODES is to create a base of knowledge that can be applied by researchers, medical practitioners, and community health organizations to reduce the occurrence and costs of MVCs in the Commonwealth, and to improve medical care and outcomes when crashes do occur.



Child Passenger Safety

The Kentucky Injury Prevention and Research Center conducted a study of the use and misuse of child safety seats in Kentucky in 1996. Based on this study and similar national studies, KIPRC identified a need for additional trained child passenger safety (CPS) personnel to educate and counsel parents. In 1999, KIPRC began working with the National Highway Traffic Safety Administration and injury prevention programs in eight southeastern states to create a 16-hour introductory child passenger safety training course. This course is offered to public health and public safety personnel around the Commonwealth and to law enforcement officers in cooperation with the Kentucky Department of Criminal Justice Training.

In 2001, KIPRC will begin a study on the proper use of booster seats in motor vehicles. The three-year study will assess the public's knowledge of when and how to use booster seats and will result in interventions to educate parents about protecting children in motor vehicles.

Also in 2001, KIPRC will give approximately 700 child safety restraints to selected local community organizations that will redistribute them to families in need. The organizations receiving the awards must have at least one trained individual to install the safety restraints and counsel parents on the proper use.



KIPRC will give approximately 700 child safety restraints to selected local community organizations to be redistributed in their communities for children whose family cannot afford to purchase one.



Injury is the number one cause of death among children over age one in Kentucky.

Pediatric and Adolescent Injury Prevention

Injury is the number one cause of death among children over age one in Kentucky. Many of these deaths and nonfatal injuries could be prevented. KIPRC provides information and guidance through a combination of direct community outreach and extensive professional education. We inform parents and professionals about patterns of injury and equip them with knowledge about preventive strategies. Education of local health department staff, nurses, physicians, and other healthcare professionals empowers them to advocate for prevention in their communities. KIPRC also provides support to family resource centers, childcare facilities and church and synagogue nurseries. Areas of expertise include child passenger safety (car seats and boosters), safe sleeping conditions, toy and food safety for preschoolers, fire and drowning prevention, helmet promotion, playground safety, farm safety, ATV safety, and teen work injury.



Emergency Medical Services for Children

Children have specialized and unique treatment needs in the event of a traumatic injury. Emergency medical personnel, often the first on the scene, must be prepared to assess and interpret vital signs of children, use appropriately sized equipment, or administer the proper doses of medication. It is not simply children's small size that makes procedures different from caring for adults. Age-appropriate communication skills are critical to successful treatment in an emergency situation. To address these unique needs, KIPRC has conducted training sessions for emergency medical personnel in Kentucky. Since 1993, over 2000 persons across the state have been trained to deliver emergency care to the young population of Kentucky. Additionally, these specially trained professionals have become active in local Child Fatality Review teams.



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Training for Mental Health Professionals

In the weeks and months after a child is severely injured, it is not uncommon for families to feel a need for assistance in dealing with the consequences of an injury and the challenges it may bring. In collaboration with the UK Department of Education and Counseling Psychology, KIPRC has developed and tested a training program for mental health providers designed to meet the needs of injured youth and their families. A series of courses has been delivered whereby mental health professionals gain an understanding of the long-term consequences of an injury and how to work most effectively with mental health and behavioral issues. Delivering this training through Kentucky Telecare allows access to rural health care providers.



Surveillance of Intimate Partner Violence (IPV) in Kentucky

The IPV Surveillance Project is working to develop a comprehensive picture of the characteristics and types of injuries women in Kentucky experience due to violence in intimate relationships. Ultimately this information will be used to help focus legislative policy, provide programmatic direction for several Kentucky agencies and develop injury prevention interventions.

The IPV Surveillance Project will combine data from Hospital Discharges, Death Certificates, Trauma Registry, Protective Orders and Adult Protective Services, in order to identify a large number of *reported* cases of IPV in Kentucky.

In addition, a statewide, self-report telephone survey about IPV will be conducted annually over a 4-year period. We will analyze data from approximately 2,000 completed interviews with adult women in Kentucky. The survey complements data in the surveillance system.



Injury Profiles for Safe Communities

Safe Communities is a community-based injury prevention model promoted by the World Health Organization (WHO) and supported by the National Highway Traffic Safety Administration (NHTSA). There are currently seven such groups at work in the Commonwealth, striving to bring together local law enforcement, emergency medical services, hospitals, and other resources to identify problem areas and to develop and implement solutions. The most important part of any such effort is gathering data that accurately describe the injury issues most relevant to the community. Providing those data is the primary purpose of the Injury Profiles for Safe Communities project at KIPRC.



“Under our contemporary public health mission, local health departments have greater opportunities—and greater challenges—than ever before. But we must develop new skills and capabilities to meet them. Local health departments need partners such as KIPRC to provide a vital link between the academic and the world at large and to bring scientific methodologies into our people-oriented work.”

Beth Siddens, Health Planner at Barren River District Health Dept.

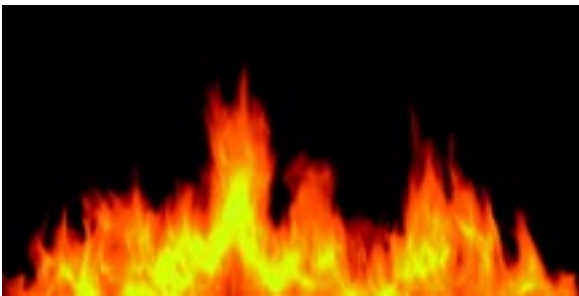
Prevention of Fire-related Injuries

KIPRC has installed nearly 20,000 smoke alarms in ten Eastern Kentucky counties that had high rates of fire-related injuries and death. The alarms are powered by lithium batteries, which typically last 10 years. The project, funded primarily by the federal Centers for Disease Control and Prevention with support from the Kentucky Department for Public Health, is conducted in cooperation with local fire departments and community organizations. Alarms installed during this project warned families of a fire in their home and potentially saved their lives. Project personnel also developed Public Service Announcements to increase awareness of fire dangers and conducted fire safety education programs and other interventions in these communities.



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Occupational Burn Injury Surveillance

Burns account for a substantial proportion of work-related injuries, resulting in lost work time, medical expenses, and pain and suffering. To better understand the impact of burns on workers in Kentucky, KIPRC conducts surveillance of these injuries. Data are collected from participating healthcare facilities across the state, and follow-up interviews are conducted with injured workers and employers to learn more about the circumstances surrounding the injury. The information is used to identify jobs or tasks that have a high risk of burns and develop prevention strategies. Reports and educational materials are distributed to a wide range of persons and agencies interested in occupational safety and health and the prevention of burn injuries.



Photo courtesy of Kappler

Traumatic Brain Injury & Spinal Cord Injury Surveillance Project

Among all types of injury, Traumatic Brain Injury (TBI) is most likely to result in death or permanent disability. Victims can suffer from such disabilities as blindness, paralysis, loss of speech, and loss of memory. Spinal Cord Injuries (SCI) can result in loss of mobility or feeling.

The TBI/SCI Surveillance Project seeks to identify all cases of TBI and SCI in Kentucky. Trauma center, hospital discharge, and death certificate data are linked together to produce a comprehensive data set. In addition, hospital records are reviewed to provide a more in-depth picture of TBI and SCI in Kentucky. A final report is available at the end of every fiscal year, describing the major causes, high-risk groups, and outcomes of TBI and SCI.

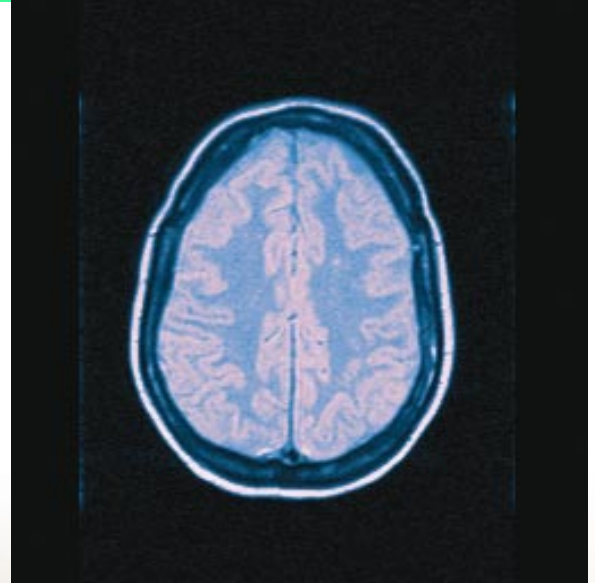


Photo courtesy of MRISC



**Victims
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Preventing Occupational Fatalities

Each day, on average, 16 workers die nationwide as a result of traumatic injury on the job. The Kentucky Fatality Assessment and Control Evaluation (FACE) project is a research program designed to identify and study fatal occupational injuries. This program has been conducted at KIPRC since 1994 and is currently being conducted in 14 other states as well. The goal of the FACE program is to prevent occupational fatalities by identifying and investigating work situations at high risk for injury. This information is used to develop comprehensive recommendations for preventing similar deaths and is disseminated to those who can intervene in the workplace.

Hazardous Waste Worker Evaluation

Since 1987, the HazWaste Project has served as the evaluation group for the Midwest Consortium for Hazardous Waste Worker Training. Comprised of nine training centers in eight states, the Consortium offers hazardous substances training and works actively with community outreach. In addition to evaluating training sessions and their impact, the Project has developed and analyzed training manuals, created and field-tested latent-image exercises, and designed low-literacy materials. To keep training on the cutting edge, the Project is developing instructional materials using Advanced Training Technology (ATT).



Publications

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Cole HP, Westneat SC, Browning SR, Piercy LR, Struttman TW. Sex differences in principal farm operators' tractor driving safety beliefs and behaviors. *Journal of the American Medical Womens' Association* 55(2):93-95; 2000.

Kidd PS, McCoy C, Steenbergen L. Repetitive strain injuries in youth. *Journal of the American Academy of Nurse Practitioners* 12:413-426; 2000.

Pigman J, Steenbergen L, Agent K, Kidd P, McCoy C, Pollack S. Impact of the Graduated Driver License Program in Kentucky on teen motor vehicle crashes. *Transportation Research Record* (in press).

Pollack SH. Adolescent occupational exposures and take-home exposures. *Pediatric Clinics of North America* (in press).

Scheerer A. Occupational burn surveillance in Kentucky. *Kentucky Epidemiologic Notes & Reports* 36(5):1-3; 2001.

Scheerer A, Brandt V. Interviews with widows following fatal farming incidents. *Journal of Agricultural Safety and Health* (in press).

Struttman TW, Brandt VA, Morgan SE, Piercy LR, Cole HP. Equipment dealers' perceptions of a community based ROPS campaign. *Journal of Rural Health* (in press).

Struttman TW, Scheerer A. Fatal injuries caused by logs rolling off trucks: Kentucky 1994-1998. *American Journal of Industrial Medicine* 2001; 39:203-208.

Projects and Funding Agencies

Project	Funding Agency
Community Partners for Healthy Farming	NIOSH/CDC <i>National Institute for Occupational Safety and Health/Centers for Disease Control and Prevention</i>
Graduated Drivers Licensing (GDL) Evaluation	NHTSA <i>National Highway Traffic Safety Administration</i>
Crash Outcome Data Evaluation System (CODES)	NHTSA <i>National Highway Traffic Safety Administration</i>
Child Passenger Safety (training, checkups and seat distribution) Booster Seat Promotion	CDC and KDPH <i>Centers for Disease Control and Prevention KY Department for Public Health</i>
Pediatric & Adolescent Injury Prevention Program	Adult and Child Health Division, KDPH
Emergency Medical Services for Children Training for Mental Health Professionals	HRSA/MCHB/EMSC <i>Health Resources Services Administration/ Maternal and Child Health Bureau KY Department for Public Health</i>
Surveillance of Intimate Partner Violence	Division of Violence Prevention/CDC
Safe Communities	NHTSA <i>National Highway Traffic Safety Administration</i>
Prevention of Fire-related Injuries	CDC and KDPH <i>Centers for Disease Control and Prevention KY Department for Public Health</i>
Occupational Burn Surveillance	NIOSH/CDC <i>National Institute for Occupational Safety and Health/ Centers for Disease Control and Prevention</i>
Tramatic Brain Injury & Spinal Cord Injury Surveillance	Tramatic Brain Injury Trust Fund/KY Department for Mental Health and Mental Retardation
Fatality Assessment and Control Evaluation (FACE)	NIOSH/CDC <i>National Institute for Occupational Safety and Health/ Centers for Disease Control and Prevention</i>
Hazardous Waste Worker Training Evaluation	NIEHS <i>National Institute for Environmental Health Sciences</i>

Kentucky Injury Prevention and Research Center

“KIPRC is an excellent example of how practice and academic public health can collaborate to benefit everyone, the Department of Public Health, the School of Public Health and the citizens of the Commonwealth.”

*D. Scutchfield, Director,
Kentucky School of Public Health*

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Injury-Related National Health Observances

January

National Eye Care Month

February

National Burn Awareness Week

National Girls and Women in Sports Day

National Child Passenger Safety Awareness Week

March

Workplace Eye Health and Safety Month

Brain Awareness Month

National Inhalants and Poisons Awareness Week

National Poison Prevention Week

April

Alcohol Awareness Month

National Child Abuse Prevention Month

National Youth Sports Safety Month

Sports Eye Safety Month

Alcohol-Free Weekend

National Building Safety Week

National Public Health Week

YMCA Healthy Kids Day

National Program for Playground Safety Week

May

National Osteoporosis Prevention Month

National Trauma Awareness Month

Older Americans Month

National SAFE KIDS Week

National Suicide Awareness Week

National Emergency Medical Services Week

National Dog Bite Prevention Week

National Safe Boating Week

Buckle Up America! Week

National Senior Health and Fitness Day

June

Fireworks Safety Month

National Safety Month

National Men's Health Week

Eye Safety Awareness Week

National Sobriety Checkpoint Week

September

Baby Safety Month

Children's Eye Health and Safety Month

Healthy Aging Month

National Rehabilitation Week

October

Auto Battery Safety Month

Child Health Month

Domestic Violence Awareness Month

Family Health Month

Children Health Day

National Fire Prevention Week

Walk a Child to School Week

National School Bus Safety Week

December

National Drunk and Drugged Driving (3D) Prevention Month

Safe Toys and Gifts Month

For specific dates, please go to the CDC Web Site at:
<http://www.cdc.gov>