

KENTUCKY INJURY PREVENTION AND RESEARCH CENTER

2023 Annual Report

June 28, 2024



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greetings from the director

Terry L. Bunn



Welcome to the Kentucky Injury Prevention and Research Center's (KIPRC's) 2023 Annual Report on research projects and public health initiatives with documented activities and impact in research, policies, and practice.

research

In the area of violence and injury prevention research, in 2023 KIPRC was awarded 16 grants and contracts that totaled almost \$10 million. Published research produced in 2023 by KIPRC faculty and staff includes 11 peer-reviewed and 22 non-peer reviewed publications. In the training of future injury prevention faculty and researchers, five injury-related MPH capstones and PhD dissertations were mentored by KIPRC faculty and staff.

policy

KIPRC informed injury prevention-related legislative bills, including the following two examples:

- The Kentucky Violence and Injury Prevention Program supports the Purple Star program and serves on the Advisory Board with Brigadier General USAF/ANG (Ret.) Steven Bullard, Executive Director of the Kentucky Commission on Military Affairs and Purple Star Advisory Board chairperson, who introduced [HB 469](#). The legislation would formalize schools' commitment to military-connected youth; it was signed by the Governor.
- The Kentucky Violence and Injury Prevention Program launched the Keeping Infants

Safe curriculum on the Prevent Child Abuse Kentucky website, which supports [KRS 158.303](#).

In 2023-2024 KIPRC program activities resulted in 22 media releases related to workplace safety, mental health and substance use disorder resources, public health initiatives, community safety, and research and education initiatives, among others. Twenty-four violence and injury prevention presentations were delivered to community, state, and national agencies and organizations. Community practice activities with local and state partners included the launch of [FindMentalHealthNowKY.org](#), five worker fatality investigations; four KSPAN meetings; three injury prevention toolkits; implementation of the evidence-based Checkpoints™ program in seven counties and 17 high schools; and distribution of over 4,000 medication lock boxes, among others.

partners

KIPRC would like to thank the agencies and organizations that care deeply about injury prevention and partner with KIPRC on implementation and evaluation of their interventions 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 Kentucky.

Keep safe and healthy,

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



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 focusing on adverse childhood experiences (ACEs), traumatic brain injury, older adult falls, transportation safety, and military-connected youth.

These focus areas are addressed through robust data surveillance, informed strategic collaborations and

partnerships, and assessment and evaluation. Under KVIPP, the Kentucky Safety and Prevention Alignment Network (KSPAN)—Kentucky’s statewide injury and violence prevention network—identifies, supports, and evaluates program and policy interventions within priority focus areas and collaborates with partners to inform policies and practices.

Additionally, KIPRC serves as the internationally recognized Safe Communities Accrediting Center for the United States under KSPAN.

accomplishments and service

The evidence-based Checkpoints™ program on teen driver safety was implemented in seven counties and 17 high schools. A total of 23 educators were trained on Kentucky Checkpoints. KVIPP provides Checkpoints materials and updated injury data and maintains a motor vehicle teen crash index to identify counties at highest risk. KVIPP secured an Office of Highway Safety grant to promote Checkpoints in high schools in six counties as well as to promote adolescent occupant protection for elementary and middle schools with Safe Kids Fayette County and Safe Kids Louisville for November 2023 through September 2024. KVIPP also participates in child passenger safety education events with Safe Kids Fayette and partners. KVIPP participates in the Occupant Protection Task Force and the Governor's Executive Committee on Highway Safety.

Sixty law enforcement officers from 37 counties attended Traffic Safety Checkpoints in-person training and received continuing education credits on conducting safe and legal traffic sobriety checkpoints.

KVIPP supported a workshop on abusive head trauma presented by Dr. Jennie Green on September 12, 2023, during the 27th annual Kids Are Worth It® Conference. Sixty-seven participants from public health, mental health, law enforcement, the Department for Community Based Services, and child care fields attended. All survey participants strongly agreed or agreed that they learned child maltreatment and abusive head trauma preventative strategies.

Keeping Infants Safe—an educational curriculum developed by the Pediatric Abusive Head Trauma Advisory Board—was revised and launched statewide. Keeping Infants Safe supports KRS 158.303 and is housed on the Prevent Child Abuse Kentucky (PCAKY) [website](#). PCAKY is an approved

material resource list for the FY 25 Maternal Child Health Package for health departments. Brain molds accompanying the curriculum were provided to the Abusive Head Trauma for Social Workers Train the Trainer event in April 2024, sponsored by PCAKY and Child Victims' Trust fund.

KVIPP supports ACEs prevention with Face It Bluegrass and KSPAN partners through the CONNECT campaign to build family resilience and a resource directory to support the implementation of Safe Environment for Every Kid (SEEK) [Parent Screening Questionnaire-Revised](#) and an [adverse childhood experiences data dashboard](#). KSPAN hosted a webinar, "The Domestic Violence ACE Explored," in March 2024 that had an attendance of 124.

The Justice Cabinet's Child Fatality and Near Fatality Review Panel, KSPAN Home Safety Committee, PCAKY, and KVIPP helped to distribute 4,155 medication lock boxes with educational materials (CONNECT brochure, Child Home Safety Checklist booklet, and the 6 Tips to Safely Store Medicine brochure) to reduce unintentional drug poisonings from October 2023 through October 2024. KSPAN distributed 8,927 medication lock devices with educational materials across Kentucky between February 2022 and June 2024.

KVIPP staff serve on the advisory board of the Purple Star Program, a state-sponsored recognition for individual schools' dedication and support of military-connected youth, providing planning and evaluation support roles. In 2023, 50 schools implemented the Kentucky Purple Star program. KVIPP supports the Governor's Challenge to Prevent Suicide among Service Members and their Families' four regional summits through evaluation.

The Virtual 2023 Fall and Osteoporosis Prevention Summit was held on August 16, 2023, in collaboration with the Kentucky Safe Aging Coalition, Kentucky Department for Public Health, Kentucky

Department for Aging and Independent Living, KSPAN, and KIPRC. Annually, we work to secure a Gubernatorial Proclamation for Falls Awareness Week that occurs the first week of autumn. KVIPP completed the Kentucky Communities to Support Older Adult Falls Programs Assessment; the findings were completed in March 2024 and can be found [here](#).

KVIPP supported an annual High School Green Dot Training Institute held May 16–19, 2023, where Green Dot educators from the 13 Kentucky Rape Crisis Centers provided training to high school teachers and staff. Participants learned how to facilitate the Green Dot curriculum in schools, including how to present the curricular content and best program implementation. The next Training Institute is scheduled for June 11–14, 2024.

KVIPP hosted four KSPAN meetings in 2023 and 2024 that covered a wide range of injury and violence prevention topics and were attended by a total of 286 people.

In 2023, Mason County began the process to become Kentucky's sixth accredited Safe Community.

reports and publications

Kentucky Violence and Injury Prevention Program. (2024). Special Emphasis Report: Adverse Childhood Experiences, 2022. Kentucky Injury Prevention and Research Center.

Kentucky Violence and Injury Prevention Program. (2023). [Kentucky Injury Indicators, 2022](#). Kentucky Injury Prevention and Research Center.

Kentucky Violence and Injury Prevention Program (2023). Kentucky Homicide and Assault Injury Profile by ADD and Kentucky. Kentucky Injury Prevention and Research Center.

Kentucky Violence and Injury Prevention Program (2024). [Injury Prevention Brief: Fire and Burns, 2016–2022](#). Kentucky Injury Prevention and Research Center.

Kentucky Violence and Injury Prevention Program (2024). [Make Fall Prevention a Priority](#). Kentucky Injury Prevention and Research Center.

key personnel

Ashley M. Bush, DrPH, MPH
Steve Sparrow
Robert McCool, MS
Alaina Murphy, MPH
Christina Howard, MD
Tonya Jernigan, LSCW

contact

Ashley Bush, ashleybush@uky.edu
Steve Sparrow, steve.sparrow@uky.edu

funding

Centers for Disease Control and Prevention
Kentucky Department for Public Health, Chronic Disease Branch
Kentucky Office of Highway Safety
Kentucky Agency for Substance Abuse Policy

COVID-19 Suicide Prevention Program: Development of FindMentalHealthNowKY.org

project overview

This project created a mental health treatment locator website that includes three core components: a dynamic near-real-time registry of Kentucky mental health treatment facilities and availability; a robust directory of social service provider organizations and agencies across the Commonwealth; and a repository for informational documents and tools for education related to mental health.

The FindMentalHealthNowKY.org (FMH NKY) website, which has been integrated into FindHelpNowKY.org (FH NKY), was developed in collaboration with the Kentucky Department for Behavioral Health, Developmental and Intellectual Disabilities (DBHDID), and APAX Software.

Specific aims are to:

- develop the FMH NKY website,
- conduct usability testing of FMH NKY,
- integrate FMH NKY with FH NKY,
- recruit mental health treatment facilities to FMH NKY,
- maintain participation of mental health treatment facilities in FMH NKY,
- develop and update a community resources tab within FMH NKY, and
- evaluate FMH NKY using website user statistics and facility statistics.

accomplishments and service

During the reporting period, project team members

- created 13 factsheets on topics related to mental health;
- vetted more than 1,000 community-based social service resources;

- established monthly reporting on all activities for this project;
- identified specific data points that need to be captured in this mental health treatment locator tool for stakeholders (988 call centers);
- created standard operating procedures for outreach and onboarding to both resource and treatment providers;
- onboarded mental health treatment facilities;
- launched FindMentalHealthNowKY.org on March 14, 2024; and
- launched a community resources page on FindMentalHealthNowKY.org on May 22, 2024.

KIPRC leveraged our established relationship with APAX Software to utilize existing technology and further develop the system according to website wireframes. Since March 14, 2024—the launch of FindMentalHealthNowKY.org—through May 31, 2024, more than 900 searches for mental health treatment have been performed; approximately 30% of all FindHelpNow.org visitors are searching for mental health treatment.

presentations

Hines C. FindMentalHealthNowKY.org: Timely Linkage to Mental Health Treatment and Resources. 988 Suicide and Crisis Lifeline Leadership Conference, Frankfort, KY. March 14, 2024.

Ellis J. FindHelpNow: Connecting You to Vital Resources. KSPAN meeting, Frankfort, KY. June 5, 2024.

Hines C. FindHelpNow: Connecting you to Vital Resources. Military-Related Student Success Forum, Louisville, KY. June 18, 2024.

key personnel

Terry Bunn, PhD
Catherine Hines
Joseph Ellis, MSC
Peyton Calhoun

contact

Terry Bunn, tlbunn2@uky.edu

funding

DBHDID awarded KIPRC a contract related to
COVID-19 Suicide Prevention.

Pediatric and Adolescent Injury Prevention

project overview

The Pediatric and Adolescent Injury Prevention Program (PAIPP) has two main 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 data on Kentucky children's deaths and injuries 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 death or injury.

accomplishments and service

PAIPP collaborated with Kentucky Department for Public Health Maternal and Child Health and Child Fatality Review (CFR) coordinators to participate in child fatality review efforts of coroners, local teams, and pediatricians. Fatality review teams have been established in more than 100 Kentucky counties. Through CFR outcomes, in partnership with the Department for Public Health, PAIPP also participates in the national Child Safety Learning Collaborative, which aims to reduce injury and violence-related fatalities, with PAIPP focusing on suicide and self-harm injury prevention through implementation of Zero Suicide, a framework for preventing suicide in health care systems.

PAIPP provides educational opportunities on prevention of child maltreatment, including pediatric abusive head trauma, physical abuse, and pediatric ingestions.

PAIPP collaborated with Kosair for Kids Face It Movement to increase awareness of pediatric ingestions and provide education around safe medication storage. This project concluded in August 2023; 289 individuals completed the Safe Medication Storage training hosted on CECentral to become better informed when discussing safe medication storage with caregivers. This training will remain on the platform for other providers to complete. Additionally, approximately 8,000 medication storage bags have been provided to medication for opioid use disorder (MOUD) providers, safe syringe programs, and Health Access Nurturing Development Services (HANDS) programs across the state. As part of this safe medication storage campaign, eight public service announcements posted on YouTube have had approximately 250,000 total views. Nearly 26,000 safe medication storage flyers were provided with the medication lock bags, including to all 120 extension offices in Kentucky. These safe medication storage flyers remain available for service providers and families for free from Face It. Medication storage tips were printed on 96,000 pharmacy bags to be distributed in Kroger pharmacies in Ashland, Louisville, Nicholasville, and Owensboro.

PAIPP partnered with the Kentucky Safety and Prevention Alignment Network to initiate work on a screening tool to be used in primary pediatric care settings to assist providers in discussing safety concerns in the home and lack of resources (food, transportation, medical care, childcare support). These

safety concerns and lack of resources create barriers to a family's success; if addressed early through regular screenings with primary care providers, referrals can be made to support a family's safety and ability to thrive. PAIPP and KSPAN created a comprehensive resource directory as part of the work to assist providers in making appropriate referrals to services to address safety concerns and social determinants of health. This resource directory is now live and available for providers and other community members to utilize.

During the reporting period, PAIPP participated in community events to distribute educational materials at community health fairs, provide bike helmets and car seats to participants, and offer car seat checks by a certified child passenger safety technician.

key personnel

Christina Howard, MD, FAAP
Tonya Jernigan, LCSW
Kelly Grayson, RN
Carla Hay, RN
Jennifer Perry, LCSW

contact

Christina Howard, ukpedfor@uky.edu

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 for Kids
Centers for Disease Control and Prevention



Kentucky Fatality Assessment and Control Evaluation

project overview

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

accomplishments and services

In the past year, five occupational fatality investigation reports were developed and disseminated to the FACE mailing list and Kentucky Occupational Safety and Health Surveillance social media accounts (Twitter, Facebook, and Instagram):

- 22KY011: Roofing worker dies from a fall (also available in Spanish)
- 22KY096: Carpenter dies after fall from 6-foot ladder (also available in Spanish)
- 23KY005: Roofer in boom lift electrocuted by overhead electrical line (also available in

Spanish)

- 22KY070: Farm services driver killed in highway crash
- 23KY127 Teen truck driver dies in single vehicle semi-truck rollover.

(All FACE case reports can be found on the [FACE website](#).)

In the past year, two hazard alerts were developed and disseminated:

- Hazard Alert: Fatal drug overdose in the workplace (also available in Spanish)
- Hazard Alert: Workers killed in falls from ladders (also available in Spanish).

A [mental health resource flyer](#) was developed with guidance from the Kentucky Department of Behavioral Health, Developmental and Intellectual Disabilities, to provide to individuals who are interviewed by our FACE investigators.

The report, Fatalities, Emergency Department Visits, and Inpatient Hospitalizations due to Occupational Injuries in an Agricultural Setting, Kentucky Workers, By Year, 2017-2022, was produced upon request from the Kentucky Department of Agriculture.

Kentucky contributed a case study involving the review of two potential FACE cases related to a flooding event in eastern Kentucky for the Council of State and Territorial Epidemiologists (CSTE) Occupational Health Subcommittee white paper, [Occupational Health Surveillance for Tracking Climate Change-Related Health Impacts on Workers: Heat, Wildfires & Floods](#).

An article titled “Kentucky Programs Aim to Reduce Workplace Overdoses with Prevention Resources” was featured on NewsBreak in August 2023. The article featured statistics from the Kentucky FACE program and the Kentucky Small Business Toolkit for Hiring Employees in Recovery.

“FACE Report 22KY046: [Demolition laborer dies in fall through skylight](#)” was featured in the November 2023 issue of *Safety+Health* magazine.

A press release promoting the National Stand-Down to Prevent Falls in Construction (May 1-6, 2024) featured the new hazard alert on falls from ladders.

The National Institute for Occupational Safety & Health (NIOSH) featured the following FACE outputs in its monthly newsletter:

- Project manager dies after falling through skylight (July 2023)
- Roofing contractor dies after falling through skylight (July 2023)
- Highway construction flagger dies after being struck by vehicle (July 2023)
- 2022 Annual Report Occupational Fatalities in Kentucky (August 2023)
- Demolition laborer dies in fall through skylight (August 2023)
- Roofing worker dies from fall (September 2023)
- Hazard Alert: Fatal drug overdose in the workplace (November 2023).

The FACE report, “Carpenter dies after fall from 6-foot ladder,” was featured in [Job hazard analysis may have prevented carpenter’s fatal fall from ladder](#) on the Safety News Alert website.

presentations

Mosley H, Honaker R. Kentucky FACE Program. Kentucky Trucking Association Meeting, Louisville, KY. January 9, 2024.

Stumbo D, Honaker R. Kentucky FACE Program. Kentucky League of Cities Safety and Risk Conference, Bowling Green, KY. March, 14, 2024.

Honaker R, Kentucky FACE Program, Kentucky Coroner’s Association Conference, Louisville, KY. May 1, 2024.

reports and publications

Kentucky Fatality Assessment and Control Evaluation. (2023). [Occupational Fatalities in Kentucky Annual Report, 2022](#). Kentucky Injury Prevention and Research Center.

key personnel

Terry Bunn, PhD
Caitlin Pope, PhD
Rebecca Honaker, MPH
Patrick Maloney, MPH

Harold Mosely, BBA, AA
David Stumbo, Ed.D, OHST, CSP
Luis Martinez

contact

Terry Bunn, tlbunn2@uky.edu

funding

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

Kentucky Occupational Safety and Health Surveillance

project overview

The Kentucky Occupational Safety and Health Surveillance (KOSHS) program partners with agencies and organizations to identify safety and health concerns of Kentucky workers and to develop, implement, and evaluate targeted interventions. The KOSHS program conducts comprehensive multi-source population-based surveillance of occupational injuries and illnesses that have occurred in Kentucky, using 30 occupational health indicators (OHIs).

accomplishments and service

Andrew Farrey, syndromic surveillance epidemiologist at KIPRC, set up a weekly syndromic workplace injury dashboard for KOSHS staff to monitor workplace injuries. The weekly report breaks down injuries by county, age group, sex, and race/ethnicity.

The [Worker Injury County Profiles](#) on the KIPRC website were updated with 2021 and 2022 data.

Three new Kentucky-specific OHIs were developed and included in the 2023 Kentucky OHI report:

- OHI #32: Workplace death by suicide using FACE data,
- OHI #33: Drug overdose deaths by industry, and
- OHI #34: Work-related injuries using syndromic surveillance.

The [Kentucky Small Business Toolkit for Hiring Employees in Recovery](#) was published and distributed through the KIPRC website, the KOSHS email list, local chamber organizations, the Ken-

tucky Small Business Development Center, and other key stakeholders. The toolkit was shared on KOSHS social media accounts, through a press release, and in the *KyOD2A Happenings* newsletter.

The toolkit was featured in the December issue of [Safety+Health](#). The Kentucky Statewide Opioid Stewardship included the toolkit in its [online resource list](#). It was also featured in the Sept. 2023 NIOSH eNews.

The article, “[Ensuring workplace safety amid the bustle: Resources for a safer holiday season](#),” was included in the UKNow daily newsletter on December 4 and was posted to the KIPRC website. Subsequently, Program Director Rebecca Honaker was interviewed by WEKU, a central Kentucky NPR station, for a story about [holiday workplace safety](#).

A press release developed for Overdose Awareness Day featured the Hazard Alert, “Fatal Drug Overdose in the Workplace,” and the small business toolkit. It was published on the [KIPRC website](#) and in the [UKNow](#) newsletter.

The [Lexington Times](#) and [Kentucky Health News](#) included a National Recovery Month article featuring the Fatal Drug Overdoses in the Workplace Hazard Alert and the toolkit in September 2023.

The KOSHS team conducted a review of nationwide OSHA fatal and critical injury dump truck driver reports. Chi-square and regression analyses of various categories of fatal and nonfatal injuries were completed and word clouds were developed from the narratives of the inspections. A manuscript was developed and has been submitted to a journal.

KOSHS-produced videos on semi-trailer safety continue to be featured by the Vertical Alliance Group and hosted on the [KIPRC YouTube channel](#). The videos have been viewed more than 220,000 times. The four videos focus on injury prevention while 1) cranking trailer landing gear, 2) entering and exiting the trailer, 3) getting into and out of a truck cab, and 4) opening and closing swing-type trailer doors.

During the current grant year, KOSHS staff mailed 389 notification letters, surveys, and educational materials to adults with elevated blood lead levels. Eighty-eight cases were referred to Kentucky Occupational Safety and Health Administration for follow-up due to blood lead levels greater than or equal to 20 µg/dL.

The 2023 Kentucky Occupational Health Indicators Report was featured in the February 2024 edition of NIOSH eNews.

reports and publications

Bunn TL, Costich JF, Mirzaian M, Daniels L, Wang D, Quesinberry D. [Interrupted time series analysis of drug overdose fatalities in service-related industries vs. non-service-related industries during the COVID-19 pandemic, 2018-2021](#). August 2023. *Journal of Injury Prevention*. 2023 Aug 30;ip-2023-044894. doi: 10.1136/ip-2023-044894. Online ahead of print. PMID: 37648420

Kentucky Occupational Safety and Health Surveillance. (2023). [Kentucky Occupational Health Indicators Report](#). Kentucky Injury Prevention and Research Center.

key personnel

Terry Bunn, PhD
Rebecca Honaker, MPH
Patrick Maloney, MPH
Mira Mirzaian, MPH

contact

Terry Bunn, tlbunn2@uky.edu

funding

Competitive funding received from National Institute for Occupational Safety and Health

Occupational Motor Vehicle Injury Surveillance

project overview

The Occupational Motor Vehicle Injury Surveillance (OMVIS) program received a competitive award from the Centers for Disease Control and Prevention to develop a surveillance system to:

- identify, collect, and describe current and potential comprehensive multisource surveillance data on all occupational motor vehicle injury crashes (fatal and nonfatal) in Kentucky;
- perform quality control of OMVIS surveillance data through a system quality assessment of timeliness, accuracy, completeness, uniformity, integration potential, and accessibility following the National Highway Traffic Safety Administration approach;
- conduct epidemiological analysis of OMVIS data to address occupational motor vehicle crashes and identify specific industry populations at risk;
- inform intervention, prevention, and surveillance improvement activities;
- stimulate future research; and
- prepare and disseminate OMV injury research findings using NIOSH publications and communications, peer-reviewed publications, and presentations to trade associations.

accomplishments

During FY 23, OMVIS accomplished the following goals:

- finalized the development of the approach for identifying occupational motor vehicle crashes involving light and medium vehicles;
- developed a process for linking other

health-related databases that could be used to supplement the crash database;

- generated initial OHIs for small and medium vehicles in Kentucky;
- completed the narrative text mining for the 2018 to 2022 period; and
- developed preliminary data presentations of the crash locations throughout the state using GIS tools.

presentations

Northcutt C, Stamatiadis N, Fields T, and Souleyrette R. Identifying work-related crashes through crash narrative mining. International Congress on Transport Research, Heraklion, Greece. September 20-23.

Northcutt C, Stamatiadis N, Fields T, and Souleyrette R. Data linkage and text mining to estimate occupational crashes for small and medium vehicles. Transportation Research Board 2024 Annual Meeting, Washington, DC. January 7-11, 2024.

reports and publications

Northcutt C, Stamatiadis N, Fields T, and Souleyrette R. 2023. Identifying work-related crashes through crash narrative mining. Proceedings, 11th International Congress on Transport Research, Heraklion, Greece (in press).

Northcutt C, Stamatiadis N, Fields T, and Souleyrette R. 2023. Data linkage and text mining to estimate occupational crashes for small and medium vehicles. *Accident Analysis and Prevention* (in review).

key personnel

Nikiforos Stamatiadis, PhD, PE

Caitlin Pope, PhD

Reginald Souleyrette, PhD, PE

Tony Fields, MS

Terry Bunn, PhD

contact

Nikiforos Stamatiadis, nik.stamat@uky.edu

funding

National Institute for Occupational Safety and
Health



Kentucky Trauma Data Bank

project overview

The Kentucky Trauma Registry was established by state law (Kentucky Revised Statute [KRS] 211.490 et seq.; 902 Kentucky Administrative Regulation [KAR] 28:040) to be the statewide repository for trauma data. Now referred to as the Kentucky Trauma Data Bank, it is housed administratively in the Kentucky Department for Public Health and managed by KIPRC.

Trauma system leadership is provided by the state Trauma Advisory Committee, the membership of which is set out in the governing statute. All trauma

centers designated by the Commissioner for 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 Dictionary.

The trauma centers upload trauma data electronically every quarter into the Kentucky Trauma Data Bank. With support from the National Highway Traffic Safety Administration (NHTSA) 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). As ACS COT does not have guidelines suitable for smaller rural facilities, 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 data bank varies from year to year. There were 27 actively reporting facilities in 2022, and the total number of cases reported for that year is 13,477.

In addition to preparing and disseminating annual trauma data analyses, Trauma Data Bank staff participate in quality improvement initiatives ad-

ressing data integrity and timeliness as part of the NHTSA's five-year assessment of Kentucky-based NHTSA-funded projects.

reports and publications

Kentucky Trauma Data Bank 2022 Annual Report. (2023). Kentucky Injury Prevention and Research Center.

key personnel

Julia F. Costich, PhD, JD
Alaina Murphy, MPH

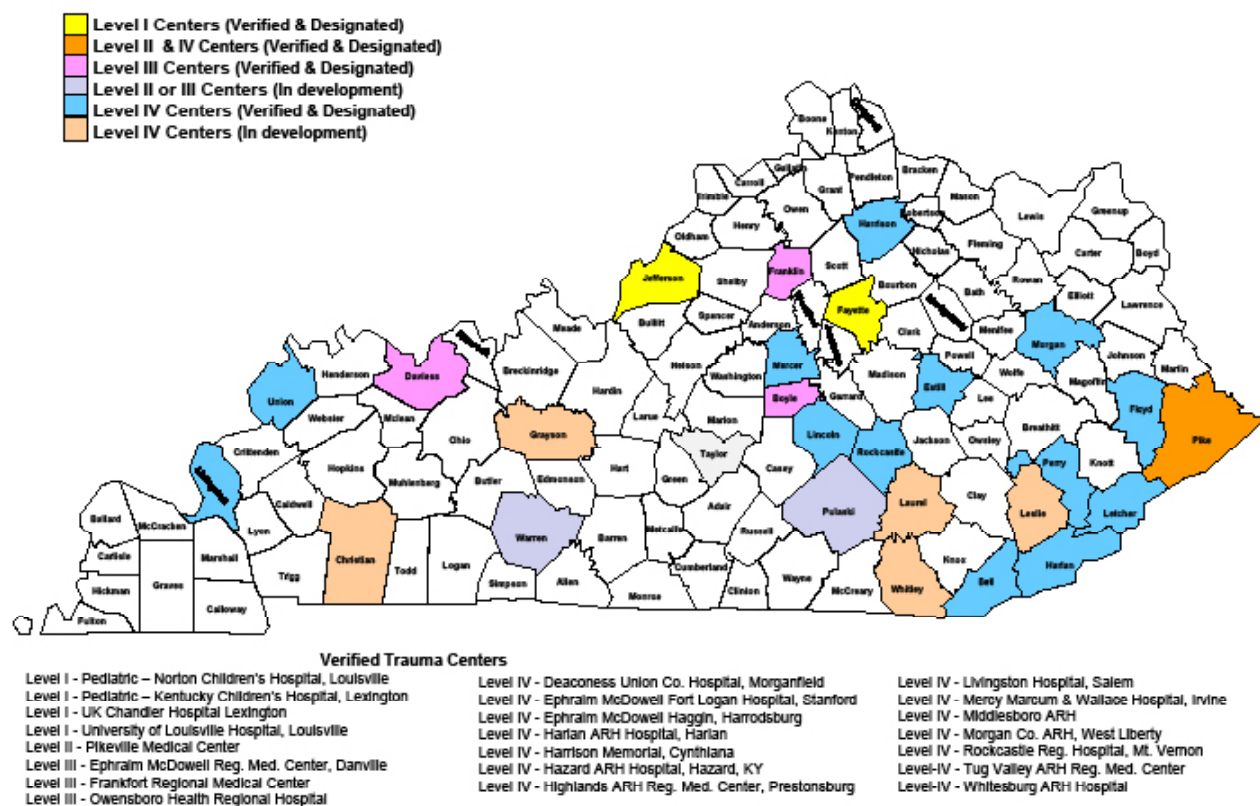
contact

Julia Costich, julia.costich@uky.edu

funding

National Highway Traffic Safety Administration
through Kentucky Transportation Cabinet

Hospitals in the Kentucky Trauma System November 2023



Central Nervous System Injury Surveillance

project overview

The Central Nervous System Injury Surveillance project tracks cases of traumatic brain injury, spinal cord injury, nontraumatic brain injury, and stroke as defined by the Centers for Disease Control and Prevention and KRS 211.470. Cases are selected from the Kentucky Hospital Discharge Database and include 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. (2023). [Central nervous system injury in Kentucky, emergency department visits and hospitalizations 2021](#). Kentucky Injury Prevention and Research Center.

key personnel

Shannon Beaven, BS, slbeav1@email.uky.edu

funding

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



Rural Center of Excellence with Focus on Recovery Housing

project overview

The Rural Center of Excellence on Recovery Housing (RCOE-RH) focuses on increasing the quality and availability of, and access to, recovery housing in more than 100 rural counties within the service area of Georgia, Idaho, Kentucky, Mississippi, Montana, Ohio, Oregon, Tennessee, Washington, and West Virginia.

A subaward to KIPRC supports continuing initiatives and provides opportunities to address specific needs, with a focus on recovery in the workplace. In collaboration with the Facility Guidelines Institute,

the program will work to enhance employment and training opportunities for individuals in recovery within rural communities. With input from Chambers of Commerce, community colleges, and other entities, a comprehensive toolkit is being developed that includes resources and guidelines to help employers and service providers create inclusive recovery ready workplaces. Program staff also will work with recovery house operators to encourage and promote best practices in training and employing individuals in recovery. The initiative will include reaching out to employers to facilitate the creation of employment opportunities while assisting them in developing recovery-ready workplaces.

With the goal of breaking down barriers and building a stronger, more inclusive workforce in rural areas, the program will assist with the expansion of the peer recovery workforce in rural communities.

The goals of the RCOE-RH are to:

- enhance the uptake, quality, and sustainability of recovery housing in rural settings;
- increase access to employment, housing, education, and the other supportive services for individuals in recovery; and
- expand the peer recovery workforce in rural communities.

The RCOE-RH works closely with state and local governments, national certification bodies, community organizations, and criminal justice institutions to achieve the mission of increasing high-quality, evidence-based, and available recovery housing options.

accomplishments and service

During the reporting period, the RCOE-RH

- developed, conducted, and analyzed drug overdose reporting practices across states;
- designed and developed a survey for rural small businesses on how to retain employees in recovery from substance use disorder;
- continued development of courses on the UMU platform, and
- created a collaborative relationship with Colorado to ensure sustainability of the UMU learning system and to expand its reach.

presentations

Thompson RA, Webb-Edgington A, Ashworth M, Fletcher E, Johnson D, Bunn TL. Tackling Substance Use Disorder: Community Partnerships Matter. National Rural Health Association, New Orleans, LA. May 7, 2024.

Webb-Edgington A, Ashworth M, Thompson R, Bunn T. Leveraging Community Partnerships to Address Social Needs and Improve Care Engagement. American Society of Addiction Medicine, Grapevine, TX. April 6, 2024.

Dick L, Hines C, Bunn T. Kentucky Recovery Trifecta Payout. Rx Summit, Atlanta, GA. April 2, 2024.

Baier L, Tiedeman K, Thompson R, Hines C, Bunn TL. Navigating Meaningful Employment in Recovery Housing: Results from a Community Collaborative. National Alliance of Recovery Residences meeting, Dearborn, MI. October 10, 2023.

reports and publications

Ellis J, Clancy GL, Kizewski A, Jennings T, Thompson RA, Arnett P, & Bunn T. (2024). [Justifying the need for a recovery related surveillance system: Exploratory focused interviews](#). *Health Science Reports*. 7:e2038. doi:10.1002/hsr2.2038

key personnel

Terry Bunn, PhD
Catherine Hines
Joseph Ellis, MS
Mira Mirzaian, MPH

contact

Terry Bunn, tlbunn2@uky.edu

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.

Kentucky Access to Recovery Evaluation

project overview

Access to Recovery (ATR) is a linkage strategy supported by the U.S. Substance Abuse and Mental Health Services Administration that was implemented by Kentucky in 2019 to link vulnerable populations in 25 counties with opioid and/or stimulant substance use disorders (SUDs) to recovery support services (RSSs) such as evidence-based recovery housing, transportation, and employment and other community services using a voucher system. If needed, clients are relinked to RSSs following resumption of substance use. Kentucky Access to Recovery (KATR) priority clients who receive RSSs are those recently released from incarceration, veterans, and those who are pregnant/postpartum or parenting children under the age of 18.

Fahe administers the KATR Program in partnership with the Kentucky Opioid Response Effort (KORE).

The KATR Evaluation project is performing a rigorous process and outcome evaluation of this last resort voucher strategy by accomplishing the following specific aims:

- conduct a process evaluation of the KATR linkage strategy to determine whether the KATR strategy is acceptable and accessible to vulnerable populations with SUD who are linked to RSSs; identify barriers and facilitators to KATR implementation; and assess the extent to which the KATR strategy was implemented as designed;
- conduct an outcome and impact evaluation of the KATR linkage strategy; and

- evaluate the long-term effectiveness of implementing vouchers as a linkage strategy in a population requiring RSSs when no other funding sources are available. A within-subjects study design will be used to test the effectiveness of the KATR last resort voucher linkage approach to reduce the risk of nonfatal and fatal overdoses by
 - increasing an individual's recovery capital;
 - reducing resumption of illicit substance use; and
 - promoting relinking to RSSs if illicit substance use is resumed.

accomplishments and service

Recruitment began in July 2023 and was completed for the quantitative portion of the KATR project in February 2024; 458 total KATR clients were recruited from three service areas. Clients will complete surveys at intake and at 6 months, 9 months, and 12 months, approximately. Additionally, monthly check-ins are completed with participants to maintain contact and to establish trust and rapport. Survey questions are collected on multiple data points including recovery capital, substance use history, recovery support and history, overdose history, medications/treatment prescribed for substance use, correctional history, health history, life domain assessment, mental health history, and sexual health history.

Qualitative interviews with three of the four observed groups have begun. This includes KATR clients, KATR administrators and leadership, and

KATR referral agencies. A codebook and data analysis were completed for the KATR referral agency interviews. Recruitment is ongoing for KATR clients. KATR administrators and leadership qualitative interviews have not yet been analyzed and may require additional interviews depending on observed themes.

Standard operating procedures were developed for all aspects of the project. This includes intake data collection, incentive mailing, incentive activation and tracking, participant frequently asked question and administrative discharge procedure development, discharge data collection, participant recruitment, and more.

Two student researchers completed human subject protection training and received UK IRB approval. These students assisted with qualitative interviews and coding.

presentations

Bunn T, Carter K, Kizewski A, Thompson R, Fletcher E, Brancato C, Stigers KM, Tamalonis J, Bingham C. Community-engaged research: Kentucky Access to Recovery study recruitment. Society for the Advancement of Violence and Injury Research, Chapel Hill, NC. April 15, 2024.

Bunn TL, Carter K, Kizewski A, Thompson R, Fletcher E, Brancato C, Stigers KM, Tamalonis J, Bingham C, Smith T. Equal access to recovery for justice-involved and other marginalized populations. Submitted to 2024 National Alliance for Recovery Residences Annual Summit, Richmond, VA. October 7-9, 2024.

key personnel

Terry Bunn, PhD
Amber Kizewski, MA
Kelsey Carter, MA
Candace Brancato, MS
Heather Bush, PhD
Taylor Smith

contact

Terry Bunn, tlbunn2@email.uky.edu

funding

Competitive R01 funding from the National Center for Injury Prevention and Control, Centers for Disease Control and Prevention

STIMuLINK

project overview

STIMuLINK will identify risk/protective factors for stimulant-involved deaths that are actionable, for the development or adaptation of current prevention and intervention efforts. STIMuLINK will link records from fatal stimulant-involved overdoses found in Kentucky's drug overdose fatality surveillance system to electronic medical records (EMR) from the state's largest primary and safety net health care system, UK HealthCare, for the period 2017–2024. This innovative data linkage reduces the surveillance bias associated with medical information obtained only from coroner reports, makes EMR “gold standard” medical information available for research, improves data completeness needed for risk/protective factor ascertainment using the concept of “computable phenotypes,” and enables a comparative cohort of patients found in the EMR (i.e., those with evidence of harmful stimulant use).

Using traditional and novel statistical approaches to analyze these cohorts, STIMuLINK will examine risk/protective factors predictive of fatal stimulant overdose using the social ecological model as the principal framework.

In parallel with these aims, STIMuLINK tests the use of existing biomedical natural language processing (NLP) tools to extract additional factors from the “literal text” notes found in the Drug Overdose Fatality Surveillance System (DOFSS) and compares findings from notes written by coroners to those written by medical examiners in neighboring states. The guidance and open-source software developed from this aim will advance the science of NLP for automating the workflow for injury surveillance.

STIMuLINK's multidisciplinary team includes epidemiologists, computer scientists, lawyers, statisticians, and behavioral scientists with experience working directly with communities affected by the current polydrug overdose epidemic. The project specifically includes ongoing communication points with vulnerable communities and clinical populations to increase the translational impact of the research.

presentations

Delcher C. Data linkage: Real-world impacts from four studies. OD2A Annual Meeting, Atlanta, GA. May 7, 2024.

Delcher C. Unveiling insights: Deciphering acute stimulant toxicity through Natural Language Processing in clinical notes from Kentucky. College on Problems of Drug Dependence Annual Meeting, Montreal, Canada. June 16, 2024.

reports and publications

Delcher C, Anthony N, Mir M. [Xylazine-involved fatal overdoses and localized geographic clustering: Cook County, IL, 2019–2022](#). *Drug and Alcohol Dependence*. 2023;249:110833. doi:10.1016/j.drugalcdep.2023.110833

Harris DR, Anthony N, Quesinberry D, Delcher C. [Evidence of housing instability identified by addresses, clinical notes, and diagnostic codes in a real-world population with substance use disorders](#). *Journal of Clinical and Translational Sciences*. Published online September 4, 2023:1–22. doi:10.1017/cts.2023.626

Harris DR, Delcher C. [Geospatial imprecision with constraints for precision public health: Algo-](#)

[rhythm development and validation](#). *Online Journal of Public Health Informatics*. 2024;16:e54958. doi:10.2196/54958

Harris DR, Fu S, Wen A, et al. [The ENACT Network is acting on housing instability and the unhoused using the Open Health Natural Language Processing Toolkit](#). *Journal of Clinical and Translational Sciences*. Published online May 16, 2024:1-14. doi:10.1017/cts.2024.543

key personnel

Chris Delcher, PhD (affiliate, College of Pharmacy)
Dana Quesinberry, DrPH, JD

contact

Chris Delcher, chris.delcher@uky.edu
Dana Quesinberry, dana.quesinberry@uky.edu

funding

Competitive R01 funding from the Centers for Disease Control and Prevention

Overdose Data to Action

project overview

In September 2023, KIPRC began working on the Overdose Data to Action 2.0 (OD2A-S) cooperative agreement. With the new iteration of OD2A-S, KIPRC transitioned its drug overdose prevention program from a 10-strategy approach that supported overdose surveillance and state and local data-driven drug overdose prevention interventions to a surveillance and prevention program that continues overdose surveillance and emphasizes harm reduction; training of clinicians, EMS workers, and law enforcement personnel on opioid use and stimulant use disorder; and linkage to care.

The surveillance arm of OD2A focuses on

- conducting ongoing statewide surveillance of fatal and nonfatal overdoses using multiple administrative and rapid surveillance data sources;
- monitoring and reporting on overdose anomalies through the Kentucky Drug Overdose Alert System;
- conducting limited bio-surveillance of drugs involved in nonfatal overdoses;
- linking multiple data sources with each other and with criminal justice data and social determinants of health data; and
- disseminating surveillance findings to state and local stakeholders through presentations, reports, data briefs, and ad hoc data requests.

The prevention arm of OD2A focuses on

- increasing clinician/health system engagement through trainings on pain management and screening, diagnosis, and linkage

to care and retention in care for opioid use disorder;

- soliciting/onboarding additional electronic health records and pharmacy management and other system vendors to expand integration through Kentucky All Schedule Prescription Electronic Reporting (KASPER) and provide proactive alerts to integrated KASPER users to inform clinical decision-making;
- increasing and expanding public safety partnerships and interventions through trainings and dissemination of alerts through [Kentucky Substance Use Research and Enforcement](#) (K-SURE) briefs;
- improving harm reduction access for people who use drugs through collaborations with community organizations, training of navigators, and dissemination of risk reduction resources; and
- increasing community-based linkage to care through the implementation of navigators in community outreach programs, development of a resident management system to guide persons with substance use disorder through harm reduction service options, linkage to services through FindHelpNowKY.com, tracking of recovery capital building, and training modules on building recovery capital and maintaining recovery.

accomplishments and service

In coordination with software development partner APAX, Kentucky Department for Public Health's Harm Reduction team, and KIPRC's Find Mental

Health Now team, the rebuild of the [FindHelp-Now.org](#) platform was announced by Gov. Beshear at the March 14, 2024, 988 Suicide and Crisis Lifeline Leadership Conference. The website now features a referral intervention system that displays near-real-time available openings at substance use disorder and mental health facilities and recovery houses, naloxone distribution sites, and social services resources.

The substance use disorder treatment locator [Find-HelpNowKY.org](#) has almost 600 SUD treatment facilities that update their available treatment slots on an at least weekly basis to ensure near-real-time availability for those seeking recovery options. There were 20,564 total site views and 15,055 search events from September 1, 2023, through May 16, 2024.

The [FindRecoveryHousingNowKY.org](#) website, which launched in September 2022, now includes 261 recovery houses in Kentucky; 6,159 searches of the site were performed between September 1, 2023, and May 16, 2024.

Voices of Hope (VOH) hired bilingual recovery coaches from the communities it serves. VOH began hosting Spanish-speaking on-site SMART meeting recovery coaching sessions and harm reduction at Centro de San Juan Diego. Centro de San Juan Diego is located in a primarily Hispanic/LatinX community in Lexington and brings recovery support offerings directly to the community in a familiar space. Similarly, by going to Winburn, Cardinal Valley, and Centro de San Juan Diego, the VOH recovery coach can offer harm reduction supplies (fentanyl testing strips, safer injection kits, safer smoking kits, Narcan, pregnancy tests, emergency contraception, prenatal vitamins, and condoms) to Spanish-speaking communities. As housing is a major barrier for many people who use drugs seeking recovery support, Hope Village (a warming tent) allowed the coach to interact with Spanish-speaking individuals who are experiencing homelessness

and were at the temporary tent through winter. This allowed the distribution of harm reduction and hygiene supplies and the building of trust and reputability between the community of focus and partner organizations. VOH also translated linkage to care resource guides (VOH service flyers) for a Spanish-speaking audience.

The Kentucky Substance Use Research & Enforcement (K-SURE) Collaborative produced nine briefs covering public health and public safety drug overdose-related events across Kentucky and made three presentations.

OD2A staff completed SUDORS Period 14 data abstraction, Phase 1, and Phase 2 data closeout submissions.

At the annual Kentucky Coroners Association Conference in April 2024, representatives from 61 coroner's offices visited KIPRC's table. Forty-five coroners updated their contact information. KIPRC staff received coroner investigation reports (CIRs) from seven coroners at the conference. Six counties utilized our new DOFSS import portal, which can be accessed via QR code or web link. There have been 22 uses by those counties so far. Coroners provided feedback on the new DOFSS Import Portal; one coroner successfully used the Coroner Import Portal by scanning the QR code and uploading his case in real time while at the conference. Another coroner that OD2A staff have had difficulty with getting data from in the past opted to utilize the Import Portal, stating, "It was a much easier and secure option for them."

OD2A staff completed four monthly Drug Overdose Surveillance and Epidemiology (DOSE) System syndromic surveillance (SyS) data submissions, one historic SyS submission in February 2024, and another historic hospital discharge data submission in March 2024.

OD2A staff met monthly with Kentucky Opioid

Response Effort (KORE) staff from the Kentucky Department for Public Health to provide real-time updates on fatal and nonfatal drug overdose trends in the state. Presentations included fatality data from death certificate records and SUDORS and nonfatal-ity data from EMS and SyS data.

The Kentucky Drug Overdose Mortality Report, 2023 was disseminated internally to KORE staff and other Kentucky Department for Public Health leadership. This report combines death certificate and SUDORS postmortem toxicology data to describe current trends in drug overdose fatalities. Results from this report informed a gubernatorial press conference in June 2024, after which the mortality report will be released to the public.

The [Drug Overdose County Profiles Dashboard](#), which compiles data from several sources related to drug overdose-associated morbidity and mortality, was viewed 2,111 times between September 2023 and April 2024.

The [Kentucky Resident Drug Overdose Dashboard](#), which combines fatal and nonfatal drug overdose data from death certificate records, coroner/medical examiner reports, and nonfatal emergency department visits, was updated quarterly. Since September 2023, the dashboard has been viewed 637 times for an average of 2.5 times per day.

OD2A staff epidemiologist Mira Mirzaian published a dashboard for internal use that combines fatal and nonfatal drug overdose data with syringe services program utilization data for the Kentucky Department for Public Health's Harm Reduction staff in May 2024.

The [Kentucky Resident Drug Overdose Deaths 2018–2022 Annual Report](#) has been viewed 121 times and the [Kentucky Resident Emergency Department Visits for Nonfatal Drug Overdoses, 2018–2022](#) report has been viewed 52 times since September 2023. Two jurisdiction-specific drug

overdose-related quarterly reports were disseminated to eight jurisdictions. Additionally, 18 other drug-overdose-related ad hoc reports were disseminated since September 2023.

Since September 2023, OD2A-funded staff presented one poster at the UK Center for Clinical and Translational Science Spring 2024 Conference, five posters at the University of Kentucky's College of Public Health Showcase, and three posters at the University of Kentucky's 2024 Substance Use Research Event.

Mira Mirzaian conducted the Kentucky Overdose Status Update and Data Tools for Prevention Planning webinar in April 2024 to a group of regional epidemiologists. Additionally, three staff members submitted abstracts and were invited to present during breakout sessions at the 2024 Council of State and Territorial Epidemiologists Annual Conference (scheduled for June 2024).

In September 2023, project manager Andrew Farrey presented about how to de-duplicate ESSENCE encounters to upper-level Department for Public Health staff. In May 2024, Andrew presented at two training sessions to Department for Public Health regional epidemiologists on SyS and analysis of SyS data in R. In February 2024 and April 2024, he also performed ad hoc training sessions to instruct KIPRC staff on how to use ESSENCE for public health surveillance.

presentations

Dick L, Hines C, Bunn T. Kentucky Recovery Trifecta Payout. Rx Summit, Atlanta, GA. April 2, 2024.

Mirzaian M. and Steel, M. Kentucky Overdose Status Update and Data Tools for Prevention Planning. KSPAN-hosted webinar. March 19, 2024.

Steel M. Dis-Joint-ED Thinking: A Descriptive Analysis of Emergency Department Visits for

Cannabis-Induced Psychotic Disorder. University of Kentucky 2024 Substance Use Research Event, Lexington, KY. April 23, 2024.

Bowe E. Exploring Marijuana Exposures: Pediatric Patient Presentations and Clinical Trends. University of Kentucky 2024 Substance Use Research Event, Lexington, KY. April 23, 2024.

Clouse M. Care for Pregnant and Postpartum People with SUD. Harm Reduction Advisory Committee meeting, Virtual. February 6, 2024.

Farley V. Results of the Survey of Emergency Departments in Kentucky Regarding the Management of Obstetric and Neonatal Emergencies. KyPQC workgroup meeting, Virtual. May 6, 2024.

[2018-2021](#). August 2023. *Journal of Injury Prevention*. 2023 Aug 30:ip-2023-044894. doi: 10.1136/ip-2023-044894. Online ahead of print. PMID: 37648420

Atyia S, Bunn T, Quesinberry D, Prince T. April 2024. Linkage to Treatment and Recovery Support Services for Patients with a Substance Use Disorder: A Survey of Kentucky Physicians. Submitted to *Southern Medical Journal*.

contact

Surveillance Contact: Dana Quesinberry, dana.quesinberry@uky.edu

Prevention Programming Contact: Terry Bunn, tlbunn2@email.uky.edu

reports and publications

Bunn TL, Costich JF, Mirzaian M, Daniels L, Wang D, Quesinberry D. [Interrupted time series analysis of drug overdose fatalities in service-related industries versus non-service-related industries during the COVID-19 pandemic](#),

funding

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

key personnel

Dana Quesinberry, DrPH, JD
Terry Bunn, PhD
Peter Akpunonu, MD
Reagan Baum, PharmD
Adam Boulden, MBA
Claudia Brisson
Sabrina Brown, DrPH
Ashley Bush, DrPH
Josh Bush, PhD, CPA
Monica Clouse, MPH, CPH
Lara Daniels, MPH
Michelle Dean, LPN
Leah Dick, MPH
Andrew Farrey, MPH

Lindsay Fetherolf, MS, MA
Caroline Handshoe
Sarah Hargrove, MS
Jessica Hicks, MPA
Catherine Hines
Christin Kane, MBA
Angela Kirby, MPA
Tony Mangino, PhD
Julia Martin, MD
Robert McCool, MS
Genia McKee
Mira Mirzaian, MPH
Amy Monaghan
Alaina Murphy, MPH

Dee Naurath
Will Overstreet
Leslie Pennington
Stephanie Ramsey, MA
Grayson Ritchie
Allison Rogers
Jacqueline Seals, DrPH
Lydia Shevlin
Emily Slade, PhD
Meghan Steel, MPH

Opioid Data Lab: Understanding Overdose through Scientific Innovation

project overview

Opioid Data Lab: Understanding Overdose through Scientific Innovation focuses on developing a methodology for classifying drug poisoning deaths (i.e., drug overdose deaths) as single- versus polydrug poisoning deaths and developing analytical tools that can be used by surveillance epidemiologists and researchers.

In 2016, the Centers for Disease Control and Prevention's National Center for Health Statistics (NCHS), in collaboration with the U.S. Food and Drug Administration, developed a methodology for analysis of literal text on U.S. electronic death certificates to identify specific drugs mentioned with involvement (DMI). The DMI methodology uses a drug search term list (including drug names, metabolites, and misspellings cross-walked to generic drug names) and contextual phrases to capture specific drugs identified by medical examiners/coroners as contributing to drug poisoning deaths and listed on the death certificate. To date, the use of the DMI methodology has been limited to a few NCHS publications tracking changes in drugs most frequently involved in U.S. drug overdose deaths. Our program is built on existing DMI methodology to develop a polydrug poisoning death classification framework and an analytical toolbox (including programming code, guide, test dataset) to facilitate drug-involved reporting and research.

presentations

Slavova S, McAninch J, Dasgupta N, Oyler D, and Freeman P. Methodological Challenges

for Single- vs Polydrug Classification of Drug Overdose Deaths. International Society for Pharmacoepidemiology conference, Halifax, Nova Scotia. August 23-27, 2023.

reports and publications

Freeman PR, McAninch J, Dasgupta N, Oyler DR, Slavov K, Collins C, Hargrove S, Freeman E, Miracle D, & Slavova S. (2023). [Drugs involved in Kentucky drug poisoning deaths and relation with antecedent controlled substance prescription dispensing](#). *Substance Abuse Treatment and Prevention Policy*, 18(1), 53.

Lei F, Lofwall MR, McAninch J, Adatorwovor R, Slade E, Freeman PR, Moga DC, Dasgupta N, Walsh SL, Vickers-Smith R, Slavova S. [Higher first 30-day dose of buprenorphine for opioid use disorder treatment is associated with decreased mortality](#). *Journal of Addiction Medicine*. 2024 Apr 10. doi: 10.1097/ADM.0000000000001300. Online ahead of print. PMID: 38598300

key personnel

Svetla Slavova, PhD
Trish Freeman, RPh, PhD
Doug Oyler, PharmD
Krassimir Slavov, MS
Peter Akpunonu, MD
Sarah Hargrove, MS
Amber Kizewski, MA

contact

Svetla Slavova, ssslav2@email.uky.edu

funding

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organizations or institutions represented

University of North Carolina Chapel Hill
Centers for Disease Control and Prevention, National Center for Health Statistics
U.S. Food and Drug Administration



Kentucky Violent Death Reporting System

project overview

To better understand why violent deaths occur and to reduce the number of these deaths, 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. In 2004, Kentucky became one of 17 CDC-funded states participating in the NVDRS; today, all 50 states, Puerto Rico, and Washington, DC, are funded. 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 are uploaded to the national system. Together, this information provides a more comprehensive picture of violent death. By integrating multiple data sources to form a violent death surveillance system, formerly disparate pieces of information can be compiled and analyzed.

The Kentucky Violent Death Reporting System (KYVDRS) tracks trends and patterns and iden-

tifies vulnerable populations. Of notable concern are combat veterans with not only the outcome of suicide but also suicidal ideation and behaviors. Segments on veteran suicide research by KYVDRS were aired on Lexington television stations [WKYT](#) and [Fox 56](#).

Given the importance of death scene information for public health prevention efforts and criminal prosecution, innovative approaches are needed to help gather death scene information and forensic evidence in resource-constrained settings. To improve the timeliness of death scene data, the KYVDRS was awarded a Data Science Demonstration Project grant from the American Public Health Association.

presentations

Brown SV, Karki A, Kidwell B. Death Scene Investigation Mobile Technology: A New Path to Prevention. The National Violent Death Reporting System annual conference, Atlanta, GA. August 2, 2023.

Brown SV, Karki A, Kidwell B. Data Science, a Tool for Injury and Violence Prevention. American Public Health Association, Atlanta, GA. November 13, 2023.

Brown, SV. Death Scene Investigation Mobile Technology: A New Path to Prevention. American College of Preventive Medicine Annual Conference, Washington, DC. April 18-21, 2024.

reports and publications

Schuman DL, Seals J, Stromberg A J, Hawk GS, Thompson KL, & Brown S. (2023, December 14). [Kentucky veteran and nonveteran suicide 2010–2019: A feasible solution algorithm test of perfect storm theory](#). *Journal of Rural Mental Health*. Advance online publication.

key personnel

Sabrina Brown, DrPH
Red Markert
Alaina Murphy, MS
Leigh Marguerite
Jacqueline Seals, DrPH

contact

Sabrina Brown, sabrina.brown@uky.edu

funding

Centers for Disease Control and Prevention

Kentucky Advancing Violence Epidemiology in Real Time

project overview

Kentucky Advancing Violence Epidemiology in Real Time (KY AVERT) is a surveillance system with the goal of increasing the timeliness and availability of morbidity data for

- all firearm injuries regardless of intent;
- violence-related injuries (including firearm, sexual, interpersonal, youth, intimate partner, intentional self-directed, child abuse, etc.); and
- mental health-related conditions.

Several databases lend insight into injury patterns in Kentucky, including those that surveil emergency department visits, inpatient hospitalizations, death certificates, and emergency medical services.

The KY AVERT team works with local and state-wide agencies, including but not limited to local health departments and community stakeholders, to disseminate the trends and patterns of violence-re-

lated and firearm injuries and mental health conditions to key partners for a timelier response to changes and to create more targeted interventions.

presentations

Seals J. Kentucky Safety and Prevention Alignment Network Meeting. An Introduction to KY AVERT, Frankfort, KY. February 29, 2024.

key personnel

Jacqueline Seals, DrPH
Andrew Farrey, MPH
Rebecca Day

contact

Jacqueline Seals, jacqueline.seals@uky.edu

funding

Centers for Disease Control and Prevention