Stimulant Overdose Surveillance Preliminary Report
Georgia
2016-2018

Drug Surveillance Unit
Epidemiology Section
Georgia Department of Public Health

https://dph.georgia.gov/drug-overdose-surveillance-unit
The purpose of this report is to describe fatal (mortality) and nonfatal (morbidity) stimulant-involved hospitalizations and deaths in Georgia during 2016, 2017, and 2018, including those involving prescription stimulants (e.g. Adderall, Ritalin, etc.), and illicit stimulants (e.g., cocaine, methamphetamine, etc.). Stimulant overdose data was 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
Stimulant-involved morbidity and mortality is increasing in Georgia.

**Mortality**
- From 2016 to 2018, overdose deaths involving stimulants increased by 44%, from 487 to 703 deaths.
- From 2017 to 2018, overdose deaths involving stimulants increased by 11%, from 631 to 703 deaths.
- In 2018, amphetamines were involved in more deaths than any other stimulant.
- White persons were 1.6 times more likely to die from a drug overdose involving stimulants and 5.5 times more likely to die from a drug overdose involving amphetamines than Black persons, yet Black persons were 1.5 times more likely than white persons to die from a drug overdose involving cocaine.
- Males aged 25-64 years died more frequently from stimulant-involved overdose than males in any other age category and females of all age categories. Males aged 35-44 years had the highest stimulant-related death rate.

**Morbidity**
- From 2016 to 2018, hospitalizations involving stimulants increased by 21.9% and ED visits involving stimulants increased by 18.5%.
- From 2017 to 2018, hospitalizations involving stimulants increased by 15.3% and ED visits involving stimulants increased by 9.8%.
- In Georgia in 2018:
  - Stimulants were involved in 2,769 ED visits and 1,752 hospitalizations.
  - Cocaine was involved in 1,241 ED visits and 977 hospitalizations.
  - Amphetamines were involved in 1,335 ED visits and 764 hospitalizations.
- White persons were 2.9 times more likely to visit an ED and 3.5 times more likely to be hospitalized for amphetamine-involved poisonings than black persons, yet Blacks were 6.6
times more likely to visit an ED and 9.0 times more likely to be hospitalized for cocaine-involved poisonings than Whites.

- Males aged 25-34 years visited an ED and were hospitalized from amphetamine-involved poisoning more frequently than males and females in any other age category.

Note: further information about opioid-related hospitalizations and deaths in Georgia can be found in the Opioid Overdose Surveillance Reports from 2016, 2017, and 2018 published online at https://dph.georgia.gov/drug-overdose-surveillance-unit
## Deaths involving Stimulants (Mortality), Georgia, 2018

### Data Source

Drug-related deaths were derived from DPH Vital Records death certificates for all deaths that occurred in Georgia during 2016-2018. Data records are continuously updated (corrected, amended or deleted) as more information becomes available, therefore, reports represent the most current data, and future reports may reflect updated data.

### Case Definitions

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

#### Deaths involving ANY DRUG:

*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

#### Deaths involving ALL STIMULANTS:

*Includes prescription stimulants (e.g. Adderall, Ritalin, etc.), over-the-counter stimulants (e.g. caffeine, ephedrine, etc.) and illicit stimulants (e.g. cocaine, methamphetamine, ecstasy, etc.)*

1. Deaths with any of the following ICD-10 codes as any underlying cause of death: X40-44, X60-64, X85, Y10-14
   
   AND
   
   Any of the following ICD-10 codes as any other listed cause of death: T40.5, T43.6

   OR

2. Any cause of death text field contains the following keywords: 5F-ADB, adderall, amphetamine, bath salt, bath salts, bathsalt, biphetamine, BK-DMBDB, bk-dmbdb, cathinone, coca leaf, cocaine, concerta, crack, crystal meth, dexedrine, dextroamphetamine, ecstasy, ephedrine, flakka, focalin, khat, levoamphetamine, lisdexamfetamine, MDA, MDMA, methamphetamine, methylin, mollie, molly, pseudoephedrine, psychostimulant, ritalin, speed, speedball, stimulant, vyvanse

#### Deaths involving COCAINE

1. Deaths with any of the following ICD-10 codes as any underlying cause of death: X40-44, X60-64, X85, Y10-14
   
   AND
   
   The following ICD-10 code as any other listed cause of death: T40.5

   OR

2. Any cause of death text field contains the following keywords: coca leaf, cocaine, crack
Deaths involving OTHER STIMULANTS with abuse potential

Includes prescription stimulants (e.g. Adderall, Ritalin, Concerta, etc.), over-the-counter (e.g. caffeine) and illicit stimulants (e.g. crystal meth, ecstasy, MDMA, etc.)

1. Deaths with any of the following ICD-10 codes as any underlying cause of death: X40-44, X60-64, X85, Y10-14
   AND
   Any of the following ICD-10 codes as any other listed cause of death: T43.6

OR

2. Any cause of death text field contains the following keywords: 5F-ADB, adderall, amphetamine, bath salt, bath salts, bathsalt, biphetamine, BK-DMBDB, bk-dmbdb, cathinone, concerta, crystal meth, dexedrine, dextroamphetamine, ecstasy, ephedrine, flakka, focalin, khat, levoamphetamine, lisdexamfetamine, MDA, MDMA, methamphetamine, methylxyl, molly, pseudoephedrine, psychostimulant, ritalin, speed, speedball, stimulant, vyvanse

Other Definitions or Limitations

Overdose death county represents the county of residence.

Rate indicates deaths per 100,000 population using 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 poisoning by drugs), X60-X64 (intentional self-poisoning by drugs), X85 (assault by drug poisoning), Y10-Y14 (drug poisoning of undetermined intent), T40.5 (poisoning by cocaine), T43.6 (poisoning by psychostimulants with abuse potential)

ED Visits and Hospitalizations involving Stimulants (Morbidity), Georgia, 2018

Data Source

Nonfatal ED visits or hospitalizations were derived from Georgia hospital discharge inpatient and ED visit 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 disorders or poisoning due to stimulant use during 2016-2018. Data records are continuously updated (corrected, amended or deleted) as more information becomes available, therefore, reports represent the most current data, and future reports may reflect updated data.

Case Definitions (categories are not mutually exclusive)

ED visit or hospitalization involving poisoning by any drug

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

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

AND

5th or 6th character: 1-4, and a 7th character of A or missing
**ED visit or hospitalization involving use of ALL STIMULANTS**
*Includes prescription stimulants (e.g. Adderall, Ritalin, etc.), over-the-counter stimulants (e.g. caffeine, ephedrine, etc.) and illicit stimulants (e.g. speed, ecstasy, methamphetamine, etc.)*

- Any mention of ICD-10CM codes: T40.5X, T43.60, T43.61, T43.62, T43.63, T43.69, T44.99, T50.5X, T65.21, T65.22
- AND
- 5\textsuperscript{th} or 6\textsuperscript{th} character: 1-4, and a 7\textsuperscript{th} character of A or missing

**ED visit or hospitalization involving use of COCAINE**

- Any mention of ICD-10CM codes: T40.5X
- AND
- 5\textsuperscript{th} or 6\textsuperscript{th} character: 1-4, and a 7\textsuperscript{th} character of A or missing

**ED visit or hospitalization involving use of AMPHETAMINES**
*Includes prescription amphetamines (e.g. Adderall, etc.) and illicit amphetamines (e.g. speed, ecstasy, methamphetamine, etc.)*

- Any mention of ICD-10CM codes: T43.62
- AND
- 6\textsuperscript{th} character: 1-4, and a 7\textsuperscript{th} character of A or missing

**ED visit or hospitalization involving use of OTHER STIMULANTS**
*Includes over-the-counter stimulants (e.g. caffeine, nicotine [chewing tobacco, cigarettes, nicotine insecticides, etc.], decongestants [ephedrine, pseudoephedrine, dopamine, etc.]) and prescription stimulants [Ritalin, appetite suppressants]).*

- 1. Any mention of ICD-10CM codes: T43.60, T43.61, T43.63, T43.69, T44.99, T50.5X, T65.21, T65.22
- AND
- 5\textsuperscript{th} or 6\textsuperscript{th} character: 1-4, and a 7\textsuperscript{th} character of A or missing

**Other definitions or limitations**

- 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.
- Patients that were admitted through the ED and subsequently hospitalized appear in both the ED and hospital inpatient data.
- Rate indicates ED visits or hospitalizations per 100,000 population using 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), T40.5X (cocaine), T43.60 (unspecified psychostimulants), T43.61 (caffeine), T43.62 (amphetamines), T43.63 (methylphenidate), T43.69 (other psychostimulants), T44.99 (incl. ephedrine) T50.5X (appetite suppressants) T65.21 (chewing tobacco), T65.22 (cigarettes); 5\textsuperscript{th} or 6\textsuperscript{th} Character: 1 (accidental, unintentional), 2 (intentional self-harm), 3 (assault), 4 (undetermined intent); 7\textsuperscript{th} Character: A (initial encounter) or missing*
*Note: Categories are not mutually exclusive and may include any over-the-counter, prescription, or illicit substances. Statistics refer to all overdose deaths in the state of Georgia (permanent residents and non-residents).
• From 2016 to 2018, there was a 44% increase in drug deaths involving all stimulants, a 45% increase in deaths involving cocaine, and a 56% increase in deaths involving amphetamines.
• From 2017 to 2018, there was an 11% increase in drug deaths involving all stimulants, an 18% increase in deaths involving cocaine, and a 10% increase in deaths involving amphetamines.
• From 2016 to 2018 there was a 4% decrease in drug deaths involving all opioids.
• From 2017 to 2018, there was a 14% decrease in drug deaths involving all opioids.

**Stimulant-Involved Overdose Death Rates, by Age and Drug Type, Georgia, 2018**

![Graph showing deaths per 100,000 population by age and drug type](image)

- Persons aged 45-54 years died more frequently from amphetamine-involved overdose than from cocaine-involved overdose.
- Persons aged 55 years or older died more frequently from cocaine-involved overdose than from amphetamine-involved overdose.
- Persons aged 35-54 years had the highest rates for amphetamine-involved deaths and cocaine-related deaths.
• White persons were 1.6 times more likely than black persons to die from a drug overdose involving stimulants, and 3.5 times more likely to die from a drug overdose involving opioids.

• Black persons were 1.5 times more likely than white persons to die from a drug overdose involving cocaine, and white persons were 5.5 times more likely than black persons to die from an overdose involving amphetamines.

• Males were 2.5 times more likely to die from a stimulant-involved overdose than females, and 1.9 times more likely to die from an opioid-involved overdose than females.

• Males were 3.1 times more likely to die from a cocaine-involved overdose than females, and 2.1 times more likely to die from an overdose involving amphetamines than females.
• Males aged 25-64 years died more frequently from stimulant-involved overdose than males in any other age category, with males aged 35-44 years having the highest stimulant-involved death rate.

• Females aged 25-64 years died more frequently from stimulant-involved overdose than females in any other age category, with females aged 45-54 years having the highest stimulant-related death rate.
ED Visits and Hospitalizations (Morbidity) involving Stimulants

Note: Categories are not mutually exclusive and may include over-the-counter, prescription, or illicit substances in each.

- ED visits involving stimulant use increased by 18.5% from 2016 to 2018, and increased by 9.8% from 2017 to 2018.
- ED visits involving cocaine and amphetamine use increased by 18.5% and 17.7% respectively from 2016 to 2018, and increased by 6.4% and 10.4% from 2017 to 2018.

- Hospitalizations involving stimulant use increased by 21.9% from 2016 to 2018, and increased by 15.3% from 2017 to 2018.
- Hospitalizations involving cocaine and amphetamine use increased by 20.2% and 21.9% respectively from 2016 to 2018, and increased by 10.0% and 18.6% from 2017 to 2018.
• Persons aged 25-34 years were more likely to visit an ED or be hospitalized because of amphetamine-involved poisoning than persons of other age categories.
• Persons aged 55-64 years were more likely to visit an ED or be hospitalized because of cocaine-involved poisoning than persons of other age categories.

• Whites were 2.9 times more likely to visit an ED and 3.5 times more likely to be hospitalized for amphetamine-involved poisonings than Blacks.
• Blacks were 6.6 times more likely to visit an ED and 9.0 times more likely to be hospitalized for cocaine-involved poisonings than Whites.
• Males aged 25-34 years visited an ED and were hospitalized for amphetamine-involved poisoning more frequently than males and females in any other age category.
• Both males and females aged 25-34 years were hospitalized for amphetamine-involved poisoning most frequently.

• Males aged 45-54 years visited an ED for cocaine-involved poisoning more frequently than males and females in any other age category.
• Males aged 55-64 years were hospitalized for cocaine-involved poisoning more frequently than males and females in any other age category.
# Deaths involving Stimulants (Mortality) — Georgia, 2016–2018

Number, and age-adjusted rate per 100,000 population  
Any category may include prescription and/or illicit drugs, categories are not mutually exclusive, rates for counts under 5 may be unstable

<table>
<thead>
<tr>
<th>Year</th>
<th>Any Drug</th>
<th>Any Opioid</th>
<th>Any Stimulant</th>
<th>Cocaine</th>
<th>Amphetamines</th>
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<td>No.</td>
<td>Rate</td>
<td>No.</td>
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# ED Visits and Hospitalizations involving Stimulants (Morbidity) — Georgia, 2016–2018

Number, and age-adjusted rate per 100,000 population  
Any category may include prescription and/or illicit drugs, categories are not mutually exclusive, rates for counts under 5 may be unstable

<table>
<thead>
<tr>
<th>Year</th>
<th>Any Drug</th>
<th>Any Opioid</th>
<th>Any Stimulant</th>
<th>Cocaine</th>
<th>Amphetamines</th>
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<td>Hospitalizations</td>
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<td></td>
</tr>
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<td>23404</td>
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<td>9637</td>
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Georgia Department of Public Health (DPH), Epidemiology Section, Drug Surveillance Unit  
https://dph.georgia.gov/drug-surveillance-unit
### Morbidity and Mortality involving Stimulants — Georgia, 2018
(for emergency department (ED) visits, inpatient hospitalizations, and deaths)

Number and rate per 100,000 population (rate is age-adjusted except when age categories are presented)
Any category may include prescription, and/or illicit stimulants, categories are not mutually exclusive, rates for counts under 5 may be unstable

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<thead>
<tr>
<th>All Stimulants</th>
<th>ED Visits</th>
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<td>55-64 years</td>
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<td>65-74 years</td>
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<tr>
<td>75-84 years</td>
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<tr>
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<table>
<thead>
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<th>Sex (age group)</th>
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<td>Race</td>
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<td>1-4 years</td>
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</tbody>
</table>

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