Opioid Overdose Surveillance

Georgia, 2017

Drug Surveillance Unit Epidemiology Section Division of Health Protection Georgia Department of Public Health



https://dph.georgia.gov/drug-surveillance-unit

Opioid Overdose Surveillance, Georgia, 2017

The purpose of this report is to describe fatal (mortality) and nonfatal (morbidity) opioid-involved overdoses in Georgia during 2017, including prescription opioids, and illicit opioids such as heroin, fentanyl, and fentanyl analogs. Opioid overdose data were analyzed by the Georgia Department of Public Health (DPH) Epidemiology Program, Drug Surveillance Unit, using Georgia hospital discharge inpatient and emergency department (ED) visit data, and DPH Vital Records death data.

Key Findings

- Opioid-involved overdose deaths have been rapidly increasing in Georgia since 2010, driven initially by increased use and misuse of prescription opioids (e.g., Oxycodone and Hydrocodone). Beginning in 2013, illicit opioids, such as heroin and fentanyl, drove the sharp increase in opioid-involved overdose deaths.
 - From 2010 to 2017, the total number of opioid-involved overdose deaths increased by 104%, from 514 to 1051 deaths.
- In 2017, among Georgia residents:
 - Any opioid-involved overdoses accounted for 5,656 ED visits, 2,622 hospitalizations, and 996 deaths.
 - Heroin-involved overdoses accounted for 1,521 ED visits, 335 hospitalizations, and 261 deaths.
 - Fentanyl-involved overdoses accounted for 363 deaths.
 - Persons aged 25-34 years more frequently died from an opioid-, synthetic opioids-, heroin- or fentanyl-involved overdose, and visited an ED for an opioid-involved overdose than persons of other age categories, yet older persons were more frequently hospitalized because of an opioid-involved overdose.
 - Males aged 25-34 years died from an opioid-involved overdose more frequently than any other age category, and were 2.9 times more likely to die from an overdose than females of the same age.
 - Males were 1.8 times more likely to die from any opioid-involved overdose, and 3.7 times more likely to die from a heroin-involved overdose than females. However, females, particularly those aged 45 years and older, were more frequently hospitalized for an opioid-involved overdose than males.
 - Whites were 4.2 times more likely to die from an opioid-involved overdose, 2.4 times more like to visit an ED for any opioid-involved overdose, and 4.2 times more likely to visit an ED for a heroin-involved overdose than Blacks.
 - The highest numbers of heroin- and opioid-involved overdose deaths, ED visits, and hospitalizations occurred predominantly in urban areas (Atlanta Metropolitan Area, Augusta, Macon, Columbus, and Savannah). However, high rates of opioid overdose-involved ED visits and hospitalizations occurred in both urban and rural areas, particularly in North, South Central, and Southeast Georgia.

For more information:

- County level data and other Georgia drug surveillance reports: <u>https://dph.georgia.gov/drug-surveillance-unit</u>
- Georgia Department of Public Health (DPH) Main Opioid Page:
- https://dph.georgia.gov/stopopioidaddiction
- Georgia overdose mortality interactive maps and statistics: <u>https://oasis.state.ga.us/PageDirect.aspx?referer=MortalityDrugOverdoses</u>
- Prescription Drug Monitoring Program (PDMP) information: GA PDMP Overview and FAQs <u>https://dph.georgia.gov/pdmp</u>

Fatal Drug Overdoses (Mortality), Georgia, 2017

Data Source

Overdose-involved deaths were derived from DPH Vital Records death certificates. The following data include all deaths that occurred in Georgia among Georgia residents and deaths that occurred outside of Georgia among Georgia residents, unless otherwise specified.

Case Definitions

(Note: categories are not mutually exclusive, includes only drug overdose deaths caused by acute poisoning) Any drug overdose death

May involve any over-the-counter, prescription, or illicit drug

• Deaths with any of the following ICD-10 codes as any underlying cause of death: X40-44, X60-64, X85, Y10-14

Drug overdose death involving any opioid

Involves both prescription opioid pain relievers (e.g., hydrocodone, oxycodone, and morphine), opioids used to treat addiction (e.g., methadone), as well as heroin, opium, and synthetic opioids (e.g., tramadol and fentanyl that may be prescription or illicitly manufactured)

• Deaths with any of the following ICD-10 codes as any underlying cause of death: X40-44, X60-64, X85, Y10-14 AND one of the following:

- Any of the following ICD-10 codes as any other listed cause of death: T40.0, T40.1, T40.2, T40.3, T40.4, T40.6
- Any cause of death text field contains one of the following terms (or common misspelling): heroin, fentanyl (and fentanyl analogs), methadone, buprenorphine, butalbital, codeine, eddp, hydrocodone, hydromorphone, levorphanol, meperidine, norbuprenorphine, oxycodone, oxymorphone, tapentadol, tramadol

OR (for cases without an X or Y code in the underlying cause of death):

• Any cause of death text field contains the word "TOXIC" AND at least one of the following terms (or common misspelling): heroin, fentanyl (and fentanyl analogs), methadone, buprenorphine, butalbital, codeine, eddp, hydrocodone, hydromorphone, levorphanol, meperidine, norbuprenorphine, oxycodone, oxymorphone, tapentadol, tramadol

Drug overdose death involving synthetic opioids other than methadone

Involves synthetic opioids other than methadone (e.g., tramadol and fentanyl that may be prescription or illicitly manufactured). Note: polysubstance abuse deaths may also involve methadone or other opioids

• Deaths with any of the following ICD-10 codes as any underlying cause of death: X40-44, X60-64, X85, Y10-14 AND one of the following:

- The following ICD-10 code as any other listed cause of death: T40.4
- Any cause of death text field contains the following keywords and common misspellings: fentanyl (and fentanyl analogs), tramadol

OR (for cases without an X or Y code in the underlying cause of death):

• Any cause of death text field contains the word "TOXIC" AND at least one of the following terms (or common misspelling): fentanyl (and fentanyl analogs), tramadol

Drug overdose death involving heroin

Involves heroin. Note: polysubstance abuse deaths may also involve other opioids

• Deaths with any of the following ICD-10 codes as any underlying cause of death: X40-44, X60-64, X85, Y10-14 AND one of the following:

- The following ICD-10 code as any other listed cause of death: T40.1
- Any cause of death text field contains the following keywords and common misspellings: heroin, morphine

OR (for cases without an X or Y code in the underlying cause of death):

• Any cause of death text field contains the word "TOXIC" AND at least one of the following terms (or common misspelling): heroin, morphine

Drug overdose death involving fentanyl

Note: polysubstance abuse deaths may also involve other opioids

Any cause of death text field contains the word "TOXIC" AND at least one of the following terms (or common misspelling): fentanyl (and fentanyl analogs)

Other Definitions or Limitations

Deaths represent individual people who died in Georgia and deaths among Georgia residents outside of Georgia.

Overdose death county represents the county of residence, or the place of injury (where the overdose occurred) as specified, when the place of injury field or the county of residence field was blank the county of the death certifier was used.

Rate indicates the number of deaths among Georgia residents per 100,000 population using 2017 Census data as the denominator, and all rates are age-adjusted unless age category is presented.

Rates for categories with fewer than 5 deaths may not be accurate and are not presented in this report.

ICD-10 Code Description

X40-X44 (accidental poisonings by drugs), X60-X64 (intentional self-poisoning by drugs), X85 (assault by drug poisoning), Y10-Y14 (drug poisoning of undetermined intent), T40.0 (opium), T40.1 (heroin), T40.2 (natural and semisynthetic opioids), T40.3 (methadone), T40.4 (synthetic opioids, other than methadone, T40.6 (other and unspecified narcotics)

Nonfatal Overdoses (Morbidity), Georgia, 2017

Data Source

Nonfatal overdose counts were derived from Georgia hospitalization and emergency department (ED) visit discharge data, and included all ED visits or hospitalizations occurring in a non-Federal acute care hospital in Georgia, among Georgia residents, with a discharge diagnosis indicating acute drug overdose during 2017.

Case Definitions (categories are not mutually exclusive)

ED visit or hospitalization involving any drug overdose

May include any over-the-counter, prescription, or illicit drug

- Any mention of ICD-10CM codes: T36-T50
- AND

• 6th character: 1-4, and a 7th character of A or missing

ED visit or hospitalization involving any opioid overdose

Includes prescription opioid pain relievers (e.g., hydrocodone, oxycodone, and morphine), opioids used to treat addiction (e.g., methadone), as well as heroin, opium, and synthetic opioids (e.g., tramadol and fentanyl that may be prescription or illicitly manufactured)

• Any mention of ICD-10CM codes: T40.0X, T40.1X, T40.2X, T40.3X, T40.4X, T40.60, T40.69 AND

• 6th character: 1-4, and a 7th character of A or missing

ED visit or hospitalization involving a heroin overdose

• Any mention of ICD-10CM code: T40.1X

AND

• 6th character: 1-4, and a 7th character of A or missing

Other Definitions or Limitations

Please Note: The case definition has changed and cannot be compared to previous reports.

Any opioid may include prescription or illicit opioids.

ED Visits and Hospitalization categories are not mutually exclusive. Hospitalizations may also appear in the ED Visits category if they were admitted to the hospital through the ED.

ED visits and hospitalizations may represent multiple visits by individuals in Georgia.

County indicates the patient's county of residence.

Only Black and White are indicated for race because of incomplete or sparse data on other races and ethnicities.

Rate indicates the number of ED visits or hospitalizations among Georgia residents per 100,000 population using 2017 Census data as the denominator, and all rates are age-adjusted unless age category is presented.

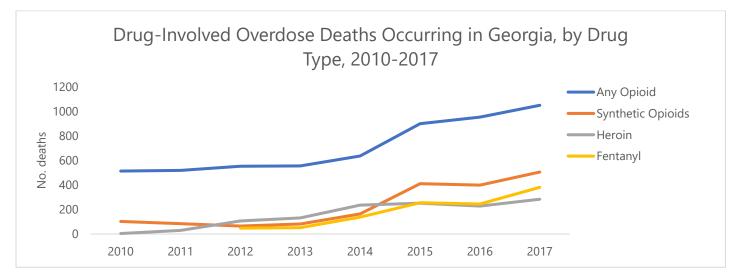
Rates for categories with fewer than 5 ED visits or hospitalizations may not be accurate and are not presented in this report.

ICD-10 CM Code Description

Poisoning by: T36-T50 (range includes all drugs), T40.0X (opium), T40.1X (heroin), T40.2X (other opioids), T40.3X (methadone), T40.4X (synthetic narcotics), T40.60 (unspecified narcotics), T40.69 (other narcotics) 6th Character: 1 (accidental, unintentional), 2 (intentional self-harm), 3 (assault), 4 (undetermined intent) 7th Character: A (initial encounter) or missing

Drug Overdose Deaths (Mortality)

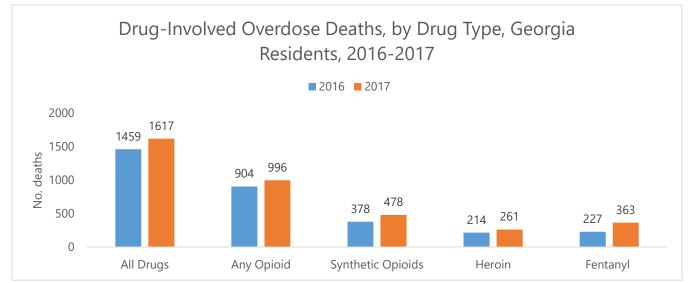
Note: Any opioid may include prescription or illicit opioids. Categories are not mutually exclusive. Overdose-involved deaths were derived from DPH Vital Records death certificates.



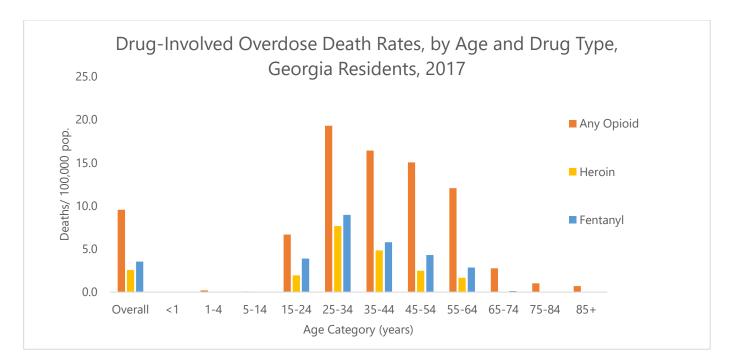
The following data include deaths that occurred in Georgia regardless of the patient's residence state.

- From 2010 to 2017, the number of opioid-involved overdose deaths increased by 104% in Georgia, from 514 to 1051 deaths.
- Beginning in 2013, illicit opioids, such as heroin and fentanyl, drove the sharp increase in opioidinvolved overdose deaths in GA. Note: fentanyl is included in the synthetic opioid category.

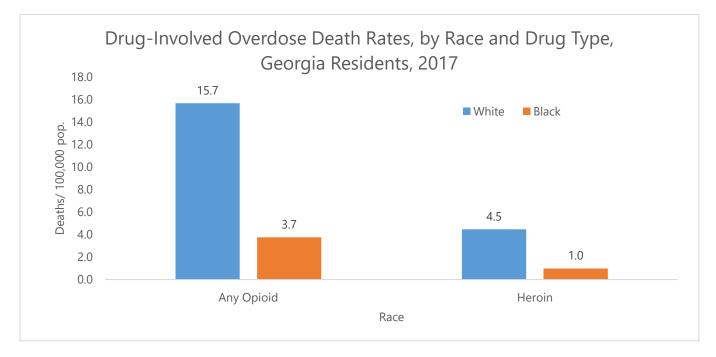
Note: The following data include all deaths that occurred in Georgia among Georgia residents and deaths that occurred outside of Georgia among Georgia residents, unless otherwise specified.



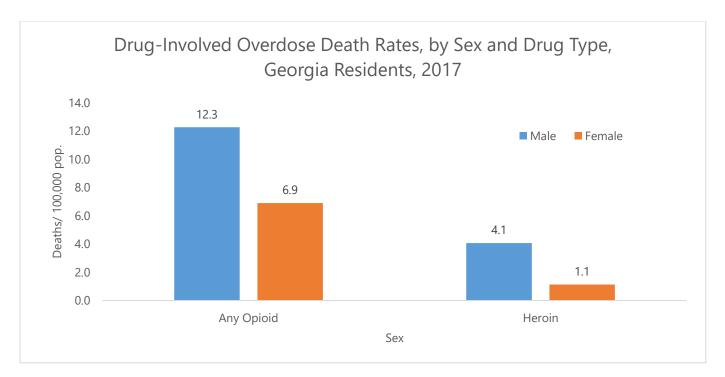
• In 2017 in Georgia, overdose deaths involving fentanyl (363) were higher than deaths involving heroin (261). Note: fentanyl is included in the synthetic opioid category.



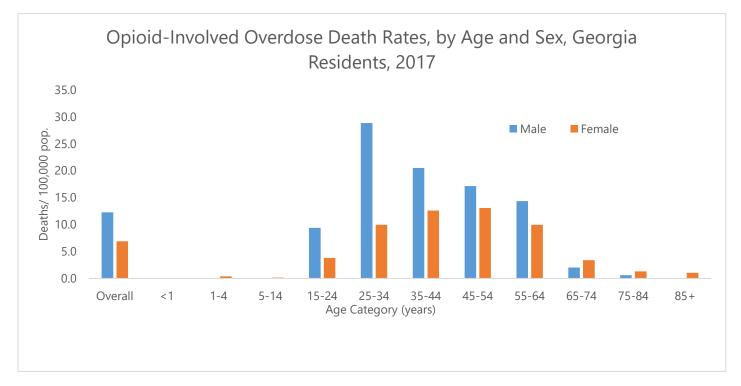
• Persons aged 25-34 years died from an opioid-, synthetic opioids-, heroin- or fentanyl-involved overdose more frequently than persons of other age categories.



• Whites were 4.2 times more likely to die from an opioid-involved overdose than Blacks.



• Males were 1.8 times more likely to die from any opioid-involved overdose, and 3.7 times more likely to die from a heroin-involved overdose, than females.



• Males aged 25-34 years died from an opioid-involved overdose more frequently than persons of any other age category, and were 2.9 times more likely to die from an overdose than females of the same age.

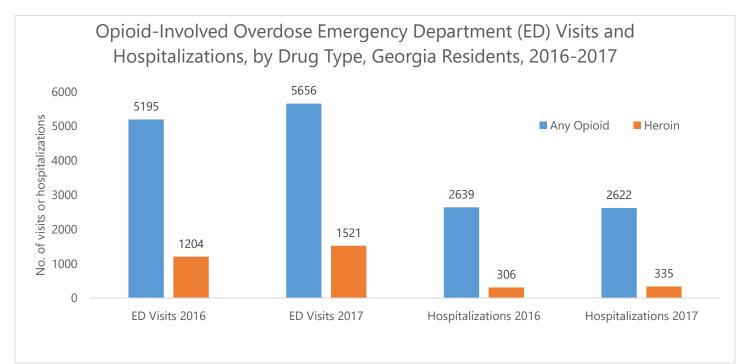
Opioid-Involved Overdose Emergency Department Visits and Hospitalizations (Morbidity)

Note: The case definition has changed and cannot be compared to previously published reports. Any opioid may include prescription or illicit opioids. ED visits and hospitalization categories are not mutually exclusive. Hospitalizations may also appear in the ED visits category if they were admitted to the hospital through the ED (95% of opioid hospitalizations were admitted from the ED in 2017).

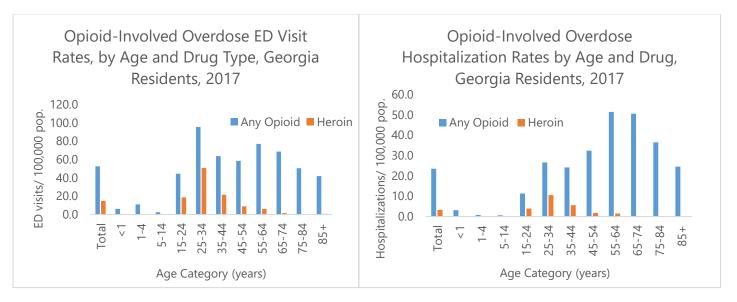
Opioid-Involved Overdose Involved Emergency Department Visits and Hospitalizations,
by Drug Type, Georgia, 2017

Any opioid may include prescription and/or and illicit opioids; categories are not mutually exclusive								
Number represents events that occurred in Georgia regardless of the patient's residence stateNumber represents events that occurred in Georgia among Georgia residents								
Drug Category No. No.								
Any Opioid ED Visits	6058	5656						
Any Opioid Hospitalizations	2784	2622						
Heroin ED Visits	1699	1521						
Heroin Hospitalizations	366	335						

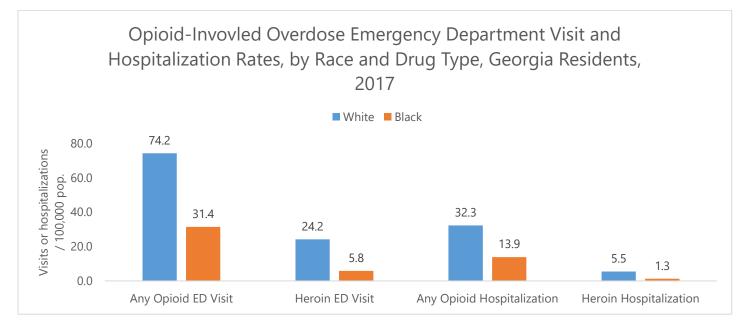
Note: The following data include all ED visits and hospitalizations that occurred in Georgia among Georgia residents.



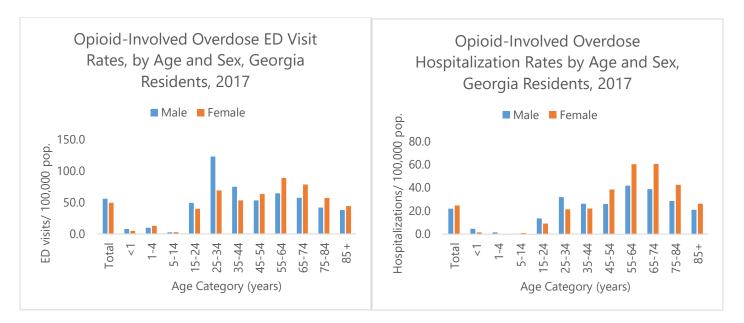
• From 2016 to 2017 in Georgia, hospitalizations for opioid-involved overdoses decreased by 1%. Hospitalizations for heroin-involved overdoses increased by 9%. ED visits for opioid- and heroin-involved overdoses increased by 9% and 26% respectively.



- Persons aged 25-34 years were more likely to visit an ED because of an opioid-involved overdose than persons of other age categories, yet older persons were more frequently hospitalized because of an opioid-involved overdose.
- Heroin-involved overdoses occurred most frequently among persons aged 25-34 years, and were less common among younger and older persons.



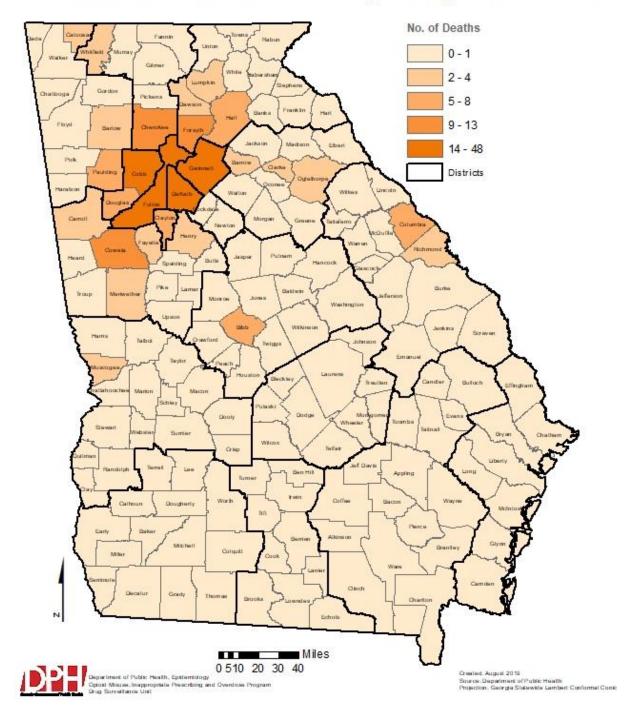
• Whites were 2.4 times more likely to visit an ED for any opioid-involved overdose, and 4.2 times more likely to visit an ED for a heroin-involved overdose than Blacks.



- Males aged 25-34 years visited an ED and/or died from an opioid-involved overdose more frequently than females of the same age category.
- Females, particularly those aged 45 years and older, more frequently visited an ED, were more frequently hospitalized for an opioid-involved overdose than males.

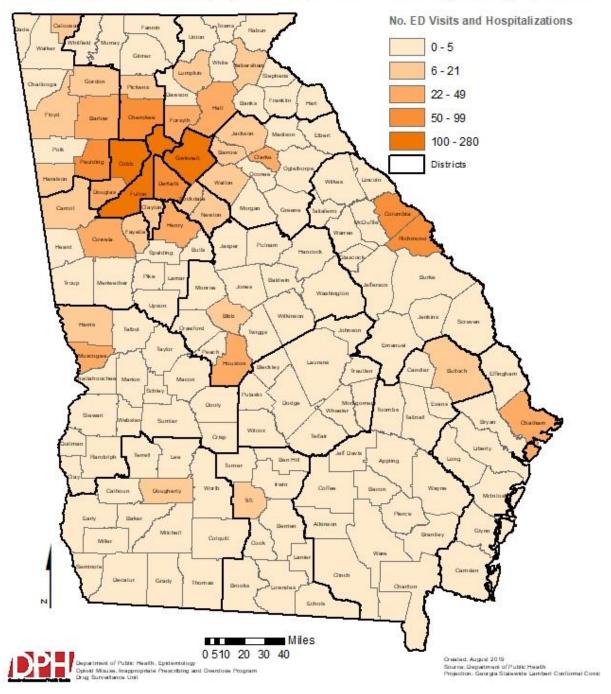
HEROIN-INVOLVED OVERDOSES

Heroin-Involved Overdose Deaths, by County of Residence, Georgia, 2017



NOTE: Rates could not be calculated for most counties due to the low number of heroin-involved overdose deaths, ED visits and hospitalizations. Therefore, the number (not rate) of overdoses are presented in this map.

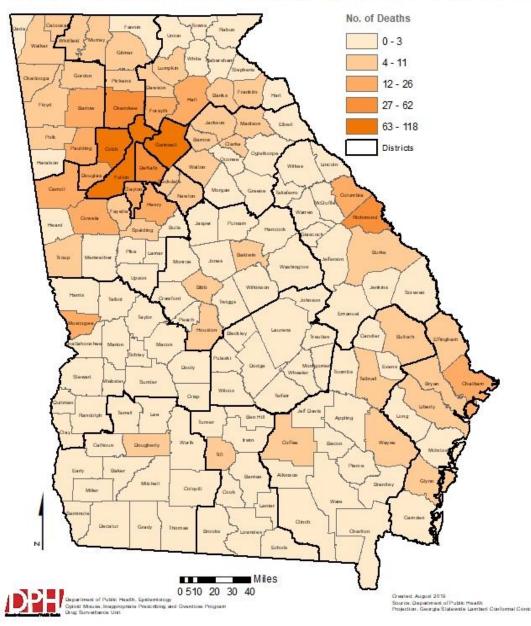
Heroin-Involved Overdose Emergency Department Visits and Hospitalizations, by County of Residence, Georgia, 2017

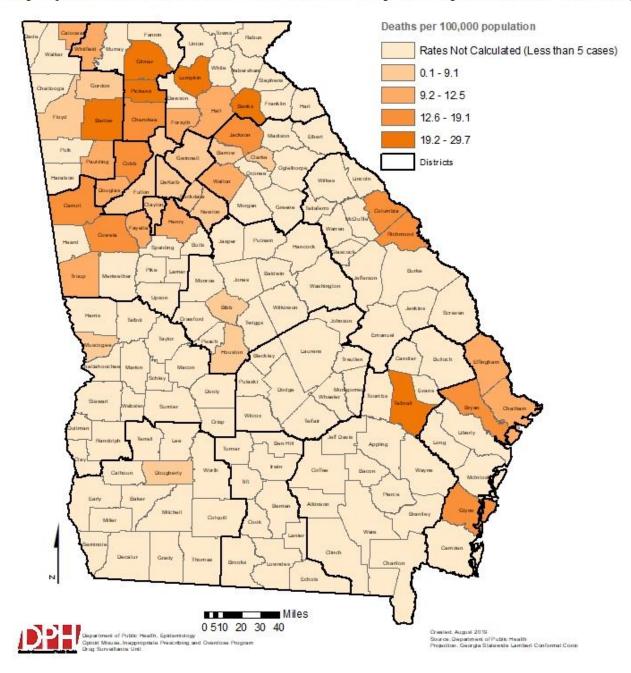


NOTE: Rates could not be calculated for some counties due to the low number of heroin-involved overdose deaths, ED visits and hospitalizations. Therefore, the number (not rate) of overdoses are presented in this map.

ANY OPIOID-INVOLVED OVERDOSES

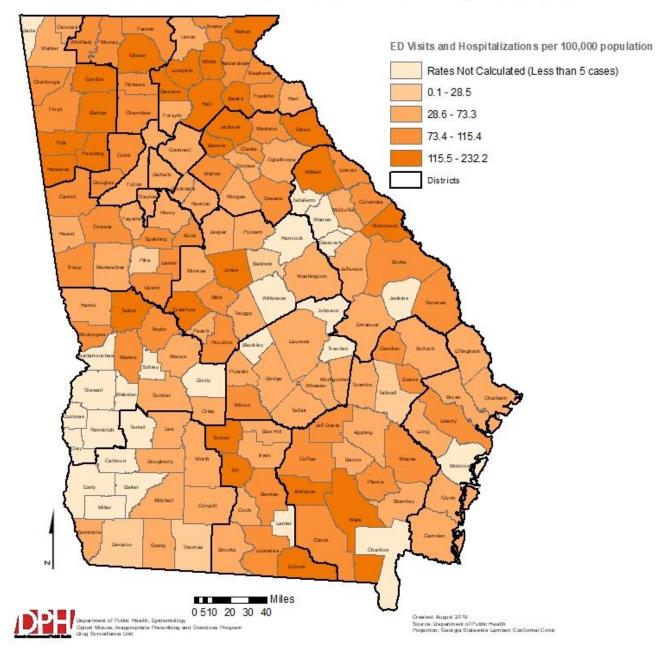
Any Opioid-Involved Overdose Deaths, by County of Residence, Georgia, 2017





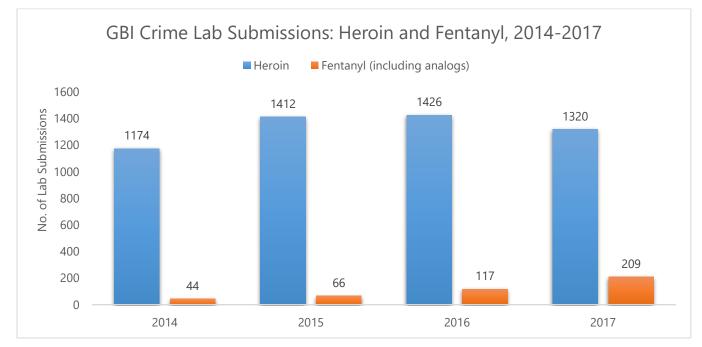
Any Opioid-Involved Overdose Death Rate, by County of Residence, Georgia, 2017

Any Opioid-Involved Overdose Emergency Department Visit and Hospitalization Rates, by County of Residence, Georgia, 2017

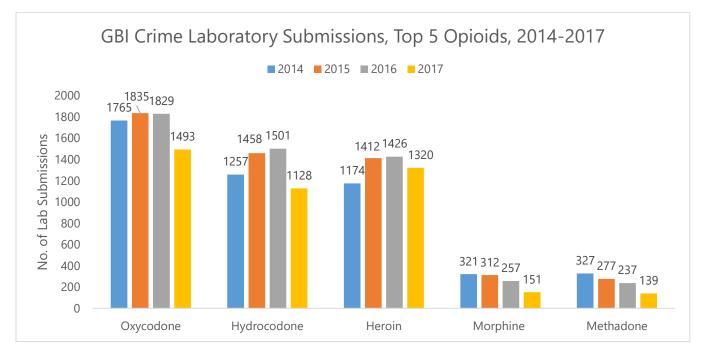


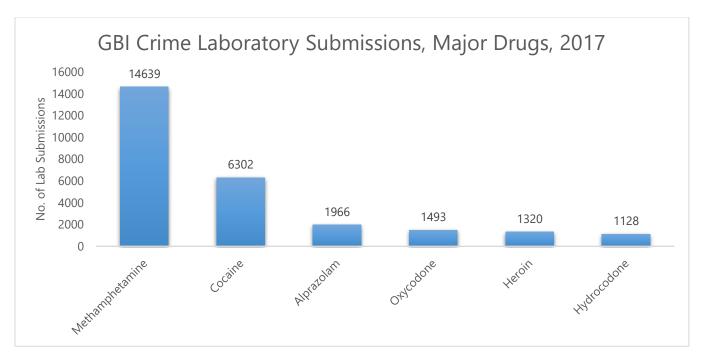
Georgia Bureau of Investigations (GBI) Crime Laboratory Submissions

Crime laboratory submissions are evidence items (pills, powders, etc.) seized by law enforcement and submitted to the GBI Crime Laboratory (<u>https://dofs-gbi.georgia.gov/</u>) for forensic chemical identification. A case may contain one submission or several. For example, a case may consist of a single plastic bag with powder material inside, or a case may have been a result of a massive search warrant and contain many bags of powder, plus pills and liquids. Each submission that is tested is recorded and tracked. These data represent only items tested during each calendar year; these numbers may change slightly as untested items are completed.



• Submissions to the GBI Crime Laboratory for Heroin and Fentanyl increased by 12.4% and 375% respectively from 2014 to 2017.





• Oxycodone, hydrocodone, and heroin were the opioids most frequently submitted to the GBI Crime Laboratory for identification, and in the top six drugs most commonly submitted. Oxycodone and hydrocodone were also the two most frequently prescribed opioids in Georgia in 2018. (see the Georgia PDMP 2016-2017 Report available at https://dph.georgia.gov/drug-overdose-surveillance-unit).

Cour	Counties with the Highest Number or Rate of Any Opioid-Involved Overdose Deaths, Emergency Depart (ED) Visits and Inpatient Hospitalizations — Georgia, 2017										
Number, and age-adjusted rate per 100,000 population. Note: rates could not be calculated for some counties due to the low number of any opioid-involved overdose ED visits, hospitalizations, and deaths, only counties with >15 were included in the top 10 rate ranking											
Rank	RankNo. deaths County of residenceNo. deaths County of injuryDeath rate County of residenceNo. ED visits and 										
1	Cobb (118)	Cobb (126)	Banks (29.7)	Fulton (691)	Atkinson (232.2)						
2	Fulton (103)	Fulton (125)	Gilmer (28.4)	Cobb (643)	Bartow (167.1)						
3	Gwinnett (71)	Gwinnett (64)	Lumpkin (27.4)	Gwinnett (511)	Echols (161.7)						
4	DeKalb (48)	DeKalb (61)	Pickens (21.3)	DeKalb (393)	Talbot (159.1)						
5	Cherokee (33)	Cherokee (34)	Bartow (20.6)	Hall (290)	Polk (157.1)						
6	Richmond (28)	Carroll (22)	Tattnall (20.5)	Richmond (287)	Lumpkin (152.5)						
7	Chatham (26)	Chatham (20)	Carroll (19.1)	Paulding (241)	Paulding (150.7)						
8	Forsyth (24)	Hall (16)	Bryan (15.8)	Cherokee (240)	Dawson (149.9)						
9	Hall (24)	Richmond (15)	Cobb (15.1)	Chatham (199)	Banks (148.4)						
10	Henry (23)	Bibb (14)	Glynn (14.5)	Bartow (193)	White (144.3)						

Note: The following data include deaths that occurred in Georgia regardless of the patient's residence state.

Drug Overdose Deaths (Mortality) — Georgia, 2010–2017										
Any opioid may include prescription and/or illicit opioids; categories are not mutually exclusive Number represents events that occurred in Georgia regardless of the patient's residence state										
	Any Drug Any Opioid Synthetic Opioids Heroin Fentanyl									
Year	No.	No.	No.	No.	No.					
2017	1591	1051	506	284	381					
2016	1436	954	399	228	245					
2015	1364	901	411	252	255					
2014	1041	637	164	236	138					
2013	1113	556	82	131	52					
2012	1066	554	65	106	48					
2011	1042	519	84	29	N/A					
2010	1059	514	102	4	N/A					

Drug Overdose Emergency Department (ED) Visits and Hospitalizations (Morbidity) — Georgia Residents, 2016-2017

Number, and age-adjusted rate per 100,000 population Any opioid may include prescription and/or illicit opioids; categories are not mutually exclusive										
	Any Opioid Heroin									
	ED V	visits	Hospitalizations		ED Visits		Hospitalizations			
Year	No.	Rate	No.	Rate	No.	Rate	No.	Rate		
2017	5656	52.6	2622	23.5	1521	14.9	335	3.3		
2016	5195	48.9	2639	24.3	1204	11.8	306	3.0		

Number and rate per 100,000 population (rate is age-adjusted except when age categories are presented) Any opioid may include prescription and/or illicit opioids; categories are not mutually exclusive Any Opioid										
	No.	Rate	No.	Rate	No.	Rate				
Total	5656	52.6	2622	23.5	996	9.5				
Age group										
<1 year	8	6.3	1	N/A	0	N/A				
1-4 years	55	10.4	12	2.3	0	N/A				
5 -14 years	23	1.6	9	0.6	1	N/A				
15-24 years	497	34.4	123	8.5	64	4.4				
25-34 years	1202	81.6	335	22.7	220	14.9				
35-44 years	763	55.6	286	20.8	225	16.4				
45-54 years	733	51.9	394	27.9	171	12.1				
55-64 years	902	70.2	594	46.2	135	10.5				
65-74 years	559	62.4	407	45.5	49	5.5				
75-84 years	203	48.5	146	34.9	3	N/A				
85+ years	69	47.1	38	25.9	5	3.4				
Sex (age group)										
Male	2465	47.3	985	18.5	559	11.0				
<1 year	5	7.7	1	N/A	0	N/A				
1-4 years	28	10.4	9	3.3	0	N/A				
5-14 years	6	0.8	3	N/A	0	N/A				
15-24 years	278	37.8	74	10.1	49	6.7				
25-34 years	775	106.1	206	28.2	168	23.0				
35-44 years	404	61.0	145	21.9	139	21.0				
45-54 years	297	43.3	135	19.7	99	14.4				
55-64 years	375	61.4	215	35.2	74	12.1				
65-74 years	206	50.5	141	34.6	26	6.4				
75-84 years	66	36.8	44	24.5	1	N/A				
85+ years	25	50.6	12	24.3	3	N/A				
Female	2546	44.2	1359	22.4	314	5.7				
<1 year	3	N/A	0	N/A	0	N/A				
1-4 years	27	10.4	3	N/A	0	N/A				
5-14 years	17	2.5	6	0.9	1	N/A				
15-24 years	219	30.8	49	6.9	15	2.1				
25-34 years	427	57.5	129	17.4	52	7.0				
35-44 years	359	50.5	141	19.8	86	12.1				
45-54 years	436	60.1	259	35.7	72	9.9				
55-64 years	527	78.1	379	56.2	61	9.0				

Opioid Related Overdose Morbidity and Mortality — Georgia Residents 2017

65-74 years	353	72.4	266	54.5	23	4.7
75-84 years	137	57.3	102	42.7	2	N/A
85+ years	41	42.2	25	25.7	2	N/A
Race						
White	3842	65.5	1837	28.4	729	13.5
Black	906	26.6	339	11.7	130	3.9

Opioid Overdose Surveillance and Response Information/Resources

To report an increase in overdoses, a potential overdose cluster, or any other unusual drug-related event, call the Georgia Poison Center at 1-800-222-1222.

Please see <u>https://dph.georgia.gov/stopopioidaddiction</u> for more information on how the Georgia Department of Public Health (DPH) is working to combat the opioid epidemic, including:

- Opioid and substance misuse response: <u>https://dph.georgia.gov/georgias-opioid-response</u>
- Prescription Drug Monitoring Program (PDMP): <u>https://dph.georgia.gov/pdmp</u>
- Drug Surveillance Unit: <u>https://dph.georgia.gov/drug-surveillance-unit</u>

Please see <u>https://dph.georgia.gov/opioid-epidemic-individuals-and-families</u> for information on the opioid epidemic for **individuals and families**, including:

- Addiction prevention
- Drug take-back
- Signs of an overdose and steps to take
- Naloxone information
- Georgia's Prescription Drug Monitoring Program (PDMP)
- Georgia's Medical Amnesty Law
- Harm reduction
- Neo-natal abstinence syndrome
- Treatment resources

Please see <u>https://dph.georgia.gov/opioid-epidemic-medical-providers-and-pharmacists</u> for information on the opioid epidemic for **medical providers and pharmacists**, including:

- Steps providers can take to help prevent opioid misuse and addiction in their patients
- Prescribing guidelines
- Georgia's Prescription Drug Monitoring Program (PDMP)
- Georgia's Naloxone Standing Order
- Georgia's Medical Amnesty Law

Please see <u>https://dph.georgia.gov/opioid-epidemic-first-responders-and-ems</u> for information on the opioid epidemic for **Law Enforcement and EMS**, including:

- Georgia's Prescription Drug Monitoring Program (PDMP)
- Responder safety
- Georgia's Medical Amnesty Law
- Georgia's Naloxone Standing Order
- Naloxone administration
- Case documentation guidelines

Georgia Department of Public Health (DPH), Epidemiology Section, Drug Surveillance Unit https://dph.georgia.gov/drug-surveillance-unit