2017 KIPRC Annual Report

23 Years serving the Commonwealth of Kentucky for Injury Prevention

University of Kentucky, College of Public Health; bona fide agent for the Kentucky Department for Public Health

June 30, 2017
KIPRC Website

Please explore the Kentucky Injury Prevention and Research Center (KIPRC) website to learn more about KIPRC 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

KIPRC is grateful for the support provided by the Kentucky Department for Public Health, 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.
From the Director

Welcome to KIPRC’s 2017 Annual Report on research, surveillance, 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 23 peer-reviewed and 15 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 partners with data that helped inform passage of 902KAR 55:035, that schedules gabapentin as a schedule V controlled substance, beginning July 1, 2017.

Practice

KIPRC activities resulted in 12 media releases related to occupational injury prevention, teen suicide, and enhanced state opioid overdose surveillance. KIPRC completed over 45 individual data requests for health departments, state and federal government agencies, researchers, prevention agencies, law enforcement, and media. 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 older adult falls intervention and prevention.

Partners

There are currently 848 Kentucky Safety and Prevention Alignment Network (KSPAN) members, including 213 older adult fall prevention, 155 Safe Communities, 95 highway safety, 62 fire safety, 142 child maltreatment prevention, and 134 drug abuse prevention members representing numerous agencies and organizations.

KIPRC, a bona fide agent for the Kentucky Department for Public Health, 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 Violence and Injury Prevention Program (KVIPP)

Project Overview

The Kentucky Violence and Injury Prevention Program (KVIPP) includes a Kentucky state injury and violence prevention plan, as well as an injury community implementation group (ICIG) called 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 prevention of teen driver crashes, sexual assault/interpersonal violence, child maltreatment, and traumatic brain injuries (TBI). KSPAN also supports prevention efforts focused on falls among older adults, Total Worker Health, residential fire injuries, and drug use. KIPRC is a Safe Community as well as a Total Worker Health Affiliate Support Center.

Accomplishments and Service

- Quarterly KSPAN meetings are held with approximately 80 KSPAN members in attendance.
- A web-based data query system, Indicator-Based Information System for Public Health (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 at www.safekentucky.org. IBIS-PH is awaiting final approval from KDPH for release to the public.
- Posted on the KSPAN website are the following reports:
  - KY 2014 KY Injury Indicators Report: https://kspan.egnyte.com/dl/Y7aB5tdbN
  - KY 2014 Older Adult Falls Special Emphasis Report: https://kspan.egnyte.com/dl/mNiyPeMGdy
- A Fall Prevention Brief was posted on the www.safekentucky.org website: https://kspan.egnyte.com/dl/5PNKCPTHpn.
- Motor Vehicle (MV) related data were analyzed and used to create state maps on MV-human factors, MV-mortality, MV-inpatient hospitalizations, MV-emergency department visits, and MV-collisions in Kentucky’s 120 counties. This data was used to create an index score and hot/cold spot maps that were presented to stakeholders to garner support for our Teen Drivers Checkpoints Program. County-level teen driver index scores and hot/cold maps were also produced.
- Community injury profiles (2010-2014) for all 120 Kentucky counties are posted on the KSPAN website www.safekentucky.org.
- Older Adult Fall Inpatient Hospitalization profiles by county (2005-2014) for all 120 Kentucky counties are posted on the KSPAN website www.safekentucky.org.
- Older adult fall prevention continues to be promoted using radio PSAs throughout the state.
- The Kentucky Safe Aging Coalition holds 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.
- In partnership with DPH, Norton Children’s Hospital, Prevent Child Abuse Kentucky (PCAK) and others, KSPAN members 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 sponsored the keynote speaker and a workshop at the 20th Annual Kids Are Worth It!® Conference. The keynote, titled “Collaborative Best Practice: Past, Present and Future” was delivered to 572 individuals,
including workshop attendees, exhibitors, presenters, volunteers and staff. This presentation provided a historical perspective on lessons learned, best practices and future needs within the medical and human services community relating to child abuse and neglect. The workshop titled “Collaborative Medical Evaluations of Child Abuse and Neglect” cautioned that responding to serious child abuse and neglect requires a multi-system response, ideally involving hospital based assessment by specially trained pediatric or forensic physicians.

- KSPAN provides support for the Green Dot Program intervention being implemented by the Kentucky Association of Sexual Assault Programs (KASAP) by holding an annual Program Implementation Committee Summit for the 17 Green Dot educators from the 13 Kentucky Rape Crisis Centers. Kentucky is the only state that has implemented and evaluated the Green Dot program on a statewide basis.

- KVIPP provides financial assistance to KASAP for the Green Dot Project to promote Sexual Assault Awareness and Prevention Month. Green dots were written by students and community members on green circles and attached to a large wooden cutout of the state of Kentucky. The cutout was divided by region with approximately 100 green dots attached. The board was displayed at the Capitol during Sexual Assault Awareness and Prevention Month as a visual of real preventative steps individuals are taking to make Kentucky safer.

- The Kentucky Safety and Health Network board and KSPAN sponsored the Health, Wellness and Safety fair at the Governors Safety and Health Conference on May 10th & 11th, 2017 in Northern Kentucky. The Health, Wellness and Safety fair covered topics like Green Dot, women’s health, occupational health & safety, ergonomics, physical injury rehabilitation, physical therapy, substance abuse, poison control, health insurance, dental health, and physical fitness. Approximately 450 industry, union, and public sector individuals attended.

Publications

- KIPRC, 2016, CDC Special Emphasis Report: KY 2014 Injury Indicators
- KIPRC, 2016, CDC Special Emphasis Report: KY 2014 Older Adult Falls

Key Personnel

Terry Bunn, PhD
Steve Sparrow, BS
Svetla Slavova, PhD
Robert McCool, MS
Jeanne Harris, MS
Sara Robeson, MA, MSPH
Ashley M. Bush, DrPH

Other Organizations or Institutions Represented

KSPAN currently has 837 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 or call 859-257-9484
Community Injury Prevention Program (CIPP)

Project Overview
This central and eastern Kentucky program supports local public health departments and public safety agencies by providing technical assistance, training for public health and health care practitioners, and direct participation in local injury prevention projects such as safety fairs and child passenger safety checkups. CIPP helps to establish and maintain community safety coalitions, promote KDPH and KIPRC injury prevention initiatives (e.g., Safe Communities), and supports alternative sentencing programs for child restraint law violators. CIPP also works cooperatively with the federally funded residential fire injury prevention program to provide services in situations (such as child care centers) not covered by the residential fire injury prevention project.

Accomplishments and Service
- The program provided 1,380 carbon dioxide (CO) detectors to fire departments, public health departments and child care facilities. The fire marshal for the City of Ashland credits one of these detectors for saving the life of an Ashland woman in December, 2016.
- Collaborative working relationships were established with Health Access Nurturing Development Services (HANDS) home visitation programs in Bourbon, Boyd, Clark, Fleming and Montgomery counties to provide fire safety education for HANDS clients and smoke alarms for those clients who need them.
- CIPP worked with Montgomery County Healthy Homes to develop a fire safety and smoke alarm referral component for their program.
- CIPP supported alternative sentencing programs for child restraint law violators in 5 counties.
- CIPP supported child passenger safety technician training programs, local child safety restraint checkup events, and child passenger safety education for parents at multiple local events. One example is the Rowan County Town and Country community event, where more than 400 individuals received safety information.
- CIPP provided technical assistance, consulting and fire prevention/smoke alarm installation training to more than 12 fire departments.
- CIPP provided presentations on motor vehicle, substance use disorder, residential fire, and older adult injury prevention to students in the sociology program at Morehead State University.
- CIPP provided education on motor vehicle safety, residential fire prevention, and active shooter incident response at the Union College Summer Safety Workshop.
- CIPP and the Madison County Health Department presented highlights and lessons learned from CIPP’s successful pedestrian safety project at the 2016 LifeSavers national traffic safety conference and in a Safe States national webinar in 2017.

Key Personnel
Robert McCool, MS
Ron Clatos, MA

Funding
Kentucky Department for Public Health

Contact
Robert McCool, rmccool@safekentucky.org
Residential Fire Injury Prevention Program (RFIP)

Project Overview
This project provides residential fire safety resources, training and technical support to Kentucky’s fire departments, local health departments, and other local partner agencies; these agencies then provide smoke alarm installation and fire safety education to residents of low income and/or high risk homes in their communities.

FEMA funds support the acquisition of smoke alarms, fire safety education materials, and supporting resources (e.g., installer training materials). RFIP provides training to local partner agency personnel, and supplies smoke alarms, fire safety educational materials, and supporting materials to local partners. RFIP supported the acquisition of 2,500 lithium battery-powered long life smoke alarms and supporting materials.

Local partners identify low income and at-risk households that lack working smoke alarms, then install smoke alarms in those homes and provide fire safety education to the resident(s). A home safety check is also completed at the time the alarms are installed. The check focuses on fire safety, fall prevention, emergency preparedness and general safety; results are provided to the resident(s) to make them aware of any safety hazards that were identified in their home.

RFIP also tracks successes from previous projects. KIPRC operates the RFIP as an ongoing program even though FEMA funding is awarded annually, through a competitive application process. KIPRC has maintained federal funding for residential fire injury prevention since 1998 with only one, fifteen-month break. The alarms installed through RFIP have a projected service life of ten years.

Accomplishments and Service
• More than 1,284 smoke alarms were provided to local fire departments through this project during the current federal funding period (August, 2016 to September, 2017).
• RFIP staff members worked with 27 fire departments during the current project year. These departments were provided with smoke alarm installer and fire prevention training as well as technical assistance when needed.
• On November 29, 2016, at 2:16 AM, the Bourbon County Fire Department responded to a report of a residential structure fire. Upon their arrival, they found that while the home was fully involved, all residents were out of the home. They had been alerted by smoke alarms that were installed during the 2013 RFIP project.
• Another “save” by RFIP smoke alarms occurred on February 10, 2016, when RFIP-installed smoke alarms alerted a family of four (two adults and two children) in Fleming County to a potential fire in their mobile home. Although the adults were unable to locate a fire, they called a local firefighter from the Tilton Volunteer Fire Department (TVFD), who arrived to their home and located an electrical problem that had burnt wires and insulation in the mobile home’s hot water heater. The TVFD stated that, had the smoke alarms not provided early warning of the hazard, the smoldering insulation would likely have led to a life-threatening fire.

Key Personnel
Robert McCool, MS
Ron Clatos, MA

Funding
Federal Emergency Management Agency (FEMA)

Contact
Robert McCool, rmccool@safekentucky.org
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 community recruitment partnership were to have 30%-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 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. This year marks the end of the formal grant partnership between KIPRC and the National Safety Council. However, the work of Kentucky Safe Communities will continue through KIPRC’s Safe Communities America Affiliate Support Center that assists communities in Kentucky and in the United States with their Safe Communities coalitions and applications.

Accomplishments

- Kentucky Safe Communities provided technical assistance to or strengthened partnerships with four universities, six new counties, and a multitude of regional and statewide safety and health promotion entities.
- Madison County and Jessamine County received a Safe Community America designation in 2016.
- Fayette County, Jefferson County, and Green River Area Development district (7 county area) have already submitted or are ready to submit letters of intent to the National Safety Council for Safe Community America accreditation; these counties cover approximately 40% of Kentucky’s population.
- The University of Kentucky submitted a Letter of Intent to apply for accreditation.
- KSC was presented at the 2016 World Safety Conference, Tampere, Finland.
- KSC was presented at the Kentucky Public Health Association Annual Meeting.

Publications


Key Personnel

Genia McKee, BA

Funding

National Safety Council

Contact

Genia McKee, genia.mckee@uky.edu
Kentucky Surveillance Quality Improvement (SQI)

Project Overview

KIPRC, as bona fide agent for the Kentucky Department for Public Health, Cabinet for Health and Family Services, received a competitive award from the Centers for Disease Control and Prevention (CDC) to conduct scientifically sound injury data investigations to:

- Inform and advance the consensus process for developing, implementing, and updating standardized injury surveillance definitions and reporting methodologies.
- Recommend and implement assurance and quality control processes to improve injury surveillance data quality for hospital discharge data and emergency department visits data.
- Develop continuing education trainings for medical coders on improved injury coding, and continuing education training for physicians and medical certifiers on improved injury documentation.
- Produce programming tools, presentations on investigation results, and peer-reviewed publications that will advance injury surveillance epidemiological capacity in state and local health departments.

Accomplishments and Service

- SQI personnel actively participate in national efforts to evaluate the effect of the transition from ICD-9-CM to ICD-10-CM on state and national data quality and reporting definitions; contributing data and methodology expertise to the Council of State and Territorial Epidemiologists (CSTE) Injury ICD-10-CM Transition Workgroup (https://cste.site-ym.com/page/INJURYICD10CM). The Kentucky SQI program contributed Kentucky data to a multi-state collaborative project on ICD-10-CM data quality assessment, coordinated by the CSTE and in collaboration with the CDC National Center for Injury Prevention and Control; a CSTE draft report summary was presented at the 2017 CSTE Annual Conference and will be released later this year.

- The assessment of the Kentucky ICD-10-CM-coded hospital discharge data (Oct 1, 2015 – Dec 31, 2016) showed excellent injury data quality (e.g., all principal diagnoses in the injury range were specific and billable codes without truncations; encounter type was listed for 100% of the principal diagnoses of injury). The completeness of the external cause of injury coding dropped significantly from 93% in 2015 Quarter 3 (before the transition to ICD-10-CM) to 89% in 2015 Quarter 4 (after the transition) then bounced back to 93% in 2016 Quarter 2. An assessment on the effect of the transition to ICD-10-CM on trends of cause and intent of injuries treated in Kentucky acute care hospitals is available here: http://www.mc.uky.edu/kiprc/files/drug/2017/KyICD-10-CM-presentation-Slavova-final.pdf

- KIPRC works with the Kentucky Health Information Management Association on a survey of Kentucky medical coders to understand issues related to the ICD-10-CM transition and their effect on medical coders’ productivity, and the need for additional training and continuing education on traumatic injury and drug poisoning coding. Results will be available in Fall 2017.

Presentation

**Key Personnel**
Svetla Slavova, PhD
Julia Costich, PhD, JD
Robert McCool, MS

**Funding**
Centers for Disease Control and Prevention (CDC)

**Contact**
Svetla Slavova, ssslav2@email.uky.edu
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 injuries 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, motor vehicle crash, and fire deaths.

Accomplishments and Service

- In an expansion of a previous fire grant, PAIPP worked with the Bracken County Health Department to provide a fire education program for 2nd and 3rd graders with home visits to families and smoke alarm installations. Funding through Federal Emergency Management Agency (FEMA)/Michigan Public Health institute/Injury Free includes 250 smoke alarms, including hearing-impaired alarms which are being shared with other counties.
- PAIPP participated with Maternity and Child Health (MCH) in the 18-state Child Safety Collaborative Innovation and Improvement Network project (CS-COIN) being led by HRSA/Children’s Safety Network, to integrate the MCH child passenger and teen driving activity packages and support for local health departments doing those into the activities of the COIN. Together we contributed to teaching for the COIN, and successfully applied for an additional year, applying the processes learned to updates of packages being designed by MCH. PAIPP led the recruitment and preparation of a strong Kentucky team for the Spring 2017 in-person meeting of the COIN-2.
- PAIPP provides extensive support for the training and maintenance of a local and regional rural child passenger safety workforce (health department, fire, emergency medical services, and Ky State Police nationally certified child passenger safety (CPS) technicians) through outreach and proactive efforts to maintain certification among those trained. Coordination of these efforts was done with Office of Highway Safety and other Safe Kids locations. Collaborations with partners such as Safe Kids contributed to Kentucky being without a single hyperthermia death for 2016, despite multiple children being left in cars. More tragedies were averted thanks to massive public education, public awareness, and calls to 911 when children were observed unattended in cars. PAIPP continued to collaborate with Greenhouse17 (formerly the Bluegrass area Domestic Violence Program) to enhance understanding of child passenger safety at all ages and for transport of families.
- PAIPP, as the lead agency for Kentucky State Safe Kids under MCH contract, successfully applied for and has begun work on a large Graco car seat grant which will enable PAIPP to receive free car seats to provide for the needs of every child in at least 100 economically challenged families, with the possibility of 100 additional families. This grant supports the Child Passenger Safety efforts of at least 6 rural local health departments, 3 of whom have newly trained techs and a new CPS program. It is also being utilized to reach marginalized populations including victims of domestic violence.
• PAIPP supported child fatality review efforts of coroners, local teams, and pediatricians through technical assistance and in-person attendance at reviews in Adair, Breckenridge, Clark, Fayette, Gallatin, Knox and Northern Ky (Boone/Kenton/Campbell counties).

• PAIPP continued to increase the number and quality of reviews on child deaths not otherwise reviewed, especially those pertaining to cardiac anomalies, metabolic genetic conditions, suicide and other injury causes. A first ever in-depth medical review was organized and held on a cardiac death with participation from the State Medical Examiner, Pediatric Cardiology, the county Deputy Coroner, and PAIPP. Follow-up was provided to the county CFR team, the local EMS and the local Emergency Department, who all cared for the child.

• Major initiatives this year emphasized suicide prevention through continued 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.

• Presentations included: Pollack SH and Singleton M. Historic first in hopes that others will follow - Child Death Review for Maintenance of Certification credit! Kentucky Child Death Review as a Quality Improvement and prevention tool for Safe Sleep, abstract accepted and given as poster presentation for Section on Injury, Violence and Poison Prevention meeting during the 2016 American Academy of Pediatrics (AAP) National Conference & Exhibition, October 25, 2016, San Francisco, CA. The poster was discussed at the Section leadership meeting of the Provisional Section on Child Death Review.

Key Personnel
Susan H. Pollack, MD, FAAP
Joan Welch, National Child Passenger Safety Technician and Safe Kids Senior Checker

Funding
KY Department for Public Health/Division of Maternal and Child Health (through federal MCHB Block Grant)
University of Kentucky Department of Pediatrics.
National Safe Kids/Graco community car seat grant (small grant plus provision of all car seats needed to ensure safe transportation for every child under age 12 in at least 100 economically challenged families, with the possibility of another 100+ families in multiple rural counties and the local domestic violence program shelter)
2 Pacesetter grants 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. The work of the TIPR program is supported by the Kentucky Office of Highway Safety, Governor’s Executive Committee on Highway Safety, and Kentucky Traffic Records Coordinating Committee.

Accomplishments and Service
- Authored a proposal for a Section 405 data integration grant to link police accident report and Kentucky highway information system databases to study the effect of cable median barriers on injury severity in traffic crashes.
- Lead investigator for the University of Kentucky on a multi-site grant proposal submitted by the University of Utah: Research Using Linked Data to Understand Motor Vehicle Injury Among Older Adults. RFA-CE-17-001, Centers for Disease Control and Prevention.
- Member, Kentucky Occupant Protection Task Force, Kentucky Office of Highway Safety.
- Member, Kentucky Traffic Records Advisory Committee.

Key Personnel
Michael Singleton, PhD

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
Kentucky Transportation Cabinet (KYTC)

Contact
Michael 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. 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 and Kentucky Revised Statute KRS 211.470. Cases are selected from the Kentucky Hospital Discharge Database 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

Key Personnel
Shannon Beaven, BS

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

Contact
Shannon Beaven, slbeav1@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 KIPRC. 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 of 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 the traumatic injuries treated in the state’s trauma facilities.

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 29 reporting facilities in 2016, and we anticipate the total number of cases to exceed 13,000 once all reports are completed. Completion of the 2016 final report was delayed by turnover in trauma registrar positions, a common problem in rural areas.

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

Key Personnel
Julia F Costich, PhD, JD
Peter J. Rock, MPH

Funding
National Highway Traffic Safety Administration through Kentucky Transportation Cabinet
Kentucky Department for Public Health

Contact
Julia Costich, julia.costich@uky.edu
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 Centers for Disease Control and Prevention (CDC) developed the National Violent Death Reporting System (NVDRS), a nationwide state-based surveillance system designed to track trends and characteristics of violent death, with the goal of reducing these deaths. Kentucky was funded by the CDC to become part of the NVDRS in 2004, as one of 17 funded states; 42 states, territories, and districts are now funded. All participating states are required to collect information about violent deaths from death certificates, coroner/medical examiner reports, police reports, and toxicology reports. All personal identifying information is removed before data is uploaded to the national system. 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.
- The Suicide Prevention Consortium of Kentucky has been using KVDRS data on a flyer used primarily to discuss suicide prevention with state Legislators: “Let’s Talk: Facts at a Glance—Suicide in Kentucky.” The data was also included in the state Senate and House Resolution Paper.
- KVDRS Suicide Data (County Level Suicide Rates) was used by the Big Sandy, Barren River and Pennyrile Area Development Districts for their 2015 Federal Partnership for Success Needs Assessment and Capacity Building Report for the Division.
- Invited guest for WUFT Public Radio segment, "Public Health Minute." Public Health Minute is a one-minute segment devoted to public health topics aired on a number of stations throughout the country.
- Jennifer Horbelt [Anchor/Reporter, WPSD-TV, West Kentucky (Paducah), an NBC affiliate]. The story focused on teen suicides. Parents from Marshall County who lost their 13-year-old to suicide were interviewed and shared their story in hopes of preventing other teen suicides.
- Prepared Veteran Suicide Information for Norman E. Arflack, Commissioner, Kentucky Department of Veterans Affairs and Lieutenant Governor, Jenean Hampton.
- KVDRS staff member presentations include:


• Accepted: Break Out Session (90 Minutes): Sabrina Brown, Associate Professor and Director of the Kentucky Violent Death Reporting System and Lt. David Allen, Lt. Commander of Special Victims Unit in the Major Crimes Division, Louisville Metro Police Department. Intimate Partner Violence in Youth and Families: Identifying and De-escalating Abuse through Law Enforcement and Court Officials. 2017 Juvenile Justice Advisory Board Conference: “Pursuing Equality through Excellence,” Embassy Suites (Aug. 7-8), Lexington, KY.

Publications

Data Limitations
KVDRS reports include only injuries leading to a violent death occurring within Kentucky; this allows KVDRS staff to collect additional investigative information. The counts of suicides, homicides, and unintentional firearm fatalities in KVDRS reporting may 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. These numbers may also vary as a result of different data sources.

Key Personnel
Sabrina Brown, DrPH (Director)
Jaqueline Seals, MPH (SAS Analyst, Data Coordinator)
Megan McCarthy (Data Abstractor)
Maci Babbage (Data Abstractor)

Contact
Sabrina Brown, sabrina.brown@uky.edu
Jacqueline Seals, jacqueline.seals@uky.edu
http://www.cdc.gov/violenceprevention/nvdrs/
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) to develop the Level 3 Driver Inspection Online Training, a web-based training application that covers the 12 steps of a roadside driver safety inspection. The training was reviewed by the Commercial Vehicle Enforcement division of the Kentucky State Police and released on February 8, 2017. The online training can be accessed at: http://www.mc.uky.edu/kiprc/facc/toolkits/trucking-crash-prevention-2016.html
• To allow employer tracking of user progress, completion, and proficiency of the Level 3 Driver Inspection Online Training, a free e-learning portal was offered for up to 48 employees per company through Moodle.com. Upon request, the KOSHS program established e-learning portals for 4 trucking companies, for a total of 120 drivers: 48 drivers for CoreTrans, in Somerset, KY; 27 class-A drivers for Edward’s Moving & Rigging, in Shelbyville, KY; 36 drivers for Sallee Horse Vans, in Lexington, KY; and 10 drivers for MTI Trucking Inc., in Corbin, KY.
• KOSHS partnered with the Vice President of Loss Control at Midwestern Insurance Alliance to develop 4 studio-quality safety training videos for the trucking transportation industry. To identify video topics, workers’ compensation data claims were analyzed to determine the leading 4 causes of non-driving related injury to truck drivers: 1) truck cab ingress and egress; 2) cranking the trailer landing gear; 3) opening and closing the trailer door; and 4) trailer ingress and egress. These findings were congruent with the leading causes of injury identified in a KOSHS study of short-haul and long-haul trucking injuries. The videos were shot on-site at Usher Transport and Summit Trucking in Louisville, Kentucky, on May 15, 2017, and are currently in the post-shoot production phase, with expected completion in July, 2017. The videos will be disseminated to companies statewide and nationally.
• The University of Kentucky Central Appalachian Regional Education and Research Center (CARERC) partnered with KOSHS for a campus screening of the critically-acclaimed documentary, “A Day’s Work”, which tells the tragic story of a temporary worker who was killed on the job and the safety issues that temporary workers face. The film was screened on UK’s campus on Friday, October 14, 2016, with an in-person introduction from the film’s director and post-discussion. Tickets were free to the public, with approximately 50 people in attendance.
• The brief “Construction Injuries in Kentucky, 2008-2015”, a multi-year analysis of fatal and nonfatal injury trends in Kentucky’s construction sector, was released in May, 2017. Worker deaths were analyzed by industry, occupation, demographic, subcontractor status, and incident type characteristics. Findings were presented at the 2017 SouthON annual meeting. The brief received positive feedback from survey respondents, including a private industry safety manager who commented “The report information is excellent. Great job, much needed for training and awareness. I can use this in some of my training classes”. The brief can be accessed at: http://www.mc.uky.edu/kiprc/files/OSH/briefs/Construction-Injuries-2008-2015.pdf
Two safety toolkits were produced with KOSHS resources: Trucking Crash Prevention Toolkit, and Preventing Falls in Construction Toolkit. The toolkits contain a variety of safety training resources, including case reports, slide presentations, videos, hazard alerts, and fact sheets.

KOSHS received 30 cases of adults with elevated blood lead levels (≥10µg/dL). Surveys were disseminated, with a response rate of 17%. Based on individual survey responses, a tailored intervention packet was developed and mailed to each respondent. Case file uploads remain on hold since January, 2017, pending staffing changes with the Kentucky Department for Public Health.

KOSHS promoted the 2017 National Safety Stand-Down to Prevent Falls in Construction campaign. Promotion efforts included the following:

- A toolbox talk was delivered to 36 Messer Construction employees at a construction site in Corbin, KY.
- Lamar advertising continued their past tradition of support for the campaign by donating 7 billboards across the state to advertise the campaign.

Established a new webpage for Kentucky Total Worker Health resources on the KIPRC website: http://www.mc.uky.edu/kiprc/programs/twh/index.html

KOSHS program staff members presented at several meetings and conferences:


Publications

- Kentucky Injury Prevention and Research Center, 2016, Report to the National Institute of Occupational Safety and Health: 2014 Occupational Health Indicators

Key Personnel

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

Other Organizations or Institutions Represented

Kentucky Trucking Association

Funding

Competitive funding received from 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 KIPRC is to study the circumstances surrounding worker fatalities in order to make recommendations to prevent the occurrence of similar incidents 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
- 3 Hazard Alerts were developed and disseminated on selected occupational fatalities: “Pedestrian Tow Drivers Struck and Killed”, “Fatal Falls in Construction”; and “Convenience Store Robberies.”
- 7 occupational fatality investigation reports were completed 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/face/index.html
- FACE report 15KY067 “Teen Laborer Rides on Side of Forklift, Falls While Jumping, and is Run Over by Rear Tire” was provided to the victim’s employer, who then used the report for safety training. In accordance with recommendation #2, the employer hired a forklift trainer to provide operational training to all 8 employees.
- Kentucky FACE Fatality Reports and Hazard Alerts were featured in 7 national trade magazine publications, including 4 in the National Safety Council’s (NSC) Safety & Health Magazine, which has a monthly readership of 86,000. A list of magazine articles featuring Kentucky FACE outputs can be found at: http://www.mc.uky.edu/kiprc/face/magazines.html
- J.J. Keller featured 2 Kentucky FACE outputs in their industry specific newsletters: 16KY017, “Construction Laborer Killed in Trench Collapse While Taking Grade Measurements,” in their April 2017 construction newsletter, which reaches approximately 4,000 subscribers; and the Hazard Alert, “Workers Killed While Unloading Cargo from Flatbed Trailers,” in their August 2016 Transportation newsletter, which reaches approximately 9,000 subscribers, most of whom are trucking company safety directors.
- Asten Johnson in Appleton, Wisconsin, used report number 12KY037 for a toolbox talk with 175 employees called “Gambling With Safety”.
- Flavorman, a beverage development company located in Louisville, Kentucky, used FACE report 15KY019, “Apprentice Distiller Fatally Burned by Overpressurized Pot Still,” as supplementary safety training to 20 individuals preparing to establish businesses.
- A granite countertop company used FACE report 15KY020 “Granite Installation Company Owner Struck by Falling Granite Slab” to provide safe product transport and handling training to 6 employees.
- FACE report 15KY031 “19-Year-Old Construction Laborer Crushed in Trench Collapse While Laying Sewage Pipe” was used by the employer to strengthen the justification for improving safety practices, including providing
trench ingress and egress training and competent person training, and enforcing use of ladders and proper trench collapse protection systems.

- The Kentucky FACE surveillance database was converted from Epi Info 6 to Microsoft Access in order to facilitate more timely and robust data analyses. Several new variables were added, including: Cause and Intent, using ICD-10 codes; 6 highway incident management variables; 4 death certificate variables to allow death certificate linkage; 3 CRASH variables; and a variable for time interval between injury and onset of death.

- Kentucky FACE program staff members presented at several meetings and conferences:

**Publications**

**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**
- Competitive funding received from National Institute for Occupational Safety and Health (NIOSH)

**Contact**
- Terry Bunn, tlbunn2@uky.edu
Drug Overdose Prevention

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 Drug Overdose Technical Assistance Core (DOTAC); enhancing local health department use of DO/use data results; enhancing prevention education on naloxone use by prescribers and law enforcement; establishing and implementing a statewide Substance Use Disorder (SUID) Information and Referral Service to improve timeliness of SUID treatment referrals to appropriate SUID treatment facilities based on need, type of substance abuse, and insurance status; mapping public health, treatment, and other data to identify hot and cold spots to improve identification of SUID treatment access and health-related outcomes; and evaluating ICD-10-CM drug overdose codes in emergency department (ED) and inpatient hospitalization (IH) data to improve identification of the magnitude of DO in ED and IH data; informing evidence-based community-level SUD prevention initiatives; improving state and county SUD prevention policies; and leveraging SUD prevention resources at state, regional, and local levels. 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 strengthens KASPER’s analytical capacity to proactively use their collected data.

Project 3: The goal of the KY Enhanced State Opioid Overdose Surveillance (ESOOS) project is to provide key stakeholders with timely information about nonfatal and fatal opioid overdoses, risk factors, and changes in overdose patterns, to inform prevention planning and guide policymaking. Specific aims include: 1) Increase the timeliness of aggregate nonfatal opioid overdose reporting. Primary goals in this area are to implement enhanced opioid overdose surveillance using emergency department syndromic surveillance data and emergency medical services data. 2) Increase the timeliness of fatal opioid overdose and associated risk factor reporting. A primary objective in this area is to increase timeliness of data collection and reporting for the Drug Overdose Fatality Surveillance System (DOFSS). We aim to initiate data entry on all cases within 4 months of the date of death and will complete data entry within 6 months of the date of death. 3) Disseminate surveillance findings to key stakeholders working to prevent or respond to opioid-involved overdoses. We are working with local health departments, law enforcement agencies, emergency medical services, and other stakeholders to identify strategic uses of ESOOS data.

Accomplishments and Service

- The DOFSS was established using death certificates, medical examiner autopsy reports, toxicology reports, coroner investigative reports, and patient reports from KASPER. DOFSS allows a richer understanding of the
risk factors for drug overdose mortality in Kentucky. Data from drug overdose fatalities involving gabapentin was used in the evidence package presented to the KASPER Advisory board by KDOPP partners that led to passage of 902 KAR 55:035 that schedules gabapentin as a schedule V controlled substance beginning July 1, 2017.

- KDOPP partnered with KASPER to integrate KASPER into the workflow of a major pharmacy chain. Early indications are the pharmacists at this major chain are reviewing patient reports through the integrated system at greater rates than before integration.

- In collaboration with University of Kentucky’s CE Central, KASPER, and the Kentucky Office of Drug Control Policy, continuing education training was held for physicians in October 2016. The training offerings included KASPER utilization, pain management, addiction, and controlled substance prescribing guidelines. Web-based modules were produced from this in-person training.

- The Drug Overdose Technical Assistance Core completed 45 ad hoc data requests since July 1, 2016, including requests from 12 local health departments, 7 state government agencies, 8 academic researchers, 5 prevention agencies, 4 law enforcement agencies, 8 federal government agencies, 3 other state health departments, 1 substance use disorder treatment provider, 1 foundation, and 5 media outlets.

- Community Technical Assistance was provided to 31 community coalitions, local Kentucky Agency for Substance Abuse Prevention boards, and UNITE coalitions on the use of local data to plan evidence-based or best-practice local drug overdose prevention interventions, coalition building, and sustainability.

- KDOPP provided technical assistance to numerous local, state, and out-of-state agencies:
  - KDOPP responded to the Kentucky Department of Behavioral Health’s request for assistance with application for CURES Act funding for enhanced opioid treatment and development of a state strategic plan. An opioid overdose risk index based on mortality and morbidity data, NAS data, and PDMP data was developed. A preliminary needs assessment was produced based on the drug overdose risk index map and hot spot/cold spot map to prioritize geographical locations for KORE opioid use disorder treatment and prevention activities.
  - Grant writing technical assistance was provided to the Kentucky State Police.
  - Technical assistance/information was provided to the Oklahoma State Department of Health on disposal of controlled substances.
  - Support was provided to the Kentucky Department for Public Health on development of the State Health Improvement Plan.
  - Technical assistance and support was provided to the CSTE Alcohol and Other Drugs Workgroup on the indicator for general drug use and sub-indicators.
  - Assistance was provided to New York-New Jersey High Intensity Drug Trafficking Areas on SAS codes for drug indicators using hospital and ED data.
  - KDOPP created an information repository of over 400 publications on substance use disorder, addiction, and treatment.
  - The ESOOS team, together with the Kentucky Department for Public Health, established a state syndromic surveillance workgroup. The primary mission of the workgroup is to establish and implement a data quality assurance (QA) process for Kentucky’s BioSense emergency department syndromic surveillance (ED SyS) data. As a result of this workgroup’s activity, Kentucky for the first time, has a syndromic surveillance data feed of sufficient quality to be used for nonfatal opioid overdose surveillance and numerous other public health surveillance purposes.
  - ESOOS established case definitions for ED SyS data for any drug overdose, opioid overdose, or heroin overdose. Case definitions are based on both ICD-9-CM and ICD-10-CM diagnostic codes and chief complaint text.
  - In collaboration with the Kentucky Board of Emergency Medical Services (KBEMS), ESOOS established a monthly data feed for ambulance runs for which naloxone was administered by EMS.
• ESOOS redesigned the DOFSS database from EpiInfo to the REDcap platform in preparation for submission of fatal overdose cases to CDC’s National Violent Death Reporting System (NVDRS) and developed processes to extract and recode drug overdose cases. Submission of 2016 overdose cases has been initiated.

• In collaboration with the NVDRS from Kentucky (KVDRS), ESOOS provided a drug overdose risk factor section and a pill count section that were added to the Coroner Investigation Report (CIR) that was previously developed by KVDRS. These sections were added to both the hard copy CIR form and to the web-based CIR system.

• ESOOS convened a meeting of national opioid overdose experts, Kentucky state data owners, regional epidemiology and public health preparedness professionals, and several local health department directors and their key staff, to share experiences and develop goals for rapid assessment and response for opioid overdose.

• In collaboration with International Society for Disease Surveillance (ISDS), an international society focused on the improvement of population health by advancing the science and practice of disease surveillance, ESOOS is taking a lead role of the formation of the ISDS Overdose Surveillance Committee.

Publications

Key Personnel
David Akers, MA,MS  Tyler Jennings, BS
Terry Bunn, PhD  Robert McCool, MS
Ashley Bush, DrPH  Genia McKee, BA
Julia Costich, PhD, JD  Joseph Markiewicz, BA
Sarah Eustice, MPH, MCHES  Lane Mitchell
Jean Hall, BA  Dana Quesinberry, JD
David Hopkins, BS  Peter Rock, MPH
Sara Hargrove, MS  Michael Singleton, PhD
Amber Kizewski, MA  Svetla Slavova, PhD
Heather Jackson, M.Ed  Patrick Ward, MPH

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Competitive funding received from National Center for Injury Prevention and Control, Centers for Disease Control and Prevention; Hal Rogers Prescription Drug Monitoring Program; and Bureau of Justice Assistance.

Contact
Svetla Slavova, ssslav2@email.uky.edu
Terry Bunn, tlbunn2@email.uky.edu
Michael Singleton, msingle@uky.edu
KIPRC Peer Reviewed Publications, 2016 - 2017

2017


Bunn, T.L., Slavova, S., Rock, P.J. (2017). Association between Commercial Vehicle Driver At-fault Crashes Involving Sleepiness/Fatigue and Proximity to Rest Areas and Truck Stops. (Submitted to Accid Anal Prev.)


2016


