

2016 KIPRC Annual Report

22 Years serving the Commonwealth of Kentucky for Injury Prevention



University of Kentucky, College of Public Health

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Authored by: The staff at Kentucky Injury Prevention and Research Center

Contents

| | |
|---|----|
| KIPRC WEBSITE | 1 |
| KIPRC INTERNAL SUPPORT | 1 |
| FROM THE DIRECTOR..... | 2 |
| KENTUCKY OCCUPATIONAL SAFETY AND HEALTH SURVEILLANCE PROGRAM (KOSHS)..... | 3 |
| KENTUCKY FATALITY ASSESSMENT AND CONTROL EVALUATION PROGRAM (FACE)..... | 5 |
| KENTUCKY VIOLENCE AND INJURY PREVENTION PROGRAM (KVIPP) | 7 |
| KENTUCKY SAFE COMMUNITIES (KSC) | 9 |
| COMMUNITY INJURY PREVENTION PROGRAM (CIPP)..... | 11 |
| PEDIATRIC AND ADOLESCENT INJURY PREVENTION PROGRAM (PAIPP)..... | 12 |
| TRAFFIC INJURY PREVENTION AND RESEARCH PROGRAM (TIPR) | 14 |
| CENTRAL NERVOUS SYSTEM INJURY SURVEILLANCE (CNSI) | 15 |
| KENTUCKY TRAUMA REGISTRY (KTR)..... | 16 |
| KENTUCKY VIOLENT DEATH REPORTING SYSTEM (KVDRS) | 18 |
| DRUG OVERDOSE PREVENTION..... | 20 |

KIPRC Website

Please explore the Kentucky Injury Prevention and Research Center (KIPRC) website to learn more about our center and our programs. Copies of KIPRC publications listed in this report can be downloaded from the website:

<http://www.mc.uky.edu/kiprc/>

KIPRC Internal Support

The Kentucky Injury Prevention and Research Center is grateful for the technical support provided by the University of Kentucky, College of Public Health, the graduate students who work with us, and especially to staff member Freda Francis, our grants management specialist whose careful accounting of grant funds and support of KIPRC staff make our projects and outreach work possible.

2016 KIPRC Annual Report

22 Years serving the Commonwealth of Kentucky for Injury Prevention

From the Director

Welcome to the Kentucky Injury Prevention and Research Center's (KIPRC) 2016 Annual Report on research and community practice to inform injury prevention programs and policy making.

Research

In the area of violence and injury prevention research, KIPRC produced and published studies including 16 peer-reviewed and 13 non-peer reviewed publications. Examples of KIPRC technical reports produced include: a) drug overdose deaths, hospitalizations, and emergency department visits; b) overall injuries; c) traumatic brain injuries; d) infant and early childhood injuries; e) work-related fatalities; f) work-related injury and illness indicators; and g) trauma registry data.

Policy

KIPRC provided data that informed House Bill 315 requiring use of booster seats in motor vehicles by children less than 8 years old and between 40 and 57 inches in height.

An Active Cumulative Morphine Equivalent (ACME) algorithm was developed and implemented for use in the Kentucky All-Schedule Prescription Electronic Reporting (eKASPER). The patient eKASPER report is now populated with an indicator that displays the patient's ACME number and a statement that reads "An ACME >100 MME may warrant increased clinical vigilance and a Rx for naloxone." A graph below the indicator shows the daily ACME for the patient for the prescriber-requested report period against the baseline of 100 ACME.

Practice

KIPRC activities resulted in 13 media releases related to construction fall prevention, hands-free cell phone distraction, older adult fall prevention, drug overdose prevention, and booster seat use, among others. Examples of KIPRC community practice activities (meetings, trainings, etc.) include four statewide injury prevention planning group (KSPAN) meetings; pediatric abusive head trauma prevention intervention promotion; Total Worker Health; Safe Community promotion; pedestrian safety; fire safety; safe sleep; teen driving safety; child passenger safety; child fatality review; violent death reporting; and falls intervention and prevention.

Partners

There are currently 810 KSPAN members, including 218 older adult fall prevention, 133 Safe Communities, 80 highway safety, 53 fire safety, 88 child maltreatment prevention, and 128 drug abuse prevention members representing numerous agencies and organizations.

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 KOSHS Program partners with local, state, and national agencies and organizations so that Kentucky workers' safety and health concerns are identified and targeted interventions are implemented. The KOSHS Program conducts comprehensive multi-source population-based surveillance of occupational injuries and illnesses occurring in Kentucky, using 27 occupational health indicators. Findings are shared through reports, newsletters, digital media, conference presentations, trade journals and 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

- KOSHS partnered with the Kentucky Trucking Association (KTA) (formerly Kentucky Motor Transport Association) to develop the North American Standard Level 3 Driver Inspection Web Training, an online training application that covers the 12 steps of a roadside driver safety inspection. Driver inspections are typically carried out by law enforcement officers and verify driver credentials and documentation such as commercial driver's license, medical examiner's certificate, and skills performance evaluations. Quizzes, games, memory recalls, and user-interactions are distributed throughout the training to encourage user engagement and increase memory retention. The results of each quiz are individually scored and can be forwarded to a member of company management upon employer request. This web training serves as the first in a series of future trainings demonstrating the various North American Standard level inspections. The developed training application is currently being reviewed by KTA.
- KOSHS reports and prevention materials were downloaded 46,071 times from July 1, 2015 to February 24, 2016.
- Twitter and Facebook digital media pages were established. To date, we have 1,023 Twitter followers and 154 Facebook likes.
- KOSHS conducted a Blood Lead Level Follow-Up Program, mailing letters of notification and survey questionnaires to 559 adults with blood lead levels of 10 μ g/dL or higher. Survey responses were received from 31 respondents. A summary of survey responses includes: average blood lead level was 19.23 μ g/dL, with 32% above 20 μ g/dL; average age was 53.5 years old; 90% were male; 84% were employed in jobs related to battery manufacturing; 6% worked in firing ranges; average length of employment was 14.5 years; 37% reported having workplace lead training available to them, and only half reported that they were provided with refresher training. Only 5 (17.9%) reported that their employers changed workplace procedures since their blood lead was tested. All 31 respondents received a tailored information packet on reducing workplace and home lead exposure.
- KIPRC identified clusters of cases above 10 μ g/dL and referred them to Kentucky Occupational Safety and Health for on-site investigation: company A had 46 cases with BLL between 10-19 μ g/dL and 22 cases with BLL greater than or equal to 20 μ g/dL, while company B had 193 cases with BLL between 10-19 μ g/dL and 55 cases with BLL greater than or equal to 20 μ g/dL. An on-site investigation was carried out at each place of employment by a certified industrial hygienist. Surface lead testing conducted in the breakroom of Company B found that the coffee vending machine buttons were contaminated with lead. Current cleaning procedures were inefficient for cleaning the deep recesses found around the vending machine order buttons. Revisions were made to the standard operating procedure for cleaning of the machine to include the use of a wired toothbrush to clean the recesses surrounding the buttons. Investigation of company A resulted in no discovered violations or changes in procedures.

- KOSHS program staff members presented at several meetings and conferences:
 - McIntosh D, Chandler, M. Kentucky FACE: The Role of Safety Professionals in Preventing Workplace Fatalities. Governor’s Safety Conference, May 12, 2016. Louisville, Kentucky.
 - Bunn, TL. Kentucky Occupational Safety and Health Surveillance Program-- Transportation Injury Prevention. SAVIR-NIOSH webinar, November 10, 2015.
 - Bunn, TL. Total Worker Health Synergies in Kentucky. NIOSH Total Worker Health Affiliate meeting, October 28, 2015. Washington, DC.

Publications

- Chandler, MD, Bunn, TL, Slavova, S. Narrative and Quantitative Analyses of Workers’ Compensation- Covered Injuries In Short-Haul Vs. Long- Haul Trucking Industries. (2016). *Int J Injury Control Safety Prom.* 4:1-11.
- Harduar Morano L, Bunn TL, Lackovic M, Lavender A, Dang GT, Chalmers JJ, Li Y, Zhang L, Flammia DD. Occupational heat-related illness emergency department visits and inpatient hospitalizations in the southeast region, 2007-2011. (2015). *Am J Ind Med.* 2015 Aug 25. doi: 10.1002/ajim.22504.
- Ranzenberger K, Bunn TL, Slavova S. Healthcare Industry Injuries by Patient Contact Status in Kentucky, 2012-2014. (2015). Accepted to *Southern Medical Journal*.
- Slavova, S, Bunn TL. Work-Related Concussion Surveillance. (2015). *Am J Ind Med.* 58(1):40-45.
- Occupational Health in Kentucky, 2015. Kentucky Injury Prevention and Research Center, January 2016.

Key Personnel

Terry Bunn, PhD

De Anna McIntosh

Mark Chandler, MPH

Svetla Slavova, PhD

Other Organizations or Institutions Represented

Kentucky Trauma Registry

Funding

National Institute for Occupational Safety and Health

Contact

Terry Bunn, tlbunn2@uky.edu

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 on-site 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

- 2 Hazard Alerts were developed and disseminated on selected occupational fatalities: “Traffic Incident Management Responders Struck and Killed by Oncoming Traffic”; and “Workers Killed While Unloading Cargo from Flatbed Trucks.”
- 13 occupational fatality investigations were conducted with an emphasis on commercial construction and transportation industries. All KY FACE reports can be found on the Kentucky FACE website: <http://www.mc.uky.edu/kiprc/programs/face.html>
- NIOSH produced a NIOSH impact story on the redesign of a handicapped foot pedal based on our fatality report. The pedal is now available for purchase at: <http://www.veigel-na.com/main-veigel-north-america/rehamotiver/products/foot-controls/left-foot-accelerators.html>
- Kentucky FACE report 14KY036, “Scrap Processor Struck by Wrench and Dies after Makeshift Torque System Fails,” was published in Scrap Magazine, August 2015. The print edition of Scrap reaches approximately 7,800 readers.
- Kentucky FACE report 14KY022, “Foreman Falls into Running Auger after Stepping on Door Panel with Broken Door Interlocks,” was featured in the August 2015 issue of Environmental Health and Safety (EHS) Today magazine and was highlighted in the September 2015 issue of the National Safety Council Safety and Health Magazine. EHS today reaches 76,000 print subscribers and 20,000 digital download subscribers.
- Kentucky FACE report 14KY032, “Cell Tower Technician Dies after Antenna Array Falls and Decapitates Him,” was published in Wireless Estimator, September 15, 2015 and highlighted in The National Safety Council Safety and Health Magazine, February 2016; and featured in Above Ground Level Magazine, May 2016.
- Kentucky FACE report 14KY002, “Construction Flagger Struck and Killed in Two-Lane Highway Work Zone,” was featured in the June 2015 safety watch section of Equipment World electronic magazine.
- Kentucky FACE report 12KY037, “Factory Laborer Dies When a Car Driven by Coworker Crashes into Him in Parking Lot,” was published in the National Safety Council’s Safety and Health Magazine, October 2015.
- Kentucky FACE report 14KY007, “Tanker Truck Involved in Deadly Crash on Interstate,” was published in the September/October 2015 edition of The Accident Reconstruction Journal.
- National Highway Traffic Safety Administration Office of Defects Investigation – Med/Heavy Duty Vehicles division is forming a committee to look at the re-design or elimination of tandems due to fatalities, and will reference FACE report 14KY064, “Semi-Truck Team Driver Pinned and Killed while Adjusting Tandems.”

- Harbor Freight USA (based in Newark, NJ) will be using FACE report 15KY001, “Semi-Truck Driver Fatally Struck by Falling Flatbed Cage Door” in cargo safety training for employees.
- The Safety Director for Construction Machinery Company, LLC, will be using FACE reports as a training tool.
- A Master of Public Health (MPH) student completed her capstone using FACE data, under the guidance of Dr. Terry Bunn. “Characterization of Foreign-Born vs. U.S. Native-Born Worker Fatalities in Kentucky, 2001 – 2014” was submitted to the American Journal of Industrial Medicine.
- The Kentucky FACE program designed and published a workbook entitled “Preventing Falls in Construction”, to educate workers and vocational school students about the various fall hazards in construction and how to avoid them. This publication was released during the National Safety Stand-Down to Prevent Falls in Construction Week and was disseminated to 112 Kentucky construction vocational school programs, state university construction management programs, and various businesses in Kentucky.
- Kentucky FACE program staff members presented at several meetings and conferences:
 - De Anna McIntosh presented a falls safety talk to Messer Construction Company, for National Safety Stand-Down Week.
 - McIntosh D, Chandler, M. Kentucky FACE: The Role of Safety Professionals in Preventing Workplace Fatalities. Governor’s Safety Conference, May 12, 2016. Louisville, Kentucky.
 - Hanner N, Chandler M, McIntosh D. The Role of Coroners in Kentucky FACE Investigations. Introduction and booth presentation. Kentucky Coroner’s Conference, April 27, 2016.

Publications

- Beggs JA, Slavova S, Bunn TL. Patterns of pneumoconiosis mortality in Kentucky: Analysis of death certificate data. (2015) Am J Ind Med, DOI: 10.1002/ajim.22511.
- 2015 Annual FACE Report, June, 2016.
- Brinker K, Jacobs T, Shire J, Bunn T, Chalmers J, Dang G, Flammia D, Higgins S, Lackovic M, Lavender A, Lewis JS, Li Y, Harduar Morano L, Porter A, Rauscher K, Slavova S, Watkins S, Zhang L, Funk R. Fatal Work-Related Injuries — Southeastern United States, 2008–2011. (2015). Accepted to Workplace Health and Safety.

Key Personnel

| | |
|--------------------|---------------------|
| Terry Bunn, PhD | De Anna McIntosh |
| Mark Chandler, MPH | Svetla Slavova, PhD |
| Nancy Hanner, BS | |

Other Organizations or Institutions Represented

Kentucky Trucking Association

Funding

National Institute for Occupational Safety and Health (NIOSH)

Contact

Terry Bunn, tlbunn2@uky.edu

Kentucky Violence and Injury Prevention Program (KVIPP)

Project Overview

The Kentucky Violence and Injury Prevention Program (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). KVIPP works with KSPAN partners to identify, support and evaluate program and policy interventions within priority focus areas and collaborates with KSPAN partners to inform policies and practices. Current priority focus areas include falls among older adults, teen driver and child passenger injuries, child maltreatment, Total Worker Health, residential fire injuries, and drug abuse. Two new focus areas were created: traumatic brain injuries (TBI) and sexual assault & violence. KIPRC is a Safe Communities as well as a Total Worker Health Affiliate Support Center.

Accomplishments and Service

- A web-based data query system (IBIS-PH) was established to make Kentucky injury data and information easily accessible to the public; it is available to all KSPAN website registered users www.safekentucky.org.
- Community injury profiles (2010-2014) were updated for all 120 Kentucky counties and posted on the KSPAN website www.safekentucky.org.
- Older Adult Fall Inpatient Hospitalization profiles by county (2005-2014) were updated for all 120 Kentucky counties, and posted on the KSPAN website www.safekentucky.org.
- Older adult fall prevention was promoted using radio PSAs throughout the state.
- The Kentucky Safe Aging Coalition held an annual fall prevention summit providing fall prevention and osteoporosis information and materials to local health departments and other organizations interested in the health and safety of older adults.
- The Fall Intervention and Prevention Program (FIPP) developed and implemented a pilot project in Shelby County in partnership with the Kentuckiana Regional Planning & Development Agency (KIPDA), Area Agencies on Aging and Independent Living (AAAIL), KY Department for Aging and Independent Living (DAIL), Shelby County EMS, KY Department for Public Health (DPH), KIPRC, Humana, STEADI and KY Safety and Prevention Alignment Network (KSPAN), using an evidence-based program called Falls Talk/Falls Scape.
- In partnership with DPH, Kosair Children's Hospital, Prevent Child Abuse Kentucky (PCKA) and others, KSPAN members continued efforts to promote evidence based Pediatric Abusive Head Trauma (PAHT) education through the distribution of toolkits and materials on PAHT education and policy to all 51 birthing hospitals in the state.
- KSPAN supported development of two overdose prevention modules that were added to the CE Central landing page for medicine (MD, DO, PA, & NP), pharmacy, and dentistry, and were disseminated online via e-blast to the CE Central listserv.
- KSPAN sponsored a workshop at the 19th Annual Kids are Worth It Conference (September 14-15th, 2015, 567 individuals in attendance) by Dr. Ruth Shepherd on "Best Practice Strategies for Preventing Sleep Related Infant Deaths". A broad range of professionals including social workers, law enforcement, community social service providers, medical and education staff attended the workshop.
- KVIPP coordinated Child Passenger Safety (CPS) Training classes and public CPS events in the commonwealth. In addition, KSPAN members hosted, through CDC funds, a Child Passenger Safety (CPS) technician national certifying class for 20 KSP officers.

- KSPAN provided support for the Green Dot Program intervention by holding a Program Implementation Committee Summit. Kentucky is the only state that has implemented and evaluated the Green Dot program on a statewide basis.
- Kentucky passed SB 192 in 2015 that increases prison sentences for heroin traffickers and expands addiction treatment programs. The measure also allows local-option needle exchange programs, establishes a “Good Samaritan” provision to shield those from criminal charges who call for help for an overdose victim, and expands the availability and use of naloxone that reverses the effects of opioid overdoses.
- Kentucky passed House Bill 315 in 2015 requiring booster seats to be used in motor vehicles by children who are less than eight years old and are between 40 and 57 inches in height.

Publications

- Bunn TL, Ouyang BJ, Slavova S. Newborn Congenital Malformations Associated With Prenatal Exposure to Drugs in Kentucky, 2009-2013. *South Med J.* 2016 Feb; 109(2):124-9.
- Slavova S, Bunn TL, Talbert J. Drug overdose surveillance using hospital discharge data. *Public Health Rep.* 2014 Sep-Oct; 129(5):437-45.
- Kentucky Injury Prevention and Research Center, 2015. CDC Special Emphasis Report: Infant and Early Childhood Injury, 2013.
- Kentucky Injury Prevention and Research Center 2015, CDC Special Emphasis Report: Drug Poisoning (Overdose) Deaths, 2000-2014.
- Kentucky Injury Prevention and Research Center, 2015. Central Nervous System Injury in Kentucky: Emergency Department Visits and Hospitalizations, 2014.

Key Personnel

Terry Bunn, PhD
 Steve Sparrow, BS
 Svetla Slavova, PhD
 Robert McCool, MS
 Susan Pollack, MD
 Mike Singleton, MS
 Jeanne Harris, MS
 Sara Robeson, MA, MSPH

Other Organizations or Institutions Represented

KSPAN currently has 822 organizations and members who receive information about violence and injury prevention and are supported by KVIPP staff.

Funding

Centers for Disease Control and Prevention (CDC)
 KY Department for Public Health, Osteoporosis Branch

Contact

Steve Sparrow, steve.sparrow@uky.edu

Kentucky Safe Communities (KSC)

Project Overview

In 2012, KIPRC was accredited by National Safety Council's Safe Communities America as a Safe Community Affiliate Support Center. KIPRC and KSPAN partner 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 community recruitment 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 2014 NSC study showed that after 10 years of rising injuries and injury rates in one community, Safe Community accreditation resulted in a 2-year decline in injury hospitalizations. The study showed that nearly 300 hospitalizations may have been prevented, saving that community over \$14 million in health care costs.

<http://www.sciencedirect.com/science/article/pii/S0001457516300483>

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.

Accomplishments

- Kentucky Safe Communities met with, and provided technical assistance or strengthened partnerships with four universities, 15 counties, and a multitude of regional and statewide safety and health promotion entities.
- Jessamine County received a Safe Community America designation in 2016.
- Fayette County, Jefferson County, the University of Kentucky, and Green River Area Development district (7 county area) submitted letters of intent to the National Safety Council for Safe Community America designation in 2015 and 2016; these counties cover approximately 40% of Kentucky's population.
- Madison County achieved a Safe Community America redesignation in 2016.
- A multi-county Safe Communities coalition was established in Boyle, Mercer, Lincoln, and Garrard counties in 2015, and is led by the United Way.

Publications

County Level Injury Data Profiles for all 120 Kentucky Counties: <http://safekentucky.org/index.php/top-menu-injury-data>

Key Personnel

Genia McKee, BA

Funding

National Safety Council

Contact

Genia McKee, genia.mckee@uky.edu

Community Injury Prevention Program (CIPP)

Project Overview

This central and eastern Kentucky program supports safety fairs and child passenger safety checkups, provides prevention training to local practitioners, and helps to establish community safety coalitions and alternative sentencing programs for child restraint law violators. Program staff members also provide technical assistance and consultations for local agencies and officials dealing with a variety of injury issues. CIPP is also KIPRC's residential fire injury prevention program.

Accomplishments and Service

- 282 smoke alarms were provided to local fire departments and installed in homes lacking smoke alarms; we also provided over 40 carbon monoxide detectors to long term care facilities and child care facilities.
- CIPP staff served as external advisors to the state Fire Marshal for the "Firewise Communities" initiative.
- CIPP staff supported alternative sentencing programs for child restraint law violators in five counties.
- CIPP staff supported child passenger safety technician training programs and local child safety restraint checkup events.
- Technical assistance and consulting in fire safety and prevention was provided to 6 fire departments.
- Seminar sessions were conducted in the Union College Safety Education Workshop.
- A smoke alarm provided by CIPP and installed by the Tilton Volunteer Fire Department in Fleming County alerted a family of four to overheated, smoldering wiring in their home. Because of the warning provided by the smoke alarm, all family members avoided injury and a responding firefighter was able to mitigate the problem and save their home.
- The following is a quote from Nathan Cole from the Salyersville Fire Department: "I just wanted to give you an update on the smoke detector project here at Salyersville Fire Department. It is going really well, we have installed the entire first batch that you furnished and are close to finishing up the second batch. Residents are very grateful for the small gesture of a simple smoke detector. Our community is thankful for this program and we are as well."

Key Personnel

Robert McCool, MS

Ron Clatos, MA

Funding

Kentucky Department for Public Health

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 through support for the child death review process at the local county level. PAIPP supports state and local agency public outreach through education and technical assistance. A specific emphasis of PAIPP is to reach marginalized and special populations and the agencies that serve them. PAIPP also educates health and other professionals on the epidemiology and prevention of childhood injury at different ages and developmental stages. PAIPP personnel provide health education on the entire spectrum of pediatric intentional and unintentional injuries from birth to 18 years of age, addressing topics such as safe sleep, hyperthermia, suicide prevention, poisoning with e-cigarettes and laundry soap packets, firearm deaths, and motor vehicle crash and fire deaths.

Accomplishments and Service

- PAIPP provides a fire education program for 2nd and 3rd graders with home visits to families and smoke alarm installations. Injury Free Lexington/Estill County was the only rural site (with New Haven, Miami, Indianapolis and Milwaukee), and firefighters in Estill County installed more than 950 smoke alarms in the past year. Bracken County Health Department is now taking the lead as our expansion site. Funding through Federal Emergency Management Agency (FEMA)/Michigan Public Health institute/Injury Free includes 250 smoke alarms, including hearing-impaired alarms.
- PAIPP supported the training of a local and regional rural workforce (health department, fire emergency management services, coroner, and KY State Police) of nationally certified child passenger safety (CPS) technicians through outreach, maintaining certification, and organizing CPS teams. PAIPP collaborated with Kentucky Safety Prevention and Alignment Network on a national CPS technician class to certify Kentucky State Police trooper(s) in every post. Collaborations with partners such as Safe Kids contributed to Kentucky being without a single hyperthermia death for 2015, 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.
- PAIPP supported child fatality review efforts of coroners, local teams and pediatricians through technical assistance and in-person attendance at reviews in Montgomery, Lewis, Owsley and Scott counties.
- PAIPP increased the number and quality of reviews on child deaths not otherwise reviewed, especially those pertaining to cardiac anomalies, metabolic genetic conditions, unsafe sleep, suicide and other injury causes.
- Major initiatives this year emphasized suicide prevention through early identification of youth suicides, informal mapping of their social contacts, linkage with state agency resources and ensuring that schools of all potentially affected youth have support.
- PAIPP collaborated with Greenhouse 17 to enhance understanding of child passenger safety at all ages and for transport of families.
- PAIPP partnered in education on the booster seat law signed on June 8, 2015, and has an active ongoing role in implementation of the new law.
- PAIPP assisted a rural county health department in establishing a multi-agency national child passenger safety certification class and car seat/booster safety.

Publications

- Kentucky Injury Prevention and Research Center, 2015. CDC Special Emphasis Report: Infant and Early Childhood Injury, 2013.
- Kentucky Injury Prevention and Research Center, 2015. CDC Special Emphasis Report: Traumatic Brain Injury 2013.
- Safe Return to Riding (UKHealthCare® Saddle up Safely, 2015).

Key Personnel

Susan H. Pollack, MD, FAAP

Funding

KY Department for Public Health/Division of Maternal and Child Health (through federal MCHB Block Grant)

University of Kentucky Department of Pediatrics

CDC Core Violence and Injury Prevention Program

Toys “R” Us® grant through Injury Free Coalition for Kids of Lexington at KY Children’s Hospital

FEMA fire grant through Michigan Public Health Institute/Injury free Coalition for Kids of Lexington

Contact

Susan H. Pollack, shpoll@uky.edu

Traffic Injury Prevention and Research Program (TIPR)

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 (NHTSA) officially ended the Crash Outcome Data Evaluation System (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

- 2 Section 405 data integration grants from KYTC were received. The aim of the first project is to increase accessibility to Kentucky's linked traffic injury data by disseminating reports on hospital and emergency department (ED) charges for treatment of traffic injuries. The aim of the second project is to increase our understanding of risk factors for fatal traffic crashes by linking Kentucky's statewide police accident reporting database (CRASH) with the national Fatality Analysis Reporting System (FARS) database, for access to toxicological results for drivers, and to Kentucky's death certificate database, to identify underlying and contributing causes of death.
- Hospitalization and emergency department charge reports were published in 2016 and are available on the Traffic Injury Prevention and Research (TIPR) web page:
<http://www.mc.uky.edu/kiprc/programs/tirpp.html>.
- CRASH, FARS and KY death certificate databases for 2010 through 2014 were successfully integrated. Ninety one percent of FARS records over that period were matched to a unique KY death certificate record.
- "Differential protective effects of motorcycle helmets against head injury," was accepted for publication in Traffic Injury Prevention.

Key Personnel

Mike Singleton, PhD

Other Organizations or Institutions Represented

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

Funding

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

Contact

Mike Singleton, msingle@email.uky.edu

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 Kentucky Revised Statute KRS 211.470. Cases are selected from the Kentucky Hospital Discharge Database (HDD) and include both emergency department (ED) visits as well as inpatient admissions. An annual report is generated using these data with 2010 being the first year that included ED cases.

Publications

Kentucky Injury Prevention and Research Center, 2015. Central Nervous System Injury in Kentucky: Emergency Department Visits and Hospitalizations, 2014.

Key Personnel

Shannon Beaven, BS

Funding

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

Contact

Shannon Beaven, sbeav1@email.uky.edu

Kentucky Trauma Registry (KTR)

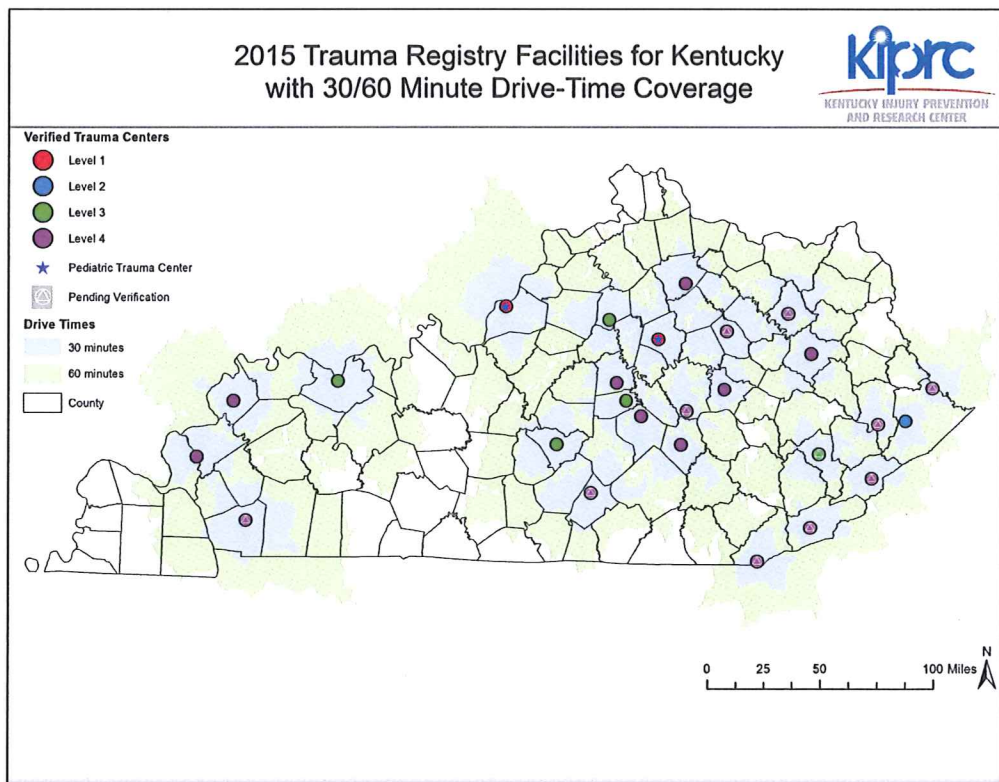
Project Overview

The Kentucky Trauma Registry (KTR) was established by state law (KRS 211.490 et seq.; 902 KAR 28:040) to be the statewide repository for trauma data. It is housed administratively in the Kentucky Department for Public Health and managed by Kentucky Injury Prevention and Research Center. Trauma system leadership is provided by the state Trauma Advisory Committee, the membership of which is set out in the governing statute.

All trauma centers designated by the Commissioner for Public Health in the Kentucky Trauma Care System maintain trauma registries that are compatible with the National Trauma Data Bank (NTDB) standards established in the National Trauma Data Standard Data Dictionary. The trauma centers upload their trauma data electronically at least quarterly to the KTR. With support from the National Highway Traffic Safety Administration through the Kentucky Transportation Cabinet, KIPRC analyzes the statewide trauma registry data and provides a detailed profile of traumatic injuries treated in the state's trauma facilities. The Department for Public Health provided one-time supplemental funding in 2015-2016 to support educational offerings, outreach, and system performance improvement.

Accomplishments and Service

Kentucky trauma system hospitals are classified according to the level of care they are equipped to provide, using standards established by the American College of Surgeons Committee on Trauma (ACS COT). ACS COT does not have guidelines suitable for smaller rural facilities, so those standards are set out in state law. Because participation in Kentucky's trauma system is voluntary, the number of hospitals reporting to the trauma registry varies from year to year. There were 28 reporting facilities in 2015, and we anticipate the total number of cases to approach 13,000 once all reports are completed. The following map shows the location of the 2015 reporting facilities by county. It is important to note that major trauma patients are not limited to Kentucky hospitals: Cincinnati, Nashville, Knoxville, Huntington, and Evansville trauma centers all provide care to patients injured in their service areas.



Publications

- Costich JF, Slavova SS. Using enforcement and adjudication data to assess the impact of a primary safety belt law. (2015). *Traffic Injury Prevention* 16:7:664-668, DOI: 10.1080/15389588.2014.999857.
- Costich JF, Slavova SS, Gao W. Kentucky Trauma Registry Report, Kentucky Trauma Advisory Council Report to the General Assembly, October 2015.

Key Personnel

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Funding

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Kentucky Violent Death Reporting System (KVDRS)

Project Overview

Violence is a nationwide health problem that results in over 50,000 suicides and homicides 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 in 2005 as one of 17 funded states; 32 states are now funded. All participating states are required to collect information about violent deaths from death certificates, coroner/medical examiner reports, police reports, crime laboratory reports, toxicology reports, and child fatality review team reports and enter data into the KVDRS database. After raw data is stripped of personal identifying information, it is transmitted to the national database to be combined with information from the other 32 funded states. Together, this information provides a more complete picture of violent death. Without these pieces, the problem of violent death in Kentucky or in the nation cannot be accurately explained. By integrating multiple data sources to form a violent death surveillance system, formerly disparate pieces of information can be compiled and analyzed.

Accomplishments and Service

- *The Coroner Investigation Reporting System* CIRS was expanded to the “Death Scene Investigation” (DSI) system with users being any death investigator. Approximately 70% of all county coroners use the DSI reporting forms, notebooks or the DSI web system for improved record keeping.
- Courtney Blondino (MPH student in Epidemiology) and Dr. Sabrina Brown: Thematic analysis and interpretation of homicide-suicide narratives of the National Violent Death Reporting System (2016-2017). College of Public Health Research Office and Research Committee, inaugural just-in-time (JIT) grant funds for faculty/student teams to incubate research projects that will result in peer-reviewed presentations and publications.

Publications

- Khaleel HA, Brown SV, Christian WJ, Fleming S. Alcohol Sale Status and Suicide in Kentucky, 2005-2012. *J Alcohol Drug Depend* 2016, 4:3.
- Comiford A, Sanderson WT, Chesnut L, Brown, SV. Predictors of Intimate Partner Problem-Related Suicides among suicide decedents in Kentucky. *Journal of Injury and Violence Research*. 2016 April 19, 8 (2).
- Cerel J, Brown SV, Singleton M, Brown M, Brancado C, Thaxton A & Bush HM. Emergency department visits prior to suicide and homicide: Linking statewide surveillance systems. *Journal of Emergency Medicine. Crisis*. 2016 Jan; 37(1):5-12. doi: 10.1027/0227-5910/a000354. Epub 2015 Dec 1.
- Holland KM, Brown SV, Hall J, Logan JE. Homicide-Followed-By-Suicides Involving Child Victims: A Qualitative Assessment of Perpetrators. *Journal of Interpersonal Violence*. 2015; (pii: 0886260515605124. [Epub ahead of print].

Professional Meeting Presentations

- Accepted: "Suicides and homicides among women of reproductive age (15-49) in rural and urban counties in the United States (NVDRS, 2003-2012). Poster Presentation. APHA 2016 Annual Meeting & Expo (Oct. 29 - Nov. 2, 2016), Denver.
- Submitted: “Creating Safer Families: The Need for Homicide-Suicide Interventions and Changes in Practice and Policy.” 20th Annual National Conference on Child Abuse and Neglect.

Data Limitations

KVDRS reports include only deaths occurring within Kentucky; this allows KVDRS staff to collect additional investigative information. Therefore, the counts of suicides, homicides, and unintentional firearm-fatalities in KVDRS reporting will differ from the Office of Vital Statistics and the National Center for Health Statistics who report on Kentucky residents regardless of where the death occurred.

Key Personnel

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<http://www.cdc.gov/violenceprevention/nvdrs/>

Drug Overdose Prevention

Project Overview

Project 1: KIPRC's current Centers for Disease Control and Prevention (CDC)-funded Drug Overdose Prevention Program (KDOPP) uses a three-pronged strategy approach: 1) Enhance and maximize Kentucky All-Schedule Prescription Electronic Reporting (KASPER, Kentucky's prescription drug monitoring program) use and effectiveness through integration of KASPER with electronic health records; developing/delivering prescriber continuing education training on KASPER; implementing a 100 MME warning flag on KASPER reports; establishing a multi-source drug overdose (DO) fatality surveillance system; and conducting nonfatal DO surveillance; 2) Implement community interventions by creating a multidisciplinary data-focused DO prevention group; establishing the KIPRC Drug Overdose Technical Assistance Core (DOTAC); enhancing local health department use of DO/abuse data results; and enhancing prevention education on naloxone use by prescribers and law enforcement; and 3) Conduct policy evaluation through policy and cost-benefit analyses of prescribing regulations for schedule II-IV controlled substances by clinical profession and Kentucky's decedent controlled substance testing law.

Project 2: KIPRC is funded by the Bureau of Justice Assistance for Data-Driven Multidisciplinary Approaches to Reducing Rx Abuse to identify prescription drug-related issues through secondary data analysis of multiple state data sources and enhance multiagency collaboration and adoption of best practices. A multidisciplinary Action Team with expertise in prescription drug abuse prevention, treatment, policy, and enforcement was created to inform data-driven responses in communities at high risk for prescription drug abuse/overdose. Also, KASPER's analytical capacity and proactive use of data is being expanded through new search algorithms and reports. This project will strengthen KASPER's analytical capacity to proactively use their collected data.

Accomplishments and Service

- Two DO-related abstracts were submitted and accepted to the Safety 2016 conference in Tampere, Finland.
- An Active Cumulative Morphine Equivalent (ACME) algorithm was developed and implemented for use in eKASPER reports.
- In December 2015, KASPER implemented the ACME indicator on the eKASPER patient report. When a patient's ACME exceeds 100 on active prescriptions, the patient report populates an indicator at the top right-hand corner of the report with the patient's ACME number and a statement that reads "An ACME >100 MME may warrant increased clinical vigilance and a Rx for naloxone." A graph below the indicator shows the daily ACME for the patient for the prescriber-requested report period against the baseline of 100 ACME.
- KIPRC partnered with KASPER to report aggregated KASPER data cross-tabulated by age and gender. Five quarterly and one annual KASPER Threshold Reports were each electronically disseminated to over 11,000 prescribers, policymakers, law enforcement agents, health departments, substance abuse prevention agencies, and other community stakeholders, and also posted on the KASPER and KIPRC websites. Evaluation survey results indicate respondents felt that reports were either good or excellent; over half indicated they intended to share reports with their colleagues and one-third indicated they would use the reports to inform policy making, evaluate policy, plan or target interventions, and share with their community.
- Drug Overdose county profiles were produced and disseminated that included individual drug types, drug combinations, drug dependence, and co-existing diagnoses such as Hepatitis C and human immunodeficiency virus (HIV).
- The Drug Overdose Technical Assistance Core has completed 27 ad hoc data requests since January 2016.
- Continuing education was offered to Advanced Practice Registered Nurses on substance use disorders, pain medicine, and controlled substance prescribing regulations.

- Training was provided to law enforcement officers on naloxone administration.

Publications

- Slavova S, O'Brien DB, Creppage K, Dao D, Fondario A, Haile E, Hume B, Largo TW, Nguyen C, Sabel JC, Wright D; Council of State and Territorial Epidemiologists Overdose Subcommittee. Drug Overdose Deaths: Let's Get Specific. Public Health Rep. 2015 Jul-Aug; 130(4):339-42. No abstract available.
- Zanjani F, Smith R, Slavova S, Charnigo R, Schoenberg N, Martin C, Clayton R. Concurrent alcohol and medication poisoning hospital admissions among older rural and urban residents. Am J Drug Alcohol Abuse. 2016 Jul; 42(4):422-30. doi: 10.3109/00952990.2016.1154966. Epub 2016 May 16.
- Kentucky Injury Prevention and Research Center, 2015. Drug Overdose Deaths in Kentucky, 2000-2013.
- Kentucky Injury Prevention and Research Center, 2015. Drug Overdose Hospitalizations in Kentucky, 2000 – 2013.

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