

KENTUCKY INJURY PREVENTION AND RESEARCH CENTER

2022 Annual Report

June 28, 2023



<https://kiprc.uky.edu/>

Table of Contents

from the director.....	1
------------------------	---

community injury prevention

Kentucky Violence and Injury Prevention Program	3
COVID-19 Suicide Prevention Program: Development of FindMentalHealthHelpNowKY.org	6
Pediatric and Adolescent Injury Prevention	7

occupational safety and health

Kentucky Fatality Assessment and Control Evaluation.....	9
Kentucky Occupational Safety and Health Surveillance	11
Occupational Motor Vehicle Injury Surveillance	13
COVID-19 Vaccination Hesitancy in Long-Term Care Employees.....	14
COVID-19 Surveillance of Work-Related Cases	15

trauma

Kentucky Trauma Registry	16
Central Nervous System Injury Surveillance.....	18

drug overdose prevention

Action Research To Reduce Opioid Supply and Demand	19
Substance Use Disorder/Mental Health Intersection Epidemiology Project	21
Rural Center of Excellence with Focus on Recovery Housing	22
Kentucky Access to Recovery Evaluation	24
Methodological Advances in Evaluating Abuse-Deterrent Opioid Analgesics	26
STIMuLINK	27
Overdose Data to Action.....	29
Opioid Data Lab: Understanding Overdose through Scientific Innovation.....	33

intentional injury

Kentucky Violent Death Reporting System	34
---	----

from the director

Terry L. Bunn



Welcome to the [Kentucky Injury Prevention and Research Center](#)'s (KIPRC's) 2022 Annual Report on collaborative research, surveillance, interventions, and community practice.

During the reporting period of July 1, 2022, through June 30, 2023, KIPRC produced research studies on multiple injury topics, including 11 peer-reviewed and 28 nonpeer-reviewed articles. In addition, 14 research and surveillance presentations were given by KIPRC faculty and staff.

As the Safe Communities Accrediting Center for the United States, KIPRC was pleased to certify Marion County as Kentucky's fifth Safe Commu-

nity in 2022. Additionally, 2022 saw the teen driver safety program Checkpoints™ implemented in two Kentucky high schools, bringing the total to 17 schools across the Commonwealth. KIPRC's Kentucky Violence and Injury Prevention Program (KVIPP) provides Checkpoints materials and updated injury data and maintains a motor vehicle teen crash index to identify counties at highest risk.

In response to a spate of deaths resulting from occupational falls through skylights, KIPRC's Kentucky Occupational Safety and Health Surveillance program produced a toolkit on preventing such falls. Each item in the toolkit is available in English and Spanish.

KIPRC surveillance revealed that the number of drug overdoses in Kentucky decreased in 2022 for the first time since 2018, as announced by Gov. Andy Beshear and Dr. Dana Quesinberry in April 2023. KIPRC is proud to administer or support several programs aimed at drug overdose prevention and substance use disorder treatment and recovery. Highlights of those programs include the following:

- Following the success of KIPRC's near-real-time SUD treatment locator FindHelpNow.org, KIPRC launched FindRecoveryHousingNowKY.org in September 2022, which helps people in recovery from SUD find safe recovery housing. To date, 171 recovery houses in Kentucky have signed up to participate on the site and more than 9,000 searches have been performed. A mental health treatment locator is currently in development.
- Since August 2022, 224 individuals completed the Pediatric and Adolescent Injury Prevention Program's (PAIPP's) Safe Medication Storage training, supported by KIPRC's Overdose Data to Action grant, to become better informed when discussing safe medication storage with caregivers. As

part of the program, PAIPP also distributed 3,970 medication storage bags to programs across the state to prevent accidental drug ingestion by children.

- Similarly, KVIPP distributed 3,150 medication lock boxes with education materials across the state.
- More than 1,200 professionals from 36 states, Puerto Rico, and Canada participated in the 2022 Kentucky Harm Reduction Summit, a 33% increase over the previous year. This year's Summit, held June 14 and 15, was the first to be held in person, with 400 people registered.

KIPRC is grateful to the agencies and organizations with which we collaborate on injury prevention, and we would like to thank the Kentucky Department for Public Health for continuing to entrust 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 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, traumatic brain injury, older adult falls, transportation safety, and military-connected children.

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

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

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

accomplishments and service

In 2022, Marion County became Kentucky's fifth accredited Safe Community.

Teen driver safety program Checkpoints™ was implemented in 17 Kentucky high schools; nine are located in rural Kentucky with support from the Ford Driving Skills for Life and Governors Highway Safety Association in collaboration with the Kentucky Office of Highway Safety. KVIPP provides Checkpoints materials and updated injury data and maintains a motor vehicle teen crash index to identify counties at highest risk.

Seventy law enforcement officers from 40 counties attended KVIPP's two in-person trainings on conducting safe and legal traffic safety checkpoints.

KVIPP supported a workshop on abusive head trauma and safe sleep at the Prevent Child Abuse Kentucky (PCAKY) Kids Are Worth It Conference in September 2022. The "Abusive Head Trauma and Safe Sleep 101: What Investigators Need to Know" workshop was led by Melissa Currie, MD, FAAP, endowed chair for pediatric forensic medicine with the University of Louisville School of Medicine Department of Pediatrics, and had 88 participants.

Keeping Infants Safe—a curriculum developed and implemented in partnership with Northern Kentucky District Health Department (NKY Health), PCAKY, and Kentucky Department for Public Health (DPH) Maternal Child Health (MCH)—was modified for delivery to pregnant and expecting mothers at substance use disorder treatment centers.

With the Justice Cabinet's Child Fatality and Near Fatality Review Panel, KSPAN, and PCAKY, KVIPP distributed 3,150 medication lock boxes with materials across the state to reduce unintentional

drug ingestion injuries among children.

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. KVIPP staff presented "Supporting statewide implementation of Kentucky Purple Star and sustaining programming nontraditionally" to 67 attendees at the Purple Star USA National Convening of Schools and Communities conference with Seven Counties Services.

KVIPP co-chaired a Council for State and Territorial Epidemiologists Child Abuse and Neglect Exploratory Indicator Workgroup, which led to the development of the ["Nonfatal Child Abuse and Neglect Hospitalizations Exploratory Indicator Guidance"](#) document.

The Kentucky Safe Aging Coalition's 2022 Falls and Osteoporosis Summit was held in collaboration with KDPH, the Kentucky Department for Aging and Independent Living, and KSPAN; 192 individuals from 25 states attended.

KVIPP worked with partners to develop and launch a traumatic brain injury assessment with the Brain Injury Alliance of Kentucky to better understand coordination of care and resources.

KVIPP supports virtual Summer High School Green Dot Training Institute, where Green Dot educators from the 13 Kentucky Rape Crisis Centers provide training to high school teachers and staff. This year's training was held May 16-19.

KVIPP hosted three hybrid KSPAN meetings that covered a wide range of injury and violence prevention topics and were attended by a total of 197 people.

reports and publications

Kentucky Violence and Injury Prevention Program. (2023). Special Emphasis Report: Traumatic Brain Injury, 2021. Kentucky Injury Prevention and Research Center.

Kentucky Violence and Injury Prevention Program. (2023). Kentucky Injury Indicators, 2021. Kentucky Injury Prevention and Research Center.

Kentucky Violence and Injury Prevention Program. (2023). Special Emphasis Report: Unintentional Motor Vehicle Traffic Injuries, 2021. Kentucky Injury Prevention and Research Center.

key personnel

Ashley M. Bush, DrPH, MPH

Steve Sparrow, BS

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

Ford Driving Skills for Life and Governors

Highway Safety Association

Kentucky Agency for Substance Abuse Policy

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

project overview

This project is creating a near-real-time mental health treatment locator website that includes three core components: a dynamic near-real-time registry of mental health treatment options and availability; a robust social 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 topics.

The FindMentalHealthNowKY.org (FMHINKY) website, which will be integrated into FindHelpNowKY.org (FHINKY), is being developed in collaboration with the Department for Behavioral Health, Developmental and Intellectual Disabilities (DBHDID) and APAX Software. Specific aims are to:

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

accomplishments and service

During the reporting period, project team members

- developed, conducted, and analyzed an informal qualitative and quantitative business and technical needs assessment of Community Mental Health Centers and 988 call centers;

- developed a template for logging more than 7,000 community-based social service provider resources;
- established regular quality 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);
- interviewed mental health treatment providers to gauge interest and provide feedback on the website's development; and
- developed multiple one-page educational documents on topics related to mental health and occupational health and safety.

KIPRC is using an established relationship with APAX Software to leverage existing technology and further develop the system according to website wireframes.

Website designs were created and approved by stakeholders within KIPRC, DBHDID, and Community Mental Health Centers.

key personnel

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

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 DPH Maternal and Child Health and Child Fatality Review 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.

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 inges-

tions and provide education around safe medication storage. Since August 2022, 224 individuals have completed the Safe Medication Storage training hosted on CECentral to become better informed when discussing safe medication storage with caregivers. Additionally, 3,970 medication storage bags were provided to medication for opioid use disorder providers, safe syringe programs, and HANDS programs across the state. As part of this safe medication storage campaign, public service announcements were recorded for radio and television, safe medication storage flyers were provided for distribution to all 120 extension offices in Kentucky, and medication storage tips will be printed on pharmacy bags at four Kroger pharmacies across the state.

PAIPP partnered with the Kentucky Safety and Prevention Alignment Network to initiate the Safe Environment for Every Kid (SEEK) Model in primary pediatric care settings to assist providers in discussing safety concerns in the home (lack of working smoke detectors, parental substance misuse, food insecurity, child abuse, intimate partner violence in the home) and connecting families to resources. PAIPP and KSPAN created a comprehensive resource directory, as part of the SEEK Model, to assist providers in making appropriate referrals to services to address safety concerns and social determinants of health.

During the reporting period, PAIPP participated in community events to distribute educational materials, 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):

- 22KY006: Delivery Driver Crushed by Granite Slab
- 22KY083: Equipment Operator Crushed by Skid-Steer Attachment
- 23KY009: Project Manager Dies after Falling through Skylight

- 22KY096: Roofing Contractor Dies after Falling through Skylight
 - 22KY097 Highway Construction Flagger Dies after Being Struck by Vehicle
- (All FACE case reports can be found on the [FACE website](#).)

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

- Hazard Alert: Working in Winter Weather
- Hazard Alert: Fatalities Caused by Falls through Skylights

The KOSHS team undertook a complete review of the data being collected and recorded for the FACE program, which led to the modernization of the FACE database and data collection process. The FACE database was transferred from Microsoft Access to REDCap and reorganized with branching logic to streamline the process of data entry.

A new FACE program flyer in English and Spanish was provided to all coroners, law enforcement agencies, medical examiners, etc.

FACE produced a report that showed a rise in occupational overdose deaths from 2019 to 2021 that was published in the *OD2A Happenings* newsletter and UKNow. KET's Kentucky Edition interviewed the KOSHS program director for a story about occupational overdose deaths.

FACE case report 22KY006 was featured in the November 2022 edition of the National Safety Council's *Safety+Health* magazine.

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

- 2021 Annual Kentucky FACE Report
- 22KY006: Delivery Driver Crushed by Granite Slab

A FACE press release on construction suicide prevention week that includes Kentucky and US data on suicides in the construction industry was produced and disseminated.

publications

Kentucky Fatality Assessment and Control Evaluation. (2022). Occupational Fatalities Annual Report, 2021. 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 occurring in Kentucky, using 30 occupational health indicators.

accomplishments and service

The KOSHS program collaborated with the FindHelpNowKY.org team to develop an [informational handout](#) focused on the mental health impacts of shift work. The one-pager was published on the KIPRC website and FindHelpNowKY.org and shared on the KOSHS, KIPRC, and FindHelpNowKY social media pages during mental health awareness month.

A new [toolkit](#) was developed on the topic of preventing construction falls through skylights. The toolkit contains a hazard alert, two fatality reports, and a fatality case study presentation. Each item in the toolkit is available in English and Spanish. The toolkit was disseminated to the FACE email list and KOSHS social media accounts during the National Stand-Down to Prevent Falls in Construction Week. A press release about Stand-Down Week and the new toolkit was published on the KIPRC website and on the University of Kentucky's daily digital newsletter, UKNow.

In June 2022, data supplied in response to the monthly blood lead data request by the KOSHS epidemiologist was incomplete. It was discovered that some blood lead testing labs had stopped reporting. Additional data were requested and received in May 2023. The KOSHS epidemiologist is receiving data monthly moving forward.

A needs assessment report was developed based on the semi-structured interviews to inform the creation of a Small Business Recovery-Friendly Workplace Toolkit. A draft of the toolkit was developed and focus groups have been conducted and surveys administered to gather feedback.

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 200,000 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.

A press release, developed in preparation for drowsy driving prevention week, featured interviews from OMVIS and KOSHS staff and included crash data. The press release was published on the KIPRC website, was featured on UKNow, and was shared through multiple social media accounts.

KOSHS staff collaborated with the UK College of Agriculture to develop definitions of work-relatedness for motor vehicle collisions, specifically for commuting workers.

reports and publications

- Bunn TL, Liford M, Turner M, Bush A. (2022). Driver injuries in heavy vs. light and medium truck local crashes, 2010-2019. *Journal of Safety Research*. 83:26-34. doi: 10.1016/j.jsr.2022.08.001. Epub 2022 Aug 10. PMID: 36481016.
- Kentucky Occupational Safety and Health Surveillance. (2023). Kentucky Occupational Health Indicators Report. Kentucky Injury Prevention and Research Center.
- Mirzaian M, Sanderson W, Browning S, Bunn T. (2022). Workers' compensation reported injuries among distillery industry workers, 2010-2019. *American Journal of Industrial Medicine*. 65(6):483-491. doi: 10.1002/ajim.23350. Epub 2022 Mar 25. PMID: 35338513.

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 analyses 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;
- prepare and disseminate OMV injury research findings using NIOSH publications and communications, peer-reviewed publications, and presentations to trade associations.

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

COVID-19 Vaccination Hesitancy in Long-Term Care Employees

project overview

On August 18, 2021, the Center for Medicare and Medicaid Services announced that it would be requiring all nursing home staff to be vaccinated against COVID-19. In an effort to understand the vaccine hesitancy of this workforce before the requirement went into effect, the Kentucky Occupational Safety and Health Surveillance program explored vaccine hesitancy among long-term care (LTC) employees. The project began with a review of the literature to better understand if hesitancy to COVID-19 vaccination in this work group in Kentucky is similar to that of other areas. Additionally, in collaboration with state partners, the program developed and implemented a survey to identify any reasons for the hesitancy and the motivation driving decisions regarding being vaccinated for COVID-19.

The project utilized an approved CDC survey template to develop a 30-question survey for employees identified as nonvaccinated by organizational leadership. With expedited IRB approval, the survey was disseminated through LTC leadership to unvaccinated employees. The survey launched in mid-November 2021 and was available for three weeks. Twenty-seven participants began the survey and 23 completed it.

The COVID-19 Vaccine Hesitancy among Long-Term Care Staff in Kentucky, 2021 data report is available on the [KIPRC website](#).

key personnel

Paula Arnett, DrPH, MBA, paula.arnett@uky.edu

funding

National Institute for Occupational Safety and Health

COVID-19 Surveillance of Work-Related Cases

project overview

The Kentucky Occupational Safety and Health Surveillance Worker Safety and Health Supplement program expands KOSHS surveillance to identify work-related COVID-19 cases within Kentucky.

Kentucky syndromic surveillance data from March 2020 through June 2021 revealed 361 work-related COVID-19 cases. Four geographical areas in Kentucky were identified as hot spots for this period.

Additionally, the National Institute for Occupational Safety and Health Industry and Occupational Computerized Coding System was used to code Kentucky COVID death certificates for industry and occupation. Of the more than 9,000 work-related COVID death certificates from March 2020 through June 2021, 7,036 cases had sufficient information to be analyzed. Clusters were identified using worker's compensation claims. There were 15,860 COVID-related claims from January 1, 2020, through June 30, 2021. A list of companies

within the top industries in the identified clusters was generated. The research team is reaching out to these companies to conduct semi-structured interviews asking about COVID-19 response, policies, and procedures during the pandemic. A report will be developed with industry-specific best practices for pandemic response.

presentations

Arnett P. COVID-19 surveillance of work-related COVID cases. Southeast Regional Research Symposium, Southeastern States Occupational Network; March 21-23, 2022, Chapel Hill, NC.

key personnel

Paula Arnett, DrPH, MBA, paula.arnett@uky.edu

funding

National Institute for Occupational Safety and Health



Kentucky Trauma Registry

project overview

The Kentucky Trauma Registry (KTR) 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. It is housed administratively in the Kentucky Department for Public Health and managed by KIPRC.

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

Public Health in the Kentucky Trauma Care System maintain trauma registries that are compatible with National Trauma Data Bank standards established in the National Trauma Data Standard Data Dictionary.

The trauma centers upload 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). 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 registry varies from year to year. There were 27 actively reporting facilities in 2022, and KTR anticipates that the total number of cases reported for that year will exceed 14,000 once all reports are completed.

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.

presentations

Kentucky Trauma Registry Update; Kentucky Trauma Symposium, October 2022; Louisville, KY.

publications

Costich JF, Daniels L. (2022). Kentucky Trauma Registry Report 2021. Kentucky Injury Prevention and Research Center.

key personnel

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

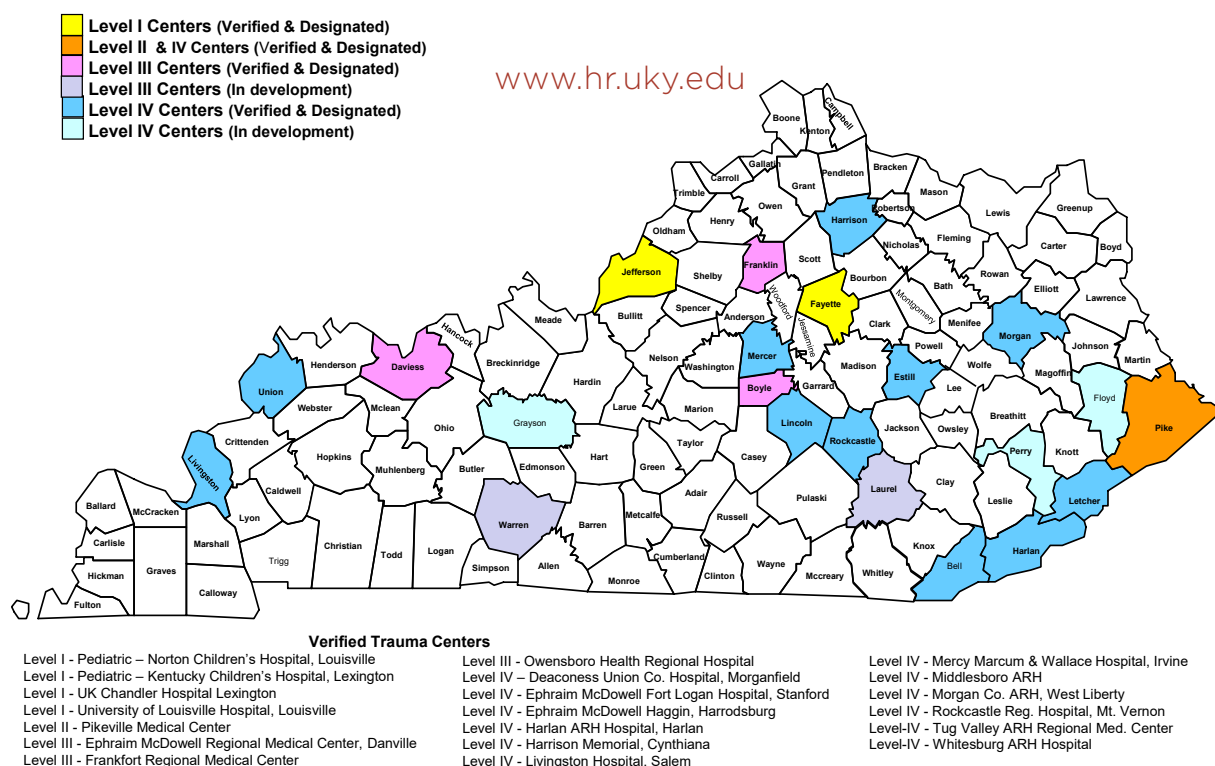
contact

Julia Costich, julia.costich@uky.edu

funding

National Highway Traffic Safety Administration
through Kentucky Transportation Cabinet

Hospitals in the Kentucky Trauma System (March 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 CDC 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.

publication

Beaven, S. (2022). 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



Action Research To Reduce Opioid Supply and Demand

project overview

This program, which concluded in September 2022, made measurable impact by (a) supporting evaluation of recently implemented opioid prescribing protocols within specific services and patient populations and (b) developing a one-of-a-kind linked data set to facilitate future safe opioid prescribing initiatives at the University of Kentucky.

Our team of biostatisticians, in collaboration with physicians, pharmacists, and the director of the Office of Opioid Safety at UK HealthCare (UKHC), designed and implemented several studies evaluating opioid use after discharge. These studies used a novel linked data set combining UKHC electronic health record data (169,927 patients discharged between January 2017 and January 2022) and statewide prescription drug monitoring program data obtained pursuant to a data use agreement. Use

of the linked data set allowed for a comprehensive evaluation of patient opioid use regardless of prescriber, which has never been done at this scale.

The team designed and completed four separate evaluation studies for patients discharged after (1) orthopedic trauma, (2) cesarean section, (3) hernia repair, and (4) hysterectomy/urogynecologic procedures. These evaluations resulted in one published paper, one manuscript under review, and multiple presentations at medical research conferences.

publications

Oyler DR, Slade E, Slavova S, Matuszewski PE, Lei F, Herndon B, Johnson S, Moghadamian ES. (2022). Effect of a multimodal analgesic protocol on short-term and long-term opioid use after orthopaedic trauma. *Journal of Orthopaedic Trauma*. 36(8):326-331.

key personnel

Svetla Slavova, PhD
Doug Oyler, PharmD
Emily Slade, PhD

contact

Svetla Slavova, ssslav2@email.uky.edu

funding

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

other organizations or institutions represented

University of Kentucky HealthCare
Kentucky All Schedule Prescription Electronic Reporting

Substance Use Disorder/Mental Health Intersection Epidemiology Project

project overview

Made possible by funding from the Kentucky Department for Behavioral Health, Developmental and Intellectual Disabilities, this project seeks to identify risk and protective factors for mental health problems, intentional self-harm, and substance use that can be used to create or adapt prevention and intervention strategies. This project utilizes both mortality and morbidity data linked with community health risk factors to study mental health, intentional self-harm, and substance use using the social ecological model.

presentations

Seals, Jacqueline. "Substance Use and Suicidality.
Council of State and Territorial Epidemiologists
Annual Conference, June 19-23, 2022. Louis-
ville, KY.

key personnel

Jacqueline Seals, DrPH
Dana Quesinberry, DrPH, JD
Sabrina Brown, DrPH

contact

Jacqueline Seals, Jacqueline.seals@uky.edu

funding

Kentucky Department of Behavioral Health, Devel-
opmental and Intellectual Disabilities

Rural Center of Excellence with Focus on Recovery Housing

project overview

The Rural Center of Excellence with Focus 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.

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.

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 qualitative and quantitative business and technical needs assessments of recovery house owners and operators;
- developed a 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; and
- established a learning management system with UMU to develop, store, and deliver a consistently increasing number of training and educational content.

In October 2022, KIPRC launched a recovery housing portal website that includes 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, called the Recovery Management System, to track and assess the outcomes of individuals before, during, and after a stay in a recovery house.

To develop the website and recovery housing portal, The Fletcher Group, Inc. established a contract with Get Help, Inc. to leverage existing technology and to further develop the portal system according to website wireframes. A memorandum of understanding with Stop the Addiction Fatality Epidemic Project was established to collaborate on portal website development and educational/informational content.

The phase 1 beta versions of the national recovery housing locator and the Recovery Management System, both using the Get Help platform, were launched.

reports and publications

Kirby AL, Kizewski AL, Thompson RA, Ashworth M, & Bunn TL. (2022). Program, policy, and social support characteristics associated with rural vs. urban recovery housing, 2018-2020. *Journal of Drug Issues*. 53(2):280–295. Doi: 10.1177/00220426221114018

Thompson RA, Johnson D, Kizewski A, Baier L, Coburn K, White J, Bunn T, & Fletcher E. (2022). Assessing waived and non-waived physician barriers to treating patients with substance use disorders: A cross-sectional Kentucky pilot. *Journal of Addictive Diseases*. 40(4):518–526. Doi: 10.1080/10550887.2022.2035167

key personnel

Paula Arnett, DrPH
Terry Bunn, PhD
Joseph Ellis, MS
Catherine Hines, BA
Tyler Jennings, BS
Amber Kizewski, MA
Laney Taylor, BA

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 and, if needed, relink clients to RSSs following resumption of illicit substance use. Priority clients set by Kentucky Access to Recovery (KATR) to 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 Kentucky Access to Recovery (KATR) Program in partnership with the Kentucky Opioid Response Effort (KORE).

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

- (1) Conduct a process evaluation of the KATR linkage strategy to determine whether the KATR strategy is acceptable and accessible to vulnerable populations with illicit 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;
- (2) Conduct an outcome and impact evaluation of the KATR linkage strategy;
- (3) Specific Aim 3: 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

- (a) increasing an individual's recovery capital;
- (b) reducing resumption of illicit substance use; and
- (c) promoting relinking to RSSs if illicit substance use is resumed.

accomplishments and service

A research program administrator (Kelsey Carter) was hired for the project.

IRB approval was obtained from the University of Kentucky and the Cabinet for Health and Family Services.

Three research coordinators were hired, one for each service area, to complete the participant interview and follow-up processes.

Coordinators completed human subject protection training and received REDCap training from other members of the study team.

A data dictionary was created for the intake and follow-up surveys. This includes all required questions for Fahe to receive KORE funding and additional questions added by the study team to answer the project's proposed aims.

Standard operating procedures for the intake data collection were developed and piloted with the research coordinators.

reports and publications

The research performance progress report was completed for grant year one.

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

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

Methodological Advances in Evaluating Abuse-Deterrent Opioid Analgesics

project overview

The work on this project, which ended in September 2022, improved our understanding on how abuse-deterrent formulations (ADFs) of opioid analgesics are prescribed and dispensed, focusing on motivators of physicians' choice in ADF prescribing and pharmacists' experience with ADF dispensing.

publications and reports

Dasgupta N, Brown JR, Nocera M, Lazard A, Slavova S, Freeman PR. (2022). Abuse-deterrent opioids: A survey of physician beliefs, behaviors, and psychology. *Pain Therapy*. 11(1):133-151. doi: 10.1007/s40122-021-00343-z. Epub 2021 Dec 6. PMID: 34870790; PMCID: PMC8861217

Lei F, Lofwall M, Freeman P, Slade E, Vickers Smith R, Slavova S. (2022). Changes in transmucosal buprenorphine utilization for opioid use disorder treatment during the COVID-19 pandemic in Kentucky. *Journal of Rural Health*. 00:1-11.

Slavova S, Freeman PR, Rock P, et al. (2022). Changing trends in drug overdose mortality in Kentucky: An examination of race and ethnicity, age, and contributing drugs, 2016-2020. *Public Health Reports*. doi: 10.1177/00333549221074390

key personnel

Svetla Slavova, PhD
Patricia Freeman, RPh, PhD
Daniela Moga, PhD
Emily Slade, PhD
Josh Bush, PhD
Candace Brancato, MS
GYeon Oh, PhD

contact

Svetla Slavova, ssslav2@email.uky.edu

funding

U.S. Department of Health and Human Services
Food and Drug Administration

other organizations or institutions represented

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

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 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

Bae J, Thompson K, Hawk G, Harris D, and Delcher C. (2023). Exploring factors and hidden interactions associated with stimulant overdoses: A study using electronic medical records and feasible solutions algorithm. 5th Annual Substance Use Research Event (SURE); March 1, 2022; Lexington, KY.

reports and publications

- Delcher C, Harris DR, Anthony N, Stoops WW, Thompson K, Quesinberry D. (2022). Substance use disorders and social determinants of health from electronic medical records obtained during Kentucky's “triple wave.” *Pharmacology Biochemistry and Behavior*. doi:10.1016/j.pbb.2022.173495
- Delcher C, Harris DR, Anthony N, Mir M. (2022). Opioid overdoses increase at home during the COVID-19 stay-at-home order period in Cook County, Illinois. *AJPM Focus*. 1(1):10000. doi:10.1016/j.focus.2022.100007

key personnel

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

funding

Centers for Disease Control and Prevention

contact

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

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 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 (K-SURE) 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 substance use disorder treatment locators.

accomplishments

The near-real-time substance use disorder treatment locator FindHelpNowKY.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 42,285 total site views and 16,416 individual searches from July 1, 2022–May 18, 2023.

The FindRecoveryHousingNowKY.org website launched in September 2022 and today includes 185 recovery houses located in Kentucky. A total of 11,748 searches of the site were performed between October 1, 2022, and May 18, 2023.

The Franklin County Just Say Yes prevention program adapted the highly successful Icelandic Prevention Model to create positive environments that prevent youth substance use in Franklin County. To provide access to fun, healthy after-school activities, the Just Say Yes program provides a \$400 electronic gift card (YES Card) to students at pilot schools to pay for approved youth activities. Additionally, detailed data on substance use and risk and protective factors are collected from youth annually. The 2021 Franklin County Youth Survey found that the YES Card pilot groups saw three times more participation in protective activities compared to the control group.

FindHelpNowKY.org partnered with the Kentucky Perinatal Quality Collaborative (KyPQC) to create a new pregnant/postpartum search filter option to find treatment services for this population. This filter option is also available on the “Resources” tab of the website, which allows providers and clients a direct avenue to resources for their specific needs. Since this filter option was created in September 2021, it has been utilized 669 times.

Nine pilot hospitals were recruited to participate in KyPQC First Initiatives. The majority of pilot facilities are located in rural communities with limited resources and disproportionately higher volumes of SUD in labor and delivery. This represents the first of two cohorts participating in the KyPQC Pilot Program. Six additional pilot hospitals participating in the second cohort were onboarded in early 2023. Together, the first and second cohort pilot facilities represent just over half (51.2%) of Kentucky’s births.

The Angel Initiative placed 19 individuals into substance use disorder treatment.

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.

Program staff created presentations for the Kentucky attorney general’s office to be shown at town hall meetings regarding opioid settlement funding in Louisville, Lexington, Hazard, Covington, and Bowling Green in October of 2022. The analyst team provided graphs and maps illustrating the burden of drug overdose in Kentucky and nationwide, specifically highlighting the impact of drug overdose.

Feedback: “KIPRC was asked to work under tight time constraints and to customize data in ways that

they hadn’t done before. The entire team was extremely responsive and professional, and we couldn’t have delivered our presentations with the impact and data necessary without their help. They have been an excellent partner to work with.”

—*Kentucky Office of the Attorney General*

presentations

- Bunn T, Quesinberry D, and Mirzaian M. (2022). Kentucky Overdose Data to Action (OD2A). Fletcher Group International Conference.
- Farrey A. 2022. CDC National OD2A Awardee Meeting. “Automating a Statewide Alert System Using R and SaTScan.”
- Farrey A. 2022. Kentucky Harm Reduction Summit. “Overview of Syndromic Surveillance and Overdose Anomaly Alerting.” August 10-11, 2022; virtual
- Farrey A. 2022. American Public Health Association Conference. “Acceptability and Feasibility of Overdose Alerts: Formative Research for Warning the Public.” Nov. 6-9, 2022; virtual.
- Steel M. 2022. Cocaine, Meth, and Stimulant Summit. “The Rise of Methamphetamine-Induced Psychotic Disorder Emergency Department Visits in the Wake of Kentucky’s Opioid Crisis.”
- Steel M. 2022. Office of National Drug Control Policy (ONDCP) Conference. “Drug Overdose Surveillance in Kentucky.”
- Steel M, Daniels L, Mirzaian M, Farrey A, and Quesinberry D. 2022. Kentucky Harm Reduction Summit. “Kentucky Overdose Status Update and Data Tools for Prevention Planning.”
- Daniels L. 2023. Kentucky State Epidemiological Outcomes Workgroup Meeting. “Trends in Kentucky Resident Drug Overdose Deaths”.
- Kentucky Substance Use Research & Enforcement Collaborative. 2023. Kentucky Drug Trends. Kentucky Narcotics Officer Association Annual Meeting.
- Kentucky Substance Use Research & Enforcement

Collaborative. 2023. Drug overdose-related events 2017–2021. Appalachian Studies Association Conference.

Kentucky Substance Use Research & Enforcement Collaborative. 2023. K-SURE and Adolescent drug trends 2017–2021. District Health Coordinators Conference.

reports

Kentucky Injury Prevention and Research Center. (2023). Data Alert: Overdose Deaths in Kentucky Fall for First Time Since 2018.

Kentucky Injury Prevention and Research Center. (2023). Kentucky Drug Overdose Morbidity and Mortality Dashboard.

Kentucky Injury Prevention and Research Center. (2023). Kentucky Drug Overdose and Related Comorbidity County Profiles.

Kentucky Substance Use Research & Enforcement. (2023). Six Major Overdose-Related Substances and General Overdose-Related Events in Kentucky, January 1, 2017–September 30, 2022. KSURE Brief No. 27.

Kentucky Substance Use Research & Enforcement. (2023). Six Major Overdose-Related Substances and General Overdose-Related Events in Kentucky, January 1, 2017–June 30, 2022. K-SURE Brief No. 26.

Kentucky Substance Use Research & Enforcement. (2022). Six Major Overdose-Related Substances and General Overdose-Related Events in Kentucky, January 1, 2017–March 31, 2022. K-SURE Brief No. 25.

Kentucky Substance Use Research & Enforcement. (2022). A Five-Year Review of Substance Use and Distribution in Kentucky, 2017–2021. K-SURE Report No. 24.

Kentucky Substance Use Research & Enforcement. (2022). Substance use among Kentucky residents aged 18 years and younger, 2017–2021. K-SURE Report No. 23.

Kentucky Substance Use Research & Enforcement. (2022). Saving Lives through the Angel Initiative: 2021 in Review. K-SURE Brief No. 22.

Kentucky Substance Use Research & Enforcement. (2022). Saving lives through the Angel Initiative: 2020 in review. K-SURE Brief No. 21.

Kentucky Substance Use Research & Enforcement. Saving Lives through the Angel Initiative: 2019 in Review. K-SURE Brief No. 20, July 2022.

Kentucky Substance Use Research & Enforcement. (2022). Six Major Overdose-Related Substances and General Overdose-Related Events in Kentucky, January 1, 2017–December 31, 2021. KSURE Brief No. 19.

Steel M, Mirzaian M. (2022). Kentucky Resident Drug Overdose Deaths, 2017–2021. Kentucky Injury Prevention and Research Center.

Steel M, Mirzaian M. (2022). Kentucky Resident Emergency Department Visits for Nonfatal Drug Overdoses, 2017–2021: Annual Report, Updated September 2022. Kentucky Injury Prevention and Research Center.

publications

Oyler DR, Rojas-Ramirez MV, Nakamura A, Quesinberry D, Miller CS. (2023). Dental opioid prescription patterns in academic and community settings. *Journal of Public Health Dentistry*. doi: 10.1111/jphd.12568.

Slade E, Mangino AA, Daniels L, Liford M, & Quesinberry D. (2023). Modelling overdose case fatality rates over time: The collaborative process. *Stat.* 12(1), e510.

contact

Terry Bunn, tlbunn2@email.uky.edu

Dana Quesinberry, dana.quesinberry@uky.edu

funding

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

key personnel

Terry Bunn, PhD
Dana Quesinberry, DrPH, JD
Peter Akpunonu, MD
Nicholas Anthony
Paula Arnett, DrPH, MBA
Reagan Baum, PharmD
Dee Beagle
Candace Brancato
Claudia Brisson
Sabrina Brown, DrPH
Ashley Bush, DrPH
Heather Bush, PhD
Kelsey Carter, MA
Jin Chen, PhD
Jay Christian, PhD
Ron Clatos, MA
Monica Clouse, MPH, CPH

Ann Coker, PhD, MPH
Julia Costich, PhD
Lara Daniels, MPH
Landon Dean
Michelle Dean, LPN
Chris Delcher, PhD, MPH
Leah Dick, MPH
Amanda Ellis, PhD
Andrew Farrey, MPH
Jean Hall
Amanda Hamilton, MA
Caroline Handshoe
Sarah Hargrove, MS
Daniel Harris, PhD
Carla Hay, RN
Jessica Hicks, MPA
Catherine Hines
Christina Howard, MD, FAAP
Tonya Jernigan, LCSW

Christin Kane, MBA
Angela Kirby, MPA
Amber Kizewski, MA
James Lewis
Julia Martin, MD
Robert McCool, MS
Genia McKee
Mira Mirzaian, MPH
Leslie Pennington
Jennifer Perry, LCSW
William Ralston, MD
Stephanie Ramsey
Grayson Ritchie
Allison Rogers
Jacqueline Seals, DrPH
Svetla Slavova, PhD
Meghan Steel, MPH
Shelly Williams
Min Yu, MD, PhD

Opioid Data Lab: Understanding Overdose through Scientific Innovation

project overview

The Opioid Data Lab: Understanding Overdose through Scientific Innovation project focuses on methodology for polysubstance drug overdose identification and reporting. The project consists of three aims:

- 1) develop and maintain a publicly available up-to-date list of drug search terms mapped to principal variants and updated referent drug groups, including new psychoactive substances;
- 2) develop and revise a framework for reporting drug involvement in overdose deaths, building on existing tools; and
- 3) develop recommendations (including conceptual and operational definitions) for single drug versus polydrug-overdose death classification based on information listed on death certificates.

presentations

Slavova S, McAninch J, Dasgupta N, Oyler D, and Freeman P. Methodological challenges for single- vs polydrug classification of drug overdose deaths. Accepted ICPE conference, August 23-27, 2023. Halifax, Nova Scotia.

Freeman P. Concordance between drugs involved in Kentucky drug overdose deaths and antecedent controlled substance prescription dispensing. Accepted CSTE Conference, June 25-29, Salt Lake City, Idaho.

key personnel

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

contact

Svetla Slavova, ssslav2@email.uky.edu

funding

U.S. Food and Drug Administration

Other organizations or institutions represented

University of North Carolina Chapel Hill
Centers for Disease Control and Prevention, National Center for Health Statistics



Kentucky Violent Death Reporting System

project overview

To better understand why violent deaths occur and to reduce the number of these deaths, the 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. 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 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.

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 timeliness of the data, the Kentucky Violent Death Reporting System (KYVDRS), has been awarded a Data Science Demonstration Project grant through the American Public Health Association.

The overall goal of this project is to further develop, pilot test, and evaluate a mobile tool (Death Scene Investigation [DSI] Mobile Technology) intended to improve written scene documentation to correlate with photo evidence and recreate the scene for police, forensic(s), agencies with a legitimate interest, and documentation of decedent information to determine terminal episode history and medical, mental, and social history. The DSI-Mobile Tech is proposed to be used as a nonlinear checklist guiding the investigator(s) to best practices and giving prompts based on probabilities from previous forensic investigations, results from CDC focus groups and National Institute of Justice guidelines.

This technology will help death scene investigators gather and record information on precipitating circumstances of deaths using a standardized guiding format to gain greater detail from survivors and witnesses (i.e., pre-death information) as well as to process forensic evidence, uniformly, for post-death examination.

policy

On November 15, 2022, Dr. Sabrina Brown, associate professor and researcher at the University of Kentucky and KIPRC and KYVDRS principal investigator, presented data on incidences of firearm usage nationally and statewide to the Kentucky General Assembly's Race Equity Committee. The proposed bill would establish an Office of Safer Communities within the Department of Public Health. The office would collect and disseminate data and make recommendations relating to gun violence, policy and community-based gun violence intervention and prevention programs.

key personnel

Sabrina Brown, DrPH
Arny Stromberg, PhD
Jacqueline Seals, DrPH
Bailee Dowler
Emma Markert
Julia Van Hosen, MPH
Eleanor Sudduth, BS
Noah Finley

contact

Sabrina Brown, sabrina.brown@uky.edu
Julia Van Hosen, julia.vanhosen@uky.edu

funding

Centers for Disease Control and Prevention