New York State

Opioid Annual Data Report

2023

New York State Department of Health

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Introduction

Public Health Law Section 3309(5)[1] requires the New York State (NYS) Commissioner of Health to publish findings on statewide opioid overdose data annually. In this report, the New York State Department of Health (NYSDOH) provides an overview of opioid-related morbidity and mortality across NYS, including:

- Opioid overdose deaths
- Naloxone administration encounters
- Opioid overdose hospitalizations and emergency department (ED) visits
- Treatment admissions for opioid dependency
- Opioid prescribing
- Prevalence of opioid use behaviors and opioid dependency

Opioids include both prescription opioid pain relievers such as hydrocodone, oxycodone, fentanyl, and morphine, as well as illegal opioids such as heroin, illicitly manufactured fentanyl and fentanyl analogues, and opium.

Most of the data in this report are presented at the state level. County-level data are available in the New York State Opioid Data Dashboard and County Opioid Quarterly Reports on the NYSDOH Opioid-related Data website.[2]

This report provides information to assist agencies and programs across the state in planning and tailoring interventions to address the ongoing opioid crisis.

Please direct questions or requests for additional information to opioidprevention@health.ny.gov.

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[1] Opioid overdose prevention, N.Y. Public Health Law, Section (§) 3309. Accessed July 2023. https://www.nysenate.gov/legislation/laws/PBH/3309

[2] New York State Department of Health. Opioid-related Data in New York State. Accessed June 2023. https://health.ny.gov/statistics/opioid/

Glossary

Acronym/Abbreviation	Definition
AI	AIDS Institute
BLS	Basic Life Support
BNE	Bureau of Narcotic Enforcement
BRFSS	Behavioral Risk Factor Surveillance System
CDC	Centers for Disease Control and Prevention
CDS	Client Data System (OASAS)
CFR	Certified First Responders
ED	Emergency Department
EMS	Emergency Medical Services
EMT	Emergency Medical Technician
e-PCR	Electronic Pre-hospital Care Reports
ICD-9	International Classification of Disease, Ninth Revision
ICD-10	International Classification of Disease, Tenth Revision
I-STOP	Internet System for Tracking Over Prescribing
LA	Long acting
MME	Morphine Milligram Equivalents
NAS	Neonatal Abstinence Syndrome
NEMSIS	National EMS Information Systems
NYCDOHMH	New York City Department of Health and Mental Hygiene
NH	Non-Hispanic
NYC	New York City
NYS	New York State
NYSDOH	New York State Department of Health
NYS excluding NYC	New York State excluding New York City
OASAS	Office of Addiction Services and Supports
ODUH	Office of Drug User Health
OUD	Opioid Use Disorder
PCR	Pre-hospital Care Report
PEP	Population Estimates Program
PMP	Prescription Monitoring Program
SA	Short acting
SAMHSA	Substance Abuse and Mental Health Services Administration
SEP	Syringe Exchange Program
SOOTM	Synthetic Opioids Other Than Methadone
SPARCS	Statewide Planning and Research Cooperative System
STSEP	Second-tier Syringe Exchange Program
YRBSS	Youth Risk Behavioral Surveillance System
US	United States

Background

The NYSDOH's role in preventing and responding to the overdose crisis continues to expand as the number of overdose deaths increases. The NYSDOH is a key partner in implementing comprehensive strategies across NYS to address this public health emergency. In her 2022 State of the State report, Governor Hochul highlighted the need to fight the opioid crisis in NYS using a public health approach. She called upon NYS to expand and enhance an existing public health-style program coordinated by the NYSDOH and the Office of Addiction Services and Supports (OASAS) that includes harm reduction services, health monitoring, and evidence-based community interventions. Major programs focus on primary prevention of substance use disorder (SUD), SUD treatment, and overdose prevention. Examples include: implementing the Internet System for Tracking Over-Prescribing (I-STOP), which strengthened the Prescription Monitoring Program (PMP); creating a safe disposal program for controlled substance medications; increasing access to buprenorphine and other medications used to treat opioid use disorder; supporting a network of harm reduction-oriented Syringe Exchange Programs (SEPs) for which overdose prevention has always been a focus; expanding access to sterile syringes; and improving access to naloxone in the community.

The NYSDOH is committed to protecting the health and safety of all New Yorkers. By using a research-based public health approach, NYSDOH has been implementing a wide range of surveillance, evaluation, and evidence-based strategies to address the epidemic. Through innovation and collaboration, the NYSDOH has brought together key stakeholders such as researchers, healthcare providers, local health departments, insurers, treatment providers, mental health providers, law enforcement officials, other governmental agencies, and information technology experts *to expand and strengthen partnerships, to secure and realign resources, and create a collaborative infrastructure to implement a comprehensive approach.* The role for the NYSDOH has grown since this initial work and continues to rapidly expand to include additional evidence-based strategies under primary, secondary, and tertiary prevention.

Specifically, primary prevention is aimed towards reducing exposure to opioids and associated risks. Specific strategies include:

- Provide a statewide program for clinician education on pain management (acute, subacute, and chronic pain), palliative care, and substance use disorder treatment, which includes appropriate safe prescribing methods, and how to identify and treat substance use disorder.
- Optimize use of the PMP to prevent individuals from becoming dependent on controlled substances through improved access to the PMP, where prescribers can easily access vital information about patients' existing controlled substance prescriptions.
- Work with local, state, and federal law enforcement agencies in the investigation of drug diversions, and improper and fraudulent prescribing.
- Provide safe disposal program for unused controlled substance medications through expanding the options available to collect controlled substances for purpose of disposal, including: take-back events, mail-back programs and collection receptacle locations.

For secondary prevention aimed towards diagnosing and treating substance use disorders, the NYSDOH is committed to expanding access for screening and treatment of OUD, as well as initiatives and strategies aimed at reducing stigma. Specific strategies include:

- Expand education for consumers, families, and healthcare providers that includes reducing stigma against people who use drugs.
- Increase access and utilization of evidence-based medication for opioid use disorder.
- Implement and evaluate evidence-based and culturally appropriate prevention, policy, and harm reduction strategies in a variety of settings while using a health equity approach.

For tertiary prevention aimed towards preventing life-threatening adverse outcomes, the NYSDOH deploys strategies aimed at coordinating interventions and building capacity to respond to and prevent overdoses. Specific strategies include:

- Use real-time data to identify emerging hazards and target interventions
- Continue to adopt new and adapt existing testing technologies to ascertain the state of the drug supply, providing people who use drugs information regarding fentanyl and other emerging dangerous substances, to help them make informed decisions.
- Continue to assist in building capacity to address the opioid emergency in local communities and support community coalitions.
- Expand support for and access to harm reduction interventions, including access to sterile syringes and naloxone
- Expand activities that provide linkages to care for people who use drugs.

Developing solutions is a collaborative effort across multiple sectors at state and local levels. Ensuring that evidence-based treatment is affordable and accessible, educating prescribers, ensuring compliance to laws and regulations, and building local capacity to prevent deaths due to overdoses are all roles of the NYSDOH. Working with internal and external partners, NYSDOH uses data, evaluation, and research to inform interventions. It has analyzed and disseminated county- and sub-county-level data (where possible) such as controlled prescription rates, prevalence and risk factors for SUD and overdose, naloxone administrations, and non-fatal and fatal overdose. Furthermore, data on major opioid-related measures are provided to each county on a quarterly basis to assist communities in assessing their local burden and near real-time information on ED visits to local partners is provided.

Evidence-based interventions that employ the strategies identified above to combat this epidemic include:

- Syringe Exchange Programs (SEPs), which date from 1992, reduce transmission of HIV and hepatitis C virus among people who inject drugs by furnishing new, sterile syringes to enrolled participants, enabling them to use a new syringe for every injection. SEPs also facilitate the collection and disposal of used syringes. There are currently over 30 approved SEPs in NYS, offering services through multiple sites and models including office based, street based, mobile van, community outreach, peer-delivered syringe

exchange, and by special arrangements. To complement the work of SEPs, community-based organizations, local health departments, and health clinics have the option to become Second-tier Syringe Exchange Programs (STSEPs). STSEPs are like SEPs and allow government agencies and not-for-profit organizations to provide syringes to their existing patients and clients.

- The Expanded Syringe Access Program, which began in 2001, enhances access to new, sterile syringes through pharmacies, health care facilities, and health care practitioners, which have registered with NYSDOH. Under this program, up to 10 syringes per transaction may be sold or furnished to persons aged 18 years or older without a prescription. Under recent legislation (Chapter 433 of the Laws of 2021), the 10-syringe cap and registration requirement have been lifted.

- The Safe Sharps Collection Program, which began in 2001, expands settings for the disposal of used needles and other sharps. Through this program, pharmacies, health clinics, community-based organizations, public transportation facilities, housing projects, police stations, bus depots, and other venues have become sites for sharps collection. Sharps collection kiosks and wall-mounted units are provided free of charge to registered sites. The program also provides small personal sharps containers (Fitpacks) that may be disposed with regular garbage.

- Overdose Data to Action Grant – Since 2015, NYS has been among the now 66 federally-funded jurisdictions charged with improving surveillance of fatal and non-fatal drug overdoses to inform the implementation of evidence-based and innovative prevention initiatives. The Office of Drug User Health (ODUH) leads a large cross departmental team that works to improve access to near real-time data such as syndromic surveillance to identify and respond to clusters and spikes as well as capturing detailed drug overdose death information. This data is used to inform prevention strategies such as strengthening prescription drug monitoring programs, improving partnerships between state and local health departments and organizations, establishing programs for linking people to care and treatment, improving provider and health system support, and empowering people who use drugs to make safer choices.

- Community Opioid Overdose Prevention Programs, which were first authorized in April 2006, train non-medical persons to recognize opioid overdoses and to respond appropriately by calling 911 and administering naloxone, which reverses overdoses. Currently, over 850 registered programs offer training and either provide naloxone at no cost to persons they have trained or refer these individuals to pharmacies to obtain their naloxone. Through the Department's Naloxone Co-payment Assistance Program, individuals with prescription drug coverage as part of their health insurance have their co-payments of up to $40 covered, resulting in no or lower out-of-pocket expenses. Trained responders include individuals who are themselves at risk for an overdose, their family and friends, individuals working for agencies providing services to individuals at risk for an overdose, and others in the community who may be positioned to intervene in an overdose.

- The Buprenorphine Access Initiative, initiated in 2016, reduces fatal overdoses by increasing access to buprenorphine. Buprenorphine is an effective treatment for opioid use disorder. It prevents drug withdrawal, blocks or diminishes the effects of other opioids, and prevents the powerful cravings that accompany the reduction of opioid use. The risk of an opioid overdose is reduced for persons taking buprenorphine. Expanded points of access to buprenorphine include SEPs, Drug User Health Hubs, primary care, emergency departments and urgent care, Federally Qualified Health Centers, community-based organizations, correction facilities, and re-entry programs. Recently passed legislation (Chapter 432 of the Laws of 2021) will significantly expand buprenorphine and methadone access in correctional settings.

- Drug User Health Hubs, initiated in 2016, provide a welcoming, non-stigmatizing, and low threshold setting that improves the availability and accessibility of medications for opioid use disorder, harm reduction supplies, drug checking equipment, including fentanyl and xylazine test strips, as well as primary care, mental health services including crisis and grief support, referrals, and linkage to an array of other healthcare and supportive services for persons who use drugs. Some Drug User Health Hubs also conduct anti-stigma trainings and work with various partners such as law-enforcement agencies, jails, and hospitals to receive direct referrals. The low-threshold nature of the Drug User Health Hubs makes them excellent resources for families to refer loved ones.

- Post Overdose Follow-up, initiated in 2019, allows the ODUH to provide navigator services to individuals who have survived an overdose. The program also provides services to family, friends, and associates of people who have died of an overdose and whom are also at risk of experiencing a fatal overdose.

- NY MATTERS, initiated in 2017, is a statewide referral network, including an electronic referral platform developed by the NYSDOH, to efficiently refer patients with opioid use disorder from emergency departments, OB/GYN offices, correction facilities, inpatient units, pre-hospital settings, etc., to community-based clinics and peer navigation services. The NY MATTERS program has a presence in over 10 counties throughout the State, with large concentrations in the Western NY, Capital District, and Central/Hudson Regions.

- A harm reduction anti-stigma campaign, “Safer Choices,” was developed and released in 2023. The multi-media campaign began with a focus on social media platforms and web-based resources, as a way to equip individuals with an understanding of how to reduce overdose. The campaign emphasizes the importance of naloxone as a life-saving tool in the event of an overdose as well as strategies such as testing drugs and aims to reduce the stigma associated with drug use.

The core principles of the NYSDOH in all areas of response are:

- To be at risk of a fatal overdose, a person need not have a substance use disorder. An overdose may happen with little or no prior problematic drug use. Fentanyl is the primary driver of this scenario.
- There is a significant group of people who do have a substance use disorder, but who don't necessarily see drug treatment as the solution, or for whom drug treatment has failed, sometimes on repeat occasions. Harm reduction programs and services act as a safety net for these individuals. Regardless of treatment goals, these individuals need to be supported, treated with dignity and respect, and provided with equitable care and access to services free of stigma.
- Harm reduction services can also be an adjunct for those who are in treatment. Harm reduction means "meeting people where they are at."
- We should never forget which communities bore the brunt of the war on people who use drugs. Racial equity and health equity need to be at the forefront of thinking as the response proceeds.

Collaborations are also ongoing between the NYS DOH and the NYS OASAS on overdose prevention activities. Collaborations also ongoing with the following NYS agencies: Office of Children and Family Services, Office of Mental Health, the Division of Criminal Justice Services, the State Education Department, the Department of Corrections and Community Supervision, State Police, and the New York/New Jersey High Intensity Drug Trafficking Area.

Executive Summary

This report aims to provide a comprehensive overview of opioid-related data for NYS residents. It presents the most recent and complete information available on opioid-related overdose deaths and death rates by age, gender, ethnicity for the whole state and by geographic location. Overall data on emergency department and hospital utilization for the treatment of opioid overdoses, and disorders are provided, as well as data on the volume of naloxone (opioid antagonist) administrations by pre-hospital services (emergency medical services, law enforcement, and community programs). Statewide information from the NYS OASAS is presented on admissions to substance use disorder treatment programs for heroin and for any opioid reported as the primary, secondary, or tertiary substance of use at admission. PMP data on dispensed opioid analgesic and benzodiazepine prescriptions are provided, as are data on prescription opioids for outpatient treatment, for the state total and by age, gender, and region. Lastly, survey data on opioid and other substances are presented.

Depending on the data source, several types of estimates are presented in this report. Rates per 100,000 population are used for mortality and morbidity, while rates per 1,000 population are used for opioid prescriptions. Percentages are used for survey-related data and for several other opioid prescription-related indicators.

County maps are provided throughout the report. The county colors are based on the ranks of county rates from the lowest to the highest as follows:

- The YELLOW category includes 50 percent of counties with the lowest estimates; those in quartile 1 and quartile 2.
- The BLUE category includes 25 percent of counties with the highest estimates; those in quartile 4.
- The GREEN category includes counties between the lowest 50 percent and the highest 25 percent (i.e., 25 percent of counties or those in quartile 3).

For detailed methodology, data sources, indicator descriptions, suppression criteria, and limitations, please see the Methods section at the end of this report.

Opioid Mortality

Overdose deaths involving any opioid among NYS residents increased more than 360 percent from 1,074 deaths in 2010 to 5,017 deaths in 2021, with a sharp increase of 70.7 percent from 2,939 deaths in 2019.[3] The 2021 crude rate of 25.3 overdose deaths involving any opioid per 100,000 population in NYS was over four and a half times that of 5.5 in 2010. The crude rate was highest among those aged 25-44 years (43.2 per 100,000), followed closely by those aged 45-64 years (42.1 per 100,000). The rates were almost three times higher among males (37.8 per 100,000) as compared to females (13.3 per 100,000). Crude rates were higher among Black non-Hispanic (37.2 per 100,000) and Hispanic (28.2 per 100,000) individuals, and slightly higher among NYC residents (25.4 per 100,000) as compared to residents in NYS exclusive of NYC. In 2021, 91.6 percent of all overdose deaths involving any opioid involved synthetic opioids other than methadone (SOOTM), predominantly illicitly manufactured fentanyl. Most of the opioid-

[3] National Center for Health Statistics. Multiple Cause of Death 1999-2020 on CDC WONDER Online Database. Centers for Disease Control and Prevention. Accessed January 2022. https://wonder.cdc.gov/controller/datarequest

related mortality trends have been driven by deaths involving SOOTM, which had an overall increase of 587.7 percent from 2015 (668 deaths) to 2021 (4,594 deaths). The number of overdose deaths involving commonly prescribed opioids, including medications such as Vicodin® or Oxycodone®, increased by 81.3 percent, from 737 deaths in 2010 to 1,336 in 2021.

The number of overdose deaths involving cocaine in NYS increased 264.2 percent, from 634 overdose deaths in 2015 to 2,309 deaths in 2021. Between 2020 (1,765 deaths) and 2021 (2,309 deaths), the number of overdose deaths involving cocaine increased by 30.8 percent. Deaths involving both cocaine and SOOTM increased from 142 in 2015 to 1,804 in 2021, a 1,170.4 percent increase, while deaths involving cocaine without SOOTM observed a much smaller increase (2.6 percent) from 492 deaths in 2015 to 505 deaths in 2021. This indicates that the increase in overdose deaths involving cocaine has been driven by the presence of opioids, specifically illicit fentanyl. Similar trends are being observed across the country.[4]

It is possible that a portion of these observed increases in more than 10 years have likely been contributed by raised awareness of opioid overdoses, improvements in technology and resources for toxicology testing, and improved cause-of-death reporting.

Naloxone Administration

Naloxone is a medication often used when an opioid overdose is suspected as it may reverse the effects when administered in time. In NYS, there were 19,923 unique naloxone administrations reported electronically by EMS agencies during 2022, representing a 6.8 percent increase from 18,653 administrations in 2021. In NYC, 11,823 unique naloxone administrations were reported electronically by EMS agencies during 2022, representing a 13.6 percent increase from 10,411 administrations in 2021. In NYS excluding NYC, unique naloxone administrations decreased 1.7 percent from 8,242 administrations in 2021 to 8,100 administrations during 2022. About 32 percent of the administrations by EMS occurred on Fridays and Saturdays, highlighting a need for individuals using substances such as opioids to obtain naloxone in their communities and have it available at all times, especially over the weekends. The distribution of unique administrations varied across months of the year, with counts being the highest in July and August. For information about EMS naloxone administrations prior to 2021, please see the Opioid Annual Report, 2022.

NYS is a leader in the implementation of public health programming to prevent death from opioid overdoses. The State's multi-pronged approach also includes a focus on building overdose response capacity within communities throughout the state via the Community Opioid Overdose Prevention programs. Through organizations registered with the NYSDOH, community laypersons are trained to administer naloxone (an opioid antagonist also known by the brand name Narcan) in the event of a suspected opioid overdose. There are currently more than 980 registered Community Opioid Overdose Prevention programs, with over 868,000 individuals trained by them since the initiative's inception in 2006. Of these, 130,000 were public safety personnel and the rest were community responders. In 2022, there were 1,845 naloxone

[4] Increase in Fatal Drug Overdoses Across the United States Driven by Synthetic Opioids Before and During the COVID-19 Pandemic. Centers for Disease Control and Prevention, Health Alert Network. 2020 (CDCHAN-00438). Accessed June 2, 2022. https://emergency.cdc.gov/han/2020/han00438.asp

administration reports by law enforcement to the NYSDOH and 2,637 reports by Community Opioid Overdose Prevention programs. In total, including unique administrations by EMS agencies, there were 24,405 reported naloxone administrations in NYS in 2022. For additional information about the State's Harm Reduction programs, please see the Opioid Annual Report, 2022.

Suspected Opioid Overdose

Although naloxone administration has served as a useful marker for opioid overdoses, there are instances when naloxone is administered to individuals presenting with symptoms similar to an overdose but are not experiencing an actual overdose (such as loss of consciousness). Conversely, individuals with a suspected opioid overdose who present mild symptoms and do not meet clinical requirements, may not receive naloxone as a component of emergency care. As such, these encounters are not captured in the counts of naloxone administration. To improve surveillance and monitoring, an indicator for "suspected opioid overdose" was developed using EMS data. Suspected opioid overdoses include events where naloxone was administered (by EMS responders or by others before EMS responders' arrival) and the patient improved in response to naloxone, or evidence of a possible opioid overdose was observed based on recorded patient chief complaint, physical signs, or the EMS provider's impression.

In 2022, there were 25,221 suspected opioid overdose encounters, representing a 2.2 percent increase from 24,679 suspected opioid overdose encounters in 2021. During 2021 and 2022, approximately 74 percent of suspected opioid overdose encounters received naloxone administration.

Overdose Deaths Involving Opioids and Nonfatal Opioid-Related Hospital Events

The NYSDOH combines multiple data sources to measure opioid use and overdose, including opioid overdose deaths from mortality data sources, non-fatal outpatient ED visits and hospital discharges involving opioid overdose and disorders.

Among NYS residents in 2021, there were 43,199 opioid use related and overdose events, representing a crude rate of 221.0 per 100,000 population. Though there was a 2.5 percent decrease from 2020 (437.2 per 100,000) to 2021 (426.2 per 100,000) among those aged 25-44 years, the 2021 rate for this group remained highest of all age groups. Rates were highest among Black non-Hispanic individuals (264.7 per 100,000), followed by Hispanic (228.7 per 100,000) and White non-Hispanic (183.5 per 100,000) individuals. The rate was over three times higher among males (337.2 per 100,000) than among females (111.3 per 100,000). New York City (NYC) had a higher rate (246.0 per 100,000) than NYS excluding NYC (202.2 per 100,000). Compared to 2020, the rates increased 21.9% for Black non-Hispanic residents (from 217.2 per 100,000 to 264.7 per 100,000), 14.9% for residents aged 45-64 (from 248.1 per 100,000 to 285.0 per 100,000), and 38.2% for residents aged 65+ (from 69.2 per 100,000 to 95.6 per 100,000). The counties with the highest rates for overdose deaths involving opioids and nonfatal opioid related hospital events, listed in descending order by 2021 rate, included Bronx, Chautauqua, Ulster, Sullivan, Dutchess, New York, Niagara, Greene, Suffolk, Broome, Richmond, Orange, Chemung, Erie, Columbia, and Monroe.

Among NYS residents, the number of newborns with Neonatal Abstinence Syndrome (NAS) and/or affected by maternal use of opioid or other substance decreased 19.5 percent from 1,726 in 2020 to 1,390 in 2021, and the rate per 1,000 newborn discharges decreased from 8.8 to 7.2.

Nonfatal Opioid-Related Hospital Events

Among NYS residents in 2021, there were 12,635 hospital discharges for opioid use (including overdose and disorders). This represented a crude rate of 64.6 per 100,000 population. The rate in 2021 was highest among those aged 25-44 years (125.6 per 100,000) and among Hispanic individuals (71.6 per 100,000). The rate was two and a half times higher among males (95.4 per 100,000) than among females (35.6 per 100,000). NYS excluding NYC had a higher rate (67.0 per 100,000) than NYC (61.5 per 100,000).

In 2021, there were 13,560 outpatient visits to EDs due to an opioid overdose among NYS residents, a 10.2 percent increase from 2020 (12,306 visits). The crude rate per 100,000 increased from 63.0 in 2020 to 69.4 in 2021. The increase was greatest among Black non-Hispanic residents (10.2% increase from 67.8 per 100,000 to 83.1 per 100,000), residents aged 45-64 (19.3% increase from 78.4 per 100,000 to 93.5 per 100,000), and residents aged 65+ (38.0% increase from 32.6 per 100,000 to 45.0 per 100,000). The rate in 2021 was highest among those aged 25-44 years, and the rate for males was two times higher than for females. NYC had a similar rate (69.1 per 100,000) compared to NYS excluding NYC (69.8 per 100,000).

Office of Addiction Services and Supports Client Data

The New York State Office of Addiction Services and Supports (OASAS) provided data on admissions for any opioid between 2010-2022. The source of this information is the Client Data System (CDS) which collects data on people treated in all OASAS-certified substance use disorder treatment programs. Data are collected at admission and discharge from a level of care within a provider in New York State. The CDS does not have data for individuals who get treated by the United States (U.S.) Department of Veterans Affairs, go outside New York State for treatment, are admitted to hospitals but not to an OASAS-certified treatment program, or receive treatment from a physician outside the OASAS system of care.
Because a significant amount of time often elapses from an individual's initial use of an opioid and their admission to treatment, OASAS considers the number of admissions to treatment for opioids to be a trailing indicator of the prevalence of opioid misuse. Additionally, admissions data may be impacted by multiple factors like COVID-19.

Statewide, the crude rate of admissions for any opioid increased 25.5 percent between 2010 (602.4 per 100,000) and 2016 (755.8 per 100,000). The rate of admissions has since declined each year from 2017 (742.3 per 100,000) to 2022 (415.5 per 100,000), a decline of 44.0 percent. Regionally, the rate of admissions for any opioid for NYS excluding NYC showed a 53.8 percent increase between 2010 (543.0 per 100,000) and 2016 (834.9 per 100,000), while there was a 4.9 percent decline in the rate of admissions for NYC during this same period (from 683.7 per 100,000 to 650.4 per 100,000). During 2022, the counties with the highest crude rates of admissions to treatment for opioids were mostly rural counties. It is important to recognize that admissions rates are affected by the availability of treatment at the local level.

Throughout this period, more than twice as many males as females were admitted for any opioid. However, between 2010 and 2016, there was a 38.5 percent increase in the crude rate of admissions of females admitted for any opioid, while the rate for males increased by 20.3 percent. Since 2017, there has been a decrease in the rates for both males and females. New Yorkers aged 25-34 consistently had the highest rate of admissions for any opioid between 2010 and 2021, while those aged 35-44 had the highest rate in 2022.

Prescription Monitoring Program

In 2022, 5,692,618 opioid analgesic prescriptions were dispensed to NYS residents, a crude rate of 291.3 per 1,000 population, which is the lowest rate since 2013 (500.5 prescriptions per 1,000 population).[5] During the past ten years, NYS observed a consistent reduction in the number of opioid analgesic prescriptions and rates per 1,000 population. The rate for opioid analgesic prescriptions was more than two times higher in NYS excluding NYC (379.2 per 1,000) than in NYC (174.1 per 1,000) for 2022. Overall, short acting (SA) oxycodone is the most often prescribed opioid analgesic, followed by hydrocodone and tramadol. The rate of prescribing long-acting (LA) oxycodone, codeine, and LA fentanyl has remained lower due to differences in therapeutic indications.

Initiating treatment for chronic pain with long-acting or extended-release opioids is associated with higher risk of overdose than the initiation of treatment with immediate-release opioids.[6] The percentage of occurrences in which patients were both opioid-naïve and received long-acting opioid prescriptions declined between 2020 (1.1 percent) and 2022 (1.0 percent) in NYS and declined in NYC between 2020 from 0.9 percent to 0.6 percent in 2022. During 2020-2022, the percentage was consistently higher in NYS excluding NYC than in NYC. NYS excluding NYC observed a slight rise from 1.0 percent in 2021 to 1.2 percent in 2022. This increase in incidents where patients were both opioid-naïve and received a long-acting opioid prescription warrants continued monitoring.

Among opioid-naïve patients, a larger number of supply days for the first (initial) opioid prescription is strongly associated with long-term opioid use.[7] In July 2016, NYS limited the initial prescribing of opioids for acute pain to no more than a seven-day supply.[8] In NYS, opioid prescriptions with more than a seven-day supply among opioid-naïve patients decreased from 17.5 percent in the first quarter of 2020 to 14.9 percent in the fourth quarter of 2022.

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[5] New York State Opioid Data Dashboard. New York State Department of Health. Accessed May 2023. https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/opioid_dashboard/op_dashboard&p=tbl&ind_id=op61

[6] Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. MMWR Recomm Rep 2016;65(No. RR-1):1–49. https://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm.

[7] Shah A, Hayes CJ, Martin BC. Factors Influencing Long-Term Opioid Use Among Opioid Naive Patients: An Examination of Initial Prescription Characteristics and Pain Etiologies. J Pain. 2017 Nov;18(11):1374-1383. https://doi.org/10.1016%2Fj.jpain.2017.06.010

[8] Bureau of Narcotic Enforcement. Public Health Law §3331(5)(b)-(c); New Legislation Enacted to Limit Initial Opioid Prescribing to a 7 Day Supply for Acute Pain. New York State Department of Health. Accessed July 2023. https://www.health.ny.gov/professionals/narcotic/laws_and_regulations/

In NYS, a substantial reduction occurred in the crude rate of patients who received opioid prescriptions from five or more prescribers at five or more pharmacies in a six-month period (multiple provider episodes) between 2019 (2.4 per 100,000 population) and 2022 (1.7 per 100,000). There was a slight increase in 2020 from 1.7 per 100,000 population to 1.9 in 2021.

Opioid analgesics prescribed in higher dosages (≥ 90 morphine milligram equivalents (MME)) are associated with higher risks of overdose and death.[6] In NYS, the percentage of patients receiving one or more opioid analgesic prescriptions with a total daily dose of 90 or greater MME for at least one day, declined between 2019 (10.7 percent) and 2022 (9.5 percent). Statewide, patients aged 55-64 years had the highest percentage for both males (13.8 percent) and females (12.0 percent).

The risk of opioid overdose increases when taken in combination with other drugs, including benzodiazepines (e.g., Xanax® [alprazolam], Valium® [diazepam]).[6] Among patients receiving at least one prescription for opioid analgesics or at least one for benzodiazepines, the percentage with two or more calendar days of overlapping opioid analgesic and benzodiazepine prescriptions declined between 2019 (8.4 percent) and 2022 (7.7 percent) in NYS. From 2019-2022, NYS excluding NYC had consistently higher percentages of overlapping prescriptions compared to NYC. Statewide, the percentage was higher among those aged 65 and older for both female (11.5 percent) and male (9.7 percent) patients in 2022.

Among patients in NYS receiving one or more opioid analgesic prescriptions, the percentage with two or more calendar days of overlapping opioid analgesic prescriptions declined between 2019 (15.9 percent) and 2022 (15.3 percent). From 2019-2022, NYS excluding NYC had consistently higher percentages compared to NYC. In 2022, the percentage was higher among males than females, in all age groups, except among those aged 65 years and older.

In NYS, more than 82,000 patients received at least one buprenorphine prescription for outpatient treatment of OUD in 2022. The crude rate of patients who received buprenorphine for OUD, increased by 4.8 percent from 402.7 per 100,000 population in 2019 to 421.9 per 100,000 in 2022. The rate was more than two times higher in NYS excluding NYC than for NYC during 2019-2022. This data reflects practitioners who prescribed buprenorphine utilizing the X-waiver under the Drug Addiction Treatment Act of 2000. Note, on December 29, 2022, the X-waiver was eliminated as part of the omnibus spending bill, under the Mainstreaming Addiction Treatment Act (MAT Act). The removal of the X-waiver means that any DEA-registered prescriber of controlled substances can now offer buprenorphine to patients with OUD provided that they comply with all other DEA and State requirements. NYSDOH will monitor the impact of the X-waiver elimination on buprenorphine prescribing.

The National Survey on Drug Use and Health (NSDUH)

2021-2022 NSDUH data were not available at the time this report was assembled. For 2020 and earlier data, please see the Opioid Annual Report, 2021 (page 75).

The Youth Risk Behavior Surveillance System (YRBSS)

The Youth Risk Behavior Surveillance System (YRBSS) provides data on self-reported lifetime use (reported as “ever used”) of cocaine, heroin, methamphetamine, and synthetic marijuana, as

well as lifetime injection of an illegal drug, in high school students (9th grade to 12th grade).[9] In 2021, the prevalence of lifetime use for each of these substances among high school students was higher in New York State than in the United States (cocaine: 3.6 percent in NYS, 2.5 percent in the US; heroin: 3.4 percent in NYS, 1.3 percent in the US; methamphetamine: 3.5 percent in NYS, 1.8 percent in the US; injection of an illegal drug: 3.1 percent in NYS; 1.4 percent in the US; synthetic marijuana: 7.1 percent in NYS, 6.5 percent in the US). Compared to 2019, there was a decrease in lifetime use for all these substances in both NYS and US in 2021. For all YRBSS 2019 data, please see the Opioid Annual Report, 2021 (page 81).

In 2021, among high school students in NYS, the prevalence for most substances was generally higher among male, American Indian or Alaska Natives, Black non-Hispanic, Hispanic, and 12th grade students.

Behavioral Risk Factor Surveillance System (BRFSS)

The Behavioral Risk Factor Surveillance System (BRFSS) is an annual statewide random telephone and cellular surveillance survey designed by the Centers for Disease Control and Prevention (CDC). The survey is conducted in all 50 states and US territories. BRFSS monitors modifiable risk behaviors and other factors contributing to the leading causes of morbidity and mortality in the population. Data from the BRFSS are useful for planning, initiating, and supporting health promotion and disease prevention programs at the state and federal level, and monitoring progress toward achieving health objectives for the state and nation. New York State's BRFSS sample is representative of the adult population living in private residences or college housing who have either a landline or cellular telephone, aged 18 years and older. Adults living in group homes or congregate settings are excluded from the survey.[10]

In 2021, among NYS population aged 18 years and older, the age-adjusted percentage of people who have self-reported prescription pain medication misuse in the past 12 months was 3.9 percent. The highest crude percentage was observed among those aged 25-34 years (5.2 percent), followed by those aged 45-54 years (4.5 percent). During the same period, the age-adjusted percentage of adults who have self-reported prescription pain medication misuse in the past 12 months were highest among males (5.1 percent), Hispanic individuals (9.4 percent) and NYC residents (4.8 percent).

Population Survey on Use of Opioids and Other Substances

The NYSDOH conducts an annual survey of NYS adult residents to understand public perceptions of key health issues, including opioid use.[11] The most recent public perception survey among NYS adult residents in January 2023 showed that 72 percent and 70 percent of

[9] Youth Risk Behavior Surveillance System (YRBSS). Centers for Disease control and Prevention. Accessed April 2023. Youth Risk Behavior Surveillance System (YRBSS) | CDC

[10] Behavioral Risk Factor Surveillance System (BRFSS). New York State Department of Health. Accessed April 2023. https://www.health.ny.gov/statistics/brfss/

[11] Division of Chronic Disease Prevention and Siena College Research Institute. Public Opinion Survey Report, 2021. New York State Department of Health. Accessed June 2022. https://www.health.ny.gov/statistics/prevention/injury_prevention/information_for_action/docs/2021_pop_survey_summary_report.pdf

New Yorkers considered prescription opioid misuse, and heroin use as very serious public health problems, respectively. These remained the highest concerns compared to other public health problems, such as alcohol consumption and access to healthy food and beverages. In the recent years, these responses increased for prescription opioid misuse, potentially reflecting the observed increase in overdose death.

1 - Opioid Overdose Mortality Data

According to death certificate data reported to the NYSDOH, opioid-related overdose deaths have increasingly involved fentanyl.[12,13] Fentanyl is a potent synthetic opioid with medical uses; as such, it is listed within the International Classification of Disease, Tenth Revision (ICD-10) category for poisoning by "synthetic opioids other than methadone" (SOOTM) under ICD-10 code T40.4, along with other synthetic opioid analgesics, such as tramadol. Fentanyl is 50-100 times more potent than morphine.[14] Prescription fentanyl is primarily prescribed to manage acute and chronic pain associated with advanced cancer. Non-pharmaceutical grade fentanyl is illicitly manufactured. Illicit fentanyl is often mixed with heroin or cocaine, and has also been identified in counterfeit pills, formed to look like oxycodone and other prescription medications.[15] Because it is not possible to distinguish illicit fentanyl from medically administered fentanyl in postmortem toxicology testing, all fentanyl-related deaths are classified in the same way – as SOOTM – and are assigned ICD-10 code T40.4. Due to the potency of these substances, multiple doses of naloxone, a drug that can reverse the effects of an opioid overdose, are often required to revive individuals who have overdosed on fentanyl or fentanyl analogs, particularly when additional substances such as xylazine may also be present.[16]

[12] New York State Department of Health. Data to Action: Fentanyl-related deaths in New York State outside of New York City, 2015-2017. Accessed July 2019. https://www.health.ny.gov/statistics/opioid/data/pdf/nysdoh_dta1_fentanyl.pdf

[13] Nolan ML, Mantha S, Tuazon E, Paone D. Unintentional Drug Poisoning (Overdose) Deaths in New York City in 2018. New York City Department of Health and Mental Hygiene: Epi Data Brief (116); August 2019. Accessed September 2019. https://www1.nyc.gov/assets/doh/downloads/pdf/epi/databrief116.pdf

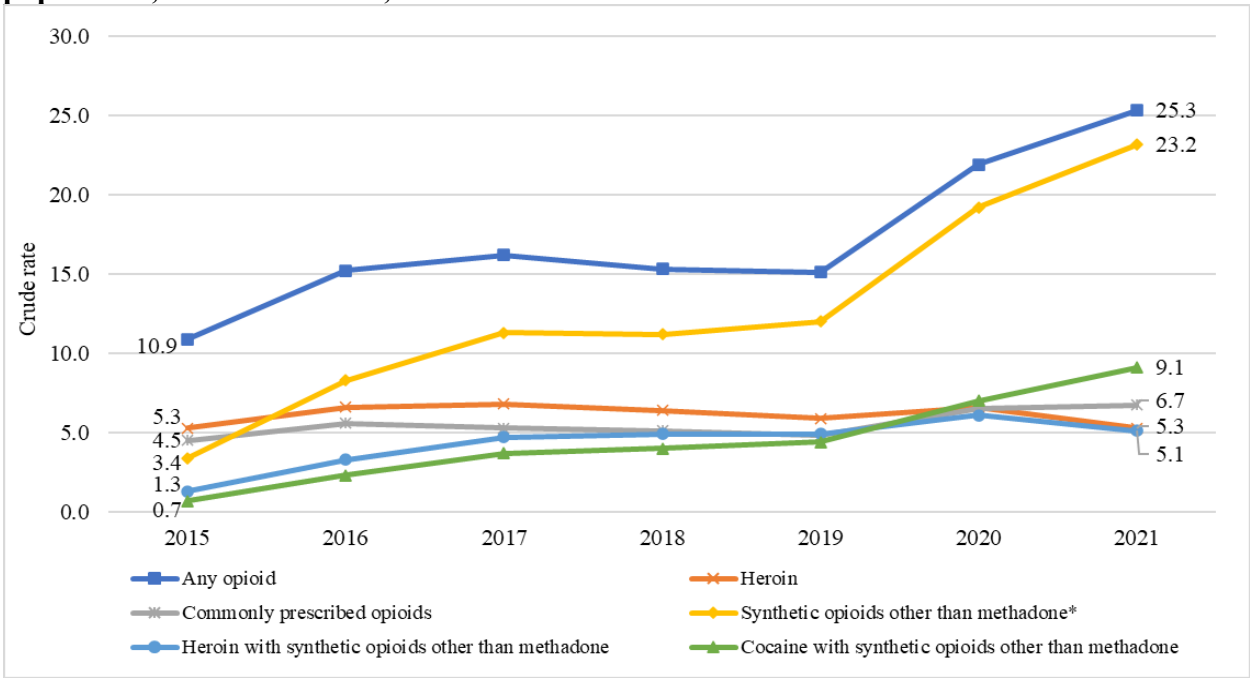
[14] Injury Prevention and Control. Fentanyl. Centers for Disease Control and Prevention. Accessed September 2019. https://www.cdc.gov/drugoverdose/opioids/fentanyl.html

[15] Seth P, Rudd RA, Noonan RK, Haegerich TM. Quantifying the Epidemic of Prescription Opioid Overdose Deaths. *Am J Public Health*. 2018;108(4):500-502. https://doi.org/10.2105/AJPH.2017.304265

[16] New York State Department of Health. Data to Action: Xylazine Awareness in New York State, 2021. Accessed April 2023. http://www.health.ny.gov/statistics/opioid/data/pdf/nysdoh_op_dta8.pdf

Among NYS residents, there were 5,017 overdose deaths involving any opioid in 2021, an increase of 18.5 percent from 4,233 deaths in 2020 (Figure 1.1). The crude rate of overdose deaths involving any opioid increased from 21.9 per 100,000 population in 2020 to 25.3 per 100,000 population in 2021. Moreover, the 2021 crude rate was over four and half times the 2010 rate of 5.4 per 100,000 population. It should be noted that categories of opioids and other substances involved in overdose deaths are not mutually exclusive, as a death can involve multiple substances, and that these deaths largely involved SOOTM. Considering this, overdose deaths involving SOOTM is also displayed below in addition to deaths involving any opioid and involving other commonly prescribed opioids (ICD-10 codes T40.2 and T40.3), such as hydrocodone and oxycodone. The crude rate of overdose deaths involving SOOTM rose considerably (by 20.8 percent), from 19.2 per 100,000 in 2020 to 23.2 per 100,000 in 2021. Between 2020 and 2021, similar patterns were observed for deaths involving cocaine with SOOTM, with the rate increasing by 30.0 percent (from 7.0 to 9.1 per 100,000 population). Compared to 2020, the 2021 crude rate of overdose deaths decreased 19.7 percent for heroin and remained stable for commonly prescribed opioids.

Figure 1.1 Overdose deaths involving opioids and other substances, crude rate per 100,000 population, New York State, 2015-2021

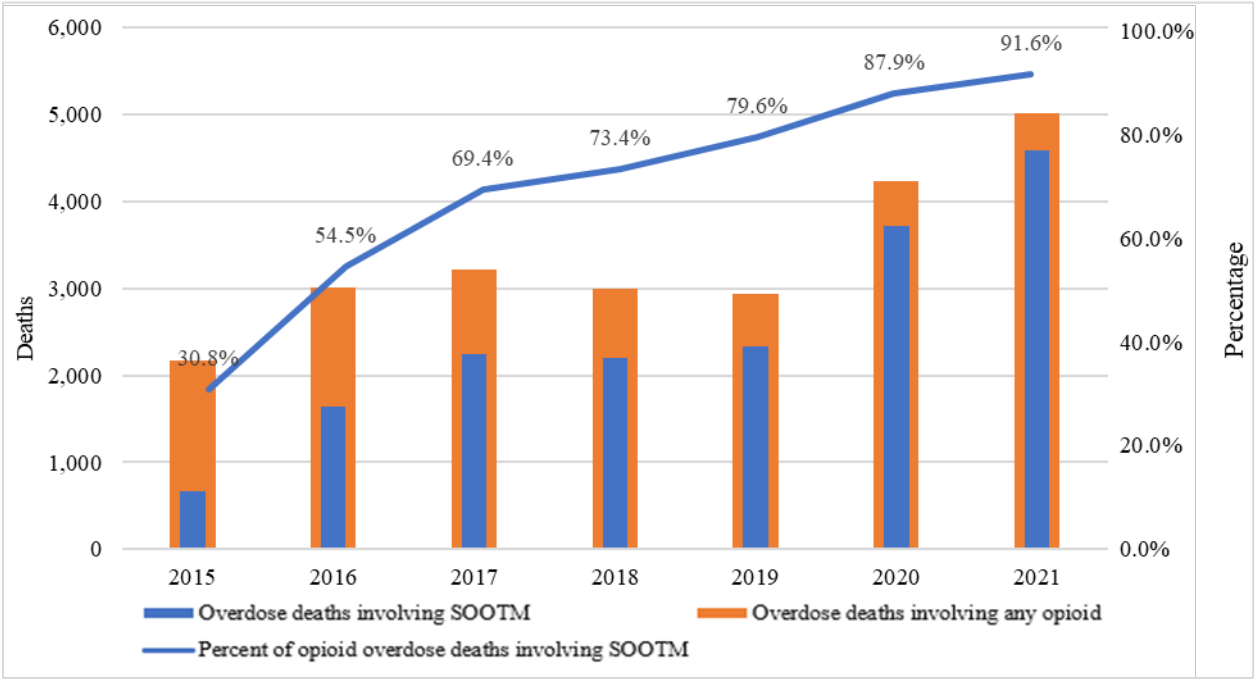


Multiple cause of death ICD-10 definitions: Any opioid – T40.0 (Opium), T40.1 (Heroin), T40.2 (Other opioids), T40.3 (Methadone), T40.4 (Synthetic opioids other than methadone), T40.6 (Other and unspecified narcotics); Heroin – T40.1; Commonly prescribed opioids – T40.2 (e.g., hydrocodone, oxycodone), T40.3; Synthetic opioids other than methadone (SOOTM) – T40.4; Heroin with synthetic opioids other than methadone – T40.1 AND T40.4; Cocaine with synthetic opioids other than methadone – T40.5 (cocaine) AND T40.4.
*Synthetic opioids other than methadone (SOOTM) are identified by ICD-10 code T40.4 and serve as a proxy for fentanyl, which is a highly potent opioid now commonly found in the illicit drug market.
Data sources: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
For complete data, see Appendix: Data Table 1.1.

Opioid overdose deaths involving SOOTM

As noted above, these increases in opioid overdose deaths have primarily been driven by SOOTM, a proxy for fentanyl (a highly potent opioid now commonly found in the illicit drug market).[17,18] From 2015 to 2021, the percentage of any opioid overdose deaths that involved SOOTM increased from 30.8 to 91.6 percent, a total increase of 197.4 percent (Figure 1.2).

Figure 1.2 Percentage of opioid overdose deaths involving synthetic opioids other than methadone*, New York State, 2015-2021



*Synthetic opioids other than methadone (SOOTM) are identified by ICD-10 code T40.4 and serve as a proxy for fentanyl, which is a highly potent opioid now commonly found in the illicit drug market.
Data sources: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
For complete data, see Appendix: Data Table 1.2.

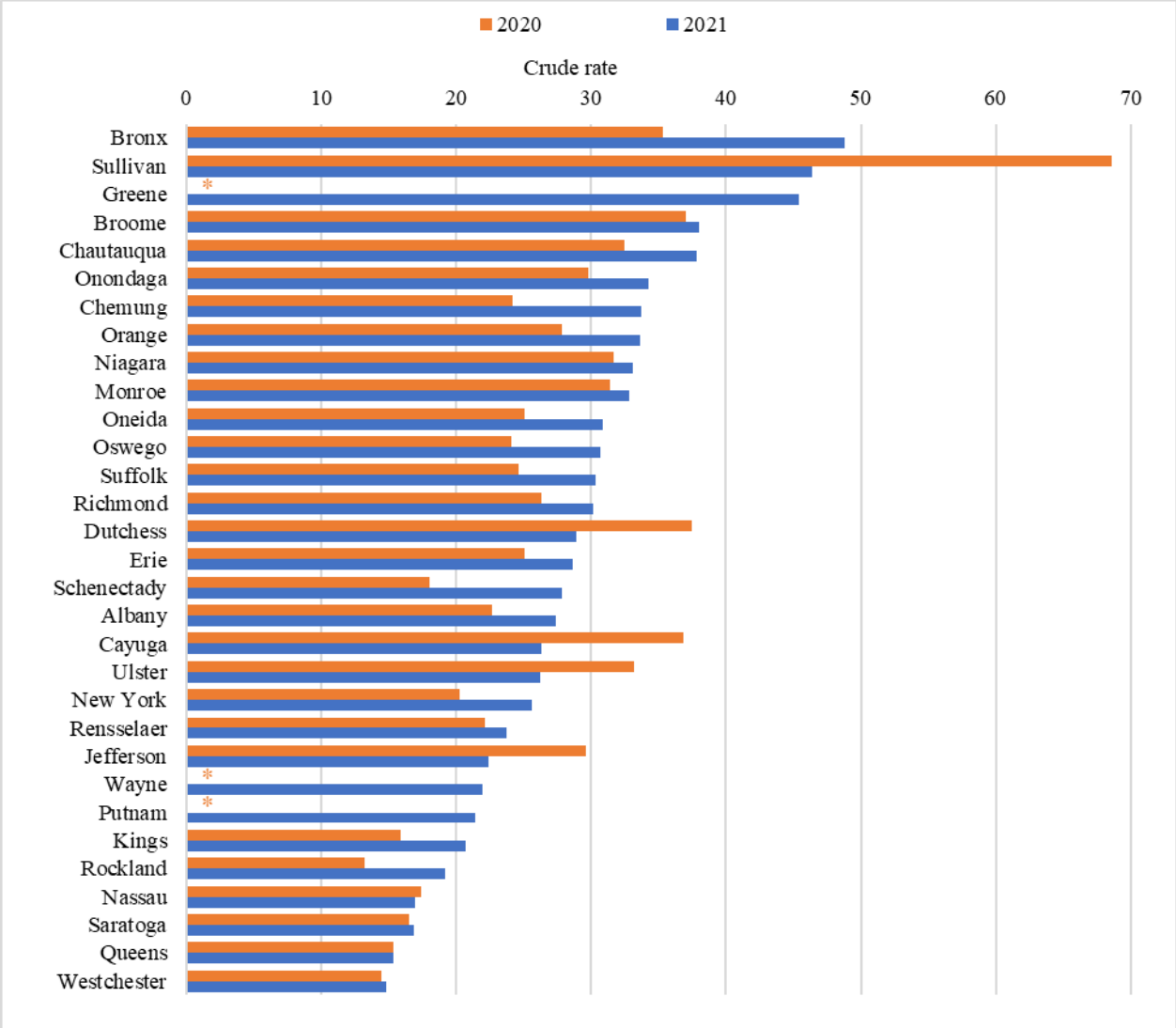
[17] National Institute on Drug Abuse. Overdose Death Rates. National Institutes of Health. January 20, 2022. Accessed June 2, 2022. https://nida.nih.gov/drug-topics/trends-statistics/overdose-death-rates#:~:text=There%20were%2091%2C799%20drug%2Dinvolved,to%202020%20(Figure%202)

[18] National Center for Injury Prevention and Control. Synthetic Opioid Overdose. Centers for Disease Control and Prevention. Accessed June 2, 2022. https://www.cdc.gov/drugoverdose/deaths/synthetic/index.html

Overdose deaths involving any opioid

In NYS, among counties with 20 or more overdose deaths involving any opioid in 2021, the crude rate per 100,000 population for overdose deaths involving any opioid was highest in Bronx County (48.8 per 100,000) (Figure 1.3). The ten counties with the highest crude rates were in NYC (Bronx), Mid-Hudson (Sullivan, Orange), Capital (Greene), Southern Tier (Broome), Western NY (Chautauqua, Niagara), Central NY (Onondaga), and Finger Lakes (Chemung, Monroe) regions. Most of these counties, except for Sullivan, observed increases in the rates of overdose deaths involving any opioid in 2021 as compared to 2020. Bronx County had the largest absolute increase (13.5 per 100,000) from 2020 (35.3 per 100,000) to 2021 (48.8 per 100,000).

Figure 1.3 Overdose deaths involving any opioid, crude rate per 100,000 population, by county, New York State, 2020 and 2021

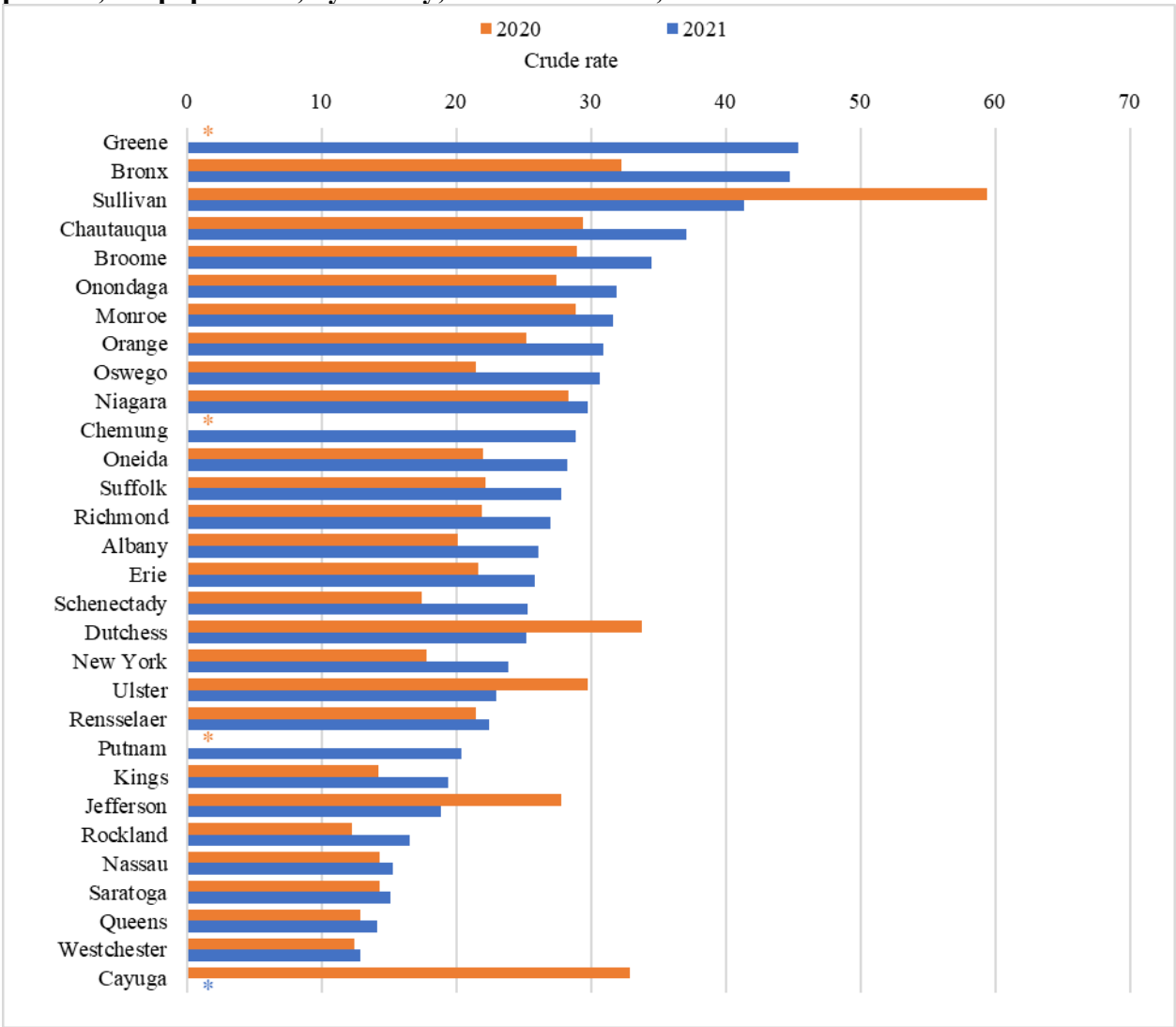


*: Rates are unreliable for years with fewer than 20 deaths and are therefore not shown.
Data sources: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
For county data on overdose deaths involving any opioid, see Appendix: Data Table 1.3.

Overdose deaths involving SOOTM by county

In NYS, among counties with 20 or more overdose deaths involving SOOTM in 2021, the crude rate per 100,000 population was highest in Greene County (45.4 per 100,000) (Figure 1.4). The ten counties with the highest crude rates were in the Capital (Greene), NYC (Bronx), Mid-Hudson (Sullivan, Orange), Western NY (Chautauqua, Niagara), Southern Tier (Broome), Central NY (Onondaga, Oswego), and Finger Lakes (Monroe) regions. Except for Sullivan County, these counties all experienced an increase in the rates of overdose deaths involving SOOTM in 2021 as compared to 2020. Bronx County had the largest absolute increase (12.5 per 100,000) from 2020 (32.3 per 100,000) to 2021 (44.8 per 100,000).

Figure 1.4 Overdose deaths involving synthetic opioids other than methadone^, crude rate per 100,000 population, by county, New York State, 2020 and 2021

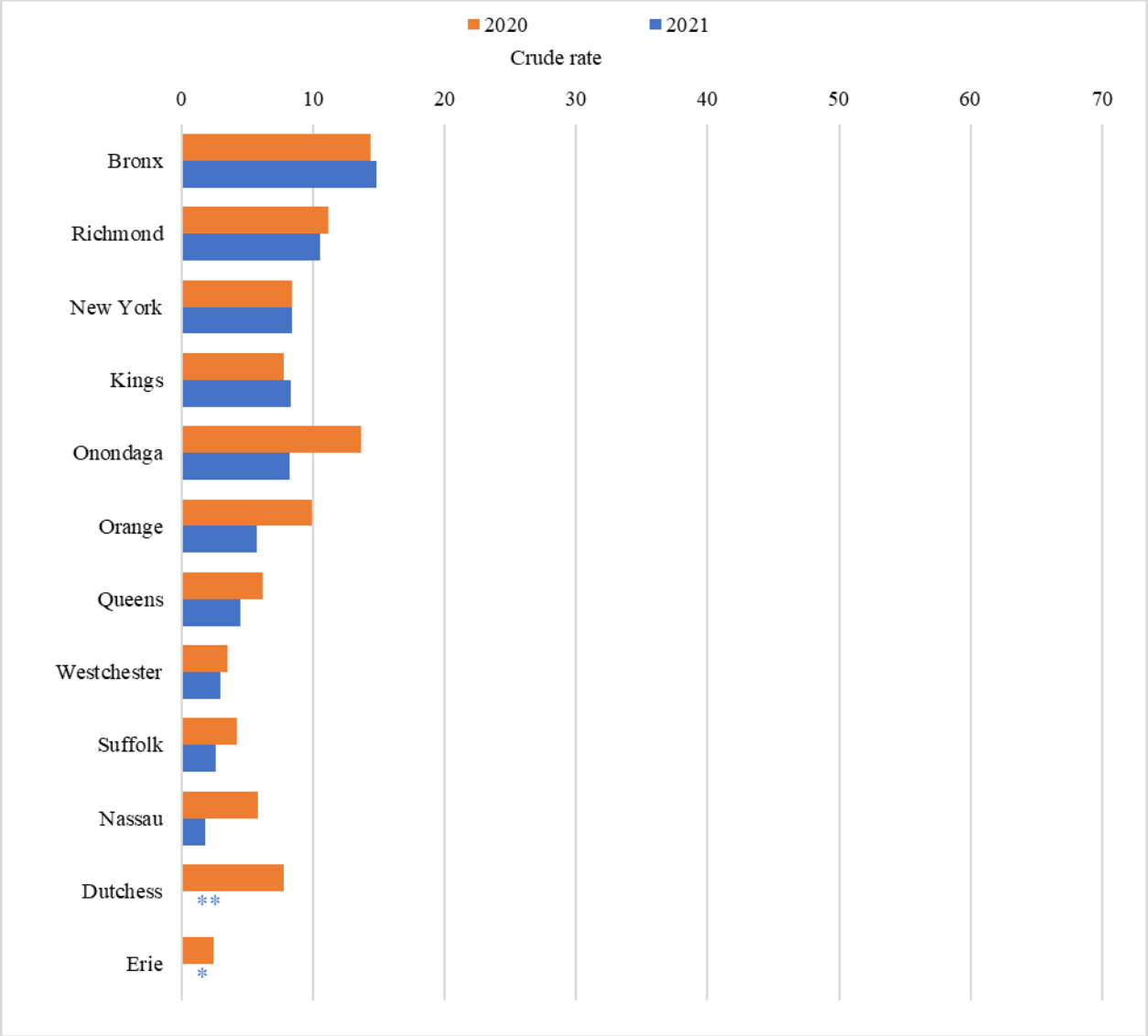


^Synthetic opioids other than methadone (SOOTM) are identified by ICD-10 code T40.4 and serve as a proxy for fentanyl, which is a highly potent opioid now commonly found in the illicit drug market.
*: Rates are unreliable for years with fewer than 20 deaths and are therefore not shown.
Data sources: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.For county data on overdose deaths involving synthetic opioids other than methadone, see Appendix: Data Table 1.4.

Overdose deaths involving heroin by county

In NYS, among counties with 20 or more overdose deaths involving heroin in 2021, the crude rate per 100,000 population for overdose deaths involving heroin was highest in Bronx County (14.8 per 100,000) (Figure 1.5). The ten counties with the highest crude rates were in NYC (Bronx, Richmond, New York, Kings, Queens), Central NY (Onondaga), Mid-Hudson (Orange, Westchester), and Long Island (Suffolk, Nassau) regions.

Figure 1.5 Overdose deaths involving heroin, crude rate per 100,000 population, by county, New York State, 2020 and 2021

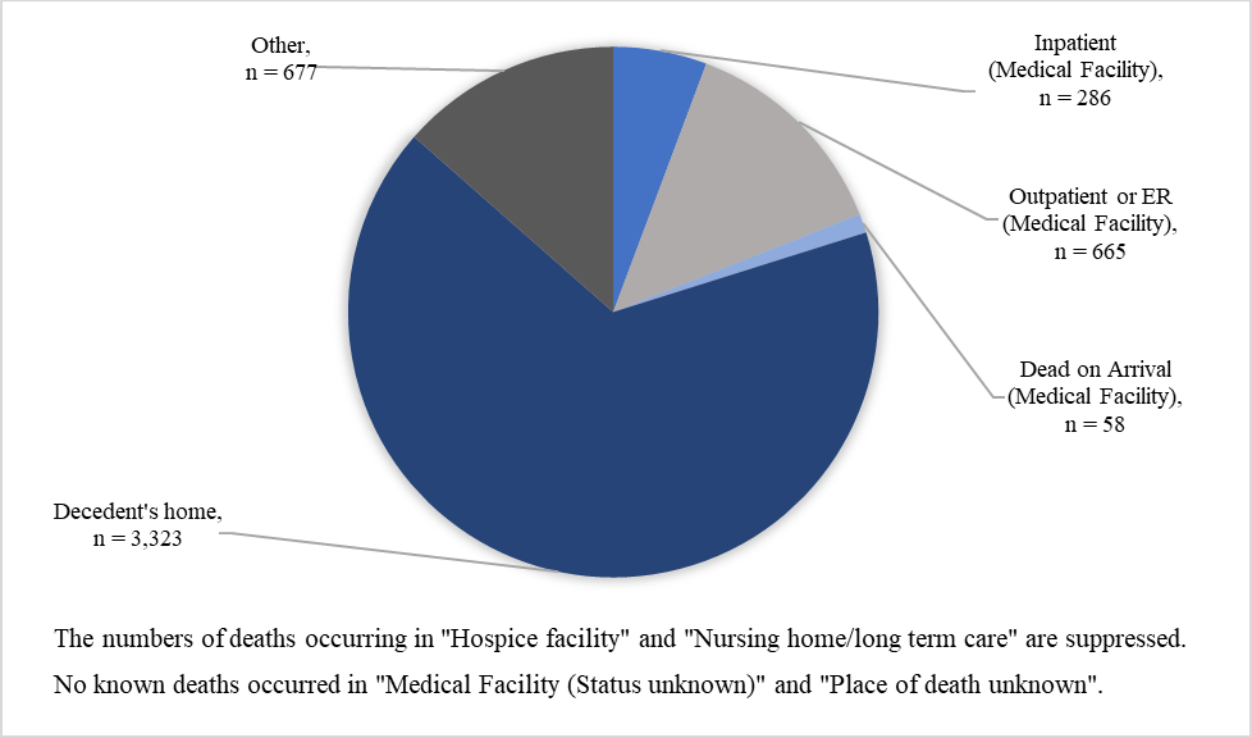


*: Rates are unreliable for years with fewer than 20 deaths and are therefore not shown.
**: For counties with fewer than 10 deaths in a year, rates are not shown for that year.
Data sources: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
For county data on overdose deaths involving heroin, see Appendix: Data Table 1.5.

Overdose deaths involving any opioid by place of death

In NYS during 2021, the largest percentage of overdose deaths involving any opioid occurred at the decedent's home (66.3 percent), unchanged from 2020 (66.3 percent, data not shown) (Figure 1.6). It is important to note this large percentage of overdose deaths that occurred in the home, as it may indicate those who used alone, or were not able to access naloxone or care in a timely manner. This can inform programmatic interventions and responses such as encouraging people who use drugs to avoid using alone, be trained to use naloxone and have it available, to create a safety plan, and test all drugs with fentanyl test strips before using them.

Figure 1.6 Overdose deaths involving any opioid, by place of death, New York State, 2021



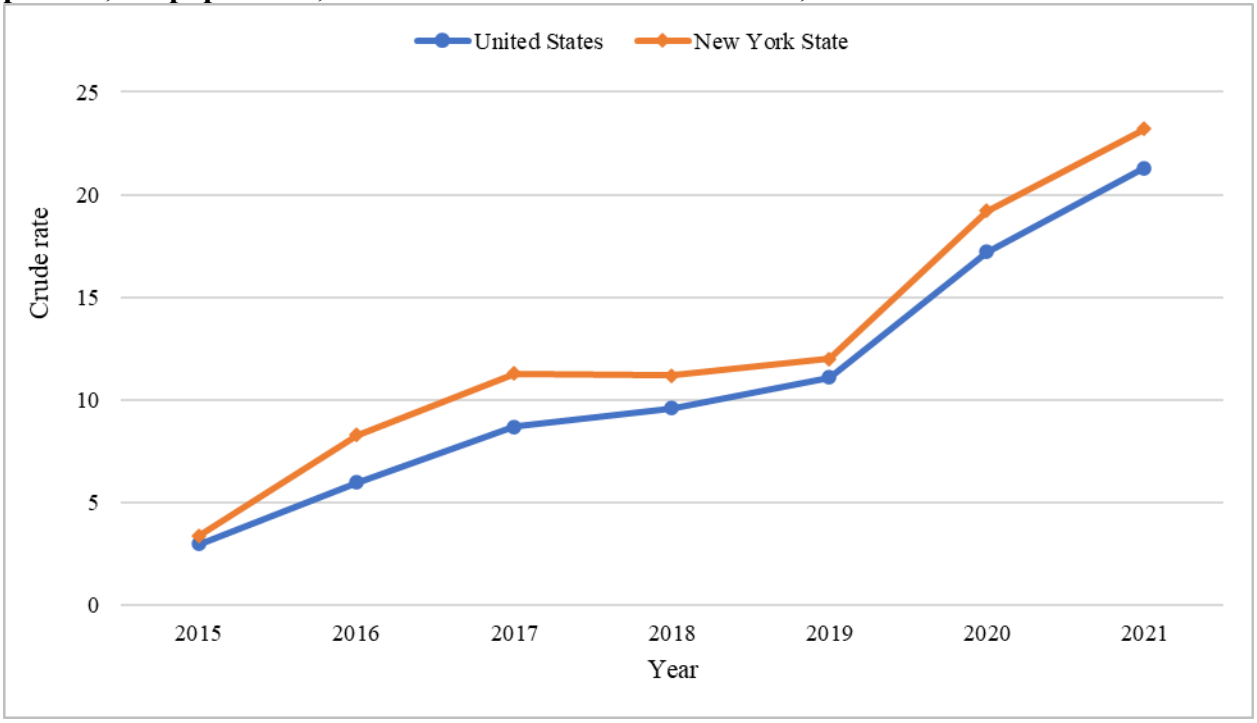
Data sources: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
For complete data, see Appendix: Data Table 1.6.

Overdose deaths involving SOOTM in New York State and United States

Because trends in substance use and overdoses have changed over time, the following figures present long-term trends for overdoses involving selected substances, as well as demographic descriptions of decedents by substance type. These data reflect variation, over time and among different populations, and can inform public health responses.

The crude rates of overdose death involving SOOTM increased sharply in both NYS and the US. In 2021, NYS ranked 25th for crude rate of overdose deaths involving SOOTM compared to other states and the District of Columbia arranged from highest rate to lowest. The rate in NYS increased from 3.4 per 100,000 population in 2015 to 23.2 per 100,000 in 2021 (Figure 1.7). In the US., the increase over the same time period was from 3.0 per 100,000 to 21.3 per 100,000. Compared to 2020, the number of overdose deaths involving SOOTM in 2021 significantly increased in both NYS (23.5 percent) and the US (24.9 percent).

Figure 1.7 Overdose deaths involving synthetic opioids other than methadone*, crude rate per 100,000 population, New York State and United States, 2015-2021



*Synthetic opioids other than methadone (SOOTM) are identified by ICD-10 code T40.4 and serve as a proxy for fentanyl, which is a highly potent opioid now commonly found in the illicit drug market.
Data sources: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
For complete data, see Appendix: Data Table 1.7.

Overdose deaths involving heroin, SOOTM, and commonly prescribed opioids by region, year, and age group

Among New Yorkers aged 25-44 years, the crude rate of overdose deaths involving heroin was lower in NYC than in NYS excluding NYC for every year during 2015-2020 but was higher than that of NYS excluding NYC in 2021 (Figure 1.8). From 2018 to 2021 in NYC, the crude rate of overdose deaths involving heroin among those aged 25-44 years increased by 19.0 percent (7.9 to 9.4 per 100,000 population). In the same period, the crude rate among those aged 25-44 years in NYS excluding NYC decreased 59.0 percent (15.6 to 6.4 per 100,000). In 2021 in NYC, the highest rate was among those aged 45 years and older (13.5 per 100,000) in NYC.

Among New Yorkers aged 25-44 years, the crude rate of overdose deaths involving SOOTM was lower in NYC than it was in NYS excluding NYC for every year during 2015-2021. The 2021 crude rate of overdose deaths involving fentanyl among those aged 25-44 years was almost two times higher in NYS excluding NYC (51.4 per 100,000) than it was in NYC (28.4 per 100,000). Compared to 2020, the rate among this age group increased by 10.8 percent in NYS excluding NYC (46.4 to 51.4 per 100,000) and by 27.4 percent in NYC (22.3 to 28.4 per 100,000). In 2021 in NYC, the highest rate was among those aged 45 years and older (34.3 per 100,000).

The crude rate of overdose deaths involving commonly prescribed opioids remained fairly steady among all age groups and across regions during 2015-2020, with the highest rates among those aged 25-44 years residing in NYS excluding NYC. From 2020 to 2021, an increase was observed in both NYC (from 12.1 to 13.6 per 100,000) and NYS excluding NYC (from 5.4 to 6.1 per 100,000) among those aged 45 years and older. In 2021 in NYC, the highest rate was among those aged 45 years and older (13.6 per 100,000).

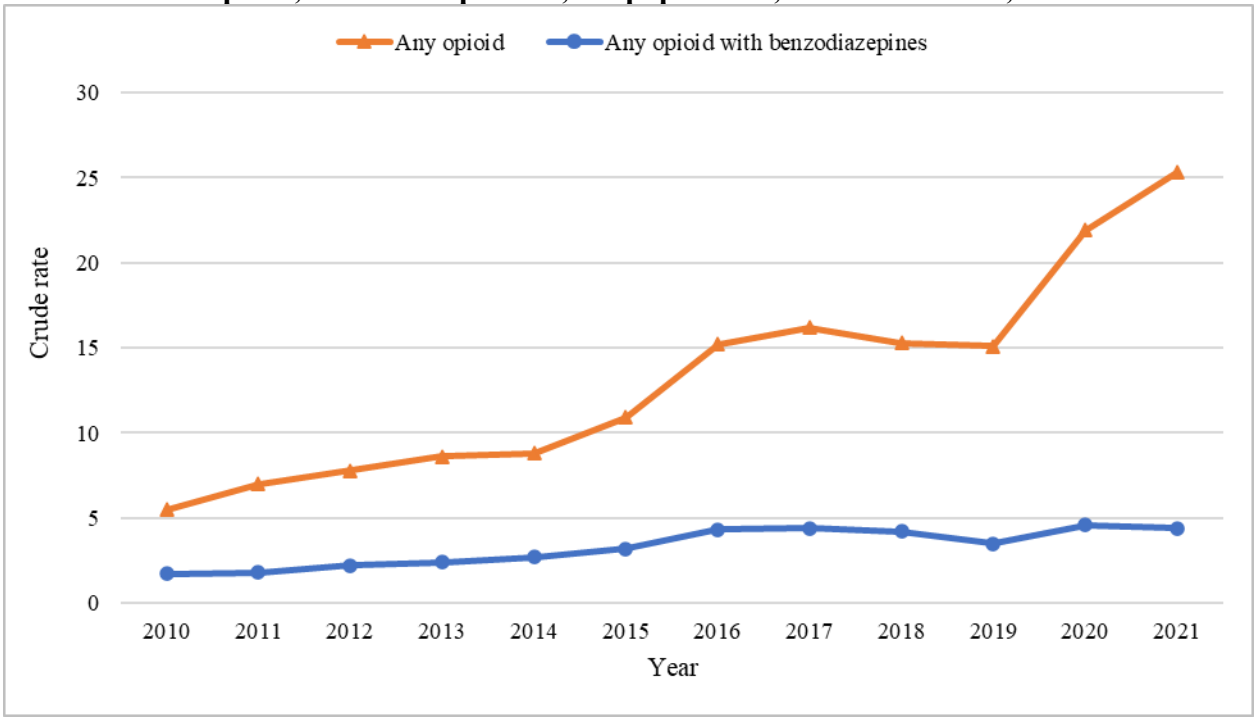
Figure 1.8 Overdose deaths involving heroin (T40.1), synthetic opioids other than methadone (T40.4)*, and commonly prescribed opioids (T40.2 and T40.3)^, crude rate per 100,000, by region, year, and age group, New York State, 2015-2021

*Synthetic opioids other than methadone (SOOTM) are identified by ICD-10 code T40.4 and serve as a proxy for fentanyl, which is a highly potent opioid now commonly found in the illicit drug market.
^Commonly prescribed opioids are identified by ICD-10 codes T40.2 (Other opioids, e.g., hydrocodone, oxycodone), T40.3 (Methadone).
Note: For years and age groups with fewer than 20 deaths, rates are not shown.
Data sources: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
For complete data, see Appendix: Data Table 1.8.

Overdose deaths involving any opioid with benzodiazepines

The risk of an opioid overdose increases when opioids are taken in combination with benzodiazepines (e.g., Xanax® [alprazolam], Valium® [diazepam]).[19] It is important to monitor the involvement of multiple substances when assessing the risk of opioid overdose. In NYS, while the rate of overdose death involving any opioid with benzodiazepines gradually increased between 2010 and 2016, it has been relatively steady after that (Figure 1.9). Compared to 2020, in 2021, the crude rate of overdose death involving any opioid with benzodiazepines slightly decreased from 4.6 to 4.4 per 100,000, while the rate of overdose death involving any opioid increased by 15.5 percent (from 21.9 to 25.3 per 100,000).

Figure 1.9 Overdose deaths involving any opioid and overdose deaths involving any opioid with benzodiazepines, crude rate per 100,000 population, New York State, 2010-2021



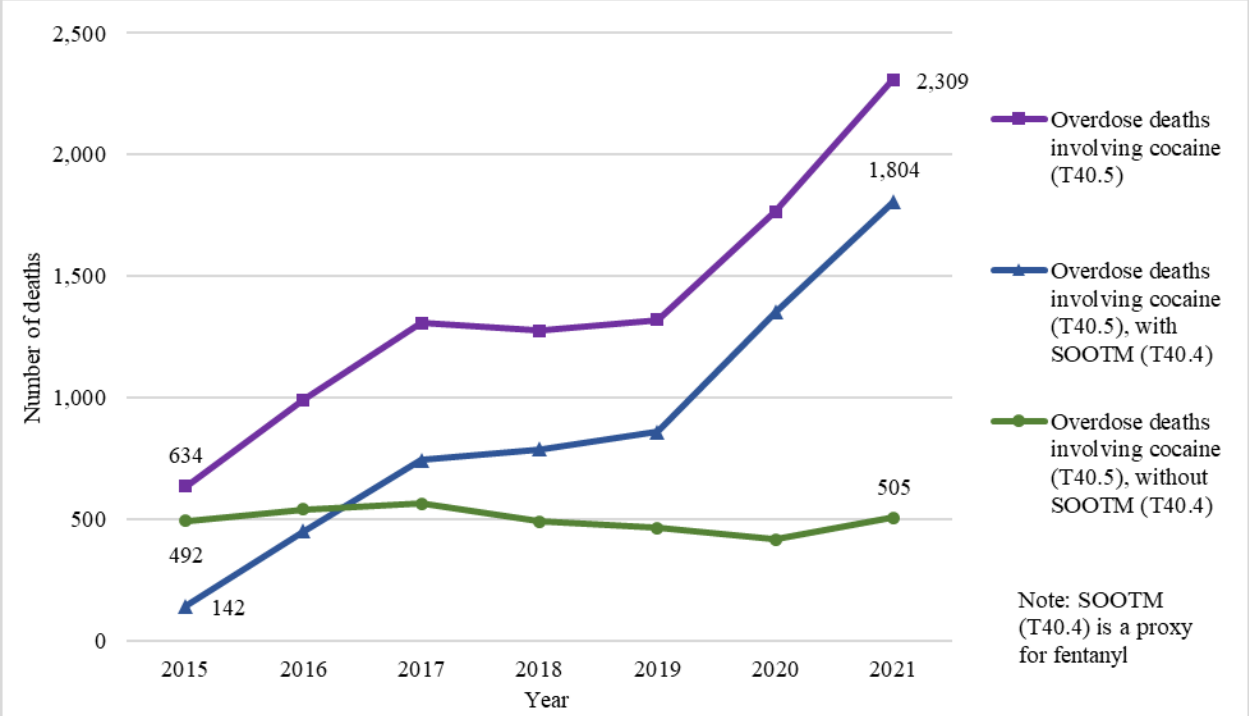
Multiple cause of death ICD-10 definitions: Any opioid – T40.0 (Opium), T40.1 (Heroin), T40.2 (Other opioids), T40.3 (Methadone), T40.4 (Synthetic opioids other than methadone), T40.6 (Other and unspecified narcotics); Any opioid with benzodiazepines – T40.0 (Opium), T40.1 (Heroin), T40.2 (Other opioids), T40.3 (Methadone), T40.4 (Synthetic opioids other than methadone), T40.6 (Other and unspecified narcotics) AND T42.4 (Benzodiazepines).
Data sources Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
For complete data, see Appendix: Data Table 1.9.

[19] Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. *MMWR Recomm Rep.* 2016;65(No. RR-1):1–49. http://dx.doi.org/10.15585/mmwr.rr6501e1

Overdose deaths involving cocaine with and without SOOTM

The number of overdose deaths involving cocaine in NYS increased from 634 overdose deaths in 2015 to 2,309 deaths in 2021 – a 264.2 percent increase (Figure 1.10). Between 2020 (1,765 deaths) and 2021 (2,309 deaths), the number of overdose deaths involving cocaine increased by 30.8 percent. The sharp rise since 2015 was largely driven by the involvement of SOOTM, predominantly illicit fentanyl. The number of overdose deaths involving cocaine *without* SOOTM increased by 2.6 percent, from 492 deaths in 2015 to 505 deaths in 2021. However, the number of overdose deaths involving cocaine *with* SOOTM increased by 1,662 deaths over the same period, from 142 in 2015 to 1,804 in 2021, marking a 1,170.4 percent increase. This indicates that the increase in overdose deaths involving cocaine has been driven by the presence of opioids, specifically fentanyl. Similar trends are being observed across the country.[20]

Figure 1.10 Overdose deaths involving cocaine with and without synthetic opioids other than methadone*, New York State, 2015-2021



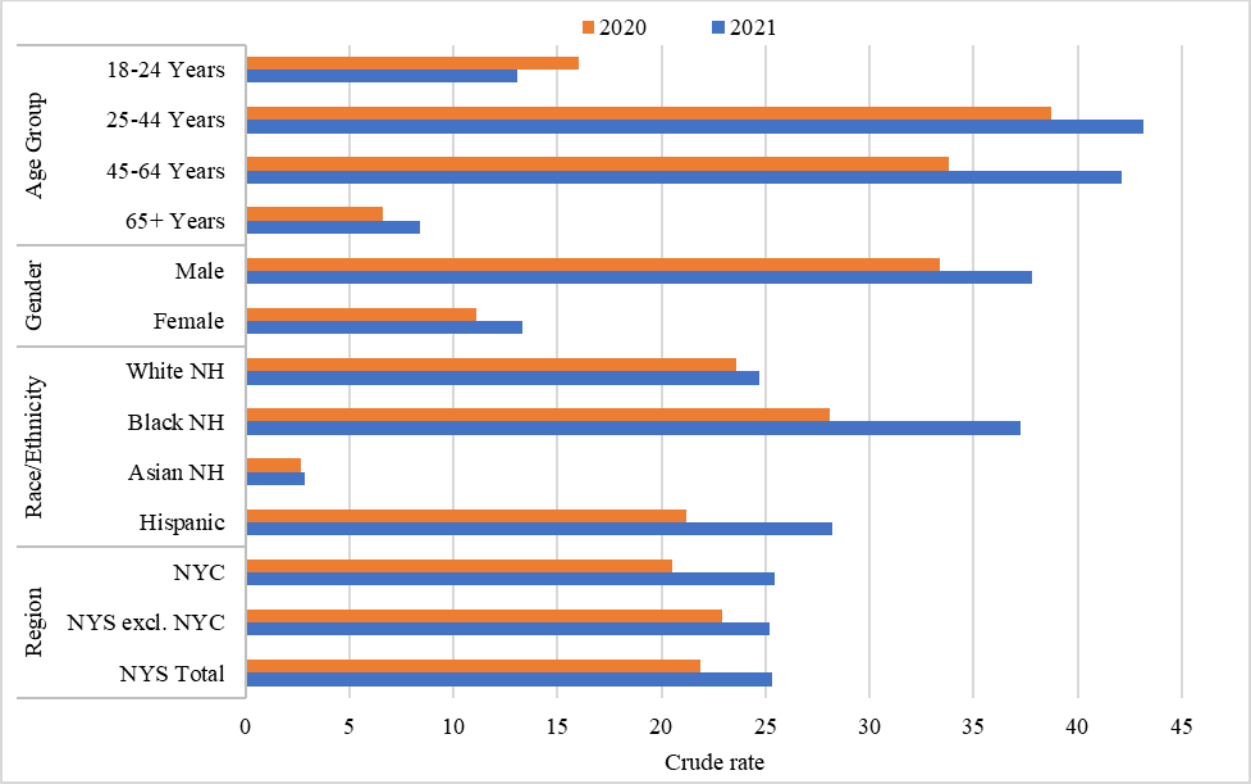
*Synthetic opioids other than methadone (SOOTM) are identified by ICD-10 code T40.4 and serve as a proxy for fentanyl, which is a highly potent opioid now commonly found in the illicit drug market.
Note: Cocaine overdose is identified by ICD-10 code T40.5.
Data sources: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
For complete data, see Appendix: Data Table 1.10.

[20] Increase in Fatal Drug Overdoses Across the United States Driven by Synthetic Opioids Before and During the COVID-19 Pandemic. Centers for Disease Control and Prevention, Health Alert Network. 2020 (CDCHAN-00438). Accessed June 2, 2022. https://emergency.cdc.gov/han/2020/han00438.asp

Overdose deaths involving any opioid by sub-population

In NYS during 2021 the crude rates of overdose death involving any opioid were highest among those aged 25-44 years (43.2 per 100,000 population) and 45-64 years (42.1 per 100,000) (Figure 1.11). The crude rates of overdose death involving any opioid were highest among males (37.8 per 100,000), Black non-Hispanic (37.2 per 100,000) and Hispanic (28.2 per 100,000) individuals, and residents of NYC (25.4 per 100,000). Compared to 2020, the rates of overdose deaths involving any opioid increased in 2021 across all demographic sub-groups except for those aged 18-24 years, with the largest percentage increase in the rate observed among Hispanic individuals (33.0 percent), Black non-Hispanic individuals (32.4 percent), and those aged 65 years and older (27.3 percent).

Figure 1.11 Overdose deaths involving any opioid, crude rate per 100,000 population, by sub-population, New York State, 2020 and 2021

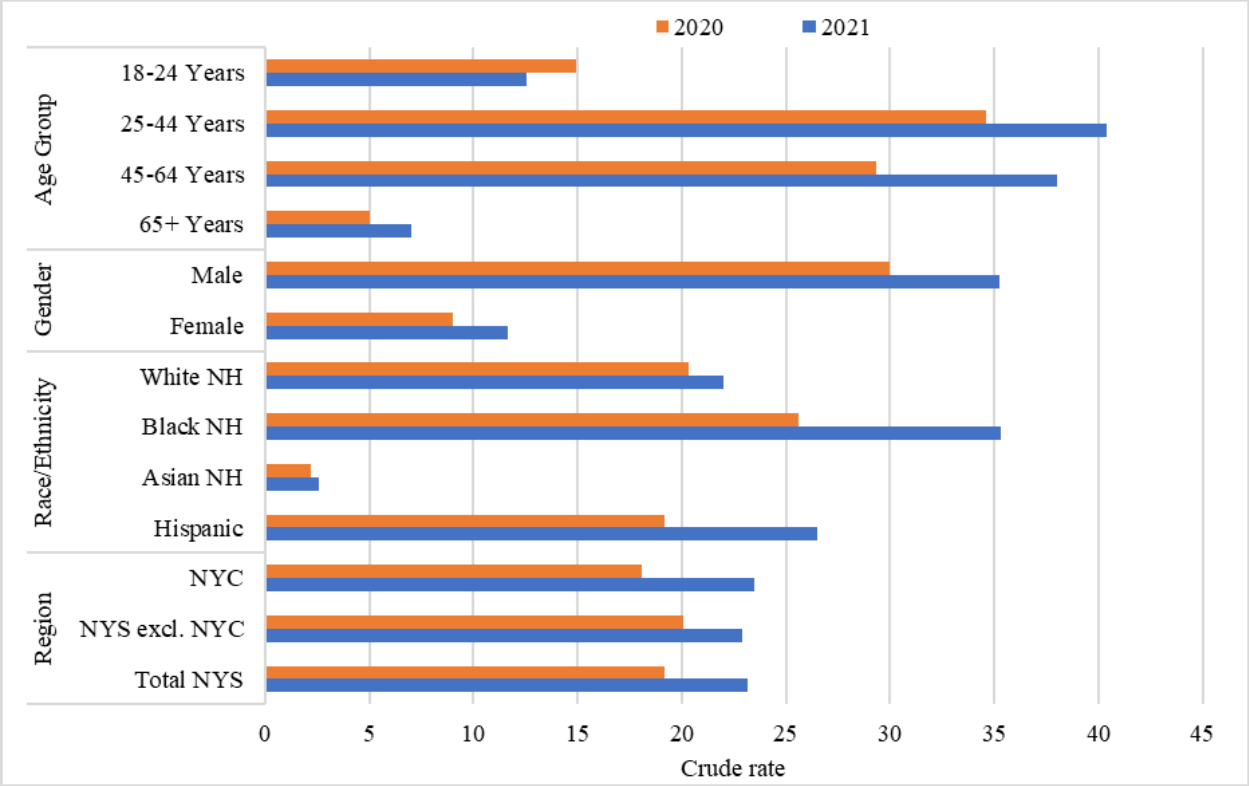


Data sources: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
For complete data, see Appendix: Data Table 1.11.

Overdose deaths involving SOOTM by sub-population

In NYS during 2021, the crude rates of overdose death involving SOOTM were highest among those aged 25-44 years (40.4 per 100,000 population) and 45-64 years (38.0 per 100,000) (Figure 1.12). The crude rates of overdose death involving SOOTM were highest among males (35.2 per 100,000), Black non-Hispanic (35.3 per 100,000) and Hispanic (26.5 per 100,000) individuals, and residents of NYC (23.5 per 100,000). Compared to 2020, the rates of overdose death involving SOOTM were significantly higher in 2021 across all demographic sub-groups except for those aged 18-24 years, with the largest percentage increases observed among those aged 65 years and older (40.0 percent), Hispanic individuals (38.0 percent), and Black non-Hispanic individuals (37.9 percent).

Figure 1.12 Overdose deaths involving synthetic opioids other than methadone*, crude rate per 100,000 population, by sub-population, New York State, 2020 and 2021

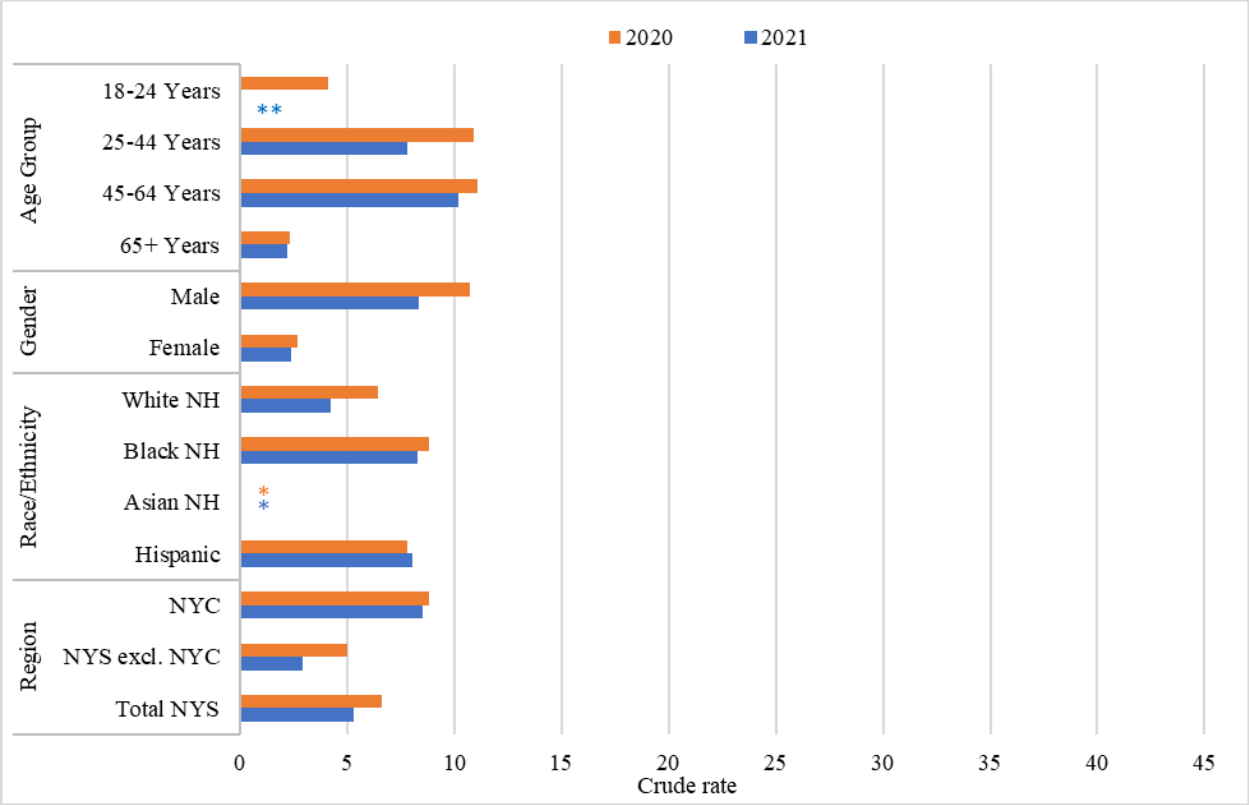


*Synthetic opioids other than methadone (SOOTM) are identified by ICD-10 code T40.4 and serve as a proxy for fentanyl, which is a highly potent opioid now commonly found in the illicit drug market.
Data sources: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
For complete data, see Appendix: Data Table 1.12.

Overdose deaths involving heroin by sub-population

In NYS, the crude rate of overdose death involving heroin decreased by 19.7 percent from 2020 (6.6 per 100,000 population) to 2021 (5.3 per 100,000). The rates in 2021 were lower across all demographic sub-groups than in 2020, except among Hispanic individuals, with the largest percentage decreases observed among residents of NYS excluding NYC (-42.0 percent), and White non-Hispanic individuals (-34.4 percent). The crude rates of overdose death involving heroin were highest among those aged 45-64 years (10.2 per 100,000) and 25-44 years (7.8 per 100,000) (Figure 1.13). Rates were highest among males (8.3 per 100,000), Black non-Hispanic (8.3 per 100,000) and Hispanic (8.0 per 100,000) individuals, and residents of NYC (8.5 per 100,000).

Figure 1.13 Overdose deaths involving heroin, crude rate per 100,000 population, by sub-population, New York State, 2020 and 2021



*: Rates are unreliable for years with fewer than 20 deaths and are therefore not shown.
**: Data do not meet reporting criteria.
Data sources: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
For complete data, see Appendix: Data Table 1.13.

2 - Naloxone Administrations

Naloxone (Narcan® and other brands) is an opioid antagonist used in the event of a suspected opioid overdose as it may reverse the effects when administered timely. Administrations of naloxone are given for patients presenting with similar signs and symptoms of a potential opioid overdose.

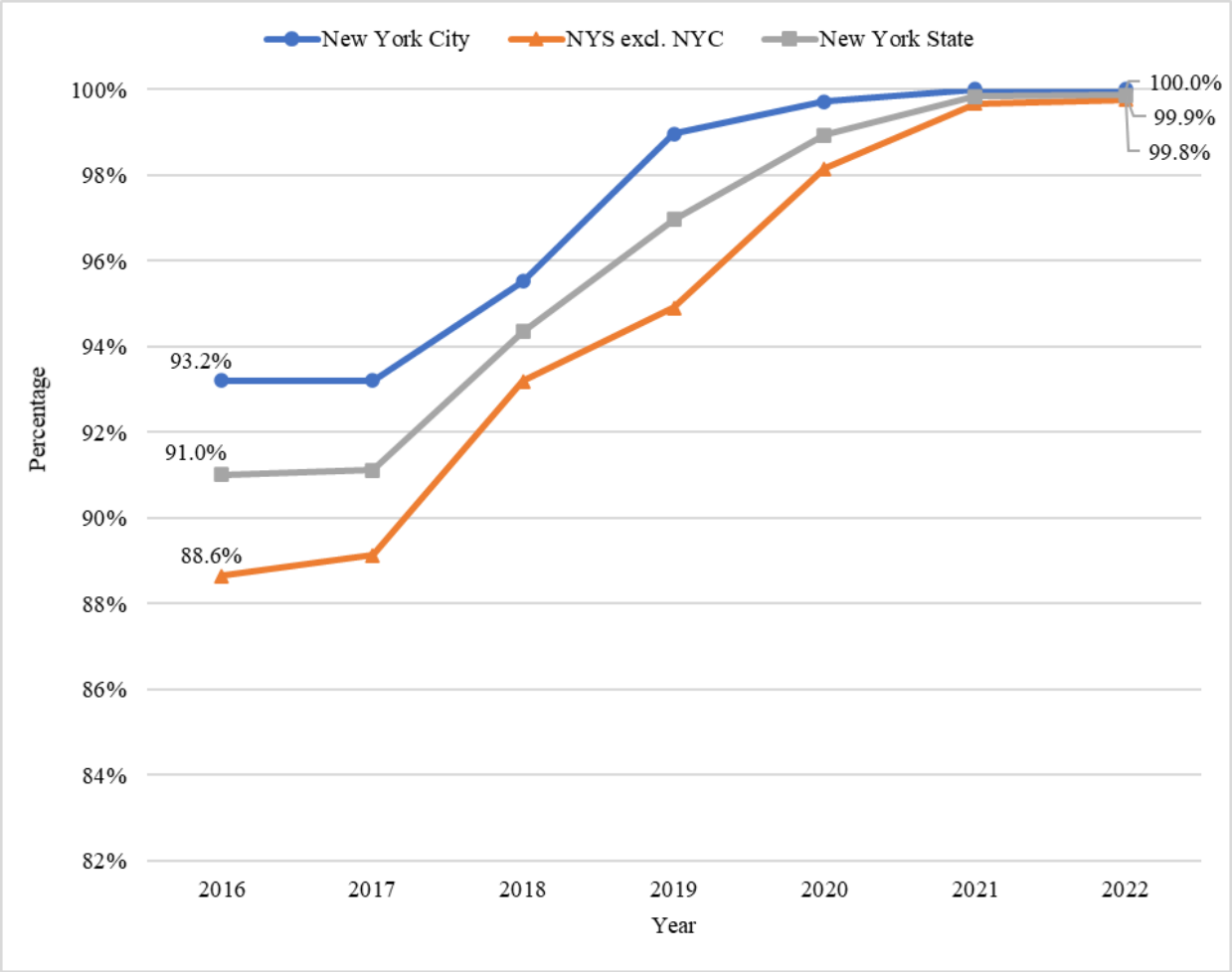
Naloxone Administrations by Emergency Medical Services

Naloxone has been actively administered by both Advanced Life Support and Basic Life Support (BLS) providers in the treatment of potential opioid overdoses. Many areas of NYS rely on BLS agencies to provide emergency medical response through Emergency Medical Technicians (EMTs) and Certified First Responders (CFRs). EMS agencies provide most naloxone administrations in NYS. Counts of unique administrations of naloxone by EMS agencies in NYS are based on information submitted to the NYSDOH Bureau of Emergency Medical Services through electronic Patient Care Reports (e-PCRs).

The EMS system has transitioned from monthly electronic and paper submissions prior to 2018 – 2019, significantly improving the timeliness of the receipt of EMS data allowing for prompt analysis and deployment of EMS data. Beginning in 2021, the quality of EMS data recorded on the electronic patient care reports (e-PCRs) significantly improved through the complete transition from National EMS Information Systems (NEMSIS 2.2.1 standard platform to NEMSIS 3.4.0.). Timely submission of completed PCRs is critical to the care and exchange of completed patient information to healthcare partners. All patient care records are submitted to the state within 4 hours of the completion of the call in at least 90 percent of charts.

In 2022, 99.9 percent of total 911 EMS dispatches in NYS were reported electronically, an increase from 91.0 percent in 2016 (Figure 2.1). Improvements in data reporting for New York City (NYC) and NYS excluding NYC during 2016-2022 followed similar patterns to the NYS total. Electronic coverage increased from 93.2 percent in 2016 to 100 percent in 2022 in NYC. In NYS excluding NYC, coverage increased from 88.6 percent to 99.8 percent.

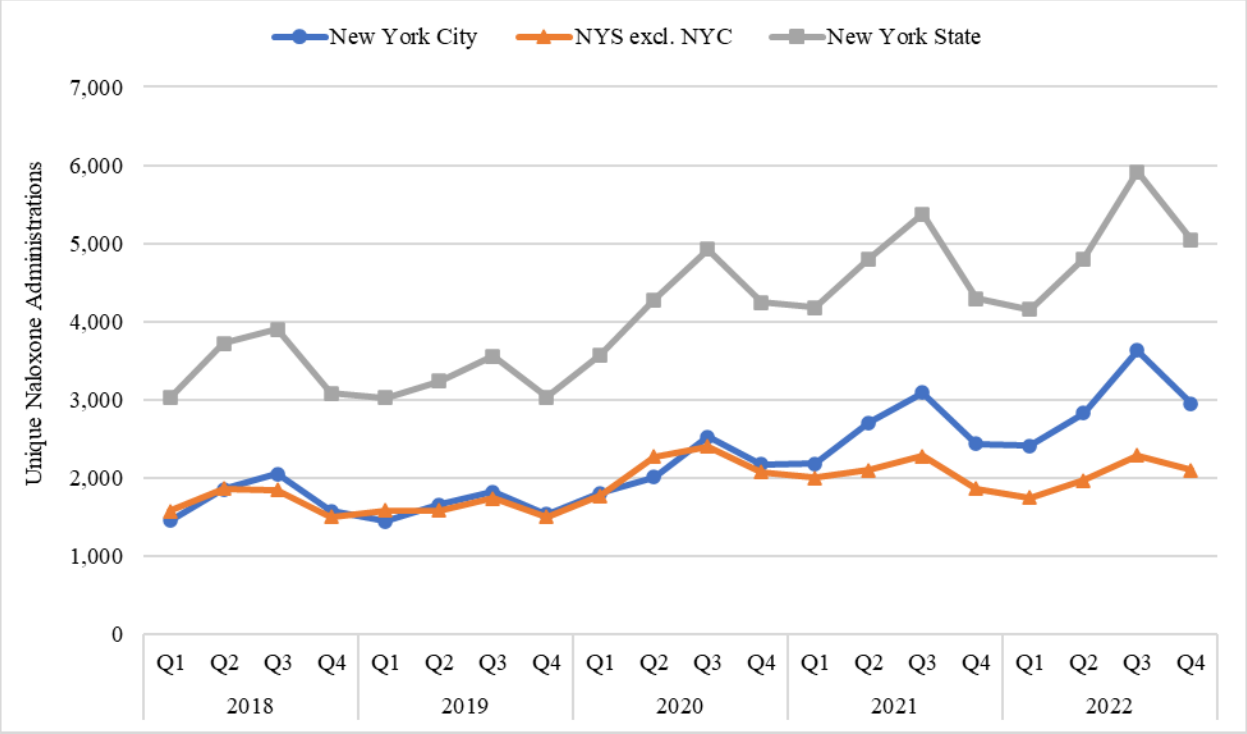
Figure 2.1 Percentage of 911 EMS dispatches reported electronically, by region, New York State, 2016-2022



Data source: NYSDOH, Bureau of Emergency Medical Services; Data as of March 2023
For complete data, see Appendix: Data Table 2.1.

The number of electronically reported unique naloxone administrations by EMS in NYS increased by 6.8 percent, from 18,653 in 2021 to 19,923 in 2022 (Figure 2.2). During 2021 and 2022, Quarter 3 of 2022 had the highest number of reported administrations (5,917).

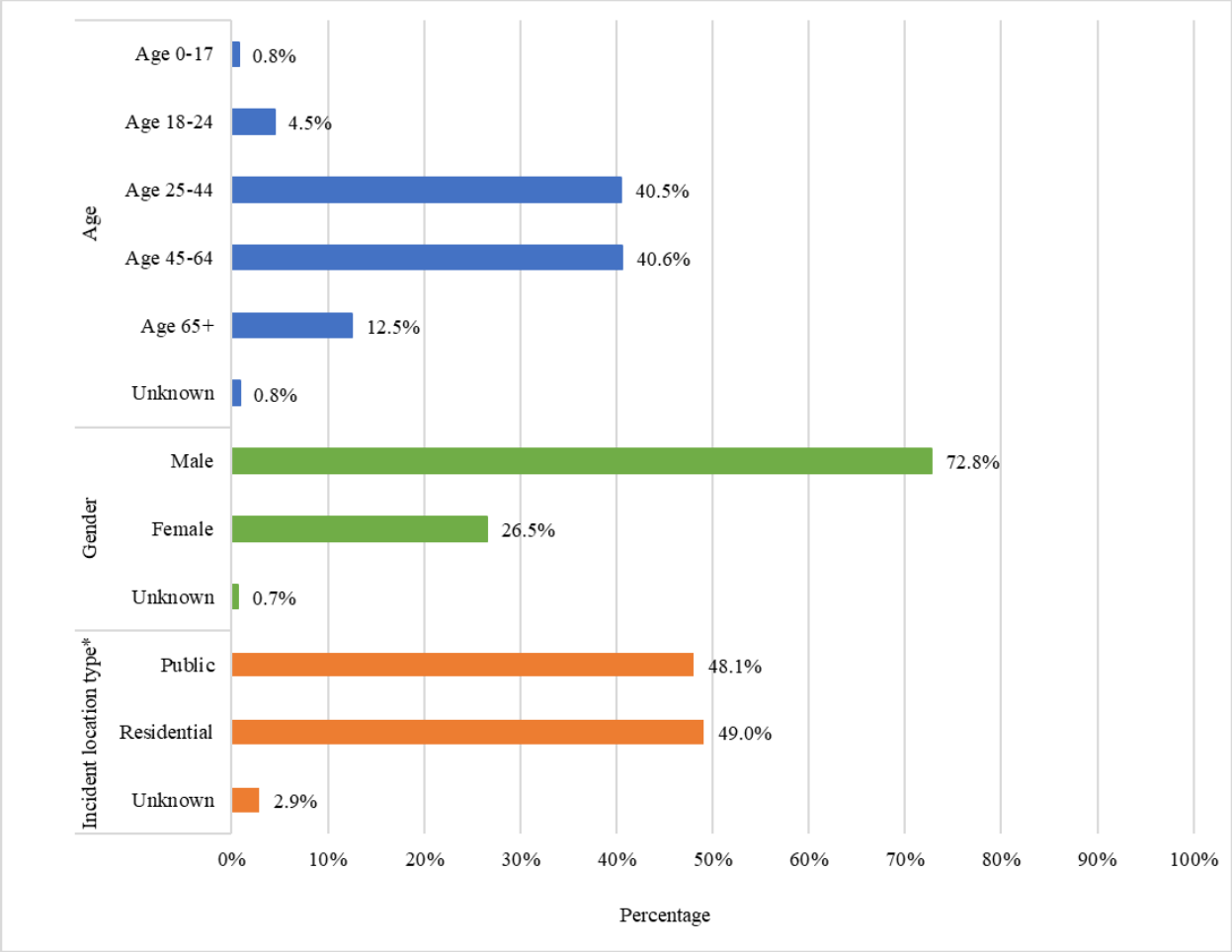
Figure 2.2 Number of unique* naloxone administrations by EMS agencies, by region, New York State, 2018-2022



*Unique naloxone administrations represent an EMS encounter in which naloxone was administered during the course of patient care. Often, multiple administrations of naloxone may be given to an individual during the same patient encounter. As such, additional data validation steps have been taken to de-duplicate multiple administrations and counts may differ from previous annual and quarterly reports.
Note: Counts may have been affected by changes in documentation systems used by EMS agencies.
Data source: NYSDOH, Bureau of Emergency Medical Services; Data as of March 2023
For complete data, see Appendix: Data Table 2.2.

In 2022, unique naloxone administrations were highest among individuals aged 45-64 years (8,096 administrations, or 40.6 percent), closely followed by those aged 25-44 years (7,999 administrations, or 40.5 percent) (Figure 2.3). Most unique naloxone administrations by EMS personnel involved males (14,500 administrations, or 72.8 percent). Akin to the overdose deaths shown in Figure 1.6, a large number of EMS naloxone administrations occurred in residential settings (9,770 administrations, or 49.0 percent).

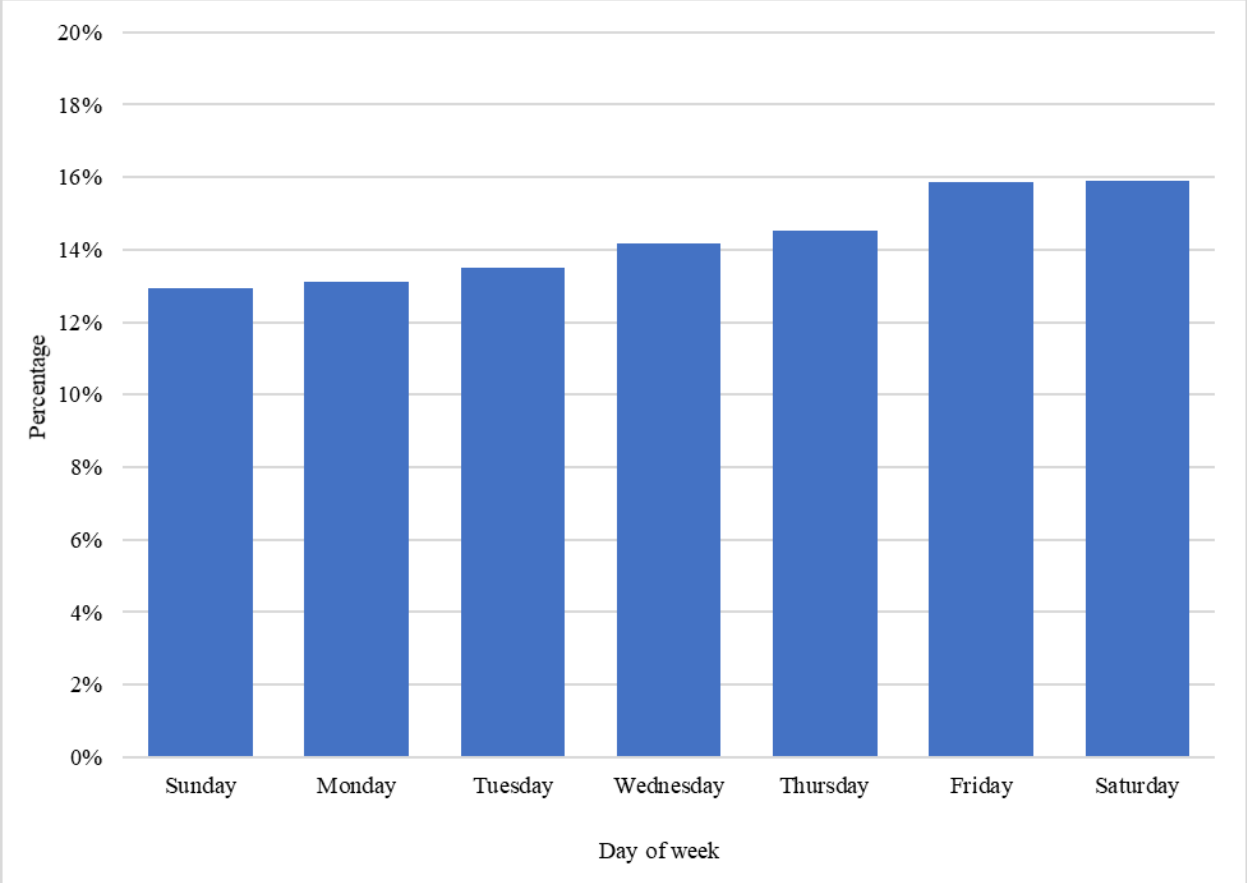
Figure 2.3 Percentage of unique naloxone administrations by EMS agencies, by age group, gender, and incident location type*, New York State, 2022



*Incident location type is incomplete for Suffolk County.
Data source: NYSDOH, Bureau of Emergency Medical Services; Data as of March 2023.
For complete data, see Appendix: Data Table 2.3.

In 2022, on average, Saturday was the day of the week during which the highest number of unique naloxone administrations by EMS occurred (3,169 administrations, or 15.9 percent), followed by Friday (3,161 administrations, or 15.9 percent) (Figure 2.4). About 32 percent of EMS administrations occurred on Fridays and Saturdays, highlighting a need for individuals using opioids to obtain naloxone in their communities and have it available at all times, especially over the weekends. The fewest administrations occurred on Sunday (2,574 administrations or 12.9 percent) and Mondays (2,615 administrations, or 13.1 percent). The distribution of unique administrations varied across months of the year, with counts being the highest during the summer months especially since 2020 (data not shown). The month with the highest number of naloxone administrations in 2022 was August (2,075 administrations, or 10.4 percent), while the month with the lowest number was January (1,303 administrations, or 6.5 percent).

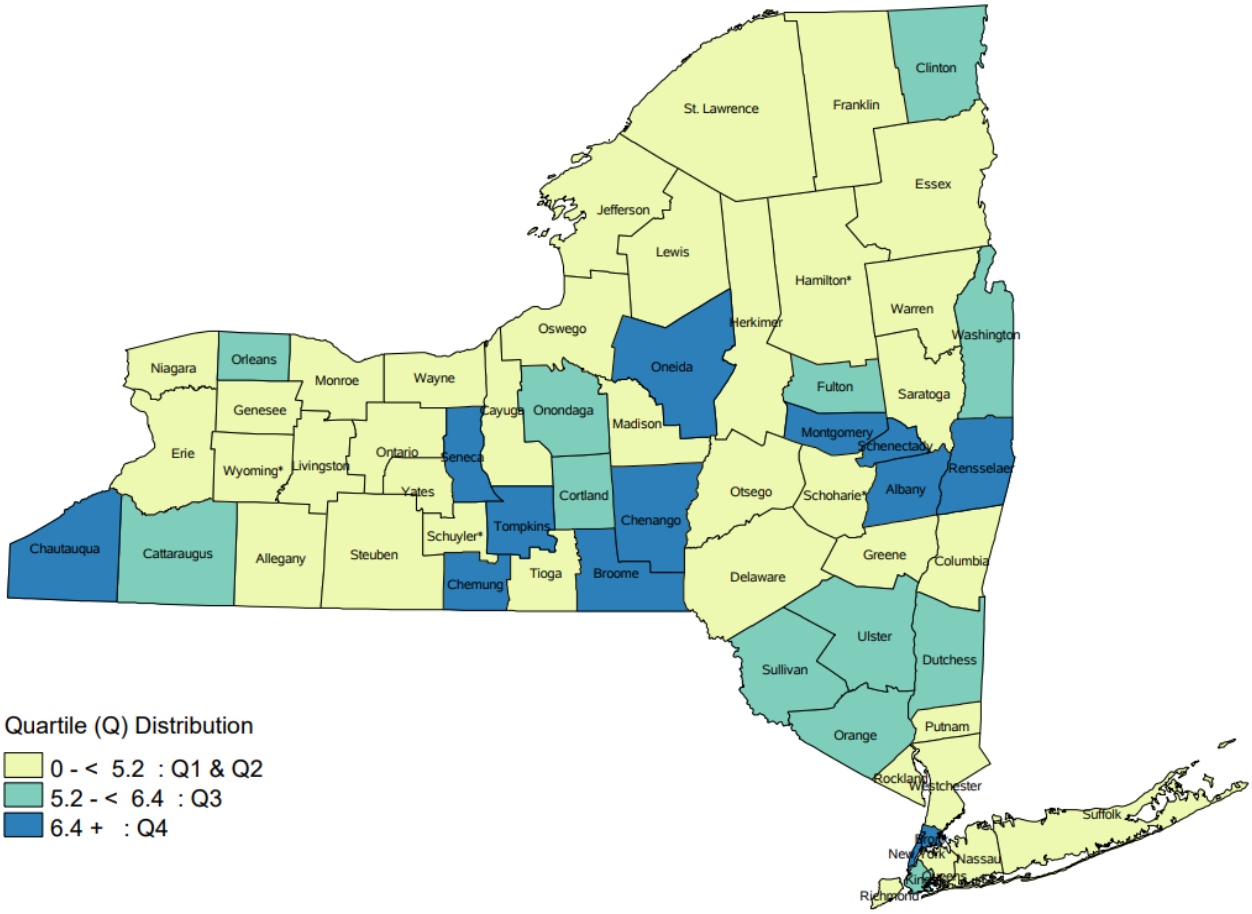
Figure 2.4 Percentage of unique naloxone administrations by EMS agencies, by day of the week, New York State, 2022



Data source: NYSDOH, Bureau of Emergency Medical Services; Data as of March 2023
For complete data, see Appendix: Data Table 2.4.

Figure 2.5 shows variation in the county rate of unique naloxone administrations per 1,000 unique 911 EMS dispatches in 2022. The counties shown in blue had the highest crude rates (rates greater than or equal to 6.4 per 1,000) of naloxone administration per 1,000 unique 911 EMS dispatches. The ten counties with the highest rates of unique naloxone administrations in 2022 were New York, Chenango, Bronx, Tompkins, Rensselaer, Montgomery, Oneida, Broome, Seneca, and Albany. Counties shown in yellow had the lowest rates of naloxone administration per 1,000 unique dispatches.

Figure 2.5 Unique naloxone administrations by EMS agencies, crude rate per 1,000 unique 911 EMS dispatches, by county, New York State*, 2022



* Rates may be unstable for counties with fewer than 10 naloxone administrations.
Dispatch data for Suffolk County were incomplete.
Starting from January 2021, Nassau County Police Department (NCPD) data are no longer available and not included in the counts.
Data source: NYSDOH, Bureau of Emergency Medical Services; Data as of March 2023
For complete data, see Appendix: Data Table 2.5.

Naloxone Administrations by Community Programs

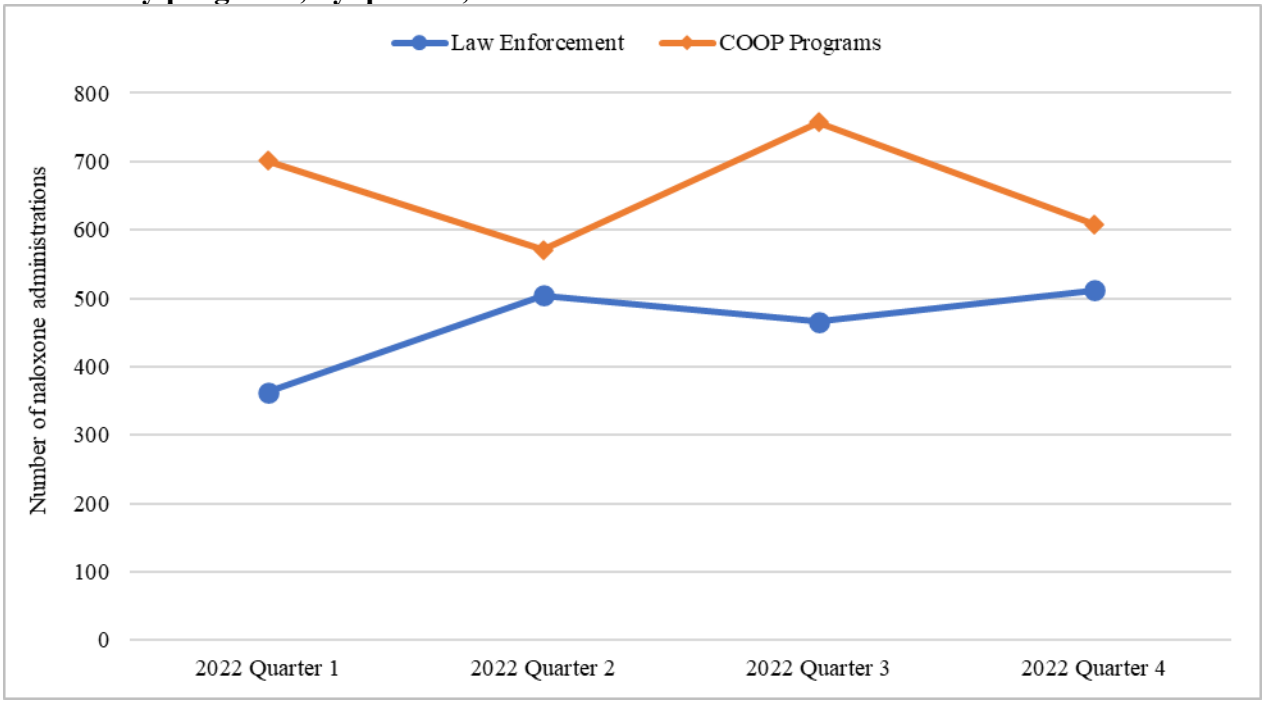
The Department of Health's Office of Drug User Health (ODUH) uses a harm reduction approach with programmatic roots in the State's network of 25 syringe exchange programs. It also has an emphasis on expanding access to medication for OUD, including buprenorphine and methadone. These medications prevent death from overdose. The State's multi-pronged approach complements the longstanding efforts by EMS agencies throughout NYS and focuses on building overdose response capacity within communities throughout the state. This community capacity comprises trained responders, including opioid-dependent individuals, their families and friends, staff of agencies who work with people who use drugs, law enforcement personnel, firefighters, drug treatment providers, correction facility guards, incarcerated persons about to be released and their family members, and others. The core of this program is for community "laypersons" to be trained by organizations registered with NYSDOH to recognize and respond to opioid overdoses. These individuals are known as trained overdose responders. Under regulation, these entities or providers may maintain regulated opioid overdose prevention programs and include:

- a healthcare facility licensed under the Public Health Law;
- a physician, physician assistant, or nurse practitioner who is authorized to prescribe the use of an opioid antagonist;
- a drug treatment program licensed under the mental hygiene law;
- a not-for-profit community-based organization incorporated under the not-for-profit corporation law and having the services of a Clinical Director; and
- a local health department.

In many municipalities, law enforcement personnel are frequently the first on the scene of an overdose. This report presents data on administrations of naloxone, including the number of naloxone administration reports received by NYSDOH for 2022 from EMS (n = 19,923), law enforcement (n = 1,845), and community opioid overdose prevention programs (n = 2,637) (Appendix: Data Table 2.11). For additional information about the State's Harm Reduction programs, please see the Opioid Annual Report, 2022. All naloxone administration data are based on self-report. There are instances in which not all data fields are completed by the responder. There is often a lag in data reporting. Increases seen over time may represent program expansion and may or may not indicate an increase in overdose events, thus all data should be interpreted with caution. Naloxone data reflect the county in which the overdose occurred and in which the naloxone was administered – not necessarily the county of the overdosed person's residence.

In NYS during 2022, the highest numbers of naloxone administrations by law enforcement agencies were reported in October through December (Quarter 4), and April through June (Quarter 2), and the highest numbers of naloxone administrations by community opioid overdose prevention program agencies were reported in July through September (Quarter 3) (Figure 2.6).

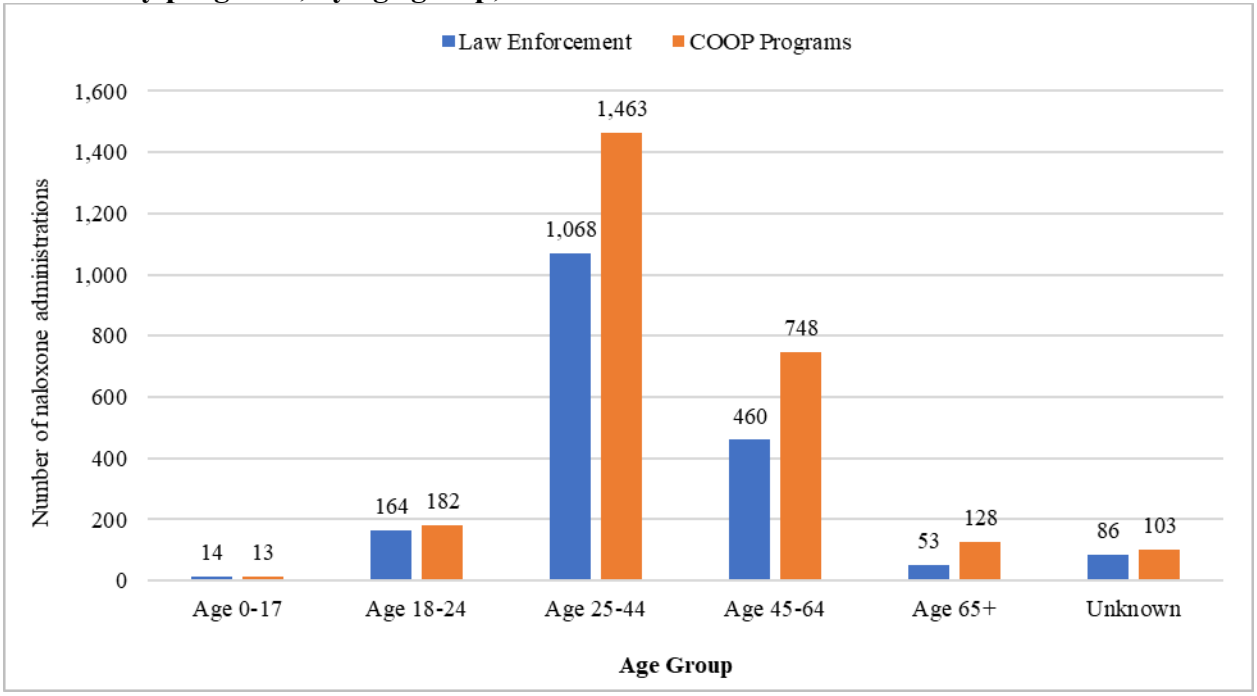
Figure 2.6 Number of naloxone administration reports by law enforcement* and community programs, by quarter, New York State 2022



*The law enforcement category does not capture administrations reported in New York City and does not comprehensively capture administrations reported in Nassau County.
Data source: New York State Department of Health AIDS Institute; Data as of April 2023
For complete data, see Appendix: Data Table 2.6.

In NYS during 2022, most naloxone administration reports from both law enforcement agencies and community opioid overdose prevention programs were for individuals aged 25-44 years (Figure 2.7).

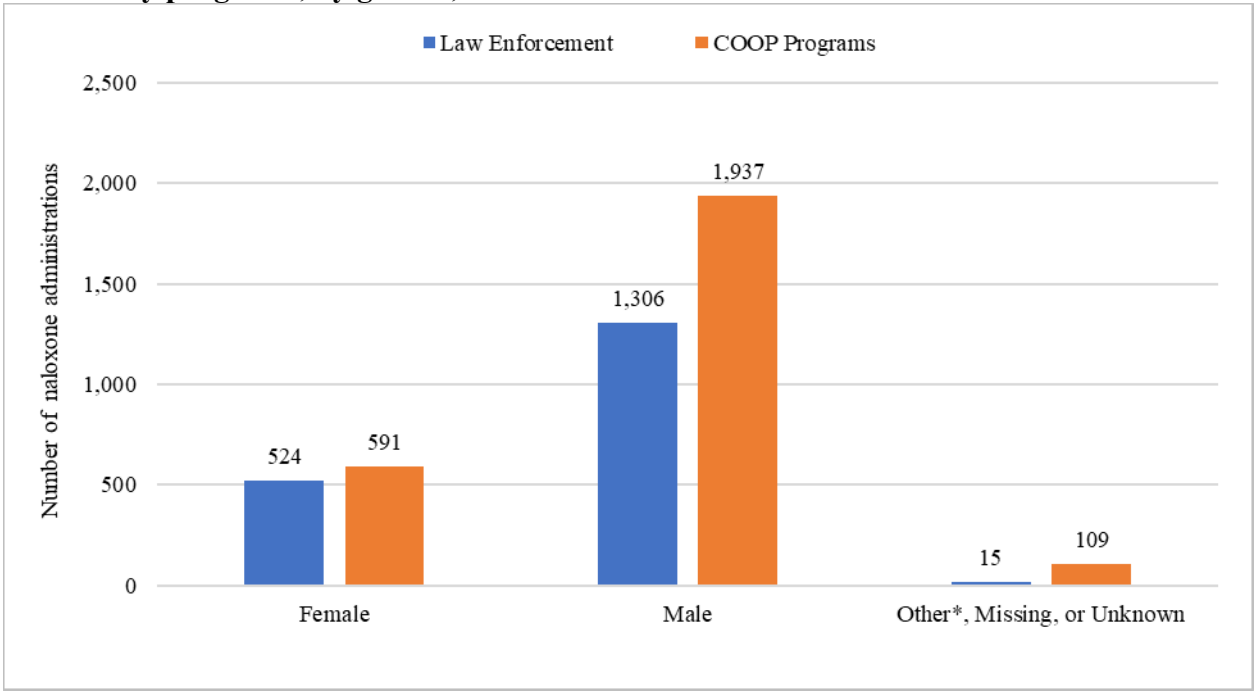
Figure 2.7 Number of naloxone administration reports by law enforcement* and community programs, by age group, New York State 2022



*The law enforcement category does not capture administrations reported in New York City and does not comprehensively capture administrations reported in Nassau County.
Data source: New York State Department of Health AIDS Institute; Data as of April 2023
For complete data, see Appendix: Data Table 2.7.

In NYS during 2022, most naloxone administrations were for males according to reports from both law enforcement agencies and community opioid overdose prevention programs (Figure 2.8). This was similar to the pattern among EMS administrations.

Figure 2.8 Number of naloxone administration reports by law enforcement^ and community programs, by gender, New York State 2022



*Other includes "Transgender", "Intersex", "Gender Non-conforming" and "Other, not specified"
^The law enforcement category does not capture administrations reported in New York City, and does not comprehensively capture administrations reported in Nassau County.
Data source: New York State Department of Health AIDS Institute; Data as of April 2023
For complete data, see Appendix: Data Table 2.8.

Suspected Opioid Overdose

An opioid overdose occurs when opioids negatively affect the part of the brain that regulates breathing, resulting in slowed or ineffective breathing, which can be life threatening. Naloxone (Narcan® and other brands) is an opioid antagonist used in the event of a suspected opioid overdose. Since administrations of naloxone are given to patients presenting with signs and symptoms of a potential opioid overdose, this is often used as a proxy indicator for opioid overdose. However, not all suspected opioid overdoses receive naloxone, and in some instances, naloxone may be administered in the prehospital setting in cases where opioid overdose is possible but not confirmed. Thus, naloxone administration alone may not represent the most accurate indicator of a suspected opioid overdose. To improve surveillance and monitoring, additional criteria for documented evidence of poisoning by opioids was used to develop an improved case definition for suspected opioid overdose based on patient clinical information captured by EMS data.

Starting in 2021, the quality of EMS data recorded on the electronic patient care reports (e-PCRs) significantly improved through the complete transition from National EMS Information Systems (NEMSIS) 2.2.1 standard platform to NEMSIS 3.4.0. As a result, more complete and better quality data allowed the development and standardization of this indicator.

Suspected Opioid Overdose Definition using EMS Data

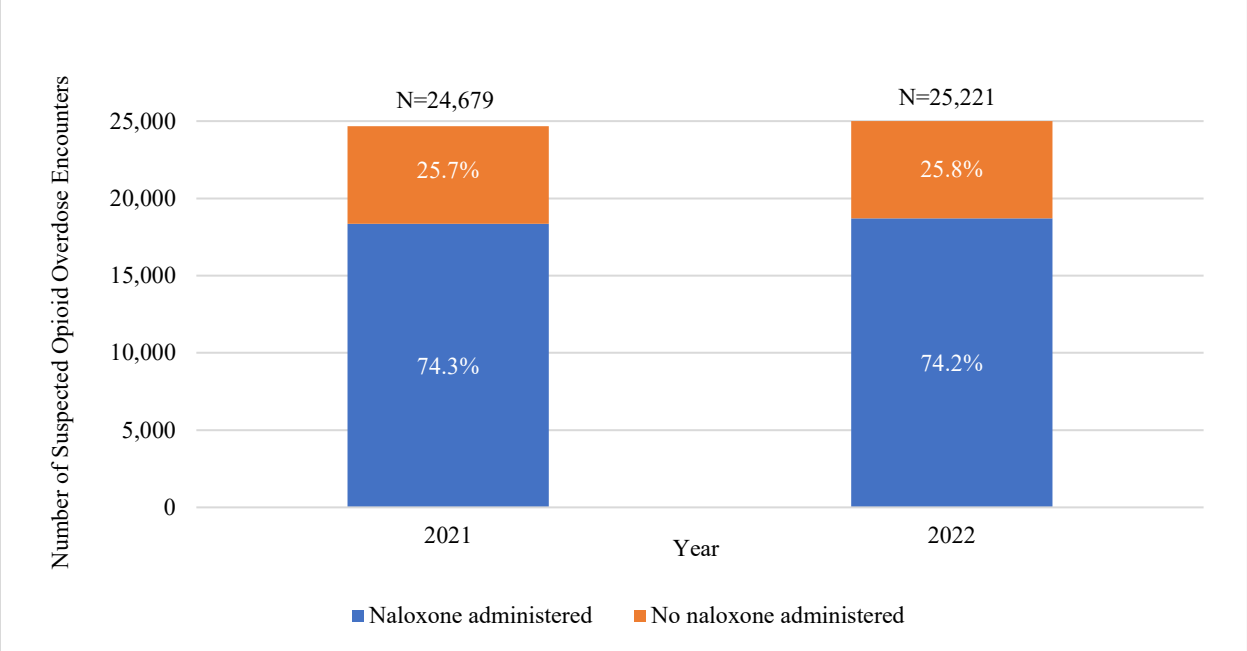
The NYS definition for suspected opioid overdose includes EMS responses for which *ANY* of the following criteria is true.

- Naloxone administered with positive response
- Provider impressions indicate poisoning by opioids
- Provider impressions indicate opioid related disorder *and* naloxone is administered
- Provider impressions indicate unspecified drug overdose *and* opioid term is mentioned in narrative *and* response to naloxone is not worse *and* no narcotics are administered by EMS
- Provider impressions indicate unspecified drug overdose, cardiac arrest, apnea, or respiratory failure *and* opioid term is mentioned in narrative *and* naloxone is administered *and* patient fatality is indicated
- Opioid term *and* overdose term mentioned in narrative (with no rule out term) *and* at least two additional terms indicating an opioid overdose mentioned in narrative *and* no narcotics are administered by EMS

For a more detailed methodology, see the Methods.

In 2022, there were 25,221 suspected opioid overdose encounters, representing a 2.2 percent increase from 24,679 suspected opioid overdose encounters in 2021. During 2021 and 2022, approximately 74 percent of suspected opioid overdose encounters received naloxone administration (Figure 2.9). Instances of suspected opioid overdose in which naloxone may not have been administered include patients who were dead at scene, or those who present mild symptoms and did not meet clinical requirements. As such, these encounters are not captured in the counts of naloxone administration.

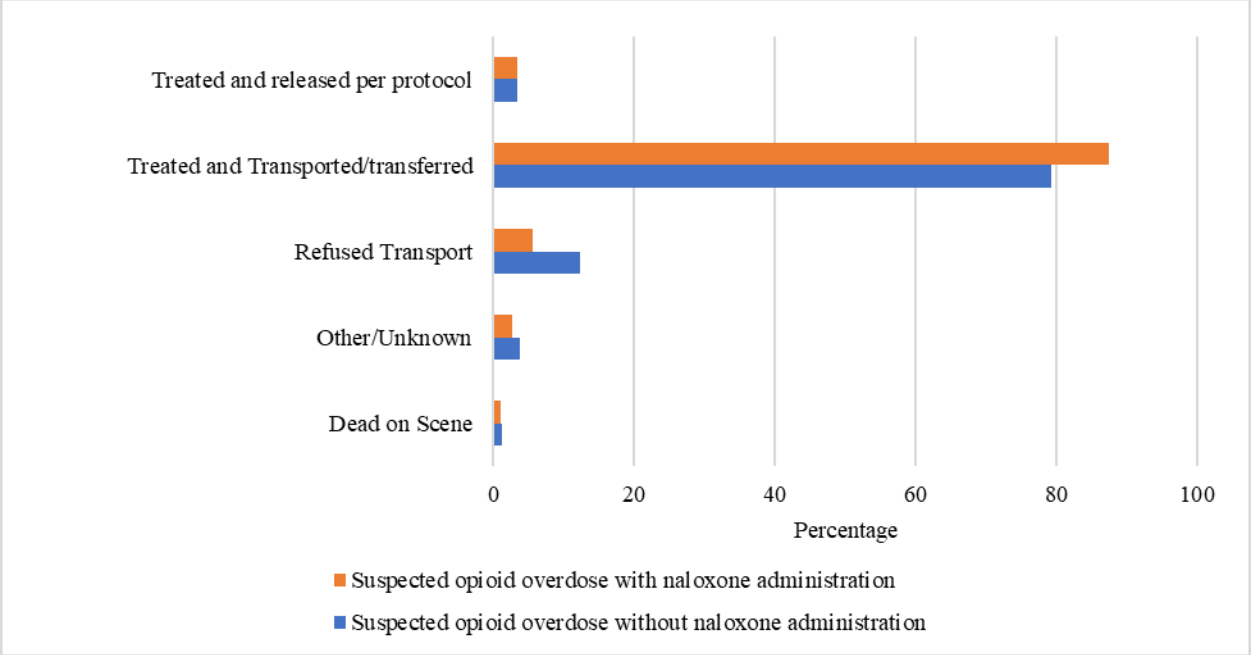
Figure 2.9 Suspected opioid overdose EMS encounters with and without* reported naloxone administration on scene, New York State, 2021 and 2022



*These include unique naloxone administrations reported in the medication administered structured field and may include bystander and administrations prior to EMS arrival.
Data source: NYSDOH, Bureau of Emergency Medical Services; Data as of March 2023
For complete data, see Appendix: Data Table 2.9.

In 2021 and 2022 combined, 87.4 percent of suspected opioid overdose encounters with reported naloxone administration were treated and transported/transferred, compared to 79.2 percent of suspected opioid overdose encounters without reported naloxone administration (Figure 2.10). The proportion of suspected opioid overdose patients who refused transport to a medical facility was more than two times higher among those without naloxone administration, compared to those reported to have received naloxone (12.4 percent vs. 5.6 percent). Patients who were not administered naloxone by EMS may have experienced an overdose of lower clinical severity, thus, more likely to refuse transport.

Figure 2.10 Percentage of suspected opioid overdose with and without* reported naloxone administration by patient disposition^, New York State, 2021 and 2022



*These include unique naloxone administrations reported in the medication administered structured field and may include bystander and administrations prior to EMS arrival.
^The patient disposition for an EMS event identifying whether a patient received care or services and transport.
Data source: NYSDOH, Bureau of Emergency Medical Services; Data as of March 2023
For complete data, see Appendix: Data Table 2.10.

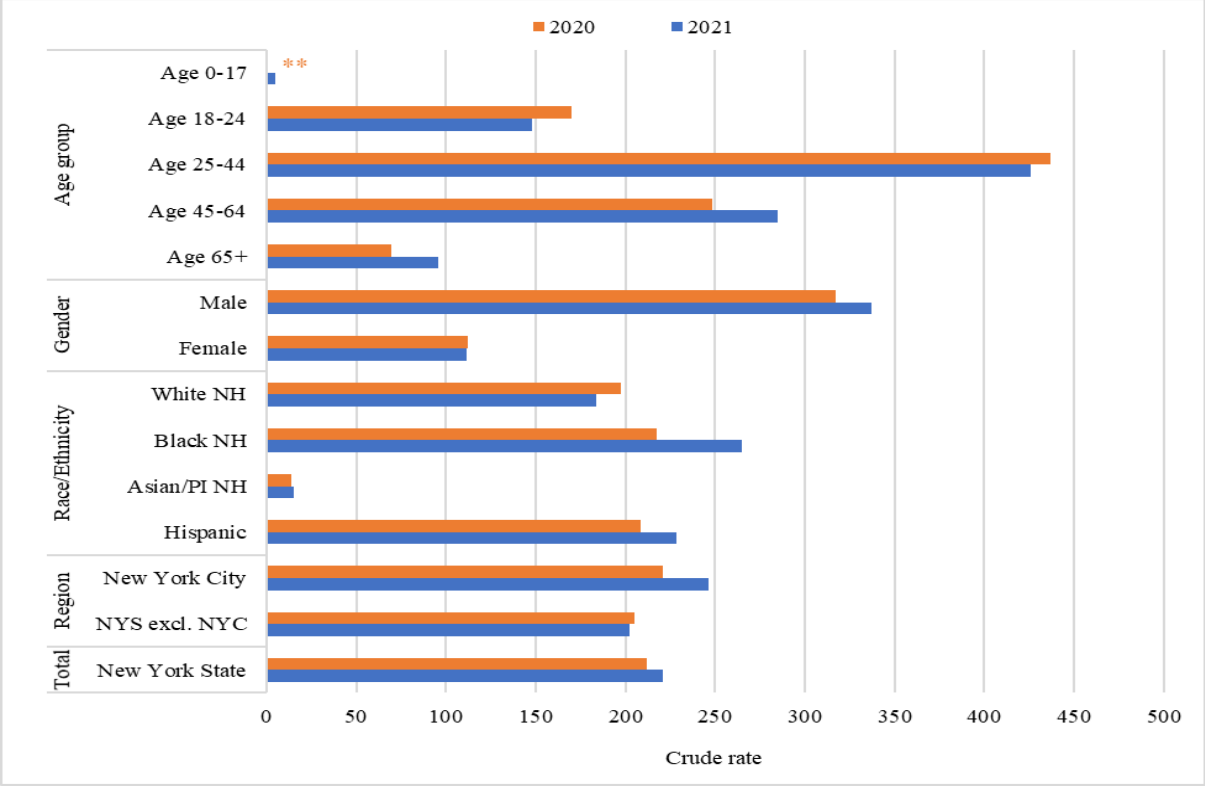
3 - Hospitalization and Emergency Visits Data

Hospitals, through both ED visits and inpatient admissions, play an important role in the treatment of drug poisoning, and they also engage many individuals who are at risk for opioid overdoses. Data for both ED visits and hospitalizations are obtained from the Statewide Planning and Research Cooperative System (SPARCS) database.

ED and hospitalization indicators are based on diagnosis codes (ICD-10-CM) reported in records by the EDs and hospital facilities and are limited by the quality of reporting and coding by the facilities. The indicators are defined based on the principal diagnosis code or first-listed, valid, external cause of injury code only.

The NYSDOH combines multiple data sources to measure opioid use related and overdose events, including opioid overdose deaths from mortality data sources, non-fatal outpatient ED visits and hospital discharges involving opioid overdose and disorders. Collectively, these are opioid events that represent the overall health impact of opioids within NYS. In 2021, among NYS residents, there were 43,199 opioid use related and overdose events, representing a crude rate of 221.0 per 100,000 population (Figure 3.1). While there was a slight decline from 2020 to 2021 among those aged 25-44 years, the rate was still highest for that age group (426.2 per 100,000) followed by the rate among those aged 45-64 years (285.0 per 100,000). The rate was over three times higher among males (337.2 per 100,000) than that among females (111.3 per 100,000). The 2021 rate was highest among Black non-Hispanic (NH) individuals (264.7 per 100,000), followed by the rates among Hispanic individuals (228.7 per 100,000), and White NH individuals (183.5 per 100,000). In 2021, NYC had a higher rate (246.0 per 100,000) than NYS excluding NYC (202.2 per 100,000).

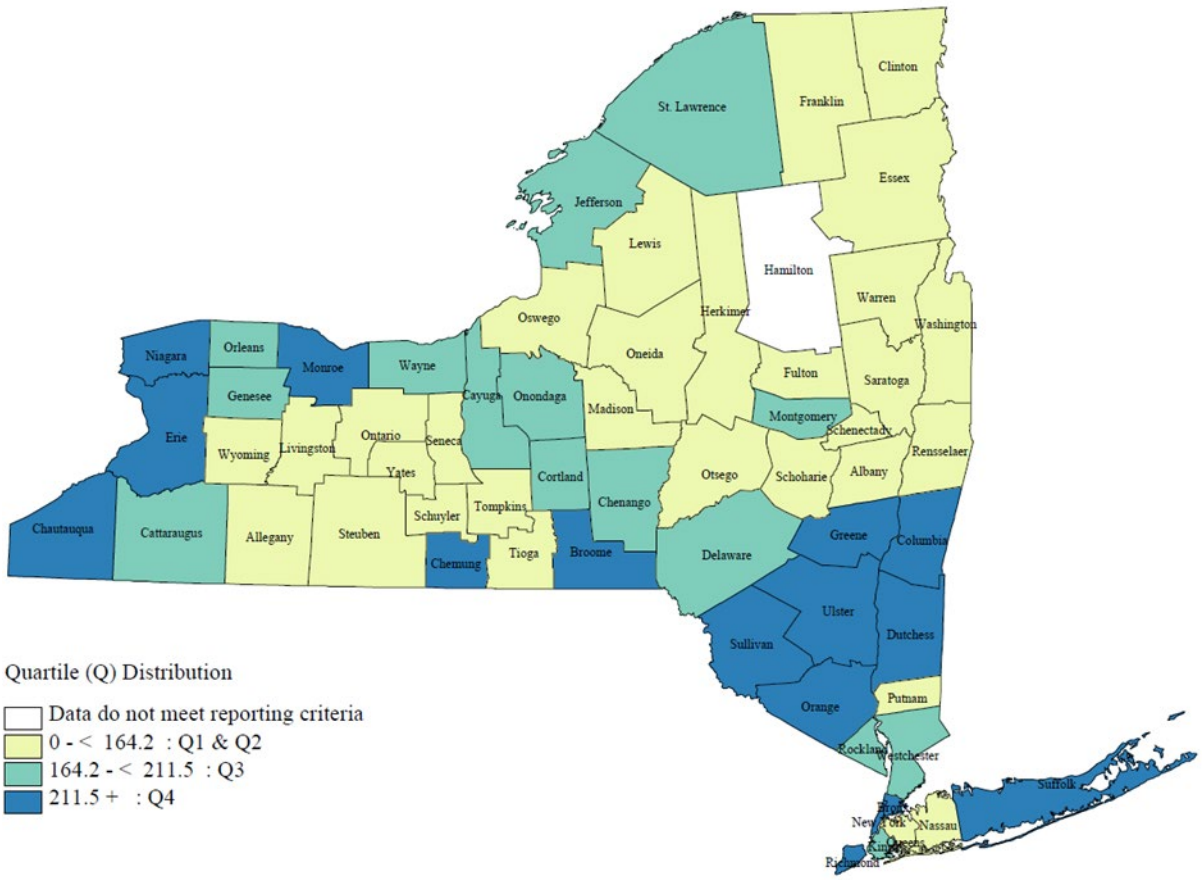
Figure 3.1 Overdose deaths involving opioids and nonfatal opioid related hospital events, crude rate per 100,000 population, by sub-population, New York State, 2020 and 2021



**: Data do not meet reporting criteria.
Data source: CDC WONDER, Data accessed May 2023; New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.
For complete data, see Appendix: Data Table 3.1.

In 2021, the 16 counties with overdose deaths involving opioids and nonfatal opioid related hospital events in the highest quartile (crude rates greater than or equal to 211.5 per 100,000 population) were: Bronx, Chautauqua, Ulster, Sullivan, Dutchess, New York, Niagara, Greene, Suffolk, Broome, Richmond, Orange, Chemung, Erie, Columbia, and Monroe (Figure 3.2).

Figure 3.2 Overdose deaths involving opioids and nonfatal opioid related hospital events, crude rate per 100,000 population, by county, New York State, 2021

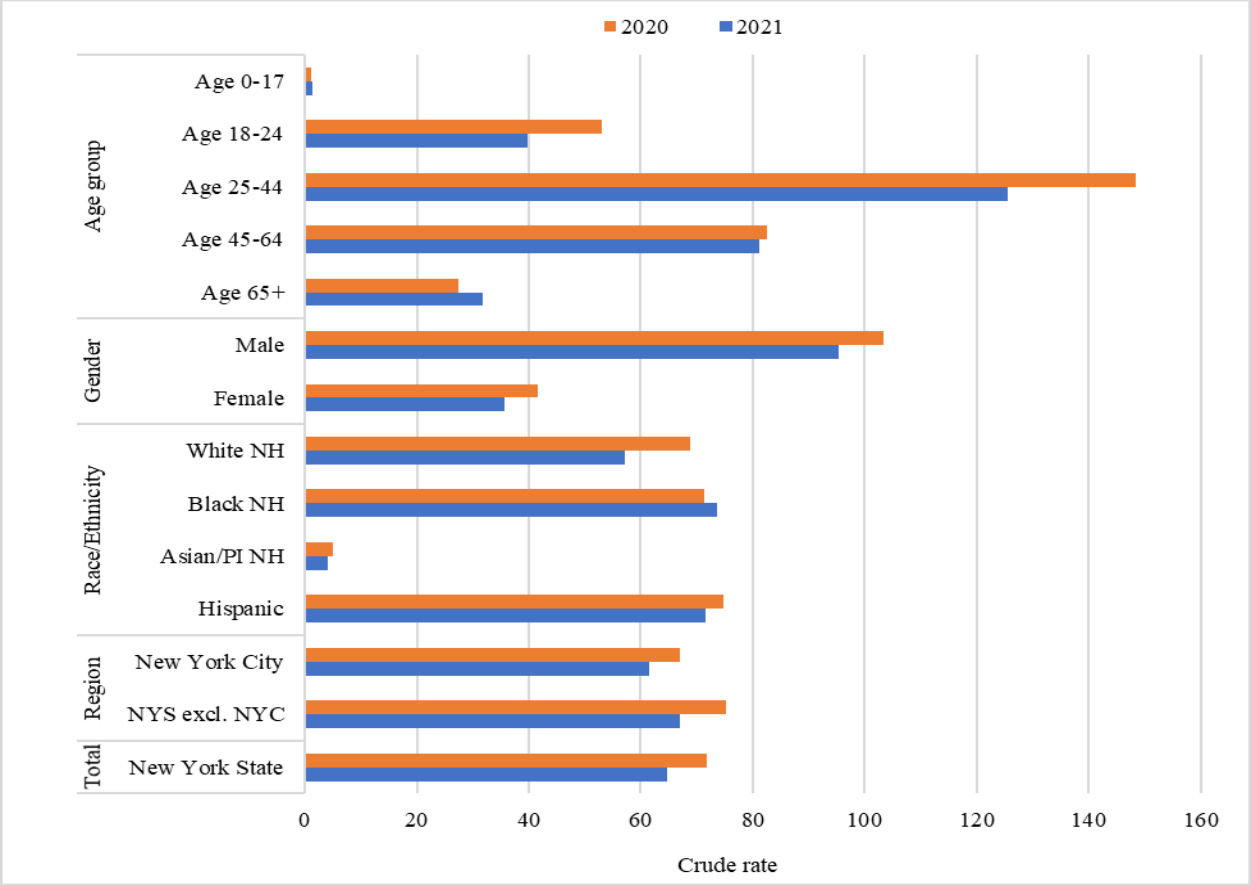


Data sources: NYS Excl NYC death data from New York State Department of Health, Bureau of Vital Statistics, as of April 2023; NYC death data from CDC WONDER, as of May 2023; ED Visits and Hospital Discharges from New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS), as of March 2023. For complete data, see Appendix: Data Table 3.2.

Hospital Discharges Involving Opioids

Among NYS residents in 2021, there were 12,635 hospital discharges for opioid use (including overdose and disorders), it represented a crude rate of 64.6 per 100,000 population. (Figure 3.3). In 2021, the rate was highest among those aged 25-44 years (125.6 per 100,000), followed by the rate among those aged 45-64 years (81.2 per 100,000). The rate among males (95.4 per 100,000) was two and a half times higher than that among females (35.6 per 100,000). The rate was highest among Black NH individuals (73.6 per 100,000), followed by the rates among Hispanic individuals (71.6 per 100,000) and White NH individuals (57.2 per 100,000). NYS excluding NYC (67.0 per 100,000) had a higher rate than NYC (61.5 per 100,000).

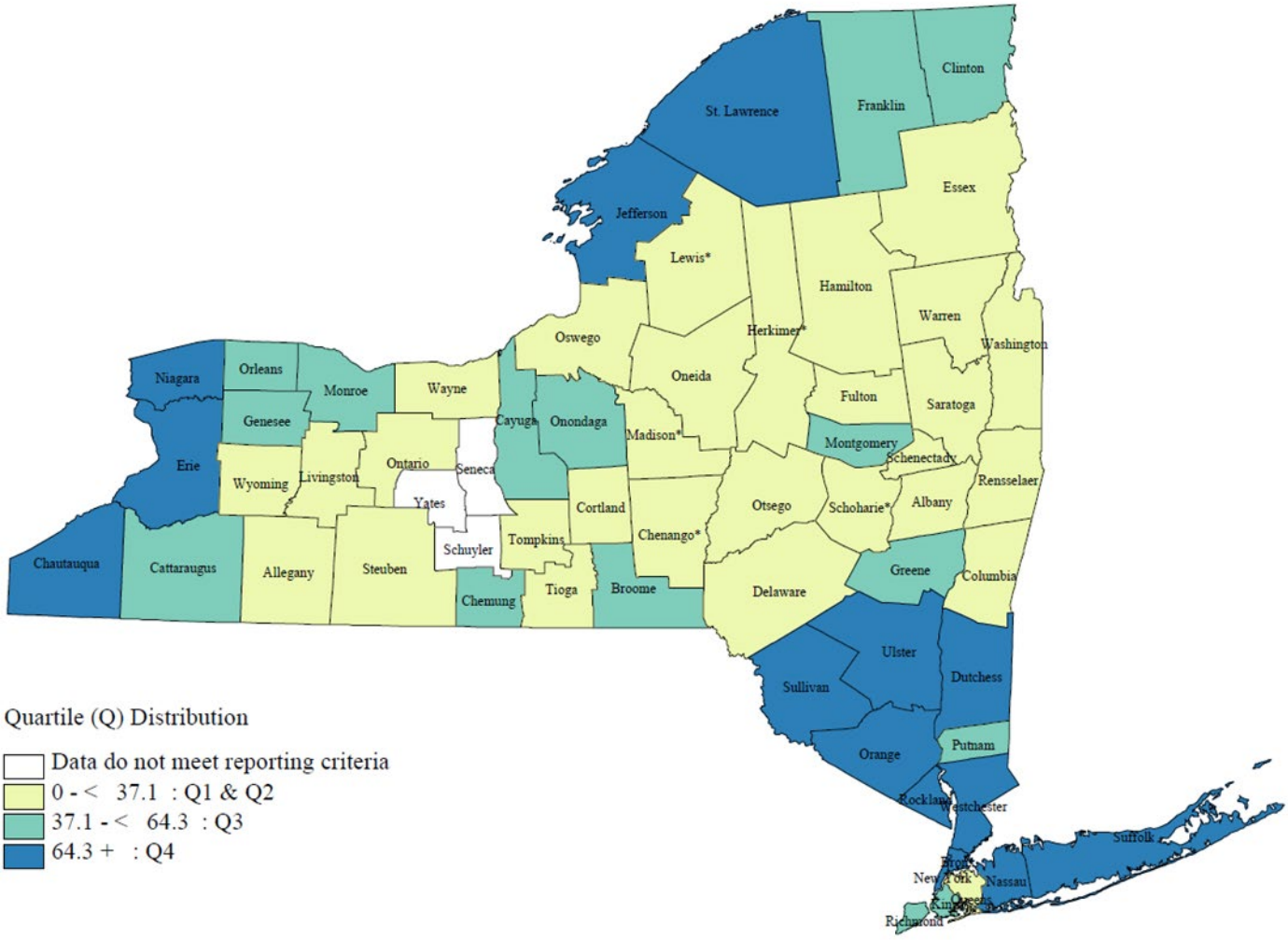
Figure 3.3 Hospital discharges involving opioid use (including overdose and disorders), crude rate per 100,000 population, by sub-population, New York State, 2020 and 2021



Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.
For complete data, see Appendix: Data Table 3.3.

The 15 counties in the highest quartile (crude rates greater than or equal to 64.3 per 100,000 population) for hospital discharges due to opioid use (including overdose and disorders) in 2021 were Bronx, Dutchess, Ulster, Rockland, Chautauqua, Niagara, Sullivan, St. Lawrence, Suffolk, Orange, Erie, Jefferson, Westchester, New York, and Nassau (Figure 3.4).

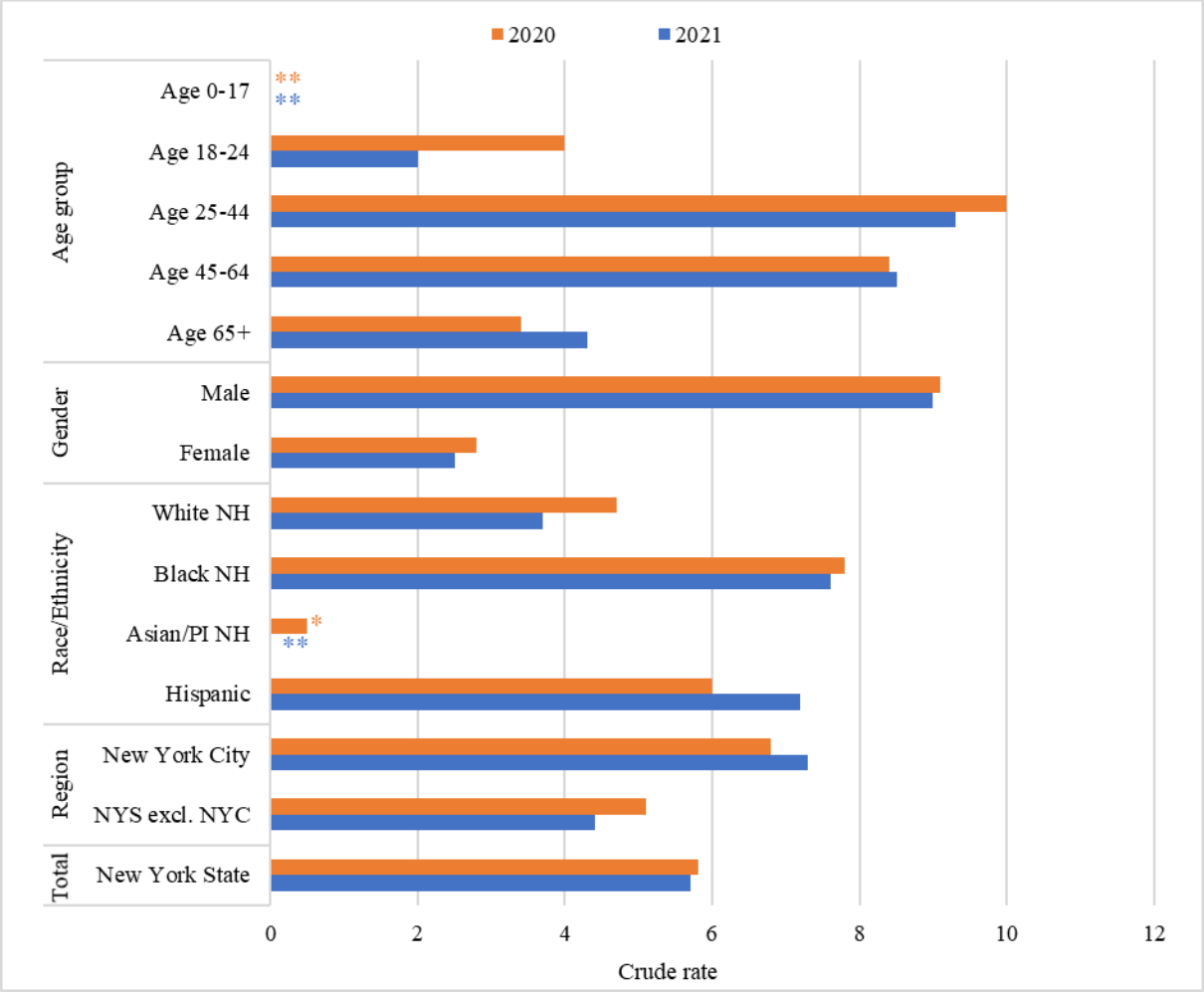
Figure 3.4 Hospital discharges involving opioid use (including overdose and disorders), crude rate per 100,000 population, by county, New York State, 2021



*: Fewer than 10 events in the numerator, therefore the rate is unstable.
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.
For complete data, see Appendix: Data Table 3.4.

Among NYS residents, the number of hospital discharges involving heroin overdose decreased from 1,143 in 2020 (5.8 per 100,000) to 1,111 in 2021 (5.7 per 100,000), but increases were noticed among individuals aged 65 years or older (26.5% increase from 3.4 per 100,000 to 4.3 per 100,000), Hispanic (20.0% increase from 6.0 per 100,000 to 7.2 per 100,000), and NYC (7.4% increase from 6.8 per 100,000 to 7.3 per 100,000) (Figure 3.5). In 2021, the rate was highest among those aged 25-44 years (9.3 per 100,000), followed by the rate among those aged 45-64 years (8.5 per 100,000). The 2021 rate was over three times higher among males (9.0 per 100,000) than that among females (2.5 per 100,000). The rate in 2021 was highest among Black NH individuals (7.6 per 100,000), followed by the rates among Hispanic individuals (7.2 per 100,000) and White NH individuals (3.7 per 100,000). In 2021, NYC had a higher rate (7.3 per 100,000) than NYS excluding NYC (4.4 per 100,000).

Figure 3.5 Hospital discharges involving heroin overdose, crude rate per 100,000 population, by sub-population, New York State, 2020 and 2021

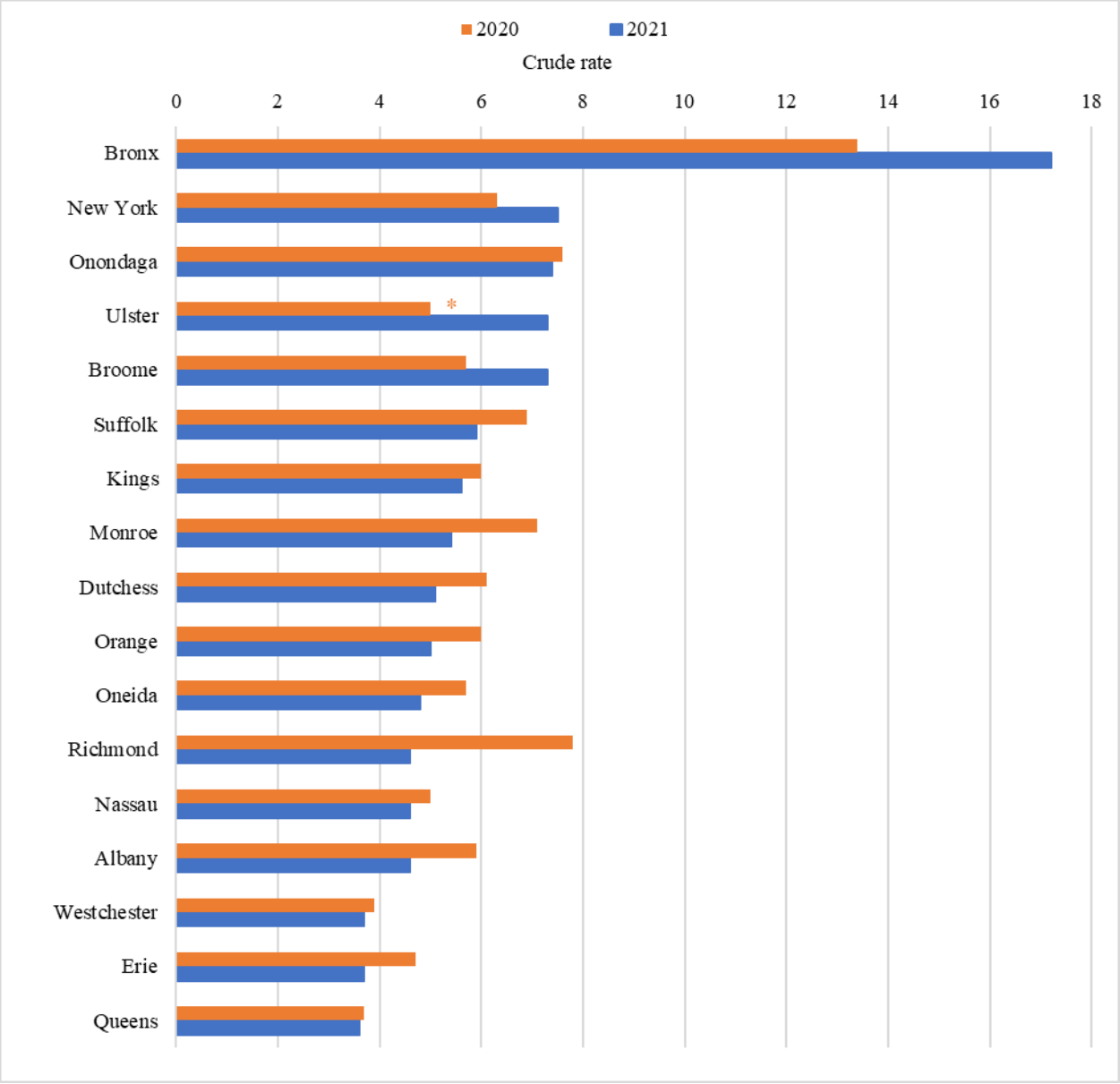


*: Fewer than 10 events in the numerator, therefore the rate is unstable.
**: Data do not meet reporting criteria.
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.
For complete data, see Appendix: Data Table 3.5.

Hospital discharges involving heroin overdose

In 2021, among counties with ten or more hospital discharges involving heroin overdose, the eleven counties with the highest crude rates were Bronx, New York, Onondaga, Ulster, Broome, Suffolk, Kings, Monroe, Dutchess, Orange, and Oneida (Figure 3.6). There were four counties that experienced large increases in the 2021 crude rates: Bronx, New York, Ulster, and Broome.

Figure 3.6 Hospital discharges involving heroin overdose, crude rate per 100,000 population, by county, New York State, 2020 and 2021

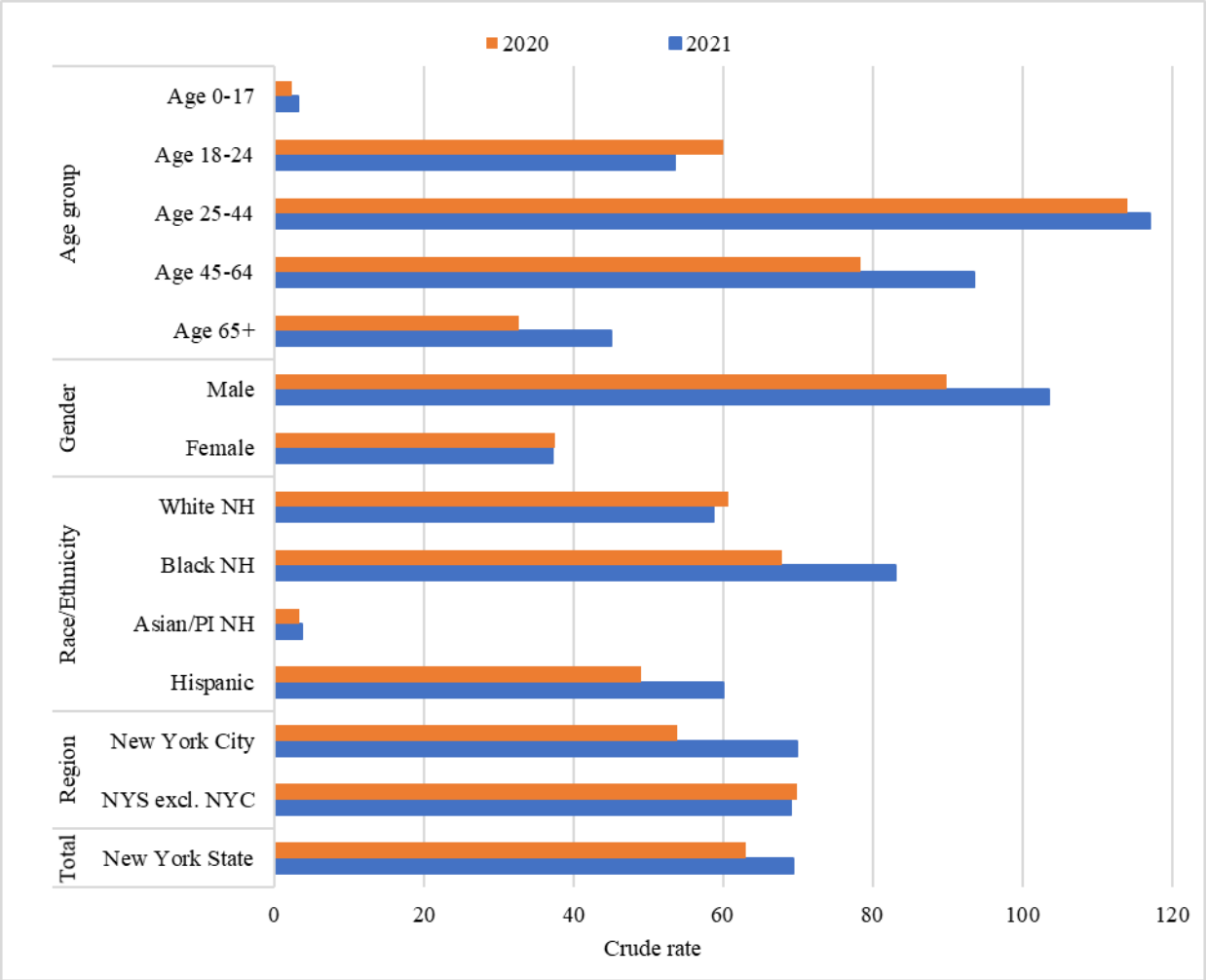


*: Fewer than 10 events in the numerator, therefore the rate is unstable.
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.
For complete data, see Appendix: Data Table 3.6.

Emergency Department Visits

Among NYS residents, the number of all ED visits (including outpatients and patients subsequently admitted) involving any opioid overdose increased from 12,306 in 2020 (63.0 per 100,000) to 13,560 in 2021 (69.4 per 100,000) (Figure 3.7). In 2021, the rate was highest among those aged 25-44 years (117.1 per 100,000), followed by the rate among those aged 45-64 years (93.5 per 100,000). The 2021 rate was more than two and a half times higher among males (103.5 per 100,000) than that among females (37.1 per 100,000). The rate was highest among Black NH individuals (83.1 per 100,000), followed by the rates among Hispanic individuals (60.0 per 100,000) and White NH individuals (58.7 per 100,000). In 2021, the rate for NYS excluding NYC (69.1 per 100,000) was similar to NYC (69.8 per 100,000).

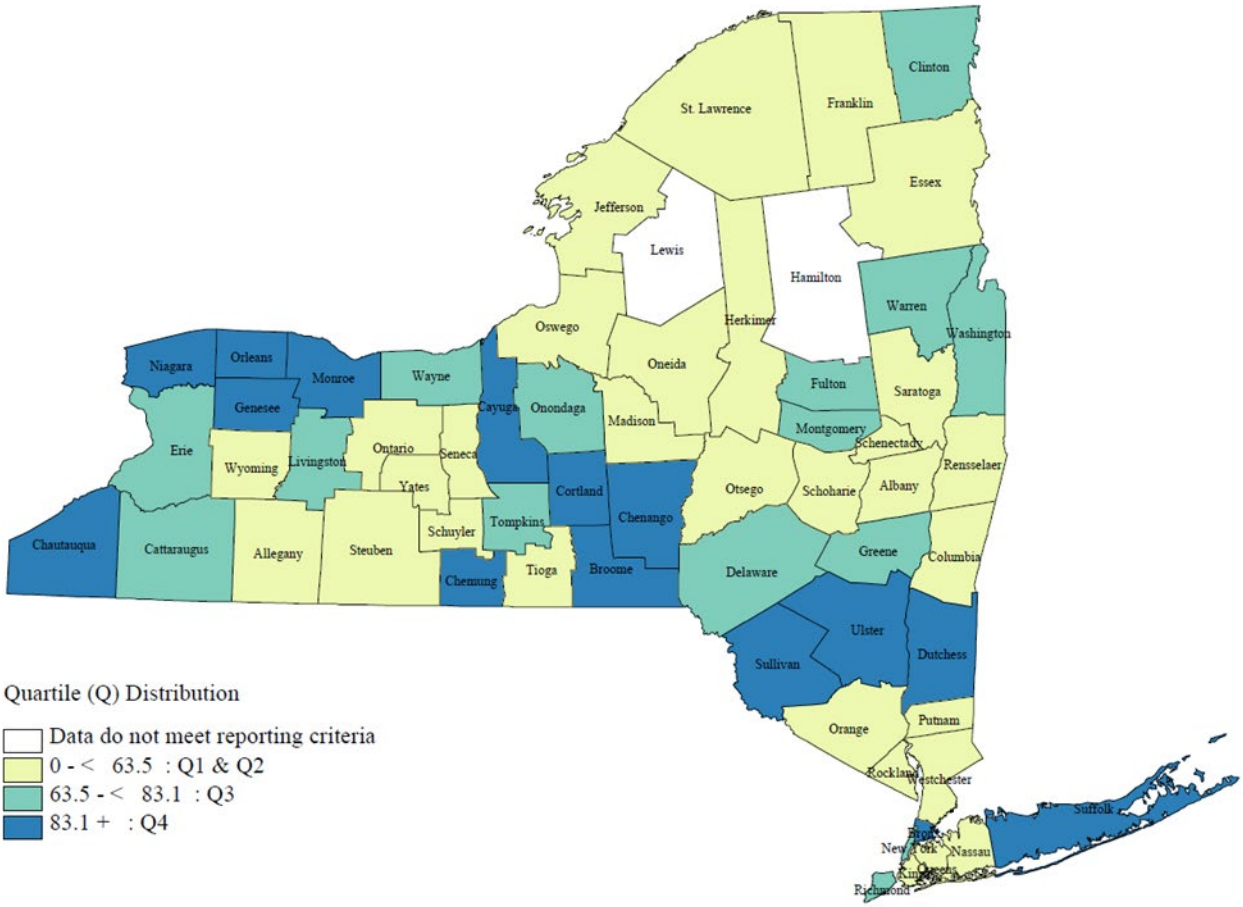
Figure 3.7 All emergency department visits (including outpatients and admitted patients) involving any opioid overdose, crude rate per 100,000 population, by sub-population, New York State, 2020 and 2021



Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.
For complete data, see Appendix: Data Table 3.7.

In 2021, the 15 counties in the highest quartile (crude rates greater than or equal to 83.1 per 100,000 population) for ED visits due to any opioid overdose were Chautauqua, Sullivan, Bronx, Chemung, Ulster, Broome, Monroe, Cortland, Orleans, Genesee, Niagara, Suffolk, Chenango, Cayuga, and Dutchess (Figure 3.8).

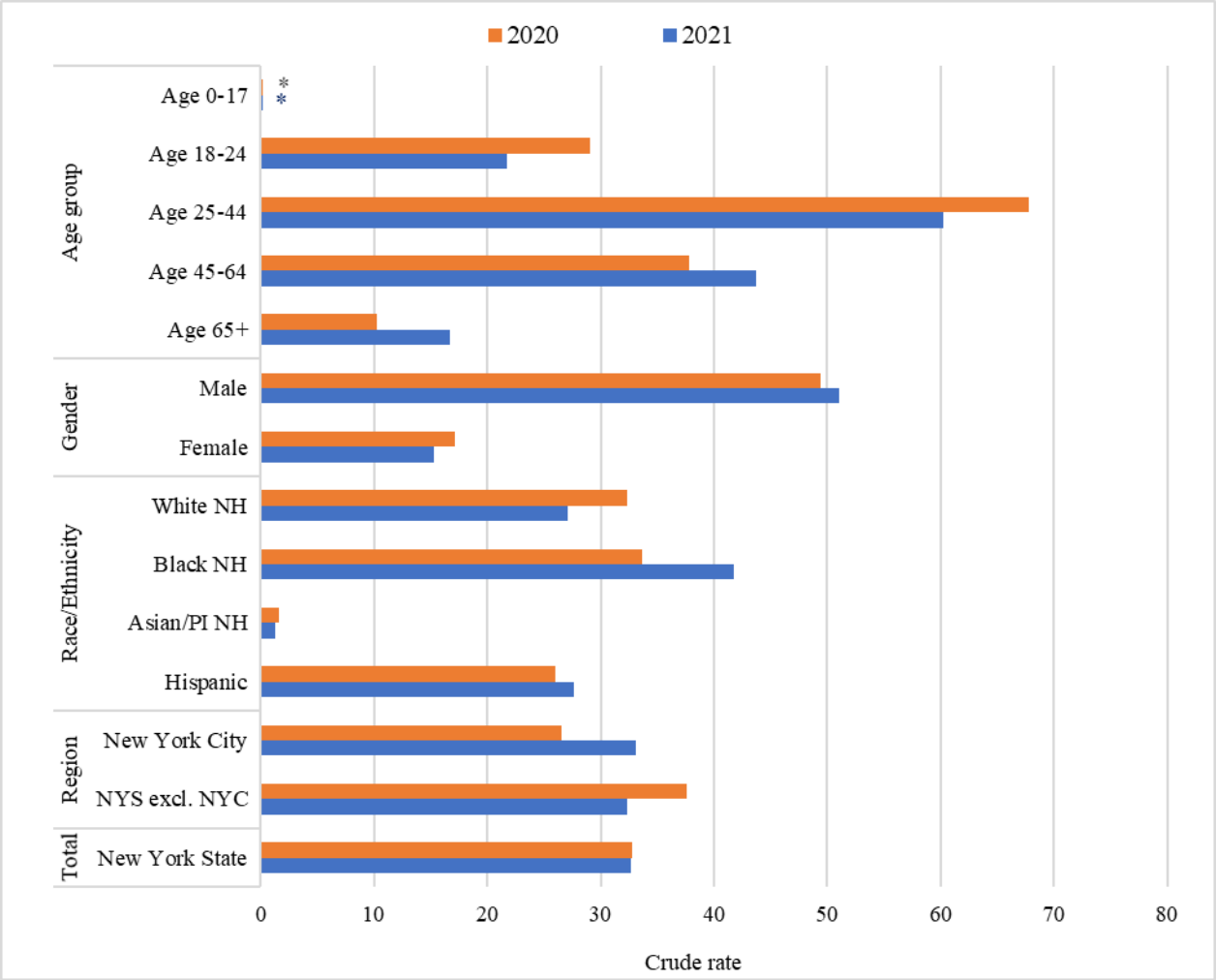
Figure 3.8 All emergency department visits (including outpatients and admitted patients) involving any opioid overdose, crude rate per 100,000 population, by county, New York State, 2021



*: Fewer than 10 events in the numerator, therefore the rate is unstable.
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.
For complete data, see Appendix: Data Table 3.8.

Among NYS residents, the number of ED visits (including outpatients and subsequently admitted patients) involving any heroin overdose slightly decreased from 6,410 in 2020 (32.8 per 100,000) to 6,382 in 2021 (32.7 per 100,000) (Figure 3.9). In 2021, the rate was highest among those aged 25-44 years (60.2 per 100,000), followed by the rate among those aged 45-64 years (43.7 per 100,000). The rate was more than three times higher for males (51.0 per 100,000) than that for females (15.3 per 100,000). The rate was highest among Black NH individuals (41.8 per 100,000), followed by the rates for Hispanic individuals (27.6 per 100,000) and White NH individuals (27.1 per 100,000). In 2021, NYC (33.1 per 100,000) had a rate slightly higher than that of NYS excluding NYC (32.3 per 100,000).

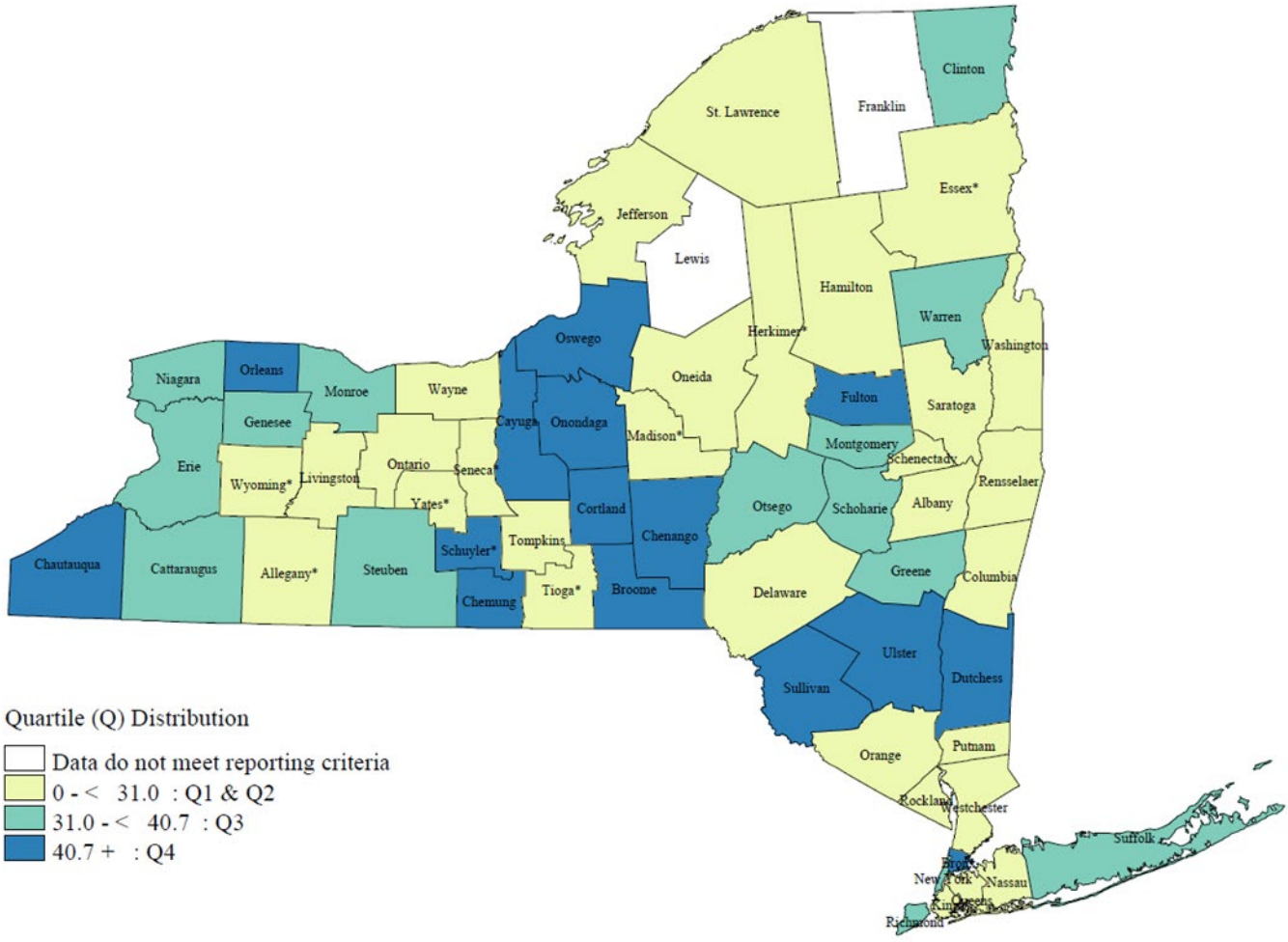
Figure 3.9 All emergency department visits (including outpatients and admitted patients) involving heroin overdose, crude rate per 100,000 population, by sub-population, New York State, 2020 and 2021



*: Fewer than 10 events in the numerator, therefore the rate is unstable.
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.
For complete data, see Appendix: Data Table 3.9.

In 2021, the 15 counties in the highest quartile (crude rates greater than or equal to 40.7 per 100,000 population) for ED visits due to heroin overdose were Sullivan, Broome, Chautauqua, Chemung, Bronx, Ulster, Cayuga, Chenango, Fulton, Onondaga, Cortland, Schuyler, Orleans, Dutchess, and Oswego (Figure 3.10).

Figure 3.10 All emergency department visits (including outpatients and admitted patients) involving heroin overdose, crude rate per 100,000 population, by county, New York State, 2021

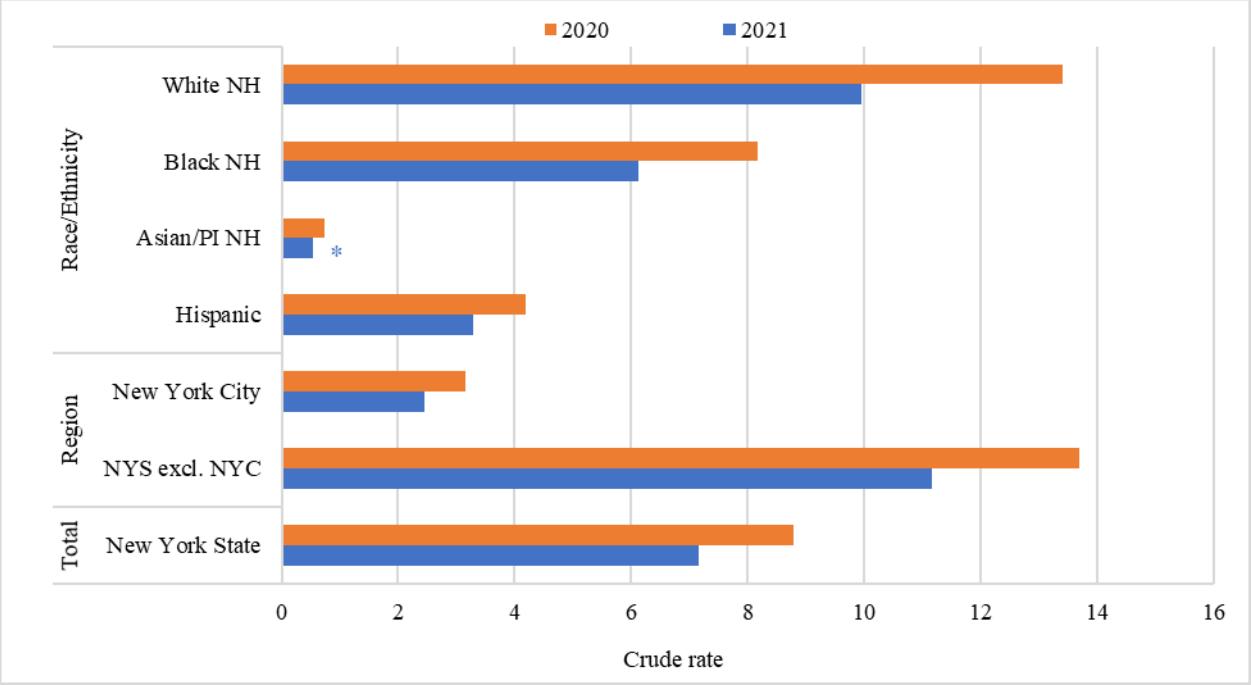


*: Fewer than 10 events in the numerator, therefore the rate is unstable.
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.
For complete data, see Appendix: Data Table 3.10.

Neonatal Abstinence Syndrome

Among NYS residents, the number of newborns with Neonatal Abstinence Syndrome (NAS) and/or affected by maternal use of opioid or other substance decreased 19.5 percent from 1,726 in 2020 to 1,390 in 2021, and the rate per 1,000 newborn discharges decreased from 8.8 to 7.2 (Figure 3.11). In 2021, the rate was highest among White NH newborns (10.0 per 1,000), followed by the rates among Black NH (6.1 per 1,000) and Hispanic newborns (3.3 per 1,000). In 2021, the rate for NYS excluding NYC (11.2 per 1,000) was over four times higher than that of NYC (2.4 per 1,000).

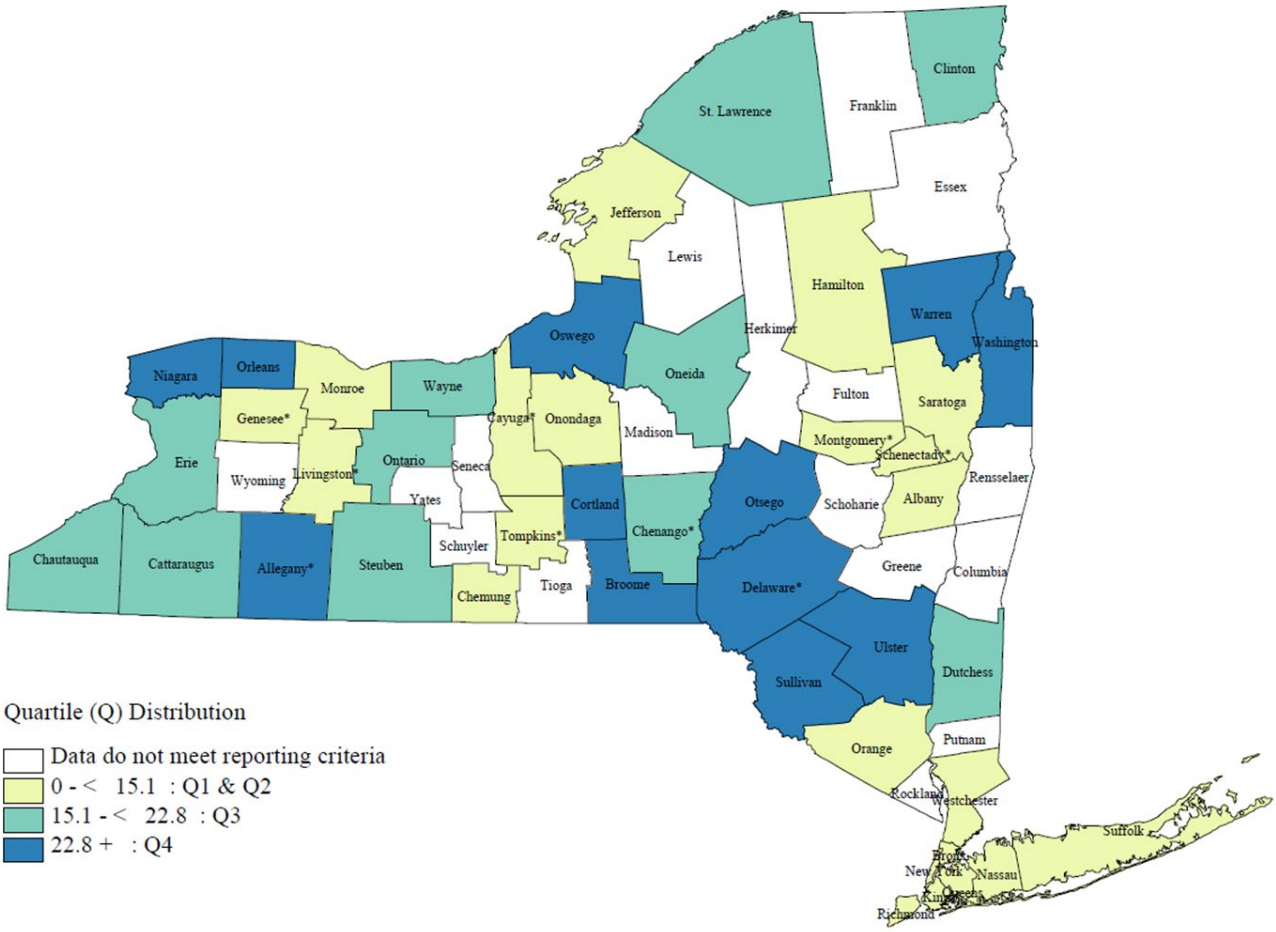
Figure 3.11 Newborns with neonatal abstinence syndrome and/or affected by maternal use of opioid or other substance (any diagnosis), rate per 1,000 newborn discharges, by sub-population, New York State, 2020 and 2021



*: Fewer than 10 events in the numerator, therefore the rate is unstable.Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.
For complete data, see Appendix: Data Table 3.11.

In 2021, the 12 counties in the highest quartile (crude rates greater than or equal to 22.8 per 1,000 newborn discharges) for newborns with NAS and/or affected by maternal use of opioid or other substance were Allegany, Cortland, Niagara, Otsego, Sullivan, Orleans, Delaware, Oswego, Broome, Washington, Ulster, and Warren (Figure 3.12).

Figure 3.12 Newborns with neonatal abstinence syndrome and/or affected by maternal use of opioid or other substance (any diagnosis), rate per 1,000 newborn discharges, by county, New York State, 2021



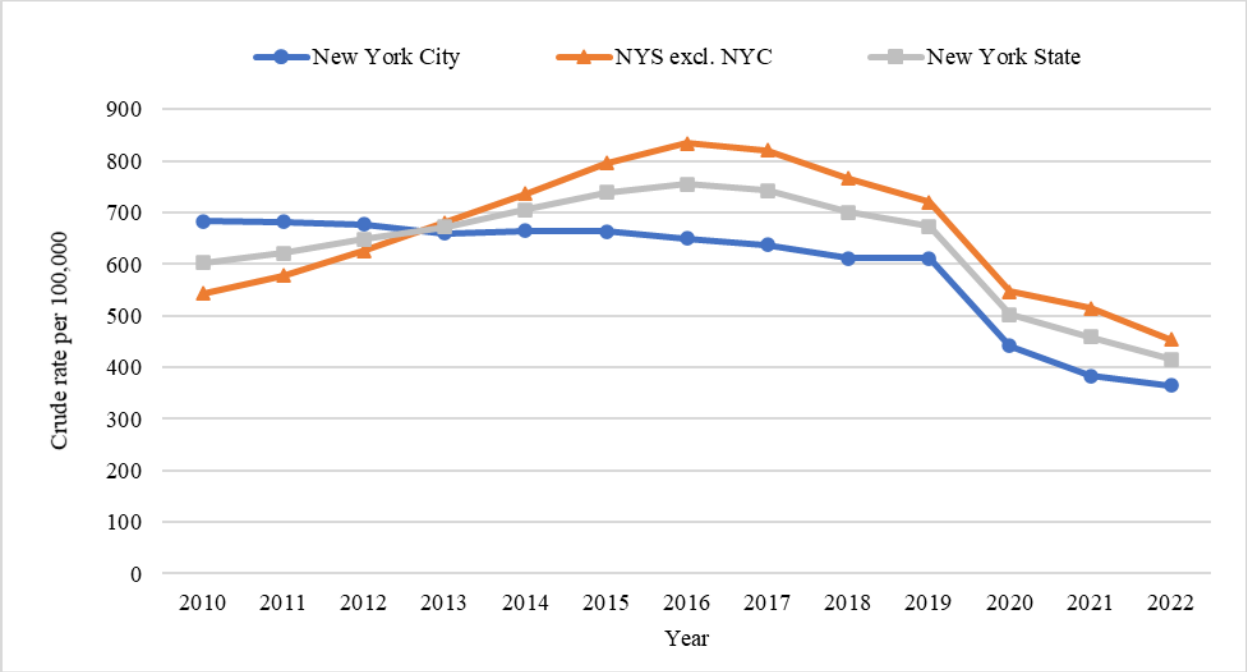
*: Fewer than 10 events in the numerator, therefore the rate is unstable.
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.
For complete data, see Appendix: Data Table 3.12.

4 - New York State Office of Addiction Services and Supports (OASAS) Client Data

NYS's treatment system for OUD through OASAS consists of crisis services and non-crisis treatment services. Crisis services include hospital-based detoxification and medically monitored or supervised services in free-standing or hospital settings. Non-crisis treatment services include opioid (methadone, long-acting injectable naltrexone, and buprenorphine) treatment programs, other outpatient treatment, inpatient rehabilitation, and residential programs. Lengths of stay in these settings vary.

Among NYS residents in 2022, there were 69,943 admissions to OASAS-certified substance use disorder treatment programs for any opioid, including heroin (Figure 4.1). This represented a crude rate of 415.5 per 100,000 population. Compared to 2021, the 2022 rate for NYS decreased 9.4 percent from 458.7 to 415.5 per 100,000 population. Rates across all regions have generally been decreasing since 2016.

Figure 4.1 Admissions* to OASAS-certified substance use disorder treatment programs for any opioid (including heroin), crude rate per 100,000 population, by region, New York State, 2010-2022**



*An individual admitted to more than one level of care or admitted multiple times would count as multiple admissions.

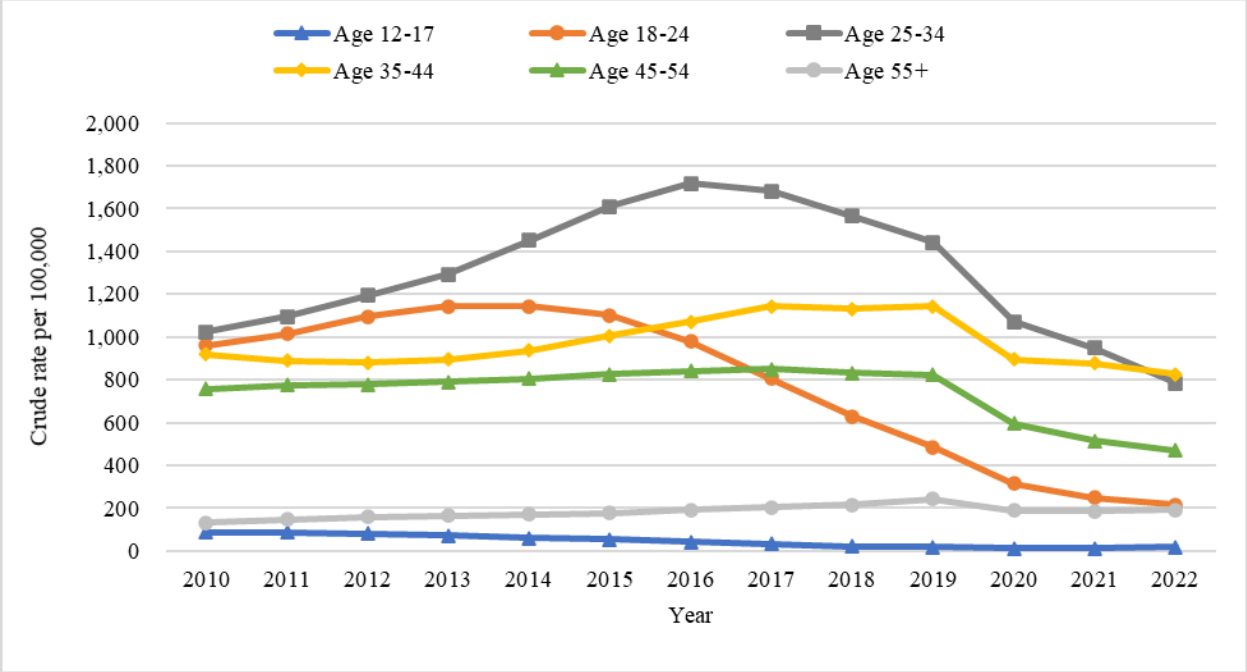
** Admissions data may be impacted by multiple factors like COVID-19.

Data source: New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS); Data as of April 2023

For complete data on OASAS client admissions, see Appendix: Data Table 4.1.

In 2022, New Yorkers aged 35-44 years had the highest rate (826.8 per 100,000) population for admissions to OASAS-certified substance use disorder treatment programs for any opioid (including heroin), followed by those aged 25-34 years (784.7 per 100,000) and 45-54 years (469.5 per 100,000). Those aged 12-17 years had the lowest rate per 100,000 among all age groups (Figure 4.2). While rates increased from 2013 to 2019 for those aged 35-44 years and 55+ years, they have since declined for both groups. The rates declined for those aged 18-24 years since 2013, and since 2016 for those aged 25-34.

Figure 4.2 Admissions* to OASAS-certified substance use disorder treatment programs for any opioid (including heroin), crude rate per 100,000 population, by age group, New York State, 2010-2022**



*An individual admitted to more than one level of care or admitted multiple times would count as multiple admissions.

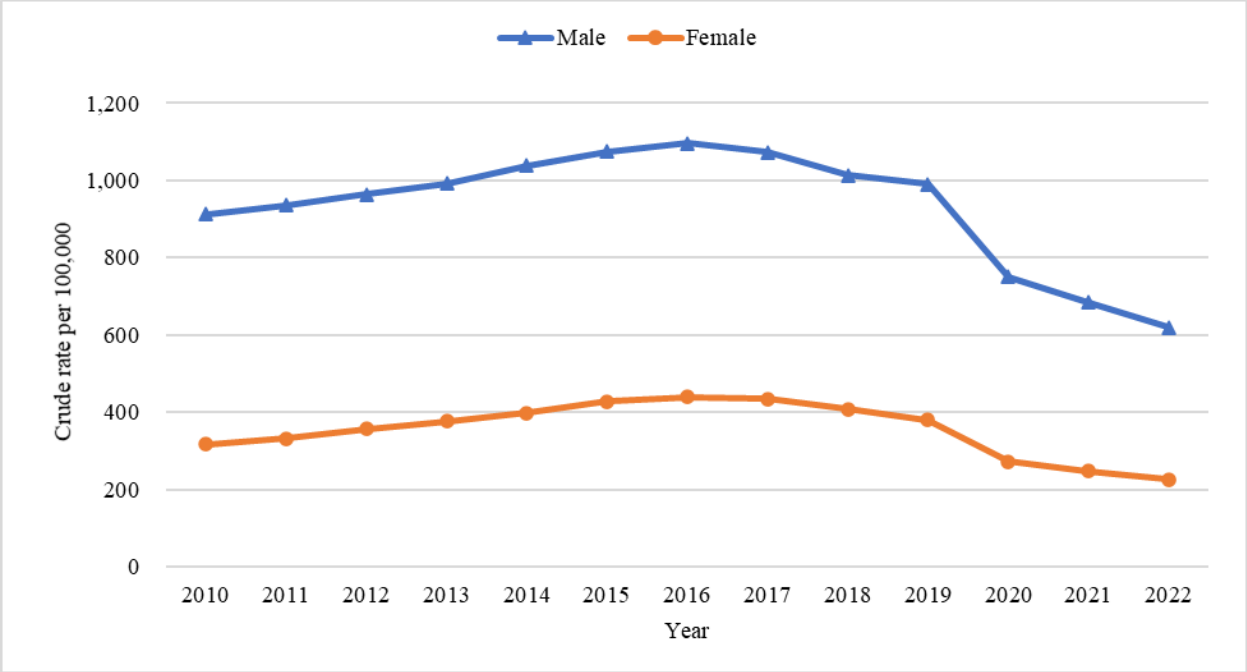
** Admissions data may be impacted by multiple factors like COVID-19.

Data source: New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS); Data as of April 2023

For complete data on OASAS client admissions by age group, see Appendix: Data Table 4.2.

From 2010 to 2022, the crude rates per 100,000 population for admissions to OASAS-certified substance use disorder treatment programs for any opioid (including heroin) were over two times higher for males than they were for females in NYS (Figure 4.3). Between 2010 and 2016, the rates in both sexes increased steadily before starting to decline in 2017. In 2022, the crude rate per 100,000 population was 619.5 for males and 226.1 for females.

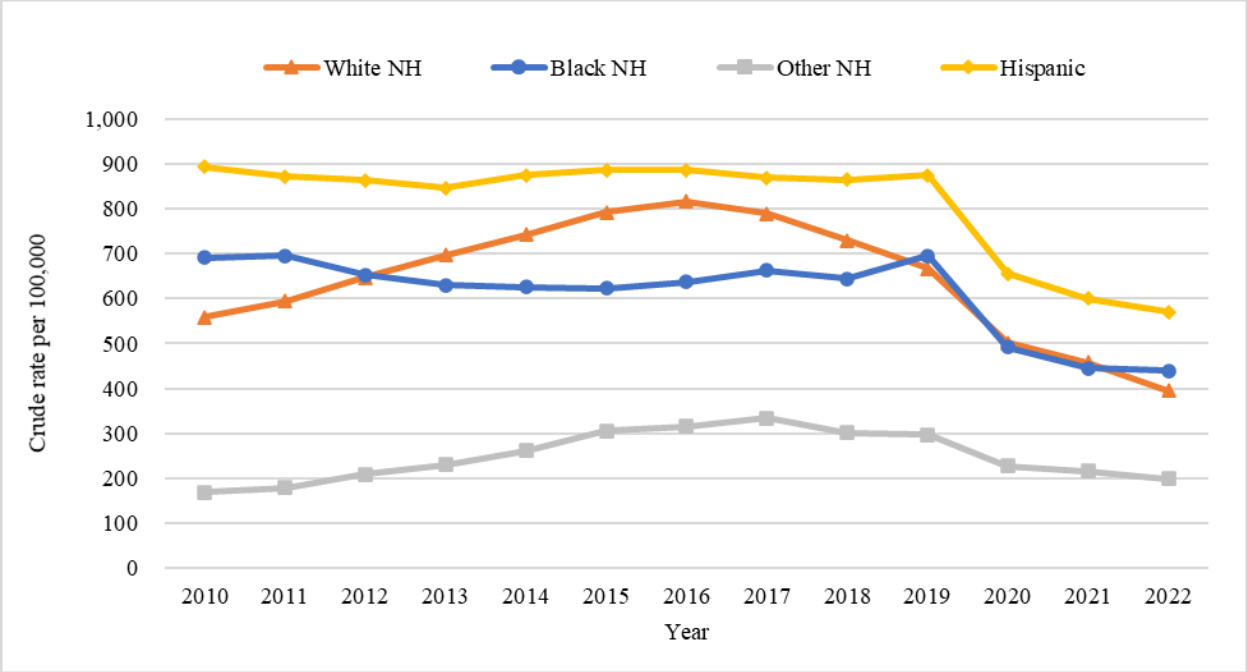
Figure 4.3 Admissions* to OASAS-certified substance use disorder treatment programs for any opioid (including heroin), crude rate per 100,000 population, by sex at birth, New York State, 2010-2022**



* An individual admitted to more than one level of care or admitted multiple times would count as multiple admissions.
** Admissions data may be impacted by multiple factors like COVID-19.
Data source: New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS); Data as of April 2023
For complete data on OASAS client admissions by age group, see Appendix: Data Table 4.3.

Hispanics consistently had the highest crude rates for admissions to OASAS-certified substance use disorder treatment programs for any opioid (including heroin), than any other racial/ethnic groups during 2010 to 2022 (Figure 4.4). In 2022, Hispanics had the highest rate (570.3 per 100,000), as compared to Blacks non-Hispanic (439.7 per 100,000) and Whites non-Hispanic (395.9 per 100,000).

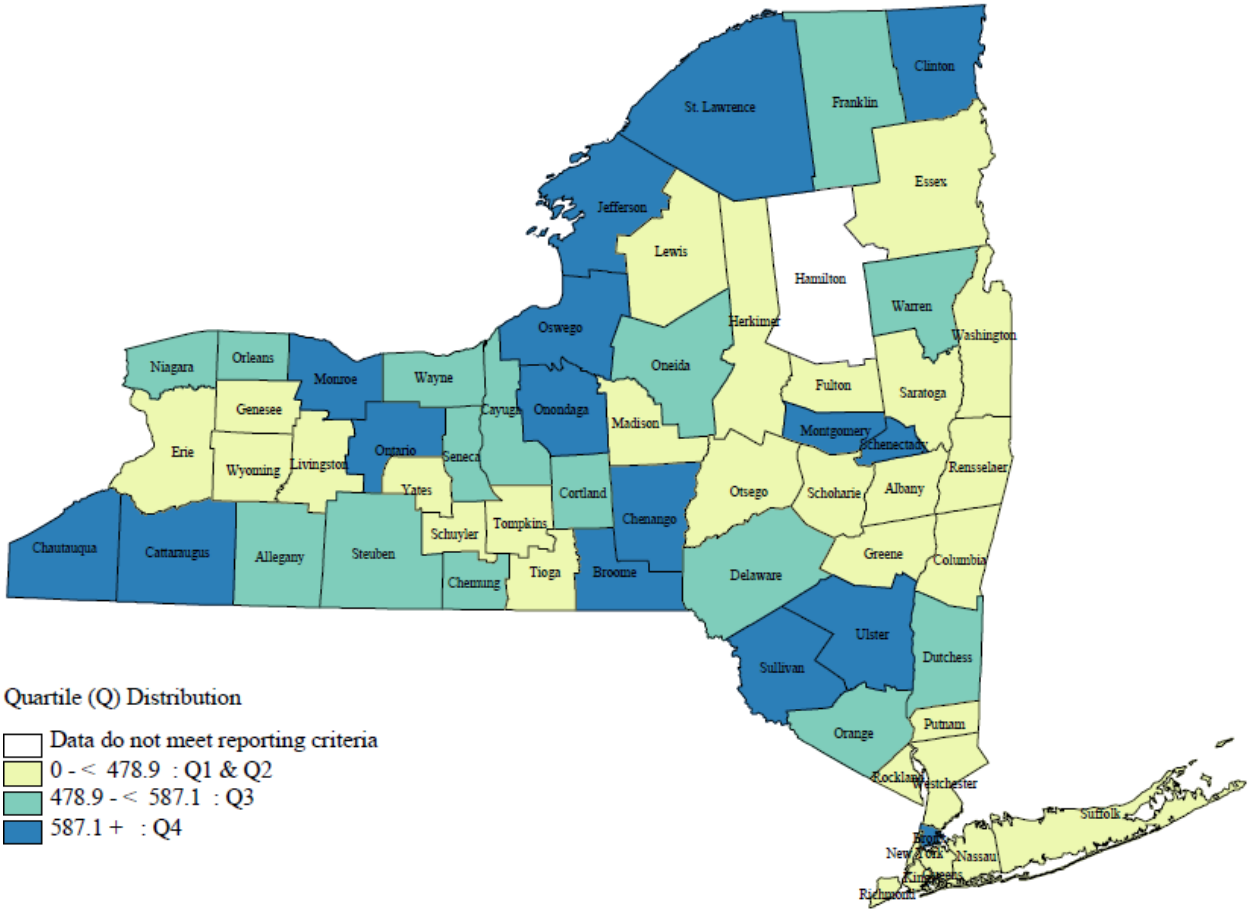
Figure 4.4 Admissions* to OASAS-certified substance use disorder treatment programs for any opioid (including heroin), crude rate per 100,000 population, by race/ethnicity, New York State, 2010-2022**



* An individual admitted to more than one level of care or admitted multiple times would count as multiple admissions.
** Admissions data may be impacted by multiple factors like COVID-19.
Data source: New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS); Data as of April 2023
For complete data on OASAS client admissions by age group, see Appendix: Data Table 4.4.

In 2022, the 16 counties in the highest quartile (crude rates greater than or equal to 587.1 per 100,000 population) were Sullivan, Broome, Onondaga, Bronx, St. Lawrence, Clinton, Cattaraugus, Chautauqua, Oswego, Ulster, Schenectady, Monroe, Montgomery, Chenango, Jefferson, and Ontario (Figure 4.5).

Figure 4.5 Admissions* to OASAS-certified substance use disorder treatment programs for any opioid (including heroin), crude rate per 100,000 population, by county, New York State, 2022**



* An individual admitted to more than one level of care or admitted multiple times would count as multiple admissions. In addition, there is a variation in the levels of care (inpatient, outpatient, or both) provided by local facilities. County rates could be impacted, in part, by the levels of care available.
** Admissions data may be impacted by multiple factors like COVID-19.
Data source: New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS); Data as of April 2023
For complete data on OASAS client admissions by age group, see Appendix: Data Table 4.5.

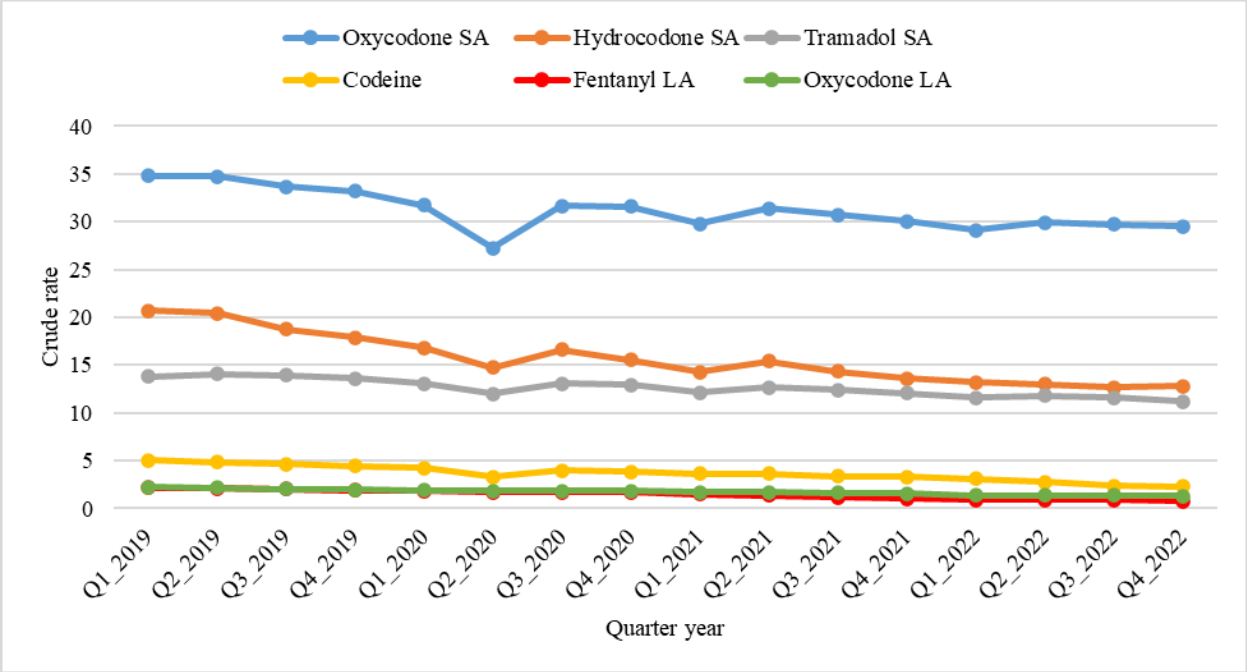
5 - Prescription Monitoring Program Data

The Bureau of Narcotic Enforcement's (BNE) PMP Registry collects and analyzes dispensed controlled substance prescription data from pharmacies and dispensers. In February 2010, BNE implemented a prescription monitoring program that provided secure online access for practitioners to their patients' recent controlled substance prescription histories. The data, consisting of patient, prescriber, pharmacy, and controlled substance prescription information, are the basis for the information available to practitioners and pharmacists through the online PMP. It provides a patient's current controlled substance prescription information and up to a one-year history to practitioners and pharmacists to better evaluate drug therapy and to inform a practitioner of other controlled substance use. These data also identify potential sources of prescription drug diversion or abuse, including prescription fraud, multiple-provider episodes, and improper prescribing and dispensing.

Commonly prescribed opioid analgesics

Overall, short acting (SA) oxycodone is the most often prescribed opioid analgesic, followed by hydrocodone and tramadol (Figure 5.1). A quarterly average crude prescription rate for each year was calculated based on the crude rate for each quarter of that year. Between 2019 and 2022, there was a 13.3 percent decline in the quarterly average crude prescription rate for SA oxycodone and a 33.5 percent decline in the quarterly average crude prescription rate for SA hydrocodone. The rate of prescribing long-acting (LA) oxycodone, codeine, and LA fentanyl has remained lower due to differences in therapeutic indications. Note, the trend in LA fentanyl is obscured by the similar trend in LA oxycodone. The temporary drop in crude rates in opioid prescriptions during the second quarter of 2020 can be attributable to the COVID-19 pandemic. A decrease in prescribing corresponds with decreases in ED visits and a moratorium in elective surgeries during this time period.

Figure 5.1 Commonly prescribed opioid analgesics, crude rate per 1,000 population, by quarter, New York State, 2019-2022



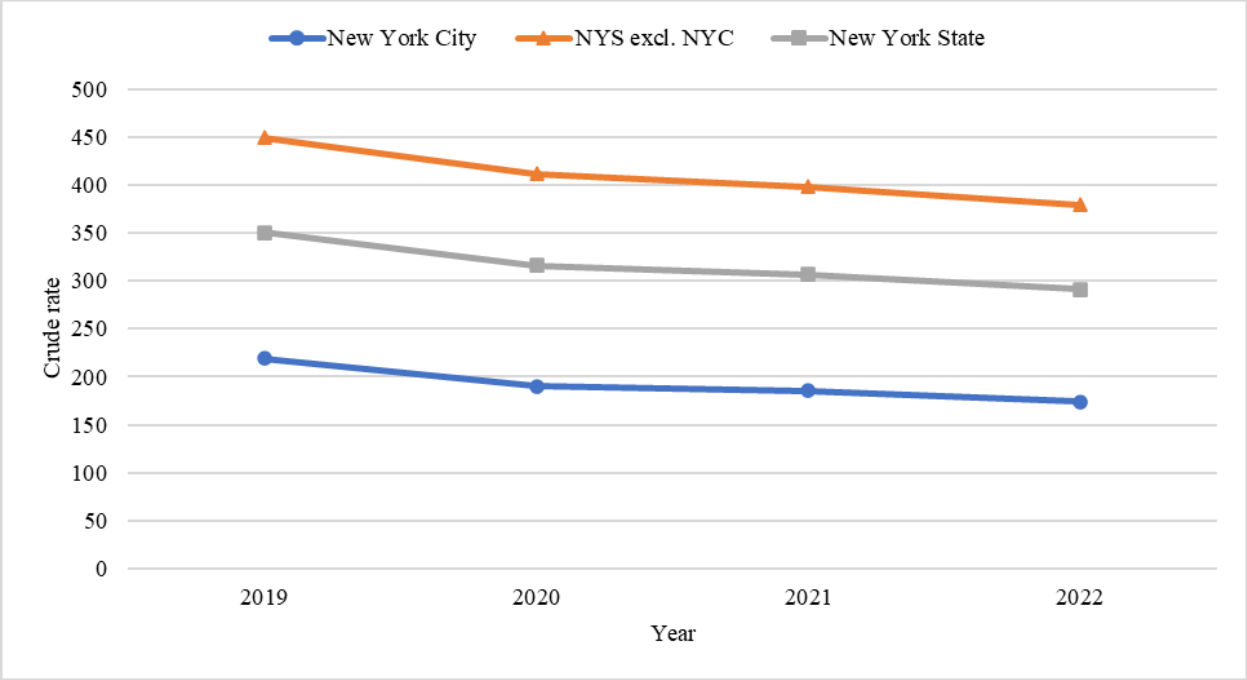
SA=Short-acting; LA=Long-acting
The data exclude buprenorphine prescriptions for the treatment of OUD.
New York State total contains number with county unknown.
Data Source: NYS Prescription Monitoring Program; Data as of May 2023
For complete data, see Appendix: Data Table 5.1.

For the purposes of this report, many statistics were calculated using the CDC national standard set of indicators. Therefore, the data in this report may not always be exactly comparable to other similar data the NYSDOH has reported in earlier publications. Specifically for this section, CDC's standards exclude from the analysis drugs that are not typically used in outpatient settings or are otherwise not critical for morphine milligram equivalents (MME) purposes.

Opioid analgesic prescriptions

In NYS, the crude rate of opioid analgesic prescriptions declined consistently between 2019 (350.4 per 1,000 population) and 2022 (291.3 per 1,000), representing about a 16.9 percent reduction (Figure 5.2). During 2019-2022, NYS excluding NYC consistently had the higher rate of opioid analgesic prescriptions, compared to NYC. In 2022, more than five million opioid prescriptions were filled for the state residents; the rate was over two times higher for NYS excluding NYC (379.2 per 1,000) than NYC (174.1 per 1,000).

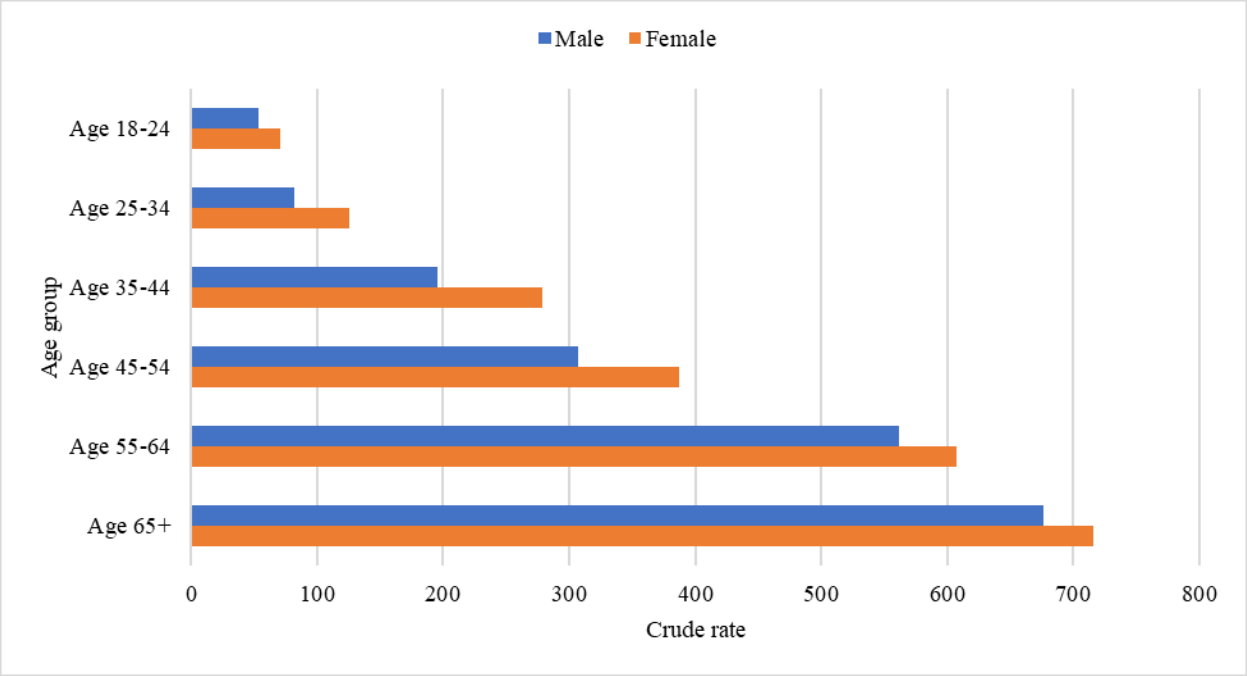
Figure 5.2 Opioid analgesic prescriptions, crude rate per 1,000 population, by region, New York State, 2019-2022



The data exclude buprenorphine prescriptions for the treatment of OUD.
New York State total contains number with county unknown.
Data Source: NYS Prescription Monitoring Program; Data as of May 2023
For complete data, see Appendix: Data Table 5.2.

In 2022, the crude rate of opioid analgesic prescriptions per 1,000 population was higher for females than it was for males across all age groups (Figure 5.3). The gap between genders was largest among those aged 35-44 years, with crude rates of 195.7 per 1,000 for males and 278.9 per 1,000 for females.

Figure 5.3 Opioid analgesic prescriptions, crude rate per 1,000 population, by age and gender, New York State, 2022

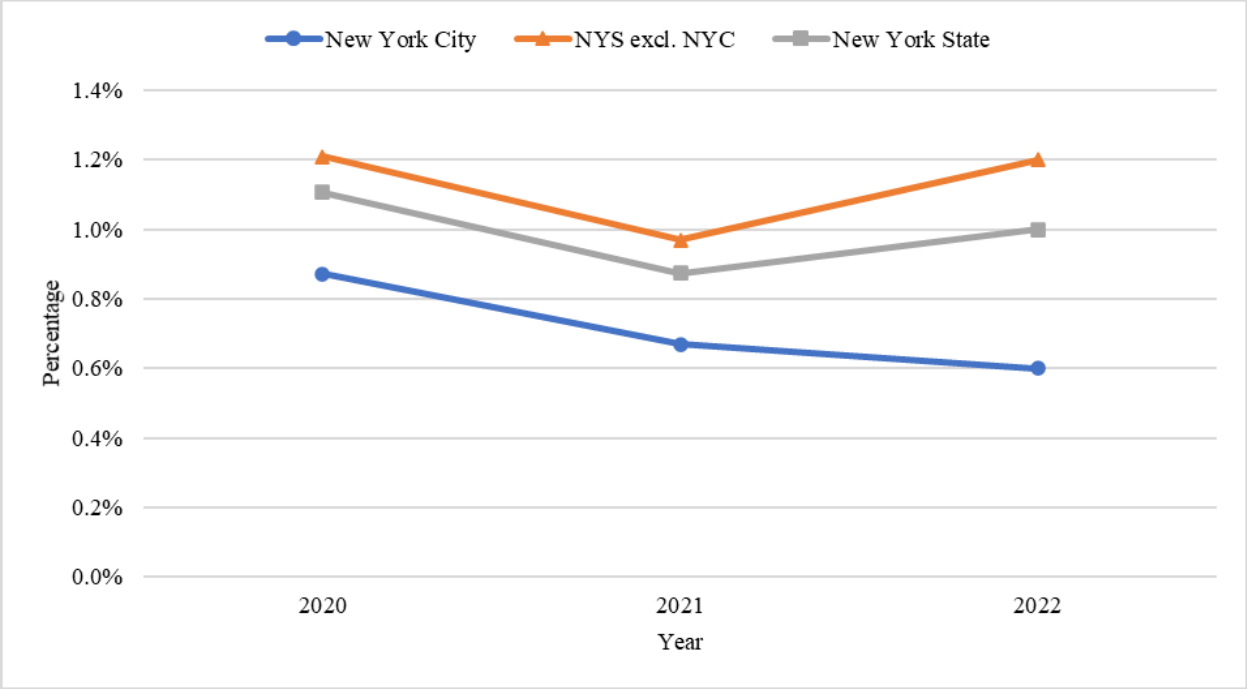


The data exclude buprenorphine prescriptions for the treatment of OUD.
Data Source: NYS Prescription Monitoring Program; Data as of May 2023
For complete data, see Appendix: Data Table 5.3.

Long-acting opioid prescriptions after being opioid-naïve

Initiating treatment for chronic pain with long-acting or extended-release opioids is associated with higher risk of overdose than the initiation of treatment with immediate-release opioids.[21] The percentage of occurrences in which patients were both opioid-naïve and received long-acting opioid prescriptions declined slightly in NYS between 2020 (1.1 percent) and 2022 (1.0 percent) (Figure 5.4) and in NYC between 2020 (0.9 percent) and 2022 (0.6 percent). During this same timeframe, the percentage was consistently higher in NYS excluding NYC than in NYC. Between 2021-2022 NYS excluding NYC observed a slight rise from 1.0 percent in 2021 to 1.2 percent in 2022. This increase in incidents where patients were both opioid-naïve and received a long-acting opioid prescription warrants continued monitoring.

Figure 5.4 Percentage of occurrences when patients were opioid-naïve and received long-acting opioid prescription*, by region, New York State, 2020-2022



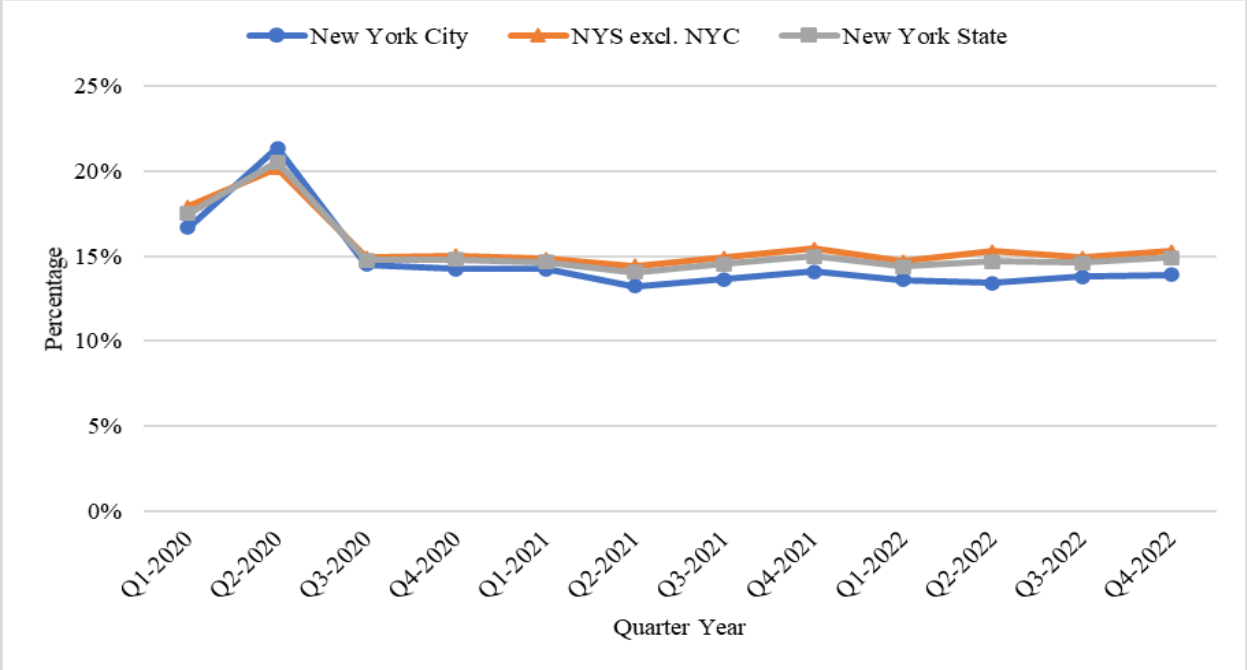
The data exclude buprenorphine prescriptions for the treatment of OUD.
Opioid-naïve was defined as patients with no opioid prescription for pain in last 45 days.
New York State total contains number with county unknown.
* Patient received index prescription of long-acting opioid and was opioid-naïve.
Data Source: NYS Prescription Monitoring Program; Data as of May 2023
For complete data, see Appendix: Data Table 5.4.

[21] Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. MMWR Recomm Rep 2016;65(No. RR-1):1–49. https://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm

Opioid index prescriptions for more than seven-day supply

Among opioid-naïve patients, a larger number of supply days for the first (initial/index) opioid prescription is strongly associated with long-term opioid use.[22] In July 2016, NYS limited the initial prescription of opioids for acute pain to no more than a seven-day supply.[23] In NYS, opioid index prescriptions for more than a seven-day supply decreased steadily, from 17.5 percent in the first quarter of 2020 to 14.9 percent in the fourth quarter of 2022 (Figure 5.5). No significant regional differences were observed. There was a temporary increase in percent of incidents of opioid naïve patients receiving a more than seven-day supply during the second quarter of 2020. The percentage decreased in the third quarter to nearly 15% and remained stable thereafter.

Figure 5.5 Percentage of occurrences when patients were opioid-naïve and received an opioid prescription* of more than seven days, by region and quarter, New York State, 2020-2022



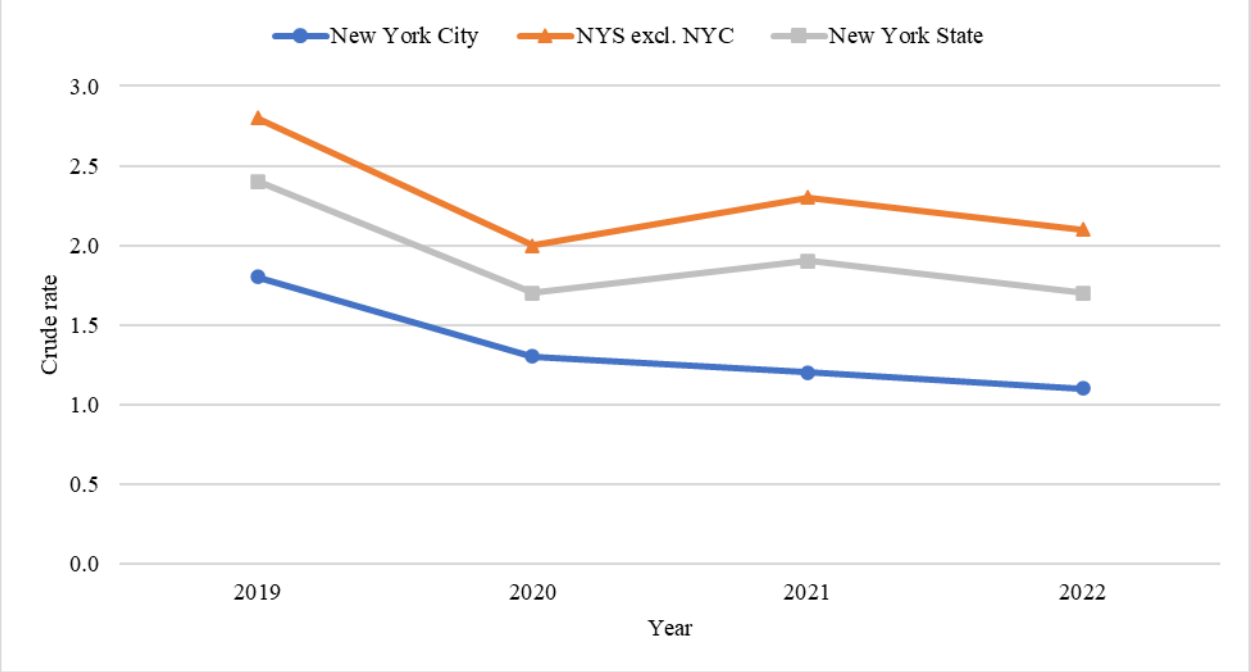
The data exclude buprenorphine prescriptions for the treatment of OUD.
Opioid-naïve was defined as patients with no opioid prescription for pain in last 45 days.
New York State total contains number with county unknown.
* Patient received opioid index prescription of more than seven days and was opioid-naïve.
Data Source: NYS Prescription Monitoring Program; Data as of May 2023
For complete data, see Appendix: Data Table 5.5.

[22] Shah A, Hayes CJ, Martin BC. Factors Influencing Long-Term Opioid Use Among Opioid Naive Patients: An Examination of Initial Prescription Characteristics and Pain Etiologies. J Pain. 2017 Nov;18(11):1374-1383. https://doi.org/10.1016%2Fj.jpain.2017.06.010
[23] Bureau of Narcotic Enforcement. Public Health Law §3331(5)(b)-(c); New Legislation Enacted to Limit Initial Opioid Prescribing to a 7 Day Supply for Acute Pain. New York State Department of Health. Accessed July 2023. https://www.health.ny.gov/professionals/narcotic/laws_and_regulations/

Prescribed opioid analgesics from five or more prescribers and dispensed at five or more pharmacies

The number of patients who received opioid prescriptions from five or more prescribers, at five or more pharmacies in a six-month period (multiple provider episodes) dropped for NYS from a crude rate per 100,000 population of 2.4 in 2019 to 1.7 in 2022 (Figure 5.6). There was a slight increase from 1.7 per 100,000 population in 2020 to 1.9 in 2021. In NYS, the crude rate per 100,000 population in 2012, prior to the implementation of the updated NYS Prescription Monitoring Program (PMP) Registry I-STOP, was 27.0.[24] In NYS prescribers must consult the NYS PMP Registry when writing prescriptions for Schedule II, III, and IV controlled substances. This requirement aids practitioners in understanding their patient's controlled substance history and provide appropriate support and/or referrals, which continues to contribute to lower multiple provider episode rates.

Figure 5.6 Patients with prescribed opioid analgesics from five or more prescribers and dispensed at five or more pharmacies in a six-month period, crude rate per 100,000 population, by region, New York State, 2019-2022



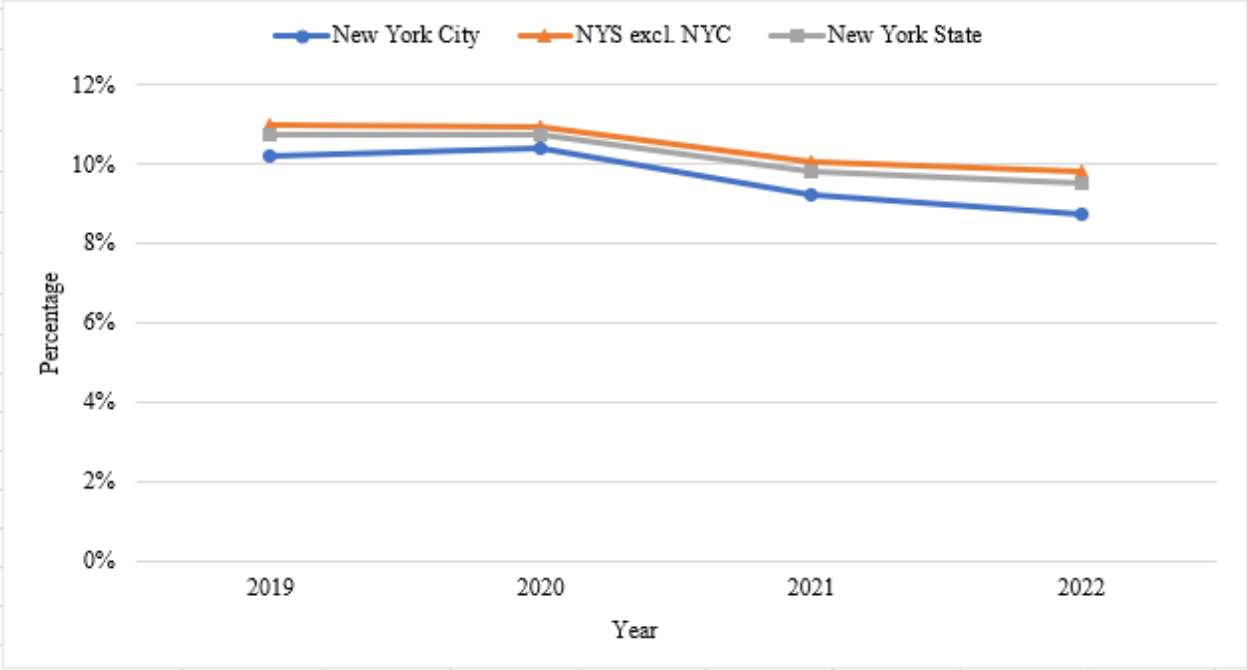
The data exclude buprenorphine prescriptions for the treatment of OUD.
A patient will be counted twice if they were included in each 6-month time period for the year.
New York State total contains number with county unknown.
Data Source: NYS Prescription Monitoring Program; Data as of May 2023
For complete data, see Appendix: Data Table 5.6.

[24] New York State Opioid Data Dashboard. New York State Department of Health. Accessed May 2023. https://webbi1.health.ny.gov/SASStoredProcess/guest?_program=/EBI/PHIG/apps/opioid_dashboard/op_dashboard&p=tbl&ind_id=op64

Prescribed opioid analgesics with total daily dose of ≥ 90 MME

Receiving opioid analgesics in higher dosages (≥ 90 MME) is associated with a higher risk of overdose and death.[25] The percentage of patients receiving one or more opioid analgesic prescriptions with a total daily dose of ≥ 90 MME for at least one day declined between 2019 (10.7 percent) and 2022 (9.5 percent) in NYS (Figure 5.7). During 2019-2022, the percentage was consistently higher in NYS excluding NYC than in NYC.

Figure 5.7 Percentage of patients with a total daily dose of ≥ 90 MME on at least one day, by region, New York State, 2019-2022

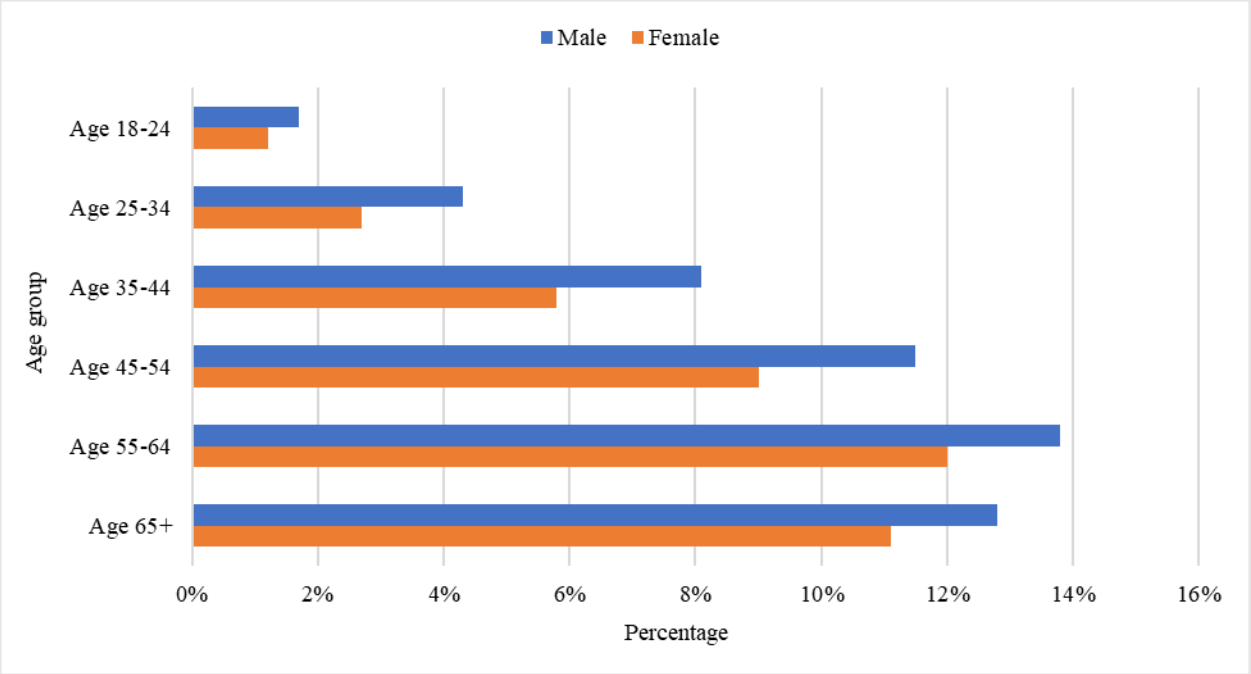


The data exclude buprenorphine prescriptions for pain and treatment of OUD.
New York State total contains number with county unknown.
MME: morphine milligram equivalents
Data Source: NYS Prescription Monitoring Program; Data as of May 2023
For complete data, see Appendix: Data Table 5.7.

[25] Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. MMWR Recomm Rep 2016;65(No. RR-1):1–49. https://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm

In 2022, the percentage of patients receiving one or more opioid analgesic prescriptions with a total daily dose of ≥ 90 MME for at least one day was highest among those aged 55-64 years for both males (13.8 percent) and females (12.0 percent). This was followed by those aged 65 years and older for both males (12.8 percent) and females (11.1 percent). The percentage of males receiving a daily dose of ≥ 90 MME was consistently higher than females for all age groups (Figure 5.8).

Figure 5.8 Percentage of patients with a total daily dose of ≥ 90 MME on at least one day, by age and gender, New York State, 2022



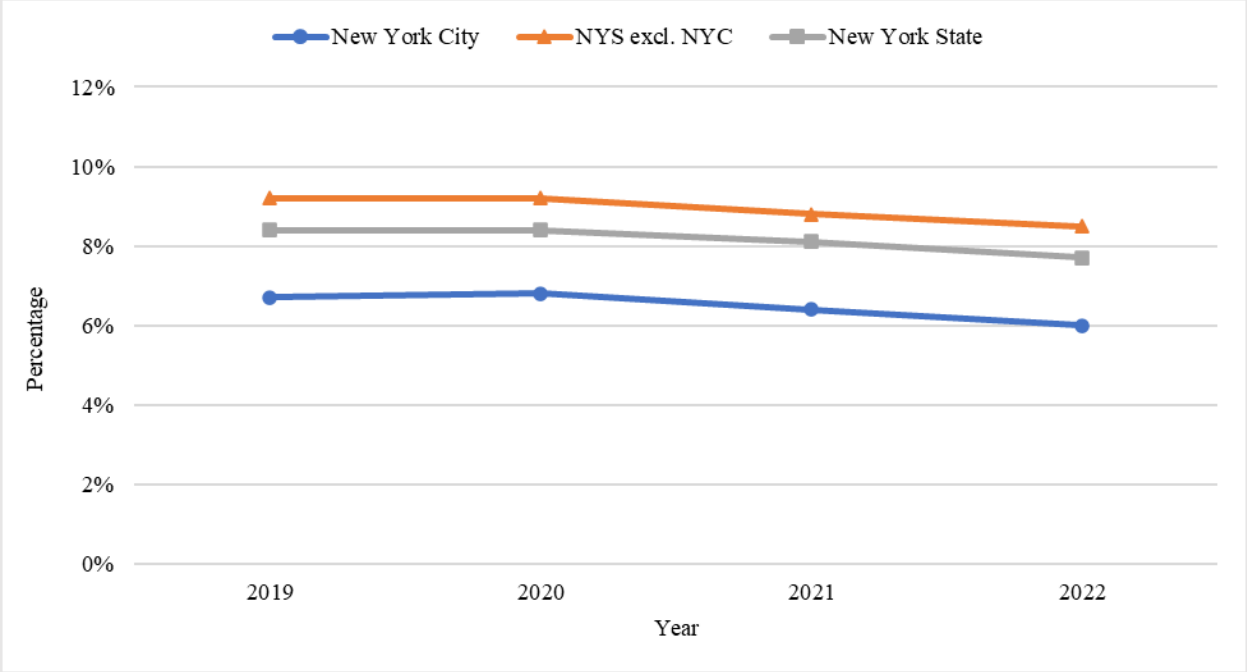
The data exclude buprenorphine prescriptions for pain and treatment of OUD.
MME: morphine milligram equivalents
Data Source: NYS Prescription Monitoring Program; Data as of May 2023
For complete data, see Appendix: Data Table 5.8.

Overlapping opioid analgesic and benzodiazepine prescriptions

The risk of opioid overdose increases when taken in combination with other drugs, including benzodiazepines (e.g., Xanax® [alprazolam], Valium® [diazepam]).[26] As such, it is important to monitor the co-prescribing and co-dispensing of these medications, as well as the potential for prescriptions to overlap, and to provide information about the increased risk of overdose when combining opioids and benzodiazepines, as well as other substances.

Among patients receiving at least one prescription for opioid analgesics or benzodiazepines, the percentage with two or more calendar days of overlapping opioid analgesic and benzodiazepine prescriptions declined between 2019 (8.4 percent) and 2022 (7.7 percent) in NYS (Figure 5.9). In 2022, the percentage was higher for NYS excluding NYC (8.5 percent) than for NYC (6.0 percent). NYS excluding NYC had consistently higher percentages of patients with two or more calendar days of overlapping opioid analgesic and benzodiazepine prescriptions during 2019-2022.

Figure 5.9 Percentage of patients* with two or more calendar days of overlapping opioid analgesic and benzodiazepine prescriptions, by region, New York State, 2019-2022

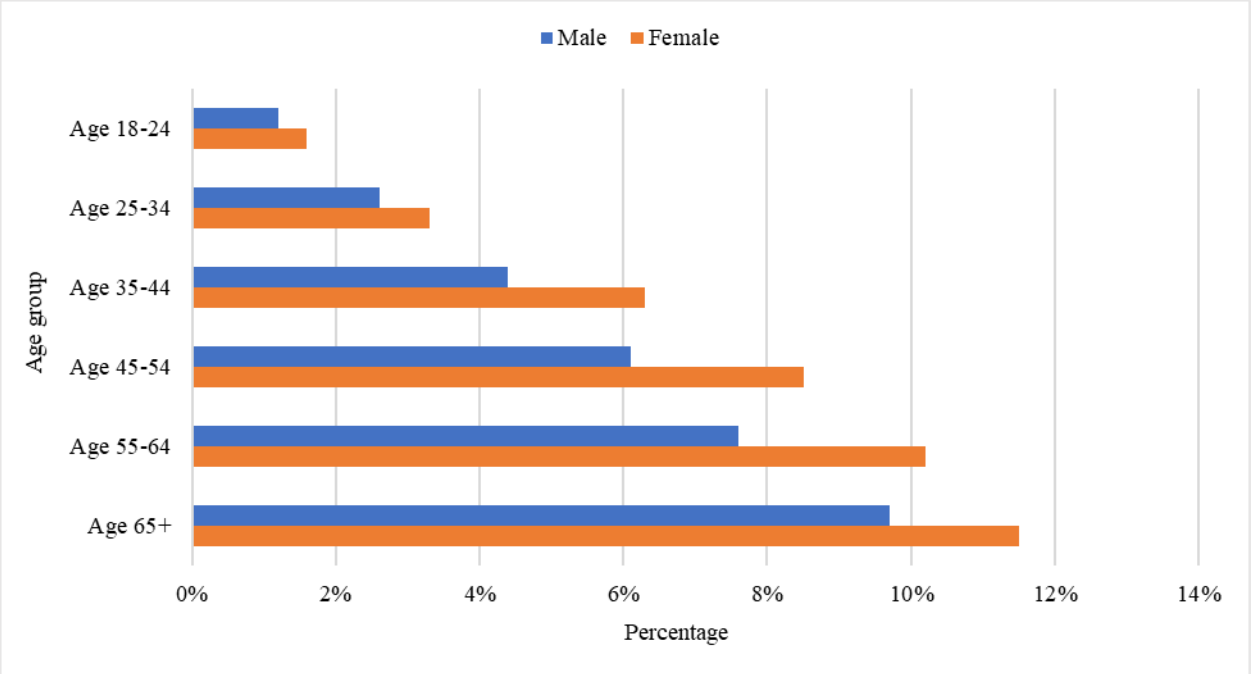


The data exclude buprenorphine prescriptions for treatment of OUD.
New York State total contains number with county unknown.
*Patients with at least one prescription for opioid analgesics or benzodiazepines during a given year
Data Source: NYS Prescription Monitoring Program; Data as of May 2023
For complete data, see Appendix: Data Table 5.9.

[26] Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. MMWR Recomm Rep 2016;65(No. RR-1):1–49. https://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm

In 2022, among patients with at least one prescription for opioid analgesics or benzodiazepines, the percentage who received two or more calendar days of overlapping opioid analgesic and benzodiazepine prescriptions was higher among females than among males (Figure 5.10).The percentage increased with age and was highest among those aged 65 years and older, for both females (11.5 percent) and males (9.7 percent). The largest gap in percentage between genders was seen among those aged 55-64 years (7.6 percent for males, 10.2 percent for females).

Figure 5.10 Percentage of patients* with two or more calendar days of overlapping opioid analgesic and benzodiazepine prescriptions, by age and gender, New York State, 2022

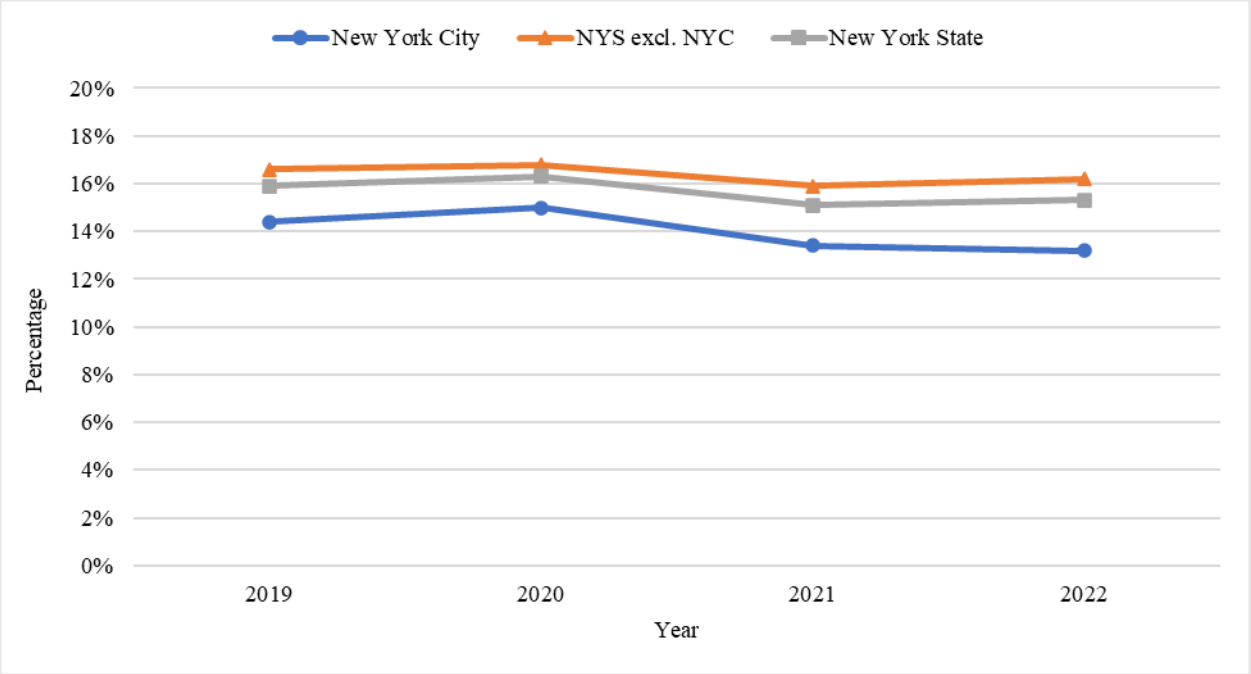


The data exclude buprenorphine prescriptions for treatment of OUD.
*Patients with at least one prescription for opioid analgesics or benzodiazepines during a given year
Data Source: NYS Prescription Monitoring Program; Data as of May 2023
For complete data, see Appendix: Data Table 5.10.

Overlapping opioid analgesic prescriptions

During 2019-2022, among patients receiving one or more opioid analgesic prescriptions in NYS, the percentage with two or more calendar days of overlapping opioid analgesic prescriptions slightly increased to 16.3 percent in 2020, but declined to 15.3 percent in 2022 (Figure 5.11). In 2022, the percentage was higher for NYS excluding NYC (16.2 percent) than for NYC (13.2 percent). NYS excluding NYC had consistently higher percentages compared to NYC during 2019-2022.

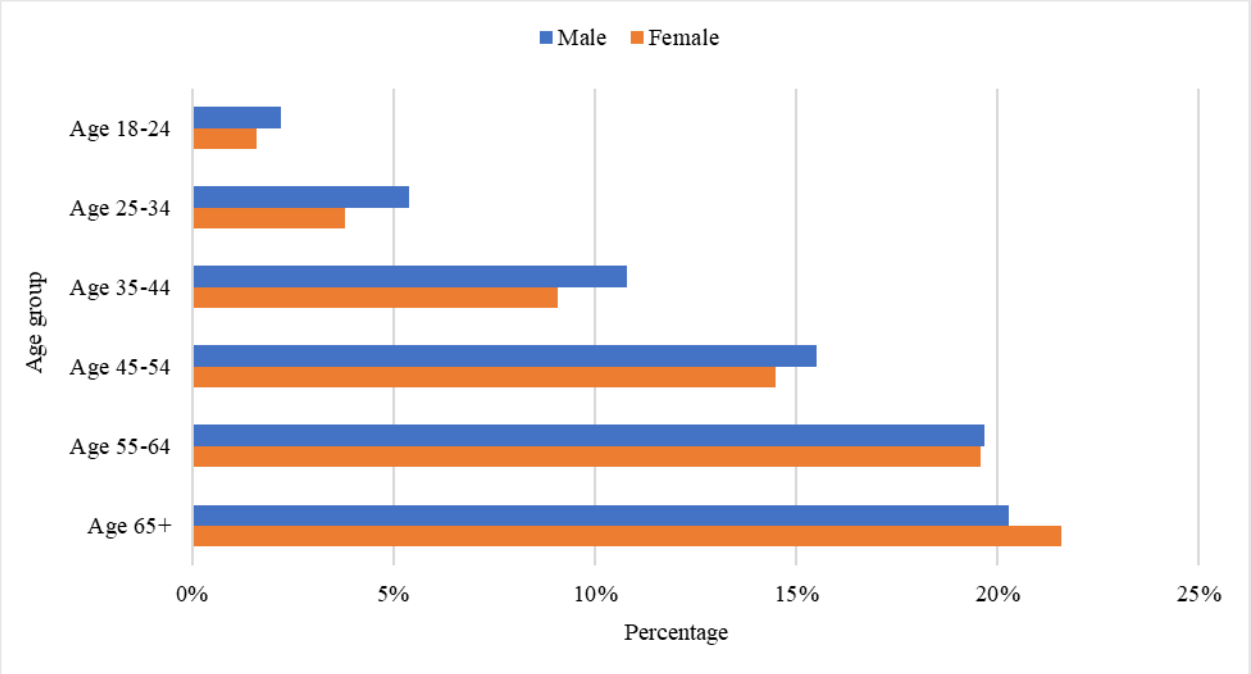
Figure 5.11 Percentage of patients* with two or more calendar days of overlapping opioid analgesic prescriptions, by region, New York State, 2019-2022



The data exclude buprenorphine prescriptions for treatment of OUD.
New York State total contains number with county unknown.
*Patients with at least one prescription for opioid analgesics during a given year
Data Source: NYS Prescription Monitoring Program; Data as of May 2023
For complete data, see Appendix: Data Table 5.11.

In 2022, among patients with at least one prescription for opioid analgesics, the percentage who had two or more calendar days of overlapping opioid analgesic prescriptions was higher among males than among females, except among those aged 65 years and older (Figure 5.12). The percentage was highest among those aged 65 years and older, for both females (21.6 percent) and males (20.3 percent). The largest gap in the percentage was seen among those aged 35-44 years (10.8 percent for males, 9.1 percent for females).

Figure 5.12 Percentage of patients* with two or more calendar days of overlapping opioid analgesic prescriptions, by age and gender, New York State, 2022

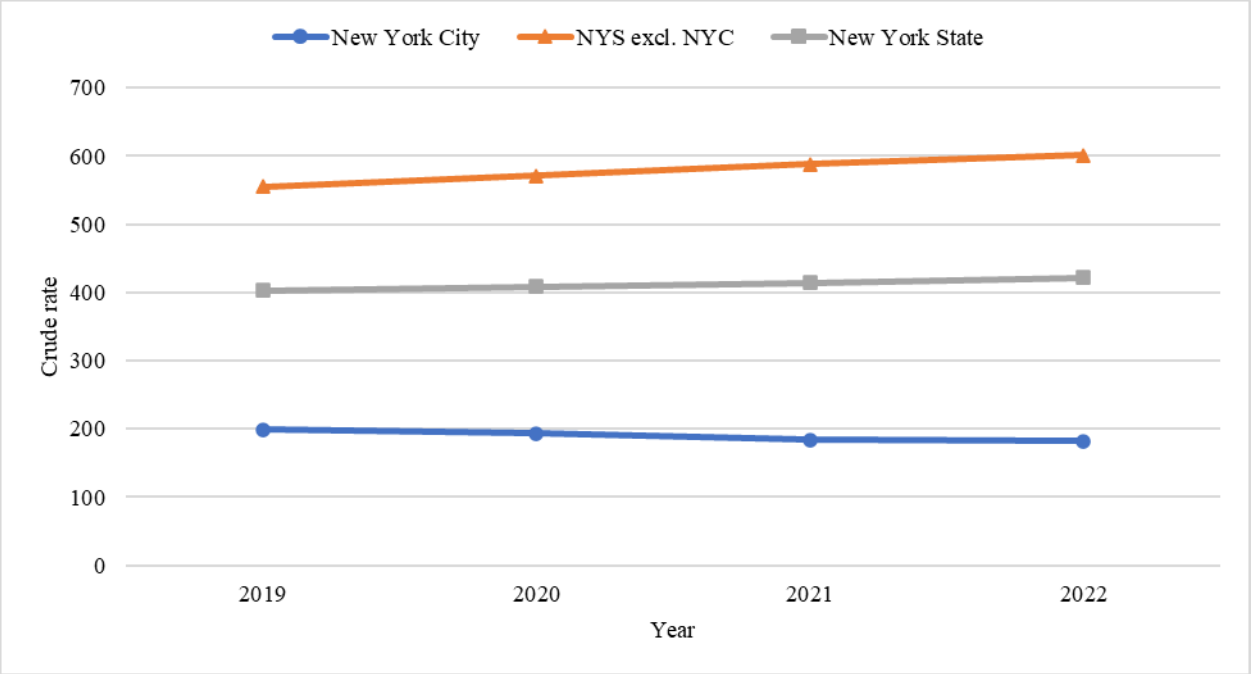


The data exclude buprenorphine prescriptions for treatment of OUD.
*Patients with at least one prescription for opioid analgesics during a given year
Data Source: NYS Prescription Monitoring Program; Data as of May 2023
For complete data, see Appendix: Data Table 5.12.

Buprenorphine prescription for opioid use disorder

In NYS, the crude rate of patients who received at least one buprenorphine prescription for OUD rose between 2019 (402.7 per 100,000 population) and 2022 (421.9 per 100,000), representing a 4.8 percent increase (Figure 5.13). This trend was driven by increases in NYS excluding NYC. The rate for NYC gradually reduced during this period and was over two times lower than NYS excluding NYC. This data reflects practitioners who prescribed buprenorphine utilizing the X-waiver under the Drug Addiction Treatment Act of 2000. On December 29, 2022, the X-waiver was eliminated as part of the Omnibus Spending Bill, under the Mainstreaming Addiction Treatment Act (MAT Act). The removal of the X-waiver means that any DEA-registered prescriber of controlled substances can now offer buprenorphine to patients with OUD provided that they comply with all other DEA and state requirements. NYSDOH will monitor the impact of the X-waiver elimination on buprenorphine prescribing.

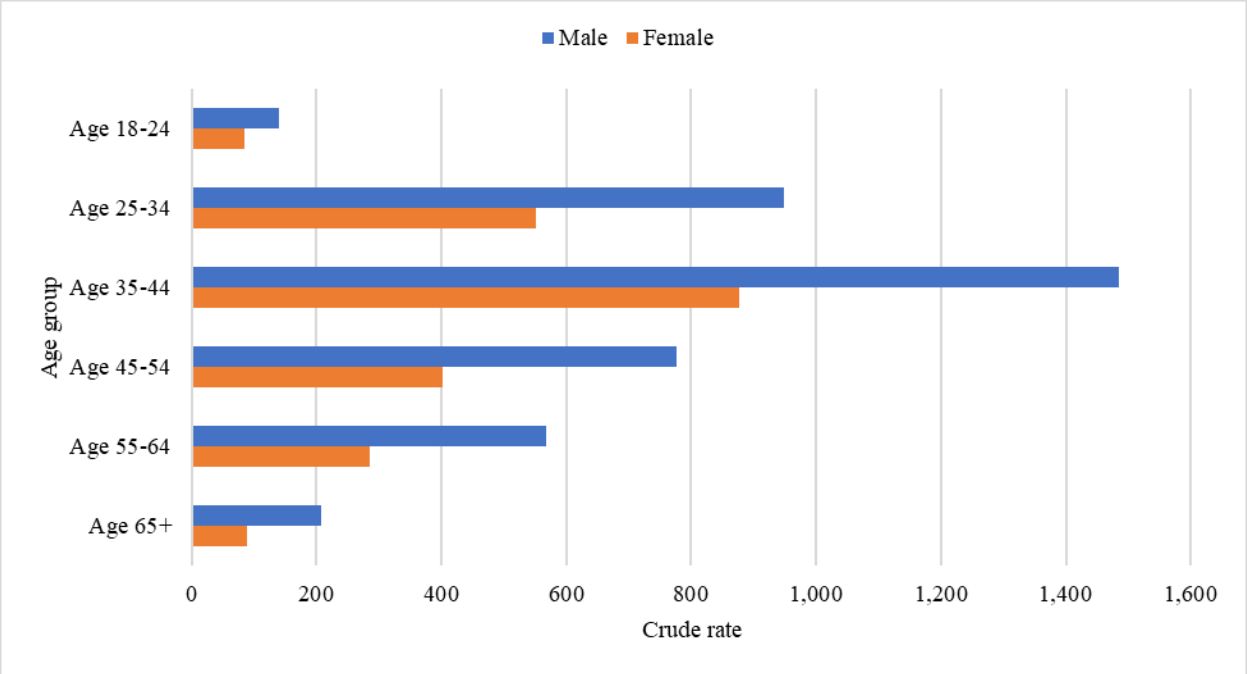
Figure 5.13 Patients who received at least one buprenorphine prescription for opioid use disorder, crude rate per 100,000 population, by region, New York State, 2019-2022



New York State total contains number with county unknown.
Data Source: NYS Prescription Monitoring Program; Data as of May 2023
For complete data, see Appendix: Data Table 5.13.

In 2022, the crude rate of patients who received at least one buprenorphine prescription for OUD per 100,000 population was highest among those aged 35-44 years for both males (1,485.0 per 100,000) and females (876.9 per 100,000), followed by those aged 25-34 years with a rate of 949.3 per 100,000 males and 552.3 per 100,000 females. The crude rate of patients who received at least one buprenorphine prescription for OUD was consistently higher for males than females for all age groups (Figure 5.14).

Figure 5.14. Patients who received at least one buprenorphine prescription for opioid use disorder, crude rate per 100,000 population, by age and gender, New York State, 2022



Data Source: NYS Prescription Monitoring Program; Data as of May 2023
For complete data, see Appendix: Data Table 5.14.

6 - Population surveys on substance use

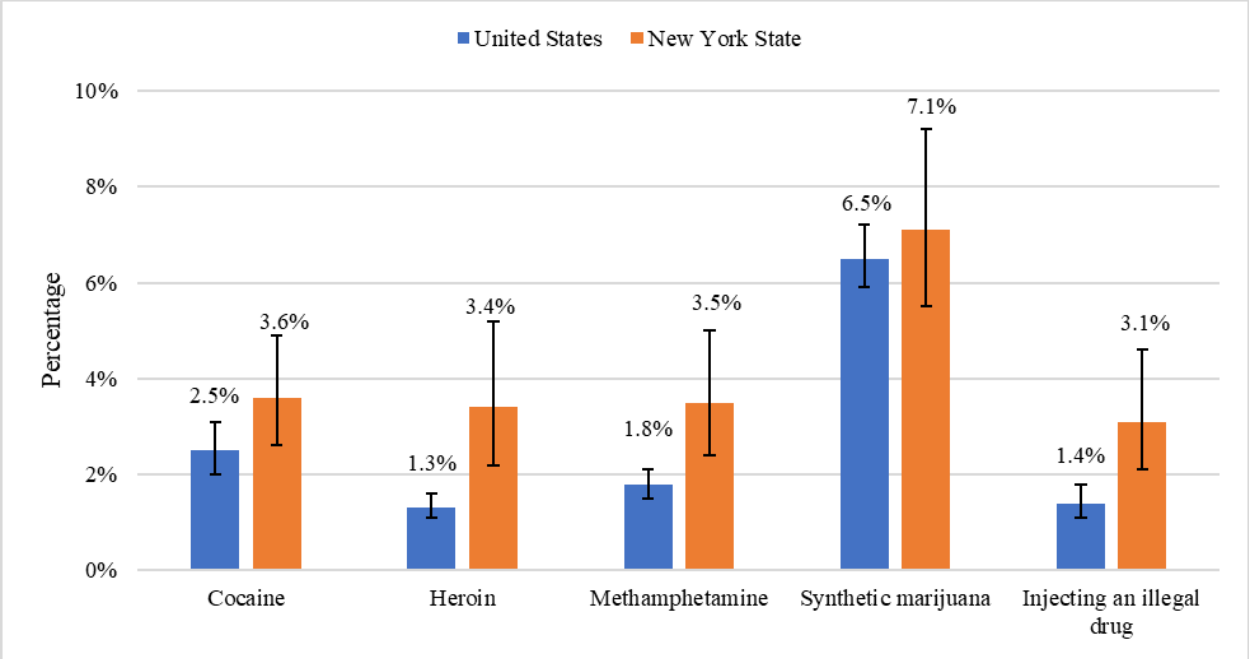
The National Survey on Drug Use and Health (NSDUH)

2021-2022 NSDUH data were not available at the time this report was assembled. For 2020 and earlier data, please see the Opioid Annual Report, 2021 (page 75).

Youth Risk Behavioral Surveillance System (YRBSS)

In 2021, the percentages of high school students who reported ever using cocaine (3.6 percent), heroin (3.4 percent), methamphetamine (3.5 percent), synthetic marijuana (7.1 percent), and injection of an illegal drug (3.1 percent) in NYS were higher than the percentages in the US, respectively (Figure 6.1). Compared to 2019, there was a decrease in reported lifetime use for all these substances in both NYS and US in 2021. Specifically, the prevalence in NYS of synthetic marijuana use decreased from 10.3% in 2019 to 7.1% in 2021; cocaine use decreased from 6.3% in 2019 to 3.6% in 2021; heroin use decreased from 5.8% in 2019 to 3.4% in 2021; methamphetamine use decreased from 4.9% in 2019 to 3.5% in 2021; and injecting an illegal drug decreased from 3.8% in 2019 to 3.1% in 2021. For the 2019 YRBSS data, please see the Opioid Annual Report, 2021 (page 81).

Figure 6.1 Percentage of high school students who report ever using a substance, 2021

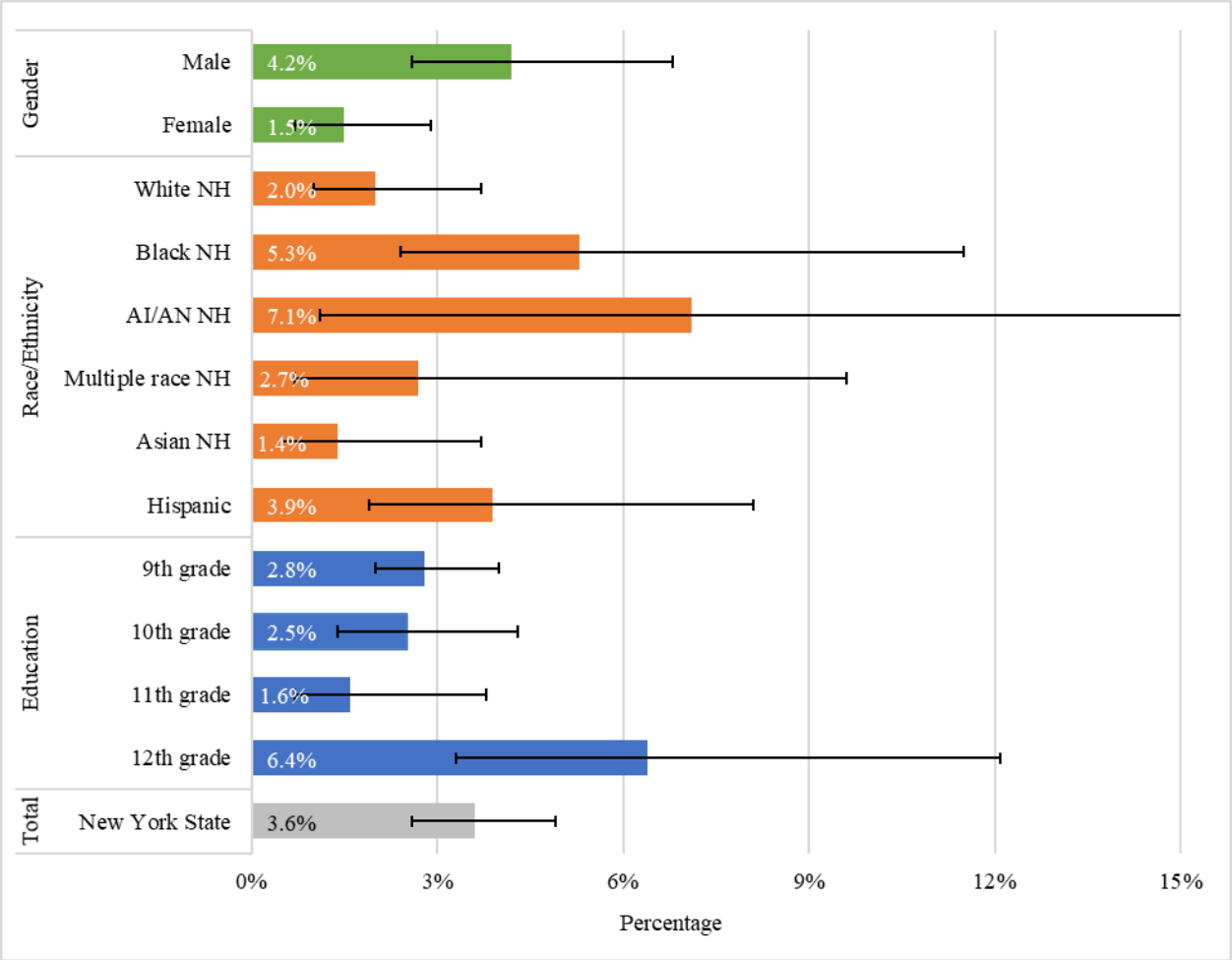


Data source: Youth Risk Behavior Surveillance System (YRBSS); Data as of April 2023.
For complete data, see Appendix: Data Table 6.1.

High school students who report using cocaine

During 2021, 3.6 percent of all high school students reported ever using cocaine in NYS (Figure 6.2). This was highest among male (4.2 percent), American Indian or Alaska Native non-Hispanic (7.1 percent), Black non-Hispanic (5.3 percent), Hispanic (3.9 percent), and 12th grade (6.4 percent) students.

Figure 6.2 Percentage of high school students who report ever using cocaine, New York State, 2021

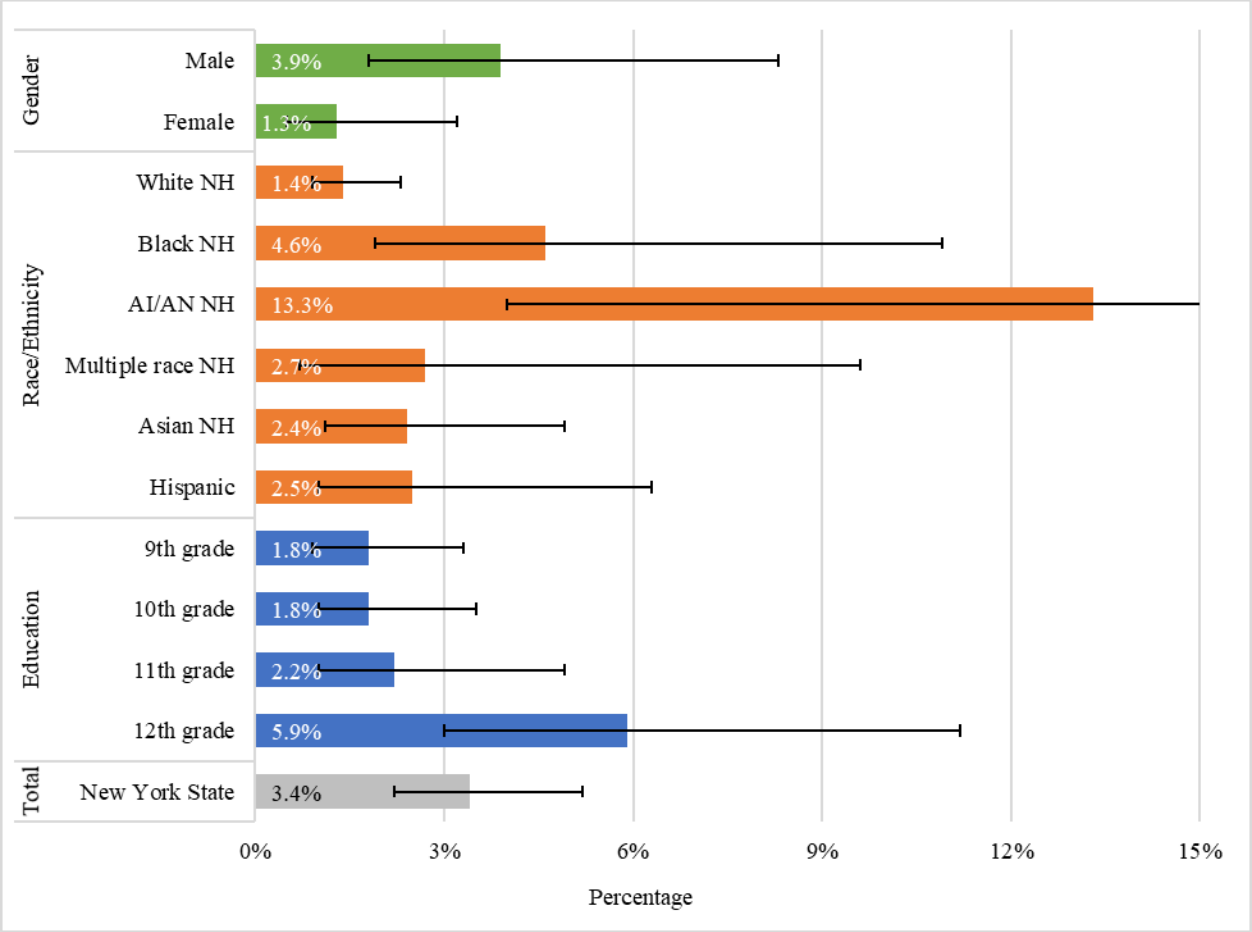


For purposes of display, the upper limit of the CI for AI/AN (35.2) is not shown.
Survey question: During your life, how many times have you used any form of cocaine, including powder, crack, or freebase?
Data source: Youth Risk Behavior Surveillance System (YRBSS); Data as of April 2023.
For complete data, see Appendix: Data Table 6.2.

High school students who report using heroin

During 2021, 3.4 percent of all high school students reported ever using heroin in NYS (Figure 6.3). This was highest among male (3.9 percent), American Indian or Alaska Native non-Hispanic (13.3 percent), Black non-Hispanic (4.6 percent), and 12th grade (5.9 percent) students.

Figure 6.3 Percentage of high school students who report ever using heroin, New York State, 2021

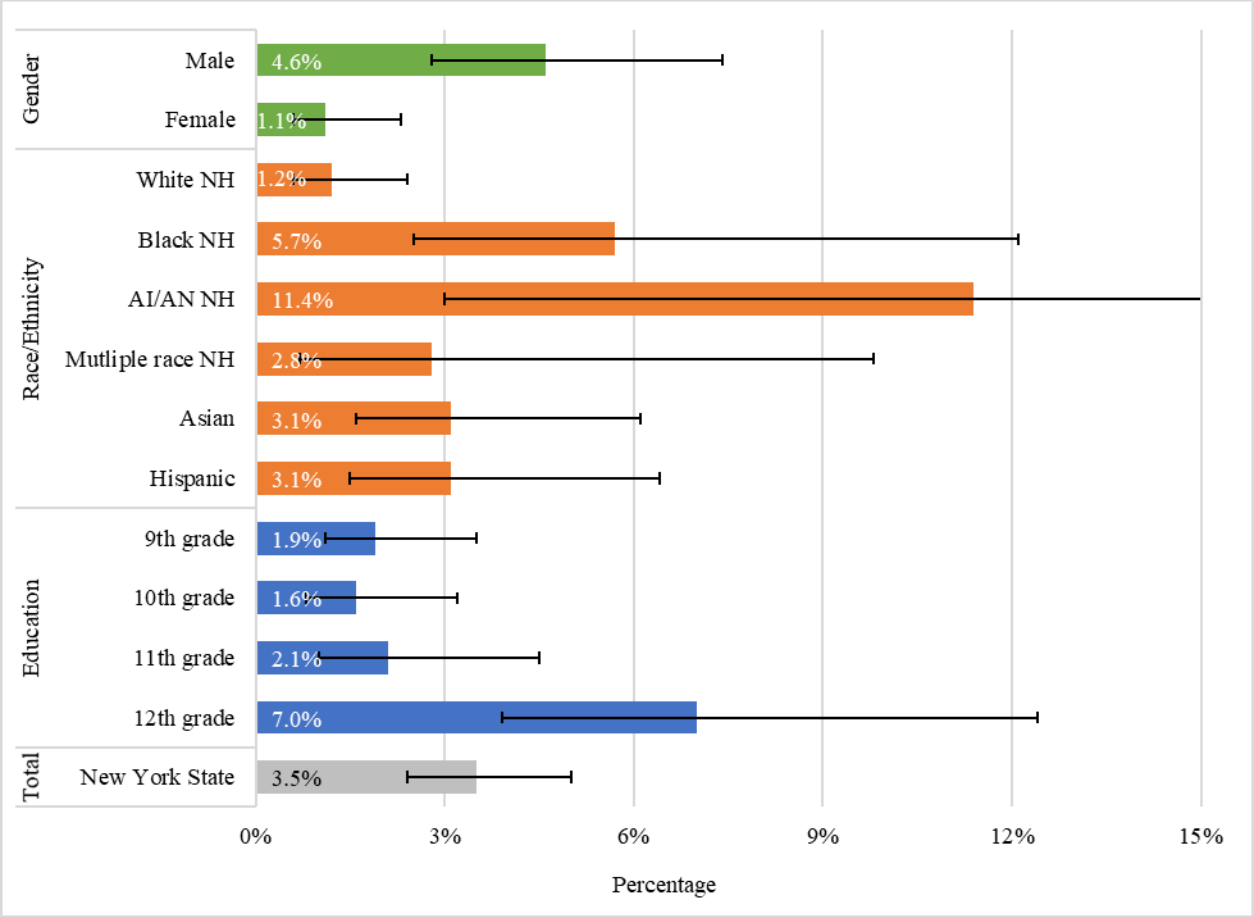


For purposes of display, the upper limit of the CI for AI/AN (35.9) is not shown.
Survey question: During your life, how many times have you used heroin (also called smack, junk, or China White)?
Data source: Youth Risk Behavior Surveillance System (YRBSS); Data as of April 2023
For complete data, see Appendix: Data Table 6.3

High school students who report using methamphetamines

During 2021, 3.5 percent of high school students reported ever using methamphetamines in NYS (Figure 6.4). This was highest among male (4.6 percent), American Indian or Alaska Native non-Hispanic (11.4 percent), Black non-Hispanic (5.7 percent) and 12th grade (7.0 percent) students.

Figure 6.4 Percentage of high school students who report ever using methamphetamines, New York State, 2021

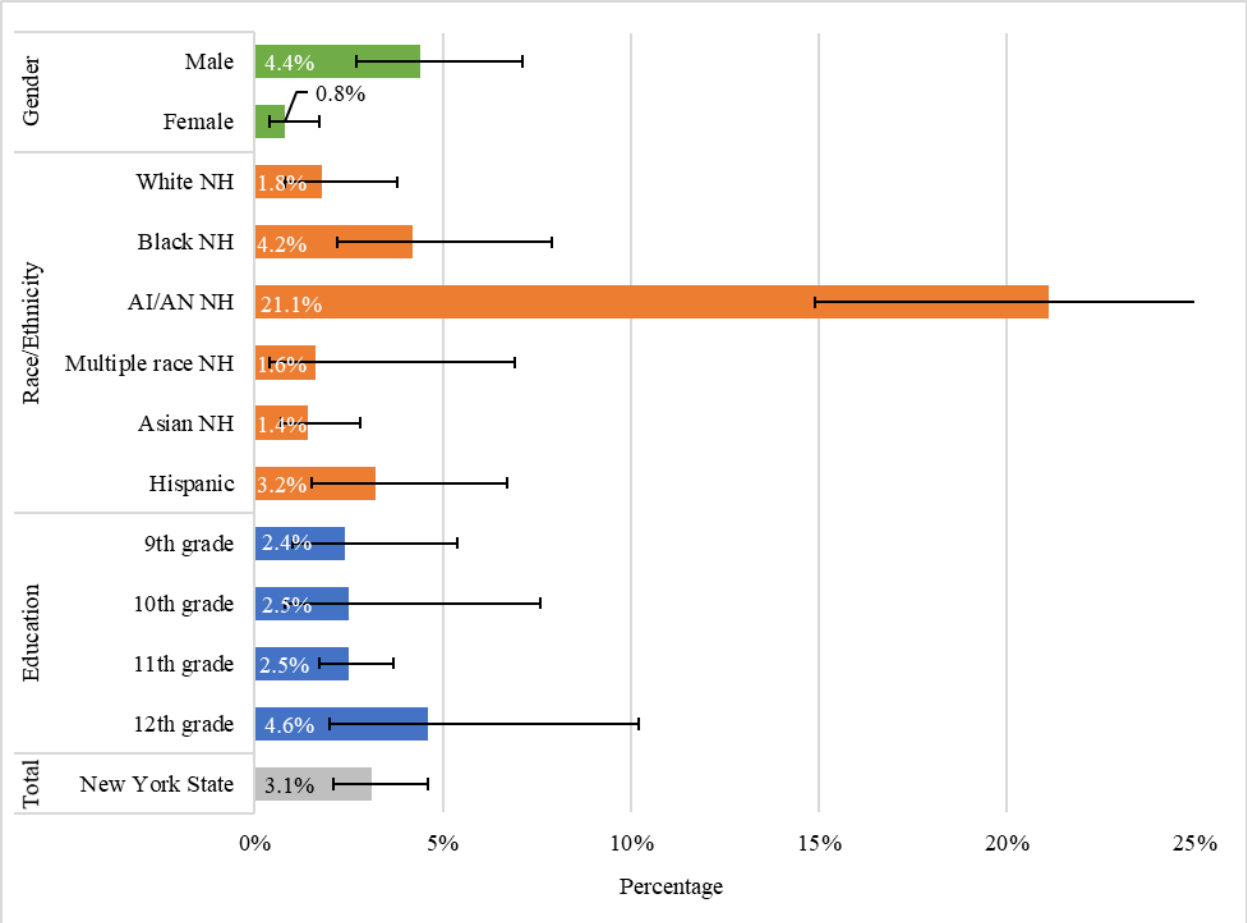


For purposes of display, the upper limit of the CI for AI/AN (35.0) is not shown.
Survey question: During your life, how many times have you used methamphetamines (also called speed crystal meth, crank, ice, or meth)?
Data source: Youth Risk Behavior Surveillance System (YRBSS); Data as of April 2023
For complete data, see Appendix: Data Table 6.4.

High school students who report injecting an illegal drug

During 2021, 3.1 percent of high school students reported ever injecting an illegal drug in NYS (Figure 6.5). This is was highest among male (4.4 percent), American Indian or Alaska Native non-Hispanic (21.1 percent), Black non-Hispanic (4.2 percent) and 12th grade (4.6 percent) students.

Figure 6.5 Percentage of high school students who report ever injecting an illegal drug, New York State, 2021

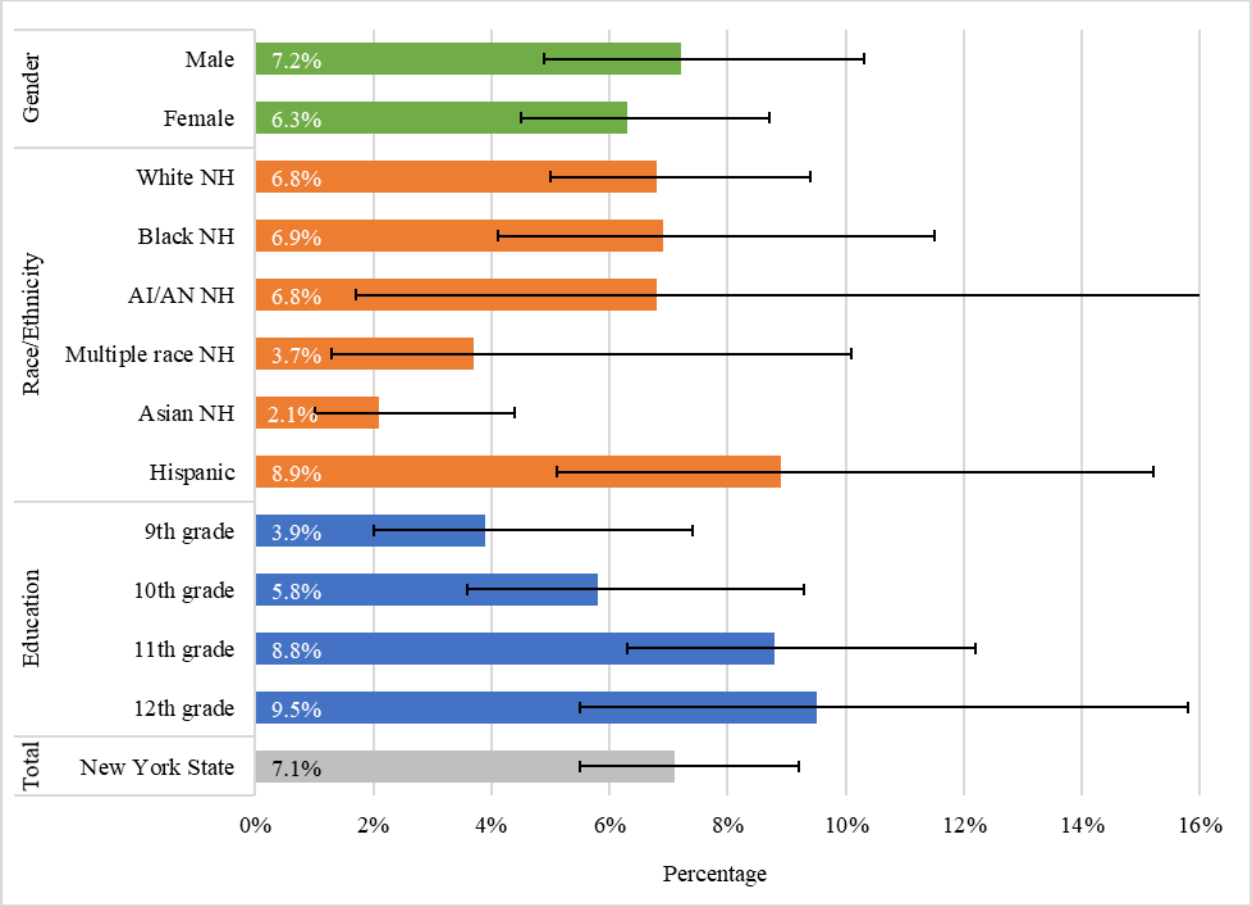


For purposes of display, the upper limit of the CI for AI/AN (29.1) is not shown.
Survey question: During your life, how many times have you used a needle to inject any illegal drug into your body?
Data source: Youth Risk Behavior Surveillance System (YRBSS); Data as of April 2023
For complete data, see Appendix: Data Table 6.5.

High school students who report using synthetic marijuana

During 2021, 7.1 percent of high school students reported ever using synthetic marijuana in NYS (Figure 6.6). This was highest among male (7.2 percent), Hispanic (8.9 percent), 12th grade (9.5 percent), and 11th grade (8.8 percent) students.

Figure 6.6 Percentage of high school students who report ever using synthetic marijuana, New York State, 2021

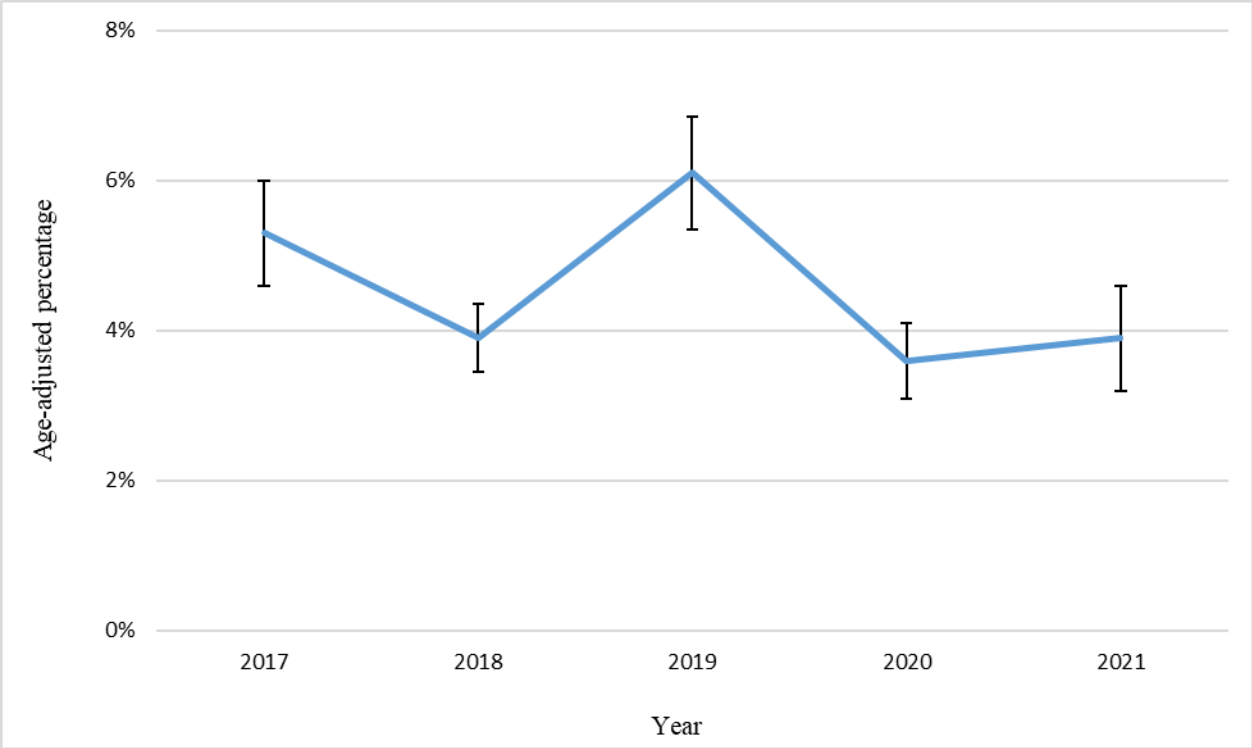


For purposes of display, the upper limit of the CI for AI/AN (23.4) is not shown.
Survey question: During your life, how many times have you used synthetic marijuana? (Synthetic marijuana also is called Spice, fake weed, K2, King Kong, Yucatan Fire, or Skunk.)
Data source: Youth Risk Behavior Surveillance System (YRBSS); Data as of April 2023
For complete data, see Appendix: Data Table 6.6.

Behavioral Risk Factor Surveillance System (BRFSS)

Among the NYS population aged 18 years and older from 2017 to 2021, the age-adjusted percentage of people who have self-reported prescription pain medication misuse in the past 12 months fluctuates between 3.6 - 6.1 percent (Figure 6.7), with the lowest age-adjusted percentage observed in 2020 at 3.6 percent while the highest in 2019 at 6.1 percent. In 2021, the age-adjusted percentage was 3.9 percent.

Figure 6.7 Age-adjusted percentage of adults who have self-reported prescription pain medication misuse in the past 12 months, 2017-2021

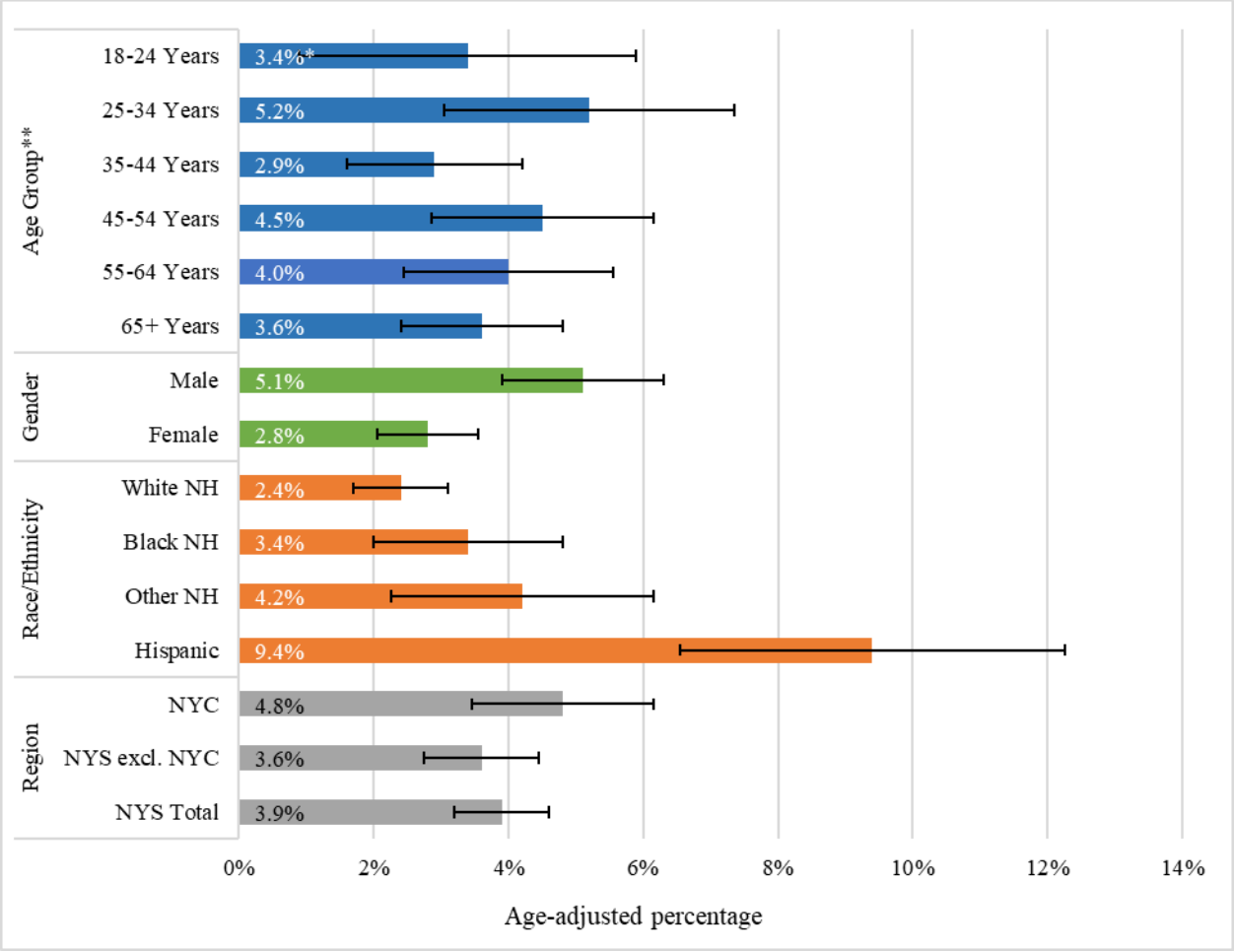


Survey question: In the past 12 months, have you used prescription pain medicine without a healthcare provider's prescription or differently than how the healthcare provider told you to use it?
Note: The population aged 18 and older.
Data source: Behavioral Risk Factor Surveillance System (BRFSS); Data as of August 2022.
For complete data, see Appendix: Data Table 6.7.

Adult self-reported prescription pain medication misuse

In 2021, among the NYS population aged 18 years and older, the crude percentage of adults who have self-reported prescription pain medication misuse in the past 12 months was highest among those aged 25-34 years (5.2 percent), followed by those aged 45-54 years (4.5 percent) (Figure 6.8). During the same period, the age-adjusted percentage of adults who have self-reported prescription pain medication misuse in the past 12 months were highest among males (5.1 percent), Hispanic individuals (9.4 percent) and NYC residents (4.8 percent).

Figure 6.8 Age-adjusted percentage of adults who have self-reported prescription pain medication misuse in the past 12 months, by sub-population, New York State, 2021**



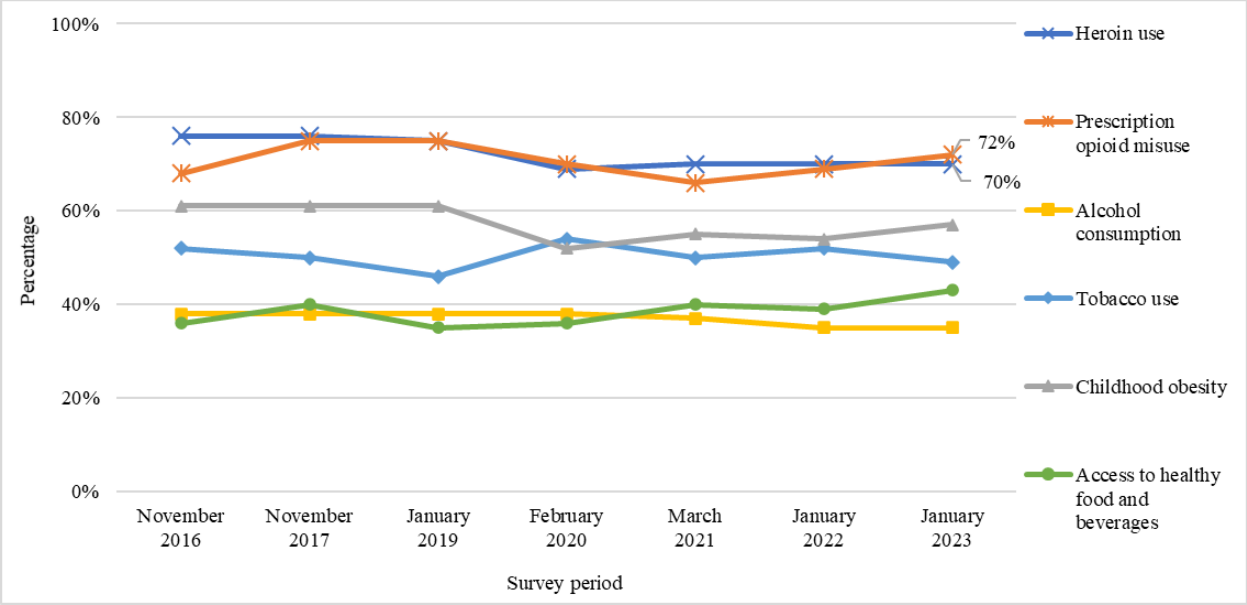
Survey question: In the past 12 months, have you used prescription pain medicine without a healthcare provider's prescription or differently than how the healthcare provider told you to use it?
*: The percentage is unstable.
**Age groups show crude percentages.
Note: The population aged 18 and older.
Data source: Behavioral Risk Factor Surveillance System (BRFSS); Data as of August 2022.
For complete data, see Appendix: Data Table 6.8.

Public Opinion Survey of Public Health Issues

The Siena College Research Institute administers an annual survey of adult NYS residents on behalf of the NYSDOH. This survey aims to examine the general public's beliefs about public health issues and to assess public support for priority policies in chronic disease prevention and control. In NYS, reported attitudes about heroin use and prescription opioid misuse indicate an awareness of the risk of overdose involving opioids.

In the most recent survey, 72 percent of New Yorkers reported that they consider prescription opioid misuse to be a "very serious" public health problem, representing an increase from the March 2021 and January 2022 surveys (Figure 6.9). Similarly, 70 percent of New Yorkers considered heroin use to be a "very serious" public health problem. While this decreased from 76 percent in November 2017, it remains consistent with several previous survey periods. Even with slight fluctuations over time, these issues have consistently been reported as serious public health problems at higher percentages, compared to other areas of public health concern, such as "access to healthy food and beverages" and "alcohol consumption". Perception of opioids as a serious public health problem are similar across geographic regions of NYS. Across the state and across survey years, most New Yorkers have consistently reported that they consider heroin use and prescription opioid misuse to be a "very serious public health problem" (regional data not shown).

Figure 6.9 Perceptions of public health problems as "very serious" by adults in New York State, November 2016 – January 2023



Data source: New York State Department of Health/Siena College Research Institute, New York State Chronic Disease Public Opinion Survey; Accessed April 2023
For complete data, see Appendix: Data Table 6.9.

Acknowledgements

This report was prepared with the invaluable assistance from the following programs:

- New York State Department of Health:
  - Office of Science
  - AIDS Institute, Office of Drug User Health
  - Bureau of Emergency Medical Services and Trauma Systems
  - Bureau of Narcotic Enforcement
  - Bureau of Vital Records
  - Office of Quality and Patient Safety
  - Bureau of Chronic Disease Evaluation and Research
- New York State Office of Addiction Supports and Services
- New York/New Jersey High Intensity Drug Trafficking Area

Methods

Indicators

Indicator	Definition	ICD Codes/Detailed Explanation	Data Source
Overdose deaths involving any opioid	All poisoning deaths involving opioids, all manners, using all causes of death	Underlying cause of death, determined from the field designated as such, or, where missing or unknown, from the first-listed multiple cause of death field: X40-X44, X60-X64, X85, Y10-Y14 AND Any opioid in all other causes of death: T40.0, T40.1, T40.2, T40.3, T40.4, T40.6	CDC WONDER
Overdose deaths involving heroin	Poisoning deaths involving heroin, all manners, using all causes of death	Underlying cause of death, determined from the field designated as such, or, where missing or unknown, from the first-listed multiple cause of death field: X40-X44, X60-X64, X85, Y10-Y14 AND Heroin in all other causes of death: T40.1	CDC WONDER
Overdose deaths involving commonly prescribed opioids	Poisoning deaths involving commonly prescribed opioids, all manners, using all causes of death	Underlying cause of death, determined from the field designated as such, or, where missing or unknown, from the first-listed multiple cause of death field: X40-X44, X60-X64, X85, Y10-Y14 AND any commonly prescribed opioid in all other causes of death: T40.2, T40.3 (e.g., hydrocodone, oxycodone)	CDC WONDER
Overdose deaths involving any synthetic opioid other than methadone	Poisoning deaths involving any synthetic opioid other than methadone, all manners, using all causes of death	Underlying cause of death, determined from the field designated as such, or, where missing or unknown, from the first-listed multiple cause of death field: X40-X44, X60-X64, X85, Y10-Y14 AND any other synthetic narcotics in all other causes of death: T40.4	CDC WONDER
Overdose deaths involving cocaine	Poisoning deaths involving cocaine, all manners, using all causes of death	Underlying cause of death, determined from the field designated as such, or, where missing or unknown, from the first-listed multiple cause of death field: X40-X44, X60-X64, X85, Y10-Y14 AND cocaine: T40.5	CDC WONDER
Overdose deaths involving opioids and nonfatal opioid related hospital events	Poisoning deaths involving any opioid, non-fatal outpatient ED visits and hospital discharges involving opioid abuse, poisoning, dependence and unspecified use.	Underlying cause of death, determined from the field designated as such, or, where missing or unknown, from the first listed multiple cause of death field: X40-X44, X60-X64, X85, Y10-Y14 AND any opioid in all other causes of death: T40.0, T40.1, T40.2, T40.3, T40.4, T40.6 ICD-10-CM: Opioid abuse (Principal Diagnosis: F1110, F11120, F11121, F11122, F11129, F1114, F11150, F11151, F11159, F11181, F11182, F11188, F1119); Opioid dependence and unspecified use (Principal Diagnosis: F1120, F11220, F11221, F11222, F11229, F1123, F1124, F11250, F11251, F11259, F11281, F11282, F11288, F1129, F1190, F11920, F11921, F11922, F11929, F1193, F1194, F11950, F11951, F11959, F11981, F11982, F11988, F1199); Opioid poisoning (Principal Diagnosis: T40.0, T40.1, T40.2, T40.3, T40.4, T40.6 (Excludes 'adverse effect' or 'underdosing' as indicated by the values of 5 and 6 in the 6th character; and 'sequela' as indicated by the value of 'S' in the 7th character; e.g. T400X5S, T400X6S)	Vital Statistics and CDC WONDER SPARCS

Indicator	Definition	ICD Codes/Detailed Explanation	Data Source
Newborns with neonatal withdrawal syndrome and/or affected by maternal use of opioid or other substance	Neonatal withdrawal symptoms from maternal use of drugs of addiction, and/or newborns affected by maternal use of drugs of addiction (other than cocaine) including opiates, sedative-hypnotics and anxiolytics	ICD-10-CM: Principal Diagnosis: Z38 (liveborn infants) AND P96.1 (neonatal withdrawal symptoms from maternal use of drugs of addiction) or P04.49 (newborns affected by maternal use of drugs of addiction (other than cocaine)) or P04.14 (newborns affected by maternal use of opiates) or P04.17 (newborns affected by maternal use of sedative-hypnotics) or P04.1A (newborns affected by maternal use of anxiolytics) in any other diagnoses	SPARCS
Hospital discharges involving opioid use (including overdose and disorders)	Opioid use includes abuse, poisoning, dependence and unspecified use.	ICD-10-CM: Opioid abuse (Principal Diagnosis: F1110, F11120, F11121, F11122, F11129, F1114, F11150, F11151, F11159, F11181, F11182, F11188, F1119); Opioid dependence and unspecified use (Principal Diagnosis: F1120, F11220, F11221, F11222, F11229, F1123, F1124, F11250, F11251, F11259, F11281, F11282, F11288, F1129, F1190, F11920, F11921, F11922, F11929, F1193, F1194, F11950, F11951, F11959, F11981, F11982, F11988, F1199); Opioid poisoning (Principal Diagnosis: T40.0, T40.1, T40.2, T40.3, T40.4, T40.6 (Excludes 'adverse effect' or 'underdosing' as indicated by the values of 5 and 6 in the 6th character; and 'sequela' as indicated by the value of 'S' in the 7th character; e.g. T400X5S, T400X6S)	SPARCS
Hospital discharges involving heroin overdose	Hospitalizations involving heroin poisonings	ICD-10-CM: Principal Diagnosis: T40.1 (Excludes 'adverse effect' or 'underdosing' as indicated by the values of 5 and 6 in the 6th character; and 'sequela' as indicated by the value of 'S' in the 7th character; e.g. T401X5S, T401X6S)	SPARCS
All emergency department visits involving opioid overdose	All emergency department visits (including outpatient and admitted patients) involving opioid poisonings	ICD-10-CM: Principal Diagnosis: T40.0, T40.1, T40.2, T40.3, T40.4, T40.6 (Excludes 'adverse effect' or 'underdosing' as indicated by the values of 5 and 6 in the 6th character; and 'sequela' as indicated by the value of 'S' in the 7th character; e.g. T400X5S, T400X6S)	SPARCS
All emergency department visits involving heroin overdose	All emergency department visits (including outpatient and admitted patients) involving heroin poisoning	ICD-10-CM: Principal Diagnosis: T40.1 (Excludes 'adverse effect' or 'underdosing' as indicated by the values of 5 and 6 in the 6th character; and 'sequela' as indicated by the value of 'S' in the 7th character; e.g. T401X5S, T401X6S)	SPARCS
Admissions for any opioids	Admissions to OASAS-certified substance use disorder treatment programs with heroin or any other synthetic opioid reported as the primary, secondary or tertiary substance of abuse at admission.	Other opioid includes synthetic and semi-synthetic opioids. The OASAS Client Data System (CDS) collects specific data on methadone, buprenorphine, oxycodone, as well as "other synthetic opioids." Other synthetic opioids also include drugs such as hydrocodone, pharmaceutical and/or non-pharmaceutical fentanyl. Clients may also have heroin or any other substance as the primary, secondary or tertiary substance of abuse at admission. An admission is the enrollment of a person into a certified substance use disorder program to receive treatment for a substance use disorder. A person may be admitted to one or more programs during the year depending on the type of services required.	OASAS Client Data System (CDS)

Indicator	Definition	ICD Codes/Detailed Explanation	Data Source
Naloxone administration report by Emergency Medical Services (EMS)	Each naloxone administration report represents an EMS encounter when the administration of naloxone was given during the course of patient care. Multiple doses may be dispensed within a single administration report. Often, administrations of naloxone were given for patients presenting with similar signs and symptoms of a potential opioid overdose; final diagnosis of an opioid overdose is completed during definitive care or final evaluation.	Medication administered is equal to naloxone.	NYS e-PCR data, and other regional EMS Program data collection methods
Naloxone administration report by law enforcement	Each naloxone administration report represents a naloxone administration instance in which a trained law enforcement officer administered one or more doses of naloxone to a person suspected of an opioid overdose.	Not applicable	NYS Law Enforcement Naloxone Administration Database
Naloxone administration report by registered Community Opioid Overdose Prevention program	Each naloxone administration report represents a naloxone administration instance in which a trained responder administered one or more doses of naloxone to a person suspected of an opioid overdose. Naloxone administration instances that are not reported to the AIDS Institute by the registered Community Opioid Overdose Prevention programs are excluded from the county report.	Not applicable	NYS Community Opioid Overdose Prevention Naloxone Administration Database

Indicator	Definition	ICD Codes/Detailed Explanation	Data Source
Suspected opioid overdose report by Emergency Medical Services (EMS)	If any one of the following conditions are met: 1) naloxone is administered with positive response, 2) provider impressions indicate poisoning by opioids, 3) provider impressions indicate opioid related disorder and naloxone is administered, 4) provider impressions indicate unspecified drug overdose and opioid term is mentioned in narrative and response to naloxone is not worse and no narcotics are administered by EMS, 5) provider impressions indicate unspecified drug overdose, cardiac arrest, apnea, or respiratory failure and opioid term is mentioned in narrative and naloxone is administered and patient fatality is indicated, 6) opioid term and overdose term mentioned in narrative (with no rule out term) and at least two additional terms indicating an opioid overdose mentioned in narrative and no narcotics are administered by EMS	Please see appendix XX for detailed methodology	NYS e-PCR data, and other regional EMS Program data collection methods
Perception of heroin use as a "very serious" public health problem	Prevalence of NYS adults perceiving heroin use as a "very serious" public health problem	Residents aged 18 years or older are interviewed from within all regions in NYS to ensure a representative statewide sample. From 2013-2018 the survey conducted via a random-digit dial telephone survey. Survey methods were changed in 2019 to include the addition of an online survey and may affect the ability to trend data. The overall sample is weighted by age, gender, reported race/ethnicity, and region to ensure statistical representativeness. Survey Question: For each of the following, tell me if you think it is a very serious public health problem, a somewhat serious public health problem, a not very serious public health problem or that it is not at all a serious public health problem: Heroin use.	NYSDOH/Siena College Research Institute, Chronic Disease Prevention Public Opinion Survey

Indicator	Definition	ICD Codes/Detailed Explanation	Data Source
Perception of prescription opioid misuse and abuse as a "very serious" public health problem	Prevalence of NYS adults perceiving prescription opioid misuse and abuse to be a "very serious" public health problem	Residents aged 18 years or older are interviewed from within all regions in NYS to ensure a representative statewide sample. From 2013-2018 the survey conducted via a random-digit dial telephone survey. Survey methods were changed in 2019 to include the addition of an online survey and may affect the ability to trend data. The overall sample is weighted by age, gender, reported race/ethnicity, and region to ensure statistical representativeness. Survey Question: For each of the following, tell me if you think it is a very serious public health problem, a somewhat serious public health problem, a not very serious public health problem or that it is not at all a serious public health: Prescription opioid such as Percocet, OxyContin or Vicodin misuse and abuse problem.	NYSDOH/Siena College Research Institute, Chronic Disease Prevention Public Opinion Survey
Perception of alcohol consumption as a "very serious" public health problem	Prevalence of NYS adults perceiving alcohol consumption to be a "very serious" public health problem	Residents aged 18 years or older are interviewed from within all regions in NYS to ensure a representative statewide sample. From 2013-2018 the survey conducted via a random-digit dial telephone survey. Survey methods were changed in 2019 to include the addition of an online survey and may affect the ability to trend data. The overall sample is weighted by age, gender, reported race/ethnicity, and region to ensure statistical representativeness. Survey Question: For each of the following, tell me if you think it is a very serious public health problem, a somewhat serious public health problem, a not very serious public health problem or that it is not at all a serious public health problem: Alcohol consumption.	NYSDOH/Siena College Research Institute, Chronic Disease Prevention Public Opinion Survey
Perception of tobacco use as a "very serious" public health problem	Prevalence of NYS adults perceiving tobacco use to be a "very serious" public health problem	Residents aged 18 years or older are interviewed from within all regions in NYS to ensure a representative statewide sample. From 2013-2018 the survey conducted via a random-digit dial telephone survey. Survey methods were changed in 2019 to include the addition of an online survey and may affect the ability to trend data. The overall sample is weighted by age, gender, reported race/ethnicity, and region to ensure statistical representativeness. Survey Question: For each of the following, tell me if you think it is a very serious public health problem, a somewhat serious public health problem, a not very serious public health problem or that it is not at all a serious public health problem: Tobacco use.	NYSDOH/Siena College Research Institute, Chronic Disease Prevention Public Opinion Survey

Indicator	Definition	ICD Codes/Detailed Explanation	Data Source
Perception of childhood obesity as a "very serious" public health problem	Prevalence of NYS adults perceiving childhood obesity to be a "very serious" public health problem	Residents aged 18 years or older are interviewed from within all regions in NYS to ensure a representative statewide sample. From 2013-2018 the survey conducted via a random-digit dial telephone survey. Survey methods were changed in 2019 to include the addition of an online survey and may affect the ability to trend data. The overall sample is weighted by age, gender, reported race/ethnicity, and region to ensure statistical representativeness. Survey Question: For each of the following, tell me if you think it is a very serious public health problem, a somewhat serious public health problem, a not very serious public health problem or that it is not at all a serious public health problem: Childhood obesity.	NYSDOH/Siena College Research Institute, Chronic Disease Prevention Public Opinion Survey
Perception of access to health food and beverages as a "very serious" public health problem	Prevalence of NYS adults perceiving access to healthy food and beverages to be a "very serious" public health problem	Residents aged 18 years or older are interviewed from within all regions in NYS to ensure a representative statewide sample. From 2013-2018 the survey conducted via a random-digit dial telephone survey. Survey methods were changed in 2019 to include the addition of an online survey and may affect the ability to trend data. The overall sample is weighted by age, gender, reported race/ethnicity, and region to ensure statistical representativeness. Survey Question: For each of the following, tell me if you think it is a very serious public health problem, a somewhat serious public health problem, a not very serious public health problem or that it is not at all a serious public health problem: Access to healthy food and beverages.	NYSDOH/Siena College Research Institute, Chronic Disease Prevention Public Opinion Survey

Indicator	Numerator	Denominator
Opioid[e] analgesic prescription rate[a] per 1,000 population	Schedule II, III and IV opioid analgesic prescriptions[c] dispensed to state residents.	Midyear population for the calendar year under surveillance from US census
Commonly prescribed opioid analgesic prescription rate[a] per 1,000 population	Six commonly prescribed schedule II, III and IV opioid analgesic prescriptions[c] dispensed to state residents	Midyear population for the calendar year under surveillance from US census
Percentage of incidents when patients were opioid naïve and received long-acting opioid prescription[e,f]	Number of incidents when patients were opioid naïve and received long-acting opioid prescription[e,f]	Number of opioid naïve incidents[c]
Percentage of incidents when patients were opioid naïve and received an opioid prescription[e,g] of more than seven days	Number of incidents when patients were opioid naïve and received an opioid prescription[e,g] of more than seven days	Number of opioid naïve incidents[c]
Patients prescribed opioid[e] analgesics from five or more prescribers and dispensed at five or more pharmacies in a six-month period, rate[a] per 100,000 population	Number of patients receiving prescriptionsc for opioid analgesics from five or more prescribers and that are dispensed at five or more pharmacies in a six-month period. The numerator is a count of unique patients who experienced at least one MPE in any six-month period.	Midyear population for the calendar year under surveillance from US census
Patients who received at least one buprenorphine prescription for opioid use disorder, rate[a] per 1,000 population	Patients who received at least one buprenorphine prescription for opioid use disorder within the state	Midyear population for the calendar year under surveillance from US census
Patients prescribed one or more opioid[e] analgesics with a total daily dose of ≥ 90 MME[b] on at least one day	Patients prescribed one or more opioid analgesics prescription[d] with a total daily dose of ≥ 90 MME on at least one day	Patients who received one or more opioid analgesic prescriptions[d] during a given year
Patients with two or more calendar days of overlapping opioid [e] analgesic and benzodiazepine prescriptions	Patients with two or more calendar days of overlapping opioid analgesic and benzodiazepine prescriptions[c]	Patients with at least one prescription[c] for opioid analgesics or benzodiazepines during a given year
Patients with two or more calendar days of overlapping opioid [e] analgesic prescriptions	Patients with two or more calendar days of overlapping opioid analgesic prescriptions[c]	Patients with at least one prescription[c] for opioid analgesics during a given year

[a]: The rates presented are controlled substance prescription rates per population. These numbers are federally-standardized indicators used to measure types of progress toward combating the controlled substance epidemic in certain states. They are not rates of the number of different people who are receiving a controlled substance prescription in a certain population. Rather, they are rates of the number of specific controlled substance prescriptions written and dispensed within the period. For example, if a county has a rate of 25, that means there were 25 prescriptions per 1,000 people in the population. However, it does not necessarily mean that 25 out of 1,000 individuals received a prescription; all 25 controlled substance prescriptions could have been for one individual.
[b]: Morphine milligram equivalent
[c]: Buprenorphine prescriptions for the treatment of substance use disorder were excluded.
[d]: Buprenorphine prescriptions for the pain and the treatment of substance use disorder were excluded.
[e]: A comprehensive controlled substance list including drugs from CDC and NYS PMP was used for data analysis
[f]: Patient received index prescription of long-acting opioid and opioid naïve.
[g]: Patient received index prescription of more than seven days and opioid naïve.

NYS Suspected Opioid Overdose Syndrome – NEMSIS v3.4.0

Records for inclusion are limited to 911 Response, Intercept and Mutual aid.

1. NEMSIS v3 - Naloxone administration is documented (eMedications.03) ***AND*** [response to medication (eMedications.07) indicates patient improvement OR narrative (eNarrative.01) contains “improved”, “improvement in loc", “more responsive", “now awake”, "began breathing", “became conscious”, “pt came to”, “pt woke up”, “became responsive”, "more alert", "positive response to Narcan"].

2. Primary or secondary impression(s) indicate an opioid overdose:
    - NEMSIS v3 - Primary/secondary impression (eSituation.11, eSituation.12) starts with any of the following:
        - T40.0: Poisoning by, adverse effect of and underdosing of opium
        - T40.1: Poisoning by and adverse effect of heroin
        - T40.2: Poisoning by, adverse effect of and underdosing of opioids
        - T40.3: Poisoning by, adverse effect of and underdosing of methadone
        - T40.4: Poisoning by, adverse effect of and underdosing of other synthetic narcotics- Fentanyl, Tramadol, etc.
        - T40.6: Poisoning by, adverse effect of and underdosing of other and unspecified narcotics

    AND

    - Any of the following is true:
        - No naloxone administration is documented in (eMedications.03)
        - Naloxone administration is documented in (eMedications.03) and response to medication (eMedications.07) indicates patient improvement or unchanged
        - Naloxone administration is documented in (eMedications.03) and response to medication (eMedications.07) is not documented

3. Primary or secondary impression(s) indicate an opioid related disorder
    - NEMSIS v3 - Primary/secondary impression (eSituation.11, eSituation.12) starts with F11: Opioid related disorders

    AND

    - Naloxone administration is documented in eMedications.03 or eNarrative.01

4. Primary or secondary impression(s) indicate an unspecified drug overdose:
    - NEMSIS v3 - Primary or secondary impression (eSituation.11, eSituation.12) starts with any of the following:
        - T50.9: Poisoning by, adverse effect of and underdosing of other and unspecified drugs, medicaments, and biological substances
        - T65.9: Toxic effect of unspecified substance

    AND

    - Opioid term is mentioned in narrative:
        - Narrative (eNarrative.01) or complaint (eSituation.04) contains "opioid", "opiate", "opium", “dope”, “smack”, "heroin", “hod”, "speedball", "methadone", "suboxone", “morphine”, “tramadol”,

buprenorphine", "codeine", "norco", "oxy", "vicodin", "Percocet", hydrocodone", "opana", "dilaudid", "hydromorphone", "fentanyl". Common misspellings and other variants of these terms are included.

AND

- Any of the following are true:
  - Naloxone administration is documented in eMedications.03 and response to medication (eMedications.07) indicates patient improvement or unchanged.
  - Naloxone administration is documented in eMedications.03 and response to medication (eMedications.07) is not documented
  - Naloxone administration is documented in eNarrative.01

AND

- Fentanyl (4337), Morphine (7052), Oxycodone (7804), Hydromorphone (3423), and Tramadol (10689) are not an administered medication in (eMedications.03).

5. Primary or secondary impression(s) indicate a non-specific drug or opioid overdose, cardiac arrest, apnea, or respiratory failure *AND* opioid term is mentioned in narrative *AND* naloxone is administered *AND* Patient fatality is indicated:
   - NEMSIS v3 (eSituation.11, eSituation.12):
     - Apnea: R06.81; Cardiac arrest: I46; Drug overdose codes: T40.0-T40.4, T40.6, T50.9, T65.9; Respiratory failure: J96.0, J96.9

   AND

   - Narrative (eNarrative.01) or complaint (eSituation.04) contains "opioid", "opiate", "opium", "dope", "smack", "heroin", "hod", "speedball", "methadone", "suboxone", "morphine", "tramadol", buprenorphine", "codeine", "norco", "oxy", "vicodin", "Percocet", hydrocodone", "opana", "dilaudid", "hydromorphone", "fentanyl". Common misspellings and other variants of these terms are included.

   AND

   - Naloxone administration is documented in eMedications.03 or eNarrative.01

   AND

   - Incident/Patient Disposition (eDisposition.12) indicates patient death.
   - Initial Patient Acuity (eSituation.13) or Final Patient Acuity (eDisposition.19) are Dead without Resuscitation Efforts (Black).
   - Reason CPR/Resuscitation Discontinued (eArrest.16) is 3016005 "Obvious Signs of Death".
   - End of EMS Cardiac Arrest Event (eArrest.18) is 3018001 Expired in ED 3018003 or Expired in the Field.

6. Opioid term mentioned in narrative (with no rule out term) AND overdose term mentioned in

narrative (with no rule out term) AND at least two additional terms (Narcan, method, LOC,
physiologic sign) mentioned in narrative AND there are no narcotic medications listed under
administered medications:

- NEMSIS v3 - Narrative or complaint contains opioid term AND overdose term (term is excluded if
  preceded by a rule out term: rule out", "r/o")
  - Opioid terms: "opioid", "opiate", "opium", "dope", "smack", "heroin", "hod", "speedball", "methadone", "suboxone", "morphine", "tramadol", buprenorphine", "codeine", "norco", "oxy", "vicodin", "Percocet", hydrocodone", "opana", "dilaudid", "hydromorphone", "fentanyl".

AND

  - Overdose terms: "overdose", "overdosed", "od", "od'd"

AND

- Narrative (eNarrative.01) or complaint (eSituation.04) contains a term from at least two of the following groups (common misspellings and other variants of these terms are included):
  - LOC: "nodding off", "unresponsive", "altered LOC", "AMS", "unconscious", "loss of consciousness"
  - Method: "inject", "snort", "tinfoil", "ingest", "smoke", "freebase", "syring" and "spoon", "needle" and "spoon"
  - Narcan: "Narcan", "naloxone"
  - Physiological sign: "pinpoint pupil", "injection mark", "track mark", "blue", "cyano", "stop breathing", "respiratory arrest", "inadequate breathing", "agonal breathing"

AND

- Fentanyl (4337), Morphine (7052), Oxycodone (7804), Hydromorphone (3423), and
  Tramadol (10689) are not an administered medication in eMedications.03

Data Sources

CDC WONDER:

State level opioid overdose mortality data were obtained from the Centers for Disease Control and Prevention Multiple Cause of Death Data query (CDC WONDER).

The confirmation and recording of opioid-related deaths are impacted by several factors, including toxicology testing, coroner/medical examiner systems and capacity, resource and funding availability, and the county in which death occurred. These may result in lack of identification of deaths caused by an opioid overdose, as well as variation in the information available with respect to specific substances involved. However, raised awareness of specific substances involved in overdoses, improvements in technology and resources for toxicology testing, and improved cause-of-death reporting have occurred in recent years. As a result, it is important to note that while there have been increases in the reported number of overdose deaths, some of the observed early increases are likely due to the improvements in reporting.

For information about CDC WONDER race/ethnicity groups, including which groups are included in the "other" category, please see:
https://wonder.cdc.gov/wonder/help/mcd.html#Race%20and%20Ethnicity%20Questions

Vital Records (Vital Statistics) Vital Event Registration:

New York State consists of two registration areas, New York City (NYC) and New York State exclusive of New York City (also referred to as Rest of State). NYC includes the five counties of Bronx, Kings (Brooklyn), New York (Manhattan), Queens, and Richmond (Staten Island); the remaining 57 counties comprise New York State exclusive of NYC. The NYSDOH Bureau of Vital Records processes data from live birth, death, fetal death, and marriage certificates recorded in New York State exclusive of NYC. Through a cooperative agreement, the NYSDOH receives data on live births, deaths, and fetal deaths recorded in NYC from the New York City Department of Health and Mental Hygiene (NYCDOHMH), and on live births and deaths recorded outside of New York State of residents of New York State from other states and Canada.

In general, vital event indicators for NYC geographical areas reported by the NYSDOH and the NYCDOHMH may be different because the former possibly includes all NYC residents' events, regardless of where they took place, and the latter reports events to NYC residents that took place in NYC.

Vital statistics mortality data include up to 20 causes of death. Frequencies are based on decedents' county of residence, not the county where death occurred. This report's mortality indicators reflect all manners and all causes of death. Data are frequently updated as additional confirmations on the causes of death and new records for all NYS resident deaths are received. Therefore, the frequencies published in subsequent reports may also differ due to timing and/or completeness of data.

Statewide Planning and Research Cooperative System (SPARCS):

SPARCS collects information about hospitalizations and ED visits through the patient discharge data system. Outpatient ED visits are events that did not result in admission to the hospital. Each

hospitalization and outpatient ED visit receives an ICD-10-CM code at discharge that indicates the primary reason for the occurrence. There is also a first-listed cause, external cause of injury, and up to 24 other diagnosis codes recorded to further describe the hospitalization or ED visits.

Statistics in these tables are based on the primary diagnosis and first-listed cause of injury unless otherwise noted. An individual can have more than one hospitalization or ED visit. Numbers and rates are based on the number of discharges and not on the number of individuals seen. The frequencies are based on patients' county of residence, not the county where the incident occurred. County of residence was assigned based on ZIP Code for cases in which the patient county of residence was listed as unknown or missing, but a valid NYS ZIP Code was present. For indicators related to the ED data, the numbers represent ED visits for opioid overdose patients who were not subsequently admitted into the hospital.

For information about SPARCS race/ethnicity groups, including which groups are included in the "other" category, please see:

- SPARCS Inpatient Data Dictionary (pages 54 and 55) https://www.health.ny.gov/statistics/sparcs/sysdoc/inpatientoutputdd.pdf
- SPARCS Outpatient Data Dictionary (pages 70 and 71) https://www.health.ny.gov/statistics/sparcs/sysdoc/outpatientoutputdd.pdf

The 2018 population estimates are used to calculate rates for 2020 and 2021.

New York State Emergency Medical Services (EMS) Data:

New York State maintains an EMS patient care data repository, in which all electronic Patient Care Report (e-PCR) data are captured from across the State. As of June 2018, additional EMS electronic patient care data are being submitted in compliance with the National EMS Information Systems (NEMSIS) 3.4.0 standard. The number of reported naloxone administrations for Erie, Niagara, Monroe, Onondaga, Schoharie, Montgomery, and Herkimer counties may have increased compared to previous reports, as an EMS agency covering those counties and responding to a large volume of 911 calls has had data submitted back starting in August 2016 until current quarters. Additional historical data from 2017 forward is expected to be received for the five counties of New York City and other regions across New York State. Updates will be made to reported totals as additional data become available.

Most data for Suffolk County are obtained through the Suffolk County Regional EMS Medical Control, to which all medication administrations by EMS–including naloxone–are required to be reported. The Suffolk County results in this report are a de-duplicated compilation of data received from Suffolk County Medical Control and data provided from e-PCRs submitted. Data for Nassau County are primarily provided by the Nassau County Police Department, based on reports submitted by Nassau County first response agencies and most ambulance transport agencies. The EMS data from Nassau County Police Department are combined with e-PCR data submitted by other agencies not included in the Nassau County Police Department reporting. Finally, part of the data for Richmond County is obtained directly from the EMS agency, due to a difference in reporting mechanisms.

New York State Law Enforcement Naloxone Administration Dataset:

The NYS Law Enforcement Naloxone Administration dataset provides information on naloxone administrations by law enforcement officers in the case of a suspected opioid overdose. The information comes from a form that is submitted by officers following a naloxone administration. The form collects the age and gender of the individual receiving naloxone, the county and ZIP Code where the suspected opioid overdose occurred, aided status before and after naloxone administration, the suspected drug used, the number of naloxone vials administered by the officer, and whether the person lived. Initial trainings of law enforcement began in 2014 and are ongoing. The data do not yet comprehensively include the New York City Police Department and the Nassau County Police Department, which use a separate reporting mechanism.

New York State Community Opioid Overdose Prevention Program Dataset:

The NYS Community Opioid Overdose Prevention program dataset provides information on naloxone administrations by lay persons who have been trained by registered NYS Community Opioid Overdose Prevention programs in the case of a suspected opioid overdose. Naloxone administration reports are submitted by registered Community Opioid Overdose Prevention programs, not individual lay persons. The form collects information including age and gender of the individual receiving naloxone, the county and ZIP Code where the suspected opioid overdose occurred, aided status before naloxone administration, the number of naloxone doses administered by the responder, and whether the person lived.

Naloxone usage reports are submitted to the AIDS Institute (AI) by registered community programs after a naloxone kit has been used by a trained community responder. Beginning in May 2018, the AI Community Opioid Overdose Prevention program began the transition from a paper-based reporting system to an online system for naloxone usage reporting purposes. Data that had previously been collected using paper reports and manually entered in a database were migrated to an online platform where data are now stored and managed. This migration included all paper reports from program inception in 2006 through July 2018. Registered programs have been introduced to the online reporting system on a rolling basis. While most registered program are utilizing the online platform for reporting purposes, paper reports will continue to be accepted and naloxone administration data on these forms will be entered into the new online system. As of April 2019, a new ZIP Code file was introduced to improve reporting accuracy. This has resulted in shifts in the number of administrations in certain counties, depending upon the ZIP Code reassignment.

New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS):

New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS): The NYS Office of Addiction Services and Supports (OASAS) collects data on people treated in all OASAS-certified chemical dependence treatment programs. Data are collected through the OASAS Client Data System (CDS). Data are collected at admission and discharge from a level of care within a provider. Levels of care include crisis, residential, inpatient, outpatient, and opioid treatment. An individual admitted to more than one level of care during a year would be counted more than one admission. The primary, secondary and tertiary substance of abuse is collected for all clients admitted. Not all clients have a secondary or tertiary

substance of abuse. Data are based on the number of admissions during the year, and not on the number of individuals treated. A person admitted in a previous year could still be receiving treatment in subsequent years but would not be shown as an admission for the new year unless they were admitted in that year.

The 2018 population estimates are used to calculate rates for 2019, 2020, 2021, and 2022.

Prescription Monitoring Program (PMP) Data:

The New York State Prescription Monitoring Program Registry (PMP) is an online registry that is administered by the New York State Department of Health's Bureau of Narcotic Enforcement (BNE). The registry collects dispensed prescription data for controlled substances in schedules II, III, IV and V that are reported by more than 5,000 separate dispensing pharmacies and practitioners registered with New York State. The data must be submitted to BNE within 24 hours after the prescription is dispensed. BNE closely monitors all submitted prescriptions and their associated information. The integrity of the data is achieved through a variety of system edits, and it is the responsibility of the pharmacies to provide timely and accurate data.

Effective August 27, 2013, NYS prescribers are required to consult the Prescription Monitoring Program Registry prior to writing a prescription for Schedule II, III, and IV controlled substances. The PMP provides practitioners with direct, secure access to view dispensed controlled substance prescription histories for their patients. The PMP is available 24 hours a day/seven days a week via an application on the Health Commerce System (HCS). Patient reports include all controlled substances that were dispensed in New York State and reported by the pharmacy/dispenser for the past year. This information empowers practitioners to better evaluate their patients' treatment with controlled substances and determine whether there may be abuse or non-medical use. In addition, pharmacists can also access the registry to assist in the exercise of their professional judgment before dispensing the prescriptions for controlled substances.

The 2018 population estimates are used to calculate rates for 2019, 2020, 2021 and 2022.

The Youth Risk Behavior Surveillance System (YRBSS):

What is the YRBSS?

The YRBSS is a national survey of youth and young adults in the US. It was developed to monitor priority health risk behaviors that are often established in childhood and adolescence. The YRBSS had been conducted every two years since 1991 and surveys high school students on substance use, physical activity, dietary behaviors, sexual behaviors, and behaviors related to injuries and violence. The national survey is conducted by CDC and the state, territorial, tribal government, and local surveys are administered by departments of health and education.

What is its use?

Health departments use the data for a variety of purposes. Among those are to provide information on prevalence and trends in health behaviors, identify demographic variations in health-related behaviors, provide comparable data, and measure progress toward achieving state and national health objectives.

Who is covered in the YRBSS?

The health characteristics estimated from the YRBSS pertain only to 9th through 12th grade students in public and private schools in the US. A cluster sample design is employed to identify a nationally representative sample of 9th through 12th grade students. Primary sample units are used, schools are samples from the primary sample units, and intact classes of required subjects are identified and samples. All students enrolled in the sample classes can participate in the survey.

Behavioral Risk Factor Surveillance System (BRFSS):

The Behavioral Risk Factor Surveillance System (BRFSS) is an annual statewide telephone surveillance system designed and funded by the Centers for Disease Control and Prevention (CDC), and conducted by the NYSDOH Division of Chronic Disease and Prevention, Bureau of Chronic Disease Evaluation and Research. The BRFSS collects data on preventive health practices and risk behaviors that affect chronic diseases, injuries, and preventable infectious diseases. In addition to a set of core questions that CDC requires to be asked in all states either every year, or on a regular rotating basis, such as every other year, states may also include questions from a list of optional CDC questions or may add additional questions to serve their own specific state needs. Since 2018, questions on opioid use in the past 12 months have been included in the survey conducted in New York State.

New York State's BRFSS sample is designed to be representative of the adult population living in private residences or college housing who have either a landline or cellular telephone. Adults living in group homes or congregate settings are excluded from the survey. The BRFSS is designed to provide information for New York State, New York State excluding New York City and New York City (5 boroughs combined).

Public Opinion Survey

Survey data were provided by Siena College Research Institute, who administers an annual survey of adult residents of the state of New York on behalf of the New York State Department of Health Division of Chronic Disease Prevention to examine the general public's beliefs about public health issues and to assess public support for priority policies in chronic disease prevention and control.

Data Suppression Rules for Confidentiality

In many instances, results are not shown (i.e., suppressed) to protect individuals' confidentiality. Suppression rules vary, depending on the data source.

Data Source	Suppression Criteria
Vital Statistics - Death Records	Denominator population <50
CDC WONDER	Numerator <10 deaths
Statewide Planning and Research Cooperative System (SPARCS) - ED and hospital records	Numerator 1-5 cases
OASAS Client Data System (CDS) - Admissions	Numerator between 1-5 admissions
Prehospital Care Reports	None
NYS Law Enforcement Naloxone Administration Dataset	None
NYS Community Opioid Overdose Prevention Program Dataset	None
NYS Prescription Monitoring Program (PMP)	Numerator between 1-5 cases
YRBSS	Unweighted denominator <30
BRFSS	Unweighted denominator <50 or Unweighted numerator between 1 - 5 cases

Data Limitations

Data Source	Limitations
Vital Records	The accuracy of indicators based on codes found in vital statistics data is limited by the completeness and quality of reporting and coding. Death investigations may require weeks or months to complete; while investigations are being conducted, deaths may be assigned a pending status on the death certificate (ICD-10-CM underlying cause code of R99, "other ill-defined and unspecified causes of mortality"). Analysis of the percentage of death certificates with an underlying cause of death of R99 by age, over time, and by jurisdiction should be conducted to determine potential impact of incomplete underlying causes of death on drug overdose death indicators. The percentage of death certificates with information on the specific drug(s) involved in drug overdose deaths varies substantially by state and local jurisdiction and may vary over time. The substances tested for, the circumstances under which the tests are performed, and how information is reported on death certificates may also vary. Drug overdose deaths that lack information about the specific drugs may have involved opioids. Even after a death is ruled as caused by a drug overdose, information on the specific drug might not be subsequently added to the certificate. Therefore, estimates of fatal drug overdoses involving opioids may be underestimated from lack of drug specificity. Additionally, deaths involving heroin might be misclassified as involving morphine (a natural opioid), because morphine is a metabolite of heroin. The indicator "Overdose deaths involving opioid pain relievers" includes overdose deaths due to pharmaceutically and illicitly produced opioids such as fentanyl. Data for NYC on opioid overdose deaths are not provided. CDC WONDER is used as data source for the five boroughs in New York City.
CDC WONDER	For additional information about CDC WONDER, including limitations of Multiple Cause of Death data, please see: https://wonder.cdc.gov/wonder/help/mcd.html

Data Source	Limitations
SPARCS	The recent data may be incomplete and should be interpreted with caution. Health Care Facilities licensed in New York State, under Article 28 of the Public Health Law, are required to submit their inpatient and/or outpatient data to SPARCS. SPARCS is a comprehensive all-payer data reporting system established in 1979 as a result of cooperation between the healthcare industry and government. Created to collect information on discharges from hospitals, SPARCS now collects patient level detail on patient characteristics, diagnoses and treatments, services, and charges for hospitals, ambulatory surgical centers, and clinics, both hospital extension and diagnosis and treatment centers. Per NYS Rules and Regulations, Section 400.18 of Title 10, data are required to be submitted: (1) monthly, (2) 95% within 60 days following the end of the month of patient's discharge/visit, and (3) 100% are due 180 days following the end of the month of the patient discharge/visit. Failure to comply may result in the issuance of Statement of Deficiencies (SODs) and facilities may be subject to a reimbursement rate penalty. The accuracy of indicators, which are based on diagnosis codes (ICD-9-CM codes before Oct. 1, 2015 and ICD-10-CM on or after Oct. 1, 2015) reported by the facilities, is limited by the completeness and quality of reporting and coding by the facilities. The indicators are defined based on the principal diagnosis code or first-listed valid external cause code only. The sensitivity and specificity of these indicators may vary by year, hospital location, and drug type. Changes should be interpreted with caution due to the change in codes used for the definition. The SPARCS data do not include discharges by people who sought care from hospitals outside of NYS which may lower numbers and rates for some counties, especially those which border other states.
OASAS Client Data System (CDS)	The recent data may be incomplete and should be interpreted with caution. The CDS includes data for individuals served in the OASAS-certified treatment system. It is important to keep in mind that these data do not include individuals who do not enter treatment, get treated by the U.S. Department of Veterans Affairs (VA), go outside of New York State for treatment, are admitted to hospitals but not to Substance Use Disorder (SUD) treatment, get diverted to other systems, or receive an addictions medication from a physician outside of the OASAS system of care. OASAS-certified substance use disorder treatment programs are required to submit their admissions data to the CDS not later than the fifth of the month following the clinical admission transaction. Data are considered to be substantially complete three months after the due date but are able to be updated indefinitely. The accuracy of measures, which are based on data reported by the programs, is limited by the completeness, consistency and quality of reporting and coding by the programs. The sensitivity and specificity of these indicators may vary by provider, program, and possible substances reported. Opioid admissions data are not direct measures of the prevalence of opioid use. The availability of substance use disorder treatment services within a county may affect the number of admissions of county residents to programs offering those services. Admissions are not unique counts of people. A person can be admitted into treatment more than once in a given time period.
EMS Patient Care Reports	Documentation data entry errors can occur and may result in 'naloxone administered' being recorded when a different medication had actually been administered. Patients who present as unresponsive or with an altered mental status with unknown etiology may be administered naloxone, as part of the treatment protocol, while attempts are being made to determine the cause of the patient's current unresponsive state or altered mental status. Electronic PCR data currently capture approximately 99% of all EMS data statewide. The remaining data are reported via paper PCR, from which extracting opioid/heroin overdoses and naloxone administrations is impractical. The Suffolk County Medical Control data do not include patients recorded as 'unresponsive/unknown' who received a treatment protocol that includes naloxone. The National Emergency Medical Services Information System (NEMSIS) is a universal standard for how EMS patient care data are collected. Prior to 2019, most EMS agencies in New York State adhered to the NEMSIS version 2.2.1 standard that was released in 2005. As of January 1, 2020, most have transitioned to the updated NEMSIS version 3.4.0 standard, which has improved the quality of EMS data. Electronic PCR data are now captured from both NEMSIS version 2 and NEMSIS version 3 agencies. Now that NEMSIS version 3 data are being captured by New York State, the receipt of historical data has increased the number of naloxone administration reports counted for several counties. Additional increases may occur as more EMS agencies begin to submit NEMSIS version 3 data, which will be reflected in future quarterly reports as the data become available.

Data Source	Limitations
NYS Law Enforcement Naloxone Administration Dataset	All data are self-reported by the responding officer at the scene. Not all data fields are completed by the responding officer. There is often a lag in data reporting. All data should be interpreted with caution. It is possible that not all naloxone administrations reported are for an opioid overdose. There are not toxicology reports to confirm suspected substances used. Increase may represent expansion of program and may or may not indicate an increase in overdose events. Data for New York City on naloxone administration reports by law enforcement are not included in this report. Data displayed for Nassau County on naloxone administration reports by law enforcement are not complete due to the use of an alternate reporting system.
NYS Community Opioid Overdose Prevention Program Dataset	All data are self-reported by the responder on the scene. Not all data fields are completed by the responder. There is often a lag in data reporting. All data should be interpreted with caution. Increase may represent expansion of program and may or may not indicate an increase in overdose events. Reporting administrations of naloxone to the NYSDOH is one of the mandated responsibilities of registered Community Opioid Overdose Prevention program directors. The actual number of incidents of naloxone administrations in the community may be higher than the number reported to the NYSDOH due to the delay in reporting. The actual number of naloxone administrations is likely to substantially exceed the number reported to the NYSDOH.
NYS Prescription Monitoring Program (PMP)	For all PMP indicators, NYSDOH applied several exclusions. Prescriptions for out-of-state patients or without a valid patient's NY ZIP code were removed from the analysis. Data from veterinarians and prescription drugs administered to animals were not included in the analysis of PMP data. Prescriptions filled for opioids that have supply days greater than 90 were eliminated from the analysis. Also, opioids not typically used in outpatient settings and cold formulations including elixirs, antitussives, decongestants, antihistamines and expectorants were not included in the analysis. The Bureau of Narcotic Enforcement (BNE) conducts an annual update of the National Drug Code (NDC) file used to identify select opioids, benzodiazepines, and stimulants in the prescription monitoring program (PMP) data. The historic prescription data is updated using the most recent NDC file each year. The application of the updated NDC file to the historic data may result in modifications to previous years data and improves the accuracy and quality of the current year's data.
Youth Behavioral Risk Factor Surveillance System (YBRSS)	YRBSS has multiple limitations. First, all data are self-reported, and the extent of underreporting or overreporting of behaviors cannot be determined. Second, the national, state, and local school-based survey data apply only to youth who attend school and, therefore, are not representative of all persons in this age group due to a small portion of youth not enrolled in a high school program o had not completed high school. Third, whereas YRBSS is designed to produce information to help assess the effect of broad national, state, and local policies and programs, it was not designed to evaluate the effectiveness of specific interventions (e.g., a professional development program, school curriculum, or media campaign).[27] Compared to the previous years, the national survey was administered during the fall semester in 2021, which may affect the comparisons with previous years surveys. Student participation might have been reduced due to the COVID-19 precautions, however more schools were sampled compared to previous years.[28]
BRFSS	https://www.cdc.gov/brfss/about/brfss_faq.htm https://www.cdc.gov/brfss/publications/data_qvr.htm
NYSDOH/Siena College Research Institute, Chronic Disease Prevention Public Opinion Survey	Survey data were collected through random-digit dialing samples of both landline and cell phone numbers and are potentially limited by non-response bias.

[27] Methodology of the Youth Risk Behavior Surveillance System – 2013. Centers for Disease Control and Prevention. https://www.cdc.gov/mmwr/pdf/rr/rr6201.pdf

[28] Overview and Methods for the Youth Risk Behavior Surveillance System — United States, 2021 (cdc.gov). Centers for Disease Control and Prevention. Accessed April 2023.

Appendix

Data Table 1.1 Overdose deaths involving opioids and other substances, crude rate per 100,000 population, New York State, 2020 and 2021

Year	Any opioid		Heroin		Commonly prescribed opioids		Synthetic opioids other than methadone*		Heroin with synthetic opioids other than methadone		Cocaine with synthetic opioids other than methadone	
	Deaths	Crude Rate	Deaths	Crude rate	Deaths	Crude rate	Deaths	Crude rate	Deaths	Crude rate	Deaths	Crude rate
2015	2,166	10.9	1,058	5.3	895	4.5	668	3.4	263	1.3	142	0.7
2016	3,009	15.2	1,307	6.6	1,100	5.6	1,641	8.3	649	3.3	451	2.3
2017	3,224	16.2	1,356	6.8	1,044	5.3	2,238	11.3	923	4.7	742	3.7
2018	2,991	15.3	1,243	6.4	998	5.1	2,195	11.2	960	4.9	786	4.0
2019	2,939	15.1	1,145	5.9	939	4.8	2,338	12.0	949	4.9	858	4.4
2020	4,233	21.9	1,275	6.6	1,257	6.5	3,721	19.2	1,173	6.1	1,350	7.0
2021	5,017	25.3	1,047	5.3	1,336	6.7	4,594	23.2	1,013	5.1	1,804	9.1

*Synthetic opioids other than methadone (SOOTM) are identified by ICD-10 code T40.4 and serve as a proxy for fentanyl, which is a highly potent opioid now commonly found in the illicit drug market.
Multiple cause of death ICD-10 definitions: Any opioid – T40.0 (Opium), T40.1 (Heroin), T40.2 (Other opioids), T40.3 (Methadone), T40.4 (Synthetic opioids other than methadone), T40.6 (Other and unspecified narcotics); Heroin – T40.1; Commonly prescribed opioids – T40.2 (e.g., hydrocodone, oxycodone), T40.3; Synthetic opioids other than methadone – T40.4; Heroin with synthetic opioids other than methadone – T40.1 AND T40.4; Cocaine with synthetic opioids other than methadone – T40.5 (cocaine) AND T40.4.
Note: Death counts by substances are not mutually exclusive.
Data source: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
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Data Table 1.2 Percentage of opioid overdose deaths involving synthetic opioids other than methadone*, New York State, 2015-2021

Year	Overdose deaths involving synthetic opioids other than methadone	Overdose deaths involving any opioid	Percentage of overdose deaths involving synthetic opioids other than methadone
2021	4,594	5,017	91.6%
2020	3,721	4,233	87.9%
2019	2,338	2,939	79.6%
2018	2,195	2,991	73.4%
2017	2,238	3,224	69.4%
2016	1,641	3,009	54.5%
2015	668	2,166	30.8%

*Synthetic opioids other than methadone (SOOTM) are identified by ICD-10 code T40.4 and serve as a proxy for fentanyl, which is a highly potent opioid now commonly found in the illicit drug market.
Data source: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
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Data Table 1.3 Overdose deaths involving any opioid, crude rate per 100,000 population, by county, New York State, 2020 and 2021

County	2020			2021		
	Deaths	Population	Crude rate per 100,000 population	Deaths	Population	Crude rate per 100,000 population
Albany	69	303,654	22.7	86	313,743	27.4
Allegany	**	45,587	**	**	46,106	**
Bronx	495	1,401,142	35.3	695	1,424,948	48.8
Broome	70	189,420	37.0	75	197,240	38.0
Cattaraugus	12	75,863	*	15	76,426	*
Cayuga	28	76,029	36.8	20	75,880	26.4
Chautauqua	41	126,032	32.5	48	126,807	37.9
Chemung	20	82,622	24.2	28	83,045	33.7
Chenango	11	46,730	*	12	46,537	*
Clinton	11	79,778	*	13	79,596	*
Columbia	**	59,534	**	15	61,778	*
Cortland	**	47,173	**	16	46,311	*
Delaware	**	43,938	**	**	44,378	**
Dutchess	110	293,293	37.5	86	297,112	28.9
Erie	230	917,241	25.1	272	950,683	28.6
Essex	**	36,891	**	10	37,268	*
Franklin	**	49,965	**	**	47,456	**
Fulton	13	52,812	*	12	53,116	*
Genesee	19	56,994	*	**	57,853	**
Greene	14	47,177	*	22	48,499	45.4

County	2020			2021		
	Deaths	Population	Crude rate per 100,000 population	Deaths	Population	Crude rate per 100,000 population
Hamilton	**	4,345	**	**	5,119	**
Herkimer	13	60,945	*	**	59,937	**
Jefferson	32	108,095	29.6	26	116,295	22.4
Kings	404	2,538,934	15.9	548	2,641,052	20.7
Lewis	**	26,187	**	**	26,573	**
Livingston	14	62,398	*	**	61,578	**
Madison	10	70,478	*	14	67,658	*
Monroe	233	740,900	31.4	248	755,160	32.8
Montgomery	**	49,170	**	11	49,558	*
Nassau	235	1,351,334	17.4	236	1,390,907	17.0
New York	327	1,611,989	20.3	403	1,576,876	25.6
Niagara	66	208,396	31.7	70	211,653	33.1
Oneida	57	227,346	25.1	71	230,274	30.8
Onondaga	137	459,214	29.8	162	473,236	34.2
Ontario	11	110,091	*	16	112,508	*
Orange	107	385,234	27.8	136	404,525	33.6
Orleans	**	39,978	**	**	40,191	**
Oswego	28	116,346	24.1	36	117,387	30.7
Otsego	10	58,701	*	14	58,123	*
Putnam	19	98,532	*	21	97,936	21.4
Queens	342	2,225,821	15.4	358	2,331,143	15.4
Rensselaer	35	158,108	22.1	38	160,232	23.7
Richmond	125	475,327	26.3	149	493,494	30.2
Rockland	43	326,225	13.2	65	339,227	19.2
Saratoga	38	230,298	16.5	40	237,359	16.9
Schenectady	28	155,358	18.0	44	158,089	27.8
Schoharie	**	31,132	**	**	29,863	**
Schuyler	0	17,685	*	**	17,752	**
Seneca	**	33,991	**	**	33,688	**
St. Lawrence	13	107,185	*	17	108,051	*
Steuben	12	94,657	*	19	92,948	*
Suffolk	363	1,474,273	24.6	463	1,526,344	30.3
Sullivan	52	75,802	68.6	37	79,806	46.4
Tioga	**	47,904	**	**	47,980	**
Tompkins	17	101,058	*	16	105,162	*
Ulster	59	177,716	33.2	48	182,951	26.2
Warren	17	63,756	*	17	65,618	*
Washington	16	60,606	*	13	60,956	*
Wayne	16	89,339	*	20	90,923	22.0

County	2020			2021		
	Deaths	Population	Crude rate per 100,000 population	Deaths	Population	Crude rate per 100,000 population
Westchester	140	965,802	14.5	148	997,895	14.8
Wyoming	**	39,465	**	**	40,491	**
Yates	**	24,780	**	**	24,613	**

*: Crude rates are unreliable when there are fewer than 20 deaths and are therefore not shown.
**: Counts and crude rates are suppressed when there are fewer than 10 deaths.
Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
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Data Table 1.4 Overdose deaths involving synthetic opioids other than methadone^, crude rate per 100,000 population, by county, New York State, 2020 and 2021

County	2020			2021		
	Deaths	Population	Crude rate per 100,000 population	Deaths	Population	Crude rate per 100,000 population
Albany	61	303,654	20.1	82	313,743	26.1
Allegany	**	45,587	**	**	46,106	**
Bronx	453	1,401,142	32.3	638	1,424,948	44.8
Broome	55	189,420	29	68	197,240	34.5
Cattaraugus	**	75,863	**	14	76,426	*
Cayuga	25	76,029	32.9	19	75,880	*
Chautauqua	37	126,032	29.4	47	126,807	37.1
Chemung	13	82,622	*	24	83,045	28.9
Chenango	**	46,730	**	**	46,537	**
Clinton	**	79,778	**	**	79,596	**
Columbia	**	59,534	**	14	61,778	*
Cortland	**	47,173	**	16	46,311	*
Delaware	**	43,938	**	**	44,378	**
Dutchess	99	293,293	33.8	75	297,112	25.2
Erie	198	917,241	21.6	246	950,683	25.9
Essex	**	36,891	**	**	37,268	**
Franklin	**	49,965	**	**	47,456	**
Fulton	12	52,812	*	11	53,116	*
Genesee	18	56,994	*	**	57,853	**
Greene	14	47,177	*	22	48,499	45.4
Hamilton	**	4,345	**	**	5,119	**
Herkimer	12	60,945	*	**	59,937	**
Jefferson	30	108,095	27.8	22	116,295	18.9
Kings	361	2,538,934	14.2	512	2,641,052	19.4
Lewis	**	26,187	**	**	26,573	**
Livingston	12	62,398	*	**	61,578	**
Madison	**	70,478	**	13	67,658	*
Monroe	214	740,900	28.9	239	755,160	31.6
Montgomery	**	49,170	**	**	49,558	**
Nassau	193	1,351,334	14.3	213	1,390,907	15.3
New York	287	1,611,989	17.8	377	1,576,876	23.9
Niagara	59	208,396	28.3	63	211,653	29.8
Oneida	50	227,346	22	65	230,274	28.2
Onondaga	126	459,214	27.4	151	473,236	31.9
Ontario	**	110,091	**	14	112,508	*
Orange	97	385,234	25.2	125	404,525	30.9
Orleans	**	39,978	**	**	40,191	**

County	2020			2021		
	Deaths	Population	Crude rate per 100,000 population	Deaths	Population	Crude rate per 100,000 population
Oswego	25	116,346	21.5	36	117,387	30.7
Otsego	10	58,701	*	14	58,123	*
Putnam	13	98,532	*	20	97,936	20.4
Queens	287	2,225,821	12.9	328	2,331,143	14.1
Rensselaer	34	158,108	21.5	36	160,232	22.5
Richmond	104	475,327	21.9	133	493,494	27.0
Rockland	40	326,225	12.3	56	339,227	16.5
Saratoga	33	230,298	14.3	36	237,359	15.2
Schenectady	27	155,358	17.4	40	158,089	25.3
Schoharie	**	31,132	**	**	29,863	**
Schuyler	0	17,685	*	**	17,752	**
Seneca	**	33,991	**	**	33,688	**
St. Lawrence	13	107,185	*	15	108,051	*
Steuben	11	94,657	*	16	92,948	*
Suffolk	327	1,474,273	22.2	425	1,526,344	27.8
Sullivan	45	75,802	59.4	33	79,806	41.4
Tioga	**	47,904	**	**	47,980	**
Tompkins	16	101,058	*	15	105,162	*
Ulster	53	177,716	29.8	42	182,951	23.0
Warren	13	63,756	*	14	65,618	*
Washington	15	60,606	*	13	60,956	*
Wayne	11	89,339	*	14	90,923	*
Westchester	120	965,802	12.4	129	997,895	12.9
Wyoming	**	39,465	**	**	40,491	**
Yates	**	24,780	**	**	24,613	**

^Synthetic opioids other than methadone (SOOTM) are identified by ICD-10 code T40.4 and serve as a proxy for fentanyl, which is a highly potent opioid now commonly found in the illicit drug market.
*: Crude rates are unreliable when there are fewer than 20 deaths and are therefore not shown.
**: Counts and crude rates are suppressed when there are fewer than 10 deaths.
Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
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Data Table 1.5 Overdose deaths involving heroin, crude rate per 100,000 population, by county, New York State, 2020 and 2021

County	2020			2021		
	Deaths	Population	Crude rate per 100,000 population	Deaths	Population	Crude rate per 100,000 population
Albany	17	303,654	*	16	313,743	*
Allegany	0	45,587	*	0	46,106	*
Bronx	202	1,401,142	14.4	211	1,424,948	14.8
Broome	14	189,420	*	11	197,240	*
Cattaraugus	**	75,863	**	0	76,426	*
Cayuga	10	76,029	*	**	75,880	**
Chautauqua	13	126,032	*	11	126,807	*
Chemung	**	82,622	**	**	83,045	**
Chenango	**	46,730	**	**	46,537	**
Clinton	**	79,778	**	0	79,596	*
Columbia	**	59,534	**	**	61,778	**
Cortland	**	47,173	**	0	46,311	*
Delaware	**	43,938	**	**	44,378	**
Dutchess	23	293,293	7.8	**	297,112	**
Erie	22	917,241	2.4	12	950,683	*
Essex	0	36,891	*	0	37,268	*
Franklin	0	49,965	*	**	47,456	**
Fulton	**	52,812	**	0	53,116	*
Genesee	0	56,994	*	**	57,853	**
Greene	**	47,177	**	**	48,499	**
Hamilton	0	4,345	*	0	5,119	*
Herkimer	**	60,945	**	0	59,937	*
Jefferson	**	108,095	**	0	116,295	*
Kings	197	2,538,934	7.8	220	2,641,052	8.3
Lewis	**	26,187	**	0	26,573	*
Livingston	0	62,398	*	0	61,578	*
Madison	**	70,478	**	**	67,658	**
Monroe	17	740,900	*	14	755,160	*
Montgomery	0	49,170	*	**	49,558	**
Nassau	79	1,351,334	5.8	25	1,390,907	1.8
New York	135	1,611,989	8.4	132	1,576,876	8.4
Niagara	**	208,396	**	**	211,653	**
Oneida	14	227,346	*	12	230,274	*
Onondaga	63	459,214	13.7	39	473,236	8.2
Ontario	**	110,091	**	**	112,508	**
Orange	38	385,234	9.9	23	404,525	5.7
Orleans	**	39,978	**	0	40,191	*

County	2020			2021		
	Deaths	Population	Crude rate per 100,000 population	Deaths	Population	Crude rate per 100,000 population
Oswego	10	116,346	*	**	117,387	**
Otsego	**	58,701	**	**	58,123	**
Putnam	**	98,532	**	**	97,936	**
Queens	138	2,225,821	6.2	104	2,331,143	4.5
Rensselaer	**	158,108	**	**	160,232	**
Richmond	53	475,327	11.2	52	493,494	10.5
Rockland	13	326,225	*	11	339,227	*
Saratoga	**	230,298	**	**	237,359	**
Schenectady	14	155,358	*	**	158,089	**
Schoharie	**	31,132	**	**	29,863	**
Schuyler	0	17,685	*	0	17,752	*
Seneca	**	33,991	**	0	33,688	*
St. Lawrence	**	107,185	**	**	108,051	**
Steuben	**	94,657	**	**	92,948	**
Suffolk	62	1,474,273	4.2	40	1,526,344	2.6
Sullivan	16	75,802	*	**	79,806	**
Tioga	0	47,904	*	0	47,980	*
Tompkins	**	101,058	**	0	105,162	*
Ulster	12	177,716	*	**	182,951	**
Warren	0	63,756	*	0	65,618	*
Washington	**	60,606	**	0	60,956	*
Wayne	**	89,339	**	0	90,923	*
Westchester	34	965,802	3.5	30	997,895	3.0
Wyoming	0	39,465	*	0	40,491	*
Yates	0	24,780	*	0	24,613	*

*: Crude rates are unreliable when there are fewer than 20 deaths and are therefore not shown.
**: Counts and crude rates are suppressed when there are fewer than 10 deaths.
Data source: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
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Data Table 1.6 Overdose deaths involving any opioid, by place of death, New York State, 2021

Place of death	Deaths (%)
Inpatient (medical facility)	286 (5.7%)
Outpatient or ER (medical facility)	665 (13.3%)
Dead on arrival (medical facility)	58 (1.2%)
Decedent's home	3,323 (66.3%)
Other	677 (13.5%)

The numbers of deaths occurring in "Hospice facility" and "Nursing home/long term care" are suppressed.
No known deaths occurred in "Medical Facility (Status unknown)" and "Place of death unknown".
Data source: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
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Data Table 1.7 Overdose deaths involving synthetic opioids other than methadone*, crude rate per 100,000 population, New York State and United States, 2015-2021

	New York State		United States	
Year	Deaths	Crude rate per 100,000 population	Deaths	Crude rate per 100,000 population
2021	4,594	23.2	70,601	21.3
2020	3,721	19.2	56,516	17.2
2019	2,338	12.0	36,359	11.1
2018	2,195	11.2	31,335	9.6
2017	2,238	11.3	28,466	8.7
2016	1,641	8.3	19,413	6.0
2015	668	3.4	9,580	3.0

*Synthetic opioids other than methadone (SOOTM) are identified by ICD-10 code T40.4 and serve as a proxy for fentanyl, which is a highly potent opioid now commonly found in the illicit drug market.
Data source: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
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Data Table 1.8 Overdose deaths involving heroin (T40.1), synthetic opioids other than methadone (T40.4)^, and commonly prescribed opioids (T40.2 and T40.3)[#], crude rate per 100,000, by region, year, and age group, New York State, 2015-2021

	Year	Heroin			Synthetic opioids other than methadone			Commonly prescribed opioids		
		Age group			Age group			Age group		
		0-24	*25-44*	*45+*	*0-24*	*25-44*	*45+*	*0-24*	*25-44*	*45+*
New York City	2021	**	9.4	13.5	2.7	28.4	34.3	*	7.5	13.6
	2020	1.3	10.3	13.0	3.6	22.3	25.1	1.1	7.6	12.1
	2019	*	9.2	10.6	1.6	14.5	15.7	*	5.5	7.5
	2018	1.1	7.9	9.6	1.5	11.3	13.0	*	4.3	7.5
	2017	1.0	9.1	9.1	1.5	12.0	11.1	*	5.3	7.3
	2016	1.3	7.2	8.2	1.8	8.0	8.0	0.9	5.4	7.6
	2015	1.1	6.0	5.3	*	2.0	1.9	*	4.2	5.6
New York State excl. New York City	2021	*	6.4	2.6	4.9	51.4	19.6	*	11.8	6.1
	2020	1.2	11.4	4.0	5.5	46.4	15.8	0.8	12.3	5.4
	2019	1.4	11.8	3.6	3.7	30.1	9.2	0.9	9.5	4.9
	2018	1.9	15.6	4.1	3.8	32.4	8.5	1.0	10.6	6.0
	2017	2.0	17.8	4.6	4.8	32.2	9.3	1.4	9.6	6.5
	2016	3.0	18.5	4.2	4.3	25.0	6.0	1.8	11.7	6.2
	2015	2.9	15.5	3.6	2.1	11.7	3.0	1.3	9.1	5.9

^Synthetic opioids other than methadone (SOOTM) are identified by ICD-10 code T40.4 and serve as a proxy for fentanyl, which is a highly potent opioid now commonly found in the illicit drug market.
[#]Commonly prescribed opioids are identified by ICD-10 codes T40.2 (Other opioids, e.g., hydrocodone, oxycodone), T40.3 (Methadone).
*: Rates are unreliable when there are fewer than 20 deaths and are therefore not shown.
**: Rates are suppressed for death counts fewer than 10.
Data source: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
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Data Table 1.9 Overdose deaths involving any opioid and overdose deaths involving any opioid with benzodiazepines, crude rate per 100,000 population, New York State, 2010-2021

Year	Any opioid		Any opioid with benzodiazepines	
	Deaths	Crude rate per 100,000 population	Deaths	Crude rate per 100,000 population
2021	5,017	25.3	882	4.4
2020	4,233	21.9	893	4.6
2019	2,939	15.1	687	3.5
2018	2,991	15.3	821	4.2
2017	3,224	16.2	874	4.4
2016	3,009	15.2	843	4.3
2015	2,166	10.9	636	3.2
2014	1,739	8.8	538	2.7
2013	1,681	8.6	473	2.4
2012	1,530	7.8	427	2.2
2011	1,356	7.0	358	1.8
2010	1,074	5.5	328	1.7

Multiple cause of death ICD-10 definitions: Any opioid – T40.0 (Opium), T40.1 (Heroin), T40.2 (Other opioids), T40.3 (Methadone), T40.4 (Synthetic opioids other than methadone), T40.6 (Other and unspecified narcotics); Any opioid with benzodiazepines – T40.0 (Opium), T40.1 (Heroin), T40.2 (Other opioids), T40.3 (Methadone), T40.4 (Synthetic opioids other than methadone), T40.6 (Other and unspecified narcotics) AND T42.4 (Benzodiazepines).
Data source: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
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Data Table 1.10 Overdose deaths involving cocaine with and without synthetic opioids other than methadone*, New York State, 2015-2021

Year	Overdose deaths involving cocaine (T40.5)		Overdose deaths involving cocaine (T40.5), *with* synthetic opioids other than methadone		Overdose deaths involving cocaine (T40.5), *without* synthetic opioids other than methadone	
	Count	Crude rate per 100,000 population	Count	Crude rate per 100,000 population	Count	Crude rate per 100,000 population
2021	2,309	11.6	1,804	9.1	505	2.5
2020	1,765	9.1	1,350	7.0	415	2.1
2019	1,320	6.8	858	4.4	462	2.4
2018	1,276	6.5	786	4.0	490	2.5
2017	1,306	6.6	742	3.7	564	2.8
2016	991	5.0	451	2.3	540	2.7
2015	634	3.2	142	0.7	492	2.5

*Synthetic opioids other than methadone (SOOTM) are identified by ICD-10 code T40.4 and serve as a proxy for fentanyl, which is a highly potent opioid now commonly found in the illicit drug market.
**: Rates are unreliable when there are fewer than 20 deaths and are therefore not shown.
Note: Cocaine overdose is identified by ICD-10 code T40.5.
Data source: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
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Data Table 1.11 Overdose deaths involving any opioid, crude rate per 100,000 population, by sub-population, New York State, 2020 and 2021

Group	Characteristic	2020		2021	
		Deaths	Crude rate per 100,000 population	Deaths	Crude rate per 100,000 population
Age group	Age 18-24	275	16.0	228	13.1
	Age 25-44	2,038	38.7	2,311	43.2
	Age 45-64	1,686	33.8	2,169	42.1
	Age 65+	221	6.6	293	8.4
Gender	Male	3,133	33.4	3,665	37.8
	Female	1,100	11.1	1,352	13.3
Race/Ethnicity	White NH	2,507	23.6	2,681	24.7
	Black NH	784	28.1	1,064	37.2
	Asian NH	47	2.7	52	2.9
	Hispanic	793	21.2	1,091	28.2
Region	New York City	1,693	20.5	2,153	25.4
	NYS excl. NYC	2,540	22.9	2,864	25.2
Total	New York State	4,233	21.9	5,017	25.3

White NH = White non-Hispanic; Black NH = Black non-Hispanic; Asian NH = Asian non-Hispanic; NYS excl. NYC = New York State excluding New York City

Data source: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.

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Data Table 1.12 Overdose deaths involving synthetic opioids other than methadone*, crude rate per 100,000 population, by sub-population, New York State, 2020 and 2021

Group	Characteristic	2020		2021	
		Deaths	Crude rate per 100,000 population	Deaths	Crude rate per 100,000 population
Age group	Age 18-24	257	14.9	219	12.6
	Age 25-44	1,823	34.6	2,161	40.4
	Age 45-64	1,461	29.3	1,957	38.0
	Age 65+	169	5.0	243	7.0
Gender	Male	2,821	30.0	3,416	35.2
	Female	900	9.0	1,178	11.6
Race/Ethnicity	White NH	2,162	20.3	2,391	22.0
	Black NH	713	25.6	1,009	35.3
	Asian NH	38	2.2	47	2.6
	Hispanic	718	19.2	1,025	26.5
Region	New York City	1,492	18.1	1,988	23.5
	NYS excl. NYC	2,229	20.1	2,606	22.9
Total	New York State	3,721	19.2	4,594	23.2

*Synthetic opioids other than methadone (SOOTM) are identified by ICD-10 code T40.4 and serve as a proxy for fentanyl, which is a highly potent opioid now commonly found in the illicit drug market.
White NH = White non-Hispanic; Black NH = Black non-Hispanic; Asian NH = Asian non-Hispanic; NYS excl. NYC = New York State excluding New York City
Data source: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
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Data Table 1.13 Overdose deaths involving heroin, crude rate per 100,000 population, by sub-population, New York State, 2020 and 2021

Group	Characteristic	2020		2021	
		Deaths	Crude rate per 100,000 population	Deaths	Crude rate per 100,000 population
Age group	Age 18-24	70	4.1	**	**
	Age 25-44	572	10.9	419	7.8
	Age 45-64	555	11.1	523	10.2
	Age 65+	77	2.3	77	2.2
Gender	Male	1,005	10.7	806	8.3
	Female	270	2.7	241	2.4
Race/Ethnicity	White NH	678	6.4	458	4.2
	Black NH	246	8.8	237	8.3
	Asian NH	14	*	14	*
	Hispanic	293	7.8	310	8.0
Region	New York City	725	8.8	719	8.5
	NYS excl. NYC	550	5.0	328	2.9
Total	New York State	1,275	6.6	1,047	5.3

*: Crude rates are unreliable when there are fewer than 20 deaths and are therefore not shown.
**: Data do not meet reporting criteria.
White NH = White non-Hispanic; Black NH = Black non-Hispanic; Asian NH = Asian non-Hispanic; NYS excl. NYC = New York State excluding New York City
Data source: Data for New York State excluding New York City in 2021 are provided by New York State Vital Statistics, as of April 2023; all other data are from CDC WONDER, accessed May 2023.
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Data Table 2.1 Percentage of 911 EMS dispatches reported electronically, by region, New York State, 2016-2022

Year	Region	EMS response reported electronically	Percentage
2022	New York City	1,872,503	100.0%
	NYS excl. NYC	1,950,853	99.8%
	New York State	3,823,356	99.9%
2021	New York City	1,903,905	100.0%
	NYS excl. NYC	1,886,379	99.7%
	New York State	3,790,284	99.8%
2020	New York City	1,800,785	99.7%
	NYS excl. NYC	1,810,273	98.2%
	New York State	3,611,058	98.9%
2019	New York City	1,929,152	99.0%
	NYS excl. NYC	1,809,925	94.9%
	New York State	3,739,077	97.0%
2018	New York City	1,820,256	95.5%
	NYS excl. NYC	1,812,896	93.2%
	New York State	3,633,152	94.3%
2017	New York City	1,734,184	93.2%
	NYS excl. NYC	1,732,880	89.1%
	New York State	3,467,064	91.1%
2016	New York City	1,795,605	93.2%
	NYS excl. NYC	1,586,496	88.6%
	New York State	3,382,101	91.0%

Data source: NYSDOH, Bureau of Emergency Medical Services; Data as of March 2023.
Data from previous annual reports might appear lower than the current annual report due to a lag in data reporting.
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Data Table 2.2 Number of unique naloxone administrations by EMS agencies, by region, New York State, 2018-2022

Year/Quarter	Region		
	New York City	NYS excluding NYC	New York State
2022	**11,823**	**8,100**	**19,923**
Q1	2,408	1,746	4,154
Q2	2,832	1,970	4,802
Q3	3,633	2,284	5,917
Q4	2,950	2,100	5,050
2021	**10,411**	**8,242**	**18,653**
Q1	2,180	2,001	4,181
Q2	2,705	2,100	4,805
Q3	3,092	2,281	5,373
Q4	2,434	1,860	4,294
2020	**8,514**	**8,520**	**17,026**
Q1	1,802	1,770	3,572
Q2	2,009	2,271	4,280
Q3	2,523	2,403	4,926
Q4	2,180	2,076	4,248
2019	**6,454**	**6,406**	**12,860**
Q1	1,446	1,580	3,026
Q2	1,655	1,586	3,241
Q3	1,818	1,740	3,558
Q4	1,535	1,500	3,035
2018	**6,936**	**6,788**	**13,724**
Q1	1,449	1,575	3,024
Q2	1,855	1,863	3,718
Q3	2,053	1,849	3,902
Q4	1,579	1,501	3,080

Note: Counts may have been affected by changes in documentation systems used by EMS agencies. Additional data validation steps have been taken to de-duplicate multiple naloxone administrations for the same patient encounter. As a result, counts may differ from previous reports.
Data source: NYSDOH, Bureau of Emergency Medical Services; Data as of March 2023.
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Data Table 2.3 Unique naloxone administrations by EMS agencies, by age group, gender, and incident location type*, New York State, 2022

Subpopulation	Number	Percentage
Age		
Age 0-17	158	0.8%
Age 18-24	893	4.5%
Age 25-44	7,999	40.5%
Age 45-64	8,096	40.6%
Age 65+	2,611	12.5%
Unknown	166	0.8%
Gender		
Male	14,500	72.8%
Female	5,284	26.5%
Unknown	139	0.7%
Incident location type*		
Public	9,574	48.1%
Residential	9,770	49.0%
Unknown	579	2.9%

*Incident location type is incomplete for Suffolk County.
Data source: NYSDOH, Bureau of Emergency Medical Services; Data as of March 2023.
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Data Table 2.4 Percentage of unique naloxone administrations by EMS agencies, by day of the week, New York State, 2022

Day of week	Number of unique naloxone administrations	Percentage
Sunday	2,574	12.9%
Monday	2,615	13.1%
Tuesday	2,692	13.5%
Wednesday	2,820	14.2%
Thursday	2,892	14.5%
Friday	3,161	15.9%
Saturday	3,169	15.9%
Total	19,923	100.0%

Data source: NYSDOH, Bureau of Emergency Medical Services; Data as of March 2023.
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Data Table 2.5 Unique naloxone administrations by EMS agencies, crude rate per 1,000 unique 911 EMS dispatches, by county, New York State*, 2022

County	Number of unique naloxone administrations (numerator)	Unique EMS dispatch volume (denominator)	Crude rate per 1,000
Albany	552	82,303	6.7
Allegany	38	8,365	4.5
Broome	253	36,518	6.9
Cattaraugus	83	12,977	6.4
Cayuga	56	16,044	3.5
Chautauqua	118	17,777	6.6
Chemung	112	17,367	6.4
Chenango	54	6,087	8.9
Clinton	70	12,321	5.7
Columbia	52	12,535	4.1
Cortland	52	8,981	5.8
Delaware	18	6,874	2.6
Dutchess^	251	43,155	5.8
Erie	546	133,639	4.1
Essex	13	4,742	2.7
Franklin	31	8,260	3.8
Fulton	100	15,750	6.3
Genesee	53	13,380	4.0
Greene	23	6,788	3.4
Hamilton	5	1,107	4.5*
Herkimer	55	11,588	4.7
Jefferson	83	17,479	4.7
Lewis	15	3,437	4.4
Livingston	20	7,496	2.7
Madison	44	10,362	4.2
Monroe	627	146,076	4.3
Montgomery	126	16,833	7.5
Nassau^ +	649	185,540	3.5
Niagara	158	37,312	4.2
Oneida	365	49,920	7.3
Onondaga	575	90,617	6.3
Ontario	67	19,333	3.5
Orange^	288	44,973	6.4
Orleans	28	4,684	6.0
Oswego	127	25,870	4.9
Otsego	22	7,543	2.9

County	Number of unique naloxone administrations (numerator)	Unique EMS dispatch volume (denominator)	Crude rate per 1,000
Putnam	41	10,707	3.8
Rensselaer	189	24,716	7.6
Rockland^	94	44,776	2.1
Saratoga	147	32,200	4.6
Schenectady	253	39,146	6.5
Schoharie	8	2,777	2.9*
Schuyler	7	2,272	3.1*
Seneca	29	4,210	6.9
St. Lawrence	69	16,874	4.1
Steuben	67	20,792	3.2
Suffolk**	529	141,859	3.7
Sullivan^	79	12,946	6.1
Tioga	19	6,004	3.2
Tompkins	135	16,918	8.0
Ulster^	134	24,994	5.4
Warren	46	11,480	4.0
Washington	51	9,664	5.3
Wayne	51	15,793	3.2
Westchester^	397	118,864	3.3
Wyoming	7	2,849	2.5*
Yates	19	3,903	4.9
NYS excl. NYC	8,100	1,707,777	4.7
Bronx	3,024	369,401	8.2
Kings	3,072	539,086	5.7
New York	3,597	398,816	9.0
Queens	1,622	341,579	4.7
Richmond	508	98,144	5.2
New York City	11,823	1,747,026	6.8
New York State	19,923	3,454,803	5.8

* Rates may be unstable for counties with fewer than 10 naloxone administrations.
** Dispatch data for Suffolk County were incomplete.
+ Starting from January 2021, Nassau County Police Department (NCPD) data are no longer available and not included in the counts.
^ Data for this county may be incomplete because of a known reporting issue under review. Please interpret with caution.
Data source: NYSDOH, Bureau of Emergency Medical Services; Data as of March 2023.
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Data Table 2.6 Number of naloxone administration reports by law enforcement and community programs, by quarter, New York State, 2022

2022	Quarter 1	Quarter 2	Quarter 3	Quarter 4
	January - March	April - June	July - September	October - December
Law Enforcement	363	504	466	512
Community Programs	701	571	757	608

Note: The law enforcement category does not capture administrations reported in New York City, and does not comprehensively capture administrations reported in Nassau County.
Data source: New York State Department of Health AIDS Institute. Data as of April 2023
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Data Table 2.7 Naloxone administration reports by law enforcement and community programs, by age group, New York State, 2022

Age Group	Law Enforcement	Community Programs
< 18 years	14	13
18-24 years	164	182
25-44 years	1068	1463
45-64 years	460	748
65+ years	53	128
Unknown	86	103

Note: The law enforcement category does not capture administrations reported in New York City, and does not comprehensively capture administrations reported in Nassau County.
Data source: New York State Department of Health AIDS Institute. Data as of April 2023
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Data Table 2.8 Naloxone administration reports by enforcement and community programs, by gender, New York State, 2022

Gender	Law Enforcement	Community Programs
Female	524	591
Male	1306	1937
Other*, Missing, or Unknown	15	109

* Other includes "Transgender", "Intersex", "Gender Non-conforming" and "Other, not specified"
Note: The law enforcement category does not capture administrations reported in New York City, and does not comprehensively capture administrations reported in Nassau County.
Data source: New York State Department of Health AIDS Institute. Data as of April 2023
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EMS Suspected Opioid Overdose

Data Table 2.9 Suspected opioid overdose encounters with and without* reported naloxone administration on scene, New York State, 2021 and 2022

Year	Naloxone	Number	Percentage
2022	Administration	18,708	74.2%
	No administration	6,513	25.8%
	Total	**25,221**	100.0%
2021	Administration	18,345	74.3%
	No administration	6,334	25.7%
	Total	**24,679**	100.0%

*These include unique naloxone administrations reported in the medication administered structured field and may include bystander and administrations prior to EMS arrival.
Data source: NYSDOH, Bureau of Emergency Medical Services; Data as of March 2023.
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Data Table 2.10 Suspected opioid overdose encounters with and without* reported naloxone administration by patient disposition, New York State, 2021 and 2022

Disposition	Suspected Opioid Overdose			
	***Without* Naloxone Administration**		***With* Naloxone Administration**	
	Number	Percent	Number	Percent
Treated and transported/transferred	10,179	79.2%	32,373	87.4%
Treated and released per protocol	436	3.4%	1,241	3.4%
Refused transport	1,586	12.4%	2,072	5.6%
Other/unknown	488	3.8%	990	2.7%
Dead on scene	158	1.2%	377	1.0%

*These include unique naloxone administrations reported in the medication administered structured field and may include bystander and administrations prior to EMS arrival.
Data source: NYSDOH, Bureau of Emergency Medical Services; Data as of March 2023.
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Data Table 2.11 Naloxone administration reports by administrator type, New York State, 2022

Type	Naloxone Administration Reports
EMS	19,923
Law Enforcement	1,845
Community Opioid Overdose Prevention Programs	2,637

Note: The EMS category does not capture administrations reported with missing incident county. The law enforcement category does not capture administrations reported in New York City, and does not comprehensively capture administrations reported in Nassau County.
Data sources: New York State Department of Health Bureaus of Emergency Medical Services and Trauma Systems, data as of March 2023; New York State Department of Health AIDS Institute, data as of April 2023
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Data Table 3.1 Overdose deaths involving opioids and nonfatal opioid related hospital events, crude rate per 100,000 population, by sub-population, New York State, 2020 and 2021

Group	Characteristics	2020		2021	
		Numerator	Crude rate per 100,000 population	Numerator	Crude rate per 100,000 population
Age group	Age 0-17	**	**	191	4.7
	Age 18-24	3,045	169.6	2,658	148.0
	Age 25-44	23,192	437.2	22,607	426.2
	Age 45-64	12,764	248.1	14,661	285.0
	Age 65+	2,232	69.2	3,082	95.6
Gender	Male	30,079	316.9	32,006	337.2
	Female	11,306	112.5	11,187	111.3
Race/Ethnicity	White NH	21,750	197.5	20,208	183.5
	Black NH	6,390	217.2	7,787	264.7
	Asian/PI NH	247	13.8	265	14.8
	Hispanic	7,764	208.2	8,529	228.7
Region	New York City	18,548	220.9	20,655	246.0
	NYS Excl NYC	22,844	204.9	22,544	202.2
Total	New York State	41,392	211.8	43,199	221.0

**: Data do not meet reporting criteria.
Data sources: Death data from CDC WONDER, accessed May 2023; ED visits and hospital discharges from New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS), as of March 2023.
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Data Table 3.2 Overdose deaths involving opioids and nonfatal opioid related hospital events, crude rate per 100,000 population, by county, New York State, 2021

County	Numerator	Population	Crude Rate per 100,000 Population
Albany	467	306,691	152.3
Allegany	53	46,286	114.5
Bronx	6,416	1,432,316	447.9
Broome	505	192,222	262.7
Cattaraugus	161	76,748	209.8
Cayuga	140	77,121	181.5
Chautauqua	524	127,516	410.9
Chemung	198	84,033	235.6
Chenango	81	47,502	170.5
Clinton	115	80,675	142.5
Columbia	129	59,852	215.5
Cortland	93	47,721	194.9
Delaware	79	44,624	177.0
Dutchess	962	293,814	327.4
Erie	2,042	919,941	222.0
Essex	48	37,309	128.7
Franklin	55	50,325	109.3
Fulton	83	53,654	154.7
Genesee	110	57,509	191.3
Greene	129	47,401	272.1
Hamilton	**	4,453	**
Herkimer	53	61,760	85.8
Jefferson	205	112,266	182.6
Kings	5,105	2,580,088	197.9
Lewis	17	26,503	64.1
Livingston	87	63,281	137.5
Madison	68	71,180	95.5
Monroe	1,574	744,239	211.5
Montgomery	99	49,502	200.0
Nassau	2,189	1,357,423	161.3
New York	4,890	1,632,393	299.6
Niagara	605	210,300	287.7
Oneida	292	229,431	127.3
Onondaga	971	461,890	210.2
Ontario	149	109,962	135.5

County	Numerator	Population	Crude Rate per 100,000 Population
Orange	932	382,411	243.7
Orleans	84	40,708	206.3
Oswego	170	117,520	144.7
Otsego	77	59,828	128.7
Putnam	148	98,871	149.7
Queens	3,075	2,275,286	135.1
Rensselaer	167	159,452	104.7
Richmond	1,169	476,531	245.3
Rockland	637	325,656	195.6
Saratoga	251	230,127	109.1
Schenectady	149	155,334	95.9
Schoharie	35	31,182	112.2
Schuyler	21	17,842	117.7
Seneca	49	34,277	143.0
St. Lawrence	215	108,534	198.1
Steuben	123	95,876	128.3
Suffolk	4,021	1,482,275	271.3
Sullivan	280	75,381	371.4
Tioga	43	48,515	88.6
Tompkins	122	102,382	119.2
Ulster	720	178,510	403.3
Warren	105	64,269	163.4
Washington	93	61,335	151.6
Wayne	148	90,110	164.2
Westchester	1,591	968,928	164.2
Wyoming	55	40,068	137.3
Yates	22	24,959	88.1

**: Data do not meet reporting criteria.
Data sources: NYS Excl NYC death data from New York State Department of Health, Bureau of Vital Statistics, as of April 2023; NYC death data from CDC WONDER, as of May 2023; ED visits and hospital discharges from New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS), as of March 2023.
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Data Table 3.3 Hospital discharges involving opioid use (including overdose and disorders), crude rate per 100,000 population, by sub-population, New York State, 2020 and 2021

Group	Characteristics	2020		2021	
		Hospital discharges	Crude rate per 100,000 population	Hospital discharges	Crude rate per 100,000 population
Age group	Age 0-17	45	1.1	58	1.4
	Age 18-24	954	53.1	713	39.7
	Age 25-44	7,870	148.4	6,662	125.6
	Age 45-64	4,249	82.6	4,176	81.2
	Age 65+	887	27.5	1,026	31.8
Gender	Male	9,808	103.3	9,050	95.4
	Female	4,196	41.7	3,583	35.6
Race/Ethnicity	White NH	7,562	68.7	6,298	57.2
	Black NH	2,096	71.3	2,164	73.6
	Asian/PI NH	92	5.1	73	4.1
	Hispanic	2,787	74.7	2,670	71.6
Region	New York City	5,627	67.0	5,168	61.5
	NYS Excl NYC	8,378	75.2	7,467	67.0
Total	New York State	14,005	71.7	12,635	64.6

Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.

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Data Table 3.4 Hospital discharges involving opioid use (including overdose and disorders), crude rate per 100,000 population, by county, New York State, 2021

County	Hospital Discharges	Population	Crude Rate per 100,000 Population
Albany	101	306691	32.9
Allegany	10	46286	21.6
Bronx	2214	1432316	154.6
Broome	112	192222	58.3
Cattaraugus	42	76748	54.7
Cayuga	30	77121	38.9
Chautauqua	137	127516	107.4
Chemung	38	84033	45.2
Chenango	9	47502	18.9*
Clinton	31	80675	38.4
Columbia	22	59852	36.8
Cortland	15	47721	31.4
Delaware	16	44624	35.9
Dutchess	424	293814	144.3
Erie	764	919941	83
Essex	11	37309	29.5
Franklin	26	50325	51.7
Fulton	14	53654	26.1
Genesee	36	57509	62.6
Greene	24	47401	50.6
Hamilton	0	4453	0.0*
Herkimer	7	61760	11.3*
Jefferson	93	112266	82.8
Kings	968	2580088	37.5
Lewis	7	26503	26.4*
Livingston	23	63281	36.3
Madison	6	71180	8.4*
Monroe	382	744239	51.3
Montgomery	25	49502	50.5
Nassau	873	1357423	64.3
New York	1106	1632393	67.8
Niagara	223	210300	106
Oneida	49	229431	21.4
Onondaga	256	461890	55.4
Ontario	38	109962	34.6

County	Hospital Discharges	Population	Crude Rate per 100,000 Population
Orange	335	382411	87.6
Orleans	23	40708	56.5
Oswego	38	117520	32.3
Otsego	17	59828	28.4
Putnam	54	98871	54.6
Queens	703	2275286	30.9
Rensselaer	34	159452	21.3
Richmond	177	476531	37.1
Rockland	358	325656	109.9
Saratoga	42	230127	18.3
Schenectady	42	155334	27
Schoharie	7	31182	22.4*
Schuyler	**	17842	**
Seneca	**	34277	**
St. Lawrence	110	108534	101.4
Steuben	24	95876	25
Suffolk	1362	1482275	91.9
Sullivan	77	75381	102.1
Tioga	12	48515	24.7
Tompkins	20	102382	19.5
Ulster	256	178510	143.4
Warren	15	64269	23.3
Washington	19	61335	31
Wayne	28	90110	31.1
Westchester	728	968928	75.1
Wyoming	12	40068	29.9
Yates	**	24959	**

* Fewer than 10 events in the numerator, therefore the rate is unstable.
**: Data do not meet reporting criteria.
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.
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Data Table 3.5 Hospital discharges involving heroin overdose, crude rate per 100,000 population, by sub-population, New York State, 2020 and 2021

Group	Characteristics	2020		2021	
		Hospital discharges	Crude rate per 100,000 population	Hospital discharges	Crude rate per 100,000 population
Age group	Age 0-17	**	**	**	**
	Age 18-24	72	4.0	36	2.0
	Age 25-44	528	10.0	492	9.3
	Age 45-64	431	8.4	438	8.5
	Age 65+	110	3.4	140	4.3
Gender	Male	861	9.1	857	9.0
	Female	282	2.8	254	2.5
Race/Ethnicity	White NH	522	4.7	404	3.7
	Black NH	228	7.8	225	7.6
	Asian/PI NH	9	0.5*	**	**
	Hispanic	223	6.0	267	7.2
Region	New York City	570	6.8	617	7.3
	NYS Excl NYC	573	5.1	494	4.4
Total	New York State	1,143	5.8	1,111	5.7

* Fewer than 10 events in the numerator, therefore the rate is unstable.
**: Data do not meet reporting criteria.
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.
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Data Table 3.6 Hospital discharges involving heroin overdose, crude rate per 100,000 population, by county, New York State, 2020 and 2021

County	2020		2021	
	Hospital discharges	Crude rate per 100,000 population	Hospital discharges	Crude rate per 100,000 population
Albany	18	5.9	14	4.6
Allegany	**	**	0	0.0*
Bronx	192	13.4	247	17.2
Broome	11	5.7	14	7.3
Cattaraugus	**	**	**	**
Cayuga	6	7.8*	**	**
Chautauqua	**	**	**	**
Chemung	**	**	**	**
Chenango	**	**	0	0.0*
Clinton	**	**	**	**
Columbia	0	0.0*	0	0.0*
Cortland	8	16.8*	**	**
Delaware	**	**	**	**
Dutchess	18	6.1	15	5.1
Erie	43	4.7	34	3.7
Essex	0	0.0*	**	**
Franklin	0	0.0*	**	**
Fulton	**	**	**	**
Genesee	**	**	**	**
Greene	**	**	**	**
Hamilton	0	0.0*	0	0.0*
Herkimer	**	**	0	0.0*
Jefferson	**	**	6	5.3*
Kings	154	6.0	145	5.6
Lewis	**	**	0	0.0*
Livingston	**	**	**	**
Madison	**	**	0	0.0*
Monroe	53	7.1	40	5.4
Montgomery	**	**	**	**
Nassau	68	5.0	63	4.6
New York	103	6.3	122	7.5
Niagara	6	2.9*	**	**
Oneida	13	5.7	11	4.8
Onondaga	35	7.6	34	7.4
Ontario	**	**	**	**

County	2020		2021	
	Hospital discharges	Crude rate per 100,000 population	Hospital discharges	Crude rate per 100,000 population
Orange	23	6.0	19	5.0
Orleans	**	**	**	**
Oswego	**	**	6	5.1*
Otsego	**	**	**	**
Putnam	**	**	**	**
Queens	84	3.7	81	3.6
Rensselaer	10	6.3	7	4.4*
Richmond	37	7.8	22	4.6
Rockland	13	4.0	**	**
Saratoga	9	3.9*	**	**
Schenectady	9	5.8*	8	5.2*
Schoharie	**	**	**	**
Schuyler	0	0.0*	0	0.0*
Seneca	**	**	**	**
St. Lawrence	**	**	**	**
Steuben	**	**	**	**
Suffolk	102	6.9	87	5.9
Sullivan	6	8.0*	8	10.6*
Tioga	**	2.1	0	0.0*
Tompkins	**	2.9	**	**
Ulster	9	5.0*	13	7.3
Warren	**	7.8	0	0.0*
Washington	**	1.6	**	**
Wayne	**	**	**	**
Westchester	38	3.9	36	3.7
Wyoming	0	0.0*	0	0.0*
Yates	**	**	0	0.0*

* Fewer than 10 events in the numerator, therefore the rate is unstable.
**: Data do not meet reporting criteria.
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.
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Data Table 3.7 All emergency department visits (including outpatients and admitted patients) involving any opioid overdose, crude rate per 100,000 population, by sub-population, New York State, 2020 and 2021

Groups	Characteristics	2020		2021	
		ED visits	Crude rate per 100,000 population	ED visits	Crude rate per 100,000 population
Age group	Age 0-17	97	2.4	126	3.1
	Age 18-24	1,079	60.1	961	53.5
	Age 25-44	6,045	114.0	6,213	117.1
	Age 45-64	4,035	78.4	4,808	93.5
	Age 65+	1,050	32.6	1,452	45.0
Gender	Male	8,534	89.9	9,824	103.5
	Female	3,768	37.5	3,733	37.1
Race/Ethnicity	White NH	6,683	60.7	6,461	58.7
	Black NH	1,993	67.8	2,445	83.1
	Asian/PI NH	60	3.4	64	3.6
	Hispanic	1,828	49.0	2,238	60.0
Region	New York City	4,524	53.9	5,862	69.8
	NYS Excl NYC	7,782	69.8	7,698	69.1
Total	New York State	12,306	63.0	13,560	69.4

Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.

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Data Table 3.8 All emergency department visits (including outpatient and admitted patients) involving any opioid overdose, crude rate per 100,000 population, by county, New York State, 2021

County	Emergency Department Visits	Population	Crude Rate per 100,000 Population
Albany	169	306,691	55.1
Allegany	19	46,286	41.0
Bronx	1,819	1,432,316	127.0
Broome	203	192,222	105.6
Cattaraugus	61	76,748	80.0
Cayuga	66	77,121	85.6
Chautauqua	193	127,516	151.4
Chemung	97	84,033	115.4
Chenango	41	47,502	86.3
Clinton	59	80,675	73.1
Columbia	35	59,852	58.5
Cortland	47	47,721	98.5
Delaware	33	44,624	74.0
Dutchess	246	293,814	83.7
Erie	723	919,941	78.6
Essex	15	37,309	40.2
Franklin	10	50,325	19.9
Fulton	35	53,654	65.2
Genesee	55	57,509	95.6
Greene	35	47,401	73.8
Hamilton	**	4,453	**
Herkimer	24	61,760	38.9
Jefferson	53	112,266	47.2
Kings	1,416	2,580,088	54.9
Lewis	**	26,503	18.9
Livingston	47	63,281	74.3
Madison	27	71,180	37.9
Monroe	771	744,239	103.6
Montgomery	38	49,502	76.8
Nassau	627	1,357,423	46.2
New York	1,300	1,632,393	79.6
Niagara	196	210,300	93.2
Oneida	112	229,431	48.8
Onondaga	358	461,890	77.5

County	Emergency Department Visits	Population	Crude Rate per 100,000 Population
Ontario	63	109,962	57.3
Orange	242	382,411	63.3
Orleans	40	40,708	98.3
Oswego	64	117,520	54.5
Otsego	32	59,828	53.5
Putnam	54	98,871	54.6
Queens	934	2,275,286	41.0
Rensselaer	52	159,452	32.6
Richmond	393	476,531	82.5
Rockland	111	325,656	34.1
Saratoga	96	230,127	41.7
Schenectady	58	155,334	37.3
Schoharie	17	31,182	54.5
Schuyler	10	17,842	56.0
Seneca	14	34,277	40.8
St. Lawrence	32	108,534	29.5
Steuben	60	95,876	62.6
Suffolk	1,352	1,482,275	91.2
Sullivan	101	75,381	134.0
Tioga	14	48,515	28.9
Tompkins	67	102,382	65.4
Ulster	203	178,510	113.7
Warren	44	64,269	68.5
Washington	39	61,335	63.6
Wayne	73	90,110	81.0
Westchester	424	968,928	43.8
Wyoming	24	40,068	59.9
Yates	11	24,959	44.1

* Fewer than 10 events in the numerator, therefore the rate is unstable.
**: Data do not meet reporting criteria.
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.
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Data Table 3.9 All emergency department visits (including outpatient and admitted patients) involving heroin overdose, crude rate per 100,000 population, by sub-population, New York State, 2020 and 2021

Groups	Characteristics	2020		2021	
		ED visits	Crude rate per 100,000 population	ED visits	Crude rate per 100,000 population
Age group	Age 0-17	9	0.2*	9	0.2*
	Age 18-24	523	29.1	390	21.7
	Age 25-44	3,599	67.8	3,195	60.2
	Age 45-64	1,947	37.8	2,248	43.7
	Age 65+	332	10.3	540	16.7
Gender	Male	4,693	49.4	4,840	51.0
	Female	1,716	17.1	1,542	15.3
Race/Ethnicity	White NH	3,556	32.3	2,984	27.1
	Black NH	991	33.7	1,230	41.8
	Asian/PI NH	29	1.6	24	1.3
	Hispanic	969	26.0	1,030	27.6
Region	New York City	2,221	26.5	2,777	33.1
	NYS Excl NYC	4,189	37.6	3,605	32.3
Total	New York State	6,410	32.8	6,382	32.7

* Fewer than 10 events in the numerator, therefore the rate is unstable.
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.
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Data Table 3.10 All emergency department visits (including outpatient and admitted patients) involving heroin overdose, crude rate per 100,000 population, by county, New York State, 2021

County	Emergency Department Visits	Population	Crude Rate per 100,000 Population
Albany	86	306,691	28.0
Allegany	6	46,286	13.0*
Bronx	885	1,432,316	61.8
Broome	136	192,222	70.8
Cattaraugus	29	76,748	38
Cayuga	45	77,121	58
Chautauqua	89	127,516	70
Chemung	58	84,033	69
Chenango	25	47,502	53
Clinton	25	80,675	31
Columbia	17	59,852	28.4
Cortland	22	47,721	46.1
Delaware	12	44,624	26.9
Dutchess	121	293,814	41.2
Erie	367	919,941	39.9
Essex	8	37,309	21.4*
Franklin	**	50,325	**
Fulton	27	53,654	50.3
Genesee	22	57,509	38.3
Greene	19	47,401	40.1
Hamilton	0	4,453	0.0*
Herkimer	7	61,760	11.3*
Jefferson	30	112,266	26.7
Kings	647	2,580,088	25.1
Lewis	**	26,503	**
Livingston	17	63,281	26.9
Madison	9	71,180	12.6*
Monroe	302	744,239	40.6
Montgomery	20	49,502	40.4
Nassau	267	1,357,423	19.7
New York	601	1,632,393	36.8
Niagara	69	210,300	32.8
Oneida	48	229,431	20.9
Onondaga	223	461,890	48.3

County	Emergency Department Visits	Population	Crude Rate per 100,000 Population
Ontario	30	109,962	27.3
Orange	118	382,411	30.9
Orleans	17	40,708	41.8
Oswego	48	117,520	40.8
Otsego	19	59,828	31.8
Putnam	21	98,871	21.2
Queens	463	2,275,286	20.3
Rensselaer	31	159,452	19.4
Richmond	181	476,531	38.0
Rockland	39	325,656	12.0
Saratoga	38	230,127	16.5
Schenectady	26	155,334	16.7
Schoharie	10	31,182	32.1
Schuyler	8	17,842	44.8*
Seneca	7	34,277	20.4*
St. Lawrence	13	108,534	12.0
Steuben	31	95,876	32.3
Suffolk	549	1,482,275	37.0
Sullivan	67	75,381	88.9
Tioga	9	48,515	18.6*
Tompkins	31	102,382	30.3
Ulster	110	178,510	61.6
Warren	20	64,269	31.1
Washington	15	61,335	24.5
Wayne	24	90,110	26.6
Westchester	195	968,928	20.1
Wyoming	8	40,068	20.0*
Yates	6	24,959	24.0*

* Fewer than 10 events in the numerator, therefore the rate is unstable.
**: Data do not meet reporting criteria.
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.
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Data Table 3.11 Newborns with neonatal abstinence syndrome and/or affected by maternal use of opioid or other substance (any diagnosis), crude rate per 1,000 newborn discharges, by sub-population, New York State, 2020 and 2021

Group	Characteristics	2020		2021	
		Neonatal withdrawal symptoms and/or affected by maternal use of drugs of addiction	Crude rate per 1,000 newborn discharges	Neonatal withdrawal symptoms and/or affected by maternal use of drugs of addiction	Crude rate per 1,000 newborn discharges
Race/Ethnicity	White NH	991	13.4	723	10.0
	Black NH	174	8.2	114	6.1
	Asian/PI NH	10	0.7	7	0.5*
	Hispanic	128	4.2	106	3.3
Region	New York City	287	3.2	217	2.4
	NYS Excl NYC	1,439	13.7	1,173	11.2
Total	New York State	1,726	8.8	1,390	7.2

* Fewer than 10 events in the numerator, therefore the rate is unstable.
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.
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Data Table 3.12 Newborns with neonatal abstinence syndrome and/or affected by maternal use of opioid or other substance (any diagnosis), crude rate per 1,000 newborn discharges, by county, New York State, 2021

County	Neonatal withdrawal symptoms and/or affected by maternal use of drugs of addiction	Newborn discharges	Crude rate per 100,000 population
Albany	16	2,645	6.0
Allegany	9	391	23.0*
Bronx	66	16,013	4.1
Broome	47	1,757	26.8
Cattaraugus	13	707	18.4
Cayuga	6	638	9.4*
Chautauqua	23	1,042	22.1
Chemung	11	753	14.6
Chenango	7	438	16.0*
Clinton	10	566	17.7
Columbia	**	382	**
Cortland	18	441	40.8
Delaware	9	308	29.2
Dutchess	36	2,386	15.1
Erie	210	9,271	22.7
Essex	**	178	**
Franklin	**	362	**
Fulton	**	404	**
Genesee	7	543	12.9
Greene	**	389	**
Hamilton	0	23	0.0*
Herkimer	**	565	**
Jefferson	14	1,746	8.0
Kings	50	32,795	1.5
Lewis	**	249	**
Livingston	6	478	12.6*
Madison	**	530	**
Monroe	54	7,449	7.2
Montgomery	6	542	11.1*
Nassau	42	13,212	3.2
New York	43	13,612	3.2
Niagara	74	1,933	38.3
Oneida	35	2,311	15.1

County	Neonatal withdrawal symptoms and/or affected by maternal use of drugs of addiction	Newborn discharges	Crude rate per 100,000 population
Onondaga	63	4,842	13.0
Ontario	15	882	17.0
Orange	41	4,876	8.4
Orleans	11	365	30.1
Oswego	32	1,154	27.7
Otsego	16	420	38.1
Putnam	**	731	**
Queens	33	23,869	1.4
Rensselaer	**	1,346	**
Richmond	25	4,777	5.2
Rockland	**	4,674	**
Saratoga	10	1,791	5.6
Schenectady	7	1,697	4.1*
Schoharie	**	213	**
Schuyler	**	137	**
Seneca	**	249	**
St. Lawrence	14	840	16.7
Steuben	14	831	16.8
Suffolk	123	14,416	8.5
Sullivan	27	774	34.9
Tioga	**	302	**
Tompkins	7	571	12.3*
Ulster	32	1,368	23.4
Warren	11	483	22.8
Washington	12	473	25.4
Wayne	13	840	15.5
Westchester	17	7,719	2.2
Wyoming	**	315	**
Yates	**	195	**

* Fewer than 10 events in the numerator, therefore the rate is unstable.
**: Data do not meet reporting criteria.
Data source: New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS); Data as of March 2023.
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Data Table 4.1 Admissions* to OASAS-certified substance use disorder treatment programs for any opioid (including heroin), crude rate per 100,000 population, by region, New York State, 2010-2022**

Year	New York City		NYS excl. NYC		New York State	
	OASAS admissions	Crude Rate per 100,000 population	OASAS admissions	Crude rate per 100,000 population	OASAS admissions	Crude rate per 100,000 population
2022	26,219	364.6	43,724	453.5	69,943	415.5
2021	27,540	382.9	49,674	515.2	77,214	458.7
2020	31,795	442.1	52,799	547.6	84,594	502.5
2019	43,932	610.8	69,461	720.4	113,393	673.6
2018	43,946	611.0	73,938	766.9	117,884	700.3
2017	46,010	637.2	79,176	821.0	125,186	742.3
2016	47,094	650.4	80,530	834.9	127,624	755.8
2015	47,946	663.0	76,880	796.0	124,826	739.1
2014	47,925	665.0	71,172	736.0	119,097	705.7
2013	47,300	659.3	65,865	681.4	113,165	672.0
2012	48,313	677.2	60,436	626.5	108,749	648.1
2011	48,208	681.7	55,580	577.4	103,788	621.6
2010	47,921	683.7	52,085	543.0	100,006	602.4

* An individual admitted to more than one level of care or admitted multiple times would count as multiple admissions.

** Admissions data may be impacted by multiple factors like COVID-19.

Data source: New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS)
Data as of April 2023

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Data Table 4.2 Admissions* to OASAS-certified substance use disorder treatment programs for any opioid (including heroin), crude rate per 100,000 population, by age group, New York State, 2010-2022**

Year	Age group	OASAS admissions	Crude rate per 100,000 population
2022	Age 12-17	254	18.6
	Age 18-24	3,898	217.1
	Age 25-34	22,572	784.7
	Age 35-44	20,076	826.8
	Age 45-54	11,980	469.5
	Age 55+	11,163	191.9
2021	Age 12-17	179	13.1
	Age 18-24	4,482	249.6
	Age 25-34	27,339	950.4
	Age 35-44	21,274	876.1
	Age 45-54	13,120	514.2
	Age 55+	10,820	186.0
2020	Age 12-17	182	13.3
	Age 18-24	5,657	315.1
	Age 25-34	30,802	1,070.8
	Age 35-44	21,758	896.1
	Age 45-54	15,243	597.4
	Age 55+	10,952	188.2
2019	Age 12-17	251	18.4
	Age 18-24	8,728	486.1
	Age 25-34	41,487	1,442.2
	Age 35-44	27,777	1,144.0
	Age 45-54	21,037	824.5
	Age 55+	14,113	242.6
2018	Age 12-17	297	21.8
	Age 18-24	11,271	627.8
	Age 25-34	45,038	1,565.7
	Age 35-44	27,477	1,131.6
	Age 45-54	21,230	832.0
	Age 55+	12,571	216.1
2017	Age 12-17	471	34.0
	Age 18-24	14,703	804.8
	Age 25-34	48,342	1,680.6
	Age 35-44	27,708	1,143.2
	Age 45-54	22,316	850.0
	Age 55+	11,646	203.4
2016	Age 12-17	602	43.0

Year	Age group	OASAS admissions	Crude rate per 100,000 population
	Age 18-24	18,249	979.8
	Age 25-34	49,327	1,716.4
	Age 35-44	26,045	1,071.6
	Age 45-54	22,577	840.8
	Age 55+	10,824	192.2
2015	Age 12-17	794	56.1
	Age 18-24	20,965	1,101.0
	Age 25-34	45,941	1,609.9
	Age 35-44	24,727	1,006.8
	Age 45-54	22,536	825.6
	Age 55+	9,863	178.3
2014	Age 12-17	891	62.3
	Age 18-24	22,277	1,142.3
	Age 25-34	41,109	1,451.9
	Age 35-44	23,280	938.4
	Age 45-54	22,314	806.2
	Age 55+	9,226	170.3
2013	Age 12-17	1,042	71.8
	Age 18-24	22,606	1,144.2
	Age 25-34	36,181	1,291.7
	Age 35-44	22,477	896.6
	Age 45-54	22,147	789.4
	Age 55+	8,712	164.4
2012	Age 12-17	1,212	82.3
	Age 18-24	21,811	1,095.8
	Age 25-34	32,972	1,194.1
	Age 35-44	22,335	881.7
	Age 45-54	22,133	779.2
	Age 55+	8,286	159.9
2011	Age 12-17	1,322	88.5
	Age 18-24	20,192	1,013.8
	Age 25-34	29,791	1,095.0
	Age 35-44	22,782	890.0
	Age 45-54	22,286	776.6
	Age 55+	7,415	146.5
2010	Age 12-17	1,356	89.2
	Age 18-24	19,048	960.3
	Age 25-34	27,355	1,024.5
	Age 35-44	23,910	919.8
	Age 45-54	21,841	758.7

Year	Age group	OASAS admissions	Crude rate per 100,000 population
	Age 55+	6,496	131.3

* An individual admitted to more than one level of care or admitted multiple times would count as multiple admissions.
** Admissions data may be impacted by multiple factors like COVID-19.
Data source: New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS)
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Data Table 4.3 Admissions* to OASAS-certified substance use disorder treatment programs for any opioid (including heroin), crude rate per 100,000 population, by sex at birth, New York State, 2010-2022**

Year	Female		Male	
	OASAS Admissions	Crude rate per 100,000 population	OASAS Admissions	Crude rate per 100,000 population
2022	19,739	226.1	50,204	619.5
2021	21,705	248.6	55,509	684.9
2020	23,734	271.9	60,860	751.0
2019	33,138	379.6	80,255	990.3
2018	35,691	408.9	82,193	1,014.2
2017	38,071	435.2	87,115	1,073.2
2016	38,490	439.3	89,134	1,097.0
2015	37,488	427.5	87,338	1,075.4
2014	34,888	398.0	84,209	1,038.2
2013	32,917	376.2	80,248	991.8
2012	31,089	356.4	77,660	963.8
2011	28,878	332.4	74,910	935.2
2010	27,410	317.2	72,596	912.2

* An individual admitted to more than one level of care or admitted multiple times would count as multiple admissions.

** Admissions data may be impacted by multiple factors like COVID-19.

Data source: New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS)
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Data Table 4.4 Admissions* to OASAS-certified substance use disorder treatment programs for any opioid (including heroin), crude rate per 100,000 population, by race/ethnicity, New York State, 2010-2022**

Year	Race/ethnicity	OASAS admissions	Crude rate per 100,000 population
2022	White NH	38,336	395.9
	Black NH	11,031	439.7
	Other NH	3,182	199.9
	Hispanic	17,394	570.3
2021	White NH	44,331	457.8
	Black NH	11,150	444.5
	Other NH	3,450	216.7
	Hispanic	18,283	599.4
2020	White NH	48,611	502.0
	Black NH	12,359	492.7
	Other NH	3,628	227.9
	Hispanic	19,996	655.6
2019	White NH	64,553	666.7
	Black NH	17,447	695.5
	Other NH	4,729	297.0
	Hispanic	26,664	874.2
2018	White NH	70,580	728.9
	Black NH	16,161	644.2
	Other NH	4,792	301.0
	Hispanic	26,351	863.9
2017	White NH	76,903	789.2
	Black NH	16,677	663.2
	Other NH	5,279	334.6
	Hispanic	26,327	869.5
2016	White NH	79,989	815.8
	Black NH	16,044	637.1
	Other NH	4,920	316.4
	Hispanic	26,671	886.6
2015	White NH	78,076	791.3
	Black NH	15,680	622.8
	Other NH	4,654	305.3
	Hispanic	26,416	886.1
2014	White NH	73,663	742.5
	Black NH	15,736	626.2
	Other NH	3,912	262.2
	Hispanic	25,786	873.8

2013	White NH	69,328	696.1
	Black NH	15,766	629.6
	Other NH	3,371	231.1
	Hispanic	24,700	846.7
2012	White NH	64,683	647.7
	Black NH	16,252	653.1
	Other NH	2,979	208.4
	Hispanic	24,835	863.4
2011	White NH	59,436	594.3
	Black NH	17,191	695.2
	Other NH	2,492	178.6
	Hispanic	24,669	872.0
2010	White NH	55,936	558.9
	Black NH	16,972	691.5
	Other NH	2,295	168.8
	Hispanic	24,803	892.9

* An individual admitted to more than one level of care or admitted multiple times would count as multiple admissions.
** Admissions data may be impacted by multiple factors like COVID-19.
Data source: New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS)
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Data Table 4.5 Admissions to OASAS-certified substance use disorder treatment programs for any opioid (including heroin), crude rate per 100,000 population, by county, New York State, 2022*****

Region / County	OASAS admissions	Population	Crude rate per 100,000 population
Albany	1,268	269,560	470.4
Allegany	214	40,264	531.5
Bronx	8,307	1,190,238	697.9
Broome	1,957	167,840	1,166.0
Cattaraugus	445	65,734	677.0
Cayuga	379	67,348	562.7
Chautauqua	733	110,674	662.3
Chemung	346	72,253	478.9
Chenango	248	41,201	601.9
Clinton	491	71,115	690.4
Columbia	166	53,554	310.0
Cortland	245	41,774	586.5
Delaware	198	39,902	496.2
Dutchess	1,380	259,633	531.5
Erie	2,856	798,247	357.8
Essex	96	33,481	286.7
Franklin	223	44,014	506.7
Fulton	207	46,651	443.7
Genesee	225	49,883	451.1
Greene	198	42,420	466.8
Hamilton	s	4,111	s
Herkimer	173	53,585	322.9
Jefferson	557	92,859	599.8
Kings	5,857	2,167,159	270.3
Lewis	55	22,544	244.0
Livingston	194	56,232	345.0
Madison	209	62,546	334.2
Monroe	3,911	643,192	608.1
Montgomery	255	42,034	606.7
Nassau	2,625	1,169,751	224.4
New York	6,313	1,466,496	430.5
Niagara	1,002	182,920	547.8
Oneida	1,141	197,317	578.3
Onondaga	2,865	397,474	720.8
Ontario	563	95,901	587.1
Orange	1,737	319,401	543.8
Orleans	203	35,695	568.7
Oswego	645	101,538	635.2
Otsego	206	53,634	384.1

Region / County	OASAS admissions	Population	Crude rate per 100,000 population
Putnam	228	87,041	261.9
Queens	4,031	1,959,200	205.7
Rensselaer	479	139,100	344.4
Richmond	1,711	408,946	418.4
Rockland	682	264,128	258.2
Saint Lawrence	654	94,322	693.4
Saratoga	538	200,569	268.2
Schenectady	818	133,161	614.3
Schoharie	93	27,722	335.5
Schuyler	43	15,618	275.3
Seneca	151	29,842	506.0
Steuben	400	82,510	484.8
Suffolk	5,956	1,284,884	463.5
Sullivan	778	64,924	1,198.3
Tioga	129	42,178	305.8
Tompkins	312	92,571	337.0
Ulster	999	158,553	630.1
Warren	296	56,828	520.9
Washington	200	53,991	370.4
Wayne	427	77,556	550.6
Westchester	2,170	833,192	260.4
Wyoming	70	35,214	198.8
Yates	81	21,297	380.3

s: Data do not meet reporting criteria.
** An individual admitted to more than one level of care or admitted multiple times would count as multiple admissions. In addition, there is a variation in the levels of care (inpatient, outpatient, or both) provided by local facilities. County rates could be impacted, in part, by the levels of care available.
*** Admissions data may be impacted by multiple factors like COVID-19.
Data source: New York State Office of Addiction Services and Supports (OASAS) Client Data System (CDS)
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Data Table 5.1 Commonly prescribed opioid analgesics, crude rate per 1,000 population, by quarter, New York State, 2019-2022

		Crude rate per 1,000 population					
Year	Quarter	Oxycodone SA	Hydrocodone SA	Tramadol SA	Codeine	Fentanyl LA	Oxycodone LA
2022	Jan - Mar	29.1	13.2	11.6	3.1	0.9	1.4
	Apr - Jun	29.9	13.0	11.8	2.8	0.9	1.4
	Jul - Sep	29.7	12.7	11.6	2.4	0.9	1.4
	Oct - Dec	29.5	12.8	11.2	2.3	0.8	1.3
2021	Jan - Mar	29.8	14.3	12.1	3.6	1.5	1.7
	Apr - Jun	31.4	15.4	12.6	3.7	1.4	1.7
	Jul - Sep	30.7	14.3	12.4	3.4	1.2	1.6
	Oct - Dec	30.0	13.6	12.1	3.3	1.1	1.6
2020	Jan - Mar	31.8	16.8	13.1	4.2	1.8	1.9
	Apr - Jun	27.2	14.7	12.0	3.3	1.7	1.8
	Jul - Sep	31.7	16.6	13.1	4.0	1.7	1.9
	Oct - Dec	31.6	15.6	12.9	3.8	1.7	1.8
2019	Jan - Mar	34.8	20.7	13.8	5.1	2.2	2.3
	Apr - Jun	34.7	20.4	14.1	4.9	2.1	2.1
	Jul - Sep	33.7	18.8	13.9	4.7	2.0	2.1
	Oct - Dec	33.2	17.9	13.6	4.5	1.9	2.0

SA=Short-acting; LA=Long-acting.
The data exclude buprenorphine prescriptions for the treatment of opioid use disorder.
New York State total contains number with county unknown.
Data Source: NYS Prescription Monitoring Program; Data as of May 2023.
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Data Table 5.2. Opioid analgesic prescriptions, crude rate per 1,000 population, by region, New York State, 2019-2022

Year	New York City		NYS excl. NYC		New York State	
	Number of opioid analgesics prescriptions	Crude rate per 1,000 population	Number of opioid analgesics prescriptions	Crude rate per 1,000 population	Number of opioid analgesics prescriptions	Crude rate per 1,000 population
2022	1,462,127	174.1	4,226,719	379.2	5,692,618	291.3
2021	1,557,961	185.5	4,437,074	398.0	5,996,300	306.8
2020	1,595,486	190.0	4,586,547	411.4	6,183,393	316.4
2019	1,838,137	218.9	5,007,605	449.2	6,847,492	350.4

The data exclude buprenorphine prescriptions for the treatment of opioid use disorder.
New York State total contains number with county unknown.
Data Source: NYS Prescription Monitoring Program; Data as of May 2023.
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Data Table 5.3 Opioid analgesic prescriptions, crude rate per 1,000 population, by age and gender, New York State, 2022

Age group	Gender	Number of opioid analgesics prescriptions	Crude rate per 1,000 population
Age 18-24	Male	48,346	53.7
	Female	62,802	70.2
Age 25-34	Male	118,244	82.1
	Female	179,791	125.2
Age 35-44	Male	234,128	195.7
	Female	343,501	278.9
Age 45-54	Male	380,207	306.7
	Female	508,023	387.3
Age 55-64	Male	698,071	561.9
	Female	820,851	607.7
Age 65+	Male	939,096	676.7
	Female	1,314,310	715.5

The data exclude buprenorphine prescriptions for the treatment of opioid use disorder.
Data Source: NYS Prescription Monitoring Program; Data as of May 2023.
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Data Table 5.4 Percentage of incidents when patients were opioid naïve and received long-acting opioid prescription*, by region, New York State, 2020-2022

Year	Region	Number of incidents when patients were opioid naïve and received long-acting opioid prescription*	Number of opioid naïve incidents	Percentage
2022	New York City	3,196	533,775	0.6
	NYS excl. NYC	14,165	1,174,626	1.2
	New York State	17,365	1,708,769	1.0
2021	New York City	3,656	559,191	0.7
	NYS excl. NYC	11,736	1,220,940	1.0
	New York State	15,395	1,780,328	0.9
2020	New York City	4,618	528,381	0.9
	NYS excl. NYC	14,325	1,188,000	1.2
	New York State	18,946	1,716,549	1.1

The data exclude buprenorphine prescriptions for the treatment of opioid use disorder.
Opioid naïve was defined as patient with no opioid for pain prescription in last 45 days.
New York State total includes records where county is unknown.
*Patient received index prescription of long-acting opioid and was opioid naïve.
Data Source: NYS Prescription Monitoring Program; Data as of May 2023.
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Data Table 5.5 Percentage of incidents when patients were opioid naïve and received an opioid prescription* of more than seven days, by region, New York State, 2020-2022

Year	Region	Percentage of incidents when patients were opioid naïve and received an opioid prescription* of more than seven days			
		Jan - Mar	Apr -Jun	Jul - Sep	Oct - Dec
2022	New York City	13.6	13.4	13.8	13.9
	NYS excl. NYC	14.7	15.3	14.9	15.3
	New York State	14.4	14.7	14.6	14.9
2021	New York City	14.2	13.2	13.6	14.1
	NYS excl. NYC	14.8	14.4	14.9	15.4
	New York State	14.7	14.0	14.5	15.0
2020	New York City	16.7	21.4	14.5	14.3
	NYS excl. NYC	17.9	20.2	14.9	15.0
	New York State	17.5	20.5	14.8	14.8

The data exclude buprenorphine prescriptions for the treatment of opioid use disorder.
Opioid naïve was defined as patient with no opioid for pain prescription in last 45 days.
New York State total includes records where county is unknown.
*Patient received index prescription of an opioid of more than seven days and was opioid naïve.
Data Source: NYS Prescription Monitoring Program; Data as of May 2023.
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Data Table 5.6 Patients with prescribed opioid analgesics from five or more prescribers and dispensed at five or more pharmacies in a six-month period, crude rate per 100,000 population, by region, New York State, 2019-2022

Year	New York City		NYS excl. NYC		New York State	
	Number of patients	Crude rate per 100,000 population	Number of patients	Crude rate per 100,000 population	Number of patients	Crude rate per 100,000 population
2022	96	1.1	233	2.1	329	1.7
2021	103	1.2	258	2.3	362	1.9
2020	113	1.3	225	2.0	340	1.7
2019	153	1.8	313	2.8	466	2.4

The data exclude buprenorphine prescriptions for the treatment of opioid use disorder.
A patient will be counted twice if they were included in each 6-month time period for the year.
New York State total includes records where county is unknown.
Data Source: NYS Prescription Monitoring Program; Data as of May 2023.
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Data Table 5.7 Percentage of patients with a total daily dose of ≥ 90 MME on at least one day, by region, New York State, 2019-2022

Year	Region	Number of patients received opioid analgesics ≥ 90 MME	Number of patients received opioid analgesic prescriptions	Percentage
2022	New York City	45,346	518,916	8.7
	NYS exc. NYC	115,166	1,173,200	9.8
	New York State	160,657	1,692,724	9.5
2021	New York City	50,149	544,038	9.2
	NYS exc. NYC	123,098	1,223,446	10.1
	New York State	173,319	1,767,734	9.8
2020	New York City	53,997	519,301	10.4
	NYS exc. NYC	130,806	1,199,081	10.9
	New York State	184,882	1,718,638	10.8
2019	New York City	63,756	626,398	10.2
	NYS exc. NYC	150,088	1,365,195	11.0
	New York State	213,934	1,991,927	10.7

The data exclude buprenorphine prescriptions for pain and treatment of opioid use disorder.
MME: morphine milligram equivalents.
New York State total contains number with county unknown.
Data Source: NYS Prescription Monitoring Program; Data as of May 2023.
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Data Table 5.8 Percentage of patients with a total daily dose of ≥ 90 MME on at least one day, by age and gender, New York State, 2022

Age group	Gender	Number of patients received opioid analgesics ≥ 90 MME	Number of patients received opioid analgesic prescriptions	Percentage
Age 18-24	Male	653	37,833	1.7
	Female	609	50,814	1.2
Age 25-34	Male	2,844	65,605	4.3
	Female	2,881	108,580	2.7
Age 35-44	Male	6,823	84,182	8.1
	Female	7,533	130,697	5.8
Age 45-54	Male	12,236	105,964	11.5
	Female	12,977	143,741	9.0
Age 55-64	Male	22,690	164,878	13.8
	Female	23,072	191,633	12.0
Age 65+	Male	31,460	245,101	12.8
	Female	36,529	328,083	11.1

The data exclude buprenorphine prescriptions for pain and treatment of opioid use disorder.
MME: morphine milligram equivalents.
Data Source: NYS Prescription Monitoring Program; Data as of May 2023.
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Data Table 5.9 Percentage of patients* with two or more calendar days of overlapping opioid analgesic and benzodiazepine prescriptions, by region, New York State, 2019-2022

Year	Region	Number of patients with two or more overlapping days	Number of patients received opioid or benzo prescriptions	Percentage
2022	New York City	48,294	805,157	6.0
	NYS exc. NYC	146,693	1,718,530	8.5
	New York State	195,093	2,524,814	7.7
2021	New York City	53,515	832,880	6.4
	NYS exc. NYC	156,669	1,773,169	8.8
	New York State	210,228	2,606,453	8.1
2020	New York City	55,608	820,109	6.8
	NYS exc. NYC	160,331	1,750,086	9.2
	New York State	215,990	2,570,626	8.4
2019	New York City	62,407	930,910	6.7
	NYS exc. NYC	175,630	1,912,137	9.2
	New York State	238,086	2,843,570	8.4

The data exclude buprenorphine prescriptions for treatment of opioid use disorder.
New York State total contains number with county unknown.
* Patients with at least one prescription for opioid analgesics or benzodiazepines during a given year.
Data Source: NYS Prescription Monitoring Program; Data as of May 2023.
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Data Table 5.10 Percentage of patients* with two or more calendar days of overlapping opioid analgesic and benzodiazepine prescriptions, by age and gender, New York State, 2022

Age group	Gender	Number of patients with two or more overlapping days	Number of patients received opioid or benzodiazepine prescriptions	Percentage
Age 18-24	Male	579	49,568	1.2
	Female	1,091	69,956	1.6
Age 25-34	Male	2,715	104,415	2.6
	Female	5,708	175,441	3.3
Age 35-44	Male	5,828	131,611	4.4
	Female	13,211	211,355	6.3
Age 45-54	Male	9,287	152,663	6.1
	Female	19,504	230,736	8.5
Age 55-64	Male	16,848	221,393	7.6
	Female	30,107	296,186	10.2
Age 65+	Male	31,993	328,637	9.7
	Female	57,251	498,465	11.5

The data exclude buprenorphine prescriptions for treatment of opioid use disorder.
* Patients with at least one prescription for opioid analgesics or benzodiazepines during a given year.
Data Source: NYS Prescription Monitoring Program; Data as of May 2023.
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Data Table 5.11 Percentage of patients* with two or more calendar days of overlapping opioid analgesic prescriptions, by region, New York State, 2019-2022

Year	Region	Number of patients with two or more overlapping days	Number of patients received opioid prescriptions	Percentage
2022	New York City	68,579	519,120	13.2
	NYS exc. NYC	190,506	1,174,682	16.2
	New York State	259,289	1,694,414	15.3
2021	New York City	73,040	544,197	13.4
	NYS exc. NYC	194,706	1,224,667	15.9
	New York State	267,823	1,769,114	15.1
2020	New York City	77,880	519,442	15.0
	NYS exc. NYC	201,598	1,200,088	16.8
	New York State	279,576	1,719,787	16.3
2019	New York City	90,221	626,531	14.4
	NYS exc. NYC	226,194	1,366,143	16.6
	New York State	316,526	1,993,008	15.9

The data exclude buprenorphine prescriptions for treatment of opioid use disorder.
New York State total contains number with county unknown.
* Patients with at least one prescription for opioid analgesics during a given year.
Data Source: NYS Prescription Monitoring Program; Data as of May 2023.
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Data Table 5.12 Percentage of patients* with two or more calendar days of overlapping opioid analgesic prescriptions, by age and gender, New York State, 2022

Age group	Gender	Number of patients with two or more overlapping days	Number of patients received opioid prescriptions	Percentage
Age 18-24	Male	832	37,845	2.2
	Female	836	50,819	1.6
Age 25-34	Male	3,543	65,685	5.4
	Female	4,134	108,646	3.8
Age 35-44	Male	9,150	84,339	10.8
	Female	11,970	130,829	9.1
Age 45-54	Male	16,391	106,088	15.5
	Female	20,836	143,887	14.5
Age 55-64	Male	32,527	165,004	19.7
	Female	37,560	191,847	19.6
Age 65+	Male	49,763	245,336	20.3
	Female	70,812	328,476	21.6

The data exclude buprenorphine prescriptions for treatment of opioid use disorder.
* Patients with at least one prescription for opioid analgesics during a given year.
Data Source: NYS Prescription Monitoring Program; Data as of May 2023.
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Data Table 5.13. Patients who received at least one buprenorphine prescription for opioid use disorder, crude rate per 100,000 population, by region, New York State, 2019-2022

Year	New York City		NYS excluding NYC		New York State	
	Number of patients	Crude rate per 100,000 population	Number of patients	Crude rate per 100,000 population	Number of patients	Crude rate per 100,000 population
2022	15,269	181.8	67,020	601.2	82,456	421.9
2021	15,414	183.6	65,566	588.2	81,012	414.5
2020	16,212	193.1	63,625	570.8	79,872	408.7
2019	16,716	199.1	61,930	555.6	78,702	402.7

New York State total contains number with county unknown.
Data Source: NYS Prescription Monitoring Program; Data as of May 2023.
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Data Table 5.14. Patients who received at least one buprenorphine prescription for opioid use disorder, crude rate per 100,000 population, by age and gender, New York State, 2022

Age group	Gender	Number of patients	Crude rate per 100,000 population
Age 18-24	Male	1,206	133.8
	Female	671	75.0
Age 25-34	Male	13,670	949.3
	Female	7,934	552.3
Age 35-44	Male	17,769	1,485.1
	Female	10,801	876.9
Age 45-54	Male	9,622	776.1
	Female	5,261	401.1
Age 55-64	Male	7,045	567.1
	Female	3,843	284.5
Age 65+	Male	2,887	208.0
	Female	1,640	89.3

Data Source: NYS Prescription Monitoring Program; Data as of May 2023.
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Data Table 6.1 Percentage of high school students who report ever using a substance, 2021

Substance, ever use	United States			New York State		
	Percentage	95% C.I.		Percentage	95% C.I.	
		Low	High		Low	High
Cocaine	2.5%	2.0%	3.1%	3.6%	2.6%	4.9%
Heroin	1.3%	1.1%	1.6%	3.4%	2.2%	5.2%
Methamphetamine	1.8%	1.5%	2.1%	3.5%	2.4%	5.0%
Synthetic marijuana	6.5%	5.9%	7.2%	7.1%	5.5%	9.2%
Injecting an illegal drug	1.4%	1.1%	1.8%	3.1%	2.1%	4.6%

Data source: Youth Risk Behavior Surveillance System (YRBSS); Data as of April 2023
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Data Table 6.2 Percentage of of high school students who report ever using cocaine, New York State, 2021

Group	Characteristic	Percentage	95% C.I.	
			Low	High
Total	New York State	3.6%	2.6%	4.9%
Gender	Male	4.2%	2.6%	6.8%
	Female	1.5%	0.7%	2.9%
Race/Ethnicity	White NH	2.0%	1.0%	3.7%
	Black NH	5.3%	2.4%	11.5%
	AI/AN NH	7.1%	1.1%	35.2%
	Multiple race NH	2.7%	0.7%	9.6%
	Asian NH	1.4%	0.5%	3.7%
	Hispanic	3.9%	1.9%	8.1%
Education	9th grade	2.8%	2.0%	4.0%
	10th grade	2.5%	1.4%	4.3%
	11th grade	1.6%	0.7%	3.8%
	12th grade	6.4%	3.3%	12.1%

White NH= White non-Hispanic; Black NH= Black non-Hispanic; AI/AN NH= American Indian or Alaska Native non-Hispanic; Asian NH= Asian non-Hispanic; Multiple race NH= Multiple race non-Hispanic
Survey question: During your life, how many times have you used any form of cocaine, including powder, crack, or freebase?
Data source: Youth Risk Behavior Surveillance System (YRBSS); Data as of April 2023
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Data Table 6.3 Percentage of high school students who report ever using heroin, New York State, 2021

Group	Characteristic	Percentage	95% C.I.	
			Low	High
Total	New York State	3.4%	2.2%	5.2%
Gender	Male	3.9%	1.8%	8.3%
	Female	1.3%	0.5%	3.2%
Race/Ethnicity	White NH	1.4%	0.9%	2.3%
	Black NH	4.6%	1.9%	10.9%
	AI/AN NH	13.3%	4.0%	35.9%
	Multiple race NH	2.7%	0.7%	9.6%
	Asian NH	2.4%	1.1%	4.9%
	Hispanic	2.5%	1.0%	6.3%
Education	9th grade	1.8%	0.9%	3.3%
	10th grade	1.8%	1.0%	3.5%
	11th grade	2.2%	1.0%	4.9%
	12th grade	5.9%	3.0%	11.2%

White NH= White non-Hispanic; Black NH= Black non-Hispanic; AI/AN NH= American Indian or Alaska Native non-Hispanic; Asian NH= Asian non-Hispanic; Multiple race NH= Multiple race non-Hispanic

Survey question: During your life, how many times have you used heroin (also called smack, junk, or China White)?

Data source: Youth Risk Behavior Surveillance System (YRBSS); Data as of April 2023

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Data Table 6.4 Percentage of high school students who report ever using methamphetamines, New York State, 2021

Group	Characteristic	Percentage	95% C.I.	
			Low	High
Total	New York State	3.5%	2.4%	5.0%
Gender	Male	4.6%	2.8%	7.4%
	Female	1.1%	0.6%	2.3%
Race/Ethnicity	White NH	1.2%	0.6%	2.4%
	Black NH	5.7%	2.5%	12.1%
	AI/AN NH	11.4%	3.0%	35.0%
	Multiple race NH	2.8%	0.7%	9.8%
	Asian NH	3.1%	1.6%	6.1%
	Hispanic	3.1%	1.5%	6.4%
Education	9th grade	1.9%	1.1%	3.5%
	10th grade	1.6%	0.8%	3.2%
	11th grade	2.1%	1.0%	4.5%
	12th grade	7.0%	3.9%	12.4%

White NH= White non-Hispanic; Black NH= Black non-Hispanic; AI/AN NH= American Indian or Alaska Native non-Hispanic; Asian NH= Asian non-Hispanic; Multiple race NH= Multiple race non-Hispanic
Survey question: During your life, how many times have you used methamphetamines (also called speed crystal meth, crank, ice, or meth)?
Data source: Youth Risk Behavior Surveillance System (YRBSS); Data as of April 2023
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Data Table 6.5 Percentage of high school students who report ever injecting an illegal drug, New York State, 2021

Group	Characteristic	Percentage	95% C.I.	
			Low	High
Total	New York State	3.1%	2.1%	4.6%
Gender	Male	4.4%	2.7%	7.1%
	Female	0.8%	0.4%	1.7%
Race/Ethnicity	White NH	1.8%	0.8%	3.8%
	Black NH	4.2%	2.2%	7.9%
	AI/AN NH	21.1%	14.9%	29.1%
	Multiple race NH	1.6%	0.4%	6.9%
	Asian NH	1.4%	0.7%	2.8%
	Hispanic	3.2%	1.5%	6.7%
Education	9th grade	2.4%	1.0%	5.4%
	10th grade	2.5%	0.8%	7.6%
	11th grade	2.5%	1.7%	3.7%
	12th grade	4.6%	2.0%	10.2%

White NH= White non-Hispanic; Black NH= Black non-Hispanic; AI/AN NH= American Indian or Alaska Native non-Hispanic; Asian NH= Asian non-Hispanic; Multiple race NH= Multiple race non-Hispanic
Survey question: During your life, how many times have you used a needle to inject any illegal drug into your body?
Data source: Youth Risk Behavior Surveillance System (YRBSS); Data as of April 2023
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Data Table 6.6 Percentage of high school students who report ever using synthetic marijuana, New York State, 2021

Group	Characteristic	Percentage	95% C.I.	
			Low	High
Total	New York State	7.1%	5.5%	9.2%
Gender	Male	7.2%	4.9%	10.3%
	Female	6.3%	4.5%	8.7%
Race/Ethnicity	White NH	6.8%	5.0%	9.4%
	Black NH	6.9%	4.1%	11.5%
	AI/AN NH	6.8%	1.7%	23.4%
	Multiple race NH	3.7%	1.3%	10.1%
	Asian NH	2.1%	1.0%	4.4%
	Hispanic	8.9%	5.1%	15.2%
Education	9th grade	3.9%	2.0%	7.4%
	10th grade	5.8%	3.6%	9.3%
	11th grade	8.8%	6.3%	12.2%
	12th grade	9.5%	5.5%	15.8%

White NH= White non-Hispanic; Black NH= Black non-Hispanic; AI/AN NH= American Indian or Alaska Native non-Hispanic; Asian NH= Asian non-Hispanic; Multiple race NH= Multiple race non-Hispanic Survey question: During your life, how many times have you used synthetic marijuana? (Synthetic marijuana also is called Spice, fake weed, K2, King Kong, Yucatan Fire, or Skunk.)
Data source: Youth Risk Behavior Surveillance System (YRBSS); Data as of April 2023
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Data Table 6.7 Age-adjusted percentage of adults who have self-reported prescription pain medication misuse in the past 12 months, 2017-2021

Year	Age-adjusted percentage	95% C.I.	
		Low	High
2021	3.9%	3.2%	4.6%
2020	3.6%	3.1%	4.1%
2019	6.1%	5.3%	6.8%
2018	3.9%	3.5%	4.4%
2017	5.3%	4.6%	6.0%

Survey question: In the past 12 months, have you used prescription pain medicine without a healthcare provider's prescription or differently than how the healthcare provider told you to use it?
Note: The population aged 18 and older.
Data source: Behavioral Risk Factor Surveillance System (BRFSS); Data as of August 2022.
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Data Table 6.8 Age-adjusted percentage of adults who have self-reported prescription pain medication misuse in the past 12 months, by sub-population, New York State, 2021**

Group	Characteristic	Age-adjusted percentage	95% C.I.	
			Low	High
Age group**	Age 18-24	3.4%*	0.9%	5.9%
	Age 25-34	5.2%	3.0%	7.3%
	Age 35-44	2.9%	1.6%	4.2%
	Age 45-54	4.5%	2.9%	6.2%
	Age 55-64	4.0%	2.5%	5.6%
	Age 65+	3.6%	2.4%	4.8%
Gender	Male	5.1%	3.9%	6.3%
	Female	2.8%	2.1%	3.6%
Race/Ethnicity	White NH	2.4%	1.7%	3.1%
	Black NH	3.4%	2.0%	4.8%
	Other NH	4.2%	2.2%	6.1%
	Hispanic	9.4%	6.5%	12.2%
Region	New York City	4.8%	3.5%	6.2%
	NYS excl. NYC	3.6%	2.7%	4.4%
Total	New York State	3.9%	3.2%	4.6%

Survey question: In the past 12 months, have you used prescription pain medicine without a healthcare provider's prescription or differently than how the healthcare provider told you to use it?
*: The percentage is unstable.
**Age groups show crude percentages.
Note: The population aged 18 and older.
Data source: Behavioral Risk Factor Surveillance System (BRFSS); Data as of August 2022.
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Data Table 6.9 Perceptions of public health problems as "very serious" among New York State residents, November 2016 – January 2023

Survey Period	Public health problem					
	Heroin use	Prescription opioid misuse and abuse	Childhood obesity	Tobacco use	Alcohol consumption	Access to healthy food and beverages
January 2023	70%	72%	57%	49%	35%	43%
January 2022	70%	69%	54%	52%	35%	39%
March 2021	70%	66%	55%	50%	37%	40%
February 2020	69%	70%	52%	54%	38%	36%
January 2019	75%	75%	61%	46%	38%	35%
November 2017	76%	75%	61%	50%	38%	40%
November 2016	76%	68%	61%	52%	38%	36%

Data source: New York State Department of Health /Siena College Research Institute, New York State Chronic Disease Public Opinion Poll; Data as of April 2023

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