

KIPRC Annual Report, 2014



University of Kentucky, College of Public Health

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Kentucky Public Health
Prevent. Promote. Protect.



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KIPRC Annual Report, 2014

Greetings from the Director

Welcome to the Kentucky Injury Prevention and Research Center's (KIPRC) 2014 Annual Report on research projects and public health initiatives with documented activities and impact in research, policies, and practice:

Research

18 KIPRC peer-reviewed and non-peer-reviewed studies were published:

Work-related injuries by industry and drug screening status; work-related dermatitis; drug involvement in injured motor vehicle drivers; motor vehicle injuries among semi-truck drivers and sleeper berth passengers; drug overdose deaths, hospitalizations, and ED visits; occupational health; fatal drug overdoses by industry and occupation; multiple jobholder mortality patterns; infant and early childhood injuries; traumatic brain injuries; drug overdose surveillance using hospital discharge data; underestimation of deaths caused by narcotics in vital stats data; youth related sports and recreational injury ED visits; county level injury data profiles; homicide followed by suicide incidents involving child victims; central nervous system injury ED visits and hospitalizations; adult bicycle-motor vehicle collisions; and pediatric ED alignment with national guidelines.

Policy

Based on FACE report 14KY001 entitled "Auto Technician Mistakes Handicapped Accessible Accelerator Pedal for Brake Pedal and Fatally Pins Co-worker", Veigel North America LLC Mobility Products & Design developed a prototype to retrofit a vehicle's steering column with a key that would disengage the foot pedal when the key is removed to eliminate the need to remove the handicapped accessible pedal from the vehicle when it is serviced.

Practice

A number of KIPRC outputs and interventions were developed or implemented, and disseminated:

8 worker fatality reports and 3 hazard alerts; a safe towing tool kit; older adult fall prevention PSAs; prescription drug overdose systems of influence diagrams; Safe States congressional briefing document on prescription drug overdoses; 4 child passenger safety trainings; alternative sentencing programs for child restraint law violators in 5 counties; 6 child passenger safety checkup events; 2,000 smoke alarms installed; fire prevention training for 23 fire departments, 2 local health departments and State Fire Marshall; carbon monoxide detectors provided to 102 child care facilities and 7 long term care facilities; 123 child passenger seats distributed; 13 centers and 58 center staff trained on child passenger safety; and a congressional report on the National Violent Death Reporting System.

The Kentucky Injury Prevention and Research Center is honored to serve the residents of the Commonwealth of Kentucky.

Keep safe and healthy,

Terry Bunn, Director
Kentucky Injury Prevention and Research Center

Kentucky Occupational Safety and Health Surveillance Program (KOSHS)

Project Overview

The goal of the KOSHS Program is to establish and maintain partnerships among local, state, and national agencies and organizations so that the safety and health concerns of Kentucky workers are identified and targeted research is initiated. The KOSHS Program maintains comprehensive multi-source population-based surveillance of occupational injuries and illnesses occurring in Kentucky using 26 occupational health indicators. Findings are shared through reports, newsletters, web-based information, presentations, trade journals, magazines, and peer-reviewed publications. The ultimate goal of the KOSHS Program is to reduce the burden of occupational injuries in Kentucky.

Accomplishments and Service

- The KOSHS program is collaborating with the CT and MI state-based occupational health surveillance programs on Behavioral Risk Factor Surveillance System (BRFSS) self-reported work-related dermatitis data. The peer-reviewed publication, published February 2014, is listed below.
- The KOSHS program is collaborating on an occupational heat-related illness manuscript with other states in the southeastern region (SouthON). The study will identify heat-related illness emergency department admissions, inpatient hospitalizations, and deaths in the southeast region for years 2008-2012.
- A KOSHS/KY FACE Facebook page can be accessed at: <http://www.facebook.com/KOSHSHKYFACE?ref=hl>
- The KOSHS program has been instrumental in the establishment and maintenance of the Southern States Occupational Health Network (SouthON). Our second SouthON meeting was held on October 22, 2013, in Tampa, FL, and was sponsored by the Sunshine, Deep South, UNC, and KY ERCs, as well as NIOSH. Approximately 40 participants attended with representation from 11 of the 13 southeastern states. The focus of the meeting was on immigrant workers and their injuries related to post-disaster reconstruction.
- The Kentucky Trauma Registry work-related indicator was used to produce the Kentucky Trauma Registry report that contained sections on 1) work-relatedness; 2) trauma registry cases by the work-related indicator and drug use indicator; 3) work-related trauma by industry; and 4) expected payer of workers' compensation. A data quality improvement study is planned to identify possible problems affecting the completeness of the industry and occupation variables, which were not populated in 16% of cases for industry and more than half of the cases for occupation.
- A manuscript on work-related concussions was submitted to the American Journal of Industrial Medicine in March 2014. The goal of the study was to use multiple state-based data sources (ED visits, hospital discharge [HD] data, and workers' compensation [WC] data) to estimate the 2011 work-related concussion injury rate in Kentucky.
- The findings of the KOSHS study on work-related trauma by industry and drug screening indicate that there may be elevated drug use or abuse in natural resources and mining, transportation and public utilities, and construction industry workers; improved identification of the specific drug types in positive drug screens of injured workers is needed to better target prevention efforts. This study was accepted in the Journal of Trauma in February 2014.
- A KOSHS study entitled, "Concordance of Motor Vehicle Crash, Emergency Department, and Inpatient Hospitalization Datasets in the Identification of Drugs in Injured Drivers" was accepted for publication in *Traffic Injury Prevention*. This study was published in *Traffic Injury Prevention* in July 2014.

- January 2014, the KOSHS program provided data to the Kentucky Labor Cabinet on carbon monoxide poisoning emergency department admissions that was used for an article on warning employers of carbon monoxide poisonings. The press release was picked up by 19 different TV and news outlets in the state.
- The KOSHS program presented at several meetings and conferences:
 - Bunn T.L. Commercial Vehicle Safety Initiatives in Kentucky, Kentucky Lifesavers meeting, Louisville, KY, August 6, 2013.
 - Bunn T.L., Slavova S., Bernard A. Work-Related Traumatic Injuries by Industry, Demographics, and Lifestyle Characteristics. APHA meeting, Boston, MA, December 3, 2013.
 - Bunn T.L., Slavova S. (2013). Opportunities for partnerships between OSHA and CVIPP programs. CSTE Occupational Health workgroup meeting, Decatur, GA, December 5, 2013.
 - A presentation entitled “Supporting Total Worker Health through Safe Communities” was given at the Governor’s Safety and Health conference in Louisville, Kentucky on May 8, 2014.

Publications

- Slavova S., Bunn T.L. (2014). Surveillance of Work-Related Concussions. *AJIM*. (submitted).
- Bunn T.L., Slavova S., Bernard A. (2014). Work-Related Injuries in a State Trauma Registry: Relationship between Industry and Drug Screening. *Journal of Trauma*. (accepted).
- St. Louis T., Ehrlich E., Bunn T., Kanotra S., Fussman C., Rosenman K. (2014). Proportion of Dermatitis Attributed to Work Exposures in the United States Working Population. *AJIM* doi: 10.1002/ajim 22311. [Epub ahead of print].
- Bunn T.L., Singleton M., Slavova S., Nicholson V. (2013). Concordance of Identified Drugs in Injured Motor Vehicle Drivers Using Linked Motor Vehicle Crash, Emergency Department, and Inpatient Hospitalization Datasets. *Traffic Injury Prevention*. 14(7):680-9.
- Bunn T.L., Slavova S., Robertson M. (2013). Motor Vehicle Injuries Among Semi Truck Drivers and Sleeper Berth Passengers. *Journal of Safety Research*. Vol.44; 51-55.
- Slavova S., Bunn T.L., Lambert J. (January 2014). Drug Overdose Deaths, Hospitalizations, and Emergency Department Visits in Kentucky, 2000 – 2012.
- Kentucky Injury Prevention and Research Center, 2013. KOSHS Annual Report 2013.
- Bunn T.L., Slavova S. (October 2013). Occupational Health in Kentucky.
- Bunn T.L. (August 2013). Identifying the Presence of Drugs among Injured Motor Vehicle Drivers, NIOSH eNews.

Key Personnel

Terry Bunn, PhD	De Anna McIntosh
Svetla Slavova, PhD	Mark Chandler

Other Organizations or Institutions Represented

Kentucky Trauma Registry

Funding

National Institute for Occupational Safety and Health

Contact

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Kentucky Fatality Assessment and Control Evaluation Program (FACE)

Project Overview

The goal of the Kentucky Fatality Assessment and Control Evaluation (KY FACE) Program at the Kentucky Injury Prevention and Research Center (KIPRC) is to study the circumstances surrounding worker fatalities in order to make recommendations to prevent similar incidents from recurring in the future. The KY FACE Program conducts multi-source surveillance of all occupational fatalities in Kentucky and performs detailed investigations of selected cases, particularly those involving the truck transportation and construction industries. Detailed reports, hazard alerts, and other prevention materials are produced and widely disseminated. The FACE Program does not seek to determine fault or place blame on companies or individual workers. We endeavor to share what we have learned to prevent future occupational fatalities in Kentucky.

Accomplishments and Service

- Developed and disseminated a Hazard Alert on arborist falls.
- The FACE program presented at several meetings and conferences:
 - McIntosh D., Bunn T.L. Arborists Die after Falling. Hazard Alert 11(3) November 2013. Disseminated to 345 companies.
 - Bunn T.L., Slavova S., Gao W. Occupational Health in Kentucky, 2013.
 - Bunn T.L. Toxic Agents and their Implications for Public Health. Occupational and Environmental Health Nursing class. University of Kentucky, November 21, 2013. Case examples included fatal toxic worker exposures.
 - Bunn, T.L. The Kentucky Occupational Safety and Health Surveillance Program- Occupational Fatalities in the Trucking Industry. Kentucky Motor Transport Association, Louisville, KY. January 21, 2014.
- Investigated and reported on several occupational fatalities with an emphasis on those that involved the commercial construction and transportation industries. Eight reports have been disseminated and published on our website and five reports are pending. All KY FACE materials developed can be found on our website: <http://www.mc.uky.edu/kiprc/projects/KOSHS/index.html>
- Developed and disseminated a safety tool kit which includes recommendations for safe towing and resources related to safe towing for company safety training purposes. The kit is available at: http://www.mc.uky.edu/kiprc/projects/KOSHS/safetyToolkit_towTruck.html
- The following media article was published in the February 2014 NIOSH eNews: New Study On Kentucky Multiple Jobholder Fatalities- A study produced by the Kentucky Injury Prevention and Research Center and published in the American Journal of Industrial Medicine showed that multiple jobholder fatalities in Kentucky averaged 8.4 deaths per 100,000 employees compared to the single jobholder fatality rate of 6.5 per 100,000. The article is available at : <http://www.ncbi.nlm.nih.gov/pubmed/?term=Multiple+jobholder+mortality+patterns+in+Kentucky%3A+an+examination+of+occupational+fatalities>
- Per the implementation of Senate Bill 96 in July 2014 that mandates an educational training course on motor carrier operations and safety regulations before any interstate or intrastate motor carrier registers a motor vehicle, the Kentucky FACE program is collaborating with the Kentucky Motor Transport Association to develop two driver safety training modules. The first module outlines and explains pre-trip and post-trip commercial vehicle inspections. The second module is related to incident management and provides information

on the procedural steps to be followed by a truck driver who becomes disabled on the side of the road. The instructional modules will be narrated PowerPoint presentations as part of the mandated online safety training.

- The Kentucky FACE program and the other 11 states in SouthON are collaborating on an MMWR related to occupational fatalities in the southeast region; numbers and rates in the southeast region are elevated compared to national rates. Fatal transportation incidents accounted for the highest number of worker fatalities in the southeast region.
- There has been a significant increase in drug overdose deaths over the past decade, primarily due to prescription drug overdoses. The Kentucky FACE program analyzed death certificates to identify the specific drugs involved in drug overdose deaths and to identify the employment industries and occupations of the decedents at the time of death. Quantitative and narrative analyses of 2011 Kentucky electronic death certificates for all fatal drug overdoses was performed. The manuscript for this study was accepted in the Journal of the Kentucky Medical Association in March 2014.
- Based on FACE report 14KY001 entitled “Auto Technician Mistakes Handicapped Accessible Accelerator Pedal for Brake Pedal and Fatally Pins Co-worker”, Veigel North America LLC Mobility Products & Design is in the process of redesigning their product, Left Foot Gas Pedal Model 3545. Their safety and design team developed a prototype to retrofit a vehicle’s steering column with a key that would disengage the foot pedal when the key is removed to eliminate the need to remove the handicapped accessible pedal from the vehicle when it is serviced. The General Manager thanked the FACE program for contacting him and allowing him the opportunity to improve the quality of their products.

Publications

- Bunn T.L., Bush A.M., Slavova S. (2014). Fatal Drug Overdoses: What Specific Drug Types Were Involved? What Industries and Occupations Were the Decedents Employed In? *J KY Med Assoc.* (accepted).
- Bush A.M., McKee S.E., Bunn T.L. (2013). Multiple Jobholder Mortality Patterns in Kentucky: An Examination of Occupational Fatalities, *Am J Ind Med.* 56(8):881-8.
- Kentucky Injury Prevention and Research Center. (2013). Kentucky FACE Report 2012.

Key Personnel

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Other Organizations or Institutions Represented

Kentucky Motor Transport Association

Funding

National Institute for Occupational Safety and Health (NIOSH)

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Kentucky Violence and Injury Prevention Program (KVIPP)

Project Overview

KVIPP includes a Kentucky state injury and violence prevention and control (IVPC) plan, as well as an injury community planning group (ICPG) called the Kentucky Safety and Prevention Alignment Network (KSPAN). The purpose of KVIPP is to identify priority focus areas for interventions and policy making, by using effective delivery systems for the dissemination, implementation and evaluation of best practice programs and policies. Current priority focus areas include prevention of falls among older adults, child maltreatment, drug abuse, teen driver and child passenger safety, occupational safety and health, residential fire safety, and emergency preparedness. KVIPP works with KSPAN partners to identify, support and evaluate program and policy interventions within the priority focus areas and collaborates with ICPG partners to affect policy.

Accomplishments and Service

- Reviewed, synthesized and disseminated data to stakeholders, and maintained county level data available to communities for local injury prevention capacity building. A web-based data system (IBIS-PH) is being developed to make Kentucky injury data and information easily accessible to the public.
- Submitted annual injury indicator spreadsheets to CDC.
- Held quarterly KSPAN meetings to share information and ideas on injury prevention.
- Maintained the KSPAN website (www.safekentucky.org) which contains community injury profiles for all 120 Kentucky counties as well as other injury databases and reports.
- National Safety Council, KIPRC, KSPAN and the UK College of Public Health continued to support a five year pilot project to promote Safe Communities in Kentucky.
- Articles on "Drug Overdose Deaths, Hospitalizations, and Emergency Department Visits in Kentucky, 2000-2012", were published in the *ASPPH Friday Letter* (2/28/2014), *UK Now*, *Lexington Herald-Leader*, *Louisville Courier Journal*, United Press International, and WKYT.
- Dr. Bunn was an invited webinar speaker on CDC's "The Role of Public Health Law in Addressing Emerging Health Problems- Pill Mills and Swimming Pool" in August, 2013.
- A KIPRC article "Identifying the Presence of Drugs among Injured Motor Vehicle Drivers" was published in *NIOSH eNews*, <http://www.cdc.gov/niosh/enews/enewsV11N5.html> in September 2013.
- KVIPP and Prevent Child Abuse Kentucky held discussions to support a current proposal regarding the Commit to Prevent Child Sexual Abuse project for Kentucky.
- Dr. Bunn (representing Kentucky state health department), Oklahoma, and North Carolina health departments, as well as the UNC Injury Control Research Center collaborated on an injury policy opportunities project to develop policy planning tools for state health departments related to prescription drug overdose (PDO) prevention. PDO systems of influence diagrams were developed to be submitted for peer-reviewed publication.
- KIPRC faculty and staff participated in the Safe States/ APHA Evaluation Institute in May 2014 to develop policy and program evaluation plans. A Safe Communities model program evaluation plan was developed in partnership with the National Safety Council. A schedule II- V controlled substance prescriber guideline, by clinical profession, evaluation plan was developed in partnership with the Kentucky Office of Drug Control Policy, and KASPER.
- Dr. Bunn developed a Safe States congressional briefing document including a budget request justification on the accomplishments of KVIPP programs with a PDO prevention focus.

Publications

- Slavova S., Bunn T.L., Lambert J. (January 2014). Drug Overdose Deaths, Hospitalizations, and Emergency Department Visits in Kentucky, 2000 – 2012.
- Gao W., Singleton M., Slavova S. (2013). Kentucky Annual Injury Data Report 2007-2011.
- Kentucky Injury Prevention and Research Center. (2013). CDC Special Emphasis Report: Infant and Early Childhood Injury, 2011.
- Kentucky Injury Prevention and Research Center. (2013). CDC Special Emphasis Report: Traumatic Brain Injury, 2011.
- Slavova S., Bunn T.L., Talbert J. (2014). Drug Overdose Surveillance Using Hospital Discharge Data. Public Health Reports. Accepted – to appear in the October edition, 2014.
- Slavova S., O'Brien D., Creppage K., Dao D., Fondario A., Haile E., Hume B., Largo T., Nguyen C., Sabel J., Wright D. (2014). Underestimation of deaths caused by “narcotics” in vital statistics data. Public Health Reports. (requested revisions submitted).
- Howard A.F., Costich J.F., Mattacola C.G., Slavova S., Bush H.M., Scutchfield D.F. (2014). A Statewide Assessment of Youth Related Sports and Recreational Injuries: A Profile of Injury Distribution and Billed Charges for ED visits, 2010-2012. Journal of Adolescent Health. (accepted).

Key Personnel

Terry Bunn, PhD	Steve Sparrow, BS	Svetla Slavova, PhD	Genia McKee, BA
Robert McCool, MS	Susan Pollack, MD	Mike Singleton, MS	Sara Robeson, PhD
Sarojini Kanotra, PhD, MPH, CHES			

Other Organizations or Institutions Represented

KSPAN currently includes 739 organizations and members.

Funding

Centers for Disease Control and Prevention (CDC) National Center for Injury Prevention and Control

Contact

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Kentucky Safe Aging Coalition (KSAC) Program

Project Overview

The Kentucky Safe Aging Coalition (KSAC) program is funded by the Kentucky Department for Public Health, Chronic Disease Prevention Branch. Since 2008, KSAC has worked with community partners to accomplish state objectives of reducing falls in the older adult population and to focus on chronic diseases like osteoporosis and arthritis. Current priority focus areas include decreasing older adult fall injury rates, increasing the number of local community fall prevention programs led by community partners, increasing the monthly number of Kentucky “No Falls” website visitors, and increasing the proportion of older adults who engage in any leisure time physical activity. To accomplish these goals, KSAC is integrated with the Kentucky Violence and Injury Prevention Program.

Accomplishments and Service

- KSAC staff presented at numerous meetings and conferences including:
 - Healthcare Excel Conference, October 15, 2013.
 - Falls Summit, October 18, 2013.
 - Grandparents as Parents Conference, March 20, 2014.
 - Sanders-Brown Center of Aging Conference, April 21, 2014.
 - Berea Senior Health Fair, April 26, 2014.
 - Bluegrass Area Development District’s Senior Center Council May 14, 2014.
 - ESF-8 Conference June 10, 2014.
 - Falls Summit, June 24, 2014.
- Held quarterly KSAC state meetings to promote KSAC’s objectives and share best practices on falls prevention.
- Conducted site visits with Osteoporosis and Falls Prevention funded health departments.
- Promoted older adult fall prevention using a video and radio PSA by Governor Beshear on fall prevention for older adults.
- Held an annual falls summit to promote state and community Fall Prevention activities.
- Promoted the KIPRC-supported Kentucky NOFALLS website: www.nofalls.org
- Placed an advertisement on fall prevention/STEADI in Kentucky's *M.D. Update*, reaching over 22,000 KY Physicians and Administrators.

Key Personnel

Hannah Keeler, MPH

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Funding

Chronic Disease Prevention Branch, Kentucky Department for Public Health

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Kentucky Safe Communities (KSC)

Project Overview

In 2012, KIPRC was accredited by National Safety Council's Safe Communities America as a certified Safe Community Affiliate Support Center. Soon following the accreditation, KIPRC and KSPAN entered into partnership with the National Safety Council (NSC) to promote the Safe Community model and establish Kentucky Safe Communities (KSC). The overarching goals of this five year partnership are to have 50% of the State's population living within the geographic boundaries of a Safe Community, establish the Safe Communities model throughout Kentucky colleges and universities, and to evaluate the effectiveness of KSC's recruitment model.

A Safe Community is a community that has been independently accredited at the national and international levels as a community that values safety, health and preparedness. A typical Safe Community coalition includes active involvement from government officials, public safety agencies, corporate partners, public health, and a variety of other public and private organizations. A Safe Community designation tells the world that a community has established coordinated local safety and preparedness programs that use local data to plan safety initiatives that are carried out through the cooperative efforts of safety- oriented organizations within the community. The Safe Communities community coalition approach has been shown to be effective in saving lives. A recent NSC study, http://www.nsc.org/safety_work/SafeCommunitiesAmerica/Pages/Resources.aspx, showed that most Safe Communities included in this study had a 10% average reduction in both intentional and unintentional injury rates.

The KSC program creates a partnership between communities, public health and corporate interests to reduce injury rates in Kentucky. If effective, the program model will be available to other states. As an Affiliate Support Center, KIPRC assists communities in the United States with their Safe Communities process and applications. To date, Madison County (2010) and Murray State University (2012) are internationally accredited Safe Communities. Western Kentucky University has submitted an application and the Green River Area Development District (covering 7 counties) has submitted a letter of intent to apply for accreditation in 2014.

Accomplishments and Service

- KSC Steering Committee and staff presented at numerous meetings and conferences including:
 - Louisville Mayor's Office, March 13, 2013.
 - Vice Presidents of Student Affairs of all public universities in Kentucky, May, 2013.
 - Regional Prevention Center directors, July 10, 2013.
 - Lexington Mayor Jim Gray, July 25, 2013.
 - Safe Communities America annual conference, September 28-30, 2013.
 - Alliance for a Drug-Free Owensboro/Daviess County, October 1, 2013.
 - Harrison County Community Health Partnership, November 12, 2013.
 - Kentucky Trauma Advisory Committee, November 26, 2013.
 - State Fire Marshall's Residential Fire Prevention Roundtable, March 19, 2014.
 - Green River Area Development District Executive Board, April 9, 2014.
 - Kentucky Public Health Association Annual Meeting, April 16, 2014.
 - "Supporting Total Worker Health through Safe Communities." Governor's Safety and Health conference, Louisville, Kentucky, May 8, 2014.
 - "Safe Communities: Designing Local Community Data Profiles to Guide Local Injury Prevention Planning." Council of State and Territorial Epidemiologists, Nashville, Tennessee, June 23, 2014.

- Jessamine County and Clark County presentations, February-May, 2014.
 - Western KY presentations to Marshall, Calloway and Muhlenberg Counties, May 2014.
- Served on the Louisville Metro Violence Prevention Suicide Prevention Work Group.
 - Served on DrugFree Lex working group.
 - Served on the Lexington-Fayette County Health Department’s Safe Neighborhoods workgroup.
 - Assisted steering group for University of Kentucky Safe Community Action Network (UK-SCAN).
 - Served as evaluator for Safe Communities America application for accreditation from Santa Rosa, Florida.
 - Served on the Friedell Committee for Health System Transformation’s Get Well Kentucky Steering Committee.
 - Participated in Safe States Injury and Violence Program and Policy Evaluation Institute, May 18-20, 2014.
 - Evaluated the KSC recruitment process through qualitative interviews of communities who have been approached about Safe Communities and those who are already designated Safe Communities.
 - Identified the following themes through qualitative data analysis utilizing NVivo:
 - National Safety Council staff and designated Safe Community support were essential resources.
 - Having a champion in your community is required for successful Safe Community designation application.
 - Largest challenge to applying for Safe Community designation is engaging community involvement.
 - Safe Community designation brings more partners to the table, looks good for future funding sources, and allows those outside the community to recognize the Safe Community’s commitment to Health and Safety.

Publications

County Level Injury Data Profiles for all 120 Kentucky Counties

Key Personnel

Genia McKee, BA

Hannah Keeler, MPH

Funding

National Safety Council

Contact

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Community Injury Prevention Program (CIPP)

Project Overview

This program delivers direct injury prevention services, such as safety education and training for local public health and public safety personnel, to communities in central and eastern Kentucky. Program staff members work with local personnel to organize events such as safety fairs and child passenger safety checkups, provide prevention training to local practitioners, and establish safety programs such as community safety coalitions and alternative sentencing programs for child restraint law violators.

Project staff members also provide technical assistance and consultations for local agencies and officials dealing with a variety of injury issues, from all-terrain vehicle (ATV) crashes to holiday travel safety, that are not addressed through other KIPRC programs.

Accomplishments and Service

- Conducted four Child Passenger Safety Technician training classes in conjunction with local public health departments.
- Supported alternative sentencing programs for child restraint law violators in five counties.
- Provided a senior child safety seat checker for six child passenger safety checkup events.
- Began a pedestrian injury prevention project in Louisville Metro, Lexington-Fayette County, and Madison County using funds provided by the Safe States Alliance. The project team includes representatives from the Kentucky Office of Highway Safety and local agencies in the participating communities.
- Participated in numerous local events to promote health and safety.

Key Personnel

Robert McCool, MS

Ron Clatos, MA

Thomas Haynes, RN

Funding

Kentucky Department for Public Health

Safe States Alliance

Contact

Robert McCool, rmccool@safekentucky.org

Residential Fire Injury Prevention Program (SAIFE)

Project Overview

This program, which is also known as the Smoke Alarm Installation and Fire Education (SAIFE) program, partners with fire departments, local public health departments, and other local service agencies to install long life, lithium battery powered smoke alarms in homes that lack working smoke alarms. Residents also receive fire safety education and a basic home safety inspection at the time their smoke alarms are installed. The program focuses on low income households, homes with young children, seniors, and individuals with disabilities in residence. The program provides smoke alarms, fire safety education materials, and training for alarm installers, while the local partner agency provides the installers.

The program began in 1998 with funding from CDC and has continued through the intervening years with only one brief interruption. CDC funding ended in 2011 but continuation funding has been provided by a succession of Fire Prevention and Safety (FP&S) grants from the Federal Emergency Management Agency (FEMA).

In addition to providing smoke alarms and fire safety education, this program provides carbon monoxide (CO) detectors to long term care facilities (such as nursing homes) and child care facilities in the Commonwealth.

Accomplishments and Service

- Provided more than 2,000 long life smoke alarms to Kentucky residents whose homes did not previously have working smoke alarms. This served almost 800 households in 15 counties.
- Provided alarm installer training and fire prevention educator training for 23 fire departments and 2 local health departments.
- Provided smoke alarm installation training and fire safety educator training videos to the state fire marshal for distribution to fire departments.
- Ongoing participant in the state fire marshal's residential fire prevention task force and other local, regional and state fire prevention efforts.
- Partnered with the regional Child Care Health Consultants to provide carbon monoxide detectors to 102 child care facilities and 7 long term care facilities.

Key Personnel

Robert McCool, MS
Ron Clatos, MA
Thomas Haynes, RN

Funding

Department of Homeland Security / Federal Emergency Management Agency

Contact

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Pediatric and Adolescent Injury Prevention Program (PAIPP)

Project Overview

The Pediatric and Adolescent Injury Prevention Program has two major goals: 1) to prevent injury and injury-related death to Kentucky children by improving the safety of the environments in which they live, play, learn, and travel; and 2) to improve the quality of child death and injury data upon which prevention efforts rest through support for the child death review process at the local county level. While some prevention efforts are addressed directly to the public, this program's major role is to support state and local agencies through education and technical assistance, who in turn reach the public. We do make a special effort to directly reach marginalized or special populations not reached by others, and the agencies that serve them. This program also serves an educational role for health and other professionals on the epidemiology and prevention of childhood injury at different ages and developmental stages. PAIPP personnel act as consultants for questions about child passenger safety for individual children with special needs, while at the same time providing health education on the entire spectrum of pediatric intentional and unintentional injuries from birth to 18, from safe sleep and hyperthermia prevention to teen driving and suicide prevention.

Accomplishments and Service

- Grew our outreach program substantially to reach more than 4,500 Kentuckians with injury prevention education in addition to those reached through the agencies supported by PAIPP (local health departments, child care health consultants, home visitors, school family resource centers). Provided car seats for low-income families in more than 20 counties as well as refugee families newly immigrated to the United States. Provided discussion-based safety education and injury prevention educational materials to 51 counties, every Kentucky State Police post, HANDS home visitors from 38 counties, medically fragile foster parents, 12 medical practices across the state and Child Care Health Consultants covering the entire state.
- Helped to train and sustain a rural workforce (health department, fire EMS, coroner, and KY State Police) of nationally certified child passenger safety technicians through outreach, to help them maintain their certification without lapse.
- In a year that saw national hyperthermia deaths of children left in cars increase from 34 to 44, worked through Safe Kids to keep Kentucky without a single hyperthermia death for 2013-14, despite multiple children being left in cars. Tragedies were averted thanks to massive public education, public awareness, and calls to 911 when children were observed unattended in cars.
- Continued training program on child passenger safety for child care directors and transporters, adding 13 more centers and 58 center staff and directors to the roster of people trained, while distributing 123 seats to improve safety in day-care transportation.
- Supported child fatality review efforts of coroners through training at their introductory educational program and at their annual conference, and county-level review in the eastern half of Kentucky including Kenton, Estill, Jackson, Bell, Cumberland/Clinton, and Hardin counties.
- Worked with Kentucky Refugee Ministries to open conversations with local leadership about the importance of CPS for immigrant families.

Publications

- Kentucky Department for Public Health, Kentucky Injury Prevention and Research Center, 2013.
Kentucky Special Emphasis Report: Infant and Early Childhood Injury, 2011.

Key Personnel

Susan H. Pollack, MD, FAAP

Melanie Tyner Wilson, MS

Funding

Eighteen year contract with KY Department for Public Health/Division of Maternal and Child Health (through federal MCHB Block Grant), support from University of Kentucky Department of Pediatrics, CDC Core Injury and Motor Vehicle Policy grants, Toys “R” Us® grant through Injury Free Coalition for Kids of Lexington at KY Children’s Hospital; Kellogg Head Start car seat grant through Safe Kids, Johnson & Johnson Sports Safety Grant through Safe Kids.

Contact

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Pediatric Injury Surveillance and Epidemiology Project (PISEP)

Project Overview

The Pediatric Injury Surveillance and Epidemiology Project (PISEP) is a newly initiated collaboration between KIPRC and the Maternal and Child Health Branch of the Kentucky Department for Public Health (KDPH). The project has several primary aims:

- Develop data linkages to assist KDPH in improving surveillance for child maltreatment, neonatal abstinence syndrome (NAS), neonatal intensive care, infant mortality and other maternal and child health issues.
- Collaborate with KDPH on the identification and analyses of risk factors for pediatric injuries using multiple data sets.
- Recommend to KDPH data-driven strategies for addressing potentially preventable pediatric morbidity and mortality.

Accomplishments and Service

- Linked Kentucky birth certificates, maternal inpatient delivery, and newborn inpatient records for 2008-2012.
- Added tables for pediatric injury-related hospital discharges and emergency department visits to KIPRC's community injury profile reports.
- A study is in progress examining the correlations among NAS births, fatal and nonfatal prescription opioid overdoses, and opioid prescriptions among women of childbearing age.
- A study is in progress to identify risk factors for NAS births among Kentucky women.

Key Personnel

Mike Singleton, MS

Other Organizations or Institutions Represented

Kentucky Department of Public Health

Funding

KY Department for Public Health/Division of Maternal and Child Health

Contact

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Kentucky Violent Death Reporting System (KVDRS)

Project Overview

Violence is a nationwide health problem that results in over 50,000 homicides and suicides each year. In order to better understand why violent deaths occur, the CDC developed the National Violent Death Reporting System (NVDRS), a nationwide state-based surveillance system designed to track trends and characteristics of violent deaths with the goal of reducing these deaths. Kentucky joined the NVDRS September 1, 2005 as one of 17 funded states; 18 states are now funded with an expansion to two new states coming this year. All participating states are required to collect information about violent deaths from the following investigating agencies: police departments, coroners, medical examiners, forensic crime laboratories and toxicology laboratories. KVDRS collaborates with these agencies, statewide Cooperative Extension Service, and the State Health Department to provide the information needed to develop intervention and prevention programs to decrease violent death within Kentucky.

Accomplishments and Service

- Development and implementation of the Coroner Investigation Reporting System (CIRS), a web-based secure data repository available to all Kentucky Coroner Offices to enter and store coroner reports and records for all deaths within their county. This resource allows coroners a cost-free option for entering into electronic data collection and storage to move away from paper-only recordkeeping. An expansion to CIRS was developed offering phone or tablet based entry in the field for coroners and deputies to improve efficiency and reduce the time burden of paperwork.
- Collaboration with the Kentucky Cooperative Extension Service to identify and develop methods to disseminate data on violent deaths to assist in county level prevention and intervention development.
- KVDRS staff authored and organized a report using data from all 18 states participating in the NVDRS. *Deaths from Violence: A Look at 18 States (Data from the National Violent Death Reporting System 2009-2010)*. The report was funded by the American College of Preventive Medicine for distribution to Congress in January 2013.
- Linked KVDRS data with Emergency Department (ED) data. An association was found identifying the weeks immediately following an ED discharge as a critical time for individuals at risk of violent death. The ED was identified as an important location for suicide screening and prevention efforts.
- Determination that demographics and circumstances are not different between people who leave suicide notes and those that do not. This finding can assist those affected by suicide in understanding and recovering from their loved one's death.
- Identification of Intimate Partner Problems (IPP) as a contributing cause in suicide in roughly one-third of suicide cases within the state of Kentucky. When combined with Intimate Partner Violence (IPV) screening there is a 75% increase in identification of suicide cases versus IPV screening alone. Screening for IPP alone was a 25% increase in identification of suicide cases versus screening for IPV alone. This finding is important in advocacy for public policy changes in reimbursement funding for IPV screening. Additionally, this information is useful in developing new screening tools, identifying new times and locations for windows of intervention, and development of prevention and intervention programs.

Publications

Logan J., Walsh S., Nimesh P., Hall J. (2013). Homicide-Followed-By-Suicide Incidents Involving Child Victims. *American Journal of Health Behavior*; (374):531-542.

Presentations

- Brown S. (June 2014). Panelist, The Value of the NVDRS Data. Council of State and Territorial Epidemiologists Annual Meeting. Nashville, TN.
- Brown S. (May 2014). Panelist, The Value of the NVDRS Data. National Violence Prevention Network's National Violent Death Reporting System Midwest Regional Meeting. Chicago, IL.
- Brown S. (May 2014). Oral Presentation, Opportunities for NVDRS Data Publication. National Violence Prevention Network's National Violent Death Reporting System Midwest Regional Meeting. Chicago, IL.
- Brown M., Brown S., Cerel J. (April 2014). Intimate Partner Problems and Violence in Kentucky and North Carolina, a Reason for Suicide? Poster Presented at the American Association of Suicidology, Los Angeles, CA.
- Brown S., Bonta P. (April 2014). Deaths from Violence: A Look at 18 States (Data from the National Violent Death Reporting System 2009-2010). Congressional Hill Briefing, Washington DC.

Webinar

- Brown S., Crosby A., Frazier L., Defiore-Hyrmer J., Powell V., Afondario A., Jacquemin B., Moderator: Paul Bonta. (April 2014). What It Takes to Be a Successful NVDRS State: Practical Tips for States Interested in Applying for NVDRS Funding

Key Personnel

Sabrina Brown, DrPH

Julie Cerel, PhD

Melissa Brown, MPH

Funding

Centers for Disease Control and Prevention (CDC) National Center for Injury Prevention and Control

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Kentucky Crash Outcome Data Evaluation System (CODES)

Project Overview

The purpose of this 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. These linked databases enable 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. National Highway Traffic Safety Administration officially ended the CODES program in March 2013, however, the project has continued operating, in a more limited scope, with Section 405 grant support from NHTSA and the Kentucky Transportation Cabinet (KYTC).

Accomplishments and Service

- Served as assessor (for Emergency Medical Services and Injury Surveillance System) and module leader (for the Data Integration) for the State of Montana's Traffic Records Assessment.
- Received a Section 405 grant for data integration from KYTC.
- Linked Kentucky's police accident report, hospital outpatient services and hospital inpatient discharge databases for 2011 and 2012.

Publications

Bunn T.L., Singleton M., Slavova S., Nicholson V. (2013). Concordance of Identified Drugs in Injured Motor Vehicle Drivers Using Linked Motor Vehicle Crash, Emergency Department, and Inpatient Hospitalization Datasets. *Traffic Injury Prevention, 2013*. 14(7):680-9.

Key Personnel

Mike Singleton, MS

Other Organizations or Institutions Represented

Kentucky State Police
Kentucky Cabinet for Health and Family Services
Kentucky Transportation Cabinet
Kentucky Transportation Center
Federal Highway Administration

Funding

National Highway Traffic Safety Administration (NHTSA)
Kentucky Transportation Cabinet (KYTC)

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Central Nervous System Injury Surveillance (CNSI)

Project Overview

The Central Nervous System Injury (CNSI) Surveillance Project 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.

Publications

Kentucky Injury Prevention and Research Center, 2013. Central Nervous System Injury in Kentucky: Emergency Department Visits and Hospitalizations, 2012.

Key Personnel

Shannon Beaven, BS

Funding

Traumatic Brain Injury Trust Fund Board, Department of Aging and Independent Living

Contact

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Kentucky Trauma Registry

Project Overview

In 2012, 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. Hospitals that have been verified by the American College of Surgeons (ACS) as trauma centers are required to report in compliance with National Trauma Data Bank (NTDB) standards as a condition of their status. The goal of the project, funded by the Kentucky Transportation Cabinet, is to expand the Kentucky Trauma Registry by adding new trauma facilities, in order to improve the completeness of the Kentucky traumatic injury data, especially for Kentucky motor vehicle injuries – the state’s leading cause of major traumatic injuries.

Kentucky Trauma Registry (KTR) Reports use data only from Kentucky hospitals that have been verified by the American College of Surgeons (ACS) or the state Department for Public Health as trauma facilities, or have volunteered to report their trauma cases according to National Trauma Data Bank standards. Although Kentucky is moving toward a broader and deeper network for trauma care, review of the full statewide hospital discharge and ED datasets is still necessary to provide a comprehensive account of trauma-related hospitalizations across the full range of facilities in the state. Detailed reports that include traumatic injuries treated in Kentucky trauma facilities, and supplementary reports on all traumatic injuries treated in Kentucky acute care hospital and Kentucky emergency department visits, are available at <http://www.mc.uky.edu/kiprc/projects/trauma/index.html>.

Accomplishments and Service

- In October, 2012, the Kentucky Department for Public Health designated the first 10 hospitals as part of the Kentucky Trauma Care System, and a total of 20 now submit data to the trauma registry.
 - Level 1 adult trauma centers verified by the American College of Surgeons include the University of Kentucky (UK) Chandler Medical Center (Lexington) and the University of Louisville Hospital (Louisville).
 - Level 1 pediatric centers verified by the American College of Surgeons are the UK/Kentucky Children's Hospital (Lexington) and Norton Kosair Children's Hospital (Louisville).
 - Verified or pending Level 3 facilities include Taylor Regional Hospital (Campbellsville), Ephraim McDowell Regional Hospital (Danville), Frankfort Regional Medical Center (Frankfort), and Pikeville Medical Center (Pikeville).
 - Verified or pending Level 4 facilities are now Crittenden County Hospital (Marion), Ephraim McDowell Ft. Logan Hospital (Stanford), James B. Haggin Memorial Hospital (Harrodsburg), Harrison Memorial Hospital (Maysville), Livingston County Hospital (Salem), Marcum & Wallace Hospital (Irvine), Methodist Hospital Union County (Morganfield), Parkway Regional Hospital (Fulton), St. Joseph Berea (Berea), St. Joseph Mt. Sterling (Mt. Sterling), and Trigg County Hospital (Cadiz).
- A total of 9,987 records were submitted to the Kentucky Trauma Registry in 2013.

Publications

- Bunn T.L., Slavova S., Bernard A. (2014). Work-Related Injuries in a State Trauma Registry: Relationship between Industry and Drug Screening. *Journal of Trauma*. (accepted).
- Jacobsen L., Bunn T.L., Slavova S. (2013). Human and Environmental Factors Associated with Adult Bicycle-Motor Vehicle Collisions in Kentucky. *Journal of the Kentucky Medical Association*. 112:5-11.

- Bunn T.L., Singleton M., Slavova S., Nicholson V. (2013). Concordance of Identified Drugs in Injured Motor Vehicle Drivers Using Linked Motor Vehicle Crash, Emergency Department, and Inpatient Hospitalization Datasets. *Traffic Injury Prevention*. 14(7):680-9.
- Bunn T.L., Slavova S., Robertson M. (2013). Motor Vehicle Injuries Among Semi Truck Drivers and Sleeper Berth Passengers. *Journal of Safety Research*. Vol.44; 51-55.
- Costich J. F., Fallat M.E., Scaggs C.M., Bartlett R.D. (2013 July). Pilot Statewide Study of Pediatric Emergency Department Alignment with National Guidelines. *Pediatric Emergency Care*. 29(7):806-807.

Key Personnel

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Funding

National Highway Traffic Safety Administration through Kentucky Transportation Cabinet

KIPRC Internal Support

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