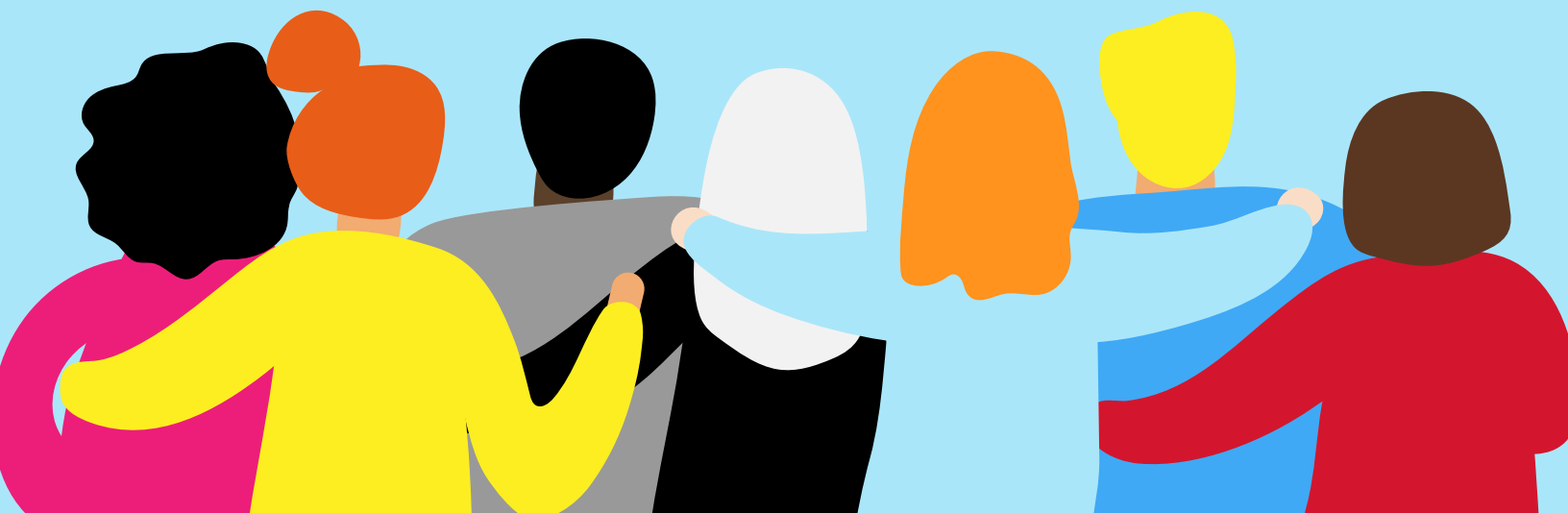


KENTUCKY INJURY PREVENTION AND RESEARCH CENTER

2020 Annual Report



contents

From the Director.....	1
community injury prevention	
Kentucky Surveillance Quality Improvement.....	2
Kentucky Violence and Injury Prevention Program	4
Pediatric and Adolescent Injury Prevention	9
Residential Fire Injury Prevention.....	11
motor vehicle safety	
Multi-State Motor Vehicle Crash Data and Injury Risk Factors for Older Drivers	12
Evaluating Effectiveness of Cable Median Barriers on Prevention of Crossover Commercial Vehicle Crashes	14
occupational safety and health	
Kentucky Fatality Assessment and Control Evaluation.....	15
Kentucky Occupational Safety and Health Surveillance	17
trauma	
Kentucky Trauma Registry	19
Central Nervous System Injury Surveillance.....	21
drug overdose prevention	
Action Research To Reduce Opioid Supply and Demand.....	22
Data-Driven Responses to Prescription Drug Misuse in Kentucky	24
Assessing the Landscape of Recovery Housing in Kentucky.....	26
Rural Center of Excellence with Focus on Recovery Housing	28
Lexington Opioid Overdose Prevention.....	30
Methodological Advances in Evaluating Abuse-Deterrent Opioid Analgesics	31
Overdose Data to Action.....	33
intentional injuries	
Kentucky Violent Death Reporting System	36
Kentucky Emergency Response for Suicide Prevention	38

from the director

Terry L. Bunn



Welcome to the Kentucky Injury Prevention and Research Center's (KIPRC's) 2020 Annual Report on collaborative research, surveillance, and interventions, using multidisciplinary data-driven and community engagement approaches. In the areas of research and surveillance, KIPRC produced research studies on multiple injury topics, including 12 peer-reviewed and 34 non-peer-reviewed publications as well as numerous research and surveillance presentations.

KIPRC faculty and staff serve in a number of leadership roles in the Southeastern and Southwestern Injury Prevention Network, NIOSH Board of Scientific Counselors, Safe States, Society for Advancement of Violence and Injury Research, Kentucky

Department of Transportation Steering Committee, Council of State and Territorial Epidemiologists, Southeastern Occupational Health Network, and the Trauma Advisory Committee, among others.

KIPRC would like to thank the agencies and organizations with which we collaborate on injury prevention, and we would 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



Kentucky Surveillance Quality Improvement

project overview

The Kentucky Injury Prevention and Research Center (KIPRC) received a competitive award from the Centers for Disease Control and Prevention 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 the injury surveillance quality of hospital discharge data and emergency department visit data;
- develop continuing education training for medical coders on improved injury coding and for physicians and medical certifiers on improved injury documentation; and
- produce programming tools, presentations on investigation results, and peer-reviewed publications that will advance injury surveillance epidemiological capacity in state and local health departments.

presentations

Peterson A, Gabella B, Hume E, Costich JF, Liu A, Johnson J. Multi-site medical record review of emergency department visits for unspecified injury of head following the ICD-10-CM coding transition. Virtual presented at: the American Public Health Association Annual Meeting; October 2020; San Francisco, CA.

reports and publications

Warwick J, Slavova S, Bush J, Costich J. Validation of ICD-10-CM surveillance codes for traumatic brain injury inpatient hospitalizations. *Brain Injury*. 2020;34 (13-14):1763-1770. <https://doi.org/10.1080/02699052.2020.1849801>.

Gabella B, Hathaway J, Hume B, Johnson J, Costich J, Slavova S, Liu A. Multi-site medical record review of emergency department visits for traumatic brain injury. *Injury Prevention*. 2021;27 (S1), online March 5, 2021. <https://dx.doi.org/10.1136/injuryprev-2019-043510>.

Hansen A, Slavova D, Cooper G, Zummer J, Costich J. An emergency department medical record review for adolescent intentional self-harm injuries. *Injury Epidemiology*. 2021;8(1):3-6.

Hansen AC, Quesinberry D, Akpunonu P, Martin J, Slavova S. ICD-10-CM definitions for emergency department and inpatient hospitalizations for injuries complicating pregnancy, childbirth, and the puerperium: A medical record review. *Injury Prevention*. 2021;27(S1), online March 5, 2021. doi:10.1177/0033354920904087.

Peterson AB, Gabella B, Johnson J, Hume B, Liu A, Costich J, Hathaway J, Slavova S, Johnson RL, Breiding MJ. Multi-site medical record review of emergency department visits for unspecified injury of head following the ICD-10-CM coding transition. *Injury Prevention*. 2021;27(S1), online March 5, 2021. doi: 10.1136/injuryprev-2019-043517.

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funding

Centers for Disease Control and Prevention

Kentucky Violence and Injury Prevention Program

project overview

The Kentucky Violence and Injury Prevention Program (KVIPP) supports the implementation and evaluation of multiple injury prevention programs. KVIPP priority focus areas include the prevention of motor vehicle crashes, sexual assault/interpersonal violence, child maltreatment, traumatic brain injury (TBI), and older adult falls. KVIPP successfully submitted and received a CDC Covid-19 supplemental funding grant allowing for expanded priority focus areas of suicide and adverse childhood experiences (ACEs). Under KVIPP, Kentucky has a state-wide injury and violence prevention coalition, the Kentucky Safety and Prevention Alignment Network (KSPAN), to identify, support, and evaluate program and policy interventions within priority focus areas and to collaborate with partners to inform policies and practices. Under KSPAN, the Kentucky Injury Prevention and Research Center is an accredited Pan Pacific Safe Communities Network Support Center and serves as the internationally recognized Safe Communities Accrediting Center for the United States. KIPRC also is designated by the National Institute for Occupational Safety and Health as a Total Worker Health Affiliate Support Center.

accomplishments and service

County-level motor vehicle crash and human factor risk index/hot spot maps were created to target counties for interventions such as Checkpoints™, an evidence-based teen driver safety program, and Local Heroes, a seatbelt education/enforcement program targeting high-risk rural counties that was highlighted in a joint presentation with the Ken-

tucky Office of Highway Safety and KVIPP (Preventing Crashes by Partnering with Public Health) at the American Association of State Highway Transportation Officials National Committee on Safety 2020 annual meeting.

KVIPP staff informed the development of the Kentucky 2020–2024 Strategic Highway Safety Plan by participating in the Kentucky Department of Transportation Steering Committee. KVIPP staff serve on Kentucky's Impaired Driving, Vulnerable Road User, Aggressive Driving, and Distracted Driving Task Forces, priority focus areas of the state highway plan.

Checkpoints™ was implemented in 12 Kentucky county high schools in collaboration with the Kentucky Office of Highway Safety, the Traffic Safety Education Foundation, the Kentucky Department for Public Health (KDPH), local health departments, local organizations, and Safe Communities. The Covid-19 pandemic affected implementation as priorities for schools shifted to virus protection and safety. In 2020, changes and updates were made to allow for virtual training of Checkpoints. REDCap (an online survey and data management tool) was a definite advantage for use in the updated Checkpoints protocol for online training delivery. REDCap enabled participants to use their smart phones, tablets, and computers to complete the pre- and post-tests as well as the course evaluation sheets.

KVIPP staff worked with the Traffic Safety Education Foundation to update and make a Kentucky-specific Checkpoints video.

KVIPP staff serve on leadership for the Southeastern and Southwestern (SESW) Injury Prevention Network, which represents 13 states that have high injury and violence burden, participating, presenting, and informing SESW events, webinars, resources, and annual meetings.

KVIPP staff members were featured in the March 2021 SESW newsletter, *The Quill and Pen*.

KVIPP staff participate on the Safe States Alliance Policy Committee.

KSPAN became official Face It[®] and Safe Kids Fayette County partners.

KVIPP was featured in the March 2021 issue of the CDC's *Injury Prevention Research in Action*.

KVIPP staff and Face It developed the CONNECT mnemonic to aid in providing information to families for activities to build resilience, as part of the adverse childhood experience prevention public education campaign (<https://faceitabuse.org/2021/03/04/kosair-charities-face-it-move-ment-releases-new-connect-resource>).

KVIPP staff, in partnership with Face It Bluegrass, hosted a panel discussion on adverse childhood experiences and Covid-19, the importance of prevention, and how we ALL can play a role in keeping kids safe from trauma during the pandemic (<https://www.youtube.com/watch?v=63gxw7nvogY&feature=youtu.be>).

KVIPP presented a virtual town hall to assist pediatricians throughout Kentucky in assessing the needs of families virtually and connecting them to services during the public health emergency.

Lexington, Ky., news station WKYT News highlighted KVIPP's work in ACEs and suicide prevention (<http://bitly.ws/e8uB>).

KVIPP and partners hosted the Face It Bluegrass CONNECT (CONNECT to Build Family Resilience) Virtual Forum on ACE prevention for teachers, school personnel, or anyone who works with youth to learn more about how to assess for abuse and neglect both virtually and in person; factors that may impact student's participation, behaviors, and emotions in the classroom that school personnel should be aware of; and a new resource about promoting resilience and preventing ACEs (<https://www.youtube.com/watch?v=12GVc8W84c4&feature=youtu.be>).

KVIPP and partners hosted a virtual panel on April 28, 2021, with a focus on body safety and internet safety to prevent child exploitation. The panel consisted of an assistant U.S. attorney specializing in child exploitation cases, a cybertechnology forensics investigator, and the executive director of ECHO (Exploited Children's Health Organization) of Louisville, an agency with a focus on how to teach parents and kids about body safety and empowerment (<https://www.youtube.com/watch?v=n-S74QO9Owtk>). The virtual panel was highlighted by Spectrum 1 News, Lexington (<http://bitly.ws/e8uw>).

KVIPP staff presented, during Child Abuse Prevention Month, CONNECT: A Toolkit To Build Family Resilience to approximately 133 participants through PCAK's Child Abuse Prevention Month trainings that offered licensed clinical social work, Family Resource and Youth Services Centers, and ECE TRIS continuing education credits.

KVIPP staff serve on the Kentucky Interagency Council of Suicide Prevention and the Kentucky Interagency Council of Suicide Data Surveillance. KVIPP staff provided an update on Kentucky during a discussion on COVID-funded projects with the CDC's National Center for Injury Prevention and Control Senior Leadership's Core State Violence and Injury Prevention Program.

KVIPP staff continued to participate in the Council for State and Territorial Epidemiologists (CSTE) Injury Surveillance Workgroup to achieve consensus on ICD-10-CM injury surveillance methods for hospital discharge data. Participation led to the development of the CSTE Injury Surveillance Toolkit, which helps to promote effective and standardized use of injury data to inform surveillance and public health practice. This group's work was completed in 2020.

KVIPP staff participated in the CSTE Injury Surveillance Workgroup, working with other state epidemiologists to develop standards for epidemiology practice and shared knowledge through peer-to-peer learning. KVIPP staff also participate in the CSTE Injury Data Science Competencies Workgroup and CSTE subcommittees and workgroups that focus on informing and developing special emphasis reports on TBI, motor vehicle traffic injury, and suicide.

KVIPP provided Question, Persuade, Refer Train-the-Trainer trainings for 47 individuals across 37 Kentucky zip codes in partnership with the Kentucky Department for Behavioral Health, Developmental, and Intellectual Disabilities (DBHDID) to strengthen suicide prevention infrastructure across the state. The goal is to identify who needs QPR training within a specific portion of the state and to help locate QPR trainers for those communities.

The Kentucky Safe Aging Coalition held the annual Falls and Osteoporosis Summit on August 5, 2020, highlighting fall prevention and osteoporosis. KVIPP coordinated this virtual summit with 55 different sites, in collaboration with the KDPH, Owensboro Health, Kentucky Department for Aging and Independent Living, and KSPAN. KVIPP staff presented 2019 falls data at the annual summit. KVIPP provides data to support and submit for approval the annual governor's proclamation for Falls Prevention Awareness Week, held September 21–25, 2020.

KVIPP submitted the CDC injury indicators and TBI injury indicators for 2016, 2017, and 2018. KSPAN was a sponsor of Dr. Melissa Merrick's keynote address on "Beyond ACEs: Implications for Prevention" at the 24th annual Kids Are Worth It!® Conference. Dr. Merrick is president and CEO of Prevent Child Abuse America.

Keeping Infants Safe—a pediatric abusive head trauma (PAHT) and risk factors prevention and safe sleep promotion educational curriculum that was developed and implemented in partnership with Northern Kentucky District Health Department, Prevent Child Abuse Kentucky (PCAK), and KDPH Maternal Child Health—was modified for delivery at drug treatment centers to pregnant and expecting mothers. In 2020 the curriculum was provided to one school and one drug treatment center due to COVID-19 restrictions.

KVIPP supports the Green Dot Program, implemented by the Kentucky Association of Sexual Assault Programs, and held a virtual Summer High School Green Dot Institute June 15–18, 2021, to support Green Dot educators from the 13 Kentucky Rape Crisis Centers and to provide training opportunities to high school teachers and staff to promote local ownership within the schools. Fifty-seven high schools are implementing Green Dot, and 15 middle schools are implementing It's My Space.

KSPAN meetings in 2020 were held in person and then virtually due to the pandemic. KSPAN meetings included policy updates on child maltreatment; an update to SB85 (Alcohol Ignition Interlock) in Kentucky; highway safety, and public health transformation. Other topics included gabapentin prescribing and co-prescribing after gabapentin was listed as a schedule V controlled substance; trends in youth behavioral health; emergency medical services in Kentucky; updates from the Foundation for a Healthy Kentucky; Worker Well-being Redefined—Applied and Practical Approaches to Total Worker Health®; Prevent Child Abuse Kentucky;

Who We Are and How You Can Help; #WeTrack-That! Kentucky health and environmental data; Kentucky Fatality Prevention Task Force; results from the 2018 Kentucky Incentives for Prevention Survey; traffic safety checkpoints training for law enforcement officers; Safe Communities updates; Checkpoints updates; and PCAK training program updates.

The CDC and American Public Health Association presented at one KSPAN meeting on their strategic partnership, Communicating for Connection: Strengthening Messaging To Prevent ACEs, Overdose, and Suicide. Other presentations were made by REACH Evaluation (Data Story: Lessons Learned from the Opioid Epidemic), KIPRC (*Drug Overdose Prevention Tackle Box: A Guide for Communities*), and a FindHelpNow.org discussion and demonstration), KDPH (Status of Adverse Childhood Experience in Kentucky—Findings from Kentucky Behavioral Risk Factor Surveillance), and CONNECT: Families Build Resilience (KVIPP/KSPAN)."

KVIPP staff and the KSPAN Child Home Safety Committee (led by the Justice Cabinet) provided firearm locks and medication storage boxes to local and state organizations throughout Kentucky along with educational messaging to help reduce the number of unintentional drug ingestions and firearm injuries among children within the home, as part of ACEs prevention efforts.

KVIPP staff serve on the Kentucky Safety and Health Network Board and the Kentucky Occupational Safety and Health Standards Board.

KVIPP staff provide injury data and technical assistance to Kentucky counties for the Safe Communities America accreditation process. Currently, two Kentucky communities, Marion and Mason counties, are going through the process of becoming accredited Safe Communities. In addition, both Murray State University and Western Kentucky University are working to maintain their accreditation status as Safe Communities.

reports and publications

10 leading causes of injury-related hospitalizations, emergency department visits, and deaths among Kentucky residents by age group and intent, 2016–2019. Kentucky Injury Prevention and Research Center; 2020.

Kentucky resident older adult fall injury-related inpatient hospitalization profiles, 2016–2019. Kentucky Injury Prevention and Research Center; 2020.

Kentucky injury indicators 2016. Kentucky Injury Prevention and Research Center; 2020.

Fall statistics for older adults, 2019. Kentucky Injury Prevention and Research Center; 2020.

Injury prevention: Adolescents and ATVs. Injury Prevention Brief, Kentucky Injury Prevention and Research Center; 2020.

Injury prevention: Older adult falls. Injury Prevention Brief, Kentucky Injury Prevention and Research Center; 2020.

Injury prevention: Fire and burns. Injury Prevention Brief, Kentucky Injury Prevention and Research Center; 2020.

Injury prevention: Unintentional drowning. Injury Prevention Brief, Kentucky Injury Prevention and Research Center; 2020.

Kentucky injury indicators 2017. Kentucky Injury Prevention and Research Center; 2021.

Kentucky injury indicators 2018. Kentucky Injury Prevention and Research Center; 2021.

Kentucky county injury-related inpatient hospitalization profiles, 2017–2019. Kentucky Injury Prevention and Research Center; 2021.

Kentucky county injury-related emergency department visit profiles, 2017–2019. Kentucky Injury Prevention and Research Center; 2021.

Kentucky county injury-related mortality profiles, 2017–2019. Kentucky Injury Prevention and Research Center; 2021.

Injury prevention: playground fall-related injuries. Injury Prevention Brief, Kentucky Injury Prevention and Research Center; 2021.

CONNECT resources to build family resilience—Adverse childhood experience prevention. Kentucky Injury Prevention and Research Center, Kosair Charities' Face It Movement, and University of Kentucky Children's Hospital. <https://faceitabuse.org/connect>.

Kentucky area development district suicide and intentional self-harm injury profiles, Kentucky Injury Prevention and Research Center; 2021.

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Tonya Jernigan, LSCW

other organizations or institutions represented

KSPAN, supported by KVIPP staff, has approximately 771 members representing state agencies, regional organizations, and nonprofit and for-profit organizations. On Facebook, @KentuckySPAN provides Kentucky injury and violence prevention and CDC data, safety tips, and injury and violence prevention opportunities to its 900+ followers. KSPAN's mailing list has 100+ organizations. KSPAN quarterly meetings offer opportunities to share findings, hold focus groups, and gather feedback to improve KVIPP performance.

funding

Centers for Disease Control and Prevention
Kentucky Department for Public Health, Osteoporosis Branch

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Pediatric and Adolescent Injury Prevention

project overview

The Pediatric and Adolescent Injury Prevention Program (PAIPP) 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 Kentucky's child death and injury data through support for the child death review process at the local county level. PAIPP accomplishes this by using epidemiological data to develop education, public outreach, and support strategies for state and local agencies, health professionals, and other related professionals that address the prevention of childhood injuries at different ages and development stages. PAIPP's technical assistance and services cover the entire spectrum of pediatric intentional and unintentional injuries from birth to 18 years of age, addressing topics such as safe sleep, suicide, child maltreatment, fire, hyperthermia, and firearm arm death or injury.

accomplishments and service

- Collaborated with Department of Public Health Maternal and Child Health and Child Fatality Review coordinators to participate in child fatality review efforts of coroners, local teams, and pediatricians through assistance in the death review process. Teams are established in over 100 Kentucky counties.
- Continued to provide educational opportunities on prevention of child maltreatment, including pediatric abusive head trauma.
- Supported Safe Kids Coalitions locally and statewide, including efforts in child passenger safety and firearm injury prevention by obtaining and distributing gun locks.
- Addressed an increasing number of pediatric ingestions, obtained medicine lock boxes to distribute at Kentucky Children's Hospital to families of children who have ingested substances, and supported local efforts in obtaining medicine lock boxes for parents in medication-assisted therapy.
- Partnered with local agencies focused on suicide prevention, by
 - participating in the National Child Safety Learning Collaborative with a focus of suicide and self-harm injury prevention in Kentucky;
 - developing strategies to prevent adverse childhood experiences during a public health crisis, including partnering with Kosair Charities' Face It Movement, Kentucky Youth Advocates, and UK Healthcare in developing education on CONNECT, with a resource guide available at faceitabuse.org.
 - providing education on adverse childhood experiences and tips for providers for screening and intervening to help children and families become resilient.

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funding

Kentucky Department for Public Health Division
of Maternal and Child Health (through federal
Maternal and Child Health Bureau block grant)
University of Kentucky Department of Pediatrics
Kosair Charities

Residential Fire Injury Prevention

project overview

The Residential Fire Injury Prevention (RFIP) program provides smoke alarms and other residential fire safety resources, training, and technical support to fire departments, local health departments, and other local organizations across the Commonwealth. These local agencies then 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 applies for and manages Federal Emergency Management Agency (FEMA) grant funding to support the acquisition of smoke alarms, fire safety education materials, and installer training materials. KIPRC trains local agency personnel and supplies smoke alarms, educational materials, and supporting documentation to the local partners, as well as evaluates project activities and completes required federal reporting. KIPRC staff members also track successes and lives potentially saved for the current and previous projects.

Personnel from the local partner agencies identify the 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 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 to the residents to make them aware of any safety hazards that were identified in their home. These services are provided at no cost to the residents.

KIPRC operates this program on an ongoing basis despite the annual nature of FEMA funding. The current project supported the acquisition of 6,000 lithium battery-powered, long-life smoke alarms and related materials. The alarms installed through the project have a projected service life of 10 years.

accomplishments and service

Implementation of the current (federal FY 2019) project was halted in early 2020 due to the outbreak of the COVID-19 pandemic, as smoke alarm installer training and installation activities require in-person contact. After receiving approval for renewed operation in April 2021, we began providing alarms and training to fire departments across Kentucky. As of mid-year 2021, we are still actively distributing alarms and providing training and technical support. We expect installation to continue through the remainder of the year.

key personnel

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funding

Federal Emergency Management Agency, U.S.
Department of Homeland Security



Multi-State Motor Vehicle Crash Data and Injury Risk Factors for Older Drivers

project overview

The fastest-growing demographic in the United States is people aged 65 and over. Because elderly drivers may experience decline in the physical and mental faculties required for driving (which could lead to unsafe driving behaviors), it is critical to determine whether elderly drivers are more likely than younger drivers to be at fault in a crash. This study used Kentucky crash data and linked hospital and emergency department records to evaluate whether linked data

can more accurately estimate the crash propensity of elderly drivers to be at fault in injury crashes. The Kentucky crash data was edited to conform to the general use model (GUM), with crash propensities for linked data compared to propensities developed using the GUM dataset alone. The quasi-induced exposure method was used to determine crash exposure. Factors such as age, gender, and crash location are explored to assess their influence on the risk of a driver being

at fault in an injury crash. The overall findings were consistent with previous research: Elderly drivers are more likely than younger drivers to be at fault in a crash. Linking crash data with hospital and emergency department records could also establish a

clearer understanding of the injury crash propensity of all age groups. Equipped with this knowledge, transportation practitioners can design more targeted and effective countermeasures and safety programs to improve the safety of all motorists.

presentations

Stamatiadis N. Effect of socioeconomic factors on drivers seeking medical follow-up after a crash. Presented at: Traffic Records Forum 2020; Nashville, TN; August 9–12, 2020; virtual.

reports and publications

Sagar S, Stamatiadis N, Wright S, Green E. Use of CODES data to improve estimates of at-fault risk for older drivers. *Accident Analysis and Prevention*. 2020;144. doi: doi.org/10.1016/j.aap.2020.105582.

key personnel

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funding

Competitive funding received from the Centers for Disease Control and Prevention

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Evaluating Effectiveness of Cable Median Barriers on Prevention of Crossover Commercial Vehicle Crashes

project overview

Crossover crashes are those where a vehicle leaves its intended path and traverses the roadway onto the path of oncoming traffic. These crashes often result in a fatality, an outcome more common when a commercial motor vehicle (CMV) is involved. A potential countermeasure for addressing crossover crashes are median barriers, and cable median barriers are considered a more forgiving type of barrier among the various types of median barriers that can be used. They also have a lower installation and

replacement cost as compared to concrete and beam barriers. It has been estimated that median barriers have been effective in reducing 97% of crossover crashes after installation. This study investigates contributing factors to CMV crashes on roadways without a cable median barrier and determines the potential effectiveness of the presence of a barrier to either avert the crossover or reduce the severity of the crash.

reports and publications

Stamatiadis N, Sagar S, Wright S, Green E, Souleyrette R. Cable median barrier effect on commercial vehicle crossover crashes. *Transportation Research Record*. April 2021. doi:10.1177/03611981211007845.

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funding

Competitive funding received from the National Institute for Occupational Safety and Health



Kentucky Fatality Assessment and Control Evaluation

project overview

The Kentucky Fatality Assessment and Control Evaluation (KY FACE) program conducts multi-source surveillance of all occupational fatalities in Kentucky and studies worker fatalities to make recommendations to prevent similar incidents in the future, particularly those involving the truck transportation and construction industries. Detailed reports, hazard alerts, and other prevention materials are produced and disseminated. The FACE program does not seek to determine fault or place blame on companies or individual workers.

accomplishments and service

Seven occupational fatality investigation reports were developed and disseminated to the KY FACE listserv (n=1,739 companies), Twitter account (1,961 followers), and Facebook page (240 followers):

- 20KY010: Semi-Truck Driver Dies in Single Vehicle Collision after Truck Overturns.
- 20KY030: Dump Truck Driver Dies in Multi-Vehicle Collision after Truck Overturns.
- 20KY040: Truck Driver Killed after Vehicle Roll-away.

- 20KY065: Field Technician Dies after Contacting Downed Power Line.
- 20KY070: Shelter Kitchen Manager Fatally Stabbed by Resident.
- 20KY075: Manufacturing Worker Dies by Suicide.
- 21KY002: Manufacturing Worker Dies after Becoming Entangled in Lathe.

(All KY FACE cases can be found on the Kentucky FACE website: <https://kiprc.uky.edu/programs/fatality-assessment-and-control-evaluation-face>.)

Kentucky FACE cases were featured in the following trade publications:

- 20KY006: Farmworker Dies in Grain Bin Engulfment, *EHS Today* and *Total Environmental & Safety*, July 2020.

- 19KY034: Gutter Installer Dies after Falling off Roof, *Safety+Health*, July 2020.
- 20KY040: Truck Driver Killed after Vehicle Roll-away, *Safety+Health*, April 2021.
- 20KY065: Field Technician Dies after Contacting Downed Power Line, *EC&M*, May 2021.

NIOSH eNewsletters featured the following Kentucky FACE cases:

- 20KY006: Farmworker Dies in Grain Bin Engulfment, September 2020.
- 20KY010: Semi Truck Driver Dies in Single Vehicle Collision, February 2021.
- 20KY030: Dump Truck Driver Dies in Multi-Vehicle Collision after Truck Overtakes, May 2021.

presentations

Turner M. 19KY034: Gutter Installer Dies after Falling from Roof. Presented at: Center for Construction Research and Training's Investigating Fall Fatalities: Lessons Learned and Tools for Prevention virtual conference; Lexington, KY; September 18, 2020.

Liford M. Drug Overdose Deaths in the Construction Industry, Kentucky Residents, 2016–2019. Presented at: Council of State and Territorial Epidemiologists virtual conference; Lexington, KY; June 13, 2021.

reports and publications

Liford M, Turner M, Bunn TL. Kentucky FACE program 2020 annual report. Kentucky Injury Prevention and Research Center; June 2021.

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funding

Competitive funding received from the National Institute for Occupational Safety and Health

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Kentucky Occupational Safety and Health Surveillance

project overview

The Kentucky Occupational Safety and Health Surveillance (KOSHS) program partners with agencies and organizations so that Kentucky workers' safety and health concerns are identified and targeted interventions are developed, implemented, and evaluated. The KOSHS program conducts comprehensive multi-source population-based surveillance of occupational injuries and illnesses occurring in Kentucky, using 30 occupational health indicators.

accomplishments and service

KOSHS developed and disseminated the following three hazard alerts via the FACE general listserv (n=1,739 companies) and the KY FACE Twitter account (1,961 followers):

- Women as Victims of Workplace Violence, July 2020,
- Electrocutions in the Construction Industry, February 2021, and
- Pedestrian Fatalities, May 2021.

The hazard alerts are accessible at <http://www.mc.uky.edu/kiprc/face/hazard-alerts.html>.

EHS Today magazine featured the hazard alert Women as Victims of Workplace Violence in their July 2020 issue.

Data concerning the type of injuries occurring to tow truck drivers (taken from Chandler MD, Bunn TL; Motor vehicle towing: An analysis of injuries in a high-risk yet understudied industry; *Journal of Safety Research*; 2019;71:191–200; doi:10.1016/j.jsr.2019.10.006) were used by the Towing & Recov-

ery Association of America (TRAA) to create an infographic that was disseminated to the TRAA's full membership list (over 35,000 towing businesses in the U.S., Canada, New Zealand, and Japan), as well as to representatives with state-level towing associations, owners/managers of towing companies across the country, and owners/managers of associate companies such as all the major motor clubs (AAA, All State, Geico, etc.) and manufacturers (Miller, JerrDan, etc.). After sending, the TRAA immediately heard from a company member in Virginia who planned to print out the infographic to share with her staff during their next safety meeting.

Tyson Foods requested permission to use the KOSHS-produced trucking safety videos, "Preventing Injuries While Cranking Trailer Landing Gear" and "Preventing Injuries While Getting into and out of Truck Cab" as a part of the Tyson safety training program. The videos will be required viewing for the 1,200+ Tyson drivers.

The KOSHS-produced study, Chandler MD, Bunn TL, Slavova S, Narrative and quantitative analyses of workers' compensation-covered injuries in short-haul vs. long haul trucking (*International Journal of Injury Control and Safety Promotion*; 2017; 24 [1]:120–130) was cited in the article "Physical Workload and Psychosocial Working Conditions in Swedish Pig Transport Drivers," published in the May 2021 issue of *International Journal of Industrial Ergonomics*.

A KOSHS staff member was a guest on Women in Trucking's weekly radio show on Sirius XM Radio's

Road Dog channel to discuss Hazard Alert: Women as Victims of Workplace Violence. The 45-minute interview took place on August, 15, 2020, and featured discussions on the aforementioned alert,

the Intentional Self-Harm in the Workplace hazard alert, and what companies can do to protect female employees.

presentations

Bush A. Identifying work-related emergency department visits using ICD-10 codes. Presented at: Society for Advancement of Violence and Injury Research conference; April 5, 2021; virtual.

Bush A. An introduction to KIPRC, KOSHS, and FACE. Presented at: Eastern Kentucky University's Applied Epidemiology class; April 20, 2021; Richmond, KY.

reports and publications

Bush AM, Bunn TL, Liford M. Identification of work-related injury emergency department visits using International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) codes. *Injury Prevention*. 2021;27:i3-i8.

Liford M, Bunn TL, Turner M, Bush A. Occupational health in Kentucky, 2019. Kentucky Injury Prevention and Research Center; June 2021.

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funding

Competitive funding received from National Institute for Occupational Safety and Health

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Kentucky Trauma Registry

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 the Kentucky Injury Prevention and Research Center. Trauma system leadership is provided by the state Trauma Advisory Committee, the membership of which is set out in the governing statute. All trauma centers designated by the Commissioner of Public Health in the Kentucky Trauma Care System maintain trauma registries that are compatible with National Trauma Data Bank standards established in the National Trauma Data Standard Data Dic-

tionary. 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.

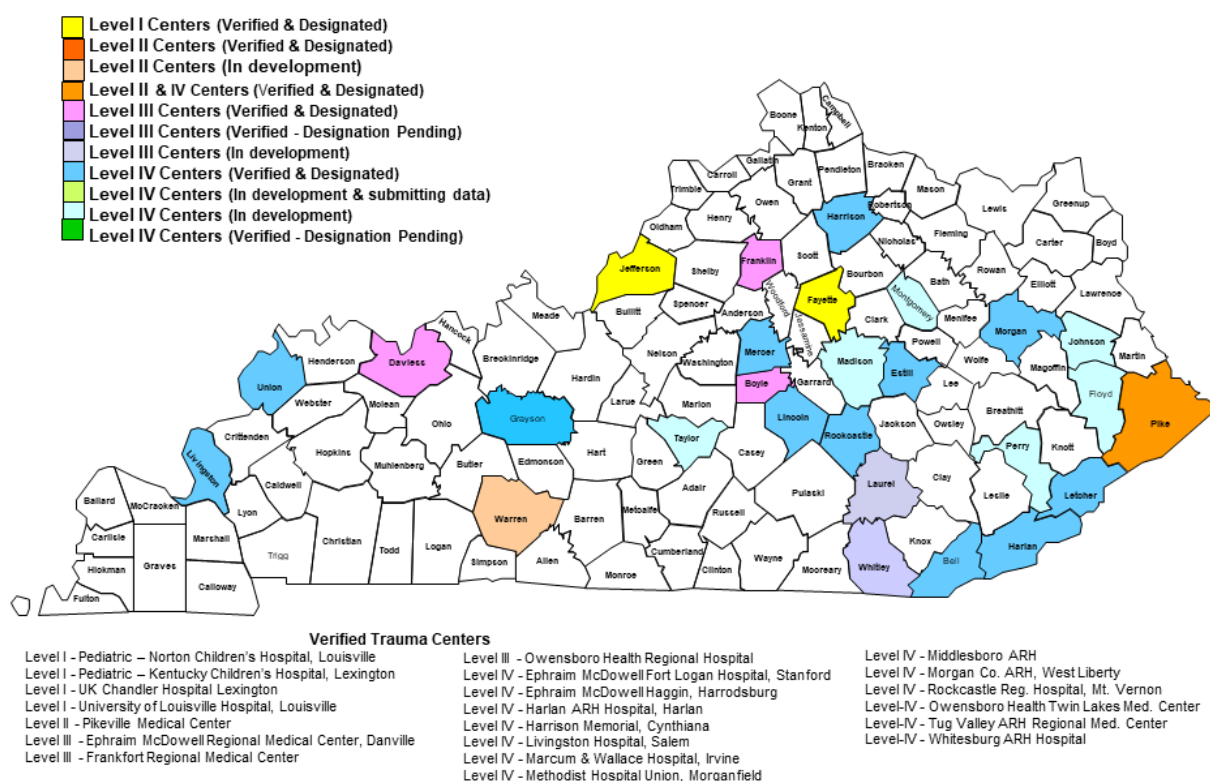
accomplishments and service

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 (ACS COT). ACS

COT does not have guidelines suitable for smaller rural facilities, so those standards are set out in state law. Because participation in Kentucky's trauma system is voluntary, the number of hospitals reporting to the trauma registry varies from year to year. There were 28 actively reporting facilities in 2020, and we anticipate the total number of cases to exceed 14,000 once all reports are completed. The following map shows the location of the reporting facilities by county. It is important to note that patients may be

treated for major trauma at trauma centers in cities outside of Kentucky, such as Cincinnati, Nashville, Knoxville, Huntington, and Evansville. In addition to preparing and disseminating annual trauma data analyses, trauma registry staff participate in quality improvement initiatives addressing data integrity and timeliness as part of the National Highway Traffic Safety Administration's (NHTSA) five-year assessment of Kentucky-based NHTSA-funded projects.

Hospitals in the Kentucky Trauma System (April 13, 2021)



publications

Costich JF, Daniels L. Kentucky Trauma Registry Report 2019. Kentucky Injury Prevention and Research Center; 2020. <https://kiprc.uky.edu/programs/kentucky-trauma-registry>.

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funding

National Highway Traffic Safety Administration
through Kentucky Transportation Cabinet

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Central Nervous System Injury Surveillance

project overview

The Central Nervous System Injury Surveillance project is funded by the Kentucky Traumatic Brain Injury Trust Fund Board under 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 211.470. Cases are selected from the Kentucky Hospital Discharge Database and include both emergency department visits as well as inpatient admissions. An annual report is generated using these data, with 2010 being the first year that included emergency department cases.

reports and publications

Beaven S. Central nervous system injury in Kentucky: Emergency department visits and hospitalizations, 2019. Kentucky Injury Prevention and Research Center; 2020.

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funding

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

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Action Research To Reduce Opioid Supply and Demand

project overview

The Action Research To Reduce Opioid Supply and Demand project links electronic health records for University of Kentucky (UK) HealthCare patients with prescription drug monitoring data. The linked data are then de-identified and a set of high-risk opioid prescribing and co-prescribing measures are calculated for each patient and stored, along with the patient's discharge diagnoses and comorbidity data, in an analytical dataset.

The analytical dataset currently includes data for patients treated within UK HealthCare from January 2017 to present and is used by researchers from UK and UK HealthCare to inform the development of prescriber- and patient-targeted opioid safety interventions as well as to evaluate such interventions implemented by UK HealthCare in the last three years. Several evaluation studies are underway and manuscripts are under development.

presentations

Oyler D, Slavova S, Fondario A. Using prescription data to initiate targeted education and inform prevention efforts: Perspectives from two Bureau of Justice Assistance grantees. Rx Drug Abuse and Heroin Summit; April 5–8, 2021; virtual. <https://virtual.rx-summit.com>.

Oyler D, Slavova S, Slade E, Huang Z, Hemdon B, Johnson S, Moghadamian E. Evaluation of an opioid-sparing analgesic protocol after orthopedic trauma. American Society of Health-System Pharmacists Midyear Clinical Meeting and Exhibition; Dec. 6–10, 2020; virtual. <https://midyear.ashp.org>.

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funding

The U.S. Department of Justice, Bureau of Justice Assistance

other organizations or institutions represented

University of Kentucky HealthCare
KASPER (Kentucky All Schedule Prescription Electronic Reporting)

Data-Driven Responses to Prescription Drug Misuse in Kentucky

project overview

The Data-Driven Responses to Prescription Drug Misuse in Kentucky project aims to:

- analyze gabapentin prescribing in Kentucky, where gabapentin became a Schedule V controlled substance [902 KAR 55:035 §1(e)] in July of 2017, by identifying populations and regions with elevated rates of dispensed prescriptions/doses and by describing patterns of concurrently prescribed controlled substances and other medications; track changes in gabapentin prescribing and associated health outcomes;
- document implementation of Kentucky's 2017 SB32, which amended KRS 218A.202 to re-

quire the Administrative Office of the Courts to forward drug conviction data to CHFS for inclusion in KASPER (Kentucky All Schedule Prescription Electronic Reporting), by (a) identifying appropriate data sources and measures for future evaluation of the law's impact on prescriber/dispenser behaviors; (b) surveying Kentucky prescribers and dispensers on awareness and understanding of the law; and (c) developing and providing continuing education for prescribers/dispensers on the content and interpretation of conviction data in collaboration with stakeholder agencies.

reports and publications

Pauly NJ, Delcher C, Slavova S, Lindahl E, Talbert J, Freeman PR. Trends in gabapentin prescribing in a commercially insured U.S. adult population, 2009–2016. *Journal of Managed Care + Specialty Pharmacy*. 2020;26(3):246–52.

Oh G, Slavova S, Freeman PR. Characterization of gabapentin use in Kentucky after reclassification as a Schedule V controlled substance. *Journal of the American Pharmacists Association* (2003). 2021 May–Jun;61(3):e86–e92. doi: 10.1016/j.japh.2020.12.012. Epub 2021 Jan 7. PMID: 33422420.

continuing education

Continuing education for pharmacists, physicians, nurse practitioners, and dentists on how to interpret drug conviction data in KASPER in the context of clinical care (www.cecentral.com/sb32):

Drug Conviction Data in KASPER: What Is a Pharmacist To Do?

Target Audience: Pharmacists

CE Credit: 1.5 hours ACPE credit

Drug Conviction Data in KASPER: What Is a Prescriber To Do?

Target Audience: Physicians, nurse practitioners, and dentists

CE Credit: 1.5 hours ACCME, CDE, AANP, and HB1 credit

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funding

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other organizations or institutions represented

KASPER (Kentucky All Schedule Prescription Electronic Reporting)

Assessing the Landscape of Recovery Housing in Kentucky

project overview

Recovery housing provides individuals in recovery from substance use disorders a safe, healthy, family-like substance-free living environment and is a critical component in the continuum of care, yet relatively little is known about recovery housing in Kentucky. The goal of this exploratory project was to assess the current landscape of recovery housing—commonly referred to as sober living, recovery residences, or recovery homes—in the Commonwealth of Kentucky through a survey that was completed in December 2020. This exploratory project elucidates the number and geographic location of recovery houses and the array of services that they provide. As a result of this project, a final report was developed and a recovery housing inventory was created that is currently aiding in the development of FindRecoveryHousingNowKY.org.

accomplishments and service

A total of 249 active recovery homes have been identified in the state of Kentucky. This includes 76 Oxford Houses and 173 additional active recovery homes.

A survey was developed and disseminated to owners/operators/staff affiliated with 112 recovery

homes to collect additional information on services offered, policies, and challenges and barriers that recovery housing owners/operators face. The survey had a response rate of 77%, with a total of 86 recovery houses completing the survey. The results demonstrated the following:

- 61% of recovery houses are not handicap accessible;
- The median cost per month for residents is \$400;
- Medication for opioid use disorder is widely accepted at a majority of the recovery houses, but recovery houses indicated specific limitations on what types of medications are allowed;
- 70% of recovery houses were located in urban counties, while 30% were located in rural counties;
- A majority of recovery housing operators reported funding and long-term sustainability as challenges; and
- Eastern and western Kentucky have a scarcity of recovery housing options.

A final report was developed and submitted to the Cabinet for Health and Family Services in December of 2020.

reports and publications

Kirby A, Kizewski A, Bunn T. Recovery housing in Kentucky—Assessing the landscape of recovery housing in Kentucky: Findings from the exploratory project. Kentucky Injury Prevention and Research Center; 2020. <http://bitly.ws/e8tM>

Assessing the landscape of recovery housing in Kentucky—Findings from an exploratory project funded by the Kentucky Opioid Response Effort. Kentucky Injury Prevention and Research Center; 2020. <https://kiprc.uky.edu/sites/default/files/2021-06/RH%20Infographic%20RevisedFeb2021.pdf>

Kirby A, Kizewski A, Bunn T, and Thompson R. Program and policy characteristics of rural versus urban recovery homes. Manuscript in progress.

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funding

The Kentucky Opioid Response Effort, housed in the Kentucky Department for Behavioral Health, Developmental and Intellectual Disabilities in the Cabinet for Health and Family Services, funded by federal grants from the Substance Abuse and Mental Health Services Administration

other organizations or institutions represented

The Kentucky Department for Behavioral Health, Developmental and Intellectual Disabilities

Rural Center of Excellence with Focus on Recovery Housing

project overview

The Health Resources and Services Administration-funded centers of excellence support the identification, translation, dissemination, and implementation of evidence-based programs and best practices related to the treatment and prevention of substance use disorder within rural communities, with a focus on the current opioid crisis and developing methods to address future substance use disorder epidemics.

The Rural Center of Excellence with Focus on Recovery Housing (RCOE-RH) is specifically and uniquely focused on increasing the quality and availability of and access to recovery housing in rural areas across more than 100 counties within the identified service area of Georgia, Idaho, Kentucky, Mississippi, Montana, Ohio, Oregon, Tennessee, Washington, and West Virginia. RCOE-RH also provides technical assistance to recovery housing providers and related organizations across the U.S.

The goals of the RCOE-RH are to:

- assist public health entities with evidence-based and evidence-informed strategies for the prevention of substance use disorder through promotion of recovery housing,
- provide technical assistance to rural communities for the establishment of affordable and sustainable recovery housing and the development of recovery housing quality standards,
- assist rural communities in the establishment of recovery housing options for low-income and high-risk populations, and
- utilize information technology to track, analyze, evaluate, promote, and manage recovery housing options and related resources.

To achieve these goals and more, the RCOE-RH works closely with multiple stakeholders at the national, state, and local levels within the identified service area. These include state and local government, national certification bodies, community organizations, and criminal justice institutions. Stakeholders provide key input on program activities and collaborate closely with program staff and leadership to achieve our mission of increasing high-quality, evidence-based, and available recovery housing options.

The Kentucky Injury Prevention and Research Center is creating a recovery housing portal website that will include three core components: a dynamic near-real-time registry of recovery housing options and availability; a technical assistance, training, and resource directory for RCOE-developed training modules and resources as well as high-quality third-party training and resources; and a resident outcomes management system to track and assess the outcomes of individuals before, during, and after a stay in a recovery house.

accomplishments and service

- Developed, conducted, and analyzed qualitative and quantitative business and technical needs assessments of recovery house owners and operators;
- Developed landscape assessment tool for identifying and cataloguing existing recovery housing across all 10 targeted states;
- Designed and developed technical assistance satisfaction surveys and automated delivery and receipt processes;

- Disseminated and analyzed data from assessment of physician knowledge, sentiments, and practices regarding medication-assisted treatment drugs;
- Established a learning management system with UMU to develop, store, and deliver training and educational content;
- Established contract between The Fletcher Group, Inc. and Get Help, Inc. to leverage

existing technology for recovery housing portal and to further develop the system according to website wireframes;

- Established MOU with SAFE Project to collaborate on portal website development and educational/informational content;
- Launched the Phase 1 beta version of the national recovery housing locator using the Get Help platform.

reports and publications

Miles J, Bunn TL, Kizewski A, Jennings T, Waters T, Johnson D, Sheridan D, and Fletcher E. Assessing technical assistance needs among recovery residence operators in the United States. 2020. Accepted to *Journal of Drug Issues*.

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funding

Health Resource and Services Administration,
 Rural Communities Opioid Response Program,
 awarded to The Fletcher Group, Inc., through
 which KIPRC has received a subaward.

other organizations or institutions represented

The Fletcher Group, Inc.

Lexington Opioid Overdose Prevention

project overview

The Lexington–Fayette County Urban County Government received funding from the Bureau of Justice Assistance to develop and implement a program to follow up with individuals treated for an opioid overdose.

Modifying the Sequential Intercept Model, the Lexington Opioid Overdose Prevention (LOOP) project will be a systemwide initiative and an innovative approach to promoting substance use disorder treatment and recovery support. This innovative

model allows the Lexington Police Department and the Lexington Fire Department to work together to identify survivors of overdose and connect with them. The LOOP coordinator connects the survivor with substance use disorder treatment and recovery services or provides access to lifesaving naloxone and other harm reduction strategies.

Dr. Dana Quesinberry serves as the action researcher for the project and will evaluate its implementation and outcomes.

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funding

Bureau of Justice Assistance
Lexington–Fayette County Urban County
Government

other organizations or institutions represented

Lexington–Fayette County Urban County
Government

Methodological Advances in Evaluating Abuse-Deterrent Opioid Analgesics

project overview

P1: Surveys of Clinical and Pharmacy Practice Involving Abuse-Deterrent Formulations

Lead: Dr. Patricia Freeman, University of Kentucky (project years 1, 2, and 3)

This study will provide information on key factors that influence abuse-deterrent formulation (ADF) prescribing and dispensing behaviors in Kentucky to better understand the context of ADF utilization in clinical practice. The study will elucidate Kentucky pharmacists' derivation of days' supply and determine validity of days' supply calculations to assist in the interpretation of prescription drug monitoring program data.

P3: Establishment of ADF-Related Opioid Mortality Surveillance System

Lead: Dr. Svetla Slavova, University of Kentucky (project years 1, 2, and 3)

This study establishes a novel state-specific near-real-time ADF-related opioid mortality surveillance

system (AOMSS) based on multiple linked data sources to supplement studies on ADF prescribing, misclassification, abuse, and health outcomes. Monthly AOMSS data will provide timely observations and identify potential trends associated with overall ADF prescribing, dispensing, opioid abuse, and clinical condition- and outcome-related effects. Using AOMSS data, we will study opioid misuse progression and the role of ADFs in its prevention among the Kentucky Medicaid beneficiary population.

accomplishments and service

- Pharmacist survey completed and manuscript under development (www.opioiddata.org/studies/pharmacist-prescriber-surveys)
- REDCap AOMSS established for continuous monitoring and research (www.opioiddata.org/studies/linked-opioid-mortality-surveillance)

presentations

Brown JR, Slavova S, Dasgupta N, and Freeman P. Prescribing and dispensing abuse-deterrent opioids: A survey of physicians and pharmacists. Poster presented at the 2020 AcademyHealth Annual Research Meeting; Boston, MA; July 28–Aug 6, 2020. Copy of poster available at <https://www.opioiddata.org/2020/08/physician-survey-poster>.

DiPrete BL, Oh GY, Moga DC, Dasgupta N, Slavova S, Slade E, Delcher C, Pence BW, and Ranapurwala SI. Matching study design to prescribing intention: The prevalent new user design in opioid research. 37th International Society for Pharmacoepidemiology Meeting; August 23–25, 2021; virtual. <https://www.pharmacoepi.org/meetings/37icpe>.

Freeman PR, Dasgupta N, Brown JR, Nocera M, and Slavova S. Assignment of days' supply values in pharmacy practice. 37th International Society for Pharmacoepidemiology Meeting; August 23–25, 2021; virtual. <https://www.pharmacoepi.org/meetings/37icpe>.

- Oh GY, DiPrete BL, Slavova S, Dasgupta N, Ranapurwala SI, Slade E, Delcher C, and Moga DC. Characterizing patients using abuse-deterrent formulations of extended-release opioid analgesics. 37th International Society for Pharmacoepidemiology Meeting, August 23–25, 2021; virtual. <https://www.pharmacoepi.org/meetings/37icpe>.
- Oh GY, Freeman PR, Brancato CJ, McAninch J, Secora A, Collins CL, Dasgupta N and Slavova S. Analytical enhancements in Kentucky’s drug overdose mortality surveillance: Rapid monitoring of trends and decedents’ recent controlled substance prescription history. 37th International Society for Pharmacoepidemiology Meeting, August 23–25, 2021; virtual. <https://www.pharmacoepi.org/meetings/37icpe>.

reports and publications

- Brown JR, Oh G, Wang Y, Slavova S, Delcher C, Dasgupta N, et al. Variation in abuse-deterrent formulation opioid prescribing in California, Florida, and Kentucky in 2018. *The Journal of Rural Health*. 2021;37(1):23–28.
- Dasgupta N, Brown JR, Nocera M, Lazard A, Slavova S, and Freeman PR. Abuse-deterrent opioids: A survey of prescriber beliefs, behaviors, and psychology (submitted to *Pain Medicine*).

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funding

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other organizations or institutions represented

University of North Carolina
 Kentucky Department for Public Health
 Office of the State Medical Examiner
 KASPER (Kentucky All Schedule Prescription Electronic Reporting)

Overdose Data to Action

project overview

The CDC-funded Kentucky Overdose Data to Action (OD2A) program uses a 10-strategy approach that supports state and local data-driven drug overdose prevention interventions. The OD2A program aims to:

- collect/disseminate timely emergency department drug-related data;
- collect/disseminate descriptions of drug overdose death circumstances with medical examiners;
- integrate drug overdose surveillance data and conduct drug overdose confirmatory drug testing to track illicit opioid and other drug supply changes;
- integrate Kentucky All Schedule Prescription Electronic Reporting (KASPER) data into patient electronic health records to inform clinical opioid prescribing;
- integrate state and local prevention activities through harm reduction, academic detailing, technical assistance, jail education programs, innovative intervention projects, and the opioid call center;
- expand FindHelpNowKY.org participation to medication-assisted treatment providers and establish a recovery housing availability website;
- enhance substance use disorder-related care through a perinatal quality collaborative;
- conduct Kentucky Substance Use Research and Enforcement data analysis and support the Kentucky State Police Angel Initiative;
- develop, implement, and evaluate substance use disorder bystander training; and
- create a FindHelpNow peer-to-peer learning network on establishing treatment locators.

accomplishments and service

- Continued onboarding of medication assisted treatment (MAT) providers to FindHelpNowKY.org, marketing the website to health-care and public safety professionals, and enhancing the website overall. Since its launch in February 2018, FindHelpNowKY.org's statistics (to May 2021) include 682 treatment facilities currently indexed, 329 (48%) of which offer MAT services.
- Expanded FindHelpNowKY.org to a national platform, FindHelpNow.org, that can be adopted by other jurisdictions. Thus far, the state of Tennessee, three counties in Ohio, and two counties in California are in the process of joining FindHelpNow.org.
- Developed wireframes for FindRecoveryHousingNowKY.org. Anticipated launch of the website is Fall 2021.
- Updated Kentucky Rapid Drug Overdose Mortality Dashboards for 2020.
- More than 1,000 calls related to opioid exposure concerns received by the Kentucky Opioid Assistance and Resource Hotline.
- Completed more than 50 ad hoc data requests for local and state stakeholders and media outlets.
- Collaborated with 12 high-burden counties and seven support counties on drug overdose data use, strategic planning, coalition building, and sustainability.
- Continued offering monthly program development and evaluation support for jail education programs and innovative drug overdose prevention programs to nine local health or district health departments.
- Disseminated the *Drug Overdose Prevention Tackle Box*, which contains information on

developing community prevention capacity, data sources, and evidence-based, evidence-informed, and promising programs on prevention, harm reduction, and treatment strategies, to 16 local health departments and at the annual Kentucky Public Health Association meeting.

- Incorporated a link to FindHelpNowKY.org into Logicoy, an electronic health record integration solution platform.
- The KASPER integration team developed a testing and validation process that tests functionality and highlights typical behavior. This process allowed KASPER staff to educate the health system technical staff on KASPER functionality and is used to support end users.
- A KASPER integration training guide was developed and is customized to each electronic health system vendor and integration software vendor.
- Developed two free online continuing education products currently available to pharmacists:
 - “Review of CDC Guideline for Prescribing Opioids for Chronic Pain.”
 - “A Summary of the ASAM Practice Guidelines for the Use of Medications in the Treatment of Addiction Involving Opioid Use.”
- Provided combined COVID-19 testing and naloxone education at 10 in-person events and at one virtual event. In total, nearly 500 two-dose units of Narcan were distributed to attendees.
- Held the 2nd Annual Kentucky Perinatal Quality Collaborative (KyPQC) Meeting online in October 2020, which was attended by 197 individuals representing 77% of Kentucky’s birthing hospitals.
- Developed and disseminated baseline surveys to all 46 birthing hospitals in the state to gain information about hospital-specific practices in regards to the care and treatment of women and infants affected by substance use disorder/opioid use disorder. Results from this survey will be utilized to inform future KyPQC initiatives.
- Developed an official KyPQC website (scheduled to launch in Summer 2021).
- Produced four Kentucky Substance Use Research and Enforcement (K-SURE) briefs in partnership with the Kentucky State Police (KSP) that were disseminated to 16 KSP regional posts.
- KSP’s Angel Initiative was temporarily suspended until January 2021 as a result of the COVID-19 pandemic; since its reinstatement in February 2021, the Angel Initiative has placed 37 individuals into substance use disorder treatment.
- KSP’s ability to offer in person crisis intervention training (CIT) trainings was severely impacted as a result of the COVID-19 pandemic and social distancing guidelines; however, since September 2021, 28 KSP troopers have completed CIT training.
- Developed two newsletters to share ongoing OD2A efforts: KyOD2A Happenings (quarterly) and KyOD2A Quick News (weekly to bi-weekly).
 - Produced and disseminated three editions of KyOD2A Happenings to nearly 400 stakeholders from July 2020 to the present.
 - Produced and disseminated 18 editions of KyOD2A Quick News to over 400 stakeholders from July 2020 to the present.
- Conducted the 2020 Virtual Harm Reduction Summit in August 2020, which was attended by 685 professionals from Kentucky and 14 other states, to discuss harm reduction programs and disease prevention strategies.
- Developed substance use disorder bystander curricula that will be pilot tested in Fall 2021 with University of Kentucky campus staff. The OD2A surveillance team partnered with leadership from the Kentucky Opioid Response Effort (KORE) initiative to provide drug overdose morbidity and mortality updates to inform KORE prevention efforts.
- The surveillance team held the first quarterly data summit webinar in April 2021. This webinar was attended by 102 participants.
- State Unintentional Drug Overdose Reporting System (SUDORS) team created a template

guide for QA/QC processes to enhance data quality and control.

- Enhanced surveillance efforts using EMS data enabled the OD2A surveillance team to detect changing patterns in opioid overdoses response during COVID-19 pandemic.

- Article on increased opioid overdoses during COVID-19 pandemic featured in Kentucky Health News (<https://kyhealthnews.blogspot.com/2020/07/data-and-health-directors-observations.html>).

reports and publications

K-SURE Brief No. 12: Five major overdose-related substances in Kentucky, January 1, 2017–September 30, 2020. Kentucky Injury Prevention and Research Center; March 2021.

Drug Overdose Prevention Tackle Box: A Guide for Communities. Kentucky Injury Prevention and Research Center; 2021. <https://kiprc.uky.edu/sites/default/files/2021-01/Drug%20Overdose%20Prevention%20Tackle%20Box.pdf>.

K-SURE Brief No. 11: Five major overdose-related substances in Kentucky, January 1, 2017–June 30, 2020. Kentucky Injury Prevention and Research Center, February 2021.

K-SURE Brief No. 10: Major overdose-related substances in Kentucky, January 1, 2017–March 31, 2020. Kentucky Injury Prevention and Research Center, December 2020.

K-SURE Brief No. 9: A three-year review of substance use and distribution in Kentucky, 2017–2019. Kentucky Injury Prevention and Research Center, December 2020.

Kentucky rapid drug overdose mortality dashboard. Kentucky Injury Prevention and Research Center, 2020. <https://kiprc.uky.edu/sites/default/files/2021-02/RapidMortalityNE.utf8.html>.

Kentucky's Drug Overdose Burden, 2016–2017. Kentucky Injury Prevention and Research Center, 2020.

Slavova S, Rock P, Bush HM, Quesinberry D, Walsh SL. Signal of increased opioid overdose during COVID-19 from emergency medical services data. *Drug and Alcohol Dependence*. 2020;214:108176.

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funding

National Center for Injury Prevention and Control,
Centers for Disease Control and Prevention



Kentucky Violent Death Reporting System

project overview

To better understand why violent deaths occur and to reduce these deaths, the Centers for Disease Control and Prevention developed the National Violent Death Reporting System (NVDRS), a nationwide state-based surveillance system designed to track trends and characteristics of violent death. Kentucky became one of 17 CDC-funded states participating in the NVDRS in 2004; today, all 50 states, Puerto Rico, and Washington, DC, are 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 comprehensive picture of violent death. Without these pieces, violent deaths 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.

presentations

Seals JS. An innovative approach to the veteran suicide crisis using NVDRS data. National Violent Death Reporting System annual reverse site visit; May 11, 2021.

Brown S. Impacts of COVID-19 epidemic. Presented at: Law Enforcement and Public Health Conference; March 22–26, 2021.

Brown S. Youth suicide and gun violence. Professional panelist at: Moms Demand Action for Gun Sense in America meeting; February 15, 2021.

Brown S. Suicide in the time of COVID-19: A perfect storm. Presentation at: HOPE in 2020—A Virtual Community Forum presented by the Suicide Prevention Consortium of Kentucky; November 18, 2020.

Brown S. Escalating violence in the time of COVID-19: A perfect storm. Presentation at: Epidemiology and Biostatistics Joint Lecture Series; October 15, 2020.

reports and publications

Brown S, Schuman DL. Suicide in the time of COVID-19: A perfect storm. *The Journal of Rural Health*. 2020. doi: 10.1111/jrh.12458.

data limitations

The Kentucky Violent Death Reporting System (KYVDRS) reports include only injuries leading to a violent death occurring within Kentucky; this allows KYVDRS staff to collect additional investigative information. The counts of suicides, homicides, and unintentional firearm fatalities in KYVDRS reporting may differ from the Office of Vital Statistics and the National Center for Health Statistics, which reports on Kentucky residents regardless of where the death occurred. These numbers may also vary as a result of different data sources.

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Kentucky Emergency Response for Suicide Prevention

project overview

The Kentucky Department for Behavioral Health, Developmental and Intellectual Disabilities received funding from the Substance Abuse Mental Health Services Administration to develop and implement increased screening and referral to treatment with individuals at risk for suicide in Jefferson County, Kentucky, during the COVID-19 pandemic response.

To support those at risk and reduce suicide attempts and deaths, the Kentucky Emergency Response for

Suicide Prevention project utilizes the current state-wide infrastructure capacity for suicide intervention clinical initiatives in Kentucky, expands capacity of those services to address suicide, adds recovery support, and focuses efforts on COVID-related highest-risk populations of those who have attempted suicide, use substances, are victims of domestic violence, and are homeless.

Dr. Dana Quesinberry serves as the evaluator for the project and will evaluate its implementation.

key personnel

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