

2018 KIPRC Annual Report

24 Years serving the Commonwealth of Kentucky for Injury Prevention



Kentucky Injury Prevention and Research Center at the University of Kentucky, College of Public Health; bona fide agent for the Kentucky Department for Public Health

June 30, 2018

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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, interns and graduate students who work with us, and especially to staff member Freda Francis, whose careful accounting of grant funds and support of KIPRC staff made our 2017/2018 projects and outreach work possible. We are very sad to report Freda's retirement this year after 23 years with the center. Her support, good humor, professionalism and dedication to the Center will be greatly missed.

We would like to welcome Lyn LeMieux as KIPRC's new Financial Assistant Director.

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From the Director

Welcome to The Kentucky Injury Prevention and Research Center's 2018 Annual Report on research, surveillance, and community practice programs that identify risk factors, and implement and evaluate targeted intervention to reduce injuries.

Research

KIPRC produced and published a multitude of research studies including 11 peer-reviewed and 18 non-peer reviewed publications, primarily in the prevention of substance use, drug overdoses, motor vehicle crashes, and occupational injuries. 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; g) trauma registry data; and h) drugged driving crashes.

Policy

KIPRC faculty and staff members participate in a number of Council of State and Territorial Epidemiologists (CSTE) national initiatives, including input into the national injury coding definition discussions that resulted in multiple white papers on overall injury, drug overdose, traumatic brain injury, and work-related injury coding definitions. Other national policy setting initiatives encompass improved data linkage systems for fatal and nonfatal motor vehicle crashes, and worker safety and health; KIPRC research contributed to National Transportation Safety Board recommendations to improve commercial vehicle fuel tank crashworthiness. State policy initiatives informed by KIPRC involve child fatality review, and Federal Highway Administration (FHWA) use of KIPRC fatality reports in traffic incident management training.

Practice

In collaboration with numerous state agencies and organizations, KIPRC is working on a multitude of community practice programs to prevent injuries. Current community practice programs focus on 1) implementation of Checkpoints in high schools; 2) Safe Communities; 3) carbon monoxide detector and smoke alarm installation; 4) pediatric head trauma education in birthing hospitals; 5) child passenger safety; 6) worker safety training; 7) establishment and maintenance of drug overdose prevention community coalitions; 8) FindHelpNowKy.org substance use disorder treatment locator development and implementation; 9) law enforcement and first responder training on opioids and naloxone administration; 10) drugged driving prosecutor training; and 11) law enforcement training on recognition of drugged driving.

Partners

KIPRC would like to thank the agencies and organizations that care deeply about injury prevention and partner with KIPRC on their implementation and evaluation of programs and policies to reduce the burden of unintentional and intentional injuries in the Commonwealth. We would especially like to thank the Kentucky Department for Public Health, for entrusting KIPRC with bona fide agent status to serve the residents of the Commonwealth of Kentucky.

Keep safe and healthy,

Dr. Terry L. Bunn, Director
Kentucky Injury Prevention and Research Center (KIPRC)

Kentucky Violence and Injury Prevention Program (KVIPP)

Project Overview

The Kentucky Violence and Injury Prevention Program (KVIPP) supports implementation and evaluation of a number of injury prevention programs. Current KVIPP priority focus areas include prevention of teen driver crashes, sexual assault/interpersonal violence, child maltreatment, traumatic brain injuries, falls among older adults, residential fire injuries, and substance use. Under KVIPP, Kentucky has a statewide injury and violence prevention plan, as well as the 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 the priority focus areas and collaborates with partners to inform policies and practices. Under KSPAN, Kentucky Injury Prevention and Research Center (KIPRC) is an accredited Pan Pacific Safe Communities Network Support Center 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), makes Kentucky injury data and information easily accessible to the public, and access will be through the KSPAN website, www.safekentucky.org. IBIS-PH is awaiting final approval from the Kentucky Department for Public Health (KDPH) for release.
- Motor vehicle data for Kentucky's 120 counties was analyzed to create state maps on motor vehicle crash (MVC) related crash and human factors, mortality, inpatient hospitalizations, emergency department visits. The data was used to create an overall MVC risk index score and hot/cold spot maps to target counties for implementation of Checkpoints™, an evidence-based teen driver safety program.
- In partnership with the Kentucky Office of Highway Safety, Kentucky Department for Public Health (KDPH), and Safe Communities across Kentucky, Checkpoints is being implemented in high schools.
- 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.
- KSPAN sponsored a workshop at the 21st Annual Kids Are Worth It!® Conference, "Internet Safety: Online Sexual Exploitation and Prevention Lessons from the Front Line" presentation by Captain Jeremy Murrell, Commander, Kentucky State Police, Internet Crimes Against Children Task Force.
- In partnership with KDPH, Norton Children's Hospital, Prevent Child Abuse Kentucky (PCAK), Kentucky Hospital Association, Maternal and Child Health (MCH), 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.
- In partnership with Northern Kentucky District Health Department, PCAK, MCH and many others, KSPAN members support implementation of a PAHT/Safe Sleep curriculum pilot at two northern Kentucky high schools. The pilots will start in the fall of 2018.
- KSPAN supports 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.
- In partnership with KASAP, a Green Dot training for high school educators is being hosted in Kentucky.

- 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, 2018, in Bowling Green, Kentucky. The Health, Wellness, and Safety fair covered topics such as Green Dot, women’s health, occupational health and safety, ergonomics, physical injury rehabilitation, physical therapy, substance use, poison control, health insurance, dental health, and physical fitness. Approximately 450 industry, union, and public sector individuals attended.

Publications

- KIPRC, 2017, CDC Special Emphasis Report: KY 2015 Injury Indicators
- KIPRC, 2017, CDC Special Emphasis Report: KY 2015 Traumatic Brain Injury

Key Personnel

Ashley M. Bush, DrPH

Svetla Slavova, PhD

Terry Bunn, PhD

Steve Sparrow, BS

Robert McCool, MS

Jeanne Harris, BSN, MBA

Sara Robeson, MA, MSPH

Sashanna Taylor, MS

Other Organizations or Institutions Represented

KSPAN, supported by KVIPP staff, currently has 833 organizations and members who receive information about violence and injury prevention.

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

Kentucky Safe Communities Network (KSCN)

Project Overview

In 2018, the Kentucky Injury Prevention and Research Center (KIPRC) was accredited by Pan Pacific Safe Communities Network (PPSCN) as a PPSCN Safe Community Affiliate Support Center. KIPRC, Kentucky Safety and Prevention Alignment Network (KSPAN) members, and Kentucky Safe Communities partnered to form the Kentucky Safe Communities Network (KSCN). KSCN supports the Safe Community model and implementation of evidence-based interventions. The overarching goal of KSCN is to support community analysis of injury data to identify violence and injury prevention priorities and implement evidence-based interventions to address the identified priorities, and assist local coalitions in evaluation of the interventions. KIPRC and KSPAN members support PPSCN and KSCN through provision of injury data, evidence-based programs and other resources.

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 of government officials, public safety agencies, corporate partners, public health, and a variety of other public and private organizations. Safe Communities address injury topics such as motor vehicle safety (including distracted and teen driving and child passenger restraints); older adult falls prevention; drug overdose and other poisonings; workplace safety and health; violence prevention (including sexual assault, suicide, and pediatric abusive head trauma); and emergency preparedness. Programs cover all community residents by age group, gender, and vulnerable group. A Safe Community designation proclaims 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. The work of Kentucky Safe Communities will continue through KSPAN and KIPRC's PPSCN Affiliate Safe Community Support Center.

Accomplishments and Service

- Kentucky Office of Highway Safety provided funding to support 10 communities in implementing Checkpoints™, a teen driver safety program, in Kentucky. KIPRC and KSPAN members are providing technical assistance.
- KIPRC, KSPAN and the Kentucky Safe Aging Coalition support communities working on older adult fall prevention. An annual fall prevention and osteoporosis summit is held to provide information and support for communities and their local health departments.
- Safe Communities Coalition of Central Kentucky (Mercer, Boyle, Lincoln and Garrard counties) received a Safe Community America designation in 2018.
- Fayette County, Jefferson County, Woodford County, and University of Kentucky submitted letters of intent for Safe Community America accreditation.

Publications

County Level Injury Data Profiles for all 120 Kentucky Counties can be found on the KSPAN website.

Key Personnel

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Funding

Centers for Disease Control and Prevention (CDC)

KY Department for Public Health, Osteoporosis Branch

Kentucky Office of Highway Safety

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Community Injury Prevention Program (CIPP)

Project Overview

This program supports local public health departments and public safety agencies in central and eastern Kentucky 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. The program helps to establish and maintain community safety coalitions, promote Kentucky Department for Public Health (KDPH) and Kentucky Injury Prevention and Research Center (KIPRC) injury prevention initiatives, and support alternative sentencing programs for child restraint law violators. CIPP also collaborates with other projects such as the federally funded Residential Fire Injury Prevention Program and the Pediatric and Adolescent Injury Prevention Program.

Accomplishments and Service

- Helped to create a countywide collaborative effort to address injury prevention in Mason County. This effort led to a proposal by Mason County to become a nationally accredited Safe Community.
- Supported carbon monoxide (CO) detector installation projects in four counties that resulted in the installation of 222 CO detectors.
- Worked with Health Access Nurturing Development Service (HANDS) programs to include fire safety assessments and referrals to appropriate resources (e.g., fire departments for smoke alarm installation) in the home-visiting program.
- Participated in school safety and career exploration programs in Rowan County to promote safety to youth and agricultural workers.
- Developed farm safety educational materials and participated in farm safety day programs in Rowan and Mason counties that promote agricultural safety.
- Supported child passenger safety technician training programs, local child safety restraint checkup events, and child passenger safety education programs in central and eastern Kentucky.
- Supported child passenger safety (CPS) community education programs in eastern Kentucky counties, as well as a child restraint law violator education program in Mason County.
- Provided education on motor vehicle safety, residential fire prevention, and active shooter incident response at the 2017 Union College Summer Safety Workshop.

Key Personnel

Robert McCool, MS

Ron Clatos, MA

Funding

Kentucky Department for Public Health

Contact

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Residential Fire Injury Prevention Program (RFIP)

Project Overview

This project provides smoke alarms and other residential fire safety resources, training, and technical support to Kentucky's fire departments, local health departments, and other local organizations who provide smoke alarm installation and fire safety education to residents of low income and high-risk homes in their communities.

The Kentucky Injury Prevention and Research Center (KIPRC) applies for and manages Federal Emergency Management Agency (FEMA) grant funding to support the acquisition of smoke alarms, fire safety education materials, and supporting resources. KIPRC trains local partner agency personnel and supplies smoke alarms, fire safety educational materials, and supporting materials to the local partners, and handles required federal reporting for the project. The current project supported the acquisition of 2,500 lithium battery powered, long life smoke alarms and supporting materials.

Personnel from the local partner agencies 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. The results of the check are provided back to the residents to make them aware of any safety hazards that were identified in their home.

Project staff also track 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 the project have a projected service life of ten years.

Accomplishments and Service

- As of June 1, 2018, 2,224 smoke alarms were provided to local fire departments through this project.
- Project staff members worked with 27 fire departments in 21 counties during the current project year. These departments were provided with smoke alarm installer and fire prevention training as well as technical assistance when needed.

Key Personnel

Robert McCool, MS

Ron Clatos, MA

Funding

Federal Emergency Management Agency (FEMA)

Contact

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Kentucky Surveillance Quality Improvement (SQI)

Project Overview

The Kentucky Injury Prevention and Research Center (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 of 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

- As member of the Council of State and Territorial Epidemiologists (CSTE) General Injury ICD-10-CM Transition Workgroup and the ICD-10-CM Drug Overdose Definition Workgroup, SQI provided input into the national injury matrix discussion and design of upcoming multi-state research projects, and provided input on tools for trend analysis.
- Analyzed and published results of a medical coder survey on issues related to the ICD-10-CM transition; a peer-reviewed manuscript is in process with the working title, “The Effect of the ICD-9-CM to ICD-10-CM Coding Transition on Kentucky Injury Hospitalization Trends.”
- Collaborated on a multi-state effort to develop ICD-10-CM injury definitions; 2017 work focused on developing a traumatic brain injury (TBI) definition.
- Partnered with other SQI states in a multi-state study to assess an expanded definition for injury hospitalizations using ICD-10-CM-coded administrative data.
- Worked with the Kentucky Occupational Safety and Health Surveillance (KOSHS) program to study changes in work-related injury hospitalization trends in Kentucky and the impact of the ICD-10-CM coding transition.
- Worked with the Prevention for States (PFS) program to design and to carry out a case confirmation study on ICD-10-CM-based PFS definitions for heroin overdose emergency department visits as well as for visits for overdoses involving opioids other than heroin.

Key Personnel

Svetla Slavova, PhD
Julia Costich, PhD, JD
Robert McCool, MS

Funding

Centers for Disease Control and Prevention (CDC)

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) 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) 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 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, suicides, poisoning with e-cigarettes and laundry soap packets, firearm deaths, motor vehicle crash, and fire deaths.

Accomplishments and Service

- Continuing a previous fire grant, PAIPP partnered with the Estill County Health and Fire Departments to make referrals for home fire safety education visits to families with smoke alarm installations. Alarm purchases were funded by a Federal Emergency Management Agency (FEMA)/Michigan Public Health Institute/Injury Free Coalition for Kids grant. During the initial 6 months of this project that involved installation of over 1000 smoke alarms, more than 50% of the households visited did not have a single working smoke alarm, a situation far worse than US fire statistics.
- PAIPP participated with the Kentucky State Department for Public Health/Maternal and Child Health (MCH) in Part 2 of the 18-state Child Safety- Collaborative Innovation and Improvement Network project (CS-COIIIN) led by the HRSA/Children's Safety Network. PAIPP led the recruitment and preparation of a strong Kentucky team for the Spring 2017 meeting of the COIIN-2. The topics were suicide, child passenger safety and teen driving; Kentucky Safety and Prevention Alignment Network (KSPAN) and the Office of Highway Safety (OHS) were appreciated partners. The MCH child passenger and teen driving activity packages were integrated to support local health department activities of the COIIN. Major COIIN accomplishments included: 1) suicide: significant progress in ensuring that all pediatric and adolescent deaths by suicide are reviewed at the county level, and that we supply resources to affected communities; 2) Child Passenger Safety (CPS): training and supporting new rural local health department CPS techs including solidifying and sustaining programs; and 3) Teen Driving Safety: ground breaking work in collaboration with KSPAN and the Ky Office of Highway Safety to improve teen driving safety through adaption of Checkpoints™ to Ky and coordinated efforts of OHS, Kentucky Injury Prevention and Research Center (KIPRC), and MCH in teen driving safety. Review of all teen driving deaths in child fatality review teams was supported along with a better understanding of the Graduated Drivers Licensing stage at the time of crash death.
- PAIPP supported 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 ongoing certification; these efforts were in collaboration with the 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 2017. 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, applied for and completed a large Graco car seat grant where free car seats were provided to economically challenged families in multiple rural areas from June 2017 to February 2018. We served 330 children in over 200 families and provided 275 new car and booster seats for children with no seats or expired/broken seats. Child Passenger Safety efforts in four rural local health departments were supported, and existing efforts in three counties were enhanced. One rural county with new CPS techs was supported to implement and sustain a CPS program, and mentor an adjacent county with a new Child Passenger Safety Program. The Graco Safe Kids project reached marginalized populations, including victims of domestic violence in English and Spanish and refugee children in Burmese and Nepali families. Our efforts enhanced NHTSA Region 4 outreach in numbers of families and children.
- PAIPP worked closely with MCH to support child fatality review efforts of coroners, local teams, and pediatricians through technical assistance in team formation, death review, and in-person review attendance in Bourbon, Breckenridge, Bullitt, Clark, Fayette, Franklin, Grant, Lewis, Montgomery, Russell, Taylor, 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, suicides, and motor vehicle crash deaths, in partnership with MCH and the State Suicide Prevention Program in the Department for Behavioral Health, Developmental and Intellectual Disabilities.
 - 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.
 - Three abstracts were submitted; one is pending and one co-authored was accepted.

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

National Safe Kids Drowning Prevention Grant

Contact

Susan H. Pollack, shpoll@uky.edu

Traffic Injury Prevention and Research Program (TIPR)

Project Overview

The purpose of this project is to integrate state traffic records data systems to support applied research on traffic safety and traffic-related injury. An integrated traffic records system enables the investigation of questions of interest to traffic safety policymakers and practitioners that cannot be answered using individual databases. In 2017-2018, the work of the TIPR program was supported through projects sponsored by the Centers for Disease Control Prevention and the Kentucky Office of Highway Safety. *Improving Identification of Drugged Driving Collisions and Injuries Using Multiple Data Sources* was completed in September 2017. *A Multi-State Integrated Data Approach to Analyzing Older Occupant Crashes and Injuries* is a new grant effective August 1, 2017. *CRASH-Roadway-Injury Integration* is a new grant effective October 1, 2017.

Publications

Singleton M.D., Chen I., Ward P., Bunn T. (2017). Improving Identification of Drugged Driving Collisions and Injuries Using Multiple Data Sources. http://www.mc.uky.edu/kiprc/programs/tirpp/ED-traffic-injuries/Drugged%20driving_FINAL_11_7_17.pdf

Accomplishments and Service

- Member, Kentucky Traffic Records Advisory Committee.
- Served as consultant for Centers for Disease Control and Prevention's Linked Information for Nonfatal Crash Surveillance (LINCS) guide.
- Participated in Kentucky's 2017 Traffic Records Assessment.
- Team member, National Governor's Association's Learning Lab on Improving Data Linkage Systems to Reduce Traffic Injuries and Fatalities (Salt Lake City, UT, June 2018).
- Invited talk: Differential Effects of Motorcycle Helmets Against Head Injury. American Academy of Forensic Sciences. Feb 2018.

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

Centers for Disease Control and Prevention
Kentucky Office of Highway Safety

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, 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

Kentucky Injury Prevention and Research Center, 2017. Central Nervous System Injury in Kentucky: Emergency Department Visits and Hospitalizations, 2016.

Key Personnel

Shannon Beaven, BS

Funding

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

Contact

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Kentucky Trauma Registry (KTR)

Project Overview

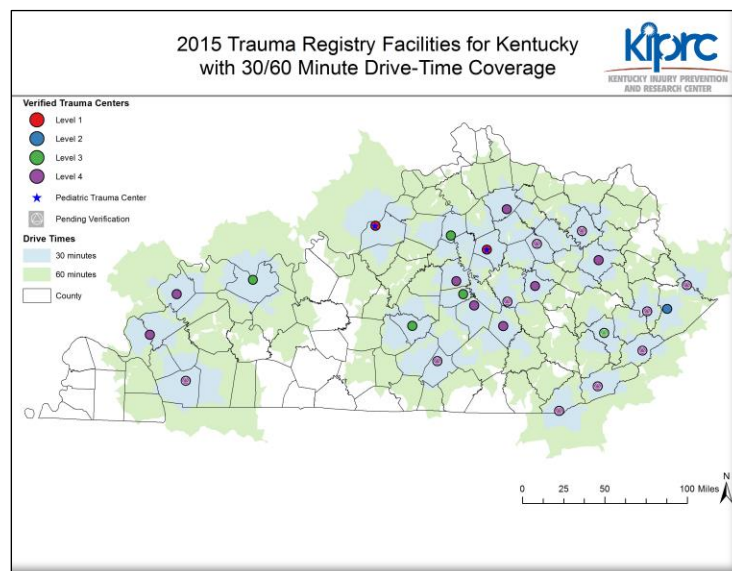
The Kentucky Trauma Registry (KTR) is established by state law (KRS 211.490 et seq.; 902 KAR 28:040) to be the statewide repository for trauma data. It is housed administratively in the Kentucky Department for Public Health and managed by the Kentucky Injury Prevention and Research Center (KIPRC), a unit of the University of Kentucky's College of Public Health. 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 every quarter 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 systems 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 (ACSCOT). 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 2017, and we anticipate the total number of cases to exceed 13,000 once all reports are completed. The following map shows the location of the 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.

The 2015 trauma registry report was updated in early 2018 to reflect changes associated with the implementation of the ICD-10-CM coding system on October 1, 2015. The 2016 report is delayed to accommodate late reporting by a participating hospital with a gap in trauma registrar staffing; it will be issued in summer 2018. Trauma registry staff conducted an extensive review of data quality and timeliness as part of the National Highway Traffic Safety Administration's five-year assessment of Kentucky-based NHTSA-funded projects. Finally, a presentation at the June 2018 annual research meeting of Academy Health will address the effect of Medicaid expansion on trauma patients' access to post-acute services such as home health and rehabilitation.



Publications

Costich J.F., Rock P.J., Kentucky Trauma Registry Report 2015, updated. Online at http://www.mc.uky.edu/kiprc/programs/trauma-registry/annual-reports/2015_updated.pdf

Costich J.F., Rock P.J., Impact of Medicaid expansion as reflected in state trauma registry data. AcademyHealth Annual Research Meeting, Seattle, June 23-26, 2018.

Key Personnel

Julia F. Costich, PhD, JD
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Funding

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

Contact

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Kentucky Violent Death Reporting System (KVDRS)

Project Overview

Violence is a nationwide health problem that results in over 50,000 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 became one of 17 CDC-funded states under the NVDRS in 2004; 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 System*

Publications

Brown S.V., Seals J., McCarthy M., Bush H. (2017). Violent Deaths in Kentucky 2005-2014: A Statewide Statistical Summary of Homicides, Suicides and Unintentional Firearm Fatalities. Lexington, KY, College of Public Health, Kentucky Injury Prevention and Research Center, University of Kentucky.

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 (Project Manager)

Megan McCarthy (Data Abstractor)

Cassady Collins (Data Abstractor)

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<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

- Four Hazard Alerts were developed on selected occupational fatalities and disseminated to the KOSHS general listserv (n=1,909): “Pedestrian Workers Killed by Forklifts”; “Loggers Killed During Felling Operations”; “Construction Workers Killed in Trench Collapses”; and “Unintentional Overdose from the Use of Drugs in the Workplace”. Hazard Alerts were featured in the National Institute for Occupational Safety and Health (NIOSH) Transportation, Warehousing, and Utilities Newsletter, as well as three national trade magazine publications: JJ Keller’s Compliance Focus Newsletter (4,100 subscribers), National Safety Council’s Safety+Health Magazine and Newsletter (386,000 combined subscribers), and Environmental Health and Safety (EHS) Today Magazine (426,000 subscribers).
- KOSHS partnered with Midwestern Insurance Alliance to develop four safety training videos based on the four leading causes of non-driving related injuries 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. The videos were shot on-site at Usher Transport and Summit Trucking in Louisville, KY, and released in August 2017.
 - The videos were disseminated to the KOSHS Trucking listserv (n=592).
 - The videos were shared via the KOSHS Twitter and Facebook pages (2,070 combined followers) and uploaded to the KOSHS YouTube page (over 300 views).
 - NIOSH Transportation, Warehousing, and Utilities March 2018 newsletter featured the videos.
 - In July 2018, Vertical Alliance Group based in Texarkana, TX, that services over 1,100 companies, will feature the videos on their website, and provide a monthly update on views and feedback.
- The KOSHS Program promoted the 2018 National Stand-Down to Prevent Falls in Construction Campaign. Promotion efforts included:
 - A toolbox talk was delivered to 50 Messer Construction employees in Richmond, KY
 - NIOSH interviewed KOSH staff for the 5-year anniversary of the national stand-down, and they were featured in the final video: <https://www.youtube.com/watch?v=OONUcRmoaQQ>
- 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
 - Disseminated to the Trucking Listserv (n=592).
 - Kentucky Trucking Association (KTA) disseminated the study to its 325 trucking members.
 - The study was disseminated to the National Transportation Safety Board Office of Highway Safety.
 - Kentucky Office of Highway Safety, reached out to say, “*With regards to the application of your paper on Commercial Vehicles and rest stops. It is the intention of the KOHS to utilize the research and analysis you conducted for the ‘Association between commercial vehicle driver at-fault crashes involving sleepiness/fatigue and proximity to rest areas and truck stops’.* Utilizing the information provided we will develop a media

campaign along nighttime hours for drivers of commercial vehicle as a reminder to pull over and rest. Targeting the age ranges you indicated of 25-54 being primary, and 55+ secondary group. Tractor-trailer will be primary focus with truck and trailer secondary focus. This information will be used in a grant application from GHSA to the KOHS to increase the awareness and need of CMV drivers to pull over and rest. The application will be submitted to GHSA no later than March 9th.”

- National Transportation Safety Board (NTSB) credited a Kentucky Injury Prevention and Research Center (KIPRC) research study on exposed fuel tanks and said: “*She (Dr. Bunn) was tremendously helpful and provided me with her published work on fuel tank fires. The NTSB investigated an Agricultural Labor Bus and Truck-Tractor Collision in July 2016 with a post-crash fire. During the course of my investigation, I was able to use her papers, in my research on fuel tank integrity and standards for commercial vehicles. The board adopted the final report this past November with approximately 13 new safety recommendations, the one noted below is for Heavy Vehicle Fuel Tank Integrity! Safety Recommendations. The FMCSA has authority over regulations contained in 49 CFR Part 393 regarding fuel tank integrity standards. NHTSA is responsible for developing crashworthiness standards. Therefore, the NTSB recommends that SAE International work with the FMCSA and NHTSA to improve truck-tractor side-mounted fuel tank crashworthiness to prevent catastrophic tank ruptures and limit post collision fuel spillage, and develop and promulgate an updated standard. Thank you ... and Kentucky Injury Prevention and Research Center your work was extremely helpful!*”
- Barren River District Health Department requested a KOSHS ‘Top 10 Disabling Injuries in the Workplace’ presentation for ‘Workplace Lunch n’ Learns’ that reaches over 500 employees.
- KOSHS Program staff received monthly reports of Kentucky employees with elevated blood lead levels ($\geq 10\mu\text{g}/\text{dL}$) in February 2018; 1,945 test results were sent to 67 employees with blood lead levels $\geq 10\mu\text{g}/\text{dL}$ and 17 employees with blood lead levels $\geq 25\mu\text{g}/\text{dL}$. Based on survey responses, a tailored intervention packet was developed and mailed to each respondent.
- KOSHS Program staff members presented at several meetings and conferences:
 - Turner, M., Top 10 Disabling Injuries in the Workplace. KSPAN Meeting, February 21, 2018, Frankfort, KY
 - Slavova, S., Bunn, T.L., Work-related injury hospitalization trends in Kentucky, 2012-2017. SouthON meeting, April 5, 2018, Savannah, GA.

Publications

1. Witt W.S., Bunn T.L., Slavova S. (2018). Workers’ Compensation-Reported Injuries among Security and Law Enforcement Personnel in the Private versus Public Sectors. Accepted to *Inj Epi*.
2. Browning S., Charnigo, R., Baker C., Bunn T., Sanderson S. Return to Play after Knee Injury in high School Football Athletes. Provisionally accepted to *Annals Epi*.
3. 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. *Accid Anal Prev*. Nov 22. pii: S0001-4575(17)30418-9.

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Competitive funding received from National Institute for Occupational Safety and Health

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Kentucky Fatality Assessment and Control Evaluation Program (FACE)

Project Overview

The goal of the Kentucky Fatality Assessment and Control Evaluation (KY FACE) Program 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

- Five occupational fatality investigation reports were completed and disseminated via the FACE general listserv (n=1,909). All KY FACE cases can be found on the Kentucky FACE website: <http://www.mc.uky.edu/kiprc/face/index.html>
 - 16KY014: School Custodian Struck and Killed by Pick-up Truck on School Grounds While Performing Crossing Guard Duty
 - 15KY069: Paramedic is Struck and Killed While Responding to a Call
 - 16KY039: Mechanic Struck and Killed by Over-Pressurized Suspension Air Spring on Tractor Trailer
 - 17KY007: Dry Wall Supervisor Falls from Unsecured Plank
 - 17KY034: Dump Truck Driver Loses Control and Flips Truck Resulting in Fire
- FACE Cases 16KY039: Mechanic Struck and Killed by Over-Pressurized Suspension Air Spring on Tractor Trailer and 17KY007: Dry Wall Supervisor Falls from Unsecured Plank, were featured in National Institute for Occupational Safety and Health (NIOSH) eNews Newsletters.
- FACE Cases 15KY063: Semi-Truck Owner-Operator Crushed by 7.6 Ton Steel Coil While Securing Load to Flatbed and 15KY001: Semi-Truck Owner Fatally Struck by Falling Flatbed Cage Door, were featured in the NIOSH Transportation, Warehousing, and Utilities March 2018 Newsletter.
- Occupational Health and Safety (OHS) Magazine featured KY FACE case 16KY017: Construction Laborer Killed in Trench Collapse While Taking Grade Measurements (July 2017 edition). OHS Magazine has 87,000 subscribers.
- The National Safety Council's Safety+Health Magazine and Newsletter featured two KY FACE cases: 15KY067: Teen Laborer Rides on Side of Forklift, Falls While Jumping, and is Run Over by Rear Tire (August 2017 edition) and 15KY063: Semi-Truck Owner-Operator Crushed by 7.6 Ton Steel Coil While Securing Load to Flatbed Trailer (April 2018 edition). The NSC magazine and newsletter have 386,000 subscribers combined.
- Environmental Health and Safety (EHS) Today magazine featured two KY FACE cases: 15KY078 Commercial Roofer Falls Through Skylight (November 2017 edition) and 16KY013: Tree Trimmer Electrocuted and Dies While Trimming Tree Away From Power Line (November 2017 edition). EHS Today Magazine has 425,000 subscribers.
- Federal Highway Administration – Kentucky Division, incorporated KY FACE case 16KY052: Tow Truck Driver Struck and Killed by Passenger Vehicle While Securing Disabled Vehicle onto Flatbed Tow Truck into the National Traffic Incident Management (TIM) Responder Training for Kentucky first responders and

DOT employees. To date, the training has delivered to 10,441 employees in Kentucky, with a goal of training all 18,177 TIM responders within the state.

- The Kentucky FACE Program fulfilled three data requests:
 - Fatalities involving hydrogen sulfide; 0 results
 - Fatalities caused by bee stings; 0 results
 - Fatalities on Kentucky farms, 2008-2017; 84 results
- Eastern Kentucky University requested FACE interviewing techniques: *“I’m looking around for info. on interviewing techniques. In the sense of interview employees, witnesses, etc., in an occupational safety setting.”* For classroom use.
- Bunn, T.L., Slavova S., Chandler, M., Hanner, N. Singleton, M. (2018). Surveillance of Traffic Incident Management- Related Occupational Fatalities in Kentucky, 2005-2016, was featured in NIOSH’s monthly newsletter ‘Research Rounds’ May 2018 edition.
- Kentucky FACE program staff members presented at several meetings and conferences:
 - Bunn, T.L., Hanner, N., McIntosh, D., Kentucky FACE Program Updates and Activities. FACE Annual Meeting. Morgantown, WV, October 2017.
 - Bunn, T.L., Fatal Traffic Incident Management Injuries in Kentucky. Traffic Incident Management (TIM) 2017 Regional Conference, October 20, 2017, Florence KY
 - Bunn, T.L., Fatal Traffic Incident Management Injuries in Kentucky. SouthON meeting, April 5, 2018, Savannah, GA.
 - Bunn, T.L., Public Safety and Public Health Overlap in Opioid Exposure. Panel discussion, SouthON Meeting, April 5, 2018, Savannah, GA.
 - Turner, M., McIntosh, D., Dangers of Falls in the Construction Industry. National Stand Down to Prevent Falls in the Construction Industry, May 7, 2018, Richmond, KY, Messer Construction.

Publications

- Bunn, T., Slavova, S., Chandler, M., Hanner, N., Singleton, M. (2018). Surveillance of Traffic Incident Management- Related Occupational Fatalities in Kentucky, 2005-2016. *Traffic Inj Prev.* 2018 May 19;19(4):446-453.
- Kentucky FACE Program 2017 Annual Report. Kentucky Injury Prevention and Research Center, June, 2018.

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Drug Overdose Prevention

Overview

Project 1: The Centers for Disease Control and Prevention (CDC)-funded [Kentucky 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 as a public health surveillance system; 2) Implement community interventions through community interventions such as the Drug Overdose Technical Assistance Core (DOTAC), the statewide Substance Use Disorder (SUD) treatment locator (FindHelpNowKY.org), and mapping public health, and public safety data; and 3) Conduct policy evaluation through policy and cost-benefit analyses of drug overdose prevention-related laws.

Project 2: The Kentucky Injury Prevention and Research Center (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 multi-agency 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 through 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 by increasing 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 complete data entry within 6 months after death. 3) Disseminate surveillance findings to key stakeholders working to prevent or respond to opioid-involved overdoses in collaboration with local health departments, law enforcement agencies, emergency medical services, and other stakeholders to identify strategic uses of ESOOS data.

Accomplishments and Service

- KDOPP team members, with our web developer, launched a real-time substance use disorder treatment availability locator called FindHelpNowKY.org for treatment opening availability searches based on sex, age, payment options, and type of treatment. FindHelpNowKy.org is supported by a professionally developed media campaign including television, radio, print, digital, social media, and billboard advertising. Since launch in February 2018, website statistics include:
 - 448 treatment facilities indexed represented by 182 different providers
 - Over 12,000 unique users (62% new, 38% repeat), 56,000 page visits, and over 20,000 searches
 - Most common query is from a friend or family member seeking outpatient treatment facilities that accept Medicaid
 - Visitors from all 50 states
 - Most visitors are from Fayette and Jefferson Counties

- KDOPP team members disseminated multiple reports to inform drug overdose prevention efforts:
 - 2016 Annual KASPER Threshold Analysis Report and 4 quarterly reports
 - 2015 Drug Overdose Fatality Surveillance Report
 - State Drug Overdose Emergency Department Visit Dashboard
 - State Drug Overdose Inpatient Hospitalization Dashboard
 - County Profiles for each of Kentucky's 120 counties
 - 2016 Drug Overdose Emergency Department Visit Report
 - 2016 Drug Overdose Inpatient Hospitalization Report
 - 2016 Drug Overdose Death Report
 - Informing Public Safety and Public Health Efforts to Address Kentucky's Drug Overdose Burdens, 2015-2016
- KDOPP team members completed 65 ad hoc data requests for community, state, and federal stakeholders and media outlets.
- KDOPP team members worked with 8 high burden counties on drug overdose data use, strategic planning, coalition building, and sustainability.
- KDOPP team members provided technical assistance to 30 community, academic, state, out-of-state, and federal partners and agencies.
- KDOPP team members provided 29 invited presentations at conferences supported by Community Anti-Drug Coalitions of America, Shaping Our Appalachian Region, Centers for Disease Control and Prevention, Kentucky Coroners Association, Kentucky Public Health Association, and a variety of other state and local agencies.
- KDOPP team with KASPER's Integration Manager collaborated with Kroger Pharmacy to integrate Kroger's pharmacy-based electronic health records with KASPER.
- KDOPP team collaborated with the Department of Criminal Justice Training to train over 900 law enforcement officers in the recognition of an opioid overdose and administration of naloxone.
- ESOOS team members delivered four invited talks, and participated in a closing plenary panel on opioid overdose surveillance, at the 2018 meeting of the International Society for Disease Surveillance in Orlando, FL.
- ESOOS PI participated in a session on rapid opioid overdose surveillance at the 2018 Rx Drug and Heroin Summit in Atlanta, GA.
- ESOOS team partnered with the KY Justice and Public Safety Cabinet, Office of the Chief Medical Examiner, to implement a protocol for expanded post-mortem opioid testing. The primary expected benefit of this program is more complete and more rapid identification of fentanyl analog involvement in drug overdose deaths.
- ESOOS team members worked with Axis Forensics Toxicology to implement electronic reporting of post-mortem toxicology records. The benefit will be to eliminate the need for manual collection and entry of those records into the DOFSS system, thus decreasing the time for completion of toxicology data entry.
- ESOOS team established a surveillance system for opioid overdoses attended by emergency medical services, including case definitions for heroin overdose, any opioid overdose, and any drug overdose.
- ESOOS team implemented daily, facility-based monitoring of opioid overdoses treated in emergency departments, with referral of anomalies to the KY Department for Public Health.

Publications

- Slavova S., Miller A., Bunn T.L., White J.R., Kirschke D., Light T., Christy D., Thompson G., Winecker R. (2018). Prevalence of gabapentin in drug overdose postmortem toxicology testing results. *Drug and Alcohol Dependence*; 186:80-5

- Luu H., Slavova S., Freeman P.R., Lofwall M., Browning S., Bush H. (2018). Trends and patterns of opioid analgesic prescribing: regional and rural-urban variations in Kentucky from 2012 to 2015. *Journal of Rural Health*. doi:10.1111/jrh.12300
- Pauly N.J., Slavova S., Delcher C., Freeman P.R., Talbert J. (2018). Features of prescription drug monitoring programs associated with reduced rates of prescription opioid-related poisonings. *Drug and Alcohol Dependence*. 184:26-32
- Hargrove, S.L., Bunn, T.L., Slavova, S., et al. (2018). Establishment of a Comprehensive Drug Overdose Fatality Surveillance System in Kentucky to Inform Drug Overdose Prevention Policies, Interventions, and Best Practices. *Inj Prev*. 2018 Feb;24(1):60-67
- Delcher C., Chen G., Wang Y., Slavova S., Goldberger B.A. (2017). Fatal poisonings involving propoxyphene before and after voluntary withdrawal from the United States' market: An analysis from Florida. *Forensic Science International*. 2017 Nov;280, 228-232
- Slavova S., Costich J.F., Bunn T.L., Luu H., Singleton M., Hargrove S., Triplett J., Quesinberry D., Ralston W., Ingram V. (2017). Heroin and fentanyl overdoses in Kentucky: Epidemiology and Surveillance. *Int J Drug Policy*. 2017; Aug; 46:120-129. DOI: 10.1016/j.drugpo.2017.05.051
- Slavova S., Bunn T.L., Hargrove S., Corey T., Ingram V. (2017). Linking death certificates, post-mortem toxicology, and prescription history data for better identification of populations at increased risk for drug intoxication deaths, *Pharmaceutical Medicine*, 2017;31:155-165. DOI: 10.1007/s40290-017-0185-7

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