



Trends & Statistics

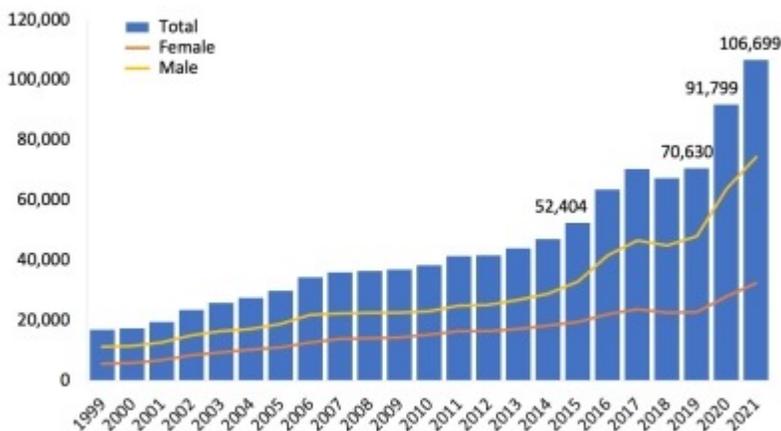
Drug Overdose Death Rates

The [National Center for Health Statistics \(NCHS\)](#) at the [Centers for Disease Control and Prevention](#) collects information on deaths involving drugs commonly associated with fatal overdose. This information is available in a searchable database called [CDC Wonder](#). The NCHS also provides 12-month-ending [Provisional Drug Overdose Death Counts](#) by state and drug category.

The CDC also provides timely data related to unintentional and undetermined intent drug overdose deaths by participating jurisdiction through the [State Unintentional Drug Overdose Reporting System \(SUDORS\)](#). Similar data related to nonfatal drug overdoses are reported through [CDC’s Drug Overdose Surveillance and Epidemiology \(DOSE\)](#) system.

[See the latest from NIDA on drug overdose research.](#)

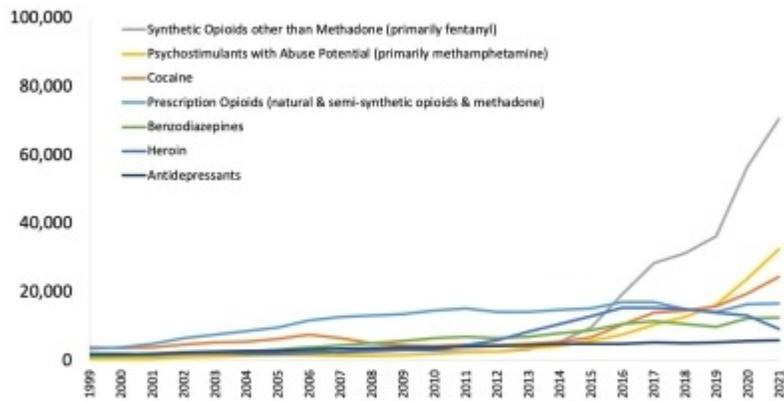
Figure 1. National Drug-Involved Overdose Deaths*, Number Among All Ages, by Gender, 1999-2021



*Includes deaths with underlying causes of unintentional drug poisoning (X40–X44), suicide drug poisoning (X60–X64), homicide drug poisoning (X85), or drug poisoning of undetermined intent (Y10–Y14), as coded in the International Classification of Diseases, 10th Revision. Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999–2021 on CDC WONDER Online Database, released 1/2023.

Figure 1. National Drug-Involved Overdose Deaths—Number Among All Ages, by Gender, 1999-2021. More than 106,000 persons in the U.S. died from drug-involved overdose in 2021, including illicit drugs and prescription opioids. The figure above is a bar and line graph showing the total number of U.S. drug overdose deaths involving select illicit or prescription drugs from 1999 to 2021. The bars are overlaid by lines showing the number of deaths by gender from 1999 to 2021 (Source: CDC WONDER).

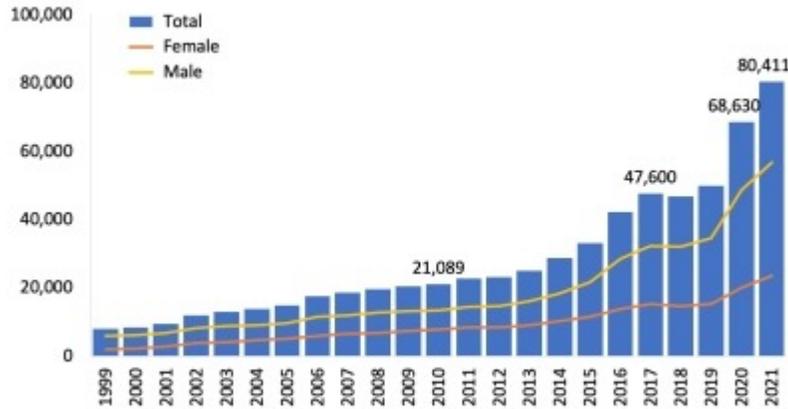
Figure 2. National Drug-Involved Overdose Deaths*, Number Among All Ages, 1999-2021



*Includes deaths with underlying causes of unintentional drug poisoning [X40–X44], suicide drug poisoning [X60–X64], homicide drug poisoning [X85], or drug poisoning of undetermined intent [Y10–Y14], as coded in the International Classification of Diseases, 10th Revision. Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2021 on CDC WONDER Online Database, released 1/2023.

Figure 2. National Drug-Involved Overdose Deaths by Specific Category—Number Among All Ages, 1999-2021. Overall, drug overdose deaths rose from 2019 to 2021 with more than 106,000 drug overdose deaths reported in 2021. Deaths involving synthetic opioids other than methadone (primarily fentanyl) continued to rise with 70,601 overdose deaths reported in 2021. Those involving stimulants, including cocaine or psychostimulants with abuse potential (primarily methamphetamine), also continued to increase with 32,537 overdose deaths in 2021 (Source: CDC WONDER).

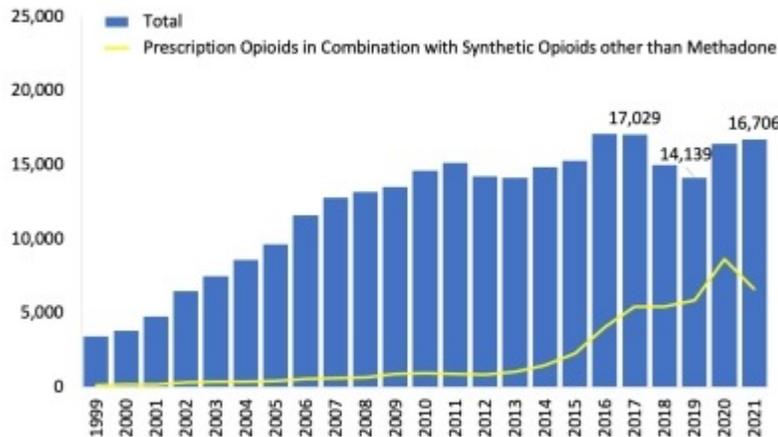
Figure 3. National Overdose Deaths Involving Any Opioid*, Number Among All Ages, by Gender, 1999-2021



*Among deaths with drug overdose as the underlying cause, the "any opioid" subcategory was determined by the following ICD-10 multiple cause-of-death codes: natural and semi-synthetic opioids (T40.2), methadone (T40.3), other synthetic opioids [other than methadone] (T40.4), or heroin (T40.1). Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2021 on CDC WONDER Online Database, released 1/2023.

Figure 3. National Overdose Deaths Involving Any Opioid—Number Among All Ages, by Gender, 1999-2021. The figure above is a bar and line graph showing the total number of U.S. overdose deaths involving any opioid from 1999 to 2021. Any opioid includes prescription opioids (natural and semi-synthetic opioids and methadone), heroin, and synthetic opioids other than methadone (primarily fentanyl). Opioid-involved overdose deaths rose from 21,089 in 2010 to 47,600 in 2017 and remained steady through 2019. This was followed by a significant increase in 2020 with 68,630 reported deaths and again in 2021 with 80,411 reported overdose deaths. The bars are overlaid by lines showing the number of deaths by gender from 1999 to 2021 (Source: CDC WONDER).

Figure 4. National Overdose Deaths Involving Prescription Opioids*, Number Among All Ages, 1999-2021



*Among deaths with drug overdose as the underlying cause, the prescription opioid subcategory was determined by the following ICD-10 multiple cause-of-death codes: natural and semi-synthetic opioids (T40.2) or methadone (T40.3). Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2021 on CDC WONDER Online Database, released 1/2023.

Figure 4. National Overdose Deaths Involving Prescription Opioids, by other Opioid Involvement—Number Among All Ages, 1999-2021. The figure above is a bar and line graph showing the total number of U.S. overdose deaths involving prescription opioids (including natural and semi-synthetic opioids and methadone) from 1999 to 2021. Drug overdose deaths involving prescription opioids rose from 3,442 in 1999 to 17,029 in 2017. From 2017 to 2019, the number of deaths declined to 14,139. This was followed by a slight increase in 2020, with 16,416 reported deaths. In 2021, the number of reported deaths involving prescription opioids totaled 16,706. The bars are overlaid by a line showing the number of deaths involving prescription opioids in combination with synthetic opioids other than methadone (primarily fentanyl) from 1999 to 2021 (Source: CDC WONDER).

Figure 5. National Overdose Deaths Involving Heroin*, by other Opioid Involvement, Number Among All Ages, 1999-2021

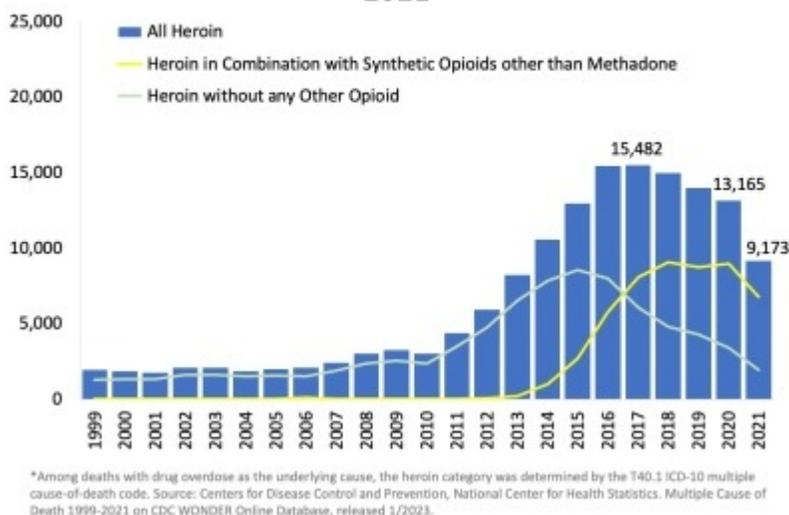


Figure 5. National Overdose Deaths Involving Heroin, by Other Opioid Involvement—Number Among All Ages, 1999-2021. The figure above is a bar and line graph showing the total number of U.S. overdose deaths involving heroin from 1999 to 2021. Drug overdose deaths involving heroin rose from 1,960 in 1999 to 15,482 in 2017 before trending down to 13,165 deaths in 2020 and 9,173 deaths in 2021. The bars are overlaid by lines showing the number of deaths involving heroin in combination with synthetic opioids other than methadone (primarily fentanyl) or without any other opioid from 1999 to 2021 (Source: CDC WONDER).

Figure 6. National Overdose Deaths Involving Stimulants (Cocaine and Psychostimulants*), by Opioid Involvement, Number Among All Ages, 1999-2021

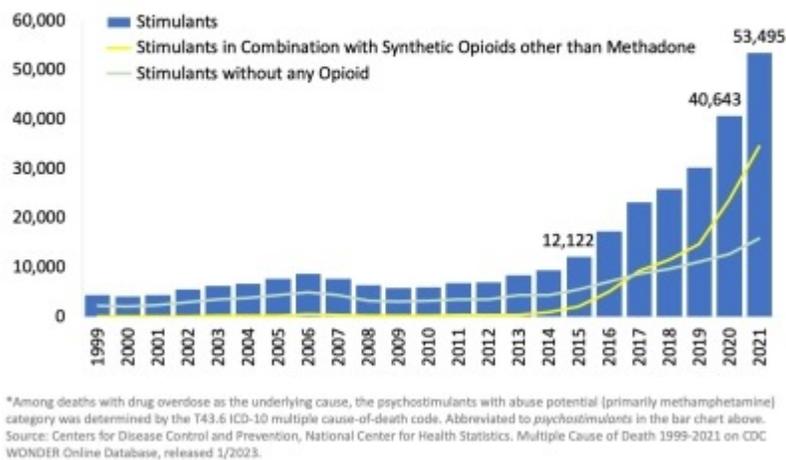


Figure 6. National Overdose Deaths Involving Stimulants (cocaine and psychostimulants), by Opioid Involvement—Number Among All Ages, 1999-2021. The figure above is a bar and line graph showing the total number of U.S. overdose deaths involving stimulants from 1999 to 2021. Drug overdose deaths rose from 12,122 in 2015 to 53,495 in 2021. The bars are overlaid by lines showing the number of deaths involving stimulants in combination with synthetic opioids other than methadone (primarily fentanyl) or without any opioid. The number of deaths involving stimulants has increased steadily since 2014 regardless of opioid involvement (Source: CDC WONDER).

Figure 7. National Overdose Deaths Involving Psychostimulants with Abuse Potential (Primarily Methamphetamine)*, by Opioid Involvement, Number Among All Ages, 1999-2021

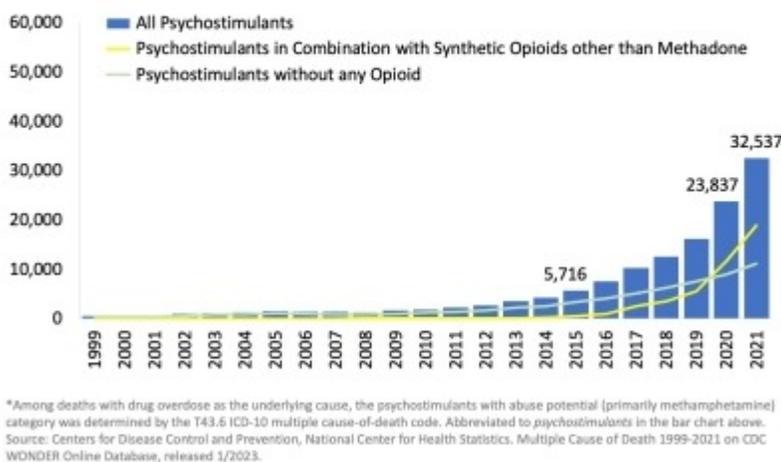


Figure 7. National Overdose Deaths Involving Psychostimulants With Abuse Potential (Primarily Methamphetamine), by Opioid Involvement—Number Among All Ages, 1999-2021. The figure above is a bar and line graph showing the total number of U.S. overdose deaths involving psychostimulants with abuse potential from 1999 to 2021. Drug overdose deaths involving psychostimulants with abuse potential rose from 547 in 1999 to 23,837 in 2020 and continued to increase to 32,537 deaths in 2021. The bars are overlaid by lines showing the number of deaths involving psychostimulants in combination with synthetic opioids other than methadone (primarily fentanyl) or without any opioid. The number of deaths involving psychostimulants has increased steadily since 2014 regardless of opioid involvement (Source: CDC WONDER).

Figure 8. National Drug Overdose Deaths Involving Cocaine*, by Opioid Involvement, Number Among All Ages, 1999-2021

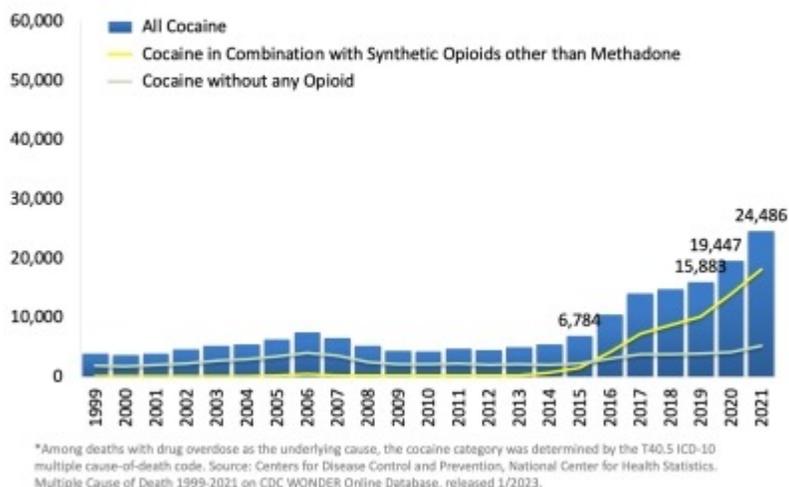
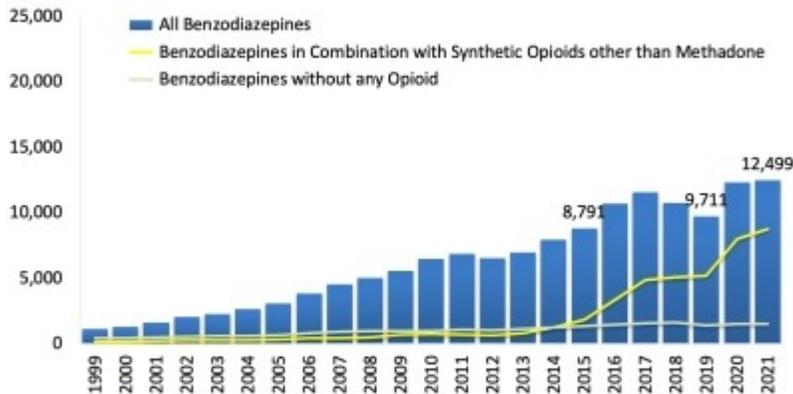


Figure 8. National Drug Overdose Deaths Involving Cocaine, by Opioid Involvement—Number Among All Ages, 1999-2021. The figure above is a bar and line graph showing the total number of U.S. overdose deaths involving cocaine from 1999 to 2021. Drug overdose deaths involving cocaine rose steadily from 6,784 in 2015 to 15,883 in 2019. From 2019 to 2021, cocaine-involved deaths rose nearly 54% to 24,486 deaths. The bars are overlaid by lines showing the number of deaths involving cocaine in combination with synthetic opioids other than methadone (primarily fentanyl) or without any opioid. The number of deaths in combination with synthetic opioids other than methadone has increased significantly since 2015 and is the main driver of cocaine-involved overdose deaths (Source: CDC WONDER).

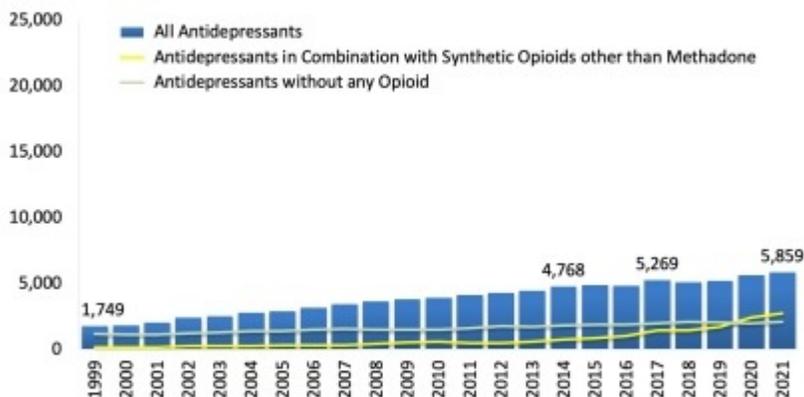
Figure 9. National Drug Overdose Deaths Involving Benzodiazepines*, by Opioid Involvement, Number Among All Ages, 1999-2021



*Among deaths with drug overdose as the underlying cause, the benzodiazepine category was determined by the T42.4 ICD-10 multiple cause-of-death code. Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2021 on CDC WONDER Online Database, released 1/2023.

Figure 9. National Drug Overdose Deaths Involving Benzodiazepines, by Opioid Involvement—Number Among All Ages, 1999-2021. The figure above is a bar and line graph showing the total number of U.S. overdose deaths involving benzodiazepines from 1999 to 2021. Drug overdose deaths involving benzodiazepines steadily increased from 1,135 in 1999 to 11,537 in 2017 and declined to 9,711 in 2019. Between 2019 and 2021, deaths rose again to 12,499. The bars are overlaid by lines showing the number of deaths involving benzodiazepines in combination with synthetic opioids other than methadone (primarily fentanyl) or without any opioid (Source: CDC WONDER).

Figure 10. National Drug Overdose Deaths Involving Antidepressants*, by Opioid Involvement, Number Among All Ages, 1999-2021



*Among deaths with drug overdose as the underlying cause, the antidepressant subcategory was determined by the following ICD-10 multiple cause-of-death codes: Tricyclic and tetracyclic antidepressants (T43.0), monoamine-oxidase-inhibitor antidepressants (T43.1), and other unspecified antidepressants (T43.2). Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2021 on CDC WONDER Online Database, released 1/2023.

Figure 10. National Drug Overdose Deaths Involving Antidepressants, by Opioid

Involvement–Number Among All Ages, 1999-2021. The figure above is a bar and line graph showing the total number of U.S. overdose deaths involving antidepressants from 1999 to 2021. Drug overdose deaths involving antidepressants rose steadily from 1,749 in 1999 to 5,269 in 2017. Since then, deaths have slightly risen with 5,859 in 2021. The bars are overlaid by lines showing the number of deaths involving antidepressants in combination with synthetic opioids other than methadone (primarily fentanyl) or without any opioid involvement (Source: CDC WONDER).

Download Links

- Download graphs in PowerPoint - [National Drug Involved Overdose Deaths 1999-2021 1.23.23 jl2.pptx](#)
- Download the data used to create these figures - [Overdose_data_1999-2021 1.19.23.xlsx](#)

Description of Figures

- The figures above are bar charts showing the number of U.S. overdose deaths involving select illicit or prescription drugs from 1999 through 2021. The bars are overlaid by lines representing gender or concurrent opioid involvement. Please note the y-axis scale varies by bar chart and caution should be applied when comparing graphs side-by-side.
- There were 106,699 drug-involved overdose deaths reported in the U.S. in 2021 (Figure 1); 69% of cases occurred among males (yellow line). Synthetic opioids other than methadone (primarily fentanyl) were the main driver of drug overdose deaths with a nearly 7.5-fold increase from 2015 to 2021 (Figure 2).
- Drug overdose deaths involving any opioid—prescription opioids (including natural and semi-synthetic opioids and methadone), other synthetic opioids other than methadone (primarily fentanyl), and heroin—continued to rise through 2021 with 80,411 deaths. More than 70% of deaths occurred among males (Figure 3). From 2020 to 2021, the number of deaths involving prescription opioids remained steady (Figure 4).
- Overdose deaths involving heroin have trended down since 2016 with 9,173 deaths reported in 2021 (Figure 5). Nearly 75% of overdose deaths in 2021 involving heroin also involved synthetic opioids other than methadone (primarily fentanyl).
- Drug overdose deaths involving stimulants, cocaine, or psychostimulants with abuse potential (primarily methamphetamine) have significantly increased since 2015 from 12,122 to 53,495 in 2021 (Figure 6).
- Since 2015, the number of deaths involving psychostimulants with abuse potential (primarily methamphetamine) has risen significantly each year—with 32,537 deaths in 2021 (Figure 7). The number of deaths involving cocaine has also increased steadily since 2015 with 24,486 deaths reported in 2021 (Figure 8).
- The final two charts show the number of overdose deaths involving benzodiazepines (Figure 8) or antidepressants (Figure 9). Benzodiazepines were involved in 12,499 deaths in 2021—steadily increasing

since 2015. The proportion of deaths involving synthetic opioids other than methadone (primarily fentanyl) has increased significantly since 2015. Of the 8,791 deaths involving benzodiazepines in 2015, 20% also involved fentanyl. In 2021, this proportion increased to 70% of all deaths involving benzodiazepines. Antidepressant-involved deaths have also risen steadily, driven by fentanyl, with 5,859 deaths reported in 2021.

February 9, 2023