Kentucky Substance Use Research & Enforcement

*Using data to drive public safety and public health efforts against substance use across the Commonwealth*

**Brief:** Five Major Overdose-Related Substances in Kentucky, January 1, 2017 – September 30, 2019

Possession and Trafficking Citations, Drug Overdose-Related Deaths, Emergency Department Visits, Hospitalizations, Submissions to State Police Lab, and General Drug Overdose-Related Events
Produced by the Kentucky State Police Intelligence Branch; and, the Kentucky Injury Prevention and Research Center (KIPRC), as bona fide agent for the Kentucky Department for Public Health.

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Suggested Citation:
Data are provisional and subject to change. Possession citations comprise KRS: 35120; 35121; 42195; 42196; 42205; and 42206. Trafficking citations comprise KRS: 35100; 35101; 42105; 42106; 42376; 42377; 42378; 42379; 42466; 42468; 42470; 42480; 42483; and 42486. The number of citations could be greater than the number of individuals cited; citations are with over 90% law enforcement agencies reporting. Deaths are based on drug overdose-related deaths among Kentucky residents. Drug overdose-related hospitalizations represent encounters of care among Kentucky residents and could be greater than the number of individual patients treated in acute care facilities. Drug overdose-related emergency department visits represent encounters of care among Kentucky residents and could be greater than the number of individual patients treated. To avoid duplicate counts, emergency department visits exclude visits resulting in hospitalizations. Tested lab submission data represent those substances submitted to the lab for identification purposes; quantity is not reflected. Lab data represent submissions tested within the corresponding time frame; submission date is not reflected.

Data sources: Kentucky Open Portal System; Kentucky Death Certificate Database, Cabinet for Health and Family Services, Office of Vital Statistics; Kentucky Outpatient Claim Files, Cabinet for Health and Family Services, Office of Health and Data Analytics; Kentucky Inpatient Hospitalization Claims Files, Cabinet for Health and Family Services, Kentucky Office of Health and Data Analytics; Kentucky State Police Crime Laboratory.

Key Findings:

- Heroin possession and trafficking citations decreased by 15.5% and 37.8%, respectively, from January 2017 through September 2019.
- Kentucky resident heroin-related deaths decreased by over two-thirds (68.9%) from January 2017 through September 2019.
- Heroin-related tested lab submissions decreased 45.2% from the beginning of 2017 through the end of September 2019.
- Overall, there was a 42.6% decrease in total heroin-related events (possession and trafficking citations, deaths, emergency department visits, hospitalizations, and tested lab submissions) from the beginning of 2017 through September 2019.
Data are provisional and subject to change. Possession citations comprise KRS: 35220; 35221; 42197; 42198; 42209; 42210; 42237; 42238; and 42246. Trafficking citations comprise KRS: 35200; 35201; 42109; 42110; 42372; 42373; 42374; 42375; 42435; 42436; 42437; and 42438. The number of citations could be greater than the number of individuals cited; citations are with over 90% law enforcement agencies reporting. Deaths are based on drug overdose-related deaths among Kentucky residents. Opioid-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Drug overdose-related emergency department visits and hospitalizations do not include heroin. Data sources: Kentucky Open Portal System; Kentucky Death Certificate Database, Cabinet for Health and Family Services, Office of Vital Statistics; Kentucky Outpatient Claim Files, Cabinet for Health and Family Services, Office of Health and Data Analytics; Kentucky Inpatient Hospitalization Claims Files, Cabinet for Health and Family Services, Kentucky Office of Health and Data Analytics; Kentucky State Police Crime Laboratory.

Key Findings:

- Statewide opioid possession and trafficking citations decreased by 38.9% and 56.6%, respectively, from January 2017 through September 2019.
- Opioid-related emergency department visits decreased by 12.6%, and hospitalizations decreased by 22.5% from January 2017 through September 2019.
- Opioid-related deaths decreased by 37.5% among Kentucky residents from January 1, 2017 to September 30, 2019. Opioids remain the leading substances identified among drug overdose-related deaths (data not shown).
- Despite the 16.7% decrease in tested lab submissions positively identifying opioids, no significant changes were observed in the percentage of opioids identified among all tested lab submissions from 2017 through the end of the third quarter of 2019. Opioids accounted for nearly 9% of the total tested submissions to KSP Laboratories from beginning of 2017 through the third quarter of 2019 (data not shown).
- Opioids and their adverse effects remain prevalent throughout the Commonwealth, despite opioid-related events decreasing by almost a quarter (23.6%) from the first quarter of 2017 to the third quarter of 2019.
Data are provisional and subject to change. Possession citations comprise KRS: 42187; 42188; 42215; and 42216. Trafficking citations comprise KRS: 42113; 42114; 42290; 42291; 42364; 42365; 42366; and 42367. The number of citations could be greater than the number of individuals cited; citations are with over 90% law enforcement agencies reporting. Deaths are based on drug overdose-related deaths among Kentucky residents. Drug overdose-related hospitalizations represent encounters of care among Kentucky residents and could be greater than the number of individual patients treated in acute care facilities. Drug overdose-related emergency department visits represent encounters of care among Kentucky residents and could be greater than the number of individual patients treated. To avoid duplicate counts, emergency department visits exclude visits resulting in hospitalizations. Tested lab submission data represent those substances submitted to the lab for identification purposes; quantity is not reflected. Lab data represent submissions tested within the corresponding time frame; submission date is not reflected.

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Key Findings:

- Statewide methamphetamine possession citations increased by 38.6% and trafficking citations by 5.4% from January 2017 through September 2019.
- Methamphetamine-Related overdose deaths, all of which involve polysubstance use, increased 34.7% from beginning of 2017 quarter through September 2019.
- Tested lab submissions positively identifying methamphetamine increased by 38.9% from the first quarter of 2017 through the third quarter of 2019. Methamphetamine continues to be the most commonly submitted drug to KSP Laboratories accounting for 43.9% of the total tested submissions from the beginning of 2017 through September 2019 (data not shown).
- Methamphetamine use and distribution are a persistent threat to the Commonwealth’s safety and health, as methamphetamine-related events increased by an average of 33.6% from January 2017 through September 2019.
Data are provisional and subject to change. Possession citations comprise KRS: 35320; 35321; 42193; 42194; 42203; and 42204. Trafficking citations comprise KRS: 35300; 35301; 42103; 42104; 42368; 42369; and 42370. The number of citations could be greater than the number of individuals cited; citations are with over 90% law enforcement agencies reporting. Deaths are based on drug overdose-related deaths among Kentucky residents. Drug overdose-related hospitalizations represent encounters of care among Kentucky residents and could be greater than the number of individual patients treated in acute care facilities. Drug overdose-related emergency department visits represent encounters of care among Kentucky residents and could be greater than the number of individual patients treated. To avoid duplicate counts, emergency department visits exclude visits resulting in hospitalizations. Tested lab submission data represent those substances submitted to the lab for identification purposes; quantity is not reflected. Lab data represent submissions tested within the corresponding time frame; submission date is not reflected.

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Key Findings:

- Statewide cocaine trafficking and possession citations decreased (44.1% and 22.5%, respectively) from January 2017 through September 2019.
- Cocaine-related deaths decreased by 65.4% from the beginning of 2017 through September 2019.
- Cocaine-related emergency department visits declined by more than one-third (35.5%) and hospitalizations by almost three-fifths (59.2%) from January 2017 through September 2019.
- Tested lab submissions positively identifying cocaine decreased by 27.2% from the first quarter of 2017 quarter 1 to third quarter of 2019. Cocaine accounted for 8.7% of the total tested submissions to KSP Laboratories from the beginning of 2017 through the end of the third quarter of 2019 (data not shown).
- Cocaine use, misuse, and distribution continues across Kentucky, where an overall 31.7% decrease in cocaine-related public health and public safety has been observed.
Key Findings:

- Statewide fentanyl and fentanyl analog trafficking citations increased 21.7% from January 2017 through September 2019. Citations related to fentanyl and its-related analogs may be underestimated for various reasons. Fentanyl- and fentanyl-related analogs are often present in combination with other drug mixtures; however, laboratory testing is often needed to confirm the presence of this substance.
- Fentanyl- and fentanyl analog-related deaths decreased by 17.8% from the beginning of 2017 to the end of September 2019.
- Tested lab submissions positively identifying fentanyl and fentanyl analogs increased by 104.2% from January 2017 through September 2019. Fentanyl mixed only with other fentanyl analogs remained prevalent in tested lab submissions from the beginning of 2018 through the third quarter of 2019 (data not shown). KSP Laboratories continue to see several different fentanyl derivatives in casework along with poly-drug mixtures, including heroin/fentanyl, cocaine/fentanyl, and methamphetamine/fentanyl.
- Fentanyl and fentanyl analogs are pervasive in Kentucky—increasing risk of overdose and exposures to individuals, families, communities, and law enforcement.
A large EMS agency boarded on January 2018. Data are provisional and subject to change. Deaths are based on drug overdose-related deaths among Kentucky residents. Drug overdose-related hospitalizations represent encounters of care among Kentucky residents and could be greater than the number of individual patients treated in acute care facilities. Drug overdose-related emergency department visits represent encounters of care among Kentucky residents and could be greater than the number of individual patients treated. To avoid duplicate counts, emergency department visits exclude visits resulting in hospitalizations. EMS suspected overdose encounters, which represent encounters of care and could be greater than the number of individual patients treated, are based on scans of free-text fields and medication fields (for naloxone/narcan administration with indicated positive response).

Data sources: Kentucky Death Certificate Database, Cabinet for Health and Family Services, Office of Vital Statistics; Kentucky Outpatient Claim Files, Cabinet for Health and Family Services, Office of Health and Data Analytics; Kentucky Inpatient Hospitalization Claims Files, Cabinet for Health and Family Services, Kentucky Office of Health and Data Analytics; Kentucky Board of Emergency Medical Services: KY State Ambulance Reporting System.

Key Findings:

- Statewide drug overdose-related deaths decreased by 37.1% from the beginning of 2017 through the third quarter of 2019.
- Overall, emergency department visits-related to drug overdose have decreased by 27.6% from 2017 through September 2019.
- Drug overdose-related hospitalizations declined, decreasing by 19.2% from January 2017 through September 2019.
- Emergency Medical Services (EMS) suspected drug overdose encounters increased by 3.5% from January 2017 through the end of September 2019.
- Overall, reductions have been observed across the Commonwealth in regards to drug-related public health and public safety events; yet drug use, misuse, and distribution are still impacting all Kentuckians.
- Among the law enforcement agencies currently reporting to KyOPS, there were 137 naloxone administrations from January 2019 to the end of September 2019 (data not shown).