TEAM KENTUCKY
JUSTICE AND PUBLIC SAFETY CABINET

2022 Overdose Fatality Report

Kentucky Office of Drug Control Policy
Commonwealth of Kentucky
Justice & Public Safety Cabinet

Kerry Harvey, Secretary
Justice & Public Safety Cabinet

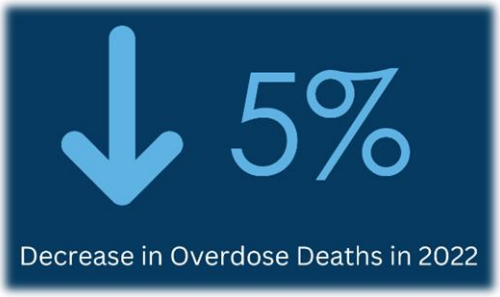
Van Ingram, Executive Director
Office of Drug Control Policy

For the first time in four years, Kentucky has seen a decrease in drug overdose deaths, representing a 5% reduction since 2018. While 23 states reported fewer overdose deaths in 2022, Kentucky was one of only eight states that reported decreases of 100 or more deaths compared to 2021.

However, addiction remains one of the most critical public health and safety issues facing the Commonwealth of Kentucky.

- In 2020, there were 1,964 overdose deaths.
- In 2021, there were 2,250 overdose deaths. This was a 14.5% increase from 2020.
- In 2022, there were **2,135** overdose deaths. This was a **decrease** of over 5% from 2021.

The Office of Drug Control Policy (ODCP) states that overdose cases autopsied by the Office of the State Medical Examiner (OSME) and toxicology reports submitted by Kentucky coroners, that 90% of deaths in 2022 involved opioids. Illicit fentanyl continues to be the most prevalent drug contributing to overdose deaths, accounting for 72.5% nationwide in 2022. The overall number of overdose deaths in the commonwealth was also worsened by the widespread availability of potent inexpensive methamphetamine.



House Bill 1, from the 2012 Special Session, mandates that ODCP, in cooperation with OSME, prepares and publishes an annual report for the Secretary of the Justice and Public Safety Cabinet that includes:

(1) The number of drug-related deaths;
(2) The decedent's age, race, and gender, but not their last name or address;
(3) The counties in which those deaths occurred;
(4) The scientific, trade, or generic names of the drugs involved; and
(5) The method by which the drugs were obtained, when available

The report is compiled utilizing data from OSME, KIPRC and the Kentucky Office of Vital Statistics. KIPRC, with support from the CDC, launched the **Drug Overdose Technical Assistance Core (DOTAC)** to support local health departments, community coalitions, and state and local agencies in their efforts to address substance misuse, abuse, and overdose. DOTAC's goal is to support and enhance local agencies' and community organizations' access to timely local data and analytical results on controlled substance prescribing, drug-related morbidity, and mortality trends. More information on the available data, analytical and community services is available at https://kiprc.uky.edu/injury-focus-areas/drug-overdose-prevention.

Treatment Resources
The KY HELP Call Center, created in 2017 through a partnership with Operation UNITE, remains available to those with a substance use disorder, or their friends or family members, as a quick resource for information on treatment options and open slots among treatment providers. Individuals may call 833-8KY-HELP (833-859-4357) to speak one-on-one with a specialist who will connect them with treatment as quickly as possible.

The Kentucky Injury Prevention and Research Center (KIPRC) at the University of Kentucky College of Public Health manages a vital website, www.findhelpnowky.org, for Kentucky health care providers, court officials, families and individuals seeking options for substance abuse treatment and recovery. It offers real-time information about available space in treatment programs, and guides users to the right type of treatment for their needs. The site provides a search engine for drug treatment, helping users locate treatment providers based on location, facility type, and category of treatment needed.

The Kentucky State Police (KSP) Angel Initiative is a proactive program designed to help people battle addiction. Anyone suffering from a substance use disorder can visit one of KSP's 16 posts located throughout the commonwealth to be paired with a local officer who will assist with locating an appropriate treatment program. The Angel Initiative is completely voluntary, and individuals will not be arrested or charged with any violations if they agree to participate in treatment. For more information about the Angel Initiative, visit the KSP website at http://kentuckystatepolice.org/angel-initiative/.

KENTUCKY INJURY PREVENTION AND RESEARCH CENTER

Kentucky Resident Drug Overdose Mortality Tables and Maps, 2022

Updated May 10, 2023

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Prepared for

Kentucky Office of Drug Control Policy

Kentucky Public Health
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University of Kentucky
College of Public Health

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Contents

Key Findings from 2022[1]

In 2022, a total of 2,135 Kentucky residents died from a drug overdose, representing a decrease of more than 5% from the 2,250 resident drug overdose deaths in 2021.

A review of the resident autopsy cases by OSME and toxicology reports submitted by Kentucky coroners indicates that in 2022:

- A total of 505 residents of Jefferson County died from a drug overdose, a decrease from the 572 resident overdose deaths in 2021.
- The age group with the greatest number of drug overdose deaths in 2022 included those between the ages of 35 and 44, with 643 drug overdose deaths, a decrease of 4.7% from the 675 overdose deaths among that age group in 2021.
- The rate of overdose deaths among African Americans was 25.9 per 100,000, up from 15.2 in 2021.
- The following data on drug types are based on identification through toxicology reports:
  - Fentanyl was identified through toxicology in 1,548 drug overdose deaths, representing 72.5% of the total drug overdose deaths in 2022 and a decrease of 6.3% from the 1,652 drug overdose deaths for which fentanyl was identified through toxicology in 2021.
  - Methamphetamine was identified in 1,069 drug overdose deaths, representing 50.1% of the total drug overdose deaths in 2022 and a decrease of 1.2% from the 1,082 drug overdose deaths for which methamphetamine was identified through toxicology in 2021.
  - Acetylfentanyl was identified in 453 drug overdose deaths, representing an increase of 75.6% from the 258 drug overdose deaths for which acetylfentanyl was identified through toxicology in 2021.
  - Oxycodone was identified in 159 drug overdose deaths, representing a decrease of 21.3% from the 202 drug overdose deaths for which oxycodone was identified through toxicology in 2021.
  - Heroin was identified in 49 drug overdose deaths, representing a decrease of 47.3% from the 93 drug overdose deaths for which heroin was identified through toxicology in 2021.
  - Morphine was identified in 217 drug overdose deaths, representing a decrease of 30% from the 310 drug overdose deaths for which morphine was identified through toxicology in 2021.
  - Alprazolam was identified in 149 drug overdose deaths, representing a decrease of 29.7% from the 212 drug overdose deaths for which alprazolam was identified through toxicology in 2021.
  - Gabapentin was identified in 448 drug overdose deaths, representing a decrease of 11.5% from the 506 drug overdose deaths for which gabapentin was identified through toxicology in 2021.

[1]This report is based on data from KIPRC derived from death certificates and toxicology reports for all drug overdose deaths among Kentucky residents submitted by May 2023. The data are provisional and subject to change.

Table 1: Kentucky Counties with the Highest Rates of Drug Overdose Deaths in 2022

	Kentucky County	Rate of Drug Overdose Deaths per 100,000 Residents	Number of Drug Overdose Deaths
1	Bath	185.1	20
2	Lee	151.3	11
3	Floyd	133.0	44
4	Estill	129.7	17
5	Knott	126.1	15

Counties with rates based on numbers less than 10 have been excluded from this list.

Table 2: Kentucky Counties with the Highest Numbers of Drug Overdose Deaths with Fentanyl Identified through Toxicology in 2022

	Kentucky County	Drug Overdose Deaths Involving Fentanyl
1	Jefferson	419
2	Fayette	137
3	Kenton	57
4	Madison	46
5	Boyd	37

Table 3: Kentucky Counties with the Highest Numbers of Drug Overdose Deaths with Methamphetamine Identified Through Toxicology in 2022

	Kentucky County	Drug Overdose Deaths Involving Methamphetamine
1	Jefferson	226
2	Fayette	60
3	Madison	35
4	Pike	29
5	Hardin	27

Age-Adjusted Mortality Rates by County

Table 4: Numbers of Drug Overdose Deaths and Age-Adjusted Drug Overdose Mortality Rates, by Kentucky County of Residence, 2022

County	Number of Drug Overdoses	Age-Adjusted Drug Overdose Mortality Rate
Kentucky	2,135	50.1
Adair	9	Suppressed
Allen	5	Suppressed
Anderson	13	52.0
Ballard	<5	Suppressed
Barren	9	Suppressed
Bath	20	185.1
Bell	10	42.9
Boone	41	29.7
Bourbon	8	Suppressed
Boyd	44	94.0
Boyle	15	51.9
Bracken	<5	Suppressed
Breathitt	7	Suppressed
Breckinridge	<5	Suppressed
Bullitt	42	53.1
Butler	5	Suppressed

Numbers greater than zero but less than five and rates based on numbers greater than zero but less than 10 were suppressed in accordance with state data release policy. Rates based on numbers less than 20 are unstable and should be interpreted with caution. Data are provisional and subject to change. Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. May 2023. Data source: Kentucky Death Certificate Database, Kentucky Office of Vital Statistics, Cabinet for Health and Family Services.

Table 4: Numbers of Drug Overdose Deaths and Age-Adjusted Drug Overdose Mortality Rates, by Kentucky County of Residence, 2022

County	Number of Drug Overdoses	Age-Adjusted Drug Overdose Mortality Rate
Kentucky	2,135	50.1
Caldwell	<5	Suppressed
Calloway	<5	Suppressed
Campbell	35	37.9
Carlisle	0	0.0
Carroll	8	Suppressed
Carter	19	73.5
Casey	<5	Suppressed
Christian	28	41.3
Clark	24	75.0
Clay	12	59.6
Clinton	<5	Suppressed
Crittenden	<5	Suppressed
Cumberland	<5	Suppressed
Daviess	28	28.3
Edmonson	<5	Suppressed
Elliott	0	0.0

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Kentucky	2,135	50.1
Estill	17	129.7
Fayette	158	51.7
Fleming	7	Suppressed
Floyd	44	133.0
Franklin	32	63.6
Fulton	<5	Suppressed
Gallatin	8	Suppressed
Garrard	8	Suppressed
Grant	17	75.6
Graves	5	Suppressed
Grayson	5	Suppressed
Green	<5	Suppressed
Greenup	14	39.7
Hancock	0	0.0
Hardin	50	47.6
Harlan	13	56.4

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County	Number of Drug Overdoses	Age-Adjusted Drug Overdose Mortality Rate
Kentucky	2,135	50.1
Harrison	11	66.2
Hart	5	Suppressed
Henderson	14	34.9
Henry	9	Suppressed
Hickman	<5	Suppressed
Hopkins	8	Suppressed
Jackson	8	Suppressed
Jefferson	505	67.7
Jessamine	39	80.0
Johnson	8	Suppressed
Kenton	65	39.6
Knott	15	126.1
Knox	7	Suppressed
Larue	<5	Suppressed
Laurel	23	37.2
Lawrence	10	69.5

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County	Number of Drug Overdoses	Age-Adjusted Drug Overdose Mortality Rate
Kentucky	2,135	50.1
Lee	11	151.3
Leslie	<5	Suppressed
Letcher	13	60.8
Lewis	7	Suppressed
Lincoln	15	75.7
Livingston	<5	Suppressed
Logan	6	Suppressed
Lyon	<5	Suppressed
Madison	64	71.8
Magoffin	13	124.4
Marion	10	54.3
Marshall	<5	Suppressed
Martin	7	Suppressed
Mason	13	88.7
McCracken	14	20.1
McCreary	7	Suppressed

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County	Number of Drug Overdoses	Age-Adjusted Drug Overdose Mortality Rate
Kentucky	2,135	50.1
McLean	<5	Suppressed
Meade	6	Suppressed
Menifee	5	Suppressed
Mercer	17	80.6
Metcalfe	<5	Suppressed
Monroe	<5	Suppressed
Montgomery	22	85.2
Morgan	<5	Suppressed
Muhlenberg	<5	Suppressed
Nelson	20	49.5
Nicholas	<5	Suppressed
Ohio	<5	Suppressed
Oldham	11	15.9
Owen	6	Suppressed
Owsley	<5	Suppressed
Pendleton	<5	Suppressed

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Table 4: Numbers of Drug Overdose Deaths and Age-Adjusted Drug Overdose Mortality Rates, by Kentucky County of Residence, 2022

County	Number of Drug Overdoses	Age-Adjusted Drug Overdose Mortality Rate
Kentucky	2,135	50.1
Perry	16	57.5
Pike	52	92.2
Powell	10	84.2
Pulaski	28	46.2
Robertson	0	0.0
Rockcastle	8	Suppressed
Rowan	16	84.5
Russell	8	Suppressed
Scott	23	40.0
Shelby	29	62.9
Simpson	<5	Suppressed
Spencer	5	Suppressed
Taylor	19	75.1
Todd	<5	Suppressed
Trigg	<5	Suppressed
Trimble	<5	Suppressed

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County	Number of Drug Overdoses	Age-Adjusted Drug Overdose Mortality Rate
Kentucky	2,135	50.1
Union	<5	Suppressed
Warren	29	22.9
Washington	<5	Suppressed
Wayne	<5	Suppressed
Webster	5	Suppressed
Whitley	32	97.7
Wolfe	6	Suppressed
Woodford	8	Suppressed

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Drug Overdose Deaths by Age

Table 5: Numbers of Kentucky Resident Drug Overdose Deaths by Age Group, 2020–2022

Age	2020	2021	2022
0–4	<5	<5	5
5–14	<5	0	<5
15–24	127	139	117
25–34	463	485	426
35–44	572	675	643
45–54	404	495	498
55–64	304	372	341
65–74	75	82	87
75–84	14	5	14
85+	<5	<5	<5

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Drug Overdose Deaths by Race

Table 6: Numbers of Kentucky Resident Drug Overdose Deaths by Race, 2020–2022

Race	2020	2021	2022
White	1,773	2,005	1,847
Black	172	233	252
Other	20	19	36

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Substances Found in Drug Overdose Decedent Toxicology Testing

Table 7: Counts of Substances Identified Through Toxicology Testing of Kentucky Resident Drug Overdose Decedents, 2022

Substance	Frequency
Fentanyl	1,548
4-ANPP	1,227
Methamphetamine	1,069
Amphetamine	882
Acetylfentanyl	453
Gabapentin	448
THC	416
Cocaine	335
Ethanol	331
Morphine	217
Oxycodone	159
Alprazolam	149
Clonazepam	138
Hydrocodone	138
Para-Fluorofentanyl	117
Buprenorphine	115
Oxymorphone	111
Hydromorphone	101
Nordiazepam	98
Drug Class Only	92
Dihydrocodeine	85
Oxazepam	69

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Table 7: Counts of Substances Identified Through Toxicology Testing of Kentucky Resident Drug Overdose Decedents, 2022

Substance	Frequency
Diazepam	62
Temazepam	62
Tramadol	58
Heroin	49
Desmetramadol	46
Methadone	42
Caffeine	37
Lorazepam	35
Nicotine	31
Codeine	28
Phenylpropanolamine	24
Acetone	23
Ephedrine	17
Naloxone	15
Diphenhydramine	14
Pseudoephedrine	13
Acrylfentanyl	9
Fluoxetine	9
Hydroxyzine	9
Midazolam	9
Acetaminophen	8
Amitriptyline	8

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Data source: Drug Overdose Fatality Surveillance System.

Table 7: Counts of Substances Identified Through Toxicology Testing of Kentucky Resident Drug Overdose Decedents, 2022

Substance	Frequency
Citalopram	7
Cyclobenzaprine	7
Nortriptyline	7
Quetiapine	7
Trazodone	7
Promethazine	6
Chlorophenylpiperazine	5
Desvenlafaxine	5
Metoprolol	5
Phenobarbital	5
Phentermine	5
Amlodipine	<5
Bupropion	<5
Doxepin	<5
Duloxetine	<5
Levetiracetam	<5
Methanol	<5
Metonitazene	<5
Propranolol	<5
Sertraline	<5
Zolpidem	<5
Butyrl Fentanyl	<5

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Table 7: Counts of Substances Identified Through Toxicology Testing of Kentucky Resident Drug Overdose Decedents, 2022

Substance	Frequency
Chlordiazepoxide	<5
Isopropanol	<5
Lamotrigine	<5
Nordoxepin	<5
Norsertraline	<5
Venlafaxine	<5
Xylazine	<5
Amiodarone	<5
Bromazolam	<5
Brorphine	<5
Buspirone	<5
Butalbital	<5
Dextro	<5
Dextrorphan	<5
Flualprazolam	<5
Ibuprofen	<5
MDA	<5
MDMA	<5
Mitragynine	<5
Naproxen	<5
Para-Fluorobutyrylfentanyl	<5
Verapamil	<5

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Table 7: Counts of Substances Identified Through Toxicology Testing of Kentucky Resident Drug Overdose Decedents, 2022

Substance	Frequency
1-Difluoroethane	<5
Aripiprazole	<5
Brivaracetam	<5
Chlorpheniramine	<5
Chlorpromazine	<5
Dicyclomine	<5
Diltiazem	<5
Doxylamine	<5
Etodesnitazene	<5
Flubromazepam	<5
Flubromazolam	<5
Fluorofentanyl	<5
Flurazepam	<5
Haloperidol	<5
Lidocaine	<5
Loperamide	<5
Mdmb-4en-Pinaca	<5
Memantine	<5
Meprobamate	<5
Methylphenidate	<5
Metoclopramide	<5
Metodesnitazene	<5

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Table 7: Counts of Substances Identified through Toxicology Testing of Kentucky Resident Drug Overdose Decedents, 2022

Substance	Frequency
Mirtazapine	<5
Olanzapine	<5
Oxcarbazepine	<5
Pentylone	<5
Phencyclidine	<5
Pregabalin	<5
Risperidone	<5
Salicylates	<5
Tadalafil	<5
Tetrahydrozoline	<5
U47700	<5

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Drug Combinations Identified Through Toxicology

Table 8: Most Common Two-Drug Combinations Identified Through Toxicology for Drug Overdose Deaths Among Kentucky Residents, 2022

Drug Combination	Number of Deaths
4-ANPP, Fentanyl	1,327
Amphetamine, Methamphetamine	924
Fentanyl, Methamphetamine	863
Amphetamine, Fentanyl	717
4-ANPP, Methamphetamine	681
4-ANPP, Amphetamine	577
Acetylfentanyl, Fentanyl	483
4-ANPP, Acetylfentanyl	473
Fentanyl, THC	366
Cocaine, Fentanyl	333
Fentanyl, Gabapentin	318
4-ANPP, THC	292
Ethanol, Fentanyl	271
4-ANPP, Cocaine	266
Acetylfentanyl, Methamphetamine	256
4-ANPP, Gabapentin	247
Gabapentin, Methamphetamine	245
Methamphetamine, THC	238
Fentanyl, Morphine	219
Acetylfentanyl, Amphetamine	212

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Table 9: Most Common Three-Drug Combinations Identified Through Toxicology for Drug Overdose Deaths Among Kentucky Residents, 2022

Drug Combination	Number of Deaths
Amphetamine, Fentanyl, Methamphetamine	691
4-ANPP, Fentanyl, Methamphetamine	677
4-ANPP, Amphetamine, Fentanyl	574
4-ANPP, Amphetamine, Methamphetamine	554
4-ANPP, Acetylfentanyl, Fentanyl	472
4-ANPP, Fentanyl, THC	292
4-ANPP, Cocaine, Fentanyl	266
Acetylfentanyl, Fentanyl, Methamphetamine	255
4-ANPP, Acetylfentanyl, Methamphetamine	248
4-ANPP, Fentanyl, Gabapentin	247
Acetylfentanyl, Amphetamine, Fentanyl	211
4-ANPP, Acetylfentanyl, Amphetamine	205
Acetylfentanyl, Amphetamine, Methamphetamine	203
4-ANPP, Ethanol, Fentanyl	201
Amphetamine, Gabapentin, Methamphetamine	198
Amphetamine, Methamphetamine, THC	196
4-ANPP, Fentanyl, Morphine	189
Fentanyl, Methamphetamine, THC	186
Fentanyl, Gabapentin, Methamphetamine	179
Amphetamine, Fentanyl, THC	158

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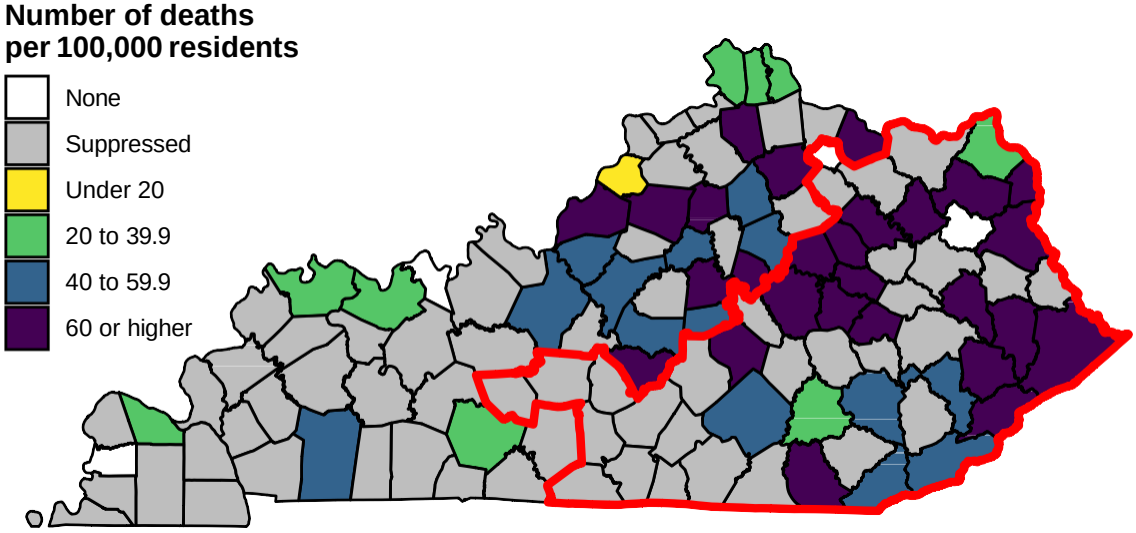
County Level Maps

Figure 1: Age−Adjusted Rates of Drug Overdose Deaths by Kentucky County of Residence, 2022

Red line denotes Appalachian counties



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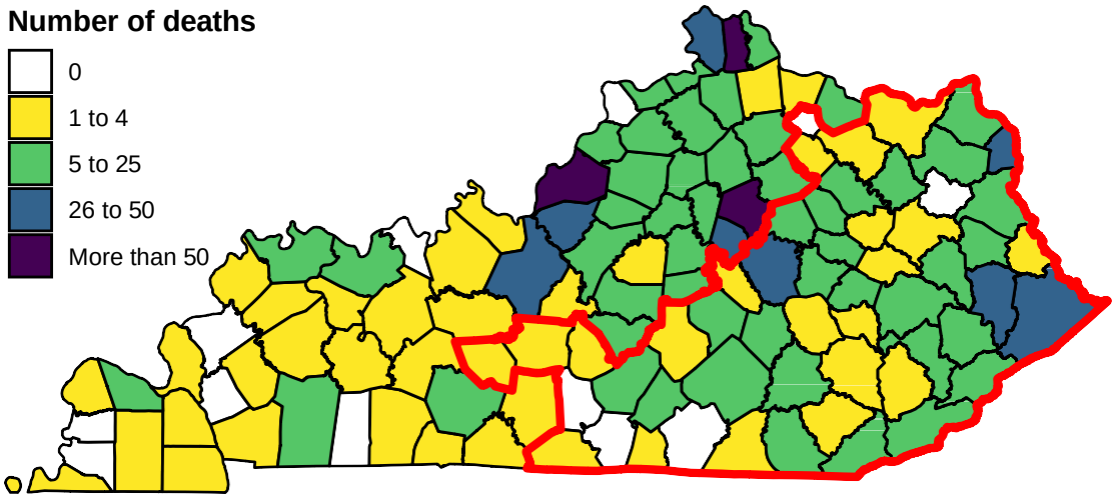
Data source: Kentucky Death Certificate Database, Kentucky Office of Vital Statistics, Cabinet for Health and Family Services.

Figure 2: Number of Drug Overdose Deaths for which Fentanyl was Identified through Toxicology by Kentucky County of Residence, 2022

Red line denotes Appalachian counties



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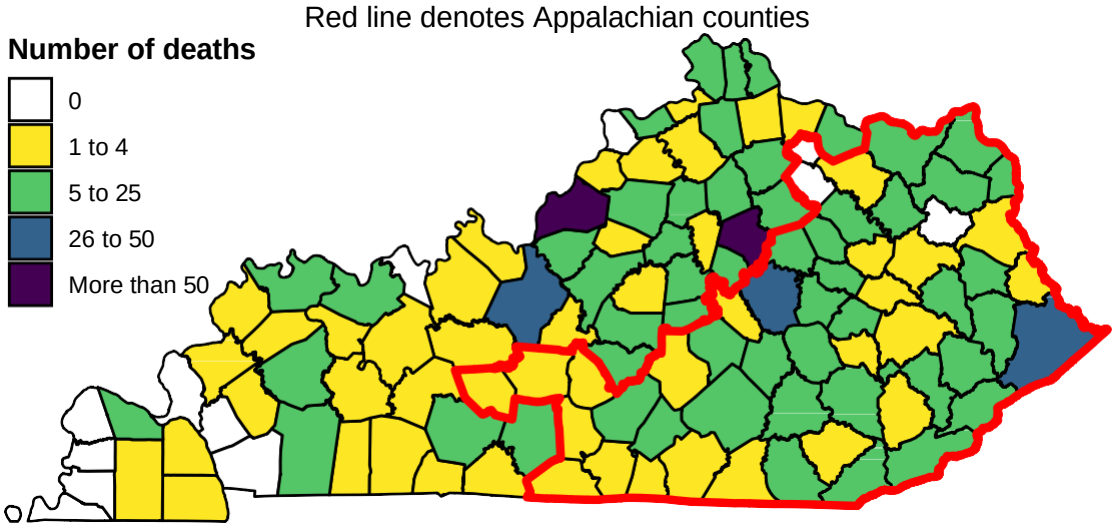
Data source: Kentucky Death Certificate Database, Kentucky Office of Vital Statistics, Cabinet for Health and Family Services.

Figure 3: Number of Drug Overdose Deaths for which Methamphetamine Was Identified through Toxicology by Kentucky County of Residence, 2022



Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. May 2023.
Data source: Kentucky Death Certificate Database, Kentucky Office of Vital Statistics, Cabinet for Health and Family Services.

Definitions

Drug overdose deaths include events with an underlying cause of death code of X40–X44, X60–X64, X85, or Y10–Y14. Drug overdose deaths involving specific drug types are identified through toxicology testing of blood, urine, and/or vitreous fluids.

Data Sources

Drug overdose deaths were identified though the Kentucky Death Certificate Database, Kentucky Office of Vital Statistics, Cabinet for Health and Family Services.

Toxicology testing results were accessed through the Drug Overdose Fatality Surveillance System, which utilizes post-mortem toxicology reports, coroner investigations, medical examiner autopsy reports, and data from Kentucky All-Schedule Prescription Electronic Reporting records paired with the death certificate data described above.

Disclaimers

Numbers greater than zero but less than five are suppressed in accordance with state data management policy. Data are provisional and subject to change.

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